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THE BVILDER

AN : ILLUSTRATED : WEEKLY JOURNAL : FOR : THE : ARCHITECT : AND : CONSTRUCTOR.

"EVERY man's proper mansion-house, and home, being the theater of his hospitality, the seate of selfe-fruition, the comfortablest part of his own life, the noblest of his sonne's inheritance, a kind of private princedome, nay, to the possessors thereof, an epitome of the whole world, may well deserve, by these attributes, according to the degree of the master, to be decently and delightfully adorned." - - - - - - - -

"Architecture can want no commendation, where there are noble men, or noble mindes."

—SIR HENRY WOTTON.

"OUR English word TO BUILD is the Anglo-Saxon Bȳlban, to confirm, to establish, to make firm and sure and fast, to consolidate, to strengthen; and is applicable to all other things as well as to dwelling-places."—DIVERSIONS OF PURLEY. - - - - - -

"ALWAYS be ready to speak your mind, and a base man will avoid you."—WILLIAM BLAKE. - -

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NEW YEAR THOUGHTS.

ON the threshold of a new year our thoughts naturally turn to Anticipation and Retrospection—hopes and fears for the future; happiness or regret for the past. Nearly a century has passed since the first issue of *The Builder* — a wonderful period in retrospection of the world's history, but so important and far-reaching have been recent events in our national life that it would be difficult to place a limit on our speculations for the future.

All who are actively interested in building must feel that we are living in a comparatively new era, both as to the kind of buildings required and the methods of constructing them. One great and beneficent change which has come about in the more civilised countries is the increased consideration for the life and well-being of the individual. The craftsmen connected with building work have a vastly better time than they formerly had, and we are now all agreed that men can no longer be treated as they were, and that they should be paid an adequate wage, under tolerable conditions of life. Out of this improved condition there have sprung up numerous buildings for the amelioration of the lives of the poorer people, opening up many new fields in the architect's and surveyor's design and the builder's work. The cathedral and church are still being called for, but in small proportion to the cinema, the theatre, the restaurant, the playing fields, the baths, the schools, the garage, the big stores, the concert halls, and the housing settlements. Besides this, the educational developments, both of primary and secondary character, of universities and schools of many kinds are going forward at an increasing rate. Again, in the development of better governing methods we are getting a greatly increased number, and of a better character, of buildings for municipal and county work. The increasing variety of building work opens up an ever-widening vista of needful study and thought. The wonderful development of electricity, of gas, of air travel, and improved means of transport generally are leading us far beyond the old beaten tracks of life. We are possibly on the verge of many extraordinary developments, and amongst all the complexity of modern wants we have springing up an ever-increasing number of trained specialists. To direct and use all that is required in modern building construction the architect and builder have a complicated and difficult task.

We imagine few people realise the costly and elaborate establishment required to keep in full activity the affairs of a big building contractor, and how his secretary, accountant, buyer, financier, numerous foremen, and hundreds of workmen have to be co-ordinated into a smoothly efficient whole. If the architect even approaches anywhere within hailing distance of what are supposed to be his ideal qualifications, he will have to rise far above the standard of the average man. We have not, however, written the above as a suggestion that the tasks before us are impossible, but rather to emphasise the need for co-ordination of effort and a broadening of our outlook and sympathies.

For a moment we should, perhaps, do well to extend our thoughts beyond our account-books, beyond our individual affairs, and beyond the petty limits of our own experience, and endeavour to realise how far our work and our views of life are of benefit to others. So far as architectural art is concerned, is it not well that we try to put more soul into it so that we may enable humanity to glean some pleasurable feeling from what we do? Some sense of nobility and dignity in our public buildings—some suggestion of use and service in our commercial structures—a hint of security and trust in our banks—a feeling of animation and joy in our pleasure-houses—some thoughts of lofty ideals in our churches—some sweet and peaceful charm in our homes: all these varied qualities may go with good proportion, nice refinements and common-sense building. How far do we in any of our buildings succeed in this way?

The capacity of British builders at their best is surely of the best the world can show, but is our architectural design worthy of it? Those who have spent a great part of their lives in trying to get together as much money as possible are not likely to benefit greatly either themselves or others. But those who live for their art should find a great recompense. It has been said so often that a pleasurable occupation brings its own reward that the very triteness of the saying obscures its significance. Yet it would revolutionise the world if all could find it. Is it possible that a great part of the failure in modern building is the lack of pleasure in our work and thus the failure to impart pleasure to others? We have perhaps thought more of showing our cleverness, our knowledge of style, our subservience to passing fashion, than of supplying something that may respond to human feelings. Our buildings will be dull and lifeless unless we can put some human appeal into them and unless they are the expression of some spiritual feeling. Spirit answers to spirit, and no true and sincere feeling will fail to evoke a response. We hope that some realisation of this will find its way into the minds and ambitions of our students. To them greater opportunities are likely to come than have ever been offered before, and if we let the dead past bury its dead we may really act more successfully in the present and so lay the foundations for a better and better future.

We doubt whether we keep a sufficiently open mind about art as well as about men and affairs of a general kind. Just as art is not to be bound and fettered by labels and dogmas, so also the domestic politics of the architectural profession should be conducted in a broad and generous spirit which welcomes good counsel from any quarter. It is impossible to ignore moralities and ethics in the conduct of a great profession, and we should welcome a spirit of greater tolerance and wider understanding in regard to it. A well-known architect expressed his opinion the other day which practically implied that the present fashion in architectural methods was fundamentally wrong, and we hardly like to admit how far we share his belief: it should be impossible to withhold our regard for his criticism. Can the profession be said to contain a high average of attainment? In any case there is no need to be wholly condemnatory or entirely hopeless.

Of one thing we feel sure: unless the practice of architecture is conducted with a sincere attempt to live for art as well as by it, we shall fail to earn the regard and encouragement which we all so desire. In wishing our readers a happy New Year we pledge *The Builder* to support every good effort to build beautifully and well.

NOTES.

The New Year.

EVERY new year brings with it something of new promise—of restored hope. Its pages are as yet a blank; what is to be written not yet inscribed upon them. The deeds of which it will speak are not as yet matured, but it is for us to shape them, and at such a time doubts should not betray us. To give form to beliefs, fulfilment to promise, to shape deeds out of our thoughts and to think fearlessly—this is to build stronger than with bricks and mortar, for on it the future of us all rests. There are many anxious problems; change is weaving itself amidst aims but half understood, such as the relation of art to industry, that the claims of each may be sustained; the growing realisation of the importance of art to life, if civilisation is to be secured; the higher values for architecture; these, which machinery and what is outside of us cannot do, we see to rest more on individual responsibility and an enlarged sense of citizenship. It is towards this higher conception that life is moving and through which the ideals of democracy will achieve themselves. For it is not in the fixed and already established only that life can rest, and the past may become a burden to us; it rests also on the unknown, which will project itself in the likeness of our acts and on which life no less than architecture and the arts altogether depend. It is on this better self-knowledge that we can best rely. Let us therefore "without haste and without rest," go forward to the problems which the New Year has in store for us.

Hoardings.

IT is announced that Shell-Mex, Ltd., and the Anglo-American Oil Co., having been impressed by the public dislike of blatant hoardings, have decided not only to erect no more, but to remove the signs to which objection is taken. We cannot sufficiently congratulate these firms, and we are confident that, far from losing by such a decision, they will gain immensely in commercial prestige. In this connection we owe a debt of gratitude to the Society for the Checking of Abuses in Public Advertising, for the success of its efforts. There can be little doubt that this movement will continue with increasing impetus, and it is a magnificent symptom of the growing public regard for natural and architectural amenities. Certain directional and other signs of public importance are to be retained by the two companies mentioned, and the incorporation of these into designs of æsthetic value should give the greatest interest and scope to the companies concerned as well as enjoyment to the public.

Railway Advertisements.

THE same feeling is indicated in the action of the London, Midland and Scottish Railway Company, who are commissioning certain Royal Academicians to design posters illustrating places of interest on the line. Not only is this valuable as a movement away from definitely meretricious work, but it promotes a study of positive importance in a new direction. Railway advertisements, more than any others, require the peculiar genius of the poster art, and we are glad to use the word art advisedly. They must be legible and effective not only from a distance but when viewed moving at a distance, and they, therefore, epitomise the difficulties and triumphs of the poster. After all, the movement towards enlisting the aid of the recognised artist began with the enterprising firms who first bought popular pictures to incorporate oleographically in magazine pages; but the present departure is not a mere copyright perquisite of work already executed, it goes farther, and is of far greater artistic significance, and may help to revolutionise the appearance of the countryside. Every great war produces a wave of popular indignation against conditions that appeared inevitable to the preceding generation; and the substitution of beauty for ugliness, and the general tidying up of our cities and countryside should be one of the most important of the many reforms that we are on the eve of witnessing.

The Abolition of Field Signs.

THE announcement of the intention of these companies is altogether welcome news, and an augury of much promise for the future. That their action will lead to this form of advertisement being generally abandoned may be expected, and a new era will be opened in the relation of trade interests to the country's welfare. There was no mistaking the feeling of the public or the press, to whom these signs had become a great offence, not only injurious to the country-side, but to everyone concerned for the decencies of advertisement. We learn also that a "third company, the British Petroleum, has already agreed to withdraw theirs from Cornwall, Kent, and the Lake District." The Automobile Club and the Scapa Society (which has done such good work in this direction) have been very active in their efforts to reduce the number of advertisements and prevent the disfigurement they include, and though we must expect to see the continuance of advertisements at garages and other places where petrol is sold, we may trust the same public spirit, which is leading to the abolition of field signs, to improve their character, for which there is great need. For sheer Philistinism it would be difficult to surpass these petrol signs, and we hope that we shall soon see better. It will be remembered that a Government Department some months ago took action in the matter of rural disfigurement—the Ministry of Transport sending a circular to all local authorities reminding them of the powers they possess under the Advertisement Regulation Act, and to which we alluded at the time.



Bench-Ends at St. Nicholas, Walcot, Lincs.

Urban Districts and Advertisements:

URBAN districts, the vast areas of our principal cities, are not yet brought in any adequate way within the scope of this growing reform in advertising. It is not enough to cleanse the country-side of their disfigurements. Public opinion would, we believe, welcome further action towards the restoration of the amenities of our streets and public places, in which an advertising pandemonium now reigns. No doubt there are special difficulties to be faced in any such action from the vested interests which have been developed and the profits accruing. The letting of the walls of houses and vacant spaces to advertising companies offers an inducement which will not be easily given up. But the public advantage comes before private interests, and we are all concerned to see our streets tidied up and made more becoming to the tide of life constantly passing through them. The restraint of advertisement, where it infringes the public right, is one necessary not only to the self-respect of the community, but to the pleasure of life.

The Disfigurement of Buildings.

WE have often commented on the way in which the sky outlines of buildings and their accessories are permitted to offend the eye. A correspondent



Bench-Ends at St. Nicholas, Walcot, Lincs.

pertinently comments on the excrescences which have been allowed to disfigure the fine building of the Institute of Chartered Accountants, illustrated by a photograph. We question whether the excuse that "what is everybody's business is nobody's business" can be made to serve. If our city is endowed with governing authorities should they not be furnished with sufficient authority to prevent the spoliation of fine buildings and to prevent the destruction of city amenities which affect us all? It is no good vaunting the progress of civilisation whilst these sort of things exist. What about the terrible eyesore in front of the great Bush building, the horrible jumble round the noblest equestrian monument we possess, the nightmare of Piccadilly-circus, or the alteration of one of our finest streets into a lane? A hundred other offences against city amenity could be easily recited, and the only remedy lies with an enlightened and determined governing body. Will that ever arrive?

A Sectional Solution of Unemployment.

WE would urge all those who own buildings, or who have the control of buildings, to consider the sound economic sense of getting to work now with the needful painting of buildings whilst many painters may be idle, instead of waiting until the Spring, when the demands on workmen are so much greater. The advice tendered by the National Painters' and Decorators' Joint Council is clearly and sensibly expressed as follows:—"The individual householder who places work at the present time will get the pick of the skilled men; his work will get much closer attention from the employer than is possible during the rush season, and it is surely obvious that estimates given at a time when the chief concern of the employers is to keep their staffs together must compare favourably with those given when the main preoccupation is to meet the requirements of a seasonal rush. From the public point of view, is it not the most futile form of economy to have capable men walking the streets supported by public funds, while public property is deteriorating in value for want of the particular kind of service they are able to give? Public bodies, surely, will need only a hint to see that the placing of painting contracts now will not only relieve the distress of a very worthy body of citizens, but prove also a sound business proposition." The above may be regarded mainly, if one prefers, as a sound piece of advice to individual members of the community to obtain the best and most economical service for the painting and decorative work they require.

The Plaistow Floor Collapse.

FROM the evidence given at the inquest on the two men who were unfortunately killed just before Christmas by the collapse of a reinforced concrete floor at Plaistow, it is clear that the accident should not have happened. Apparently the most elementary principles of concrete construction were neglected; it appears that a mixture of cement and clinker in the proportion of about one to seven was used, a mixture totally unsuitable for the purpose; that the reinforcing rods were not tied; that the shuttering was removed before the concrete had properly set; and that after it had fallen the concrete was found to be still in a sodden state. Reinforced concrete is, perhaps, still a new material to many builders, but, providing proper attention be given to a few simple rules, reinforced concrete should not present any great difficulties from the point of view of the builder. Design, of course, is another matter, but had an architect or engineer been consulted on this work (which apparently was not the case) it is practically certain that the accident would not have taken place.

Concreting in Cold Weather.

No doubt the cold weather had something to do with the Plaistow accident, and it may not be out of place here to emphasise the necessity of protecting newly-laid concrete from frost. At this time of the year it often happens that there is a sharp frost in the morning, of which there is no indication over-night, and it is therefore advisable to cover with tarpaulins or other available material all freshly-laid concrete before it is left for a night. Concrete may be laid with safety during the sharpest frost providing adequate measures be taken to heat the aggregate and mixing water and to keep the finished work covered until it has finally set.

Sir Walter Lawrence.

THE mention in the New Year list of birthday honours of the name of a distinguished architect or contractor is such an infrequent occurrence—though we do not know why—that we read with much satisfaction of the distinction of Knighthood which has been conferred upon Mr. Walter Lawrence, the well-known head of the firm of Messrs. Walter Lawrence & Son, Ltd., whose standing may be judged by the work they are carrying out at the present time. Sir Walter Lawrence, who has been connected with the building industry since he joined his father's business, and who has been Governing Director of the firm from the time it was converted into a company, has already received most of the honours which those in the industry have it in their power to confer, having served as President of the following bodies, *i.e.*, the Institute of Builders, the London Master Builders' Association, and the Builders' Benevolent Institution, and the interest he has taken in the well-being of the trade was shown in the unusually interesting attempt he made in 1919 to introduce a profit-sharing scheme and it was certainly not his fault that the generous proposals he made did not materialise. We are not surprised that he is still of opinion that his scheme would do much to prevent trouble in the industry. For some years he has taken an interest in the London Museum, the usefulness of which he believes can be extended for educational purposes, while his practical and generous sympathy has been shown on behalf of many deserving causes. In congratulating Sir Walter Lawrence we believe we are expressing the views of the industry as a whole when we say that the honour which has been conferred upon him is well merited and that no worthier recipient could have been found.



Bench-Ends at Walcot, Lincs.

GENERAL NEWS.

"THE BUILDER" NEW YEAR NUMBER.

The Special New Year Number of "The Builder" will be published next week, January 11.

Professional Announcements.

Mr. A. Wheatley, architectural assistant to the Engineer-in-Chief of the Midland (now the London Midland and Scottish) Railway Company since 1905, when he succeeded as architect the late Mr. C. Trubshaw, has retired after 48 years' service with that company.

By the death of his father, Mr. J. Douglass Mathews, in April last year, after 67 years' service in the profession, Mr. H. Edmund Mathews, F.R.I.B.A., is the sole surviving partner in the firm of J. Douglass Mathews & Son. Mr. Mathews is therefore taking into partnership Messrs. Geoffrey and Basil Ridley, AA.R.I.B.A. Mr. Geoffrey Ridley has been a partner with Mr. H. Edmund Mathews in his practice at East Grinstead since 1912, and Mr. Basil Ridley has been associated with the London practice since the war. The firm, which is now known as J. Douglass Mathews, Son & Ridley, has taken new offices at 3, Paul's Bakehouse-court, St. Paul's Churchyard, E.C.4.

Roman Remains in the City.

At a lecture recently given by Mr. Herbert A. Cox, F.C.A., at the Bishopsgate Institute, photographs were shown of the foundations of the old Roman wall.

The following articles, found during excavations for a new building for Messrs. Henry Marks & Sons, and lent by Lt.-Col. J. S. Marks, were also shown:—Roman tiles used in building the old London wall; Roman brick; boundary plate of All Hallows-in-the-Wall, dated 1776. Other interesting articles found, but not exhibited, included numerous coins and tokens. Roman coins: Valentinian (A.D. 364-375); Roman Tetricus, Senr. (A.D. 274); Charles II (1674-1670); Elizabethan sixpence (1582). Tokens: Halfpenny and a farthing (dated 1660); sundry portions of pottery and stoneware. The above, with the exception of bricks and tiles, were found in the bed of the Houndsditch, mostly at a considerable depth. The City side is not yet excavated. Messrs. Lewis Soloman & Sons are the architects of the new building, and Messrs. H. & H. F. Higgs, of Herne-hill, S.E., the contractors.

R.I.B.A.

The competitions for the Alfred Bossom travelling studentship will be confined to those students of the recognised schools of architecture which enjoy exemption from the R.I.B.A. final examination, who, after passing through the school courses, have attained the Associateship of the R.I.B.A. A minimum attendance of one session full time work at a recognised school shall be taken to constitute membership of that school.—The R.I.B.A. has issued a statement to the recognised schools of architecture in connection with the competition for the Archibald Dawnay Scholarships.

The following members have been appointed to represent the R.I.B.A. on the proposed conference on the shortage of skilled labour in the building trades:—The President, the Hon. Secretary, Major Harry Barnes, Mr. Percy Thomas, Mr. T. R. Milburn, Mr. Herbert A. Welch, Mr. G. Hastwell Grayson.

ACADEMIC DRESS COMMITTEE.—The report of this Committee (appointed in May, 1923), will be submitted to the General Body at the Business Meeting on January 7, 1924. The Council recommend that the proposal be dropped.

FILTER ILLUMINATION.

WE are probably all agreed that the effect of colour upon human beings is definite, but few realise how far-reaching and subtle it is. At all events, there are now in American hospitals installations of filter illumination which it is claimed have a very markedly good effect on the patients. We have visited the studio of Miss Irwin, at 68, Redcliffe Gardens, and seen some very interesting displays of the filter illuminations which she has made a study of for some years, and were able to realise the charm of the lighting effects she produces. It appears to us that her work in producing a fine diffusion of light with added values to health and economy is especially worth the careful attention of architects and engineers who have to act as guides and referees to the general public. That the interposition of these finely graded colour shades between us and the light has an unquestionable value we may be sure, but that it even goes so far as to be an aid to respiration is a matter for doctors to decide. Many of our readers would, we think, be interested in seeing what this lady's long study of the science of illumination has brought about.

COMPETITION NEWS

Taunton.

Mr. Robert Atkinson, F.R.I.B.A., the assessor, with Mr. Howard Robertson (nominated second assessor by Mr. Atkinson), have now made their award in the Taunton War Memorial competition as follows:—

First Premium (£100).—Mr. E. Vincent Harris, 29, St. James's-square, S.W.1. (This design is given this week.)

Second Premium (£50).—Mr. A. C. Pickford, 33, Calbourne-road, S.W.12.

The designs submitted by the following competitors were commended:—

Messrs. William & T. R. Milburn, Sunderland.

Messrs. R. S. Dixon & N. D. Quick, Letchworth.

Messrs. Gordon H. G. Holt and Verner O. Rees, W.C.1 (for two sets of drawings).

Messrs. Cooke & Harrison, W.C.1.

Messrs. Willink & Dod, Liverpool.

Talbot Memorial Park.

Design for a Lodge and Main Entrance Gates. A premium of 20 guineas is offered, and the successful architect will be engaged to supervise and carry out the work. Sending-in day, January 20.—*Banned by R.I.B.A.*

Palais de Justice, Cairo.

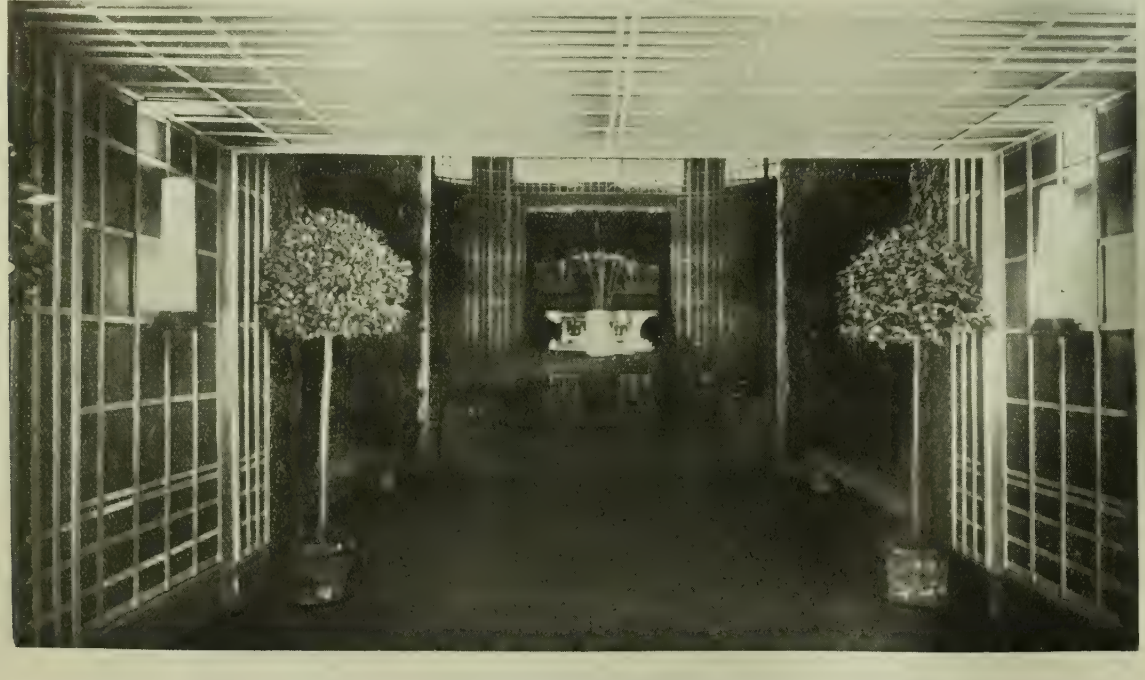
The American Institute of Architects has cabled to Cairo protesting against the conditions of this competition.

Manchester.

The announcement with regard to the appointment of Dr. Percy Worthington as assessor in the Manchester Grammar School Competition was made prematurely. No decision has yet been made in the matter.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Dudley Memorial (Jan. 5; Sept. 14, 1923). Newcastle Concert Hall (Feb. 1; October 26, 1923). Essays on Heating and Ventilating (Mar. 31; Nov. 9, 1923). Holmside Hospital (Feb. 14; Dec. 14, 1923). Industrial Designs (June; Dec. 21, 1923). National Theatre (April 26). Monument to Sir Wilfrid Laurier (April 3; Dec. 14, 1923). Belfast Union Lighting (March; Nov. 9, 1923). Dunfermline War Memorial (March 8; Dec. 28, 1923).



An Example of Colour Filter Illumination in a Paris Cafe.

CORRESPONDENCE.

The Villa Carlotta.

SIR,—I hear from a friend in Genoa that the Villa Carlotta (referred to in your issue of December 28, 1923, p. 987) will not be dismantled and that national protests have been successful.

T. E. ECCLES.

Liverpool.

[We are glad to know this.—ED.]

The Disfigurement of London Buildings.

SIR,—It is an extraordinary thing that, although this is the age when every civilised community should recognise æsthetic surroundings to be one of the greatest factors in determining the welfare of the people, our Metropolis permits the wholesale disfigurement of every skyline and vista by the erection of the most atrocious monstrosities in sky-signs the world has ever seen, in the shape of hunchbacked chimneypots made of galvanised iron.

Without being an architect it ought to be clear to every educated and observant citizen that the pleasing effect of every building must be at once destroyed by the erection of such a ghastly malformation on its roof as that illustrated in the enclosed photograph.

Your readers will at once see by the illustration that the building disfigured by one of the ubiquitous monstrosities mentioned above is of an elaborate and costly type, and should have been kept a thing of beauty and joy for the citizens at large, as well as for the members of the particular society who must have paid for its construction.

Clearly there is something lacking, not so much among the masses of the people, but among those to whom the masses should look for a better example, when members of a learned society can erect a splendid building with a cupola, and see without protest the cupola made secondary to a deformed chimneypot, and I am wondering whether any of your readers could furnish a word which would describe the spirit of the professional man who can tolerate the creation of such an eyesore as that illustrated, which at once renders his expensive official quarters both squalid and ignominious.

G. O. PARSONS.

Strand-on-the-Green.

SIR,—Strand-on-the-Green at the moment is evoking considerable attention, and probably some visits, as a result of the publicity recently given to this old-world strip of riverside. This time of year is not calculated to show it at its best; it should be visited on a sunny day, preferably at high tide, when the river front is all a-sparkle with reflected light. At low tide, on a sunless day, it is very disappointing. Yet within this half-mile of river front there are quite a dozen pleasing pictures, which, in the course of several years I have transferred to lantern slides. The protests against the ugly and unnecessary wall are a welcome sign that the local residents have a sense of beauty and a pride in their surroundings. What did it matter if an exceptionally high tide covered the footway, are there not little raised dams on the thresholds to prevent flooding of the sunken floors, and was not the walk a little more eventful for the spice of adventure which it gave?

T. D. WALKER.

Brickwork in North America.

SIR,—In a recent issue of *The Builder* I read it is stated by the Minister of Labour that there are in Great Britain 5,000 carpenters, 15,000 painters, and 35,000 labourers unemployed, the chief reason being the scarcity of bricklayers. If this is so, and the demand for houses is so acute that people are living in converted workhouses, disused prisons, and even caves, why not cut out some of this slow and expensive brickwork and adopt the semi-solid brick houses that are built in hundreds of thousands every year in all cities of North America, and so enable these scarce bricklayers to turn out more houses in a given time, thereby allowing more of these carpenters to be employed and so relieve the housing scarcity.



Degradation of Building Outlines. The Chartered Accountants' Institute.

On this continent many houses are solid brick to first floor joists, then the upper story is frame construction, 2 by 4 studs, 16 in. centres, covered on outside with 1 in. sq. edge or T. and G. sheeting, and either shingled with B.C. cedar shingles or the asphalte and crushed coloured slate surface ones, or eels strapped with 1 by 2 strapping, lathed and rough-casted and finished with the 1 in. counterfeit half-timber work familiar to old country housebuilders. The studding on inside is lathed and plastered in the usual way. The houses built by this method are not all of the pokey kind that must be of solid brick to the eaves and peaks of gables, that are going up so slow and painfully for the working classes of England, but the method is applicable to houses of all sizes, and they are finished with hardwood floors, hardwood trim, central heating, and wired for electric stoves, and with other conveniences seldom or ever found in English houses, and they withstand a far more extreme climate. Of course, I know the first objection that would be raised by Old Country people would be "Fire," but this is simply prejudice. I see that London has now adopted the steam shovel, the gasolene concrete mixer, the underground gasolene tank and pump, and now the pneumatic drill and chisel in place of the steel wedge and the picturesque squad of navvies armed with sledge-hammers. All of these have been common here for years; so I hope in time it will be discovered that there are methods of building comfortable and permanent houses other than all brick, and I think that those who are in authority and have to do with this unemployment and housing shortage would do well to realise it.

A. C. SHAYLER.

Ontario, Canada.

Can Tarnishing be Prevented?

SIR,—Your correspondent appears to be troubled with excessive tarnishing, not with such discoloration as always occurs in every house.

I would suggest that heating by gas radiators be discontinued. Also that instead of there being *no flues*, ducts or flues be made for ventilation.

G. J. ABELL.

SIR,—If silver is to be kept bright it must be stored in a dark place, for light will blacken it, particularly if sulphur or ammonia fumes come in contact with it.

The whole photographic process is based upon this property of silver, and in the old days of horse-drawn traffic the silversmiths of London had very considerable difficulty in keeping their wares bright, because of the fumes given off by the excreta of the numerous horses. A transparent lacquer is the only thing which will abolish the labour of frequent cleaning.

T. D. WALKER.

SIR,—The trouble in this case is, in all probability, due to the acid fumes arising from the use of the gas radiators. I should seriously consider the question of scrapping these and installing a simple system of hot-water heating, with the furnace entirely divided from the building, so that no coal, coke, or other fumes or gases arising therefrom, penetrate into the building from the furnace or stokehole.

I have seen the effects of tarnish, and have also seen sheet brass made absolutely rotten, caused by the acids from coal-gas fumes.

F. G. RUST.

Bucks.



An example of Colour Filter Illumination. (*See p.* 4.)

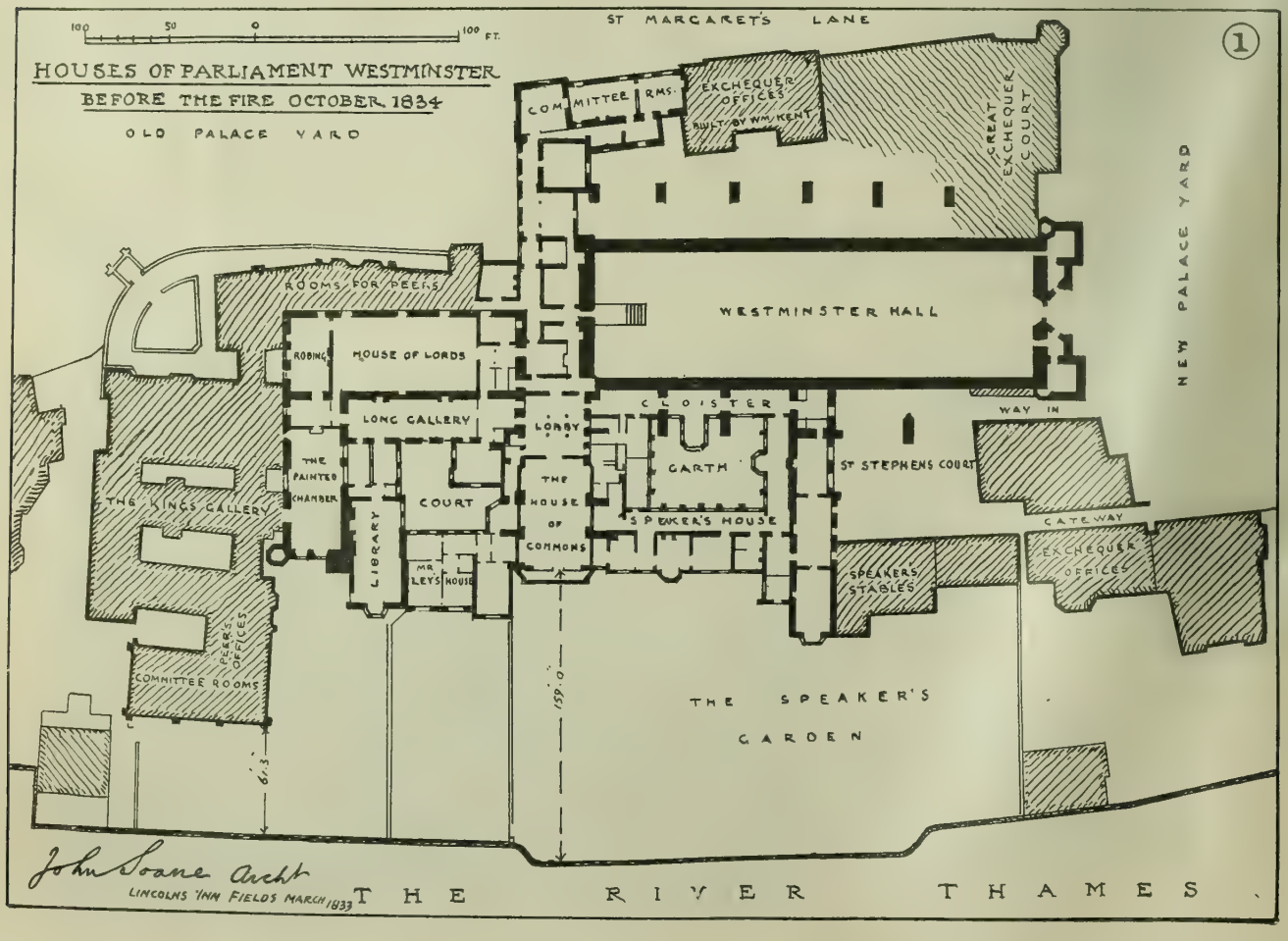
THE TRIANGULAR ELECTION, 1923.

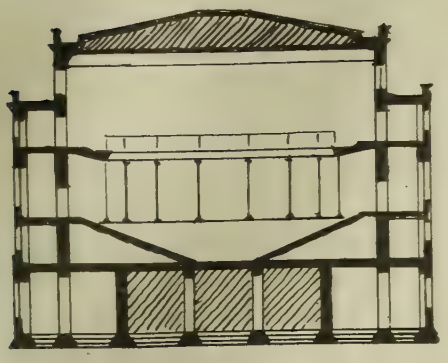
THE PROBLEM OF SEATING THREE PARTIES.

WHEN Sir Charles Barry laid down the present contrivance of seats, above and below the gangway, in the House of Commons, no prospective provision was thought of by which an unprecedented result, like that brought about by the recent election, could be efficiently accommodated. Up to the present day "the two party system," upon which the unwritten code of the British Constitution is based, has successfully held its own. Such an allocation of the benches of the Second Chamber has sufficed for working the Parliamentary machine. The Irish Home Rulers sat with the Opposition, and the capable but small "Fourth Party" scarcely interfered in the matter of seating. The present number of Representatives in the House is 615. Previously the normal number was 707 or thereabouts. When the Irish left Westminster about 90 seats became vacant, but several redistributions of the larger old constituencies increased the number of English and Scottish members. Anyhow, for the time being sufficient space is furnished for all the Commons likely to be present in Parliament for a good while to come. The difficulty now arising has been brought about by the partisan attitude of the triumvirate of approximately the same numerical strength, each in turn pledged as a party to act independently of the others, although technically one section on the Opposition side may claim to have an official prerogative in addressing the Speaker. Such a condition of affairs perhaps will prove transitory, though certainly abnormal in this country. In the English Parliament the momentous step of "crossing the floor of the House" has enormously assisted in consolidating the historic differences between H.M. Government and H.M. Opposition in the conduct of business. Hence, also, in the main, comes an adherence to the elongated form of the British House of Commons Chamber. Abroad, where members speak from a tribune, the usual shape of the auditorium for the Legislative Assembly, such, for example, as the House of Representatives at Washington, is segmental. The Chamber of Deputies at Paris, also referred to with its semicircular form, accommodates the Governmental party or "Moderates" in the centre, with sections tapering off right and left to their opposite extremes, and allocated by slightly differing classes politically, engaged in bargaining as best they may to accommodate their differing ultimatums. All this is quite different from our Parliamentary habits in this country, where it is reckoned broader principles prevail.

The accompanying plans illustrate this subject, particularly in regard to building essentials, and our illustrations furnish in a graphic manner the historic synthesis of what happened nearly a hundred years since at Westminster prior to the famous fire of 1834, which reduced the ancient Parliament buildings and their modern extensions to ruins. Three years anterior to that misfortune a Select Committee was appointed and many authorities were examined, including several eminent architects. It was decided to recommend the erection of a new House. The authorities came to the conclusion that the historic Chapel of St. Stephen, long used as an assembly place for the Commons, could not be properly enlarged, ventilated or adapted with due regard to the general convenience and health of the members. Sir John Soane had in consequence of this resolve been employed to prepare a plan of the whole of the existing premises adjacent to Westminster Hall, showing the lay-out of the property, which ultimately furnished the site on which Sir Charles Barry's buildings now stand. Benjamin Wyatt also was set to draw out for the Committee a detailed plan of the old House of Commons and its surrounding offices as existing at that day. We reproduce both these plans in this issue; they give an excellent idea of the problem then about to be solved. The question, however, of providing better accommodation for the Second Chamber was by no means a novelty and had long been considered. William Kent, the Surveyor-General, prepared a plan for a new House in 1739, and it had been adopted by the Government under the approval of Speaker Onslow. James Savage, when giving evidence before the 1833 Committee, produced a copy of this plan, which we are enabled to illustrate with these notes (Fig. 3).

Roughly speaking, the available site for a new House of Commons was provided between the East End of St. Stephen's Chapel and the Thames, on the land then devoted to the Speaker's garden. The Committee really instituted a sort of informal competition of plans, as each architect invited to advise the Government had to prepare a scheme, and for this purpose was furnished with a copy of Soane's site plan and Wyatt's detailed plan of the existing seating arrangements long in use by the Commons in what was originally the Collegiate Chapel dedicated to St. Stephen and erected by Dr. John Chambers in 1509 and 1510. It will be interesting to notice in regard to the seating thus recorded that a considerable number of M.P.s in the old House were situated behind the Speaker's Chair. They could not "catch his eye" and the position must have been very inconvenient. However, it is the evidence that Mr. Adam Lee (who was called the "Labourer in Trust" to the Houses of Parliament, or, as we should now say, the "Clerk of the Works") when asked why he had reproduced in his plan





Section on the line A·B·

SIR JOHN SOANE'S DESIGN A·D·1833.

for the new House of Commons this contrivance of seating of the old one, replied that he was induced to conform to that arrangement, never having heard of any complaints in that respect, although he had been constantly in communication with all the members during his 26 years of office. Such seemingly was the custom of habit.

The following were engaged upon this enquiry, viz., Sir John Soane, James Savage, John Deering, Edward Blore, Francis Goodwin, Decimus Burton, Sir Robert Smirke, George Basevi, Sir Jeffry Wyattville, Adam Lee and George Allen. From these ten distinguished architects and the Clerk of Works we have chosen, as typical of the various solutions presented to the Select Committee, the plans submitted by Sir John Soane, Decimus Burton, James Savage and Edward Blore. Sir Robert Smirke had at that date prepared no design, nevertheless his evidence seemingly most impressed the Government, because at the time of the fire in 1834 he was actually engaged upon preparing plans for the new House of Commons. This disaster naturally upset all calculations. Their limited character no longer sufficed and in the consternation which followed all these schemes propounded by the Select Committee were consigned to limbo and forgotten. Many of the old buildings were in too decayed a condition, as the evidence shows, for structural extensions. They were incapable of carrying additional weights, parts were constructed of wood, and so it happened that the fire speedily gained headway and soon completed the ruin.

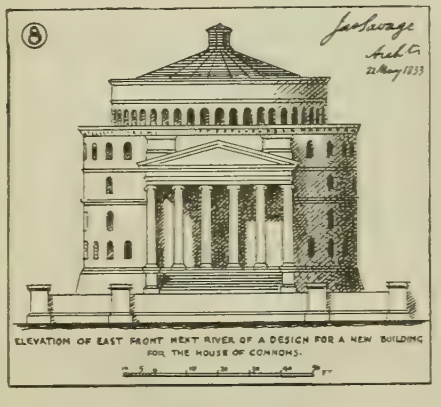
The history of the great competition, in which Barry and Pugin were selected, is another story, better known than the abortive enterprises over which so much skill and expense had been previously expended. These discarded plans are interesting architecturally, nevertheless, and display a distinct capability of no mean order. It is clear also that the political situations and exigences of seating members brought about by the conflict of parties to-day was anticipated, at any rate, to some extent by those who made these designs in which no little imagination and forethought are evident.

Sir John Soane, when he produced his scheme, was close upon 83 years of age, having been in the Government's service for 41 years. His proposal certainly ranked among the most practical, giving an admirable approach through "the old House," which he made serve as an ante-room to the new one, wherein he furnished seats for 600 members. The treacherous nature of the foundations, as he had found in the work done to the House of Lords, necessitated going down through the bed of river mud to the gravel bed below. He was of opinion that the floor of the old House of Commons was level with St. Stephen's original chapel floor. He calculated that the cost of this building would be £38,800. We give a section of it, as well as his plan (Fig. 4).

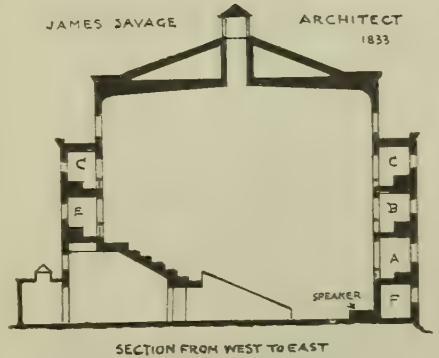
Decimus Burton was in his early prime of 33 years when he made his oval-like plan, which is typical of his refined taste. It provided seats for fifty peers behind the Speaker's Chair. In order to obtain a spacious lobby he proposed to demolish "Mr. Ley's house," on which the authorities set much importance. His long corridor and secondary means of approach to it through "the old lobby" look less impressive than Soane's scheme. "The old House of Commons" he preserved for public business during the erection of the new one and he intended to restore this chapel to its original beauty. The external style proposed for his new structure was to conform with that of the new Library. £41,000 was named as the probable expense (Fig. 5).

James Savage, architect of St. Luke's Church, Chelsea, the first stone-groined church erected in the nineteenth century, also built extensive buildings in the Temple. He proposed to reinstate the Edwardian Chapel of St. Stephen. We give a section of his circular legislative chamber so as to show how his external galleries were intended. The complete circle was adopted, he said, because it combines advantages for seeing and hearing superior to any other. "It seats the greatest number within the smallest circumference and brings everyone nearest to a given point (collectively taken) and the extreme distance between two persons in less than in any other shape. The Speaker's Chair is placed against the wall at the east end." A crowded house of 684 is allowed for. "Echo is provided against by ventilation, by which a constant stream of air is constantly passing out at the apex of the ceiling." This is not flat but covered and tilted. The Whispering Gallery of St. Paul's has an echo chiefly from above, but the surrounding plain wall, 17 ft. high, acts as a conductor and reverberator of the sound as the speaker's voice is heard on the opposite side across the dome of 112 ft. Facing the river, Savage proposed a portico, as shown by the elevation here given. The cost of the house itself was stated to be £27,000.

Edward Blore (architect to Westminster Abbey) adopted the octagonal shape, 80 ft. in diameter, with a vaulted ceiling like the Chapter House at York. £17,000 was the estimate. The central floor space being rather restricted with the table in the midst, was objected to by some of the Committee, resembling as it does a spectacular "cockpit."



ELEVATION OF EAST FRONT NEXT RIVER OF A DESIGN FOR A NEW BUILDING FOR THE HOUSE OF COMMONS.



SECTION FROM WEST TO EAST

A PEERS' GALLERY BEHIND THE SPEAKER
B REPORTERS' GALLERY OVER PEERS
C STRANGERS' GALLERY
E MEMBERS' GALLERY TWO THIRDS ROUND HOUSE
F CORRIDOR ALL ROUND THE HOUSE

Although the purpose for which these designs were prepared was frustrated by the memorable fire of 1834, it would be a mistake to overlook their importance, accompanied as they were by the expert advice of the pick of the foremost architects in active practice during the reign of William IV. The reports of the Special Committees materially assisted the Commissioners when the conditions and schedules of accommodation had forthwith to be worked out as the basis of the open competition for rebuilding the Parliament Palace at Westminster. Much valuable information about international methods as compared with British needs and traditions was ascertained, not only by the enquiry of 1833, but also during a preliminary investigation held in 1831, appointed by the Government to consider the possibilities of adapting the old House of Commons to up-to-date usage. Benj. Wyatt, Robert Smirke and Sir Jeffry Wyattville, the architect of Windsor Castle, were engaged to examine the old buildings, and in accordance with their conclusions a new House of Commons was proposed to be erected, as herewith illustrated and explained. The old House at most only accommodated 342 members and the old lobby, 33 ft. by 30 ft., was occasionally crowded by 300 to 400 on a Division, hence the congested conditions then existing.

It will be useful, in conclusion, to briefly summarise a few facts, not readily available, about this great competition, instituted in 1835, for the new Parliament buildings. The Commissioners made their own awards and do not appear to have engaged professional assessors. The Government undertook to pay premiums of £500 to each competitor whose plans were recommended by the Commissioners, and if the chosen design was not carried out its author was to receive an additional £1,000. Charles Barry was appointed in 1836, on the distinct understanding that his estimate of £724,986 should be binding. The other prize-winners who received £500 each were tabulated in the following order, when the exhibition of the drawings was held at the National Gallery, viz., William Railton (1803–1887), architect of the Nelson Monument in Trafalgar-square; J. C. Buckler, with C. A. Buckler (1804–1904), architects for the rebuilding of Arundel Castle for the Duke of Norfolk; and David Hamilton (1758–1843), associated with Thomas Hamilton (17[illegible]4–1858), famous Scotch architects and founders of the R.S.A. Ninety-seven designs comprising 1,200 drawings were sent in.

The total cost of Barry's Parliament building up to October, 1852, amounted to £1,506,845.

Southport War Memorial.

In the description of the Southport War Memorial in our issue of December 21 last, the height of the obelisk was stated to be 87⅞ diameters; this, of course, should have been 8⅞ diameters. The sculptor responsible for all the modelling and carving on this memorial was Mr. H. Tyson Smith.

Liverpool Cathedral.

In July next the twentieth anniversary of the laying of the foundation-stone by King Edward VII will be recognised by ceremonial and public celebration. It is probable that the King will associate himself on that date with the formal opening of the first, but the most costly and the most elaborate, of the three sections into which the building, according to the design of Mr. G. Gilbert Scott, divides itself.

This section comprises the whole east end of the Cathedral—namely, the choir and its aisles to the first bay of the great central space, which conform to Gothic ecclesiastical architecture. The portion to be opened next year will include two of the four transepts which are to flank the great central space; also at the east end of the building the vestries reached by the ambulatory, and also the chapter house, which at the north-east corner of the Cathedral will balance the Lady Chapel at the south-east.

The portion of the Cathedral to be opened next summer will represent an expenditure of half a million sterling.

THE COMPLEAT ARCHITECT.

By DUDLEY HARBRON.

XII.—PERMANENCE.

THE ruthless pursuit of fitness seems to render permanence a needless quality, but singularly building which is not permanent is never architecture. Fugitive work, no matter however grandiose, is like clay models, wax flowers and tin toys, on the way to the dustbin. In Nature we are satisfied that she will repeat herself, and consequently, though we have regrets for the fading rose, we do not let them affect our judgment, but in art we feel that the need for the substantial embodiment of the most furtive notion is a first requisite to its appreciation. Impermanently represented we do not value the idea. Valuable ideas we consider are worth perpetuation. Casually cast-off like the man who claimed to have invented matches, we prefer the title of inventor to go to the man who made them and sold them tangibly to his friend .

Industrially, politically, emotionally, the times in which we live and work are not such as to conduce to permanence. No man is sure of what to-morrow may bring forth. But then they never were sure, but they had faith. We have lost that, and the only certainty we hold is that to-morrow will be unlike to-day. Symptomatic of the times, manufacturers desire factories with elastic walls, capable of expansion or contraction in time with the pulsations of trade. Regretfully we admit that they may get their own way, and be provided with concertina-like contraptions with zigzag walls, running, as folding doors do now, on rails, but he would be courageous who could contend that such ingenuity could ever call itself architecture. Curiosities of this order please the readers of the penny press, who delight in particulars of the Chateau Dufayel and its mechanical wonders. But, instinctively, we know that these tendencies are not fruitful branches of the architectural tree, and that along these lines architecture is being left behind at the junction, and is not, as some appear to regard it, the terminus.

Strive and contrive as we may, no work of man is actually permanent; the best can only be relatively so. The quest for a static condition in form and material which shall defy the encroachment of time and satisfy the "passion for perpetuation" is responsible in part and recognisable in all of the greatest architectural achievements. The desire for permanency is a very primitive emotion. Upon it the belief in eternity has been reared. "O man, live for ever!" was the message of the Creator to the created, but the messenger, the hare, arrived too late, though the purport of his communication has reached our ears.

Romantic scientists having located creatures, amœba, that, escaping accident, live for ever, draw long bows for humanity. Matter, they tell us, is indestructible. Not unnaturally, man is jealous. He seeks through durable material and considerate form to satisfy his natural aspirations and endure in his work. He finds within, the eternal amid all the shifts and tremor of the passing scene. Stability is essential; cracks and fissures discredit the master. Quality is implicit—the capacity to survive, to serve the perpetual needs of humanity. The desire to achieve permanence has misled artists into the error that size is in itself a sufficient and noble attribute, that through magnitude permanence and grandeur could be attained. Great monuments may impress, yet it is other qualities beyond sheer size which render them noble. Vastness alone is the most easily recognisable hideousness. Though by their bulk the makers may have thought to attain permanence, they have indeed courted destruction, when as in allegorical Babel and actual Hadrian's Wall, they had not other qualities to recommend them. Size must respect all the conventions required in smaller works; beyond reasonable dimensions they defeat permanency, and coins survive where larger images are in the dust.

The spectator looks for durability in a work of art. Time and pains are not usually expended upon perishable material, the recollection of this prescribes to some extent the attention with which the work is studied. Actually the artist expresses himself from poverty or handiness in the medium readiest at hand—clay-crayon, but he is himself at pains, as soon as may be, to see his conception in material form as nearly permanent as he can, and he is disappointed if this consummation is not effected. So often has he succeeded that it is almost accepted as a fact that no work worthy of perpetuation has escaped its reward. But it is not true, though it cannot be proved, and the Fates, it must be acknowledged, are inclined to leniency. Cezanne threw his masterpieces into the nearest hedge, but a careful collector of unconsidered trifles picked them up. Whistler destroyed those paintings which he considered unworthy to survive, seeking thereby to more firmly guarantee his reputation with posterity. For architecture there are no such adventitious aids; to live, buildings must have merits commending them to men as to nature.

The present generation appear to be so fickle that one is almost tempted to regard lasting qualities as a form of extravagance. Though we save in patches we are afraid that the suit will be a misfit because we have altered in our proportions. A complete system of thought is based upon "the fallacy of saving." Already it has overthrown the makers of every article from motor-cars to collar studs. Building cannot follow fast enough. Though the truth is that impermanent needs should be temporarily housed. For timid souls the creed of the momentary has an undeniable fascination; so much can be excused as extempore. For there is nothing more salutary than the realisation that what one does lasts, short though its life may be, longer than ourselves.

In durability lies the reward of the forward-looking mind—the consciousness of right, the courage to foretell. It is to be attained only by the struggle to excel.



Equestrian Statue of General Gattamelata, Padua. By DONATELLO.

CORINTHIAN CAPITALS.

SIR BANISTER FLETCHER, in a recent lecture at the Central School of Arts and Crafts, dealt with the study of the origin and use of the Corinthian Order, which was Greek by birth and Roman by adoption. The Greek love of the beautiful and their gift for developing art-forms tempted them, for a time, away from the sturdy Doric and the simple and slighter Ionic to that more varied and ornate combination of nature-forms which became known as Corinthian. Doric and Ionic were both tribal names, but Corinthian bore no such meaning.

Some of these early capitals were in bronze, a metal worked in Corinth by a certain Callimachus, and thus known as Corinthian bronze—much as we called a certain product "Sheffield plate." So the material might have given the name to the style. He considered that, as to origin, it was hardly likely that the new Order was suggested by the anthemion necking of the Ionic capitals of the Erechtheion, because that did not account for the altered shape and increased height. It was more probable that Greek artist-craftsmen, who ever sought some new thing, seized upon the Egyptian lotus and papyrus prototypes at Karnak and Philae, and from them reproduced the bell-shaped capital, sheathed in tiers of carved acanthus leaves and curling calices. Greek imagination was strong enough to create the Order, but Greek love of simplicity was stronger, and the Order was little used by that nation, except in small buildings, like the Choragic Monument to Lysicrates and the Athenian merchant's "Tower of the Winds,"

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"THE BUILDER" NEW YEAR NUMBER.

The Special New Year Number of "The Builder" will be published next week, January 11.

ILLUSTRATIONS.

New Headquarters of the Society of Friends, Euston-road.

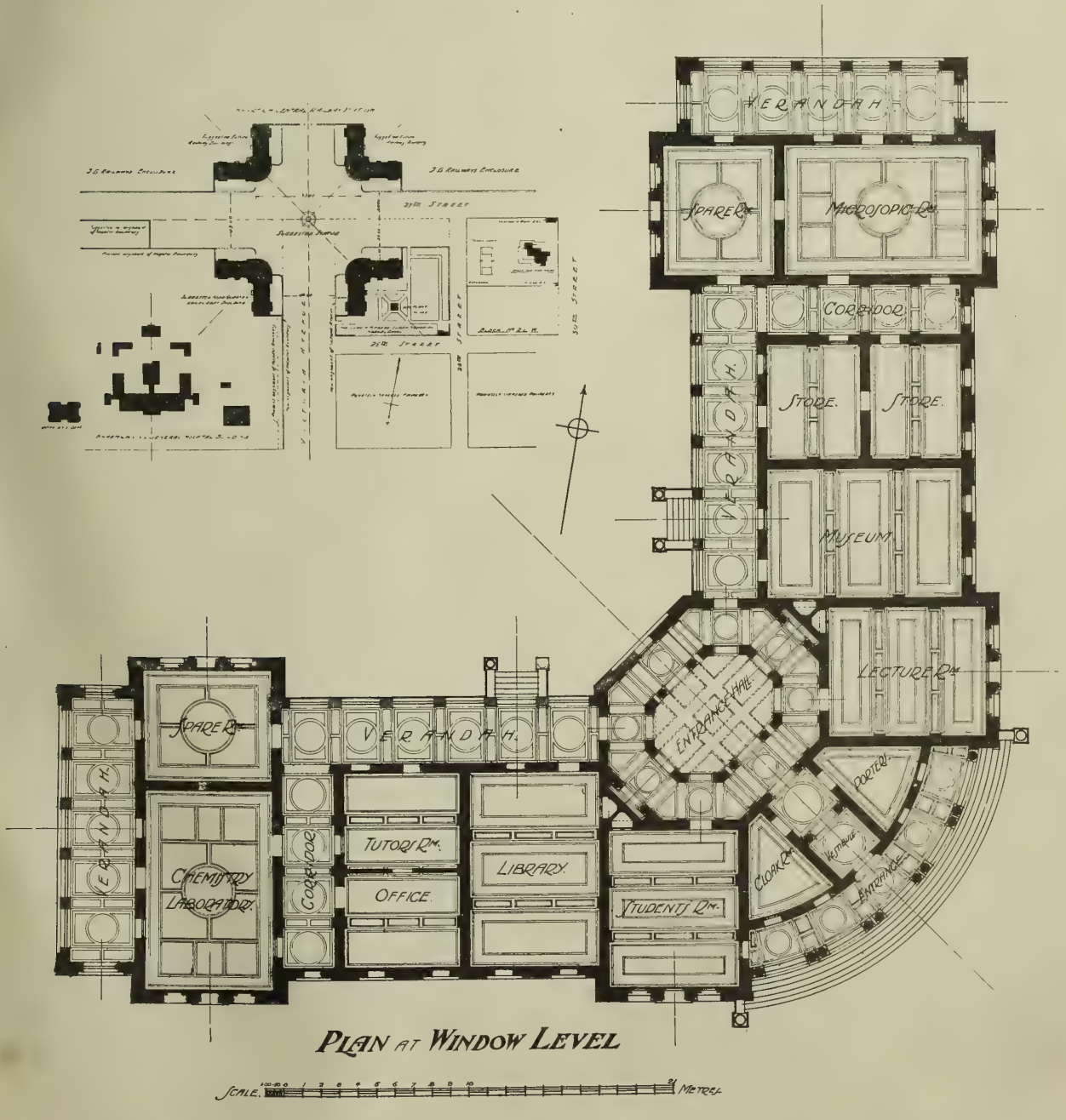
These drawings are reproductions of the competition plans selected in the recent limited competition. The building is to occupy nearly half the vacant site on the Euston-road opposite Euston Station, the other portion being reserved for a temperance hotel with formal gardens between, which, in conjunction with the 30 ft. set-back which the Council demands, will be a great improvement on this part of the Euston-road.

The building is designed in three portions, the centre being reserved for large and small meeting houses; the former (entered through a portico on the Euston-road front) will seat, with galleries, 1,500 persons. The small meeting house is placed at the back and will seat about 250. The east portion of the building comprises administrative offices, committee rooms, library and institute, grouped round an open meeting house yard connected by cloisters with folding doors for use in warm weather. The upper portion of this block comprises offices for the use of the various associations allied with the Society of Friends. The west portion of the building is a self-contained block of office property with a possibility of extension on demand. The lavatories for the meeting house are in the basement, where also are strong rooms, the former with ample light from the areas, the latter without an area. Simplicity has been observed in both planning and detail, the frontages being in grey brick with Portland-stone dressings.

The architect is Mr. Hubert Lidbetter, A.R.I.B.A. The perspective drawing is by Mr. A. C. Fare, of Bristol.

Taunton War Memorial.

The successful design by Mr. E. Vincent Harris, F.R.I.B.A., is admirably direct and compact in its lay-out; all the rooms are easy of access and well lighted. There is a spacious Memorial Hall with the memorial tablet in a recessed space centering with the main entrance; thus the object of the building is not lost sight of. The elevations, of Gothic character, are well balanced, a feature being made of the main entrance with a bay-window over. The scheme is treated in a restrained and dignified



The Kitchener Memorial Medical School, Khartoum. MR. G. B. BRIDGMAN, A.R.I.B.A., Architect.

manner. The building should come within the stipulated price of £10,000. Mr. Robert Atkinson, F.R.I.B.A., was the assessor, in conjunction with Mr. Howard Robertson.

Lord Kitchener Memorial Medical School, Khartoum.

The Lord Kitchener Memorial Medical School, Khartoum, was designed by Mr. G. B. Bridgman, Town and Divisional Engineer, Public Works Department, Sudan Government. In execution the entrance-hall was replanned to form a true octagon, as is shown on the perspective drawing.

Thuparama at Polonnaruwa, Ceylon.

This oblong brick building with a square tower was built for the image of Buddha in the second half of the twelfth century, during the reign of King Prakrama Bahli. The roof is a barrel vault, and above the image-room the square tower is supported by massive bracketed walls. The style is Dravidian. Externally the space between each pair of pilasters is decorated with a Wimana of a deity suggesting the appearance of a hooded window.

The drawing is by Mr. A. B. Mendis (Travelling Student of The Royal College of Art, 1922).

King's College, Cambridge, Entrance Gates.

These drawings show the designs placed second in the recent competition for entrance gates to King's College, Cambridge, by Mr. T. S. Bowman (Messrs. Cashmore, Bowman & Co., Ltd.). The intention was to have the Arms of Cambridge as the centre motive in the fixed grille over the gates executed in enamel and supported by bronze sea-horses. The Arms of King's College and Eton College were worked into the main gates as a centre upon which to build the ornament, which is after the Jean Tijou style. In the side wickets the monograms of the two Colleges were used in the panels.

MEETINGS.

SATURDAY, *January* 5.

Messrs. A. Roberts & Co., Ltd.—Annual Dinner. At Café Royal, Regent-street, W.1. 7 p.m.

MONDAY, *January* 7.

Institution of Electrical Engineers.—Discussion opened by Mr. E. H. Shaughnessy on "Troubles Experienced with Domestic Electrical Appliances." At Savoy-place, W.C. 2.

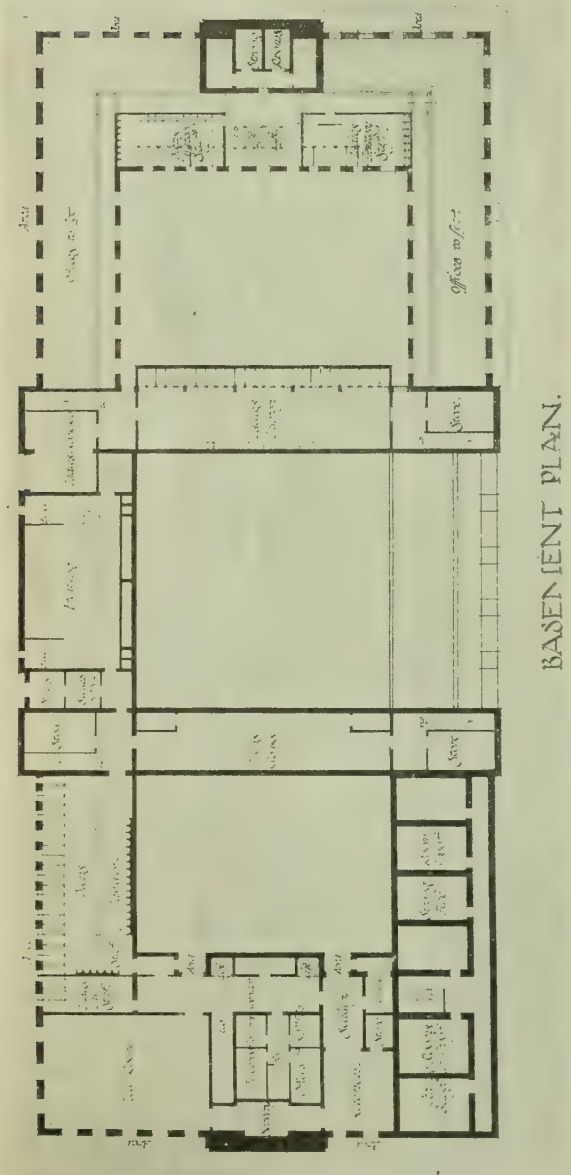
Surveyors' Institution.—Mr. D. T. Thring on "Economics of Estate Management." 8 p.m.

TUESDAY, *January* 8.

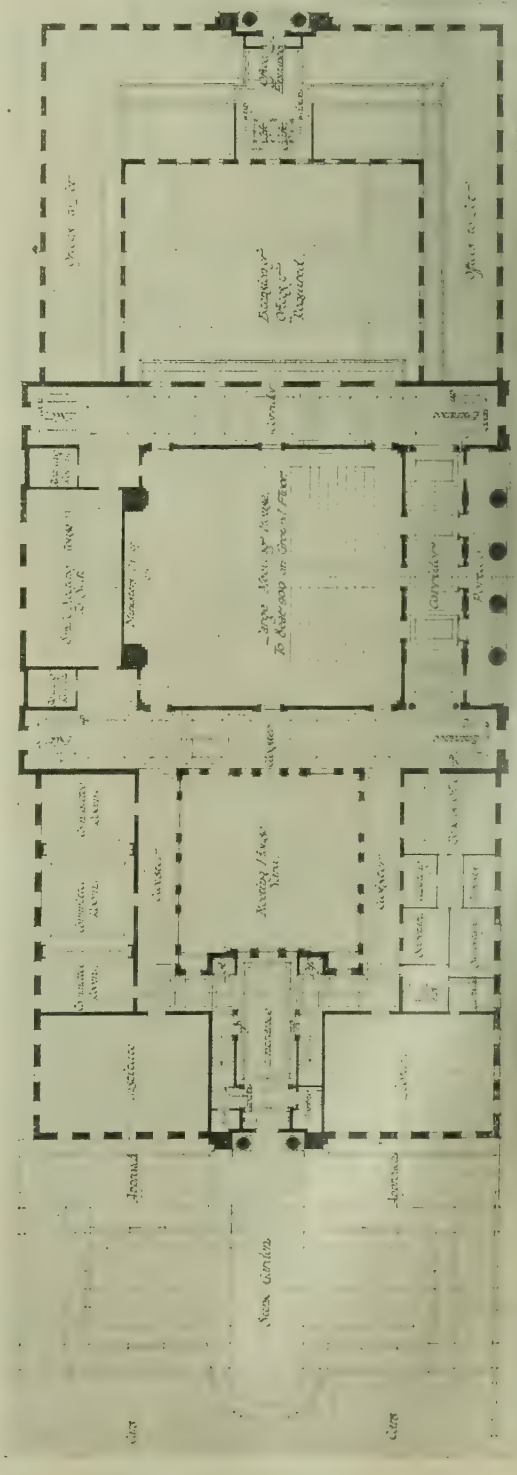
Liverpool Architectural Society.—Mr. T. Fyfe on "The Study of the Past."

THURSDAY, *January* 10.

Institution of Heating and Ventilating Engineers.—Mr. F. Lindsay on "A New Universal Regulator for the Control of Temperature, Pressure, Humidity, &c." 7 p.m.

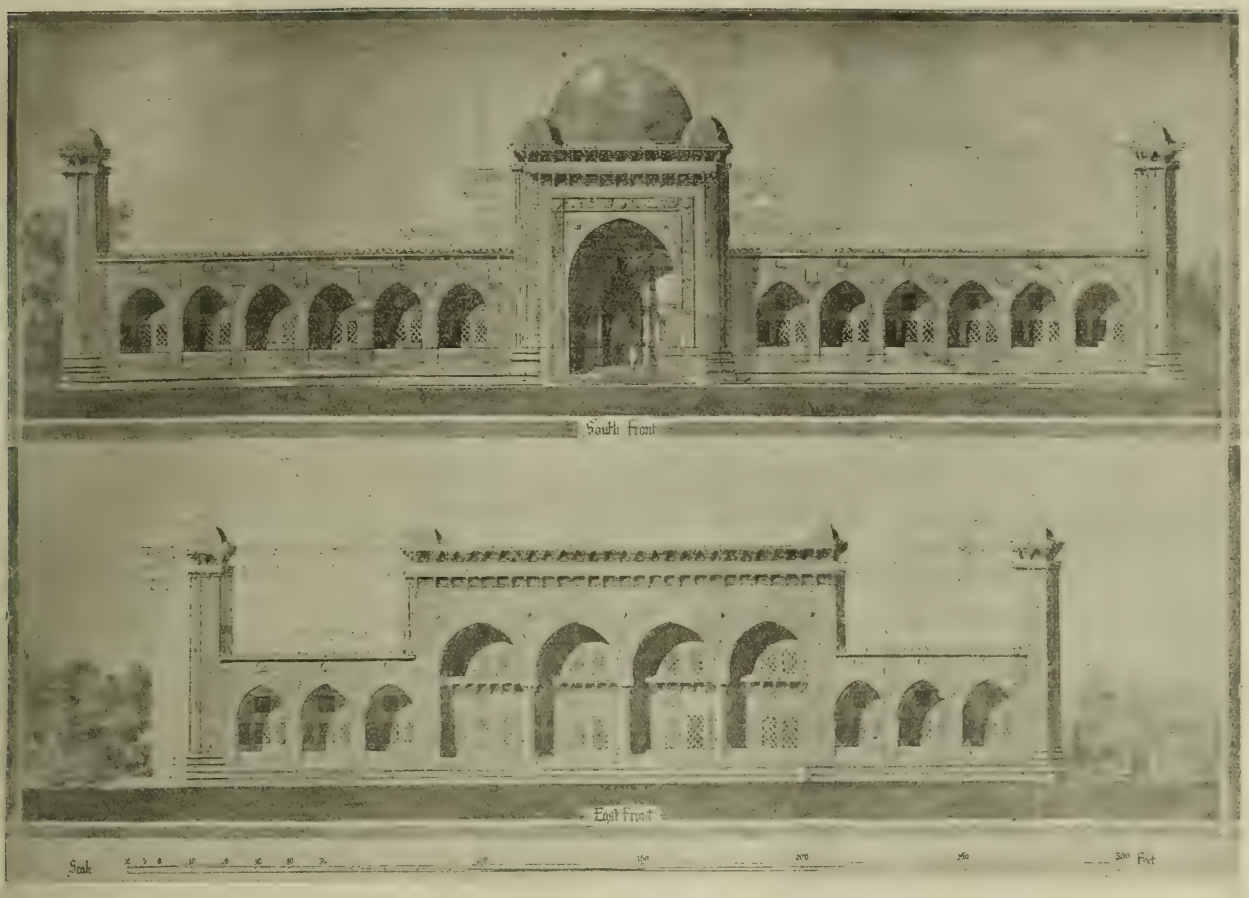


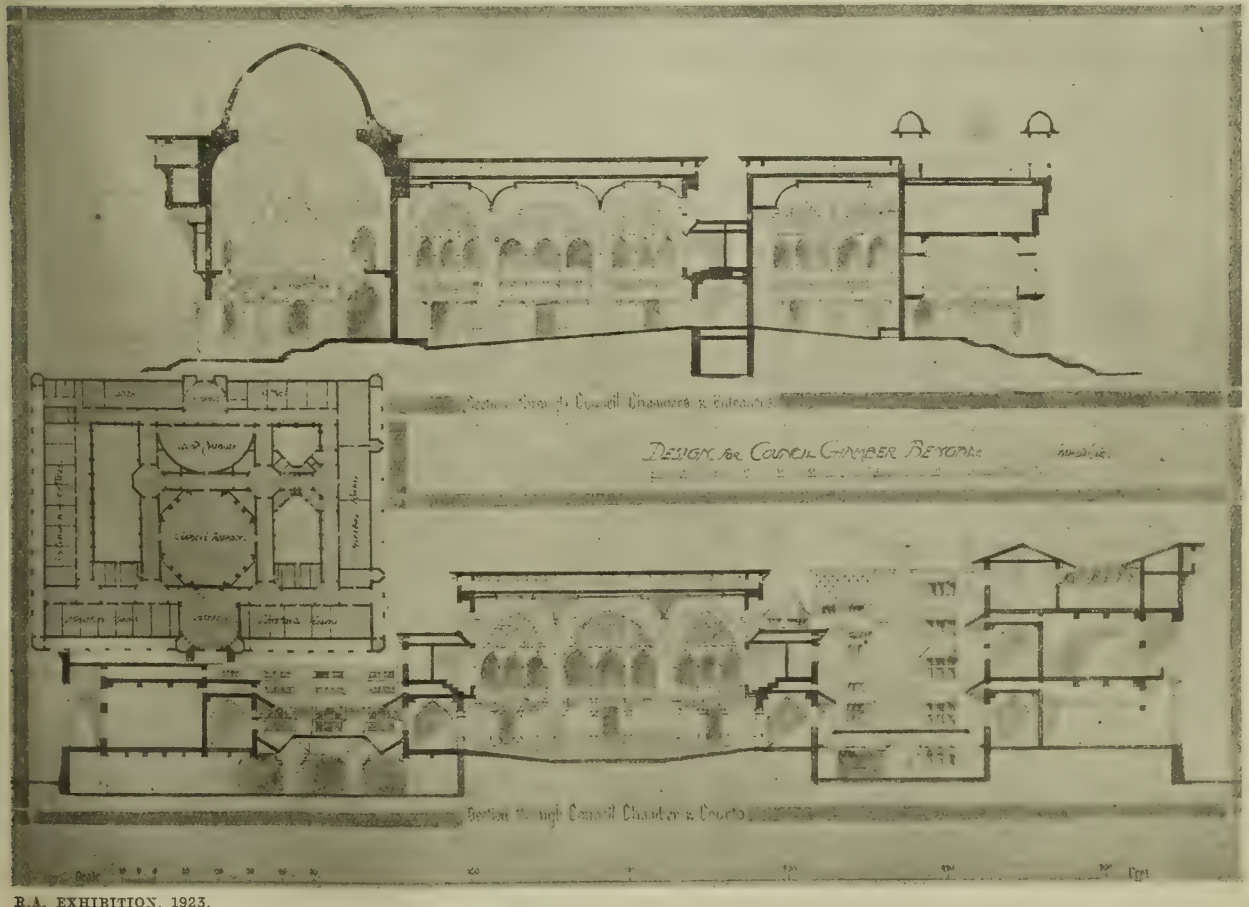
BASEMENT PLAN.



GROUND FLOOR PLAN

Competition for Headquarters for the Society of Friends. Design Placed First: By MR. HUBERT LIDBETTER, A.R.I.B.A.

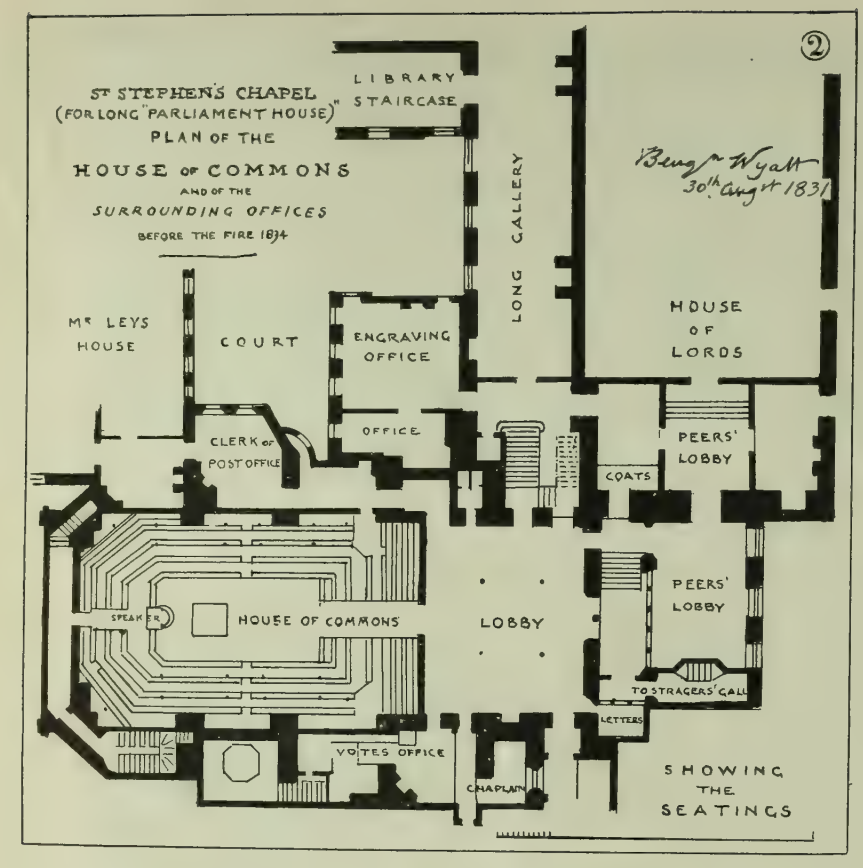


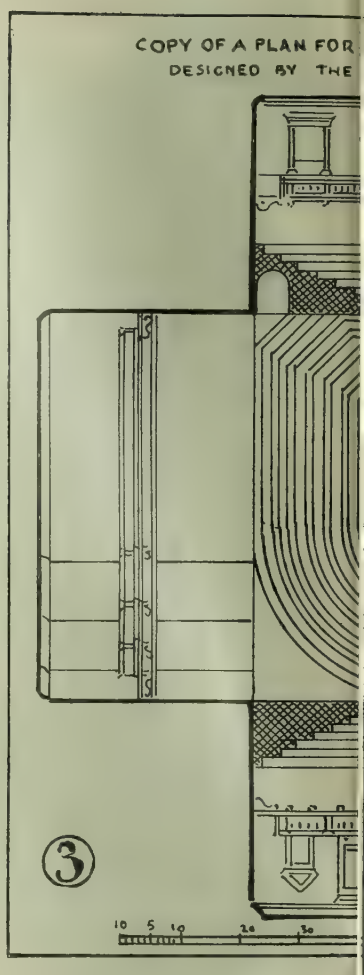


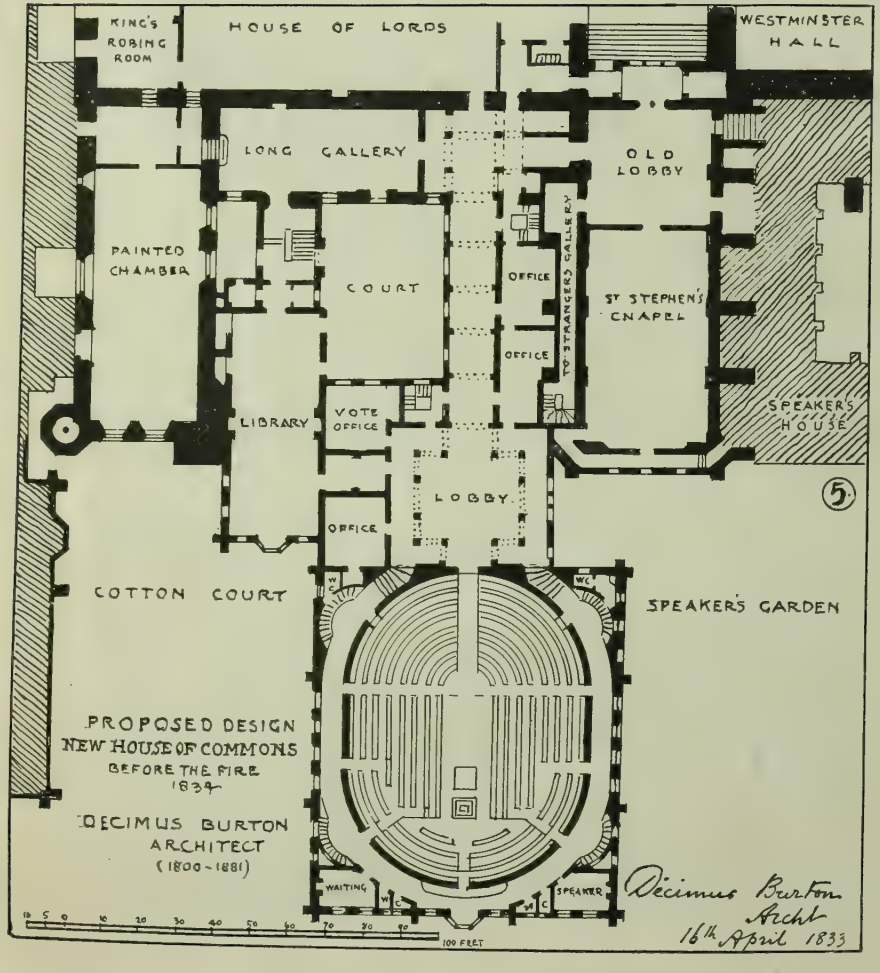
R.A. EXHIBITION, 1923.

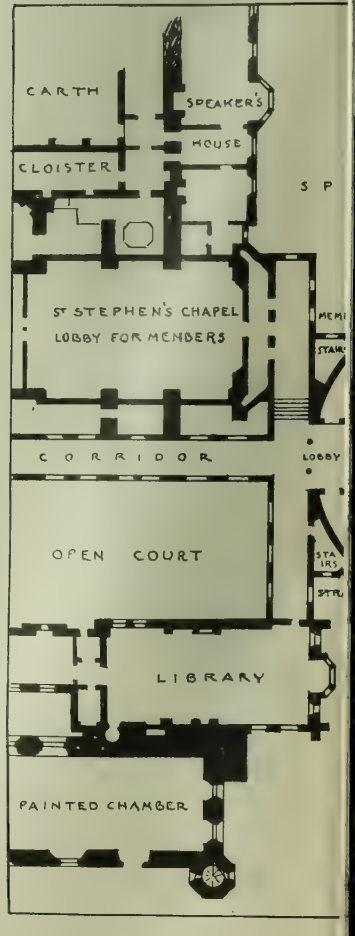
Design for the Council Chamber, Calcutta.

By Professor Beresford Pite, F.R.I.B.A.



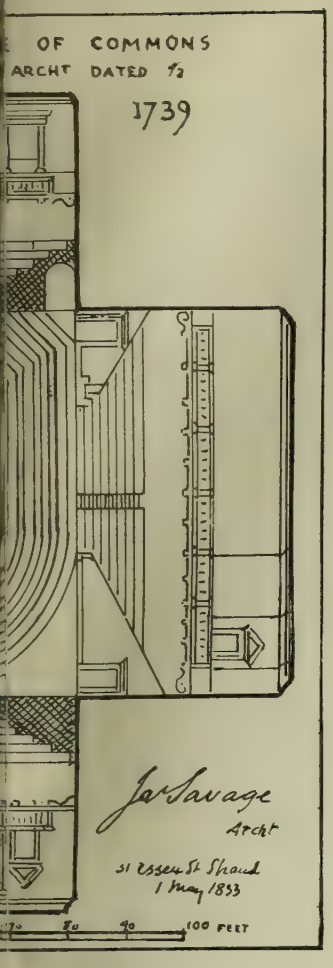


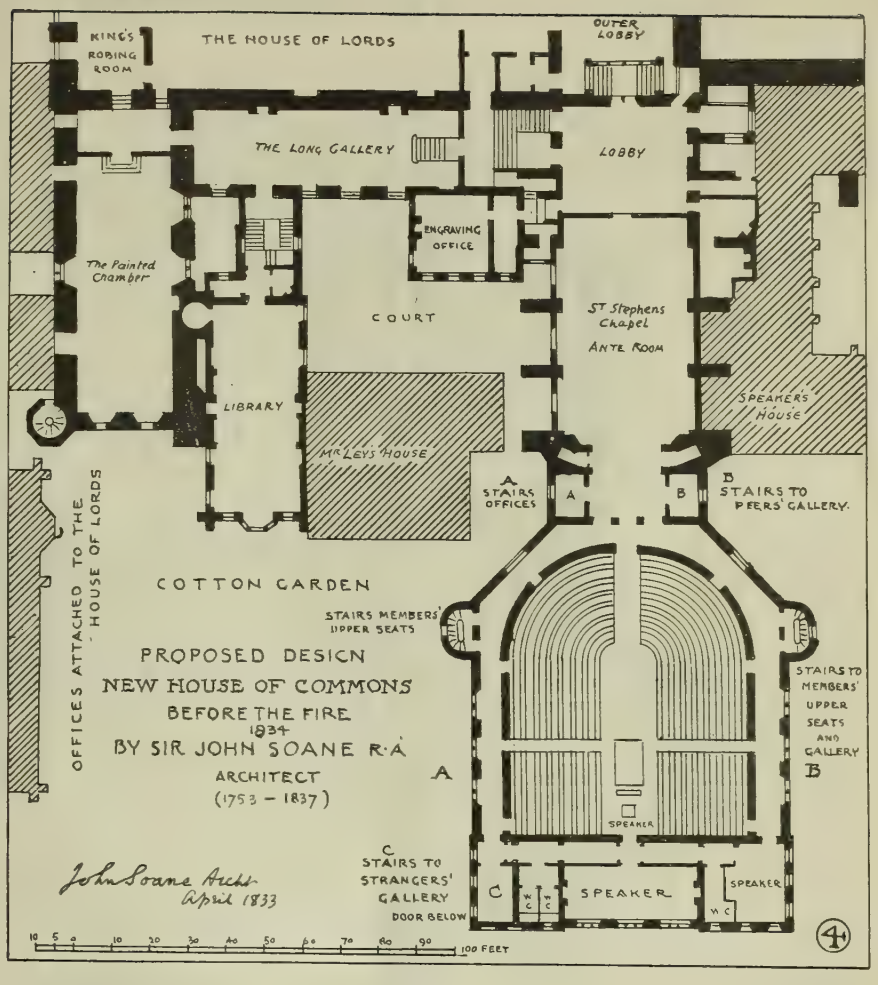


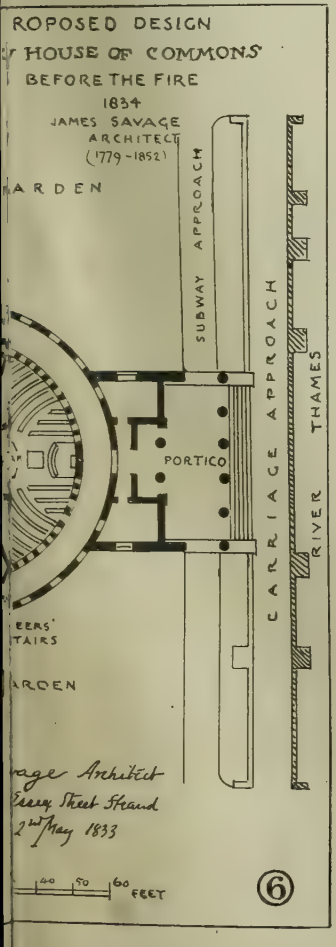


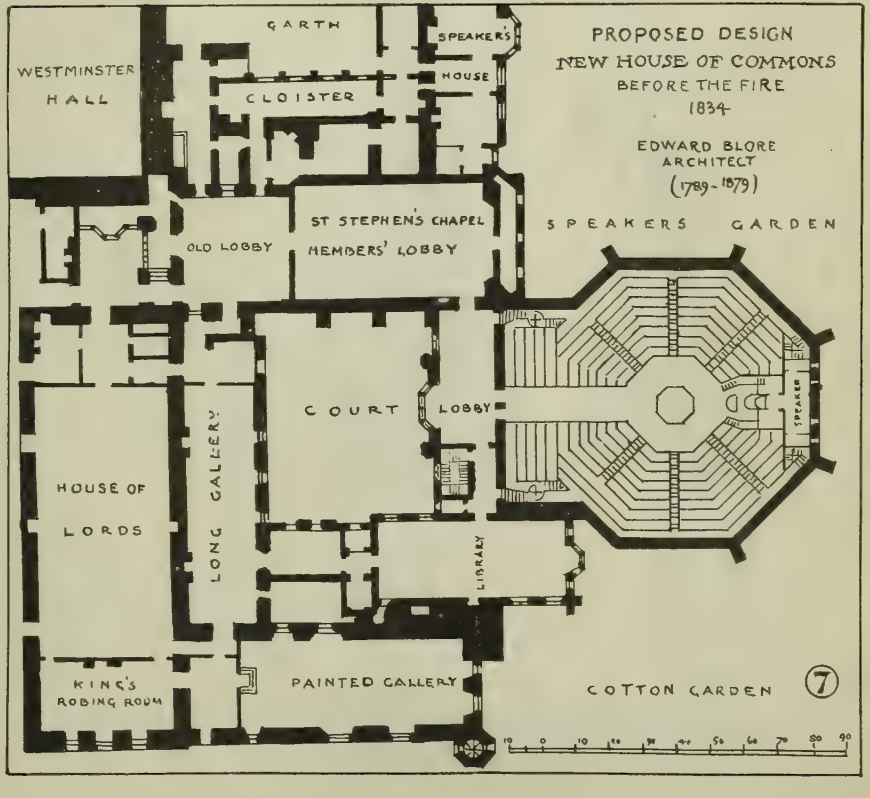
The Triangular Election, 1923—

THE OLD HOUSE OF COMMONS, ALSO TYPICAL PLANS FOR A NEW HOUSE BY WILLIAM KENT, 1739; SIR JOHN



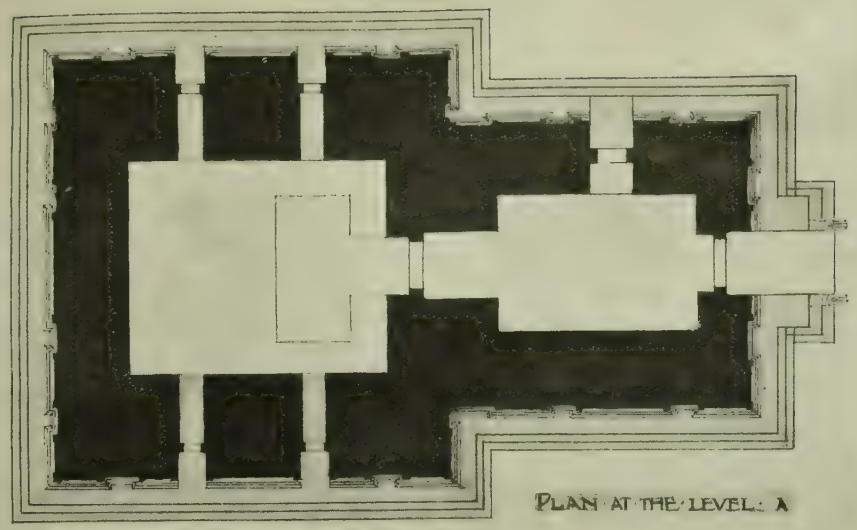






f Seating Three Parties, 1924.

Blore (Architect to Westminster Abbey); Decimus Burton; and James Savage, submitted in 1833.



PLAN AT THE LEVEL: A

THIS [illegible] BUILDING WITH A SQUARE TOWER OF THREE STORIES IS BUILT TO THE PLAN OF BUDDHA A THE SECOND HALF OF 12TH CENTURY DURING THE REIGN OF KING PARAKRAMA BAHU



STYLE OF ARCHITECTURE IS DRAVIDIAN

SPACE BETWEEN EACH PAIR OF PILASTERS BEING DECORATED WITH A WIMANA OF A DEITY SUGGESTING THE APPEARANCE OF A HOODED WINDOW

LONGITUDINAL SECTION



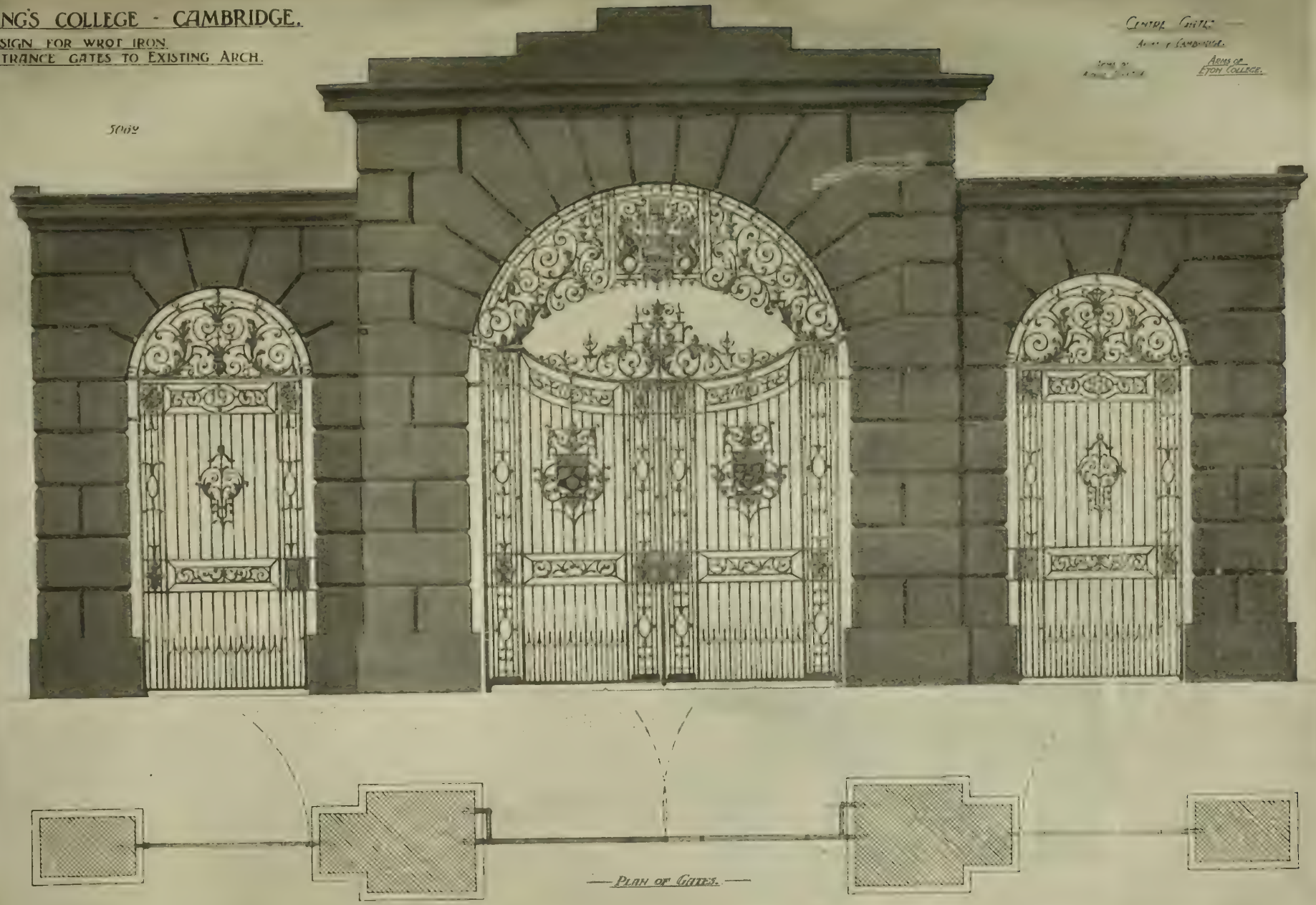
ROOF BEING TREATED WITH BARREL VAULTING VAULT ABOVE THE IMAGE ROOM WITH THE AID OF MASSIVE BRACKETED WALLS SUPPORT THE SQUARE TOWER

SOUTH ELEVATION



EAST - ELEVATION
(FRONT VIEW)

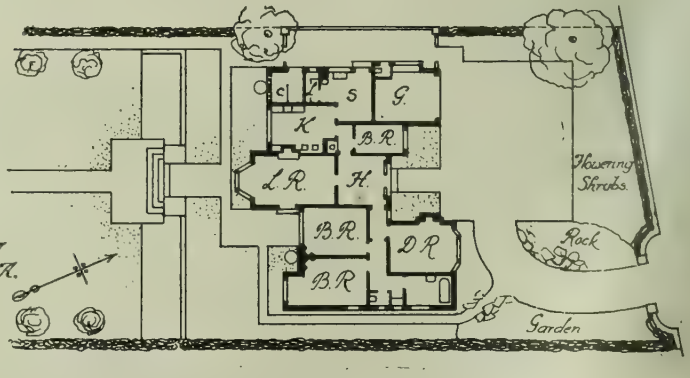
Thuparama at Polonnaruwa, Ceylon. Measured and Drawn by MR. A. B. MENDIS. *(See p. 10.)*



Competition for Entrance Gates, King's College, Cambridge. Second Premiated Design: By MR. T. S. BOWMAN. (*See p.* 10.)



"Eastoft" Hale, Cheshire for G. Empson Esq.

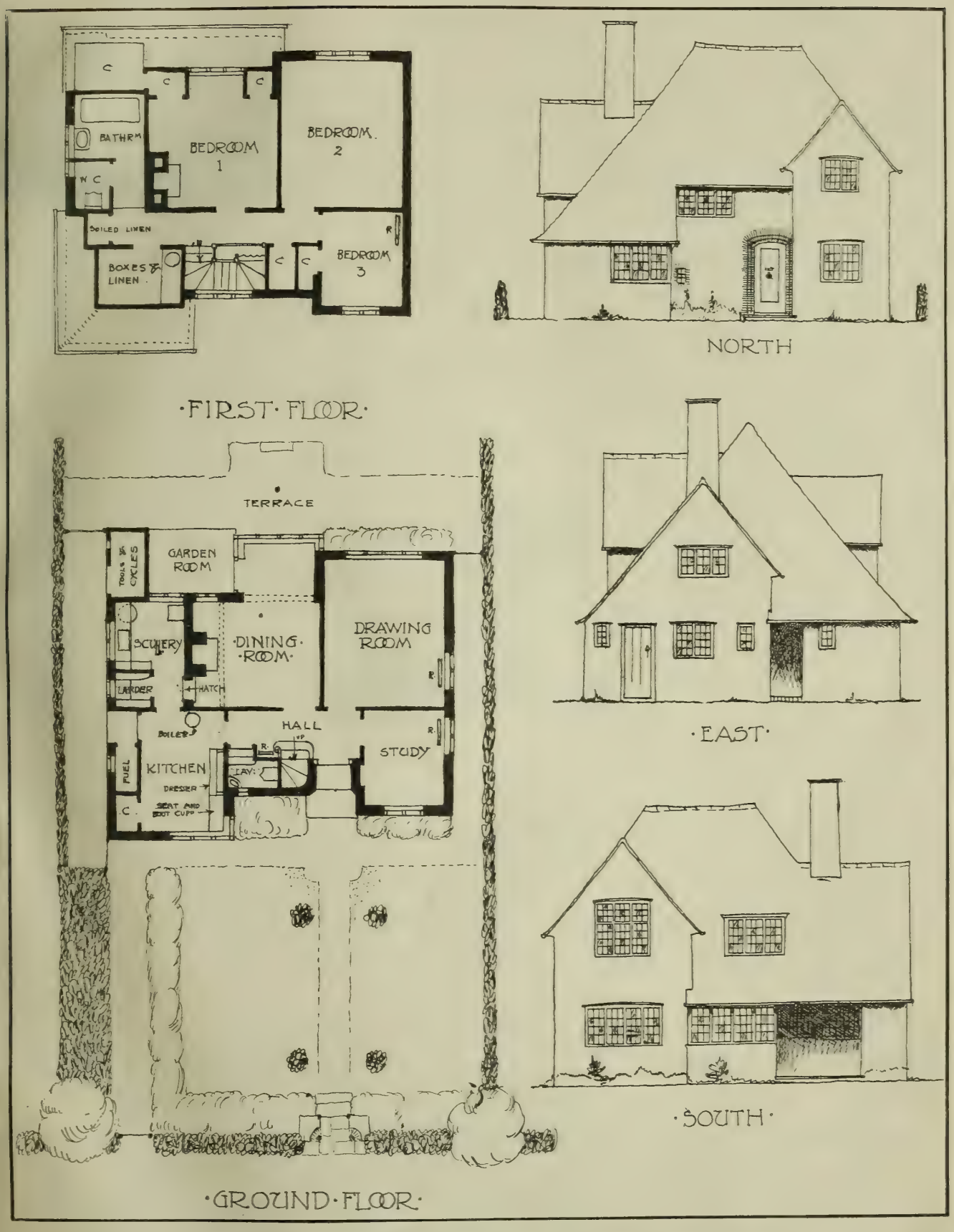


F. P. Oakley & G. Sanville A.A. R.I.B.A.
Architects, 60 King Street, Manchester.

The site of this bungalow is situated on the Hale-road, and rises sharply from the road, falling again towards the south-west end. It was, therefore, impossible to arrange a formal court having the gates on the main axis line for the entrance; a further difficulty in the site was its narrow width and the necessity of having to set back from the side boundaries. In consequence only secondary rooms could be placed at the side, the entrance and garden fronts being reserved for the principal rooms. In planning the interior care was taken to keep the bedrooms, bathroom, &c., kitchen, and offices quite apart from the hall and living rooms.

The bungalow is built of 2½ in. common bricks and roofed with Delabole slates, the window frames being painted white. For the inside the finish is of the simplest description, the walls being plastered and distempered, and the floors boarded and wax polished. In the kitchen the floor is tiled with red tiles, and the walls have a dado of white Dutch tiles 4 ft. 6 in. high; this treatment has also been adopted in the bathroom and w.c., with the exception that a composition floor has been used instead of tiles.

The contractors for the work were Messrs. L. Brown & Sons, of Wilmslow, Cheshire, and the sub-contractors were:—Messrs. Setchell & Co., Deansgate, Manchester (slating); Messrs. Williams, Gamon & Co., Kaleyards, Chester (steel casements and lead glazing); Messrs. Shanks & Co., Deansgate, Manchester (sanitary fittings); Messrs. W. & R. Leggott, Bradford (ironmongery); Messrs. Williams & Co., Carr-street, Manchester (wall tiling); Messrs. E. Wood, Ltd., Station-buildings, Altrincham (electric lighting); Messrs. E. Hart & Son, Bank-street, Salford (wrot ironwork). The contractors for the garden were Messrs. Caldwell & Sons, The Nurseries, Knutsford. Messrs. Frank P. Oakley & Gerald Sanville, AA.R.I.B.A., are the architects.



House in South Hill-avenue, Harrow. MR. A. PERCIVAL STARKEY, Architect.

[This house has just been erected at Harrow with Buckinghamshire multi-coloured bricks, and roofed with hand-made sand-faced tiles. In the planning a good deal of consideration has been given to the question of saving labour as far as practicable. Two fireplaces only have been arranged, one up and one down, the warming of the house being mainly done by central heating, with an electric radiator in each of the rooms. The cooking is by gas. There is a serving hatch between the dining-room and lobby to scullery, beneath which is a small cupboard for china in daily use, and accessible from both sides; beneath that again are coal and log boxes, also accessible from both sides. Ample box room and cupboard space have been provided. The general contractors are Messrs. Smith & Pope. The electric light installation was by Messrs. Waring, Withers & Chadwick; the central heating and hot water domestic supply by Messrs. Potterton; Messrs. Geo. Wragge, Ltd., supplied the steel casements and leaded lights. The architect is Mr. A. Percival Starkey, Harrow.]

HOUSING WORK IN AUSTRIA.

By EWART G. CULPIN.

In Austria, with the stabilisation of the crown, which hardly varies from the figure of 320,000 to the pound, as against 20 pre-war, matters are approaching normality in some directions, although the old middle classes and those who existed upon rents and dividends appear to be absolutely ruined, and it has been nearly as bad for professional people. For those between the upper and nether millstones it is extermination or work.

In the shops and stores there is every evidence of stability, although there is also every evidence of the heaviness with which life is pressing upon the poorer classes and the lower-paid wage-earners. The average wages are about K. 300,000 to K. 350,000 a month, those in the building industry being K. 380,000, or about 25s. a week. Various items of food, fruit, etc., are cheap, but the generality of goods are practically identical with what one would pay in this country. In Germany prices alter from hour to hour, and in my own experience prices went up during a day tenfold, and shopping was a nightmare.

It must not be forgotten that Vienna, which was formerly the capital of a huge empire, is now the chief city of a small republic of about 6½ million people, and has a population out of all proportion to its ability to feed them. From five to ten per cent. of the population of the city is dependent upon relief for their existence, and as under the agreement imposed by the Commission of the League of Nations some fifty thousand more officials are now being discharged—including a huge number of teachers—these figures will be accentuated.

It may be as well to glance at the legislation affecting building and the building trades. As in this country, the difficulty of providing workmen's homes arises from the impossibility of building at such a price as will yield a rent which will give an economic return upon the capital invested. Under the rigid rent restriction Acts of March, 1923, rents are fixed at 150½ times that of July, 1914, which averaged 30 kronen a month. So that the weekly rent is now equal to about a penny! (This figure was given me by one of the chief officials of the city of Vienna. Another official, however, told me that the cost of rent had gone up three hundred times, while the cost of building had increased fifteen thousand times. For the purposes of this article it matters little whether the rent is a penny or twopence a week.) This, I believe, constitutes a record of rent restriction. There are some variations for repairs, but these appear to be so stringent that there is no possibility of the landlord getting more than his thousand crowns or so. A landlord, therefore, with twenty houses, which previously brought him in the equivalent of about £7 10s. a week, now has less than 2s.! As in this country, there is no rent restriction for new houses, but nobody builds, despite a system of subsidies, because nobody can afford to pay the rent demanded.

In Vienna there are said to be 34,000 people wanting houses, whose needs are never likely to be satisfied. The municipality is building about 2,000 apartments, consisting of a room and kitchen, at an average cost of ninety million crowns, or about £300. To provide a part of this money a building tax is levied upon all old buildings, based upon the rental value of the premises. All those with a rental of K. 3,000 pay a building tax of 100 per cent., and for each K. 3,000 another 100 per cent. is levied, so that the figure goes up to 3,000 per cent. of the rental value.

Practically the whole of the new housing work in Austria is being done through the "settlement" schemes, which, to a large extent, owe their existence to the work of the Society of Friends, and the desire of



All Houses in Austria have Double Casement Windows as a Protection against Winter Weather.

that body to give their relief in some shape which would have permanent results, and actually help people to help themselves instead of merely pauperising them. The great need of Austria after the war was for food and houses. The new Austria is so carved up that 95 per cent. of all the country requires has to be imported, and the prices which are demanded are beyond the resources of the ordinary folk to pay. Therefore the Quakers decided to settle the people on the land, build them a modest home, little more than a hut, and let them raise food for their consumption and for trade. Vienna possesses an enormous quantity of land in its town forest, the admiration of many English municipal councillors who have visited the city; timber exists in unlimited amount, and the capital has been provided by the Government, by the town, and by the settlers themselves in co-operative effort.



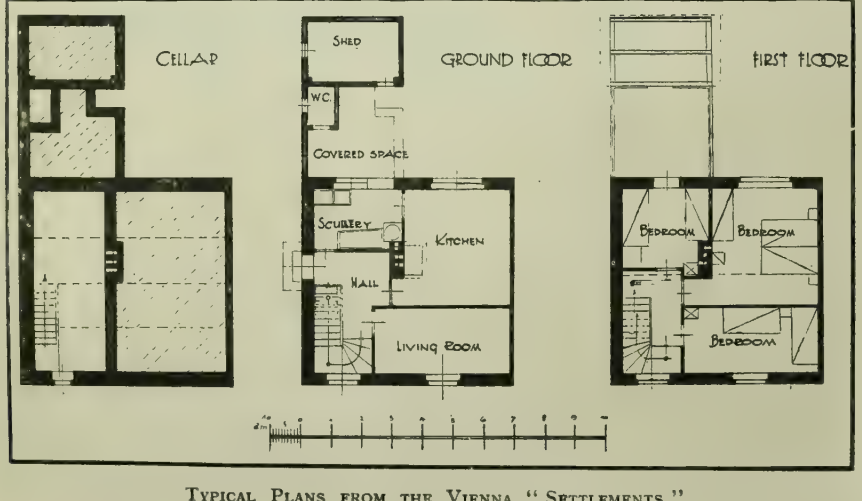
One of the Isolated Buildings. Others may be seen on the Hill-side behind, just below the Forest.

The city has now taken up the matter in earnest, and is doing much good work, always in co-operation with the Friends' Relief Mission, whose endeavours are most warmly acknowledged everywhere, and, indeed, the public gratitude is sometimes recorded upon tablets inserted in halls and other buildings with which they have been connected. At the head of the city of Vienna settlement work is Dr. Hans Kampffmeyer, well known to English housing reformers as a strenuous worker in the garden city movement and a prominent figure in all international housing conferences.

With Dr. Kampffmeyer I visited a number of the settlements, and inspected both the housing and the smallholdings, and attended a flower, fruit, and produce exhibition on one of the settlements. Here were displayed not only the customary articles, but poultry, rabbits, goats, fruit essences, honey, drugs distilled from crops, and so on, all grown on the settlement, which had no existence two years ago, and grown and reared by men and women who had never turned the soil previously and never imagined they would live in a house of their own.

The settlements are springing up in every direction in the outer environs of Vienna, and other organisations are following the lead of the Society of Friends. There are at present about fifty of these settlements, some large and some smaller, but all contributing to the vital necessity of the city and the country—the production of food—proving that it is possible, even within the diminished borders, to support a healthy population. Attached to the settlements are central farms which are co-operatively managed, and there are also co-operative workshops, where thriving industries are becoming established, and where the joinery, household utensils, and furniture for the settlers are made at a lower rate than they can be purchased outside.

The whole system is throughout co-operative in basis. To obtain the Government assistance the management must be by a public utility society on a co-partnership basis and everything is done to ensure proper and easy working of these societies. There is a central association, which is recognised by the Government, and this body not only assists in formation and management, but gives practical assistance all the way through. The Government has representatives on this association, and everywhere it is recognised that it is in this modification of garden city principles that the chief hope of the regeneration of Austria lies. And as the official aspect is friendly towards the settlements and the settlers, so the societies recognise gladly the



Typical Plans from the Vienna "Settlements."

help they received from the Government and the city authorities.

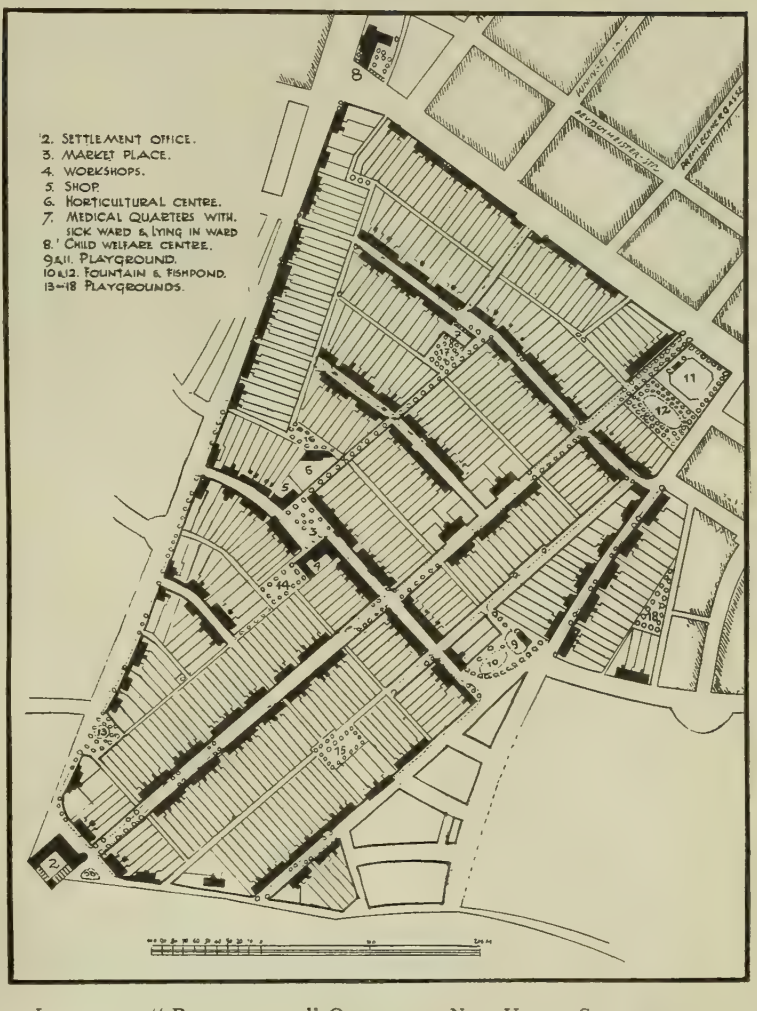
The settlement work started in 1921, and by last spring 600 houses had been built. The money allotted by the State and the city provides for the completion of 1,050 houses, all on a co-partnership basis. The State has voted K. 8,000,000,000 and the city K. 50,000,000,000, with an extra five milliards for experimental purposes. All the experimental work is done by a society formed by the central association, and known as the Gesiba, formed of the initials G.S.B., of the building co-partnership. It was found that the societies, and indeed the Government, were entirely unable to secure building materials at reasonable figures, and, as was the case in Belgium, a central purchasing agency was set up. All building materials are provided by it, and not only has it been able to get its own material cheaply, but the result has been greatly to reduce the demands of the trusts. Its efforts have been in the highest degree successful.

Land is provided by the town from the enormous area of the Wienerwald on low leasehold terms, and money from the State and town, and some from the Gesiba, with the help of the Society of Friends in addition. Unfortunately, funds are inadequate for the purpose, the sum allocated in last year's Budget having had to be cut out.

Land being secured, the Gesiba gets to work. If the Society has not its own architect it provides the necessary technical assistance for plans and lay-outs. All plans have to be approved by the City Settlements Department. In many instances the houses are very small and dotted about the holdings; in others, the houses are built in communities, with the land grouped round about; the photographs accompanying this article give examples of both. In addition to the actual settlements there are many colonies of smallholders, all of whom hope for a house of their own as time goes on. The official figures show that whereas in 1915 there were 3,000 of these, the figure has now grown to 70,000.

It should be explained that the money lent to the settlers is lent and not given, and it is a striking testimony to the abundant success of the scheme that it was possible for 25 per cent. of the Friends' Mission Loan to be returned last year out of the profits, and it is hoped that 50 per cent. will come back as a result of this year's harvest. The money thus liberated is being used in further loans and in stocking new settlers. The Friends themselves have established 400 families on the land, but their waiting list contains another 4,000!

I have mentioned the assistance given by the State and the city (which previously undertook two-fifths of the responsibility), and I was curious to find how the impoverished settlers found their contribution to a co-partnership. It appears that each settler, before getting a house, has, in addition to a small monetary payment, which in some cases is supplied on loan by the Friends, to give 2,000 hours of voluntary labour to the settlement, either as bricklayer, labourer, clerk, or what not, and as all classes are involved a new order of existence is being worked out. Labourers, brain workers, artisans, artists, are all involved and all needed, and it is reported that this voluntary labour idea has been abundantly justified.



LAY-OUT OF "ROSENHEUGEL," ONE OF THE NEW VIENNA SETTLEMENTS.

During the early part of September an exhibition of small houses, gardening and smallholding produce was held at the Vienna Rathaus. The square in front was occupied by full-size cottages, and in the hall was set out much of interest and assistance. Perhaps the chief centre of attraction was the *Kernhaus*, to which the authorities have pinned their faith for the moment. It does not come up to the standard of the Addison report, and lacks all the refinements which at one time one thought were to be incorporated into English working-class homes, but it is what its name implies—a kernel house, or a seed house, the beginnings of a house so planned that it can be put up by the exertions of a family—the plan adopted in Belgium in the devastated areas—and added to from time to time. The accompanying plans explain the idea, and the sketches of the interiors show how the space is utilised. It is intended that the building shall proceed in five stages, as follows:—

First stage (Fig. 1).—Construction of "kernel" house, covering a floor area of 290 sq. ft., including the provision of stairs to the loft, which may be omitted at this stage. It provides a kitchen-living-room with folding bed, a bedroom with two beds, closet, toolshed, and loft.

Second stage (Fig. 2) shows the transformation of the loft into an attic bedroom with three beds.

Third stage (Top of Fig. 3) shows the addition of outhouses.

Fourth stage (Figs. 3 and 4).—Here two double bedrooms are added to the ground floor, with a loft over, and the double bedroom of the first stage is converted into a single bedroom and a scullery.



THE FIRST COTTAGES BUILT IN AUSTRIA AFTER THE WAR. PRACTICALLY EVERY HOUSE NOW BEING BUILT HAS THE APPROPRIATE WALL COVERED WITH TRELLIS WORK, UP WHICH FRUIT TREES ARE TRAINED.



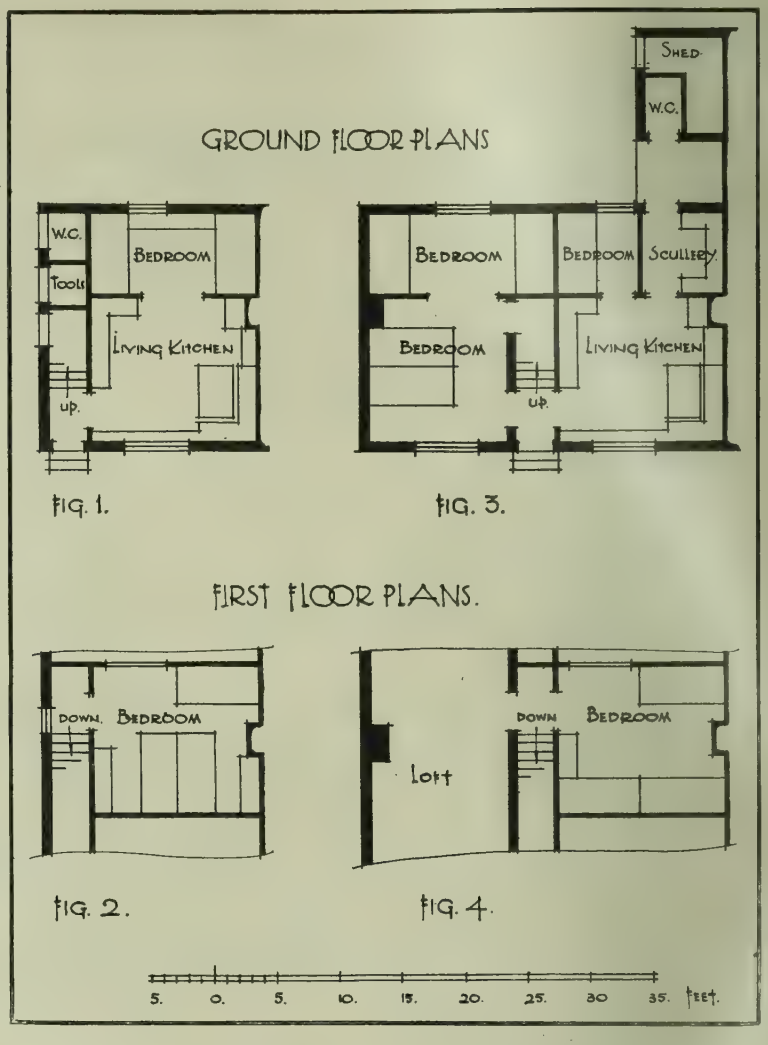
VIENNA'S "KERNEL HOUSE." BEDROOM SHOWING BUILT-IN FURNITURE, IN WHICH BEDSTEADS ARE INCLUDED.

Fifth stage.—Where necessary, the new loft (left-hand portion of Fig. 4) can also be transformed into a second double-bed attic.

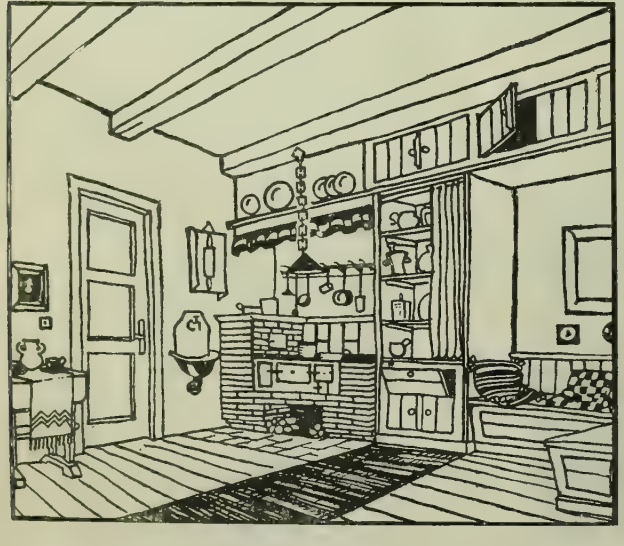
The completed house has thus developed into a complete settler's house of five rooms and a scullery.

The cost for this "kernel" house for the first stage is at present from twenty-two to thirty million crowns, according to whether it is detached or semi-detached, and as to what is done for a staircase. The free labour of the settler reduces this cost by about seven million crowns. The completed house costs about K. 50,000,000, of which K. 10,000,000 may be saved by settlers' work. In English equivalents these figures are £60 to £70 for the first stage, and £150 complete. The labour saving is from £22 to £31, which, on the wage basis given previously, is about equal to two-thirds the trade union rate. I was unable to find out the official attitude of the trade unions, or how the work was actually done, but it appears to work very smoothly.

Owing to the huge work of preparation for the exhibition it was not possible to obtain all the figures for the settlements, but at the Friends' Mission, which is the refuge of all the distressed and afflicted, Mrs. Bell, the head of the Mission, kindly gave me information of what had been the result of the work in their twenty-three settlements up to the end of 1922. There were large increases last year. The whole details are fascinatingly interesting for anybody concerned with real reconstruction as opposed to mere relief. There are 423 families housed, consisting of 1,681 people. The settlers gave 3,725,523 hours of voluntary labour, a good deal of which was on houses not then occupied. They raised 1,153½ tons of produce, 320,000 litres of milk, and 564,300 eggs. The central farms on 304½ acres raised 408 tons of crops. The co-operative industries carried on comprised needlework guilds, carpenters, lock-



THE EVOLUTION OF THE "KERNEL HOUSE" NOW BEING BUILT IN AUSTRIA.



INTERIOR OF "KERNEL HOUSE" IN THE FIRST STAGE, SHOWING THE COOKING CORNER OF THE LIVING ROOM, WITH ITS BUILT-IN FURNITURE.



INTERIOR OF "KERNEL HOUSE" IN THE FIRST STAGE, SHOWING THE FITTINGS EMPLOYED TO ECONOMISE SPACE. THE BUILT-IN CUPBOARDS, SETTLE, WORKTABLE, ETC., ARE VERY SERVICEABLE.

smiths, painters, electricians, glaziers, shoemakers, founders, etc.

It was expected that during 1923, completing those houses nearly ready and new constructions, nearly 700 additional houses would be provided, in each of which would be another family. The figures given above, therefore, have to be multiplied by nearly three to get an idea of the position at the end of this year.

Out of the towns and in the villages of Austria there was much of charm, so that one was tempted to forget the stories of poverty in the towns. Quaint houses and wonderful little churches in out-of-the-way spots provided much of interest. Perhaps the most interesting of the buildings seen was the church at the big lunatic asylum, which seemed to stand alone in its decoration. Gold and silver and blue mosaic work constituted a wonderful setting to the altar, and the lining of marble, with the wonderful oakwork of pulpit and joinery, made a very unusual picture of internal beauty. In the heart of the country Nature still smiled, and seemed to enforce the lesson of the littleness of all these political and financial upheavals, and how puny is man and his efforts in contrast. The changeless mountains and eternal snows remain unruffled in their grandeur. The wondrous colouring of hillside and forest, the new floral treasures peeping out from crag and cranny, the plashing rivulet that soon becomes a torrent, the azure sky, the wine-laden air—these spoke peace and calm. And how the people seemed to appreciate them all! The townsfolk on tramping tour, each with a rucksack containing all he needed, men and girls with heavy boots and suitably clad, and with such complexions as only come from intimacy with Nature, were to be met everywhere. A never-to-be-forgotten tour was a trip along the Danube, with its scores of rugged castle ruins showing high up against the sky, almost always perched upon inaccessible peaks.



HOUSES IN HOFFERINGASSE. THEY EACH CONTAIN LIVING ROOM, KITCHEN, SCULLERY, DOMESTIC OFFICES, AND THREE BEDROOMS. THEY ARE BUILT NINE TO THE ACRE, EXCLUDING ROADS.

The Plumbers' Company.

A short history of the Worshipful Company of Plumbers has recently been written by Dr. Waldo. The first official record of the craft is found in the Ordinances framed by the Guild of Plumbers, and approved by the Court of Aldermen in 1365, in the time of Edward III. From the earliest days, he says, the responsibility of the plumber has been emphasised in the frequent exhortations extended to him to perform his work "well and truly," and in the numerous penalties that awaited any shortcoming in that direction. The Company have pledged themselves to the policy of compulsory registration, if obtainable, on lines similar to those adopted in the Act for the Registration of Midwives. Dr. Waldo was, in 1921, Master of the Worshipful Company.





Progress Views at the British Empire Exhibition, Wembley.

MESSRS. J. W. SIMPSON & MAXWELL AYRTON, FF.R.I.B.A., Architects.

ETON WALL PAINTINGS.

DR. MONTAGUE R. JAMES lectured recently on this subject at the South Kensington Museum. In the course of his remarks he said that they knew that the paintings were a series of seven illustrating the Miracle of the Virgin, and of figures of saints. They were originally in two rows covering the whole wall space of the three western bays of the chapel. Not everyone had seen the paintings themselves, but Mr. Tristram's copies gave an excellent idea of the style and scheme of colour.

The lecturer recapitulated the history of the paintings, and said they heard of them in 1479, when the painters working in the church had three-and-a-half dozen candles allowed them. In 1500 the college barber was paid 6s. 8d. for wiping out the "imagery" work on the walls. This meant whitewashing, of which traces were perceptible on the existing paintings. At some time in the sixteenth or early seventeenth century, some scheme of decoration in the classical manner was carried out, which had not left any trace he could detect in the accounts. It consisted of classical pilasters, fluted and ornamented at the base, painted at intervals over the old paintings. Trace of three such pilasters were to be seen on the north side and one on the south. At the same time some casual mutilation was caused by the erection of mural tablets. There had also been a perceptible amount of wilful scratching, which he imagined had been done when the paintings were still fully visible.

The lecturer said he had been asked to discuss what relation the paintings bore to stained glass, in which they were specially interested, and to other forms of art used at the time. In general lay-out they could be said to remind them of stained glass pictures. The scenes were set in an architectural frame which simulated stonework. Some of the scenes themselves, especially those which had the darkest background, reminded them of bas-relief. Others, especially those for the south wall, recalled, accidentally perhaps, but strongly, faded tapestries.

The sculpture illusion, so to call it, was equally perceptible in the slightly later and distinctly inferior series of paintings in the Lady Chapel at Winchester, in which most of the Eton subjects recurred.

The lecturer further said that the specimens gave some idea as to the relation between the wall-paintings and the book illustration of the time. It was obvious, he thought, that most of the paintings could be reduced without injury to the scale of the miniature. It was possibly true that if he told them that the miniatures, as they saw them enlarged on the screen, were copies of wall paintings, they would not find it surprising.

Therefore, he thought that the paintings had affinities with sculpture and book illustration, and perhaps tapestry.

In the discussion that followed, Professor Lethaby spoke of the great beauty of the paintings, and admitted that he had heard for the first time from the lecturer the suggestion that they aimed at imitating sculpture, a suggestion with which he agreed. He referred to the recent discovery in Westminster Abbey of some paintings which would also seem to simulate sculptured work.

Mr. Anning Bell followed, and said he hesitated to express an opinion as to the nationality of the artists, but thought their work showed distinct Flemish influence. He was curious to know in what medium the pictures were painted, and suggested that the main outlines were probably traced, as in the case of a wall painting of about 1510 or 1520, parts of which remained in Carpenters' Hall, London.

Mr. Tristram, whose copies of some of the paintings were exhibited, explained that his drawings were half size.

Sir Cecil Harcourt Smith spoke of the aims of the British Society of Master Glasspainters, and the necessity of securing records of existing old stained glass. The museum had many, but the Society wished to acquire complete records of old stained glass in this country, and to be the central depository, as it were, of such information. He asked all those who could help in this matter by reports to the Society to do so. He referred to a suggestion made recently that the Eton paintings and the design for the Fairford windows were by the same hand.

Dr. James, in replying, said he did not consider the Fairford theory correct.

The meeting closed with a unanimous vote of thanks to Dr. James and to Sir Cecil Smith for extending the hospitality of the Museum to the Society.

A YEAR BOOK FOR THE CONCRETE INDUSTRY.

AMONG the important industries of the country the concrete industry has hitherto stood alone in having neither a handbook nor a directory prepared specially for its use, and it is to fill this gap that the "Concrete Year Book, 1924," edited by Oscar Faber, O.B.E., D.Sc., and H. L. Childe, has been prepared. The book includes (1) a Handbook in which much useful information is given on practical applications of concrete and reinforced concrete, (2) a Directory, and (3) a Catalogue of the industry. In the Handbook section the Editors have endeavoured to present methods essential for the production of the best and, at the same time, the cheapest concrete in a form which will be readily understood by everyone connected with the industry. The book throughout is written in simple language, and by following the principles and rules given anyone should be able to make a good concrete at no more cost than a poor one. Chapters are given on proportioning and grading aggregates to secure the best results, concreting in cold weather, memoranda of use in concrete work, and standard specifications for various types of floors, surface treatments, concrete roads, &c., and a series of tables for reinforced concrete design. The Directory section has been classified for ease of reference under different headings, and a departure from giving only names and addresses is made by including a full list of the manufactures and products of each firm. The Catalogue section is included to enable the users of the book to see fuller particulars of the products of different firms without the delay occasioned by writing for catalogues. The book is published at No. 4, Catherine-street, Aldwych, W.C. 2, price 2s. 6d. net (by post 3s.).

EXHIBITION NOTES.

THE LEICESTER GALLERIES.

In reply to the objection that he had seen nothing like Turner's picture in Nature, Ruskin is reported to have replied: "Don't you wish you could?" It is obvious that some people might say "No"; but, directed by moral comment and criticism, the general public would, perhaps, hardly dare to say "No." But if they were asked whether they could wish to be able to see "things" like those depicted by Van Gogh, and shown in the Leicester Galleries, we believe the public would have the courage to say "No." Whistler was accused of throwing a paint pot in the face of the public, but was he ever so daring as modern painters; and was not there always some enchantment about his hue and colour?

ROAD MAKING.

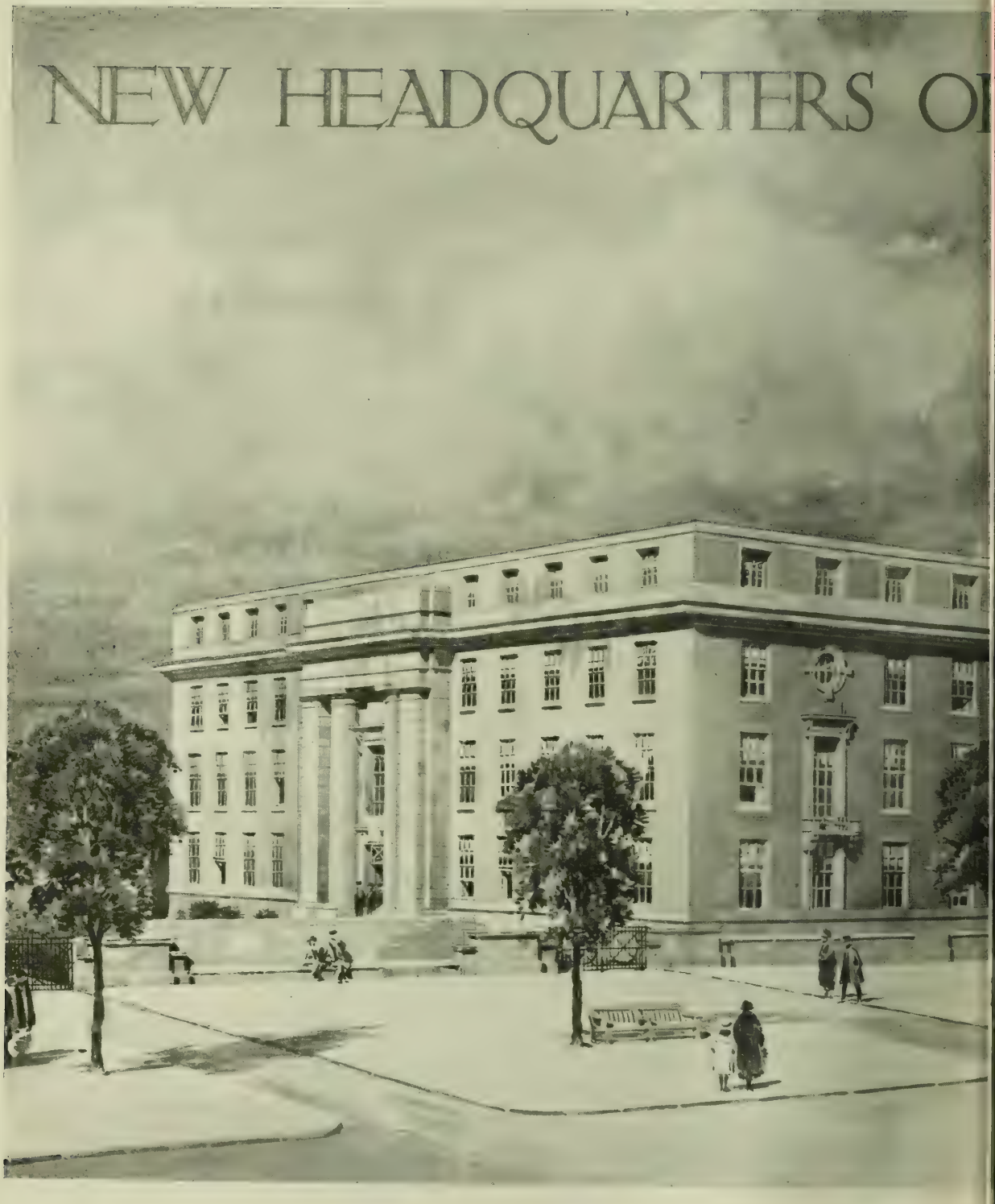
A LECTURE on road making was given at the College of Estate Management, recently, by Col. C. H. Bressey, O.B.E., of the Ministry of Transport. The lecturer described the statutory powers under which highway authorities could construct roads; few roads were, however, made by local authorities prior to the war, practically all construction being done by owners developing estates. The growing needs of modern traffic and the problem of dealing with unemployment had brought about a need of new construction, and the limited powers of the public authorities had been greatly increased by the Development and Road Improvement Funds Act, 1909, and the Unemployment Relief Works Act, 1918. He described the new construction now in progress and in view in the London area, and illustrated this by means of maps and drawings. He emphasised the need of an ample width between hedges, so as to provide for future widening at a minimum of cost, and to enable sewers and mains to be laid in the grass verges when they were needed. The extra cost involved by the purchase of this extra land was not great, but he admitted that the maintenance of the roadside wastes might be a problem for the highway authorities. The Liverpool to Manchester new road was also illustrated. This was 150 ft. between hedges and contained two 30 ft. carriageways and a separate tramway track on sleepers in grass. Many County Councils were adopting 60 ft. for the width of important roads between towns through populated country, this being made up of a 30 ft. carriageway with a 7 ft. verge and 8 ft. footpath on each side.



The Machinery Hall, British Empire Exhibition, Wembley

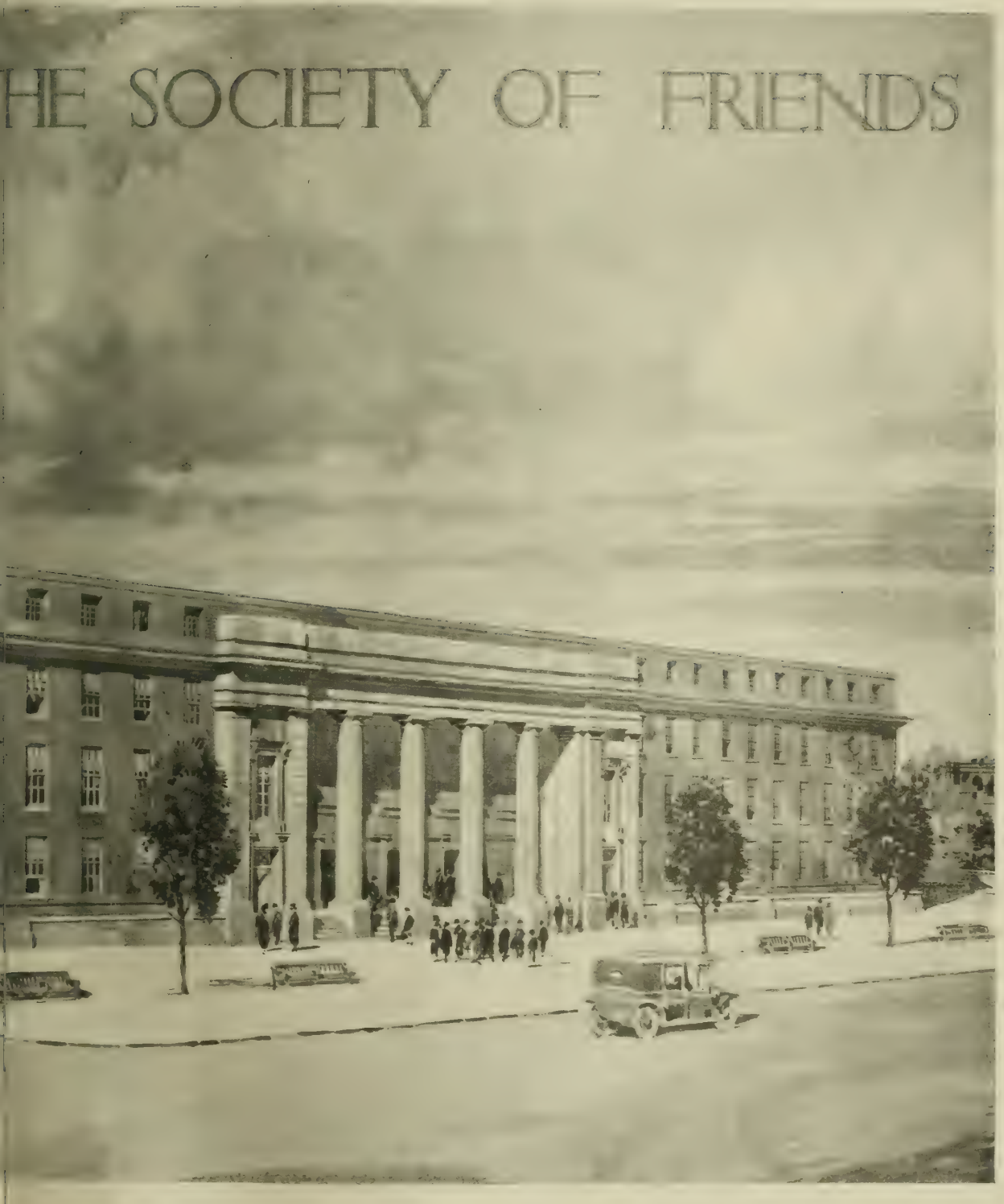
MESSRS. J. W. SIMPSON & MAXWELL AYRTON, FF.R.I.B.A., Architects.

NEW HEADQUARTERS O



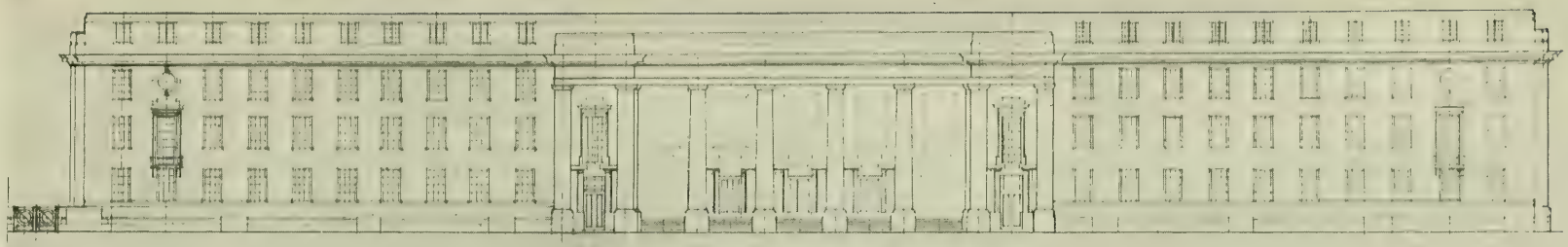
Competition for New He

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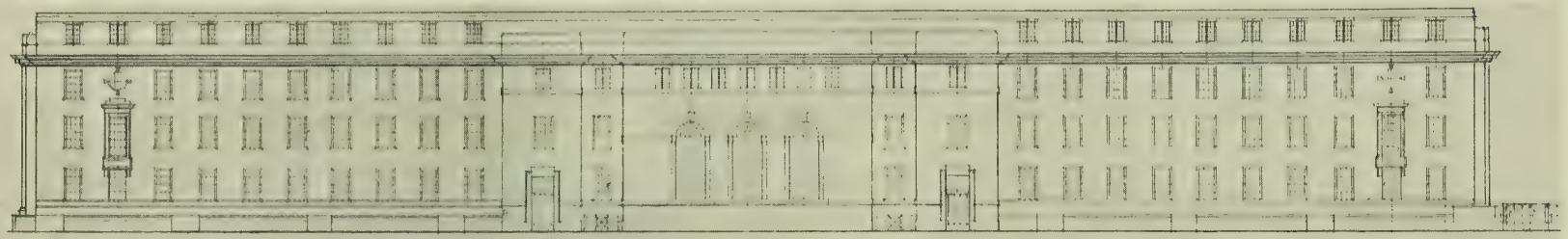


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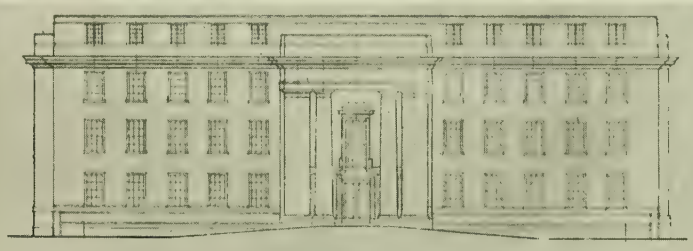
r Lidbetter, A.R.I.B.A.



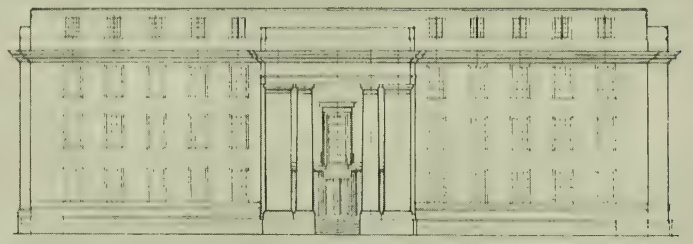
North Elevation



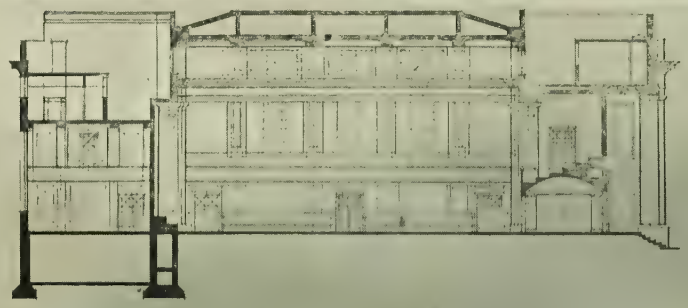
South Elevation



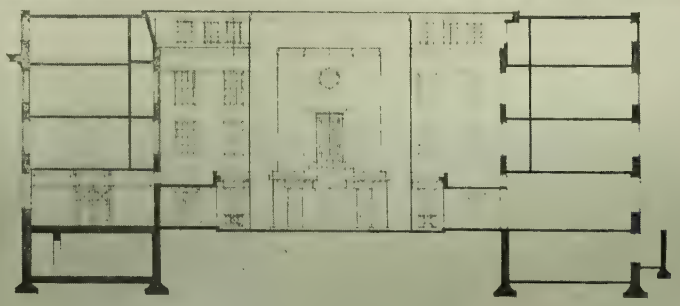
East Elevation.



West Elevation.

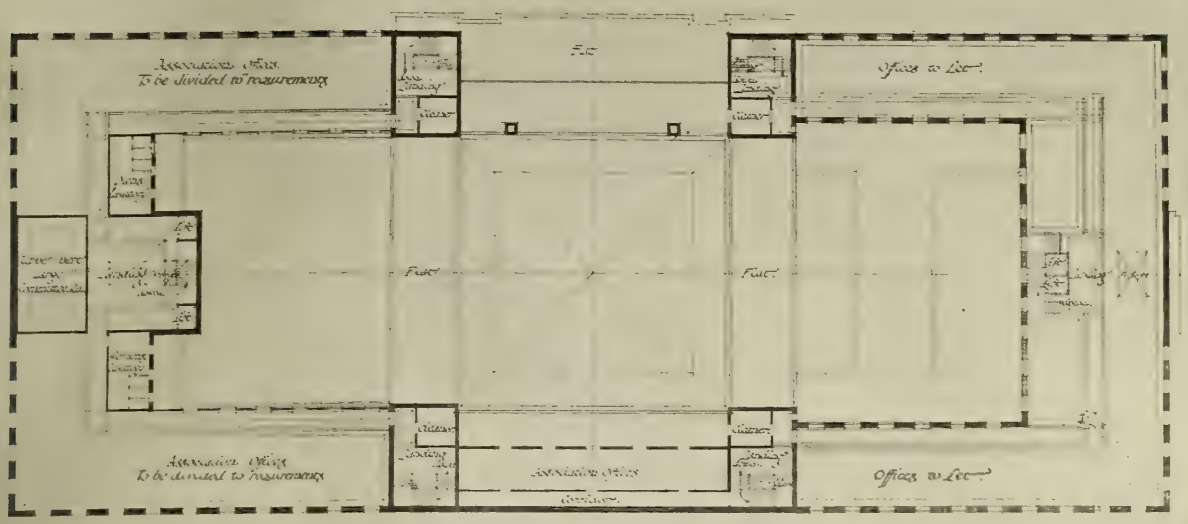


Section through large Meeting House.

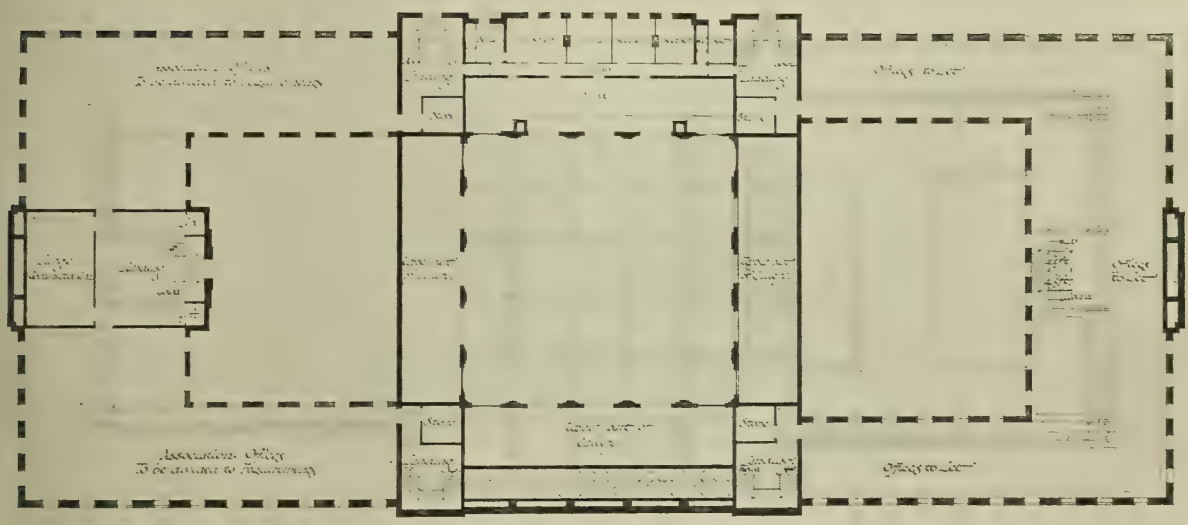


Section through Meeting House Yard.

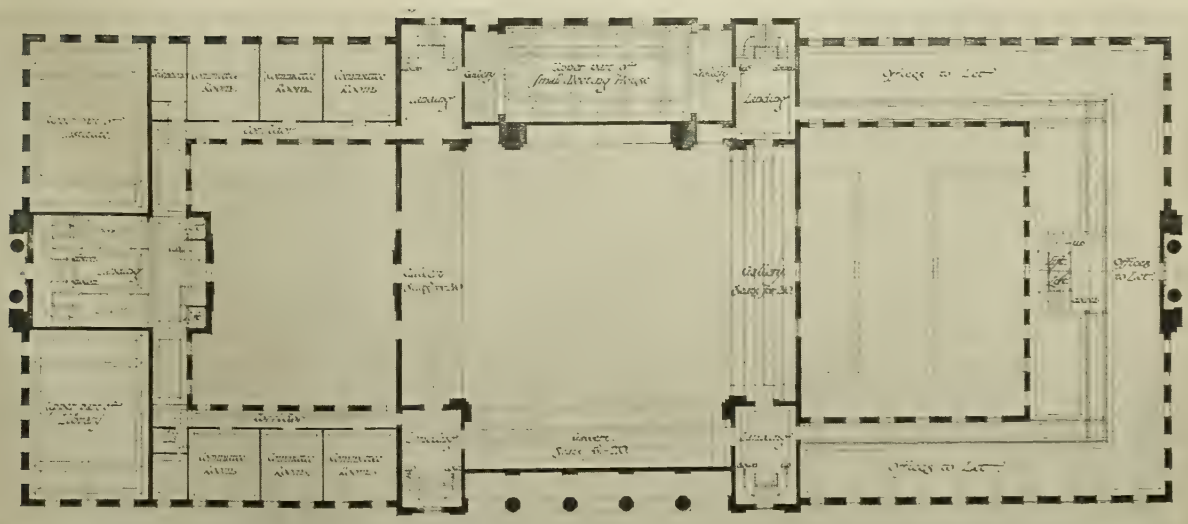
Competition for New Headquarters for the Society of Friends. Design Placed First: By Mr. Hubert Lidbetter, A.R.I.B.A.



Third Floor Plan.



Second Floor Plan.



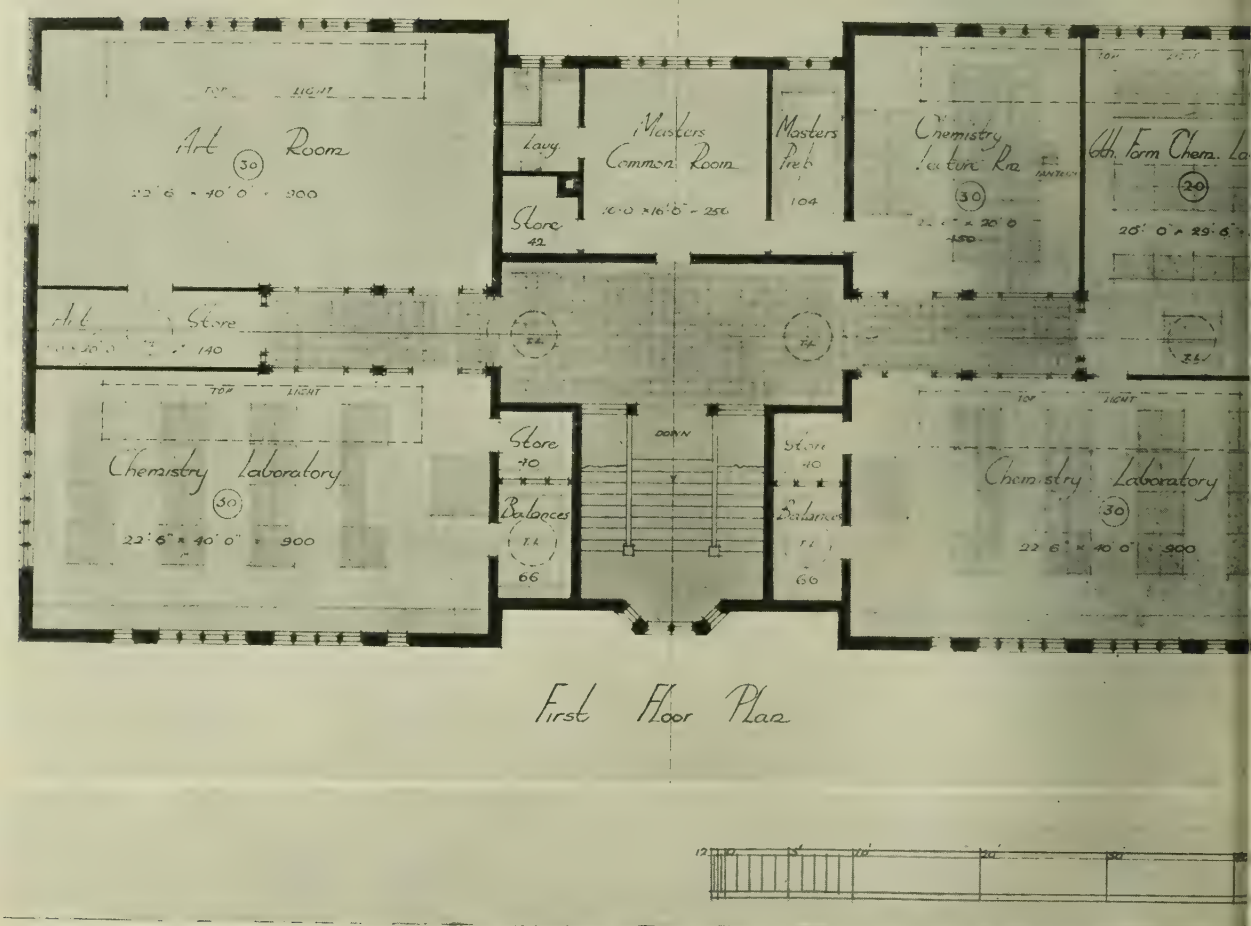
First Floor Plan.

Competition for New Headquarters for the Society of Friends.

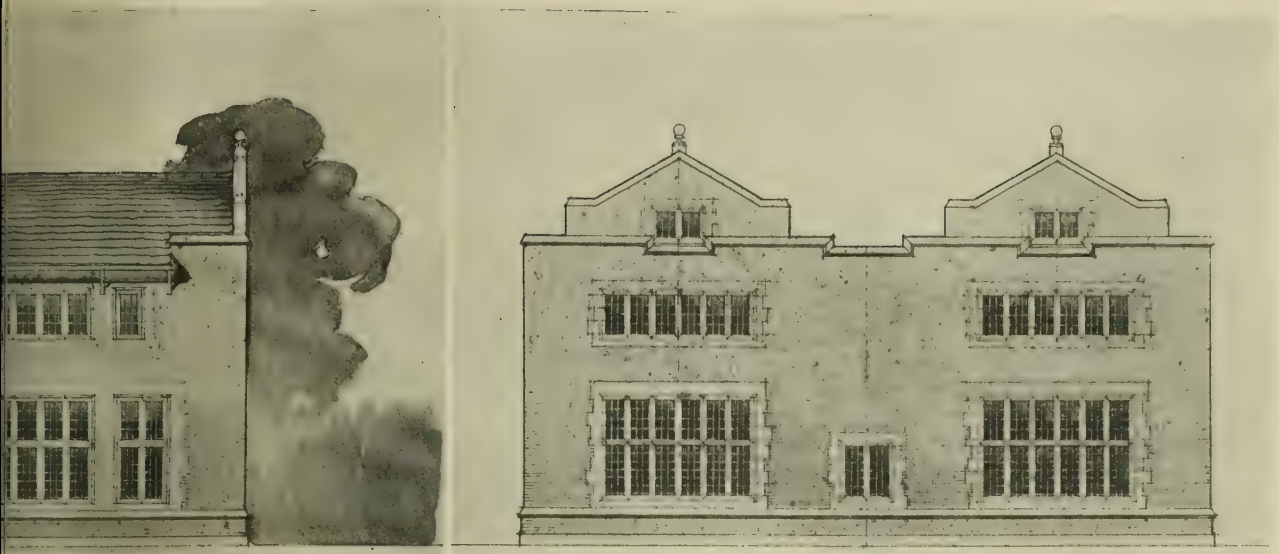
Design Placed First: By Mr. Hubert Lidbetter, A.R.I.B.A.



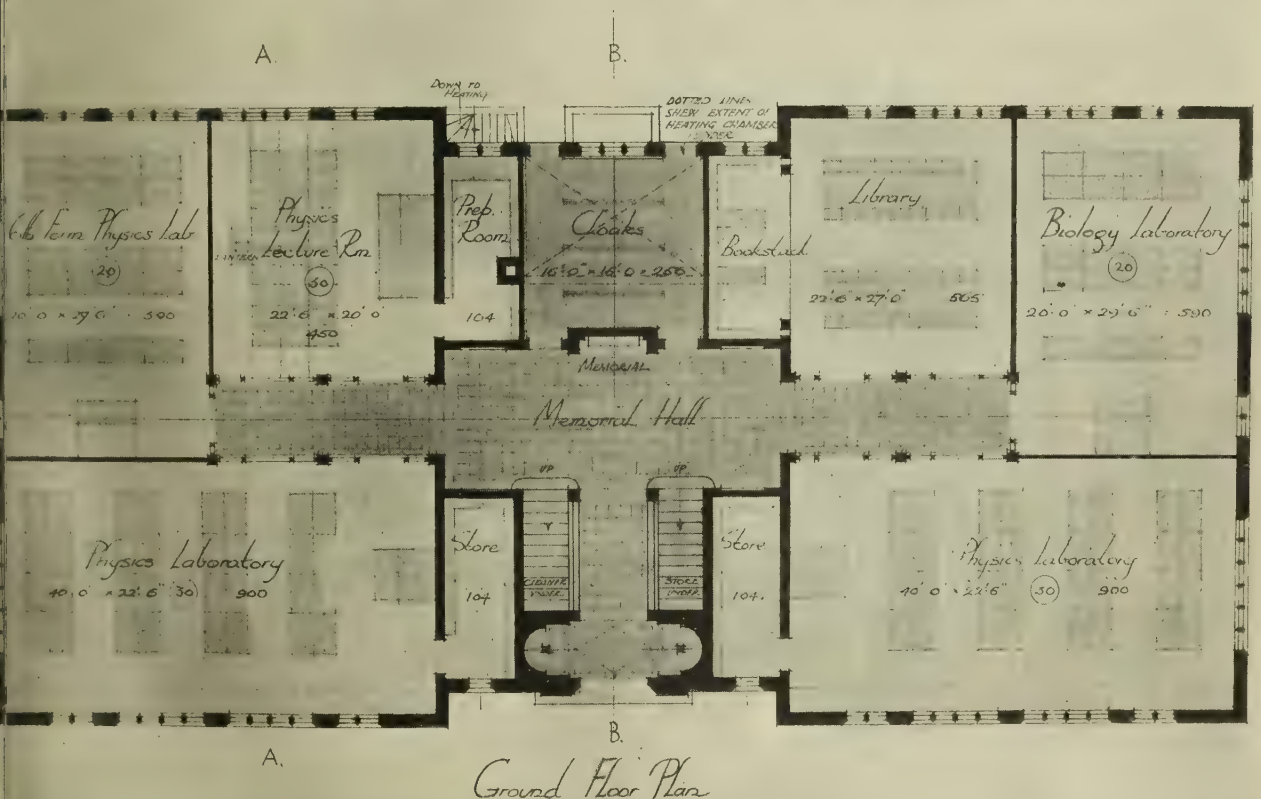
The Front Elevation.



First Floor Plan.



The End Elevation



Ground Floor Plan



ted First: By Mr. E. Vincent Harris, F.R.I.B.A.


THE KITCHENER MEM
KH
TO THE MEMORY OF EARL
KITCHENER OF KHARTOUM

Mr. G.



I.B.A., Architect.

THE BUILDING TRADE.

ESTIMATING FOR SMALL BUILDERS.—XI.

By J. H. BARNS, F.I.O.B.

PLASTERER.

THERE are very many kinds of materials used for plastering to walls and ceilings, and the cheapest and a very satisfactory method is the ordinary lime and hair plastering. In this case, it is usual to mix the lime in a tub and run it through a sieve; add the hair (which is usually cow hair), and thoroughly mix the material, and let it rest for about a month to thoroughly cool down. The proportion of sand to mix with the plastering will depend on the specification, probably two parts sand to one part of lime, or three and one are the most usual.

The first two coats would be composed of the material mixed in the proportion of say, three and one, and the last coat would be the setting stuff, which would be mainly composed of lime and called "putty." The amount of hair used will depend upon the description in the specification, which is usually 1 lb. hair to 3 ft. cube of sand. Hair costs 16s. to 20s. per cwt., according to length of hair.

Some kinds of vegetable grasses are sometimes used for this purpose, but they are not in general vogue.

The quantity of lime required will in a measure depend upon the amount of core or insoluble material present in the lime. Lime is a very inconvenient material to store, as it rapidly deteriorates, but when run into putty it will remain usable for a very long period. In cold weather it is economical to gauge a small portion of plaster with the setting coat, as it causes the material to go off more quickly and thus assists the free working and economical completion of the work. If ordinary lime and hair plastering is done well, it is probably one of the best of all plastering materials. When lime is run into putty it rather increases in bulk.

A comparatively recent introduction is "Calime," which is a pre-hydrated lime supplied in powder form. This seems to possess many good qualities, and probably the chief advantage to the small builder is the fact that it saves all the sloppy mess of running putty, as a little powdered lime can be taken on to the job in a sack and there mixed with the necessary water as required.

A rough and ready test of the class of workmanship in plastering is to put a straight-edge or plumb rule against it. The quantity of materials required will depend upon the thickness of the plastering. If the plastering were 1 in. thick it would, of course, equal one-thirty-sixth cubic yard for each yard super, and for lesser thicknesses in proportion. Allowance should be made for diminution in bulk similar to that mentioned for concrete, &c., where an allowance is necessary for mixing and ramming, but in the case of plastering the diminution in bulk will be consequent upon mixing and consolidation by floating. Three-quarters-of-an-in. thick will be sufficient for render, float and set, but this may be governed by the thickness of grounds or linings to walls. If the materials have to be hoisted to the top of a high building this will increase the cost of labour.

The irregularities of the brickwork may either increase or decrease the quantity of material required for plastering, but as a rule unless the brickwork is well built with square bricks, such as Flettons, the irregularities in the brickwork will increase the quantity of materials required by 10 per cent. The waste of material due to droppings is about 5 per cent.

It is sometimes specified where the brickwork is to be erected in Flettons that the internal walls which have to be plastered must be built of grooved Flettons, and it would be a convenient way to price the additional cost of these bricks in the plastering item. The additional cost of grooved Flettons is about 2s. per thousand, or about 1¼d. per yard. The groove in the Flettons would require more plastering material, and probably 2½ per cent. would be sufficient.

Example:—

Materials for 100 yards super of render, float and set (3 and 1).	£	s.	d.
2 yds. sand, 14s. per yd.	1	8	0
1¾ or 2 yds. lime, 25s. 6d. per yd., say	2	4	7½
18 lbs. hair, 20s. cwt.		3	3
Use of 14 sacks, 3d. each		3	6
For 100 yds. super	3	19	4½
For 1 yd. super			9½

To which must be added the additional cost (if any) due to factors mentioned above.

The cost of labour for render, float and set would vary from 1s. 2d. to 1s. 8d. per yard super, and this would include for the labour in erecting the usual trestle (split head) scaffold, which would be sufficient for ceilings up to 12 ft. high. For heights over this it is usual to erect scaffold with poles, &c., the extra cost of which is worth from ½d. to 2d. per yard, or more, in accordance with the height and length of time required.

Example:—

	s.	d.
— Yds. super render, float, and set.		
Materials		10
Labour	1	6
Use of scaffolding, say		1
	2	5
Profits and oncosts, 15 per cent. ..		4½
	2	9½

RENDER FLOAT AND SET IN NARROW FACES.

This is for plastering to isolated faces and it is hardly possible to give a price for this as the cost of plastering a strip 4 in. wide would be about the same as for a similar strip 6 in. wide. Further there is very little of this item in the average building, and 50 per cent. added to the labour stated above should be ample.

RENDER AND SET.

This is done in cheap kinds of work. The pricking up and floating are done in one coat, and the setting completes the operation. The work would finish about ¼ in. thick. There is accordingly less labour and material.

Example:—

	s.	d.
Materials		8
Labour	1	2
Scaffolding, say		1
	1	11
Profit and oncosts, 15 per cent.		3½
	2	2½

— Ft. run labour arris would cost about 2d. per ft.

— Ft. run labour quirk. This might be described as a slight chamfer on the plastering up against a wood lining or other finishing, and is worth about 1½d. per ft.

LATH, PLASTER, FLOAT AND SET.

It would cost about 5 per cent. more for the labour and 10 per cent. on materials for plaster ing on lath work, to which must be added the cost of lathing.

Example:—

— Yds. super lathing with sawn lath plastering, floating and setting to ceilings.

	s.	d.
1 yd. sawn lathing fixed ..	1	0
1 yd. plastering materials ..		11
Labour	1	7
Scaffolding, say		1
	3	7
Profit and oncosts, 15 per cent.		6½
	4	1½

— Yds. super render and float in Portland cement and sand mixed in the proportion 1 to 3.

Materials.	£	s.	d.
1 1–20 tons cement, at 60s... ..	3	3	0
Use of 12 sacks, at 3d.		3	0
3 yds. sand, at 14s.	2	2	0
	£5	8	0
Add for diminution in bulk, &c., 15 per cent.		16	2½
	3)£6	4	2½
Cost per yd. cube	£2	1	5
" " super 1 in. thick ..		1	2
" " " ¾ in. " ..			10
" " " ⅝ in. " ..			9
Materials for above, say, ¼ in. thick..			10
Labour, 1s. 6d. to 2s. per yd., say,		1	9
		2	7
Profit and oncosts, 15 per cent. ..			4½
		2	11½

— Yds. super screed to floors ¾ in. thick in Portland cement mixed in the proportion of 3 and 1.

	s.	d.
Materials		10
Labour, 1s. 3d. to 1s. 9d., say ..	1	6
	2	4
Profit and oncosts, 15 per cent. ..		4½
	2	8½

— Yds. super screed to floors 1 in. thick, &c., all as last.

	s.	d.
Materials	1	2
Labour, 1s. 4d. to 1s. 10d., say ..	1	7
	2	9
Profit and oncosts		5
	3	2

KEENE'S CEMENT.

There are three different kinds of Keene's cement, viz., pink, white and fine, and the prices are about 110s., 115s., and 185s. per ton respectively, sacks charged at 1s. 9d. each, and credited at 1s. 6d. each.

The quality of the cement varies considerably, as some are much freer working than others.

An easy working cement will go on the cement ground like butter, but a difficult working cement would need a plasterer with a literary touch to do full justice to it—the cement seems to go on in waves and would probably cost 25 per cent. additional for labour. Like many other things, the cheapest cement is not necessarily the most economical. It is not usual to buy Keene's cement in larger quantities than can be speedily consumed, as it deteriorates if kept in stock. The retail prices charged for small quantities are much higher than those quoted above, being about 7s. per bushel, cartage extra. Keene's cement is usually finished on a Portland-cement rendering as backing, thus forming probably the best wall plastering. It is capable of very high finish by trowelling, &c., and can be faced up to imitate marble.

Sometimes Keene's cement plain face is executed on a backing of Keene's cement and

sand. Keene's cement is usually treated when wet with a coat of paint, which is usually measured separately.

Yds. sup. Keene's cement plain face on Portland-cement backing :—

Materials for ⅝ in. backing Keene's cement, 1 bushel to 7 yds. sup.	1s. 0d.	9d. per yd. sup. ,,
	1s. 9d.	
Labour, say	2s. 0d.	,,
	3s. 9d.	,,
Profit and oncosts, 15 per cent	7d.	,,
	4s. 4d.	,,

The labour for similar work in narrow widths would cost about 50 per cent. more :—

—Ft. run Keene's cement (angle & arris)—(usually about 4 in. girt).

Materials	1½d.
Labour, say	3d.
	4½d.
Profit and oncosts, 15 per c.	1d.
	5½d.

Labour to slightly rounded angle (being run with a mold), would cost about the same as the square angle :—

SIRAPITE.

Will take to cover 120 yds. super. about—

	£	s.	d.
2 yds. sand, at 14s. per ton	1	8	0
15 cwt. coarse Sirapite, at 70s. per ton	2	12	6
5 cwt. fine ditto, at 78s. per ton	0	19	6
Use of sacks	0	2	6
For 120 yds. super.	£5	2	6
For 1 yd. super. for materials, say		10¼d.	

Labour is worth a little more, say 10 per cent., than ordinary render float and set.

Sirapite is frequently used as the work can be followed on quickly.

It is usually finished to a less thickness than common plastering.

A little lime putty is sometimes used in the finishing coat. Care must be taken in using this and other patent plasters, as if any small particles of these cements get mixed with concrete or mortar it will expand and blow off the face.

PLASTER MOULDED CORNICE.

The cost will vary considerably as more material will be required for a projecting cornice than for one worked to a coved detail.

The labour for 6 in. and upwards in girt would cost about 1s. 8d. per foot super and for smaller mouldings add 25 to 50 per cent. for labour.

Example :—

— Ft. super plaster moulded cornice.

	s.	d.
Lime, putty and plaster, say		4
Labour (including proportion cost of zinc mould and horsing), 1s. 4d. 2s. per ft. super, say	1	8
	2	0
Profit and oncosts, 15 per cent. ..		3½
	2	3½

Therefore—	Per ft. run. s.	d.
12 in. plaster moulded cornice.. ..	2	3½
9 in. plaster moulded cornice.. ..	1	8
6 in. plaster moulded cornice.. ..	1	1½

Mitres priced as 1 ft. run.
Stopped ends as ½ ft. run.
Returned mitred ends as 1½ ft. run.

Generally one-half of the mitre can be run with the rule and the other worked in afterwards.

SMALL AREAS OR REPAIRS TO PLASTERING.

These are mostly charged for as day work and cannot be measured and valued at anything like the rates before mentioned.

JOINTLESS FLOORING.

Jointless flooring is manufactured from a variety of materials consisting of a filler and cement. The filler is either asbestos, cork, or wood flour. One of these fillers is mixed with magnesium chloride and magnesium cement and colouring matter, and laid as floor.

If laid in one coat work and wax polished the cost would be 5s. 3d. per yard for 500 yards and upwards. For lesser quantities the price would be higher.

If laid in two-coat work about ¾ in. thick, the price would be 1s. 3d. per yard more, or 6s. 6d. per yard for 500 yards and up.

In two-coat work the looser material is at the bottom and the closer material at the top.

It is considered that if jointless flooring is laid on concrete, two-coat work will be required, because the bottom layer must be in a measure resilient to take up vibration and forms a cushion between the sub-floor and the hard-wearing surface of the jointless floor.

The skirtings are usually worked as a cove. The price would be, for 2 in., about 4d. ; 3 in., 5d. ; 4 in., 6d. per ft. run.

LAW REPORT.

By-laws Prosecution.

THREE cases in regard to local building by-laws occupied the whole day at the sitting of the Wimbledon Justices on November 15, when Mr. John Sydney Brocklesby, architect, of Kingston-road, Merton, Surrey, was summoned by the Merton and Morden Urban Council for three contraventions of the Council's by-laws during the erection of a house, "Flint Barn," Mostyn-road, Merton.

Mr. E. J. Naldrett, instructed by Mr. C. J. Mountifield (Clerk to the Council), appeared for the prosecution, and Mr. W. E. Watson, F.R.I.B.A., instructed by Messrs. Wilde, Wigston & Sapte, was counsel for the defence.

The first summons raised the question of whether pipes of No. 2 quality could be used for soil drainage purposes. The by-law stated : "Every person . . . shall, in the construction of every drain of such building intended to be used for conveying sewage use good sound pipes formed of glazed stoneware, heavy cast iron, or equally suitable material."

Mr. Jerram, Surveyor to the Council, stated he found defendant making use of No. 2 quality, or black band pipes, in part of the soil drains. He wrote to defendant stating that 1st quality pipes only must be used. He had not had a previous experience of black band pipes being used for soil drains. In cross-examination he said it was about 1912 that firms began to indicate 2nd quality pipes by putting a black band on them. The difference in price between the two classes of pipes was about 15 per cent.

Mr. Watson : Before the black band was used you might have had many 2nd quality pipes used ?—I cannot say that.

Mr. R. Marsden, surveyor's assistant, corroborated, adding that some 1st quality pipes were used.

Messrs. Greives, Jeffs & Mather, surveyors to the surrounding authorities, deposed that their Councils acted under similar by-laws and would not allow 2nd quality pipes to be used for soil drains.

Mr. C. A. Freemantle, of Messrs. Doultons, Ltd., attended on subpœna, and stated that black bands were put on pipes first in 1912, in order to denote that they had not come out of the furnace in such a perfect condition as No. 1 quality pipes.

Mr. Wm. Golding, defendant's foreman, who was called for the defence, said he had never before had any complaints as to the pipes he had put in for Mr. Brocklesby. He selected the pipes used from a large stock, and, as instructed only used the very best, and tested each one. He would not say all had a good glaze ; some might be a little dull.

Mr. R. J. Thomson, architect, said he had inspected and tested the drain and it was perfectly sound.

Mr. W. L. Davidge, formerly housing commissioner for the Greater London area, said he had that week submitted the drain to a twenty-five minutes water test and was satisfied that good sound pipes had been used. In cross-examination, he agreed that it was more satisfactory to use 1st quality pipes, but he had no hesitation in saying that in this case the drain had been constructed in compliance with the by-laws.

Mr. Watson submitted that the sole point to be decided was, not whether any of the pipes were with or without black bands, but whether the pipes used were "good sound pipes formed of glazed stoneware." He further intimated that his client had volunteered to submit this matter to the arbitration of the Ministry of Health, in furtherance to the findings of the Departmental Committee of Building By-laws, published in 1918.

The Justices, after private consultation, stated : "We have come to the conclusion that the Council has not established its case that this drain is not made of good sound pipes of glazed stoneware."

The second summons was under a by-law stating : "He (person erecting a new building) shall cause such floor to be properly and sufficiently supported. In the case of a framed floor or of a floor formed with beams at short distances apart, and covered with battens, deals or planks, without joists, the several timbers of such floor shall be of such size or strength as may be adequate to secure due stability." Here it was contended that the timber used (elm) was not of sufficient strength, the joists being laid so that the weight was taken on the narrower dimension of the timbers. The result was that the floor (bedroom) sagged in the centre and the furniture rocked. For the defence it was denied that the results alleged existed, and evidence was given of eight men marking time on the middle joist. An invitation was given to the Justices to view the building, but they declined on the ground that they must decide according to the evidence put before them, and not according to their own opinion of the structure. A number of expert witnesses was called by both sides as to whether the erection was substantial or not.

The Justices said it was difficult for them to decide as the evidence was most contradictory, but in their opinion the Council had got the best in this case, and the Bench must decide in its favour. A fine of 40s. was imposed.

The third summons related to the plugging between the elm boards of the ground floor. The by-law stated : ". . . Shall cause the boards, planks or wood blocks to be properly tarred or creosoted on the underside or otherwise similarly treated, or to be laid on a sufficient thickness of mineral bitumen or similar material. He shall cause such boards, planks or wood blocks to be so laid and jointed as effectually to prevent any moisture from penetrating between the joints and between the underside of such boards, planks or wood blocks and the surface of the concrete or similar foundation. He shall cause every block or plug of wood used in the construction of such floor and laid in the concrete or other similar foundation to be properly tarred or creosoted, or otherwise similarly treated." For the Council it was contended that the planks of the floor were not plugged, that there were openings through which water such as would be used in scrubbing the floor might soak. For the defence there was in court a large model showing the entire section of the floor, and the method adopted to prevent damp rising. The Council did not contend that the danger was from damp rising but from damp going down between the floor-boards.

The bench suggested that the Council might see its way to withdraw this third summons, but Mr. Naldrett said he was without any such authority and must ask for the decision of the Bench.

Mr. Watson intimated that his client also pressed for a judicial decision.

By agreement each side consented to call only one witness, and the Justices, without retiring, decided to convict, inflicting a fine of 20s.

The question of costs in all three cases had been deferred until the three summonses had been heard. Their worships ordered that each side should pay its own costs. Mr. Watson then intimated that in respect of the last two summonses his client would appeal.

COVENANTS AGAINST SUB-LETTING.

IN our Legal Section, December 28, 1923, we noted a case, Terrell *v.* Chatterton (1923, A.C. 578), in which the House of Lords had held that there had been a breach of covenant not to assign or sublet the premises without the consent of the landlord where two assignments or sublettings had taken place, the one with consent but the second without consent, because the effect of the two transactions had been that the defendant had parted with the whole of the premises.

These covenants have to be interpreted strictly, and a decision of the Court of Appeal, delivered since the above decision of the House of Lords, in the case Roberts *v.* Enlayde, Ltd. (*Weekly Notes*, December 15, 1923), will serve to illustrate this.

In 1913 the plaintiff, Miss Roberts, had demised to one Burton certain land, with the factory, sheds, and buildings thereon, for a term of 48½ years, and by the lease Burton had covenanted that he, his executors, administrators, and assigns would not "assign, demise, underlet, or otherwise part with the possession of the said premises (otherwise than by will) for all or any part of the term hereby granted, without the consent in writing of the lessor, her executors, etc., first had and obtained," but there was a proviso that this clause should not apply to any underletting of the said premises or any part thereof for a term not exceeding three years.

Burton had assigned this lease with the plaintiff's consent to the defendants in this action in 1915, and on August 13, 1921, the defendants had sublet part of the premises—that is to say, a cottage, shed, and yard—to one Turnpenny, on a weekly tenancy without the lessor's consent, and subsequently had underlet the whole of the remainder of the premises to a firm, Woolnough, Ltd., for 21 years from December 25, 1920, also without consent.

The action was to recover possession for breach of covenant, and the Court below, on the authority of the decision in Terrell *v.* Chatterton, had held the claim succeeded, but the Court of Appeal have now set aside this judgment, holding that the subletting to Woolnough, Ltd., was not a breach of the covenant because it was not a subletting of the whole of the premises (see the cases cited to that effect in our note to Terrell *v.* Chatterton, December 28), and the subletting to Turnpenny was not a breach because, being for a term less than for three years, it came within the proviso in the lease excepting it from the covenant, and thus, although the sublettings did in fact constitute a subletting of the whole of the premises, the case was distinguished from Terrell *v.* Chatterton.

The judge in the Court below had held that the case was analogous to Chatterton's case, because there part of the subletting was lawful, being made with consent, whilst here the same reasoning applied to the subletting for less than three years—at least, that is how we understand the short note of the case at present available; it must be said that the distinction between the two cases appears a very narrow one, but perhaps when the case is fully reported in the *Law Reports* the distinction may be clearer. All that we can suggest at present is that in the case we are considering, by the proviso a lawful subletting *of part* of the premises was permitted, whereas in Chatterton's case the covenant applied to the premises as a whole, and therefore in that case the two separate sublettings resulted in a letting of the whole premises in breach of that covenant, whereas here one subletting was expressly permitted by the covenant, and the second subletting was the only one which could be questioned, and under the cases we have referred to a subletting of part of the premises is not a breach of covenant not to sublet unless it is specially prohibited by the covenant.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/7	1/5	1/5	1/5	1/5	1/5	1/7	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

For rates of wages in the Building Trade in Scotland, see page 33.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

★JANUARY 5.—**Coulsdon and Purley.**—COTTAGES.—Erection of 52 cottages at Godstone-road, Kenley, for the Coulsdon and Purley Urban District Council. Mr. R. Chart, Surveyor to the Council, Council Offices, Purley. Deposit £5.

JANUARY 5.—**Ripley, Derbyshire.**—ALMSHOUSES.—Erection and completion of six almshouses, at Greenwich, Ripley, for the Ripley U.D.C. Mr. G. W. Bird, Town Hall, Ripley, Derbyshire. Deposit 10s.

JANUARY 5.—**Royston.**—HOUSES.—For the erection of 12 houses, Station-road, Royston, near Barnsley. Apply Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley.

JANUARY 7.—**Blyth.**—HOUSES.—Erection of 50 houses for the T.C. Borough Engineer, Blyth.

JANUARY 7.—**Glasgow.**—SUB-STATION.—Erection of a sub-station at 29, Burgher-street, Parkhead, for the T.C. Electrical Engineer, 75, Waterloo-street, Glasgow.

JANUARY 7.—**Lichfield.**—HOUSES.—For the erection of 10 parlour-type houses, for the T.C. Mr. P. A. Benn, City Surveyor, Guildhall, Lichfield. Deposit £2 2s.

★JANUARY 7.—**Newcastle-on-Tyne.**—HOUSES.—Erection of 70 houses, consisting of 20 five-roomed houses and 50 four-roomed self-contained houses, for the T.C. Messrs. Marshall & Tweedy, 54, Grey-street, Newcastle-upon-Tyne. Deposit £2.

JANUARY 7.—**Prestwich.**—HOUSES.—For the construction of 10 houses on the Council's Bent Hill Site, for the U.D.C. Surveyor, Town Hall, Prestwich. Deposit £1 1s.

★JANUARY 7.—**Scarborough.**—HOUSES.—Erection of one block of five houses in Potter-lane, for the T.C. Mr. Harry W. Smith, Borough Engineer, Town Hall, Scarborough. Deposit £1.

JANUARY 7.—**Worsborough.**—HOUSES.—Erection of 28 Type A houses and six Type B houses at Ward Green, near Barnsley, for the U.D.C. Mr. T. Shield, Surveyor, Saville House, Worsborough Bridge, near Barnsley. Deposit £3 3s.

JANUARY 8.—**Ashford.**—ALTERATIONS.—For alterations to the offices at the gas works, for the U.D.C. Mr. Herbert R. Turner, Engineer, Gas Works, Ashford.

JANUARY 8.—**Bedwellty.**—TRANSFORMER STATION.—Construction of electricity transformer station, at Markham, for the U.D.C. Mr. Dan H. Price, Surveyor, Fire Station Offices, Aberbargoed.

JANUARY 8.—**Buxton.**—CONVENIENCES.—Erection of public conveniences at Burbage, for the T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton.

JANUARY 8.—**Fareham.**—HOUSE.—Erection of house, &c., at Fareham Poor Law Institution, for the Board of Guardians. Mr. Norman Atkins, architect, 62, West-street, Fareham.

JANUARY 8.—**Huddersfield.**—EXTENSIONS.—For extensions to Royd's Hall Secondary School, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield. Deposit £1.

JANUARY 8.—**Markham (Mon).**—TRANSFORMER STATION, &c.—For construction of following, for the Bedwellty U.D.C.: (1) Electricity Transformer Station, to be built of brick with concrete floor and roof, at Markham; (2) 9 in. dia. sewer, 330 yds. long, with manholes, &c., in the County-road, Markham. Mr. D. H. Price, Surveyor, Fire Station Offices, Aberbargoed.

JANUARY 8.—**Redcar.**—PAVILION.—Erection of a pavilion on the foreshore capable of seating 1,000 persons, for the T.C. Borough Engineer, Redcar. Deposit £1.

JANUARY 8.—**Royston.**—COTTAGES.—Erection of 16 cottages (four blocks) on the Briary-lane site, for the U.D.C. Mr. Sidney Naish, architect, 7, Hatter-street, Bury St. Edmunds. Deposit £2 2s.

JANUARY 8.—**Windermere.**—COTTAGE.—Erection of a cottage, wash-house and garage, at Ghyll Head, Windermere, for Mr. Percy Musgrave. Messrs. J. W. Grundy & Son, architects, Central Buildings, Ulverston.

★JANUARY 9.—**Anerley, S.E.20.**—HEATING.—The Penge Urban District Council, in conjunction with the Kent County Council, are prepared to receive schemes and tenders for a low-pressure heating system and for the carrying out of alterations to the existing system in connection with the extension of the Town Hall and the erection of a new Court House at the Town Hall, Anerley-road, Anerley, S.E.20. Col. H. W. Longdin and F. W. Ruck, Esq., architects, Town Hall, Anerley.

JANUARY 9.—**Edmonton.**—PAVILION.—For returfing footpaths and erection of a pavilion at Pymmes Park, for the U.D.C. Mr. Cuthbert Brown, Town Hall, Edmonton, N.9.

★JANUARY 9.—**Ipswich.**—TENEMENTS.—Erection of a range of tenements in Back Hamlet, Ipswich. Messrs. Brown & Burgess, 9, Arcade-street, Ipswich. Deposit £1.

JANUARY 9.—**Littlehampton.**—FIRE ENGINE STATION.—Erection of a fire engine station in Maltravers-road, for the U.D.C. Mr. L. G. Dashper, Surveyor, Town Offices, Littlehampton.

JANUARY 9.—**London.**—DWELLINGS.—For the erection of a block of dwellings on the Tabard Garden Estate, Southwark, for the L.C.C. Architect, The County Hall, Westminster Bridge, S.E. 1. Deposit £3.

★JANUARY 9.—**London, S.W.19.**—DEMOLITION AND CONSTRUCTION OF CONCRETE FOUNDATIONS.—Section (*a*) Breaking up and removal of old concrete engine foundations. Section (*b*) Construction of new concrete turbo-alternator foundations for the Electricity Committee of the Corporation of Wimbledon. Mr. A. E. McKenzie, M.I.E.E., M.I.Mech.E., Chief Engineer and Manager, Corporation Electricity Works, Durnsford-road, Wimbledon, S.W. 19.

JANUARY 9.—**Southport.**—CONVENIENCES.—Construction of underground conveniences in Lord-street, for the T.C. Mr. A. E. Jackson, Borough Engineer, Southport. Deposit £2 2s.

JANUARY 9.—**Tynemouth.**—SCHOOL.—The Education Committee are inviting tenders for the erection of a new elementary open-air school in Lovaine-gardens, North Shields, to accommodate 170 children; and also, by the same date, tenders for a new elementary school at Spring-gardens, North Shields, providing accommodation for 845 children.

JANUARY 10.—**Chester.**—PAINTING.—For painting at public baths and part of public market, for the T.C. Mr. C. Greenwood, City Surveyor, Chester.

JANUARY 10.—**Consett.**—ALTERATIONS.—Internal alterations to the Inspector's house at Consett Police Station. Mr. Albert E. Brooks, County Engineer, Shire Hall, Durham.

JANUARY 10.—**Hull.**—PAINTING.—For painting at Beeton-street Relief Station, for the B.G. Mr. J. H. Wild, Clerk, 12, Harley-street, Hull.

JANUARY 10.—**Llanfiangel-y-Creuddyn.**—REPAIRS.—For repairs to the tower and spire of Llanfiangel-y-Creuddyn Church. Mr. G. T. Bassett, architect, Aberystwyth.

JANUARY 10.—**Manchester.**—ALTERATIONS.—For alterations at the Moston Branch Library, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

JANUARY 10.—**Manchester.**—FLOORS.—For red terra-cotta and for hollow tile floors required in connection with the extension of the Nurses' Home at Booth Hall Infirmary, for the Board of Guardians. Mr. F. H. Overmann, architect, 5, Cavendish-street, All Saints', Manchester.

JANUARY 10.—**Manchester.**—VERANDAH.—For the erection of a verandah at Brookdale Hall, Brookdale Park, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

JANUARY 10.—**Near Aberystwyth.**—CHURCH SPIRE REPAIRS.—For repairs to tower and spire of Llanfihangel-y-Creuddyn Church. Mr. G. T. Bassett, architect, Aberystwyth.

JANUARY 11.—**Catforth.**—ADDITIONS.—Erection of additions to Village Hall, Catforth. Mr. W. D Stander, architect, "Oak Dene," Catforth, near Preston.

JANUARY 11.—**Eastbourne.**—ADDITIONS.—For the erection of an additional story at the rear of Grove-road Fire Station, for the T.C. Mr. Leslie Roseveare, M.Inst.C.E. Borough Engineer, Town Hall, Eastbourne.

★JANUARY 11.—**Hereford.**—HOUSES.—Erection and completion of 12 houses of Type A in three blocks of four houses each, for the Housing Committee of the Hereford Corporation. The Hereford Associated Architects, Ltd., Palace Chambers, King-street, Hereford. Deposit £2 2s.

JANUARY 11.—**New Malden, Surrey.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at New Malden, Surrey, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

JANUARY 12.—**Dewsbury.**—ALTERATIONS.—For alteration of Moorlands Hall, for the T.C. Borough Surveyor, Town Hall, Dewsbury.

JANUARY 14.—**Buxton.**—CHIMNEY.—For the reconstruction of the hot baths chimney, The Crescent, for the T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton. Deposit £2 2s.

JANUARY 14.—**Edmonton.**—REPAIRS.—For repairs, 12, Queen Anne's-place, Bush Hill Park, Branch Library, for the U.D.C. Mr. Cuthbert Brown, Engineer, Town Hall, Edmonton, N.9.

★JANUARY 14.—**London, N.6.**—COTTAGES.—Erection of 100 cottages, together with drainage and fencing at Coppett's-road, Muswell-hill, for the Town Council of the Borough of Hornsey. Mr. E. J. Lovegrove, Borough Engineer and Surveyor, Town Hall, Highgate, N.6. Deposit £2.

JANUARY 14.—**Oldbury.**—HOUSES.—Erection of 20 non-parlour type houses in Queen's-road, for the U.D.C. Mr. Roland Fletcher, Surveyor, Public Buildings, Oldbury.

JANUARY 14.—**Pulborough.**—FENCING.—Provision and erection of fencing on Hatches Estate, West Chiltington, near Pulborough, for the West Sussex C.C. Director of Agriculture, Southgate House, Chichester.

JANUARY 14.—**Rawtenstall.**—HOUSES.—Erection of 48 houses for the T.C. Mr. A. Brocklehurst, St. James's Chambers, Waterfoot. Deposit £3 3s.

JANUARY 14.—**Stourbridge.**—FIRE STATION, &c.—Erection of a new fire station and public conveniences, and the conversion of existing fire station into offices, "Smithfield," Stourbridge, for the T.C. Mr. Fredk. Woodward, Borough Surveyor, Market-street, Stourbridge. Deposit £2 2s.

★JANUARY 14.—**Wandsworth, S.W.18.**—FOUNDATIONS.—Excavation and construction of concrete foundations for proposed extensions to the Town Hall, High-street, Wandsworth, for the Wandsworth Borough Council. Mr. E. J. Elford, M.Inst.C.E., Borough Engineer, 215, Balham High-road, S.W.17.

JANUARY 14.—**Willenhall.**—HOUSES.—Erection of 34 semi-detached Parlour Type houses on the Wolverhampton-road site, Portobello, for the U.D.C. Mr. G. A. Waite, Town Hall, Willenhall. Deposit £2.

JANUARY 14.—**Yoker.**—HOUSES.—Erection of 60 houses (2 blocks), at Yoker-road, Yoker, for the Renfrew C.C. Mr. Jas. A. M'Callum, District Clerk, 15, West George-street, Glasgow. Deposit £1 1s.

JANUARY 15.—**Aldershot.**—SHOP.—Demolition of existing building and erecting new shop in Union-street, for Mr. H. Uglow. Messrs. Friend & Lloyd, architects, Aldershot.

JANUARY 15.—**East Ardsley.**—PARTITION.—Erection of a folding partition at East Ardsley Council School. Education Department, County Hall, Wakefield.

JANUARY 15.—**Gateshead.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Gateshead, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

★JANUARY 15.—**Isle of Wight.**—HOUSES.—(1) Erection on Trafalgar Estate, Newport, I.W., of (*a*) one or more pairs of 12 pairs of semi-detached houses, "C" design; (*b*) one or more pairs of 12 pairs of smaller semi-detached houses, "D" design; or (*c*) one or more blocks of eight houses of three blocks of eight houses, "E" design. (2) For the construction and laying of drains: (*a*) to 12 pairs of semi-detached houses, or (*b*) to three blocks of eight houses for the Council of the Borough of Newport. Borough Surveyor, Municipal Offices, 38, Quay-street, Newport, I.W.

JANUARY 15.—**Newport, Mon.**—TELEPHONE REPEATER STATION.—Erection of a telephone repeater station at Newport, Mon, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JANUARY 15.—**Stromness.**—HOUSES.—Erection of two blocks of three-apartment houses and four blocks of four-apartment houses, for the T.C. Mr. T. S. Peace, architect, Kirkwall. Deposit £1 1s.

JANUARY 15.—**West Bromwich.**—HOUSES.—Erection of 47 houses on Tantany Estate, for T.C. Mr. A. Wickham, Town Clerk, Town Hall, West Bromwich. Deposit £2 2s.

JANUARY 16.—**Camberwell.**—FENCE.—For supply and erection of pale oak or iron fence at Casino-avenue, for the B.C. Mr. W. Bell, Borough Surveyor, Town Hall, Camberwell.

JANUARY 16.—**Liverpool.**—PAINTING.—For internal painting, &c., at Smithdown-road Institution, Liverpool, for the West Derby B.G. Works Department, Belmont-road Institution, Liverpool.

JANUARY 16.—**Margate.**—PAVILION.—Alterations and additions at the Palm Bay Bathing Pavilion, for the T.C. Mr. E. A. Borg, Borough Engineer, 13, Grosvenor-place, Margate. Deposit £2 2s.

JANUARY 17.—**Salford.**—HOUSES AND FLATS.—Erection of 62 houses and flats on the Weaste Housing Estate, for the T.C. Mr. G. Westcott, architect, 13, Bridge-street, Manchester.

★JANUARY 18.—**Bromley, Kent.**—HOUSES.—Erection of 50 Class "A" houses, in pairs, at various sites for Bromley Rural District Council. Council's Architect, Mr. F. Danby Smith, F.R.I.B.A., Parliament Mansions, Victoria-street, Westminster, S.W.1. Deposit £2 in Treasury Notes to the Architect.

JANUARY 18.—**Holbeck.**—PAINTING.—For painting the exterior of the Poor Law Institution, for the B.G. Mr. George Diment, Clerk, Poor Law Offices, Holbeck, Leeds.

★JANUARY 19.—**Nelson.**—HOUSES.—Erection of 19 houses of the non-parlour type in blocks as follows:—8 blocks of two and one block of three at the Marsden Park Housing site, for the Housing Committee of the Borough of Nelson. Borough Surveyor, Town Hall, Nelson. Deposit £2 2s. for each trade specification.

JANUARY 19.—**Perth.**—HOUSES.—Erection of five tenements of dwelling-houses, comprising 52 two and three apartment houses, for the T.C. Mr. Thomas M'Laren, Burgh Surveyor, 16, Tay-street, Perth. Deposit £1.

JANUARY 19.—**St. Helens.**—ALTERATIONS.—For alterations and additions to Boundary-road Baths, for the T.C. Mr. Arthur W. Bradley, Borough Engineer, Town Hall, St. Helens. Deposit £2.

JANUARY 19.—**Stocksbridge.**—HOUSES—Erection of 20 houses on the Shay House-lane site, for the U.D.C. Mr. J. N. Singleton, surveyor, Stocksbridge. Deposit £2.

JANUARY 21.—**Bury St. Edmunds.**—HOUSES.—Erection of four houses in Mustow-street, for the T.C. Mr. Roland H. Beaumont, Borough Surveyor, Town Hall, Bury St. Edmunds. Deposit £2 2s.

★JANUARY 21.—**Hastings.**—STEEL CONSTRUCTIONAL BUILDINGS, &c.—Steel constructional buildings, steel plate coal bunkers and chutes, reinforced concrete pond and plant foundations required for the electrical department by the County Borough Council of Hastings. Borough Electrical Engineer, 20, South Terrace, Hastings.

JANUARY 21.—**Reigate.**—NEW LAUNDRY AND EXTENSION OF BOILER HOUSE.—Erection of a new laundry and extension of the boiler house at the Guardians' Institution, Earlswood, for the Reigate B.G. Mr. O. J. Porter, F.S.I., 45, Bedford-row, W.C. 1. Deposit £2 2s.

JANUARY 22.—**Bute.**—HOUSES.—(1) Erection of house on Kerrycrusach Farm, County of Bute, 2¼ miles from Rothesay, and (2) house on Goltans Farm, 2 miles from Rothesay. Chief Surveyor, Board of Agriculture, for Scotland, Edinburgh. Deposit £1 1s.

★JANUARY 22.—**Southall-Norwood.**—HOSPITAL, CUBICLE BLOCK, STABLES, COTTAGES.—(*a*) The erection of an eight-bed cubicle block at the Sanatorium, North-road, Southall; (*b*) the erection of a depot, stables and cottages at Adelaide Dock, Endsleigh-road, Southall, for the Southall-Norwood Urban District Council. Mr. J. B. Thomson, Assoc. M.Inst.C.E., &c., Engineer and Surveyor to the Council, Town Hall, Southall, at my office, between 10 and 4 p.m. (Saturdays 10 and noon).

JANUARY 23.—**East Elloe.**—COTTAGES.—For the erection of 5 pairs of cottages in Whaplode Village, 4 pairs in Gedney Fen (Bells Bridge), and 2 pairs in Sutton St. James (Birds Drove), for the R.D.C. Mr. S. S. Mossop, Jun., Clerk, West End, Holbeach.

★JANUARY 23.—**Worthing.**—PAVILION.—Erection of a sports pavilion at Beach House Park, Worthing, for the Borough Council. Borough Surveyor, Municipal Offices, Worthing. Deposit £1 1s.

★JANUARY 24.—**Liverpool.**—TENEMENT DWELLINGS.—Erection of six tenement dwellings on the St. Augustine-street frontage of the Blenheim-street site, for the Housing Committee of the City of Liverpool. Director of Housing, Municipal Buildings, Dale-street, Liverpool. Deposit £2 2s.

JANUARY 24.—**Ystradgynlais.**—HOUSE.—For erection of dwelling-house at Ystradgynlais (Glam). Mr. T. W. Thomas, 4, Canolrhiw Villas, Brecon-road, Ystradgynlais.

JANUARY 26.—**Exminster.**—OPERATING THEATRE.—Erection of an operating theatre at the Devon Mental Hospital. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter. Deposit £3.

JANUARY 26.—**Ilfracombe.**—ALTERATIONS.—For new cells and alterations and additions to Ilfracombe Police Station, for the Devon C.C. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter. Deposit £3.

★JANUARY 28.—**London, S.E.1.**—HOUSES AND ROADS.—Development of a portion of the new Downham housing estate at Grove Park, Lewisham, S.E.: (1) Construction of roads, sewers and other works; (2) the erection of houses and such other buildings as may be determined. Tenders are invited on two alternative bases—(*a*) on the basis of the Council bearing the actual cost of and financing the undertaking and paying a fee or commission to the contractor for his services, the amount of such fee or commission being dependent partly upon a comparison or cost with a pre-determined value for the London County Council. Administrator of Housing Development Schemes, Old County Hall, Spring-gardens, S.W.1, upon payment of £10.

JANUARY 29.—**Ebbw Vale (Mon).**—NEW STATION BUILDINGS.—For erecting, for the G.W.R. Co. at Ebbw Vale (Mon), of new station buildings. Office of the Engineer, Newport (Mon) G.W.R. Station.

JANUARY 31.—**Hemel Hempstead.**—COTTAGES.—Erection of 24 cottages (in sections of 12), for the Borough of Hemel Hempstead. Mr. Walter R. Locke, Borough Engineer and Surveyor, Market-square, Hemel Hempstead. Deposit £1.

JANUARY 31.—**Newport, Pembroke.**—PAINTING.—For the renovation of the Bethlehem Baptist Chapel. Mr. J. Harris, "Penfeeder," Newport, Pem.

FEBRUARY 2.—**London, S.E. 18.**—EXTENSION.—Proposed extension of premises, for the Committee of the Woolwich Catholic Club. The Secretary, Woolwich Catholic Club, 28–30, New-road, Woolwich, S.E. 18.

FEBRUARY 9.—**Ashford.**—SHEDDING, &C.—For erecting shedding, offices, stands, and other works for the Agricultural Show to be held at Ashford on July 10, 11 and 12, for the Kent County Agricultural Society. Major R. J. Bacon, secretary, Otham, Maidstone.

NO DATE.—**Aylesbury.**—ADDITIONS.—Erection of billiard room, ladies' cloak room, and other works at the Victoria Club, Aylesbury, for the Committee. Mr. Fred Taylor, architect, 7, Bourbon-street, Aylesbury.

NO DATE.—**Doncaster.**—HOTEL.—Erection of new hotel and office premises on "Maw Barker's" site, High-street, Doncaster, for Messrs. S. Allsopp & Sons, Ltd., Burton-on-Trent. Mr. T. H. Johnson, architect, Doncaster.

★NO DATE.—**Thornton Heath.**—HOUSES.—Erection of 50 houses at Thornton Heath. W. Cooper, 18, Savoy-street, W.C.2.

FURNITURE, MATERIALS, etc.

JANUARY 5.—**Ipswich.**—MATERIALS.—Supply of road and other materials, to the East Suffolk C.C. Mr. W. Jervis, County Surveyor, County Hall, Ipswich.

JANUARY 5.—**Perth.**—TIMBER.—For hire of timber to be used in erection of Highland and Agricultural Society's Show at Perth, in July. Mr. J. Reid, 55, Blenheim-place, Aberdeen.

JANUARY 5.—**Spilsby.**—GRANITE AND SLAG.—For supply of broken granite, broken slag and slag chippings, for R.D.C. Mr. W. C. Brackenridge, District Surveyor of Highways, Spilsby.

JANUARY 7.—**Dartford.**—MATERIALS.—Supply of granite and Kentish ragstone, to the R.D.C. Mr. Eustace J. Hobbs, Clerk, West-hill, Dartford.

JANUARY 7.—**Egypt.**—PAINTS, &C.—Supply of paints, oils, &c., to the Port and Lighthouses Administration, Egypt. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 11944/F.E./C6.

JANUARY 7.—**Formby.**—MATERIALS.—Supply of road materials, kerbs, stoneware gullies, &c. Mr. Ernest H. Bond, Clerk, Council Offices, Formby.

JANUARY 7.—**Midhurst.**—ROAD MATERIALS.—For supply of tar macadam, granite, chips, tar, &c., for R.D.C. Mr. A. G. Gibbs, Surveyor, Council Offices, Midhurst.

JANUARY 7.—**Rhondda.**—MATERIALS.—Supply to the U.D.C. of road and other materials. Mr. E. Taylor, Surveyor, Council Offices, Pentre, Rhondda.

JANUARY 7.—**St. Pancras.**—MATERIALS.—Supply of road and other materials, to the Highways, Sewers and Public Works Committee of the B.C. Mr. E. W. Swinstead, Borough Engineer, Town Hall, Pancras-road, N.W.1.

JANUARY 8.—**Leeds.**—MATERIALS.—Supply of 4,000 tons of ⅝ in. slag nuts and 2,000 tons of ½ in. Whinstone chippings, to the T.C. Mr. J. B. Hamilton, Commercial Manager, 1, Swinegate, Leeds.

JANUARY 9.—**Easthampstead.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. J. R. Treadwell, Surveyor, Council Offices, Bracknell.

JANUARY 9.—**Littlehampton.**—TAR.—Supply of 15,000 galls. of distilled tar, to the U.D.C. Mr. L. G. Dashper, Surveyor, Town Offices, Littlehampton.

JANUARY 9.—**Liverpool.**—ROAD MATERIALS.—Supply of 10,000 lin. yds. 12 in. by 6 in. granite flat curbs, 10,000 lin. yds. 12 in. by 7 in. granite channel stones, and, alternatively, 12 in. and 6 in. concrete flat curbs, to the T.C. Mr. Walter Moon, Town Clerk, Liverpool.

JANUARY 9.—**Manchester.**—ASHBINS.—Supply of 3,000 galvanised ashbins, to the T.C. Mr. Robert Williamson, Superintendent of the Cleansing Department, Town Hall, Manchester.

JANUARY 10.—**Worthing.**—ROAD MATERIALS.—Supply of granite chippings, granite dust, broken slag, and tarred slag, for T.C. Borough Surveyor, Municipal Offices, Worthing.

JANUARY 12.—**Driffield.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. T. C. Beaumont, surveyor, Driffield.

JANUARY 12.—**Stockton-on-Tees.**—STORES.—Supply of stores to the Stockton-on-Tees and Thornaby Joint Corporation Tramways. Manager, Bridge-road, Stockton-on-Tees.

JANUARY 16.—**Cardiff.**—FURNITURE.—For furniture for new Infants' Hospital block at Cardiff Workhouse, for the Board of Guardians. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

JANUARY 16.—**Dorchester.**—MATERIALS.—Supply of tar macadam, limestone, granite, tar, &c., to the Dorset C.C. Mr. W. T. Fletcher, County Surveyor, Dorchester.

JANUARY 21.—**Egypt.**—STORES.—Supply of stores for one year to the Ports and Lights Administration. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference, 12,046–F.E.–G.P.

JANUARY 22.—**Worthing.**—REFINED TAR.—For supply of 50,000 galls. of refined tar, for T.C. Borough Surveyor, Municipal Offices, Worthing.

JANUARY 23.—**Madras.**—PIPES.—Supply of stoneware pipes and specials, ranging from 4 in. to 18 in. diameter, and aggregating a total length of 400,000 lineal ft., for the T.C. Messrs. James Mansergh & Sons, agents, 5, Victoria-street, S.W. Charge 5s.

JANUARY 24.—**Egypt.**—STORES.—Supply of stores for one year to the Dept. of Public Health. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 12,038–F.E.–G.P.

JANUARY 26.—**Chelmsford.**—MATERIALS.—Supply to the Highways Committee of the Essex C.C. stoneware pipes, distilled tar, broken granite, tarred slag, and lubricating oil. Mr. Wm. H. Morgan, County Surveyor, Old Court, Chelmsford.

JANUARY 28.—**Camberwell.**—MATERIALS.—Supply of road and other materials, &c. Borough Engineer, Town Hall, Camberwell.

JANUARY 28.—**Uckfield.**—MATERIALS.—Supply of road materials, to the R.D.C. Mr. E. W. Ray-Johnson, surveyor, Buxted, Sussex.

JANUARY 30.—**Islington.**—MATERIALS.—For electrical and engineers' stores, for the B.C. Borough Electrical Engineer, 60, Eden-grove, Islington, N.

NO DATE.—**Aberaman.**—SUPPLIES.—For supply to the Powell Duffryn Steam Coal Co., Ltd., for six months as from April 1st next, of: No. 13. Oils and greases; No. 15, Paints, drysalteries, &c. Stores Manager, Aberaman Offices, Aberdare.

ENGINEERING, IRON AND STEEL.

JANUARY 4.—**Louth.**—GASHOLDER.—For the dismantling of a single-lift column-guided gasholder, and erecting in the existing brick tank a two-lift spiral guided gasholder, for the Louth Gas Light Co. Mr. Leonard Birchmore, Manager, Thomes-street, Louth.

JANUARY 5.—**Droitwich.**—PIPES.—Supply of 400 lin. yds., more or less, of 3-in. cast-iron British standard coated water pipes and specials, for the T.C. Mr. H. Hulse, Borough Surveyor, 105, Friar-street, Droitwich.

JANUARY 7.—**Bracebridge (Lincoln).**—CENTRAL HEATING.—For supply and provision of system of central heating and hot-water service at the Mental Hospital, for the Committee of Visitors. Mr. E. G. Phillips, Queen's Chambers, King-street, Nottingham. Deposit £10 10s.

JANUARY 7.—**Bristol.**—DOCK.—For construction of Eastern Arm, Royal Edward Dock, Avonmouth, for Docks Committee. Mr. Thomas A. Peace, Chief Engineer, Port of Bristol. Deposit £15.

JANUARY 7.—**Hove.**—CONCRETE SEA WALL, &C.—Constructing a concrete sea wall, incline, steps and other works incidental thereto and in connection therewith in extending the King's Esplanade, for the B.C. of Hove. Borough Surveyor, Mr. H. H. Scott, Town Hall, Hove. Deposit £2 2s.

JANUARY 7.—**London, S.E.**—CONSTRUCTIONAL WORK.—Construction of a roof of steel and glass and of a machinery platform of steel girders and concrete in No. 1 Shaft, Rotherhithe Tunnel, for the L.C.C. Chief Engineer, The Old County Hall, Spring Gardens, S.W.1. Deposit £3.

JANUARY 7.—**Meathop.**—SLUICE.—Construction of a reinforced concrete tidal sluice on Meathop Marsh, Westmorland, for the Meathop and Witherslack Drainage Board. Mr. E. A. Fulton, Secretary, 14, Finkle-street, Kendal. Deposit £1 1s.

JANUARY 7.—**Smethwick.**—GASHOLDER TANK.—Excavation for and construction of a mass concrete gasholder tank, 187 ft. 6 in. diameter by 37 ft. 6 in. deep, for the T.C. Mr. E. Hardiker, Engineer, Gas Works, Rabone-lane, Smethwick. Deposit £2.

JANUARY 8.—**Birmingham.**—BRIDGES.—For the reconstruction of masonry and steel girder road bridges over the River Tame and the Tame Valley Canal, at Salford Bridge, Erdington, for T.C. Mr. H. H. Humphries, City Surveyor, Council House, Birmingham. Deposit £5.

JANUARY 8.—**Sandgate.**—GROYNE.—Erection of iron and wood groyne on the Sea foreshore, for the U.D.C. Mr. C. Law-Green, Surveyor, Council Offices, Sandgate, Kent.

JANUARY 8.—**Sunderland.**—BRIDGE.—Construction of bridge on new ring road on the Hennibique system, for the T.C. Mr. T. P. Collinge, Borough Engineer, Sunderland. Deposit £5.

JANUARY 9.—**Littlehampton.**—WATER PIPES.—Supply of about 1,300 lin. yds. of 4 in. dia. cast-iron water mains, valves, hydrants, and other fittings, to the U.D.C. Mr. Leslie G. Dashper, Surveyor, Town Offices, Littlehampton.

JANUARY 10.—**Barking.**—ELECTRICAL INSTALLATION.—For complete lighting installation at power station of the County of London Electric Supply Co. Manager, Offices, Moorgate-court, Moorgate-place, E.C. Deposit £5 5s.

JANUARY 10.—**Portsmouth.**—QUAY, &C.—For construction of reinforced concrete quay wall, &c., in connection with widening of Portsmouth Camber. Mr. A. W. Ward, Borough Engineer, Town Hall, Portsmouth. Deposit £3.

JANUARY 10.—**Wallasey.**—HEATING INSTALLATION.—For the installation of a low-pressure hot-water heating apparatus, at Municipal Golf House, Borough Engineer, Town Hall, Wallasey.

JANUARY 15.—**Toronto.**—SLUDGE PUMP.—Supply and erection at main sewage pumping station of centrifugal sludge pump, for the T.C. Dept. of Overseas Trade. 35, Old Queen-street, S.W. Reference 12614/ED/EC/2.

JANUARY 16.—**Glasgow.**—REFUSE DISPOSAL WORKS.—Tenders and designs for proposed refuse disposal works at Govan, Glasgow. Mr. W. Greig, Superintendent of Cleansing, 20, Trongate, Glasgow.

JANUARY 16.—**Keighley.**—IRONWORK.—For supply of ironwork for valve well, filter-beds, &c., for the T.C. Mr. M. Ratcliffe Barnett, Town Hall, Keighley.

JANUARY 16.—**Stoke-on-Trent.**—CRANE.—Fifty-ton electrically-driven overhead travelling crane. Borough Electrical Engineer, Stoke-on-Trent. Deposit £2.

JANUARY 17.—**New Zealand.**—PIPES, &C.—Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

JANUARY 18.—**Great Yarmouth.**—LORRIES.—Supply to the T.C. of (a) one-ton Ford lorry, and (b) a three-ton petrol lorry, both for the collection of house refuse. Mr. S. P. Thompson, Borough Engineer, Great Yarmouth.

JANUARY 18.—**Haywards Heath.**—FILTERS.—Supply and erection of five mechanical filters, for the Mid-Sussex Joint Water Board. Mr. Francis Martin, Engineer, Waterworks Offices, Boltro-road, Haywards Heath. Deposit £3 3s.

JANUARY 18.—**Haywards Heath.**—PIPES.—Supply to the Mid-Sussex Joint Water Board of 1,750 tons of cast-iron socket pipes and specials. Mr. F. Martin, Engineer, Waterworks Offices, Boltro-road, Haywards Heath. Deposit £2 2s.

JANUARY 18.—**Haywards Heath.**—PUMPING PLANT.—Supply to the Mid-Sussex Joint Water Board of duplicate pumping plant. Mr. Francis Martin, Engineer, Waterworks Offices, Boltro-road, Haywards Heath. Deposit £3 3s.

JANUARY 19.—**Depwade.**—HEATING, &C.—Supply of steel vertical boiler, horizontal semi-Diesel oil engine, dynamo and motors and accumulators, wiring for power and lighting, supply and fixing apparatus for hot-water heating and domestic hot-water supply, at the Poor Law Institution. Vulcan Boiler & General Insurance Co., Ltd., 67, King-street, Manchester. Deposit £1 1s. each for five sections.

JANUARY 21.—**Hastings.**—VARIOUS WORKS.—Erection of steel constructional buildings, steel plate coal bunkers and chutes, reinforced concrete pond and plant foundations, for the T.C. Borough Electrical Engineer, 20, South-terrace, Hastings.

JANUARY 28.—**Ecuador.**—CUSTOMS HOUSE, &C.—The date for tenders for the construction of the new Custom house and wharf at Guayaquil, Ecuador, has been extended to January 28. Consulate-General, 23, College-hill, E.C.4.

JANUARY 28.—**Glasgow.**—QUAY.—For the construction of about 1,928 lineal yards of concrete quay wall forming Dock No. 1 Shieldhall, Glasgow Harbour, for the Trustees of the Clyde Navigation. Mr. T. R. Mackenzie, General Manager, 16, Robertson-street, Glasgow. Deposit £10.

FEBRUARY 4.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland of steelwork for canal footbridge, Maynooth. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

FEBRUARY 5.—**Egypt.**—PUMPING PLANT.—For supply and erection of a pumping plant to replace an existing steam plant at Qussassin. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, S.W.1. Charge 10s.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.—Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.—For engine and pumping plant, for the U.D.C. Mr. S. W. Parker, Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

MAY 1.—**China.**—BRIDGE.—The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.

ROAD, SANITARY, AND WATER WORKS.

JANUARY 5.—**Peterborough.**—SEWAGE WORKS.—For construction of sewage disposal works, at Eye (Northamptonshire), for the R.D.C. Mr. G. A. Penwill, surveyor, 33, Queen-street, Peterborough. Deposit £2 2s.

JANUARY 7.—**Barnsley.**—ROADS.—For making-up three back roads within the Borough, for T.C. Borough Engineer, Fairfield House Offices, Barnsley.

JANUARY 7.—**Beckenham.**—ROADS.—For construction of three new roads on Elmers End Estate, for the U.D.C. Mr. J. A. Angell, Surveyor, Council Offices, Beckenham. Deposit £2.

JANUARY 7.—**Catherington, Hants.**—WATER MAINS AND DRAINAGE.—Providing and laying at Cowplain, in the Parish of Catherington, about 1,950 yds. lineal of 6 in. cast-iron water mains; also 900 yds. 4 in. and 2,800 yds. 3 in. ditto, and other drains, &c. Mr. G. E. Vernon-Inkpen, 40, Commercial-road, Portsmouth. Deposit £3 3s.

JANUARY 7.—**Grimsby.**—ROADS.—For resurfacing Garth-road, for the T.C. Mr. H. G. Whyatt, Borough Engineer, Grimsby. Deposit £2 2s.

JANUARY 7.—**Hendon.**—ROADS.—Making-up Ravenscroft-avenue (second portion), Elmcroft-avenue, Beechcroft-avenue, Clifton-gardens, Brookside-road, Hodford-road (second portion), Greenfield-gardens, and Wycombe-gardens, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W. 4. Deposit £5 5s.

JANUARY 7.—**Hendon.**—SEWER.—Construction of 600 yds. of 9 in. stoneware pipe sewer, &c., at Uphill-road and Marsh-lane, Mill Hill, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W. 4. Deposit £3 3s.

JANUARY 7.—**Kingsbury.**—SEWAGE WORKS.—For construction of sewage works for the U.D.C. Surveyor, Council Offices, Kingsbury-road, The Hyde, N.W. Deposit £3 3s.

JANUARY 7.—**Kingston-on-Thames.**—ROADS.—For making up Dawson-road, for the B.C. Borough Surveyor, Chattern Lodge, Kingston-on-Thames.

JANUARY 7.—**Manchester.**—ROADS.—For making up passageways in Blackley and Cheetham, for the T.C. Paving, &c., Department (District Surveyor's Office), Town Hall, Manchester. Deposit £1 1s.

JANUARY 7.—**Rotherham.**—SANITARY.—For conversions of privies to water-closets at Treeton, for the R.D.C. Mr. C. O. Rawstron, Surveyor, Offices, Grove-road, Moorgate, Rotherham. Deposit £1 1s.

JANUARY 7.—**Tilbury.**—ROADS.—For reconstruction in reinforced concrete of Dock-road, an area of 11,200 square yards, for the U.D.C. Mr. S. A. Hill-Willis, Surveyor, Council Offices, Tilbury. Deposit £1.

JANUARY 7.—**Uphall.**—SEWERS.—For laying main sewers, construction for manways, septic tanks, &c., at Uphall, for the West Lothian C.C. Mr. Adam Simpson, County Sanitary Inspector, Bathgate. Deposit £2 2s.

JANUARY 8.—**Hampton.**—ROADS.—For the making up of the Gloucester-road, for the U.D.C. Mr. Sidney H. Chambers, Surveyor, Public Offices, Hampton. Deposit £2 2s.

JANUARY 8.—**Barnsley.**—SANITARY.—For the conversion of 84 privies into w.c.'s at Klondyke, Monk Bretton, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

JANUARY 8.—**Bedwellty.**—SEWER.—For construction of 9 in. dia. sewer, 330 yds. long, for the U.D.C. Mr. D. H. Price, Surveyor, Fire Station Offices, Aberbargoed.

JANUARY 8.—**Hertford.**—SEWERS.—For laying about 1,100 lineal yards of sewers for the T.C. Borough Surveyor, The Castle, Hertford. Deposit £3 3s.

JANUARY 8.—**Northam.**—WATER MAINS.—For providing and laying about 4½ miles of 6 in. cast-iron pipes, for the U.D.C. Mr. W. J. Barnes, Northam U.D.C. Office, 24, Bridgeland-street, Bideford, Devon.

JANUARY 9.—**Crediton.**—ROADS.—For strengthening and re-surfacing (1) Rocks-road, a length of 4½ miles; and (2) Black Dog, about 3½ miles, for the R.D.C. Mr. F. Horbury, surveyor, Fordton, Crediton. Deposit £1 1s.

JANUARY 10.—**East Lothian.**—WATER MAINS.—For the construction of pipe lines between Haddington and the Cross-roads, in East Lothian, for the East Lothian Western District Water Board. Water Superintendent, Bank of Scotland Buildings, Haddington. Deposit £2 2s.

JANUARY 10.—**Epsom.**—ROADS.—For making-up Manor-road (part of), Cecil-road, Derby-road, Salisbury-avenue, Cheam, for R.D.C. Mr. T. E. Ware, surveyor, Waterloo-road, Epsom.

JANUARY 10.—**Fife.**—WATER WORKS.—For improvements to Balhousie Impounding Reservoir—laying about 1,400 yds. of 6 in. dia. water pipes, for the St. Andrew's District Committee of the Fife C.C. Messrs. Bruce & Proudfoot, Civil Engineers, 63, Nicol-street, Kirkcaldy. Deposit £2.

JANUARY 14.—**Cheddar.**—GAS MAIN.—Supply and laying of a 3-in. cast-iron gas pipe about ¼ mile, in Cliff-street, for the Cheddar Gas Co. Mr. R. Channon, Glendale, Cheddar.

JANUARY 14.—**Doncaster.**—ASPHALTING.—For asphalting playground at Doncaster Grammar School. Education Department, County Hall, Wakefield.

JANUARY 14.—**Hemel Hempstead.**—WATER MAIN.—Provision and laying of 550 yds. of 4 in. cast-iron water main, at Markyate, for the R.D.C. Mr. T. H. Lighbody, 16, Alexandra-road, Hemel Hempstead.

JANUARY 14.—**Islington.**—ROADS.—For repaving with granite setts on a new foundation of reinforced concrete the carriageway of Wharfedale-road, for the B.C. Borough Engineer, Municipal Offices, Tyndale-place, N.1.

★JANUARY 14.—**London, S.E.**—WATER SERVICE.—Laying of a new 2-in. water service at Castlewood, Shooter's-hill, S.E., for the London County Council. Chief Officer of the Parks Department, County Hall, Westminster Bridge, S.E.1.

JANUARY 14.—**Mitcham.**—ROADS.—For making up Ashbourne-road, for the U.D.C. Surveyor, Broadway House, London-road, Mitcham.

JANUARY 15.—**Bingley Harden.**—ASPHALTING.—For tar asphalting playgrounds at Council School. Education Department, County Hall, Wakefield.

JANUARY 15.—**Dover.**—ROADS.—For making up Brookfield-avenue, for the T.C. Borough Engineer, Dover.

JANUARY 16.—**Ashburton.**—WATER MAINS.—For work of laying water mains, &c., for the U.D.C. Mr. F. A. Steer, Surveyor, 3, West-street, Ashburton, Devon. Deposit £1 1s.

JANUARY 16.—**Fulham.**—ROADS.—For making up section 1 of Daisy-lane, for the B.C. Mr. A. F. Holden, Borough Surveyor, Town Hall, Fulham.

JANUARY 16.—**Twickenham.**—ROADS.—For widening and making up Whitton-road, for the U.D.C. Mr. F. W. Pearce, Surveyor, Town Hall, Twickenham. Deposit £1 1s.

JANUARY 16.—**Twickenham.**—ROADS.—For making up seven roads for the U.D.C. Mr. F. W. Pearce, Surveyor, Town Hall, Twickenham. Deposit £1 1s.

JANUARY 19.—**Manchester.**—SEWERS.—Construction of main drainage work, for the T.C. City Engineer, Town Hall, Manchester. Deposit £10 10s.

JANUARY 21.—**Anglesey.**—ROAD.—Reconstruction of approximately 12 miles of the main road from Amlwch to Llangefni, for the C.C. Mr. W. E. Jones, County Surveyor, Graig, Llanfair P.G., Anglesey. Deposit £3 3s.

JANUARY 21.—**Southport.**—TRAMWAY TRACK, &C.—Construction of tramway routes of about 1,600 yards; also the reconstruction with concrete and bituminous asphalte of the carriageways, &c., for the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £3 3s.

JANUARY 21.—**Taunton.**—SEWAGE WORKS.—For reconstruction of sewage disposal works for the T.C. Mr. I. F. Shellard, Borough Engineer, Taunton. Deposit £3 3s.

JANUARY 22.—**Coulsdon.**—ROADS.—For making up Purley Oaks-road, for the U.D.C. Mr. R. Chart, Surveyor, Council Offices, Purley. Deposit £2 2s.

★JANUARY 28.—**London, S.E.1.**—ROADS.—Completion of the carriageways and footways of certain roads on the Roehampton Housing Estate, Putney, in the Metropolitan Borough of Wandsworth, comprising surfacing carriageways with tarred slag macadam, paving footways with artificial stone and other work. Administrator of Housing Development Schemes, Old County Hall, Spring-gardens, S.W.1. Deposit £2.

JANUARY 30.—**Hemel Hempstead.**—ROADS, &C.—Construction of a tarmacadam surfaced road about 175 yards in length, for the T.C. Mr. W. R. Locke, Borough Engineer, Hemel Hempstead. Deposit £1 1s.

Competitions.

(*See Competition News, page* 4).

Auction Sales, Tenders, etc.

★JANUARY 7.—**London, S.W.**—Messrs. Horne & Co. will sell by direction of the Commissioners of H.M. Works and Public Buildings at Ministry of Pensions Hospital, Ruskin Park, Denmark-hill, 49 huts and buildings comprising corrugated iron and timber huts, glazed corridors with boarded floors, several brick buildings, sanitary goods, fencing, &c. Auctioneers, Crown-court, Cheapside, E.C.2.

JANUARY 8.—**Bristol.**—Messrs. Fuller, Horsey Sons & Cassell will sell, in lots, *re* W. Alban Richards & Co., Ltd., by order of Mr. D. L. Honeyman, Receiver for the debenture holders, at the Royal Hotel, Bristol, builders' and contractors' plant laying at the Royal Edward Granary, Avonmouth Dock, at Town Hill, Swansea, and other depots. Auctioneers, 11, Billiter-square, E.C.3.

★JANUARY 8.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W., large stock of timber, fittings, and building materials, arising from demolition of a commodious residence. Auctioneers, 365, Norwood-road, S.E.27.

★JANUARY 8, 9, 10, AND 11.—**Yorkshire.**—Mr. F. H. Clark will sell without reserve at Barnbow Factory, near Leeds, Yorkshire, building materials, timber, glazed sashes, electrical fittings, plate-glass, pipes and 20 timber-built bungalows. Auctioneers, Barnbow Factory, near Leeds, or Head Office, Railway Wharf, York-road.

JANUARY 15.—**London, N.W.**—Messrs. J. T. Skelding & Co. will sell, by order of Messrs. Tims, Beckett & Partners, Ltd., unreserved clearance sale of the whole of the capital at the works, 38, Harlesden-road, Willesden-lane, N.W., stock of timber, plant and machinery of van and wagon builders, shoeing and general smiths. Auctioneers, 48, Gresham-street, E.C.2.

JANUARY 15 AND 16.—**London, E.9.**—Mr. F. H. Clark will sell, at the National Projectile Factory, Hackney Marshes, E.9, absolutely without reserve, timber and material resultant of the demolition of the above factory. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

JANUARY 17.—**North Finchley, N.**—Messrs. Wheeler & Wright will sell the remaining portions of the Westbury Estate at the Torrington Hotel. Auctioneers, adjoining Woodside Park Station, N.

JANUARY 22.—**London, W.**—Messrs. J. T. Skelding & Co. will sell, by order of Messrs. Selfridge & Co., Ltd., at the Yard, Balderton-street, Oxford-street, W., important unreserved sale of the capital surplus of builders' and contractors' plant and machinery, timber, stores and effects. Auctioneers, 48, Gresham-street, E.C.2.

★JANUARY 22 AND 23.—**Banbury.**—Mr. F. H. Clark will sell without reserve timbers and building materials contained in the Banbury Filling Factory, Banbury, Oxon, at 11 a.m. each day. Auctioneer, Railway Wharf, York-road, Wandsworth.

JANUARY 24.—**County Down.**—Messrs. Garnet W. Holt & Co. will sell, by public auction, the Crowreach Quarries, Newry, with yard, machinery, plant, &c., on the premises at Catherine-street, Newry, to be sold in two lots. Auctioneers, Newry.

JANUARY.—**London, W.1.**—Messrs. Knight, Frank & Rutley, in conjunction with Messrs. Oakden & Co., will sell, at the Hanover-square Estate Room (unless previously disposed of), by direction of the Eastbourne Waterworks Company, freehold commercial site of about 4¼ acres, with railway facilities and including detached double-fronted residence and factory or warehouse buildings, &c. Auctioneers, 20, Hanover-square, London, W.1.

Public Appointments.

★JANUARY 7.—**Plymouth.**—Temporary Clerk of Works required by the County Borough Council of Plymouth for Housing and Town Planning. Mr. J. Wibberley, Borough Engineer, County Borough of Plymouth, Municipal Offices, Plymouth, on prescribed application form, accompanied by three recent testimonials.

★JANUARY 8.—**Singapore.**—Assistant Architect required in the Office of the Municipal Architect at Singapore. Candidate must be a member of the Royal Institute of British Architects. Messrs. C. C. Lindsay & Peirce, MM.Inst.C.E., 180, Hope-street, Glasgow.

★JANUARY 14.—**Burnley.**—(*a*) An Assistant experienced in Architectural Work and Town Planning; (*b*) a general Assistant, experienced in the design and construction of Reinforced Concrete and Steel Frame Structures, and Estimating, required by the County Borough Council of Burnley. Borough Engineer and Surveyor, Town Hall, Burnley, endorsed "Assistant."

NEW BUILDINGS IN LONDON.

Cheapside.—A new building is now being erected at 112, Cheapside. The contractors are Messrs. Charles Brightman & Sons, Ltd., of Watford, and Mr. H. Wilson, of 12, Victoria Park-avenue, Kirkstall, Leeds, is the architect for the work. The whole of the sub-contracts are let.

Little Pearl-street, E.—NEW BUILDING.—Messrs. Chessums, Ltd., Imperial Works, Portland-road, N.15, are erecting here for H.M.O.W., under the superintending architect, one of the new automatic telephone exchanges.

Wages on Public Works.

The Public Works Conciliation Board has made an Award, dated December 21, 1923, for the London Area, namely, the City and County of London and the whole of the districts of all the local authorities, the whole or any part of whose district lies within the Metropolitan Police district. The award fixes the rates of wages to be effective for the three months, January, February, and March, 1924, as follows:—Blacksmith, 1s. 8d.; concrete leveller, 1s. 3½d.; duct or earthenware drain layer, 1s. 4½d.; fitter, 1s. 8d.; granite mason kerb, &c., 1s. 9d.; granite sett dresser, 1s. 8d.; jointer, 1s. 4½d.; kerb fixer, 1s. 8d.; pavior, 1s. 8d.; petrol locomotive or roller driver, 1s. 5½d.; pipe jointer (iron up to 6 in.), earthenware or concrete pipes and conduits, 1s. 4½d.; pipe-jointer (iron) above 6 in. diameter, 1s. 5½d.; platelayer, 1s. 4½d.–1s. 5½d.; platelayer labourer, 1s. 3½d.; pneumatic pick operator, 1s. 4½d.; rammerman, 1s. 4½d.; scaffolder, 1s. 6½d.; screeder, 1s. 4½d.; steam roller driver, 1s. 7½d.; street mason and flag dresser, 1s. 8d.; tarpot man, 1s. 3½d.; timberman, 1s. 4½d.; wood block layer, 1s. 4½d.; men working in "Boots," 1d. per hour extra; watchman, 7s. 6d. per shift minimum day or night. The hours of labour and overtime rates remain as agreed on March 11, 1920.

Wages of Builders.

At the statutory meeting of the Wages and Conditions Council for the Building Industry to be held next month, it is stated a proposal will be made by the National Building Trade Operatives' Federation to the employers, for a wage based on the principle of insurance against broken time due to wet weather, together with a guaranteed week.

At present notice of a wage increase of 2d. per hour has been given, as well as application made for an extensive scheme of regrading of towns. Sub-committees have also been considering several important changes in the future of the industry.

OPOSED NEW BUILDINGS & OTHER WORKS.*

these lists care is taken to ensure the accuracy of the information given, but it may onally happen that, owing to building owners taking the responsibility of commencing work plans are finally approved by the local authorities, "proposed" works at the time of publication been actually commenced. Abbreviations :—T.C. for Town Council; U.D.C. for Urban District il; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of ians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

DEEN.—The Links and Parks Committee of the s decided to commence the work of the extension Esplanade from Beach Battery to Footdee, and provement of the Esplanade north of the Bathing , by substituting a single roadway in place of the isting roads, which are at different levels. There ree shelters to be erected, each with seating modation for 75. The estimated cost of the full e is £27,200.——A supplementary grant of £4,550 en made by the Ministry of Transport in regard proposal of the T.C. to lay with asphalte the s of a portion of the Queens-road.

DRIE.—The T.C. has decided to proceed with the on of 36 houses, containing room and kitchen, oom and scullery. This is another instalment of sanitary Areas Housing Scheme, the site being at ach, with a new street to be formed leading from Bridge-street.

ERSHOT.—Plans passed by T.C.: Conversion of lroom to house, Albert-road, for Mr. W. Tanner; houses, Northbrook-road, for Mr. C. J. Brooks.

TRINCHAM.—Funds are being raised by the ioners of St. Margaret's towards the cost of the sed extensions to their church.——Mr. W. H. ews, builder and contractor, of 48, Rye-bank, ton-cum-Hardy, is proposing to erect 64 houses site between Ellesmere-road and Navigation-road. scheme has been approved by the Council.

MANFORD.—The Amman Valley School Managers received notice from the Carmarthenshire Educa- Committee that they intend building new school wyn district, Garnant and Pennybank, Amman .——The U.D.C. is to grant in next three months busing subsidies, and has a committee investigating tion for a housing scheme on the council's own part.

The B. of E. has sanctioned the building of new ol to replace the temporary buildings of Amman y Secondary School. In connection with this w athletic ground is also being negotiated for.

SBURTON.—The Ministry of Health has sanctioned xpenditure by the U.D.C. of £4,000 for water oses.——The Council is considering the question rchasing a site on which to erect 12 houses.

SHTON-IN-MAKERFIELD.—The following plans have approved by the D.C.: Bungalow, in Liverpool-, for Mr. H. Simm; bungalow in Liverpool-road, Mr. W. Atherton.

SHTON-UNDER-LYNE.—The Lancashire Education mittee have now completed the purchase of the nton-road site for the new secondary school for on district. At the Committee meeting it was rted that sketch plans of the new school had been ected by the Governors and approved with slight ifications suggested by the Principal and the Art ter with reference to the Art rooms, &c.

TDENSHAW.—Plan passed by U.D.C.: Bungalow, nford-road, for Mr. G. H. Fowles.

ALLYMONEY.—The U.D.C. has decided to proceed its scheme for the erection of 60 cottages.

NFFSHIRE.—It has been decided to carry out an nsion scheme at the Infectious Diseases Hospital, prising an observation ward and discharging ward. s and estimates are being prepared, and a special ing of the authorities is to be held to approve he scheme *en bloc*.

ATLEY.—The Education Committee has appointed b-committee to visit recently-built schools in other s, as a preliminary to the preparation of plans a new school at Healey.

ELFAST.—Plans passed: Four villas, College Park, Mr. Robert Orr Templeton; villa, Castlehill-road, Mr. A. W. McMullan, architect Mr. James Scott; villas and motor sheds, for Messrs. Thomas McKee ons, architects Messrs. Hobart & Heron; shop and se, Crumlin-road, for Miss H. M. McConnell, archi- Mr. Hugh Gault; villa, Myrtlefield Park, for A. McDowell, architect Mr. T. R. Eagar; tanks chambers, Dalton-street, for Messrs. J. A. Beck o., architect Mr. S. J. McAvoy; new vestry, St. e's Cathedral, architect Mr. R. M. Close; stores, -place, for Mr. John Wallace; villa, Beechlands, one-road, for Mr. C. P. Chapman, architect Mr. St. J. Phillips; two villas, Kincora-avenue, for Thomas Glover; eighteen villas, Keersland-parade, scent and drive, for Mr. Robert Hewett; shops i stores in Peter's-hill, for Mr. F. McKibbin, builders ssrs. H. & J. McKibbin; eight villas on Rugby-road, Mr. W. J. Ervine, architect Mr. Godfrey W. Fer- on: shop and house, Templemore-avenue, for Mr. mes Gordon, architect Mr. W. J. Convery; shop and use, Great Victoria-street, for Mr. W. Braithwaite, hitect Mr. R. H. Gibson.

BELFORD.—Plans passed by R.D.C.:—Two cottages, houses, for Mr. Gregory.

BEDLINGTON.—A site has been acquired and plans epared for the erection of a school to accommodate children. The estimated cost, exclusive of road- ys and sewers, is £2€,565, and tenders are to be ited by the architects to the Northumberland ucation Committee.

BERWICK.—A definite decision has been reached by directorate of the L. & N.E. Railway Co. to build ew station at Berwick, and tenders for the work will put out in the near future. The scheme includes ater platform accommodation. The main lines th and south will be run along an island platform, ing straight access to the Royal Border Bridge, in ce of the present dangerous curve, and there will also ncreased goods yard accommodation, and numerous ior improvements will be effected.

See also our List of Contracts, Competitions, etc.

BINGLEY.—Plans passed by U.D.C.: 26 houses, for the Council, on the new housing site.

BLACKBURN.—To find work for the unemployed, Blackburn Corporation propose to borrow £53,200 for street improvements and laying out a recreation ground in Rockville-street. In addition, sanction is to be sought for the borrowing of £106,000 for the completion of the arterial road, and £8,000 for the erection of 20 additional houses at Intack.

BLACKPOOL.—Plans passed by T.C.:—Five houses, Silverwood-avenue, Harrison and Pilkington; house, 12 garages and two stores, back Warley-road, R. Fox; two houses, Westmoreland-avenue, J. Gregg; two houses, Bispham-road, H. Shorrock; bungalow, Balmoral-avenue, Suthers, Wilson & Randall; house, Balmoral-avenue, Suthers, Wilson & Randall; two houses, Queensway, J. Swire; two houses, Queen Victoria-avenue, Suthers, Wilson & Randall; two houses, Hudson and Durley-roads, W. H. Barber; five houses, Greenwood-avenue, J. Smith; two houses, Harris-avenue, W. Grimbledestone; two houses, Worsley-avenue, H. G. Mason; six bungalows, Hemingway, C. Auty; house, Piccadilly, J. Newby; house and shop, Pine-street, Whitegate Brick Co.; house and garage Woodpark-road, F. Ashton; 14 houses, off Poulton New-road, R. Lancaster & Sons (Cleveleys), Ltd.; two houses, Horncliffe-road, Mrs. Heaton; two houses, Lomond-avenue, Watson & Myerscough; house, Shaftesbury-avenue, Mrs. M. Salisbury; bungalow, Vicarage-lane, E. N. Geldard; two houses, Westmoreland-avenue, W. A. Morris; three houses, Watson's-road, J. R. Crisp; two bungalows, Berwick-road, Hargreaves & Emery; two houses, Knowle-avenue, Mrs. M. Salisbury; two houses, Coniston-road, Saul & Cooper; two houses, Marton-drive, Nicksons & Shute; two houses, Piccadilly, S. Sims; four houses, Wilson-avenue, Mr. Metcalfe; two houses, off Wilson-avenue, Mr. Metcalfe; four houses, off Bispham-road, T. Brierley; outbuildings, Warley-road and Lichfield-road, J. Marsden; bakehouse, 67, Onslow-road, J. Shepherd; five houses, Borough-road and Lilac-avenue, G. Walmsley; house, off Mere-road, F. Taylor; five houses, St. Alban's-road, G. Francis; four houses, Preston Old-road and Lomond-avenue, Watson & Myerscough; 50 houses, Hoo-hill Estate, J. Fielding & Sons; six houses, Grenfell-avenue, E. Mason; house and garage, Bispham-road, A. G. Lomax; new streets, St. Anne's-road, Messrs. Parkinson and others.

BOLTON.—Proposals for several new schools in various parts of the town were put before the E.C. The Sites Sub-Committee had decided to acquire sites for two new schools—one in Tonge Moor and the other in Deane—as the existing schools in both districts were greatly congested. The Primary Sub-Committee had agreed to proceed immediately with the new Devonshire-road school, and that it had been decided to go on with the new school at Lever. With regard to the Technical School, it had been decided to press on with that, and the sub-committee had taken power to acquire a new site if need be.——The trustees of the Wilkinson Sanatorium are proposing an extension to their institution for additional accommodation for the staff. Plans are being prepared by Messrs. Bradshaw, Gass & Hope, architects, 19, Silverwell-street.

BOSTON (LINCS).—Plans and estimates are being prepared for the rebuilding of the chancel at Stirbeck Parish Church; Mr. L. Moore is the architect.

BOURNEMOUTH.—Plans passed by T.C.: Shops, 4, 5, 6 & 7, Withermoor-road, Messrs. S. Brown & Sons; house, Lascelles-road, Messrs. Midgley & Hardy; house, corner Eldon-road and Victoria-avenue, Mr. Lee; pair of houses, corner Amesbury and Beaufort-roads, Mr. A. G. Cook; pair of houses, corner Castlemain-avenue and Fenton-road, Mr. G. Newman; house, Murley-road, Mr. C. E. Baker; 2 houses, Eldon-road, Messrs. Rosser & Rosser; house, Eldon-road, Mr. J. Govaere; house and garage, Southbourne Overcliffe-drive, Messrs. Bunning & Patrick; house, South Hill-road, Mr. H. Gregory; 7 houses, Southbourne-avenue and Tuckton-road, Mr. Richards; house, corner Droxford and Corhampton-roads, Mr. G. B. Barnes; house, Pine-road East, Mr. F. Grindling; 4 pairs of houses, Shirley and South Hill-roads, Messrs. Jones & Seward; 3 pairs of houses, South Hill and Castle-roads, Messrs. F. Hoare & Sons; 2 pairs of houses, Shirley-road, Messrs. Wallace Jones & Sons; 2 pairs of houses, Shirley and South Hill-roads, Messrs. Jenkins & Sons; 4 pairs of houses, Shirley and South Hill-roads, Mr. W. Hayward; house, Alyth-road, Mr. A. Barnes; house, corner Portland-road East and Murley-road, Mr. W. W. Baker; house, South Hill-road, Mr. N. Hooper; 4 houses, Castle-road, Mr. G. Chapman; hall, Charminster-road, Mr. H. Hiscock; bungalow and garage, Charminster-avenue, Mr. S. C. Sly; house and shop, corner Gresham-road and Charminster-avenue, Mrs. Beesley; house, Ensbury Park-road, Mr. W. J. Jackson; house, Inverleigh-road, Mr. E. Stockley; house, Irving-road, Mr. E. Wood; 2 houses, Droxford-road, Messrs. Bolus & Clarke; house, Chigwell-road, Mr. C. Newton; house, Dingle-road, Mr. A. Bennion; house, Albemarle-road, Messrs. Jenkins & Sons; house, corner Southbourne Overcliffe-drive and Montague-road, Mr. A. H. Jackson; house, Boscombe Cliff-avenue, Mr. H. Hoare; house, Boscombe Cliff-avenue, Mr. W. Clarke; house, Boscombe Cliff-avenue, Mr. H. Hoare; house, Stourvale-road, Mr. Dawson; house, Eldon-road, Messrs. Rosser & Rosser; house, De Lisle-road, Mrs. F. E. Greenen; 2 houses, Pickford-road, Mrs. A. M. Newton; house and garage, Bethia-road, Mrs. F. W. Burton; house and garage, Bethia-road, Mrs. F. W. Burton; house, Eldon-road, Messrs. Rosser & Rosser; house, Eldon-road, Messrs. Rosser & Rosser; transformer station, Victoria-avenue, The Bournemouth and Poole Electricity Supply Co.; 2 houses, Burleigh-road, Mr. J. Scott; 3 houses, St. Ledger's-road, Mr. J. J. Elkins; house, Browning-avenue, Mr. A. E. K. Davies-Bunton house, Southbourne-avenue, Mr. W. Jackson; 2 houses-Bloomfield-avenue, Mr. F. Richards; house, Browning avenue, Mr. H. Solomon; house, Muscliff-road, Mr. W. L. Brown; 2 houses, Horsa-road, Mr. G. Witt; 3 houses, St. Ledger's-road, Mr. J. J. Elkins; house, Carbery-avenue, Miss N. Rundle; bungalow, Wayside-road, Miss G. Salmon; 2 houses, Harewood-avenue, Messrs. Midgley & Hardy; house, Oakwood-road, Mr. Marlow; house and garage, Chine Crescent-road, Mr. I. W. Dickinson; house, Upper Hinton-road, Rev. H. Wilbur Ennis; house, Hengistbury-road, Miss Ree; pair of houses, Firbank-road, Mr. Vyse; house, Tuckton-road, Mr. W. A. Crosby; house, Stamford-road, Mr. H. Small; alterations and additions, 21, Latimer-road, Mr. Fackrell; alterations and additions, 65, Commercial-road, Messrs. Freeman, Hardy & Willis; conversion into flats, "Streate Place," St. Peter's-road, Dr. Adam Fox; additions, "Towerfield," Poole-road, The Misses Farmer; 3 houses, Wentworth-avenue, Mr. H. B. Long; bungalow, Lascelles-road, Mr. Bott.

BRADFORD.—The Health and Buildings Committee has recommended for subsidy grant plans of 51 houses, which make a total to date of 250 under the subsidy scheme. The Government grant is augmented to £100 by the Corporation.

BRECONSHIRE.—The County Education Committee has decided to provide mining school facilities in the Ystradgynlais area, a new physics laboratory at Brynmawr County School, and a gymnasium hut at Builth Schools.

BRIDGE.—Plans passed by R.D.C.: House at New House-lane, Thanington, for Capt. Smith; bungalow at Harbledown, for Mr. D. Hales; house at Kingston, for Mr. F. C. Clark; and house at Littlebourne, for Mr. J. Hadlow.

BRIGHOUSE.—Through the generosity of Mr. Richard Woodhouse, a church house or parochial hall is to be erected. Mr. Woodhouse has agreed to erect the building conditionally upon the site and furnishings being provided by the churchpeople.——Plans passed by T.C.: Mr. F. Stockton, pair of semi-detached houses, Bracken-road West; Messrs. W. Fairburn & Sons, Ltd., house, River-street; Messrs. J. Stocks & Co., Ltd., conversion of stable into lock-up shop, Wharf Hotel; Messrs. Jagger, Ibbetson & Co., house, Laverock-lane.

BROMLEY.—Plans passed by T.C.: Mr. A. Frampton, house, Avondale-road; Mr. G. L. Walton, two houses, Bromley-avenue; Mr. H. A. Green, house, Woodside-road; Messrs. E. A. Vickers & Sons, Ltd., conversion of house into three flats, 50, Park-avenue; Messrs. Pearce Bros., two houses, Fairfield-road.

BURNLEY.—The Burnley Improvements Committee have directed that plans and estimates should be submitted as to a proposed new road leading from Colne-road along part of Queen Victoria-road and Belvedere-road to Brunshaw-road. The approximate estimated cost of the new thoroughfare is £103,000.——As to a request to the Borough Surveyor to prepare plans for the construction of a new culvert in place of one under the canal in Yorkshire-street, the cost of a steel bridge was to be considered by the Improvements Committee.——The T.C. have been recommended to use the land between Parker-street, Grimshaw-street, Croft-street and Red Lion-street as a site for a new central library, except such portion as might be needed for the improvement of the street line. The Housing Committee have been requested to arrange for the rehousing of the tenants living on the proposed library site.——The Unemployment Grants Committee have approved of the construction of the subsidence reservoir. This scheme is subject to a grant of 50 per cent. of the interest on the loan raised to meet an expenditure not exceeding £9,970.——Plans for 65 houses to be built by private enterprise have been passed by the Corporation.

CARDIGANSHIRE.—The Ministry of Health has notified Aberayron Council that it agrees to subsidies being granted to Captain Evans for houses to be erected at Llyswen, if houses are built to let, not for sale.——It is proposed to erect, and the necessary statutory notice has been given, a generating station at Llanon; Mr. Trefor Daniel, Llanon, acts for principals.

CARLISLE.—The Health Committee of the T.C. have approved the following plans: Bungalow at Blackwell-road, for Mr. A. Hoodless; two houses on Burgh-road, for Messrs. Kettle and Churchill; two bungalows at Blackwell-road, for Messrs. Proud & Warner; two houses at Brunton-avenue, and two houses at Greystone-road, for Mr. E. J. Hill. Subsidy will be applied for in each case.—The R.D.C. have approved plans as under: House at Chapel-street, for Mr. F. J. Hill, and house on land abutting Blackwell-road, for Mr. T. Bowman, Blackwell.

CARMARTHEN.—The County Education Committee has selected a site for erection of a new school at Llandebie.——Mr. V. Morgan, Carmarthenshire County Architect, is preparing plans for a farm at Pibwrlwyd, the County Council's demonstration farm near Carmarthen, at a total cost of £10,000. The laboratory (with equipment) and lecture room are estimated to cost £3,000; the dairy (exclusive of apparatus), £2,000, and the hostel £5,000. The Ministry of Agriculture is bearing 75 per cent. of the cost.

CASTLEFORD.—Plans passed by U.D.C.: 3 houses, Charles-street, which are to rank for subsidy.——Plans and estimates for a new maternity hospital have been forwarded by the U.D.C. to the M.H. for their approval. The estimated cost of the scheme is £5,550.

CHADDERTON.—The plans submitted by Messrs. Taylor & Sinster, of Queen-street, Oldham, for the building of the North Chadderton Senior Elementary School, have been accepted by the E.C., and passed by the Council at their last meeting. The site is on the new arterial road and no contracts have been placed.

CHATHAM.—Plans passed by T.C.: Rebuilding 95 and 97, High-street, for Messrs. W. H. Smith & Son; house, Huntsman's-corner, Hook-road, for the Rev. R. Hall; bungalow at Wyles-road, for Mr. Bagshaw; lock-up shop, The Brook, for Mr. H. E. Kemsley; bungalow at Chestnut-avenue, Walderslade, for Mr. G. Hayward; six bungalows at Randall-road, for Mr. Knowler; bungalow at Maidstone-road, for Messrs. W. E. R. Randall & Sons.

CHELMSFORD.—Plans passed by T.C.: Bungalow, St. Fabian's-drive, for Mr. L. G. Hazell; house, St. Fabian's-drive, for Miss Sherwin; bungalow, St. Fabian's-drive, for Messrs. G. J. Hawkes & Sons; bungalow, Wood-street, for Mr. F. H. Beckett.

CHISLEHURST.—Plans passed by R.D.C.: House, Walden-road, for Mr. David McAllister, 23, Duncan-street, Glasgow; house, in Willow-grove, for Mr. J. C. Burns, of St. Columb, Chislehurst.

CLOWNE.—The R.D.C. has decided to erect 16 houses at Clowne, 16 at Whitwell, and eight at Barlborough. The Ministry of Health has promised to consider a scheme for the building of 30 more Council houses.

COATBRIDGE.—The T.C. has approved of a new lay-out plan for 200 new houses in connection with the slum clearance scheme. The plans have been forwarded to the M.H. for their approval.

COLINTON.—The Housing and Town-Planning Committee of the Edinburgh T.C. are to recommend to the Council a resolution in favour of a town-planning scheme for the areas of Colinton and Liberton.

COLWYN BAY.—The Ministry of Health has sanctioned the erection of a further 34 houses by the U.D.C.

CONONLEY.—The Church of St. John is to be restored and renovated at an estimated cost of £200.

CRANBROOK.—The R.D.C. has passed plans for a bungalow at Golford, for Mr. Creasy.

DARWEN.—The Salvation Army are raising funds for a proposed new hall.——The Corporation are proceeding with the erection of 50 houses on the Marsh House site. Three blocks will each contain 4 houses, four blocks will have 6 houses each, and there will be one block of 8 houses.

DERBYSHIRE.—The County Education Committee has submitted to the B. of E. an extensive list of the necessary repairs and alterations required to be carried out during the coming year, at an estimated cost of £84,000. The approval of the B. of E. is awaited.

DRIGLINGTON.—The U.D.C. has decided to carry out extensions to their filter beds at the sewerage works by employing direct labour.

DUKINFIELD.—Mr. J. Gibson, architect, has been appointed by the T.C. to prepare plans, specifications, and supervise the work of conversions, to be carried out by the Corporation under sanction 36 of the Public Health Act, 1875.——The trustees of the Town-lane Baptist Church are proposing to erect new church and schools. Funds are now being raised, and over £1,000 has been collected.

DUNDEE.—The T.C. has decided to construct a bridge over the L.M. & S. Railway at Fairmuir. The cost of same is to be apportioned between the Corporation, the Railway Company and the Ministry of Transport.——Plans for the restoration of the Church of St. John have been approved.

EDMONTON.—The U.D.C. has resolved to go forward with a scheme for remodelling its sewage farm at an estimated cost of £90,000.

ETON.—Plans passed by R.D.C.:—House at Langley, for Mr. W. Blake; alterations at Datchet, for Mr. A. J. Mayhew; cottage at Fulmer, for Col. F. Allhusen; house at Farnham Royal, for the Slough Trading Co.; sanitary accommodation for the Slough Trading Co. at Farnham Royal; bungalow at Horton, for Mr. J. Albury; bungalow and garage at Wraysbury, for Mr. P. C. Burrows; alterations to "The King's Head," Cippenham, for Messrs. T. Wethered & Sons; house at Gerrard's Cross, for Mr. C. P. Lovell; bungalow at Iver, for Mrs. Burley; five bungalows at Langley Marsh, for Messrs. Lane, Bros.; bungalow at Boveney, for Mr. W. Hearn; 50 houses at Farnham Royal, for Messrs. H. Boot & Sons; bungalow at Burnham, for Mr. D. McDonald; bungalow at Denham, for Mrs. H. Gladwell; lock-up shop at Datchet, for Mr. A. Webb; bungalow at Burnham, for Mrs. Shaw.

EXMOUTH.—At the last meeting of the Housing Committee the Surveyor was instructed to obtain tenders for providing houses at Exmouth, according to the plans he had prepared. Messrs. Cooper & Son submitted an amended plan for 34 terrace houses, but stated that on account of the uncertainty of the cost of materials and labour, and as the ground rents had not yet been settled, it was impossible to fix the rents. It was decided to ask Messrs. Cooper for further information, and to recommend a subsidy on four houses which the Witheycombe Brick Co. were prepared to build.

FALMOUTH.—The H.M. Office of Works propose to erect a new general Post Office at Falmouth on a site which is being purchased from the Corporation.—T.C. has invited tenders for the building of 20 additional houses on the Penwerris site.——The M. of H. has given its sanction to a loan of £8,000 for a new sewerage scheme at Falmouth, provided the engineer's drawings and estimates are considered satisfactory. The Unemployment Grants Committee has undertaken to make a grant towards the cost if the work is actively commenced before January 15.

GARSTANG.—The B.G. are considering schemes for the improvement of the heating arrangements at their institution, by the installation of a hot-water system.

GILLINGHAM (KENT).—Plans passed by T.C.: House, Rock-avenue, Mr. C. E. Rogers; bungalow, First-avenue, Mr. F. Knight; bungalow, Twydall-lane, Mr. A. Perrin; bungalow, First-avenue, Mr. H. Stevens; four bungalows, Chicago-avenue, W. E. R. Randall & Sons; six houses, Barnsole-road, Mr. F. Parham; conversion of house into shop, 259, Gillingham-road; Mr. G. Walker, two houses, Barnsole-road, F. & F. S. Rowden; two houses, Barnsole-road, A. P. Morgan & Duffin; nine houses, Portland-road, 26 in Oak-road, and 14 in Mapin-road, Mr. H. Harris; seven houses, Albany-road, Mr. A. H. Horne; two houses, Barnsole-road, Mr. W. Stanley; and two bungalows, Bredhurst-road, Wigmore, Mr. J. Alexander.

GLASGOW.—Dean of Guild Court passed the following: Application for extension scheme in connection with the Royal Samaritan Hospital for Women, in Victoria-road, estimated cost £47,000. Arising out of the improvements at Glasgow-cross by the Corporation, plans were sanctioned for a building of five stories and a basement, at an estimated cost of £37,000.

GOLBORNE.—The Parochial Council of the Parish Church are proposing alterations and improvements to their edifice, which include the thorough repair of the fabric of the church inside and outside, the necessary cleaning and redecorating, improvements of the churchyard, additional window light and ventilation of the nave of the church, provision of clergy and choir vestry, conversion of present choir vestry into a baptistry. Funds are now being raised.

HAILSHAM.—Plans passed by R.D.C.: Detached house at Cowbeech-hill, Hurstmonceux, for Mr. George Shaw, of Cow Farm, Hurstmonceux; bungalow, near Carter's Corner-place, Hailsham, for Mr. C. Purser, of Magham Down; pair of semi-detached cottages at Bexhill-road, Ninfield, for Mr. Charles Pook, of 1, West Central-cottages, Lower-street, Ninfield; bungalow, Compton-place, Station-road, Hailsham, for Mrs. A. J. Wicks, of Eastbourne; assembly room at Magham Down, for Mr. Edward Miller, of Magham Down, for flour mill for Messrs. D. Catt & Son, in Mill-road, Hailsham.

HALE.—The D.C. are proposing improvements to their sewage works, estimated to cost £21,000. Mr. Midgley Taylor has prepared the scheme, and application is to be made to the Unemployment Grants Committee for a grant towards the cost.

HASTINGS.—Plans passed by T.C.: Alterations, 13, Wellington-place, Hastings and East Sussex Building Society, owners, Callow & Callow, architects; conversion into flats, "Gordon House," Charles-road, Mr. J. H. Poynton, owner, Callow & Callow, architects; house at Hillside-road, Mr. H. J. Richardson, owner; two houses in Downs-road, Mr. J. Brown, owner, Mr. J. Hunt, architect; showroom, Newgate-road, F. D. Russell & Sons, owners, Mr. Hy. Ward, architect; bungalow at Bexhill-road, Mr. G. Honeyman, owner, Mr. H. Burleigh, architect; new rooms, "The Grove," Elphinstone-road, Mr. J. Day, owner, Mr. Hy. Ward, architect; nine lock-up shops, Manor-road, Mr. A. Chapman, owner, Mr. Hy. Ward, architect; garage and storeroom over at "St. Olave's," Laton-road, Mr. S. Woolger, owner, per Chapman Bros.; garage at "Thalassa," Collier-road, Mr. E. Scutt, owner, Mr. H. W. Coussens, architect; studio, 37, Clive-avenue, Mr. W. S. Dunster, owner; conversion into flats at 47, Eversfield-place, Mr. L. Clive Matthews, owner, Callow & Callow, architects; tennis pavilion, Magdalen-road, Rev. Mother Superior of Convent, owner, per Hayhurst & Wright; garage, 12, Chapel Park-road, Mr. P. J. Hunnisett, owner, Mr. P. H. Oxley, architect; pair of houses, Victoria-avenue, Maidwell & Emerton, owners, Mr. D. B. Sceats, architect.

HAVERFORDWEST.—Plan passed by B.C.: Bungalow at Portfield, for Mr. W. H. George, Castle High.——The Ministry of Transport has agreed to grant fifty per cent. of cost of resurfacing Bridge-street.

HAYFIELD.—Plans passed by U.D.C.: Mason & Hadfield, 16 houses.

HECKMONDWIKE.—Plans passed by U.D.C.:—Mr. T. Pickles, lay-out plan of Stubley Farm Estate. The U.D.C. have given their approval to a scheme for the extensions to the works of the Yorkshire Electric Power Co., Ltd., at Heckmondwike, at an estimated cost of £10,000.

HELSTON (CORNWALL).—The District Council has acceded to the applications of two builders for a lump-sum grant of £75 under the Housing Act.

HEMEL HEMPSTEAD.—Plans passed by T.C.: Bungalow, Bennetts End-lane, for Mr. W. E. Green; house, Piccotts End, for Mr. W. D. Wells; house, Hillfield-road, for Mr. D. Lawrence; bungalow, Hillfield-road, for Miss Baillie; bungalow, Cowper-road, for Mr. J. Carter.——Plans passed by R.D.C.: 2 houses, King's Langley, for Mr. Timberlake.

HERNE BAY.—Plans passed by U.D.C.: 2 shops, corner of Underdown-street and High-street, for Mr. F. H. W. Wilbee; house, Pier-avenue, for Mr. Nicholas; villa, Claremont-street, for Mr. C. W. Smyth; villa, Albany-drive, for Mrs. A. E. Cram; bungalow, Queensbridge-drive, for Mrs. Major; house, West Hill-road, for Mr. S. A. White; bungalow, Spencer-road, for Mr. G. Wilkinson.

HEYWOOD.—The Ministry of Health has agreed to the scheme of the Heywood Corporation for the erection of 40 houses on the Barley Hall site, and the department will give the usual subsidy on condition that work is commenced before the end of March and the houses are completed by September, 1924.

HORSFORTH.—Plans passed by U.D.C.:—Pair of bungalows in Broadgate-lane, for Messrs. W. Ratcliffe & Co. (subsidy), and a bungalow in Victoria-walk, for M. J. B. Lee (subsidy). Plans and estimates were approved of for the proposed extensions to the Council's yard and shed at an estimated cost of £1,100.

HULL.—Messrs. Reckitt & Sons, Ltd., Hull, have approved of a scheme for the erection of 44 houses of the non-parlour type, for their employees. It has also been decided to erect 12 larger houses.——Hull is embarking upon a £50,000 scheme for the laying of a new water main in the north and east portions of the city. The Gas and Water Mains Committee are to invite tenders, and it is computed that the value of pipes required will be approximately £40,000. It has also been decided to fill in the old Stoneferry Reservoir.——The Works Committee of the Corporation has given instructions to the City Architect to proceed forthwith with the erection of the statue of Queen Victoria on the platform over the new underground lavatory in Victoria-square.

HURST.—A Committee has been formed for consideration of a scheme for the reconstruction of Lees new road.

ILKLEY.—The Ilkley E.C. are pressing the West Riding C.C. for the erection of a girls' secondary school for the district.

IRVINE.—At the Dean of Guild Court plans of 20 two-apartment houses to be built under the 1923 Act by the T.C. were passed. For every house built under this scheme a slum dwelling in the town must be cleared. The new houses are to be built in five blocks of four houses on a site between Bank-street and Mill-road.

ISLE OF WIGHT.—Plans passed by R.D.C.:—Grip Block Building Co., house, Uplands-road, Totland; Mr. H. Spencer, house, Avenue-road, Freshwater; Messrs. Simmonds, conversion of stores into house, High-street, Brading; and Ryde Gaslight Co., house and shop, High-street, Brading.

JARROW.—The T.C. has decided that 3,000 closets be converted into w.c.'s, the work to be spread over three years, and that any owner who desired to do the work himself be allowed £5 for a single conversion and £7 10s. for a double conversion, in flats only; that application be made to the Ministry of Health to borrow £20,000 for thirty years for the 3,000 conversions, and £20,000 for seven years for the amount to be paid by the Corporation to the owners.

KEIGHLEY.—Plans passed by R.D.C.: 6 houses, Hospital-road, Riddlesden, for Mr. T. Moore; 8 houses, Bradford-road, Riddlesden, for Mr. A. Robinson; 15 houses, Compiegne-avenue and Smithmill, for Messrs. W. & H. Whitaker.

KINGSTON-ON-THAMES.—The B.C. has approved of the plans for the erection of 60 houses.

LANARK.—The Upper Ward District Committee of the County Council have under consideration the proposal for a new infectious hospital at Roadmeetings, near Carluke. The estimated cost of this scheme is £4,929, but before it is put into operation the burgh of Lanark are to be approached, with a view to a joint scheme being launched.

LANCASTER.—Messrs. Austin & Paley, architects and surveyors, are preparing plans for rebuilding Hesketh Bank Parish Church, estimated to cost £6,500. The Parochial Council propose to proceed with the first part of the scheme, estimated to cost £4,500.——Plans passed by T.C.: Garage at Edith-street, Lancaster, for Mr. Veitch; two houses and shop in Scotforth-road, for Messrs. R. Baines & Co.

LEAMINGTON.—Plans passed by T.C.: Addition, Midland Counties' Home for Incurables for the Committee; conveniences, St. Saviour's Hall, Heath-terrace, for the Parochial Council.

LEEDS.—Plans are being prepared by a West Riding architect for the erection of public branch libraries at Cardigan-road, Burley; and at Hough End, Bramley.——The Baptist Union have acquired a site on the Middleton Housing site, and, subject to the approval of the Leeds City Council, the erection of a Baptist chapel will be commenced at a very early date.

LEITH.—A sum of £10,000 has been given to Leith Hospital by Mr. Thomas Cowan, a member of the Board of Management, who had previously presented two sums of £5,000 each to the hospital. The gift is to be applied to reconstructing the out-patient department of the hospital.

LLANDYSSUL.—Plans passed by D.C.: House, for Capt. Taylor, at Capel-y-Wig.——A joint isolation hospital is being considered for New Quay, Llandyssul Aberayron and Cardigan Council's areas.

LLANELLY.—Plans passed by B.C. Health Committee: 2 houses, for Messrs. Lewis & Davies; 2 bungalows, for Messrs. Stewart & Richards; bungalow, for Mr. L. Thomas; 3 houses, for Mr. J. R. Hopkins.——The Carmarthen County Education Committee has received notice that order applied for in respect to demolition of houses for extension of Llanelly Intermediate School has been recommended for approval as result of public inquiry; the houses' tenants to be found alternative accommodation.

LLANGOLLEN, DENBIGHSHIRE.—The Council are anxious to extend and otherwise improve the Water supply of their town and have instructed Major T. J. Moss-Flower to make a survey of the water sources of the locality and the existing reservoirs and plant, and to advise the Council as to the best means of augmenting the water supply and improving and extending the existing works. The additional works include the construction of a large storage reservoir.

LLEYN.—Plans passed by R.D.C.:—House for Mrs. Foulkes, Gallitberen, Rhydyclafdy, at Penrhos; Village Hall, at Chwilog; house for Mr. J. W. Evans, The Liver, Abersoch, at Abersoch; house for Mr. John Morris, Post Office, Mynytho, at Mynytho.

LONDON (HAMMERSMITH).—Drainage plans passed by B.C.: At 9, Gayford-road, for G. H. Batstone; 44–6, Hammersmith-road, for J. Lyons & Co., Ltd.; 9, Providence-place, for W. Chapman & Sons; 14, Aynhoe-road, for A. Arnold; 32, Adelaide-road, for Hammersmith B.C.; Block "A," Cadby Hall, Hammersmith-road, and 52, Hammersmith-road, for J. Lyons & Co., Ltd.; 1, Anley-road, for W. Pine; 72, St. Elmo-road, for E. Johnson; 122, King-street, for Fuller, Smith & Turner. Plan approved: Shops and offices, Hammersmith Bridge-road, for J. S. Quilter & Son.

LONDON (ST. PANCRAS).—The Estates' Committee recommends the B.C. to build a block of flats on the Somers Town site similar to that erected by the L.C.C. on the Tabard Garden Estate. The cost is estimated at £46,420, exclusive of professional services and land.

MACCLESFIELD.—Mr. F. Broadhurst Craig, consulting engineer, Manchester, has been appointed by the B.G. to supervise a scheme for the installation of central heating and a new hot-water system at their institution.

MALTON.—At the Urban District Council meeting a letter was read from the Ministry of Health saying they were prepared to approve a scheme to the extent of 40 houses with assistance of £6 per annum for 20 years. The Council resolved to apply for such a scheme for 30 houses, to be erected by Earl Fitzwilliam on Pensley-hill at the rate of £6 per annum for 20 years.

MANSFIELD.—Plans passed by T.C.: I. Slack and J. E. Hardy, two houses, King Edward-avenue; J. Reville, house, Southwell-road; Messrs. Kerry, Hextall & Kerry, three bungalows, Clipstone-road; Blythe & Son, two houses, Edgar-avenue: Mansfield Garden

City Estate Co., continuation of Normanton-drive and four new streets; Isaac Morley, house, Clifton-grove; Hospital Governors, new boiler house to Accident Hospital, Ashfield-avenue; Mr. Booker, house, Southwell-road; A. C. Vallance, lock-up shop, West Gate; P. A. Wood, additions to premises, West Gate; George H. Tooth, bungalow, Sutton-road; C. F. Elliot Smith, new street off Atkin-lane.

MELTON.—Plan passed: 2 houses, Regent-street, for Mr. C. J. Forryan.

MERTHYR TYDFIL.—The T.C. is to borrow £1,945 for lay-out of Coffee Tavern Field, Merthyr Vale, as a recreation ground.——The Borough Surveyor has been instructed to submit plans and estimates for proposed new Council central stores depot.——The Public Works Committee has recommended the proceeding with following road works: (1) Proposed new road from Filter Beds, Penybryn, through Galon Uchaf Estate, to Bryniau-road; (2) proposed road extension from top of Heolgerrig to Clwydyfagwr; and (3) road from Brynteg-terrace to Queen's-road. Estimates are being prepared.——The Joint Water Board has given formal notice of application to spend £265,000 on mains and reservoirs.

METHLEY.—Plans passed by U.D.C.: House, Pinfold-lane, for Mr. H. Morland, Castleford.

MONMOUTHSHIRE.—The St. Mellons R.D.C. has applied for loan of £9,950 to carry out the scheme for linking with a new sewer Rogerstone and St. Woollos.——The preliminary work to reconstruction of Usk Bridge, at estimated cost of £170,000, by the Newport T.C., is to be put in hand within a month. The Ministry offer of 65 per cent. of cost grant has been accepted.——The County Main Roads Committee is to assist Abersychan U.D.C. in construction of a new road to Pontymoile, *via* Pontypool Park.——The Pontypool U.D.C. has applied for grant to widen George-street.——The Mynyddislwyn U.D.C. has called for plans and estimates of proposed new bridge over the Sirhowy River, at Alexandra-road.

NEATH.—The R.D.C. has instructed Surveyor to prepare plans and estimates for proposed new bridge over G.W.R. at Resolven.

NEWPORT (ISLE OF WIGHT).—Plans passed by T.C.: Mr. G. F. Quinton, four houses in Cypress-road.

NEWTON ABBOT.—The G.W.R. Co. have placed contracts for the reconstruction of Newton Abbot station, at a cost of £247,100, and extensive repairs at the West Wharf, Plymouth.

OLDHAM.—The members of the Derker-street Congregational Church are raising funds towards a scheme of extension and renovation of the edifice, to paint and decorate various rooms, and clean and tune the organ. £800 is the estimated cost.

OXFORD.—Buildings, George-street, for Messrs. Twining Bros.

PEMBERTON.—Sanction has been granted to St. John's parish to commence their school additions and improvements, and the work of building a new infants' school is to commence immediately.

PEMBROKESHIRE.—The G.W.R. Co. has promised £300 grant, in addition to Ministry grants, for reconstruction of Pen Cw-road, at Harbour Village by the Council.——The Narbeth Council is to consider plans for a new bridge over Cleddau river, at Mynyddhogddu.——The Narbeth Council has approved subsidy grants for houses to be erected as follows: Bungalow, for Mr. Poole, Wood End, Saundersfoot; bungalow for Mr. W. Edwards, Saundersfoot; bungalow, for Mr. G. Rogers, Stammers Sand; house, for Mr. Lewis, Park Villa, Templeton.——The Narbeth Council has applied for loan of £3,560 for road improvements and will shortly invite tenders for road-stone supply.——Building site is being obtained by Goodwick district railwaymen for scheme under G.W.R. Co. employees' scheme; Mr. E. Hall Williams, Cardiff, acts as secretary to scheme under Public Utility Housing Association.

PETERBOROUGH.—Plans passed by T.C.: Four houses in Fairfield-road, for Messrs. Corner & Campion; one in Alexandra-road, for Mr. G. W. Earner; two in Mayor's-walk, for Mr. H. King; one in Alderman's drive, for Mr. Mott.

PLYMOUTH.—Messrs. Boots, Ltd., the chemists, have purchased for £25,000 the freehold premises at 18, George-street, which are shortly to be reconstructed.

PRESTON.—The Health Committee is recommending, subject to the approval of the Ministry of Health, to approve the plans of the proposed extension of the Chestnuts Sanatorium at an estimated cost of £13,600.——The Corporation have received sanction of the M. of H. for the erection of 50 houses. Instructions have been given for plans and estimates to be submitted.——In a short time a scheme will be launched, estimated to cost several thousand pounds, which will materially increase the cold storage accommodation. A site has been secured in the centre of the town and plans for the erection are being prepared.——The Licensing Justices have approved plans for structural alterations to the "Lane Ends" Hotel, Ashton, and the "Hesketh Arms," Newhall-lane.

RHONDDA.—Application has been made to the U.D.C. by Glenavon Garw Colliery Co., Ltd., for permission and assistance to erect 32 houses at Blaencwm.——The Council is also to consider subsidising erection of 3 houses in Nantgwyn-street, Penygraig, by Mr. Thomas Lewis, Trealaw.——The Council has received sanction for a loan of £23,634 for erection of 50 Council houses at Ferndale.

ROCHDALE.—Plans approved by T.C.: Thomas Bros., two houses, Oldham-road.——Subsidies agreed to: Four houses, Taylor-street, for Mr. Herbert Bright; eight houses, Ashfield-road, for Mr. Lewis Fletcher; house, Dewhirst road, for Mr. Samuel Wild.——The congregation of Healey Wesleyan Church are raising funds for carrying out some decorations and alterations to the church building.

ROMFORD.—Plans passed by R.D.C.: dwelling, Noak-hill, for Mr. W. Sharpe; dwelling, Noak-hill, for A. C. Rhodes; bungalows, Hornchurch, for Messrs. Coryn & Son; house and showrooms, &c., St. Mary's-lane, Upminster, for Mr. V. S. Knight; bungalow, Hornchurch, for Mr. C. Sims; bungalow, Harold Wood, for Mr. A. Hendle; bungalow, Hornchurch, for Mr. J. Read; bungalow, Hornchurch, for Mr. C. T. Hayward; three houses, Chadwell Heath, Dagenham, for Mr. W. Smith.

ROMSEY.—Plans passed by T.C.: Detached house at Crawley-hill, East Wellow, for Mr. W. Parsons; bungalow at Windwhistle, East Wellow, for Mr. H. Cooper.

ROTHERHAM.—Plans passed by T.C.: Mr. J. Gabbertas, Broomsgrove, bungalow; Mr. C. W. Dixon, Bennett street, proposed four semi-detached houses; Mr. A. A. James, Herringthorpe-avenue, bungalow.

ROYTON.—A plan of 16 houses, proposed to be built in Springfield-lane, under the housing subsidy scheme, has been referred to the Housing Committee of Royton D.C.

RYTON.—The U.D.C. have approved plans for the erection of fourteen houses at Crowcrook by Messrs. W. Charlton & Sons; six houses at Greenside, by Mr. R. Jamieson; and three lock-up shops at Crowcrook, by Mr. W. Weatherley.

ST. AUSTELL.—The M. of H. has approved 90 further houses to be built between now and March 31 under the subsidy scheme, making a total of 150.

SANDBACH.—Funds are being raised by the members of the Congregational Church for providing a new primary department as an extension to their schools.——A site having already been purchased, the T.C. propose alterations at the Town Hall, for installing a new cinema box; and propose to erect 6 houses on a site in Crewe-road.——The M. of H. has sanctioned a loan by the Council of £1,275 to meet the cost of the proposed structural alterations to the porter's lodge and alterations to the bakehouse to plans prepared by Mr. Price, architect, Sandbach.

SALTBURN.—The U.D.C. has purchased "Clevelands," a large villa, for £1,970, and proposes to convert it into offices and fire station.

SEDGFIELD.—Plans passed by R.D.C.: Nurses' Home, Ferryhill Station, for Mainsforth and Ferryhill Station Nursing Association: 3 houses, Ferryhill, Mr. G. Salkeld; house, Darlington-road, Ferryhill, Mr. W. Dowson; 8 houses, Ferryhill, Mr. G. W. Lazenby; bungalow, Trimdon Grange, Mr. Dowson; 3 houses, Cornforth-lane, Coxhoe, Mr. F. Lumley; house, Bowburn, Coxhoe, the Co-operative Society; additions to the Chilton and Windlestone Workmen's Club, and additions to property at Darlington-road, Ferryhill, Mr. Walters.

SELBY.—The Thorne Farmers' Union have a proposal under consideration for the erection of a bacon factory at Selby. The Doncaster Farmers are so keen with their support that they have guaranteed £4,000.——The U.D.C. has been informed by the West Riding Highways and Bridge Committee that they are recommending to the County Council the necessity for the reconstruction of the stone bridge over the Aire and Calder Canal at Selby. The estimated cost of the scheme is £15,000.

SHAW.—Funds are being raised by the parishioners of the Heyside Parish Church for the proposed rebuilding of their schools.

SLOUGH.—Plans passed by U.D.C.: Mr. H. J. Bailey, house, Windsor-road; Mrs. G. Ash, house, Belgrave-road; Mr. W. H. Howard, house, Windsor-road; Mr. F. G. Knight, house, Chalvey-grove; Mr. J. W. Holdway, house, Chalvey-grove.

SOUTH SHIELDS.—T. A. Page & Son, for the Rev. F. H. Warner, St. Francis Parsonage House, Garwood-street; J. H. Morton & Son, for Mr. J. Coxon, conversion of house into flats, Sunderland-road.

STAFFORD.—Plans passed by R.D.C.: Bungalow at White Cross, Haughton, for Mr. J. Austin; three cottages at Coley-lane, Little Haywood, for Mr. C. Collett, of Colwich; four cottages at Colwich, for Mr. Frank Smith, of Rugeley; cottage at Colwich, for Mr. Edwin Stocking; house at Weeping Cross, Berkswich, for Mr. F. S. Kemp, of Rowley Bank.

STALYBRIDGE.—Recently the presence has been discovered of extensive dry rot in the woodwork of the church of St. Peters, which will cost a fairly large sum of money to eradicate. Funds are now being raised towards the cost of renovation of the church.

STANSTED.—A plan for a house at Ugley Green, for Mr. H. L. Mumford, has been passed by the R.D.C.

STOCKTON.—Plans have been passed by the R.D.C. for a bungalow in Darlington Back-lane, Redmarshall, for Mr. J. D. Bulmer, St. Cuthbert's-road, Stockton; and a bungalow between Elmwood and Clarence-roads, Preston, for Miss S. E. Burrow.

STRETFORD.—Formal application has been made for the approval of the B. of E. for the purchase of a site at Gorse Hill, for the erection of a new Central School. It is also proposed to make extension at the Girls' High School, for the accommodation of 300 additional pupils. The County Architect has been requested to prepare the plans. Additional land for playing fields has been purchased.——Plans passed by U.D.C.: Branch bank, Ashburton-road, for The London Joint City & Midland Bank Ltd.; four houses, Barton-road, for Mr. J. W. Maunders; house, Urmston-lane, for Mr. Joseph E. Hill; two houses, Wellington-crescent, for Mr. Frank Bell; 22 houses, off Grassmere-road, for Messrs. T. H. Patching & Co.; 20 houses, Kings-road extension, for Messrs. Winders & Tindale; 110 houses, off Moss-road, for Messrs. J. W. Maunders (49 of these to rank for subsidy); canteens, workshop, &c., Ninth-street, for Messrs. Richard Johnson, Clapham & Morris, Ltd; conversion to two houses, The Cottage, Seymour-grove, for Mr. James E. Mills.

SURREY.—The proposals of the Finance and General Purposes Committee of the Surrey C.C. include the following proposals for 1924–25: £7,250 for the purchase of a site and building and the adaptation of and additions to a building for a secondary school for 200 boys at Surbiton; £30,000 to £37,750 for a new school for 400 to 450 boys at Kingston; £1,500 for a site for a girls' secondary school at Dorking; and £5,000 for a new infants' elementary school at Epsom.

TAUNTON.—Plans passed by T.C.: Shop, garage, and house in Bridgwater-road, for Mr. A. E. Hawkins; 18 cottages in String-lane, for the Taunton Corporation; bungalow, Cheddon-road, for Mr. F. C. Spear; house at Compass-hill, for Mr. C. W. Stansell.

THORNABY-ON-TEES.—Plans have been passed by the T.C. for a bungalow on Thornaby-road for Mr. W. Johnson; and for a pair of semi-detached bungalows for Mr. A. McLeod.

TORQUAY.—Plans passed by T.C.: Trustees of the Mallock Estate, new road off Wheatridge-lane; Mr. T. Best, two bungalows, Babbacombe; Mr. J. U. Harris, house, Hampton Estate; Mr. H. Wood, house, Ilsham-road; Mr. Keighley, bungalow, Jacks-lane, Barton; Mr. Rowlands, 20 houses, Newton-road.

TRURO.—Plans passed by T.C.: Messrs. Walter Hicks & Co., rebuilding of "William IV" Inn, Kerwyn-street; Mr. W. Hitchens, house.

TURTON.—The D.C. are seeking sanction to borrow £9,000 to carry out improvements at the Eagley sewage works.

UCKFIELD.—Plans passed by U.D.C.: Mr. C. H. Pelham, six cottages, Vernon-road; Messrs. Powell & Co., cottage in Hampstead-road, for Mr. D. Beale.

WAKEFIELD.—The City Council are making application to the M.H. for sanction to borrow £20,000 for the purposes of providing houses for the constabulary.

WALLASEY.—Plans passed by T.C.: House, 5, Highacre-road, for Mr. D. Lyon; two houses, Radley-road, for Messrs. Jones & Glenn; three garages, 19, Rice-lane, for Mrs. E. Graham; cook-house, 399, Poulton-road, for Messrs. Hill & Co.; six lock-up garages, Grosvenor-road, for Mr. William Broster; 14 houses, St. George's Park, for Messrs. Tate, Pumford & Doughty; two houses, Monmouth-road, for Mr. A. Macdonald.

WARDLE.—The D.C. have purchased land in Birch-road required for widening purposes, which is to be carried out on the road beginning near Hesketh, continuing to Birch-hill Institution.

WATERGATE.—The Priestman Collieries, Ltd., have submitted to the Whickham U.D.C. a lay-out of approximately 33 acres, providing for 407 houses, or 12 to the acre; the site being bounded by Brown-lane and Washingwell-lane on the west and east, and by South Field Farm on the south. The difficulty in respect to the Watergate scheme was one of drainage, and also of access. The Council approved the new scheme conditionally. It was stated that about 1,000 houses in all would probably be built.

WATFORD.—Plans passed by T.C.: Detached house, Cambridge-crescent, for Mrs. Durrant; factory premises, Cassiobury Mills, St. Albans-road, for Petroflex Tubing Co.; eight houses, Whippendell-road, for Sun Engraving Co.; bungalow, Cedar-road, for Mr. W. Marshall; extension to north end of Ward Block, Vicarage-road, for Watford Board of Guardians; new classroom, "Gartlett," Clarendon-road, for the Misses Goadby; detached house, Bucks-avenue, for Mr. P. Figg; six dwelling-houses, Sandringham-road, for Miss L. M. Godman; five lock-up garages, Lower Derby-road, for Mr. A. Linley.

WEST RIDING OF YORKSHIRE.—The Standing Joint Committee is asking for sanction to expend £20,000 for the erection of houses for the police.

WHARFEDALE.—An estate at Hawkesworth, is to be opened out for building purposes. The estate has been sub-divided into plots of 1,000 super yds. each, and several of these have already passed into the hands of prospective builders.

WIGAN.—The B.C. confirmed a resolution passed approving of a scheme for developing the estate in Wigan-lane purchased from the executors of the late Mr. H. S. Woodcock, by erecting thereon a number of differently graded houses, the plots for the same being open to purchase by those desirous of owning their own houses. The sites at Ridyard-street, Pemberton, and at Bottling Wood were also under consideration.

WILLESDEN.—Plans passed by U.D.C.: Eight houses, Herbert-gardens, Harlesden, by Mr. A. Welford, for Messrs. Jermey & Son; 18 houses, Sneyd-road, Cricklewood, by Mr. W. J. King, for Mr. A. C. Derham; 7 houses, St. Michael's-road, Cricklewood, by Messrs. Done, Hunter & Co., for Mr. A. G. E. Barnes; 6 houses, Doyle-gardens and Herbert-gardens, Harlesden, for George Ball (Willesden), Ltd.

WINDLESHAM.—The U.D.C. have obtained the sanction of the M. of H. to the borrowing of a further sum of £11,120 for the purpose of completing the Bagshot, Lightwater and Windlesham sewerage and sewage disposal works. The consulting engineer for the scheme is Major T. J. Moss-Flower, chartered civil engineer.

WREXHAM.—Plans have been passed by the T.C. for 18 houses in Bryncabanau-road in three blocks, for General Lloyd; six houses in Rivulet-road, and three in Derby-road, for Messrs. T. Hughes & Co., Rivulet-road; and two houses in Barnfield, for Mr. T. Owen Jones. All these houses will be eligible for the Council's subsidy of £100 per house.

YEADON.—A lay-out plan of an estate at White Cross has been approved by the U.D.C., after having been prepared by Mr. Crabtree. It is proposed to develop the estate and erect semi-detached and bungalow type houses thereon; the estate comprises some 60 acres.

FIRES.

BURTON-ON-TRENT.—Damage to the extent of over £5,000 has been caused by a fire at the flour mills of Messrs. Cooper & Sons, at Acresford.

CHELTENHAM.—The premises of Messrs. F. W. Hinton & Sons, fruit merchants, have been destroyed by fire.

CWMCARN (MON).—The Working Men's Institute, Cwmcarn, has been completely destroyed by fire outbreak.

DARVEL.—A serious fire has occurred in the factory of Messrs. Cleland, Bros. & Co., lace manufacturers.

EDINBURGH.—Great damage has been done by fire to the biscuit factory of R. Middlemass & Son, 137, Causewayside.

FIRE AT LADIES' COLLEGE.—A big fire occurred at St. Elphin's Ladies' Training College, at Warrington, recently, the centre portion of the building being gutted, and damage caused to the extent of £20,000.

RUTHERGLEN.—A serious fire has occurred at the works of the Caledonian Pottery Co., Rutherglen.

WHITLEY BAY.—The Pavilion picture house and adjoining property has been destroyed by fire.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Fletton, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick :—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½ in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2)	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „ „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6	
51/- alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅛	17/6
¼	22/-
½	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	5	—
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In "Roof Work"	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5¾	3 3¾
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3¾	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars— good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 0 0	..	16 0 0
„ „ „ 24 g.	16 0 0	..	17 0 0
„ „ „ 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	41 10 0
Pipe in coils	42 0 0
Soil Pipe	45 0 0
Compo pipe	47 10 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

	£ s. d.	
Old lead, ex London area, at Mills per ton	27 0 0	.. —
Do., ex country, carriage forward per ton	28 0 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin „ „	0 2 4	.. —
Copper nails „	0 2 3	.. —
Copper wire „	0 2 4	.. —
TIN—English Ingots „	0 2 6	.. —
SOLDER—Plumbers' „	0 1 1	.. —
Tinmen's „	0 1 3	.. —
Blowpipe „	0 1 5	.. —

PAINTS, &c.

	£ s. d
Raw Linseed Oil, in pipes per gallon	0 3 10
„ „ „ in barrels „	0 4 0
„ „ „ in drums „	0 4 3
Boiled „ „ in barrels „	0 4 4
„ „ „ in drums „	0 4 3
Turpentine in barrels „	0 6 6
„ in drums (10 gall.) „	0 6 9
Genuine Ground English White Lead. per ton (In not less than 5 cwt. casks.)	56 5 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots per ton delivered	79 10 0
Red Lead, Dry (packages extra) per ton	43 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocol per cwt.	0 15 8
Size, XD Quality fkn.	0 3 6

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
5 oz. fourths....	3½d.	32 oz. fourths	8½d.
5 ,, thirds	4½d.	32 ,, thirds	10½d.
1 ,, fourths ..	5d.	Obscured Sheet, 15 oz.	4d.
1 ,, thirds	6½d.	,, 21 ,,	5½d.
6 ,, fourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
6 ,, thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
⅛ Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 6
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Guirass Black Enamel		0 7 0

Fire.

On December 24 a serious fire broke out in the works of the Caledonian Pottery Company, Ltd., situated at Farmeloan-road, Rutherglen. The damage has not been estimated, but is believed to be nearly £20,000. Fully 100 workers will be thrown out of employment.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND.

Glasgow.—VARIOUS.—John Emery & Son, contractors, 175, West George-street, to erect 33 two-story five-apartment terrace houses at Muirend-road, Muirend; James Watson, builder, 494, Crow-road, Jordanhill, to erect double villa at Cornwall-avenue, Victoria Park, Partick; John Arbuckle, 147, Howard-street, to erect a house at Langlands-road, Newlands; Corporation Electricity Department, to erect an electricity sub-station at Burgher-street, Parkhead; Corporation Parks Department, to erect a bowling and tennis pavilion at Auldhouse Park; William Findlay, 56, Laverock-street, Springburn, to build a bungalow at Auchinairn-road.

Aberdeen.—HALL.—Lord and Lady Cowdray have given £20,000 for the proposed Cowdray Hall and Art Museum. A start has been made with the work, which involves the extension of the gallery and provision of a war memorial court at a total estimated cost of £60,000.

Cathcart.—HOUSES.—The Upper District Committee of the Renfrewshire County Council have passed plans for the following:—40 houses at Ormonde-avenue, Muirend, for John Dicke & Sons, builders, and 30 cottages at Netherlee, for A. Mitchell & Sons, Ltd., builders.

Clarkston.—HOUSES.—The following plans have been passed by the Upper District Committee of the Renfrewshire C.C.:—Bungalow, Carolside-avenue, Clarkston, for Mr. J. McCallum, builder; cottage, Kilmarnock-road, Newton Mearns, for Mr. R. Carswell, Eaglesham; and bungalow at Southfield-avenue, Potterhill, Paisley, for Mr. D. Ralph.

Errol.—POLICE STATION.—The Perth C.C. proposes to erect a police station at Errol.

Saltcoats.—HOUSES.—The T.C. has conditionally approved plans for six flats at Ardrossan-road, and an office and house at Springvale-place, for the Ayrshire C.C.

Giffnock.—BUNGALOWS.—The Upper District Committee of the Renfrewshire C.C. has passed the following plans:—Bungalow at Busby-road, for the Southern Building Co., 480, Pollokshaws-road, Glasgow; two bungalows, Percy-drive, for Mr. Philip Thomasson, builder, Motherwell; and bungalow on the Davieland Estate, for Mr. J. Mackie, Pollokshields.

Edinburgh.—VARIOUS.—The Finance Committee of the Edinburgh Provincial Committee for the Training of Teachers has agreed to ask the Housing Committee to make a recommendation in favour of the provision of additional hostel accommodation at Craigmillar Park for women students.—The Dean of Guild Court has passed the following plans:—Mrs. M. Donald, villa at Queensferry-road, Davidson's Mains; A. Forbes, two bungalows at Drylaw-avenue, Blackhall; A. S. Gray, villa at Woodhall-road and Fernlie-avenue, Colinton; T. Scoon, bungalow at Dovecot-road, Corstorphine; D. Shepherd, house at Saughton-road, Corstorphine; Wood's Bottle Works, workshops at Barleyfield-road, Portobello; and S. Keppie, jun., two houses and garage at Lasswade-road, Liberton.

Gamrie.—Mr. Charles Fordyce has offered £5,000 in aid of a nursing scheme for the parish. Mr. Fordyce suggested the erection of a small cottage hospital at an estimated expenditure of £4,000, and the investment of £1,000 for endowment purposes.

JANUARY 4.—**Brechin.**—HOUSES.—Erection of four four-apartment houses, type B1, to be erected at Trinity-road, Brechin, for T.C. All particulars from Mr. D. W. Galloway, architect, 2, Market-street, Brechin. Deposit £1 1s.

JANUARY 22.—**Edinburgh.**—HOUSES.—The Board of Agriculture for Scotland intimates that tenders have to be invited by smallholders for various works in connection with erection of two houses, one house on Kerrycrusach Farm, County of Bute, 2¼ miles from Rothesay; the other on Goltans Farm, County of Bute, 2 miles from Rothesay. Plans at Employment Exchange, Rothesay. All particulars from Chief Surveyor to the Board. Deposit £1 1s.

Gospel Pictures in Mosaics.

A series of mosaics has been dedicated at St. Columba's Church of Scotland, Pont-street, London, by the minister, Dr. Fleming. The mosaics are the anonymous gift of "a loyal member of the congregation, to the glory of God and in grateful memory of a beloved mother and sister."

The mosaics occupy seven Gothic panels, which extend completely across the back of the chancel. Six of them depict the life of Christ on earth, the subjects being the Nativity, the Baptism, the Agony, the Crucifixion, the Resurrection, and the Ascension. The seventh represents the Descent of the Holy Spirit.

Housing Progress in Scotland.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to November 30, 1923:—

Permanent houses completed ..	20,123
Temporary houses completed.. ..	665
Reconstructed houses completed ..	101
Houses completed under the private subsidy scheme	2,314
	23,203

There are 2,930 houses at present under construction in connection with housing schemes carried out by local authorities and public utility societies.

The total amount paid by the Scottish Board of Health in respect of the 2,314 houses completed under the private subsidy scheme is £549,126 13s. 4d.

Glasgow Theatre.

There is a prospect of a definite step being taken in the near future to provide for the erection in the city of an up-to-date hall capable of seating about 1,200 for dramatic productions primarily. The hall, it is contemplated, should be adaptable for chamber concerts and musical recitals. The question of the provision of a larger hall for grand opera and concert purposes is still under consideration.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-		
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2		
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1		
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2		
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—		
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2		
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2		
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2		
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½		
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½		
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1		
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½		
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½		
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2		
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-		
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½		
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 25

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/1
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	0
Welt joint	per ft. run.	0	0
Soldered seam	" "	1	0
Copper nailing	" "	0	0

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/1
Bends in lead pipe	each					3/3	8/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/-
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/-
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	0
Do. Do. Sirapite	" "	2	0
Do. Do. Keen's	" "	3	0
Add sawn lathing	" "	1	0
Add metal lathing	" "	2	0
Portland cement screed	" "	1	1
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	6
One-and-a-half granolithic pavings	per yard sup.	5	0

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	1
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	0
⅛ in. rolled plate	" "	0	10
¼ in. rough rolled or cast plate	" "	1	1
¼ in. wired cast plate	" "	1	1

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	2
Knotting and priming	" "	0	1
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	4
Do. 3 coats	" "	1	7
Do. 4 coats	" "	2	0
Graining	" "	2	0
Varnishing twice	" "	1	4
Sizing	" "	0	1
Flatting	" "	0	9
Enamel	" "	1	4
Wax polishing	per foot sup.	0	1
French polishing	" "	1	0
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PATENTS.*

APPLICATIONS PUBLISHED.*

204,144.—S. F. Sutherland: Collapsible folding boxes.

204,178.—T. Hulse: Means for securing door-knobs to their spindles.

204,210.—C. G. Mitchell: Wall ventilators.

204,224.—G. Jaeger: Water-tanks for concrete-mixing machines.

204,225.—Twyfords, Ltd., and J. T. Webster: Lavatory basins and sinks.

204,233.—C. T. S. Hammond: Fires, fireplaces, stoves, and ranges.

204,235.—B. I. Hellyer and R. H. Hellyer: Flushing cisterns.

204,256.—J. Winks: Preparation for disinfecting and restoring the surface of stone or plaster made as an imitation of stone.

204,263.—J. E. Abrams: Building-blocks.

204,269.—W. L. Ross: Portable buildings.

204,275.—W. H. Miller: Tools or appliances for scraping plaster work.

183,477.—G. M. Gouyaud: Method of constructing arches of reinforced concrete without using any moulds, arched falseworks or scaffoldings.

195,952.—J. L. L. A. A. Moulet: Pipe coupling.

200,031.—M. Palanti: Blocks for building and general construction purposes.

200,077.—J. Bonnet: Automatically-operated jack for use in underpinning.

202,324.—P. Liese: Grid windows.

204,785.—G. H. Cliff: Combined convertible ladder and step-ladder.

204,791.—E. R. Calthrop: Machines for manufacturing compound veneer or plywood.

204,828.—I. Bloomenfeld: Chest of drawers.

204,894.—J. E. Kennedy: Crushing apparatus.

204,896.—H. Baker: Wire fencing.

204,935.—C. F. Bennett: Ovens or kilns for firing pottery and other ware.

204,940.—J. A. Webberley and J. Adams & Son, Ltd.: Door springs.

204,944.—G. D. Hepburn and Butters Bros. & Co.: Derrick cranes.

204,947.—S. J. Cadwell: Means for opening and closing fanlights, greenhouse, and other hinged windows.

204,971.—W. Bachmann: Carpenters' and like joints.

204,987.—J. Heys: Devices for opening box-lids.

204,989.—Grigg Motor & Engineering Co., Ltd. (H. Grigg and H. Grigg): Folding stools.

204,999.—Anker Heegaard Aktieselskabet (A. Paulsen and J. P. Moller): Fire-places.

205,019.—K. F. Krauter: Building of floors.

205,149.—S. Woodall: Method of construction in crates, boxes, and the like, to render them collapsible and self-fitting.

205,151.—H. A. Lamplugh: Seats.

205,158.—C. F. Rainsford: Boxes, packing-cases, and the like.

205,172.—D. De Nagy: Jigging or shaking machines for moulds, particularly applicable to moulds for moulding concrete blocks, slabs, and tiles.

205,204.—E. Law: Concrete wall construction.

205,221.—G. H. S. Carter: Perforated bricks or gratings used for ventilating buildings.

205,235.—M. Jones: Single sash window-holder.

205,262.—H. O. Weller: Rain- and water-proof distempers and water paints.

205,263.—J. A. Davidson: Manufacture of concrete pipes.

205,272.—J. A. Husbands and H. A. Brett: Disinfecting apparatus for use in flushing cisterns.

205,305.—A. G. Sadler: Construction of theatre chairs.

205,337.—Parker, Winder & Achurch, Ltd., and J. A. Wood: Casement hinges.

205,338.—J. Christie and A. R. Lang: Form for moulding concrete structures.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.* † Denotes *provisionally accepted.*

‡ Denotes *recommended for acceptance.*

§ Denotes *accepted subject to modifications.*

ABERDEEN.—For the erection of pavilion (including dwarf wall and railing along Victoria-road), in connection with the bowling green and tennis courts at Torry, for the T.C.:—

*G. Hall, *Mason*	£600	0	0
*John Reid, *Carpenter*	442	1	6
*Scott & Son, Ltd., *Plaster*	289	0	0
*A. R. Prosser, *Plumber*	181	0	0
*Currie & Co., *Slater*	59	0	0
*James S. M'Laren, *Painter*	68	0	0

BATLEY.—The Education Committee have placed the following contracts:—

Asphalting to playgrounds at Healey, Purlwell, and Field-lane Schools—
G. Brookes & Son, Batley.
Fixing new lavatory basins at Carlinghow Schools—T. Mawson, Batley.

BIRMINGHAM.—Construction of new transport road between Birmingham and Wolverhampton:—

*Sir Robt. McAlpine & Sons, Westgate, Huddersfield.

BRYNMAWR.—For erection of 12 "B" type houses for the U.D.C.; net quotations:—

Brown, Ebbw Vale	£5,130	0	0
Havard	4,960	0	0
Hall	4,882	0	0
Head & Gay	4,811	19	2
*Smith, Ynysddu	4,801	0	0

CHELMSFORD.—Supply and laying 773 square yards of creosoted wood paving in New-street, for the T.C.:—

	Per sq. yd. s.	d.
Acme Flooring & Paving Co.	17	5
Improved Wood Pavement Co., Ltd.	17	0
*Wm. Griffiths & Co.	16	6

CWMTAFF.—For erection of a pair of semi-detached houses, for the Cardiff Water Works Committee. Mr. C. H. Priestley, City Hall, Cardiff:—

W. G. Bond, Cefn Coed	£2,937
T. D. Evans, Talgarth	2,584
T. R. Evans, Cardiff	2,345
*Hybart, Broadhead & Co., Ltd., Cardiff	1,947

DANURE.—For widening and deepening the harbour entrance on Carrick Coast at Danure:—

*Messrs. R. C. Brebner & Co., Aberdeen.
Note.—Estimated cost is about £1,000.

DOVER.—For the erection of 23 houses, for the T.C.:—

*G. Lewis & Sons £8,693

EASTBOURNE.—For erection of brick chimney, 60 ft. high, for the Eastbourne Board of Guardians. Mr. F. C. Cooke, architect, 2, Hyde-gardens, Eastbourne:—

Bodle, Ltd., Eastbourne	£469
Chimneys, Ltd., Westminster	459
Mark Martin & Co., Eastbourne	410
Custodio & Co., Westminster	387
Bidder & Co., Manchester	385
Topping & Leggatt, Westminster	384
*Miller & Selmes, Eastbourne	328

EASTBOURNE.—For structural alterations to laundry and boiler-house, for the Eastbourne Board of Guardians. Mr. F. G. Cooke, architect, 2, Hyde-gardens, Eastbourne:—

Bainbridge & Son, Eastbourne	£1,596
Mark Martin & Son, Eastbourne	1,560
Bodle, Ltd., Eastbourne	1,535
*Miller & Selmes, Eastbourne	1,474

FEATHERSTONE.—For erection of 20 houses at Little-lane, Purston, for the U.D.C. Mr. S. Chesney, Council Offices, Featherstone, near Pontefract:—

*Smith & Hawley, Ltd., Sheffield £8,065

FERRYHILL.—For erection of 18 houses for the combined Committees of the Miners' and Deputies' Union, at Dean and Chapter Colliery:—

*W. Dunn, Ferryhill £5,544

HACKNEY.—For erection of new front entrance, receiving wards, porter's lodge, &c., at the Infirmary, for the B.G. Messrs. Finch, Gunn & Finch, architects, 18, London-street, Paddington. Quantities by Messrs. Hood Bros., 8, Union-court, Old Broad-street, E.C.:—

A. M. Brand, London	£26,880
R. J. Truscott, Forest Gate	26,683
F. G. Minter, London	25,700
Harris & Wardrop, London	25,439
H. Potter, Chelmsford	24,750
Vigor & Co. (Poplar), Ltd., London	24,432
R. Woollaston & Co., London	23,610
Stapleton & Sons, Stoke Newington	20,066
W. Simms, Stepney	20,671
†F. & G. Foster, Norwood Junction	20,794

HALIFAX.—For conversion of Craven Lodge into a Secondary School, for the T.C. Messrs. Walsh & Maddock, architects, 10, Harrison-road, Halifax:—

Masons—E. & T. Bower, Halifax.
Joiners—F. Moore & Son, Halifax.
Plumber—Percy Smith, Halifax.
Slaters and Plasterers—N. Castle & Co., Brighouse.
Electric Lighting—F. S. Jackson, Halifax.
Heating—Hildred Uttley, Halifax.

H.M. OFFICE OF WORKS (accepted during Nov.)—*Building Works*: Bangkok, H.M. Legation—Steel Reinforcement Bars: Dorman, Long & Co., Ltd., Middlesbrough. Barnsbury-grove, North Telephone Exchange—Alterations, &c.; Thomas Shillitoe, London, N. Basingstoke New P.O.—Erection: G. W. Oliver, Basingstoke. Belfast, Stormont Castle—Timber Clearing: John Graham, Dromore. Brighton Sorting Office, &c.—Completion: Arthur Vigor, Ltd., London, S.W. Broadmoor Asylum—Flooring Repairs, &c.: Norris & Co. (Builders), Ltd., Sunningdale. Chester Telephone Exchange, &c.—Alterations and Additions: Parker Bros., Chester. Didsbury Telephone Exchange—Asphalter: The Limmer & Trinidad Lake Asphalte Co., Ltd., Manchester. Plasterer and Painter: J. Gibbons, Manchester. Steelwork: Ed. Wood & Co., Ltd., Manchester. Ealing Telephone Exchange—Additions, &c.: T. Millman, Ltd., London, W. Edgware-road Employment Exchange—Erection: Thomas & Edge, London, S.E. Halifax P.O.: Asphalter: The Northern Asphalte & Roofing Works Co., Ltd., Leeds. Carpenter, &c.: J. H. Naylor & Sons, Burnley. Plasterer: R. Rawlinson & Sons, Burnley. Steelwork: Joseph Webb & Sons, Ltd., Bury. Hammersmith Sorting Office—Plasterer: R. Murray & Son, London, W. Ilford Employment Exchange—Hutting Alterations, &c.: Perry Bros., London, W. Leicester New Telephone Exchange Site—Demolition and Excavation Work: H. J. Greenham, London, S.W. Maintenance Work—Dewsbury, &c., District: Joseph Brooke & Sons, Dewsbury. Eastbourne District: James Bodle, Ltd., Eastbourne. Falmouth District: G. Wakeham & Son, Falmouth. Lancaster District: R. S. Wright & Sons, Lancaster. London District—Plumber: Matthew Hall & Co., London, W. Preston District: Thomas Cottam, Preston. West Bromwich District: G. & H. Marshall, Smethwick. Mount Pleasant Letter Office—Plasterer: Telling Bros., Ltd., London, S.E. Oxford P.O.—Extension: W. F. Drew, Ltd., Stroud. South Kensington, Natural History Museum—Re-roofing Work: Galbraith Bros., Ltd., London, S.E. South Norwood, Postmen's Office—Rebuilding Front: Wm. Akers & Co., Ltd., London, S.E. Southport P.O. Extension—Wood Block Flooring: The Acme Flooring & Paving Co. (1904), Ltd., London, E. Teddington, Admiralty Research Laboratory—Extension: W. Pattinson & Sons, Ltd., London, S.W. Steelwork: A. D. Dawnay & Sons, Ltd., London, S.W. Weston-super-Mare P.O.—Plasterer: G. Prince & Co., Birmingham. Windsor Castle, East-terrace—Paving: W. Goddard & Son, Eton. Windsor Castle, North Slopes—Erection of Wall, &c.: W. Goddard & Son, Eton. Windsor Castle, Royal Mews—Windows: Gardiner, Sons & Co., Ltd., Bristol—*Engineering Services*: Birmingham P.O. Factory—Heating: W. A. Bennett, Coventry. Chester-le-Street Housing Scheme, Birtley and Pelton Sites.—*Painting*: J. Scott Fenn, London, S.E.; Henry Green & Co., London, W.—*Miscellaneous*: Fire Extincteurs and Charges: Mather & Platt, Ltd., London, S.W. Lockers: Hagger & Daniels, Ltd., London, S.E.; Roneo, Ltd., London, E.C.

KINGSTON-ON-THAMES.—For removal and re-erection of wall and gates of St. Peter's Church, for the T.C.:—

*Antill, Ltd. £459

LEEDS.—Alterations and extensions to premises in East-parade, comprising warehouse and offices, for the County Fire Offices, Ltd.:—

*Wm. Mason & Son, 150, Woodhouse-lane, Leeds.

LEEDS.—Asphalters' work at Messrs. Jessop's super premises, Ideal Stores, Spence-lane, Holbeck:—

*Messrs. Tunstall's Rock Asphalte Co., Ltd., Leeds.

LEEDS.—Structural alterations to premises in Boar-lane, for Messrs. Edmondson's, Ltd.:—

Mason's work—
*W. Bromley, Beeston-hill, Leeds.

LETCHWORTH.—For erection of 48 cottages, Spring-road, for Letchworth Cottages and Buildings, Ltd. Price per cottage of 701 sup. ft. floor area, including fences, paths and drains. Mr. J. C. Tickle, architect, Lytton-avenue, Letchworth:—

Quinn & Seaton, Letchworth	£545	0	0
Raban, Baldock	480	0	0
Beckley & Turpie, Letchworth	450	0	0
Hurst, Letchworth	434	0	0
Jeffs & Bigley, Letchworth	394	10	0
D. Pearce & Son, Letchworth	389	3	0
Palmer & Armitage, Letchworth	387	0	0
Wilmott, Hitchen	385	0	0
Redhouse, Stotfold	378	0	0
†John Ray, Letchworth	360	0	9

MIDDLESEX.—For the construction of new road between Acton and Greenford, for the Middlesex C.C.:—

*J. Parkinson & Sons (Blackpool), Ltd. £258,080

MORECAMBE.—For erection of detached residence, Heysham-road. Mr. W. H. Porter, York House Franklin Mount, Harrogate:—

Herbert Harrison, Morecambe	£1,750	0	0
Grayshon Bros., Bradford	1,718	13	3
Arthur O. Thoms, Lancaster	1,680	0	0

NORBURY.—For erection of new Police Station at Norbury. Mr. G. Mackenzie Trench, Police Architect and Surveyor, New Scotland Yard, S.W.1. Quantities by Messrs. Thurgood, Son & Chidgey, 18, Adam-street, W.C.:—

T. H. Adamson & Sons	£19,100
Geo. E. Everitt & Sons, Ltd.	18,468
Truett & Steel, Ltd.	18,410
Holliday & Greenwood	18,251
W. J. Dickens	17,950
T. Graham & Co.	17,925
Rice & Son	17,862
Prestige & Co., Ltd.	17,826
Higgs & Hill, Ltd.	17,490
Henry Kent	17,420
James Smith & Sons (Norwood), Ltd.	17,420
Patman & Fotheringham	17,317
F. G. Minter	17,260
W. H. Lorden & Son, Ltd.	17,135
John Garlick (1910), Ltd.	17,007
F. & H. F. Higgs, Ltd.	16,913
A. E. Symes	16,618

RAWTENSTALL.—For sewering of Hollin-lane, for the T.C. Borough Surveyor, Town Hall, Rawtenstall:—

*Wm. Jenkins, Ltd., Blackburn.
C. Collins & Co., Radcliffe.
T. Windle & Sons, Waterfoot.

SALISBURY.—For erection of school buildings in three blocks at Highbury-avenue, for 540 children, for the Higher Education Committee. Messrs. J. Harding & Son, 65, New-street, Salisbury. Quantities by Mr. H. B. Hale, 6, Queen Anne's-gate, Westminster, S.W.1:

C. R. Palmer, Swindon	£21,300	0	0
Coles Bros., Bath	19,450	0	0
Wise & Lansdell, Salisbury	19,293	0	0
E. Ireson, Stamford	18,743	0	0
E. J. Bundy, Bemerton / A. E. Lailey, Salisbury	18,023	14	9
E. G. Padfield & Son, Shepton Mallet	17,900	0	0
Jesty & Baker, Weymouth	17,597	0	0
H. C. James, Durrington	17,500	0	0
Wort & Way, Salisbury	16,897	0	0
Collins & Son, Salisbury	16,700	0	0
Building & Public Works Construction Co., Ltd., Swindon	15,899	0	0
*Porter, Jenkins & Williams, Salisbury	16,300	0	0

SOUTH STAFFORDSHIRE.—Construction of reinforced concrete filtration and sedimentation tanks in Birmingham district for the South Staffordshire Water Works Co.:—

*Grays Ferro-Concrete Co., Glasgow £23,249

STIRLING.—Erection of houses on south side of Broad-street, for the T.C.:—

*Gardners, Stirling £2,624

STRETFORD.—For provision of two shale tennis courts, each at Longford, Victoria and Gorse Hill Parks, for the U.D.C.:—

*G. Clarke & Son £499

Wireless Station.

Messrs. Chessums, Ltd., Imperial Works, Portland-road, N.15, are erecting, near Rugby, a Post Office Wireless Station for H.M.O.W., under the superintending architect, in connection with the Wireless Imperial Chain.

Reinforced Concrete.

Messrs. Saxild & Partners, reinforced concrete specialists, of No. 2, Central Buildings, Westminster, S.W.1, have issued a new catalogue, in which are illustrated a number of interesting reinforced concrete structures which they have carried out, including jetties and quay walls, slipways, foundations, bridges, breakwaters, power stations, grain silos, oil storage depots, seaplane hangars, workshops, factories' granaries, office buildings, &c. The interest of the catalogue (which comprises 64 pp.) is enhanced by the inclusion of plans and sections of many of the buildings, which show the application of several methods of design not generally adopted in this country.


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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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STATE CRAFT AND BUILDING CRAFT.

ARCHITECTURE, as we know, is a flower that grows on the surface of civilisation. It is, perhaps, a by-product rather than a product. At the risk of being accused of calling it a weed instead of a garden plant, we might assure ourselves that its free growth is spontaneous rather than forced; that a fine civilisation gives off fine architecture not as the product of effort but as the inevitable and healthy result of activities which, in the main, are directed to other ends. After all, we recognise that there are in the world of natural beauty wild plants as beautiful as the trained; so let us call it a by-product, realising that wild or cultured—spontaneous or trained—the flower owes its life and its beauty to the soil.

And for architecture the soil is civilisation, the life of ordered society, the State. How strange is this reflection at a time like the present! How much more solid in those last days of 1923 seemed the purpose, the progress, and the performance of architecture than that vortex of upheaval which has been racking the bases of our State. These disturbances are, it may be, much more apparent than real. There may be—we believe there is—that in the unwritten constitution of England and in its traditions of government which rises above and is anchored beneath all battles of party against party. It is happier to believe in and to trust this hidden and majestic force than to analyse it, for there is in the minds of those who think deeply of such matters a lurking fear lest this hidden deity, if hunted home and revealed, should prove to be nothing more than the deeply reverenced law that under a competent chairman fifty-one men can rule the destinies of any hundred of which they form a part. The fact, of course, is that all civilisations are games played under fixed rules. We say "games" not as implying anything childish or frivolous, for there is nothing less frivolous or childish in this world than British cricket. The laws of any State—that is, the constitutional laws—which may be no more than unwritten customs, are the framework of that implied contract between citizen and citizen which—unless cancelled by revolution, makes the State a State. And even revolution, its object once achieved, has a tendency to build its new structure, if it builds at all, on the old foundations and around the old framework. These traditional bonds are the laws of the game to which as citizens, anxious to keep our country free from civil tumult, we owe, and rightly owe, the homage of patriots. This is why a strain on those rules however apparently ridiculous is indeed no laughing matter.

This is no political journal: we are not talking politics; we are merely gazing, as every man and every architect must gaze, on the unusual spectacle of an unusual fact. It is experiences such as this which make us wonder at the strange inadequacy of the constitutional machine and make us further, while wondering, admire. For indeed we can trust, for all our amazement, and in our trust we can realise that England's strange elastic strength is equal to every emergency. Sooner or later, probably very soon, the crisis of threefold division will resolve itself into the old accustomed fight of one against one—a fight which is all the friendlier because of its antiquity. England then will settle down to plainer issues.

Meanwhile, the great cranes swing the great blocks from street level to sky line, and architecture, crippled though she is by the astounding phenomenon of a grim shortage of men, which stalks through the land arm in arm with hideous unemployment, architecture, the ancient and sublime, goes on her majestic way. But she goes in fear; for if the State is crippled she falls. If the fair field of her growth is sterilised she fades.

How little people think on the nature of civilisation. The sound man broods little on the nature of health, and citizens in the sound commonwealth give little heed to the conditions out of which a commonwealth is built.

The wisest folk will often think and utter the strangest thoughts about the nature of social existence and social growth. For example, war—the strife between nation and nation—has been sometimes spoken of as a relapse into barbarism. War is a horrible and detestable thing; but the more horrible it is and the more detestable the less can we afford to overlook the undoubted fact that so far from its being a return to man's state before civilisation, it is in fact with all its vileness a product of a very high order of State culture. Personal attack by man against man, individual against individual, may be, it is true, a return to savagery, but war itself, unless manœuvred by irresponsible autocrats, is the action of a civilisation not indeed primitive, but so organised and developed that its citizens prefer to undergo the risk of the gravest personal injuries rather than jeopardise the State to which they owe a sacred allegiance. That war will be in the near future superseded in practical world politics by reasonable international arrangements for the settlement of disputes is the earnest wish and prayer of more thoughtful statesmen; but those who condemn it as an evidence of insufficient civilisation misunderstand not only the facts of history but the logic of State-growth.

But to return to architecture and the realm. Which is the more important to humanity, the art of architecture or the craft of State management? The latter, obviously, for without an ordered State an architectural life would be impossible. But how bewildering is the thought that the preparation for State control in our rulers is infinitely slighter than the pains bestowed on the training of a young architect; and how entirely absent in the case of England's controllers are the safeguards with which we preserve architecture from the danger of untrained practitioners. We need a Socrates who, by homely questions and trenchant answers, should reveal the absurdity of the actual condition.

It is sometimes said that the great safeguard of England's rule lies in the permanent officials of the government offices; in other words, that no matter who come and go as nominal rulers, their actions can only take effect through trained professional administrators. This line of comfort may perhaps be sound. An architect friend of ours once saw in this a parallel. Ministers of the Crown are, he said, in the same position towards statecraft as are clients towards architecture. Architects, he said, are set in motion by clients, persons who may or may not have architectural taste. It rests with the guardians of the art to see that client's orders never result in outrages against its canons. The parallel may be sound. Who knows?

With these thoughts we go forth into the New Year, if full of anxiety, at least full of hope, for without hope neither architecture nor statesmanship can succeed. And we trust that our readers, be they architects or voters, or both, will find in the coming twelve months the rewards of sound statesmanship and pure art; that the soil in which our craft alone can flourish may be well tilled and produce not only the flowers of architecture, but those still greater fruits, "peace and happiness, truth and justice, religion and piety."

NOTES.

R.S.A. Architectural President.

Another indication that architecture is coming more into its own may be found in the election of Mr. George Washington Browne to the Presidentship of the Royal Scottish Academy. Nobody can possibly wish to dethrone the art of painting pictures from its great position in the life of the world, for it has had a valuable interest as an educational refinement, but the function of architectural art so combines all other arts, both on the practical and artistic sides, that architects may be pardoned if they consider an architect as peculiarly fitted for such an office as president of a painting body. Mr. Washington Browne has long since won his spurs as a particularly able architect and he has outstanding merit as an artist. We congratulate him and also the Academy on his election.

Individuality.

We often wonder how much or how little the average man realises the value of individuality. Yet it would be a terrible world if we were all cut out to an exact pattern, and if we consider it we shall find that it is less the nearness to perfection which we learn to regard in an individual than the little lapses from the perfect form, or action, or thought. We even come to like the individuality of a trick or halt in speech or movement. Therefore it would seem that individuality is a value in life which we all appreciate. And when we leave our own country we feel one of the outstanding interests is of other lands and peoples.* It is well, therefore, to remember that our British characteristics, which have grown into being through our climate, environment, and habits, have a definite value which it may not be wise to eliminate.

*In this issue we commence a series of articles by Mr. Theodore Fyfe on the value of travel.



Old Students' Royal College of Art Exhibition.

Garden Group, "Plenty."

By Jess L. Peacey.



Old Students' Royal College of Art Exhibition.

Lead Garden Figure, "Mischief."

By Anne Acheson.

English Architecture.

The above note leads us to some remarks on Major Corlette's admirable paper on "English Architecture," which he read before the Manchester Society of Architects—in which he dwells on the value of our national characteristics. As to how far it is well to try to alter our national character and mould it into an international type there may be varying opinions, but if variety is one of the undoubted charms of life it may be well to preserve as far as possible our national characteristics as well as those of a more specially individual character. There surely can be no two opinions as to what our average modern architecture is reflecting of any peculiarly British feeling; there is little enough to be found. Yet the development of Gothic art found a ready response amongst the British people, and beautiful and wonderful as French Gothic is at its best we all know that the specially British characteristics brought qualities to Gothic art which gave it a world-wide distinction. Now, since our national individuality seems to have found little or no expression since about Sir Christopher Wren's time, we have been floundering along midst copyism and revival until we have reached all sorts of modern eclecticism which is practically devoid of any national individuality. When order and character have evolved out of the present chaos will it show our well-defined English characteristics?

English Character.

What is English architecture? We are glad that Major Corlette took English architecture as the subject of his address, and we hope what he had to say will bear some fruit. After our fifty years' trial in this country to infuse fresh interest in our modern work by revivals of every known style, both English and foreign, we have been settled down for a time into a general adoption of a muddled sort of Renaissance which is perhaps as little English as it can well be. We quote the following from Major Corlette:—"The Italian revival in Italy was a revival of a native and a Latin tradition. The introduction first of Italian detail and decoration and then of Italian, and, later, of Greek, form as well as detail into England and other northern countries was not revival. It was not a return to but it was a destruction of, and a break from, English tradition. And however much we may have learnt, and may still learn, from the many beauties of detail and of form Italian work possesses, it will never become a truly national tradition acceptable to and welcomed by a Gothic race. It does not appeal to their native instincts or to their inborn feeling. It is a culture, a southern plant in a northern soil. And it will never really thrive without a large variation and free handling that may make it conform to native ideas and national needs."

Oneself.

We would appeal to all our architectural students who really love their art to be true to their instincts and seek to do what they can find pleasure in the doing. We do not for a moment suggest they should ignore the value of study and comparison; it is possible that the more they know about the world-wide refinements of architectural art the better equipped they will be, but they should refuse to be entangled in the meshes of an art that may be dead to them, but follow that admirable advice to be true to themselves. Our architecture cannot be good unless we understand the values of sound construction, fine proportion, and beautiful detail, and these may be obtained in any school and any style, but the vital matter lies in the designer who, because he has something in him worthy of expression, refuses merely to follow the lead of others, whether they be school or university professors or anyone who can pose or talk of art out of a dull and uninspiring mind.

Fellowship.

We all realise the value of the advice, "Man, know thyself," though we may much doubt whether the average man often achieves that knowledge. But do we realise as we ought the value of knowing our fellows? We have often thought that the "At Homes" at the Institute might have led to a further development of this excellent social function. If the bulk of the pleasant talk which architects had with each other on these occasions was less of architecture than anything else, was not a more happy feeling of fellowship promoted, and did it not help the realisation that even a fellow



Detail of Carving.
Cambridge University: School of Bio-Chemisty.
Sir Edwin Cooper, F.R.I.B.A., Architect.
(*See p.* 52.)

competitor in the realms of art might be a very good fellow and help to lighten a little the dark shadows that cross our lives and professions. We had an intimate talk with a young architect the other day which seemed to us to throw a flood of daylight about things which interested him most, such as the eternal competition question and the grotesque distribution of honours, and the varying degrees of efficiency amongst fellow architects—nice, straight talk with no obscurity of views.

The Disfigurement of London Buildings.

In reference to the letter which appeared on this subject in our issue of January 4, we have obtained the views of one or two well-known architects on the matter. Professor A. E. Richardson said that Mr. Belcher's Institute of Chartered Accountants was one of the most interesting examples of pre-war buildings in the City, and had the merit of expressing its character as an Institute. It seemed pitiful that the work of an artist should be disfigured by impertinent additions, which might remedy smoky chimneys, but spoiled the silhouette. People were very sensitive on these matters, and again their first impression of a building was from the skyline. There were other ways of curing a smoky chimney than by adopting cowls and tall-boys. Modern practice in the City aimed at the abolition of numbers of flues and the installation of a system of central heating; and it was to be hoped that the future would see a lessening of the number of chimney-pots. Finally, why not consult the architect?

Tidying up London.

Another architect expressed the view that the disfigurement of buildings was not confined to London alone. In fact, in Italy they had a saying that no one looked beyond the cornice line, because on the tops of beautiful palaces they had tanks, pipes and all sorts of excrescences. Unfortunately the particular disfigurement of the Institute of Chartered Accountants was not the only form of disfigurement that spoiled London buildings. At Aldwych, looking towards Bush House, there was a glaring disfigurement in the form of an electric light standard. Taking a wider view, the misplacement of call-boxes, sand-bins, and the erection of kiosks all had their deleterious effect. He suggested that there should be a competition for students in order to find out the best method of tidying up London. It would be a better training than working at monuments and palaces which had not the slightest chance of erection. It would enable them to handle the small, practical things with which architects had to deal.

The Jury System.

Is the system of arriving at a decision in a competition by allotting marks for certain qualities a sound one? In any case, when it comes to allotting marks for draughtsmanship the system gets out of hand. What draughtsmanship has to do with the award we fail to see, except that an architect who will not, or cannot, make a good representation of his design might, with certain assessors, lose some sympathetic consideration. The arguments which may be advanced on the various aspects of competitions seem endless. On the face of it we might fairly claim that the competitors themselves are the best judges and probably the really able competitors are, but in a contest where a hundred or more take part it is doubtful whether the majority would take a sound view.

Developments in Builders' Plant.

On another page we print the first of a series of articles under the general title of "Modern Builders' Machinery." These articles have been specially written for *The Builder*, their object being to discuss the great developments that have taken place in the plant available for the very varied requirements of the builder and contractor, and the results that are to be obtained by the use of it if judiciously selected and properly handled. The subject is of peculiar interest at the present day because, owing to the severe and protracted restrictions imposed on the building industry by the post-war policy of the Government, it is only now that that industry may be said to be able to revert to what we hope will be normal conditions. Hitherto, that is to say since 1914, there has been but little incentive or opportunity for the builder to give close attention to the advances made in this direction. In the frenzied construction that took place during the war, he



Mural Decoration, Mortuary Chapel, St. Alban's, Holborn.
By Mr. C. W. Whall. (*See p.* 44.)



Old Students' Royal College of Art Exhibition.

Silver Statuette, "Bhanavar."

By ALEXANDER FISHER.

could take only what he could get in the way of equipment, and since then and until recently it has been difficult for him to formulate a future policy of working, as he could not estimate with accuracy what was likely to be the permanent position of his industry or of himself.

Developments in Builders' Machinery.

DURING those ten years of abnormality the developments in builders' machinery have been very considerable, and it is our purpose to go fully into this question in these articles. There is a great deal of machinery available to-day which had not been dreamed of in the philosophy of the trade twenty, fifteen, and even ten years ago; and the whole routine of saw and cutter maintenance has been revolutionised. Thus, the big builder may more than double the output of his sawing and multiply that of his planing machines by four or five, as compared with pre-war practice, and without increasing his labour. He may virtually eliminate the hand-finishing of his woodwork, whether it is a question of scraping, sandpapering or polishing. He may plane his flooring after it is laid in position with as little effort, and as rapidly, as a gardener can mow a lawn; and he may even establish a sawmill inside a big building under construction and shift it from floor to floor as the work progresses with but little cost or inconvenience. While the man in a small way may not be able to avail himself of all the above advantages, he is proportionately a greater beneficiary under the modern developments than the larger builder. The machines now available for him have been greatly improved and, above all, simplified, and the advent of the electrical drive has widened his horizon immensely. This has rendered it possible for the builder of very small means to invoke the aid of machinery long before he would have been able to think of it when faced with the initial necessity of purchasing an engine, boiler and shafting, and of finding the labour, fuel and space for working them. All these and many other matters will be dealt with in this series of articles, and we invite those of our readers who are interested in this important subject to give their views and to raise any points on which they may desire either information or advice. Such communications should take the form of "Letters to the Editor," either for publication or not at his discretion.

Waterloo Bridge.

IT is rather wide of the mark to say that "the only person to bethink himself of Waterloo Bridge appears to have been Mr. H. V. Lanchester," for a good deal of thought has been bestowed upon it by others, and suggestions for duplicating have been made. But Mr. Lanchester's plan for a twin bridge crossing the river in an axial line from the west end of St. Clement Danes to the junction of Stamford street and Cornwall-road has points in its favour, both for convenience and appearance, and would for a time lessen one of our worst congestions of traffic. It surely is about time that the whole problem of cross-river traffic was seriously taken in hand. Piece-meal work, however good, is not a substitute for the broader issues. Mr. Lanchester's admirable drawings of the bridge in *Architecture* must lead to some pertinent and active consideration.

A Christmas Card.

THE Christmas Card is still with us, and one can hardly doubt its value as an easy and pleasant means of expressing one's kindly remembrance to each other, whilst it has provided an outlet for a good deal of genuine artistic skill and a somewhat valuable industry. The bulk of designs are poor enough, but many are quite delightful and admirably produced. We have designs of an architectural character published from time to time, and the newly-created home often makes a pleasant and appropriate subject of special interest. Of this kind we publish an example to-day of the recently completed Gatehouse for Mr. Reginald Hanbury, which performs the double function of a lodge and a guesthouse, making a picturesque roadside feature.



An Architectural Christmas Card, 1923: The Gatehouse, Foxbury, Woldingham.

PROBLEMS OF 1924.

IT is impossible to deal with the prospects before the building industry for the coming year without touching on political issues, and we, therefore, intend to examine impartially the probable trend of events in so far as they may affect building. The building industry, as a whole, is obviously dependent upon the state of trade, and this in turn is based upon confidence at home and abroad. No Government can fail to address itself first and foremost to the problem of a general European settlement, and if this could be found we should enter into a period of expanding activity that would quickly influence every industry, including our own. Lack of confidence is holding up a vast amount of work that would be released the moment stable conditions in Europe were secured, and from the pronouncements of responsible leaders we believe that the foreign policy of the new Government, whatever complexion it may be, will be wise and constructive, while the suggested personnel of the Reparations Commission in itself justifies hope.

If there is already, from various causes, a greater sense of confidence in respect to European affairs, there is undoubtedly a lack of faith at home, although trade normally is looking up and unemployment slowly decreasing. Nervousness concerning affairs at home is indicated by the fall of the pound sterling, a general interruption of new industrial enterprise, and the holding over of factory building. While the threats of the more irresponsible among Labour extremists are undoubtedly to blame for this minor panic, yet we consider that even more disastrous is the unpatriotic and foolish attitude of those reactionaries who gleefully regard the experiment of a Labour Government as a means of providing so much rope wherewith Labour may hang itself. We hope, and believe, that a Labour Government not only would refrain from hanging itself, but would on the contrary welcome the opportunity of proving that it was not a "class" Government but one dependent, as every Government must be, on the suffrage, goodwill, and confidence of the people as a whole. With Socialism, in so far as it implies State ownership and control, we have little in common, but that the wider social spirit which places public interest before private advantage will be stimulated by the present change we think probable, if not certain. The stumbling block will be finance, and the future danger the promise of tantalising legislation to catch votes.

The particular "Labour Government" with which we may now be confronted must, of course, be dependent upon outside co-operation in the House itself, and it will, therefore, be unable to carry through legislation of a contentious character; we are, therefore, not likely to find a further definite attempt at State housing; indeed, it is not probable that, were a Labour Government in full power, it would attempt a housing programme without making every endeavour to secure the active and willing participation of the house builder. The operation of the Housing Act of 1923 will almost certainly be extended, but with, it is to be hoped, important statutory limitations as to the density of houses eligible for the subsidy.

A Labour Government would start with the initial advantage that it would not be regarded with suspicion by the trade unions, and, consequently, it should be able to arrive at some satisfactory arrangement as to dilution, one that will remove the very real dread of future unemployment. Mr. Kirkwood has already definitely ranged himself on the side of dilution, and this, with an increase in skilled labour and a proper system of apprenticeship, are necessities. There are two aspects to the housing problem: that of housing the population generally, and that of slum clearance. As to the latter there can be no disputing that private enterprise is unable to cope with it, and we hope that our next Government, by wise and fearless handling, will succeed in substituting useful reconstructive work for the distribution of immense sums in doles, which are universally admitted to be both degrading and demoralising. We have continually emphasised the wickedness and waste involved in spending vast sums of money on building hospitals, asylums, and prisons to deal with the wreckage resulting from our failure to deal with slums.

The new Government might well interest itself in securing the country against a repetition of the erection of dark houses. This can only be done by amending the Public Health Act of 1875 and insisting upon the provision of adequate light to each room used for human habitation. It is not too much to say that had light been included as well as air in that Act, and had the provision of this necessity been enforced, our towns would be almost unrecognisable to-day, and the tables of diseases would have been materially lower for the past forty years. It would be the blindest folly for Conservative extremists to resist such an amendment, since it is the fear that private enterprise might revert to building the dark house that spurs so many to reject private enterprise altogether.

Granting a general stability, we ought this year to see a real increase in the provision of the "middle-class" house at an economic rent, but the "working-class" house is still bound to be dependent upon either a subsidy or a measure of philanthropy or both. A certain resentment is naturally engendered by the word "philanthropy," but this need, in fact, be no more than a recognition by the individual that he owes a duty to the community, and even the problem of the working-class house could be largely solved locally by the formation of public utility societies among people really interested who would be prepared to make some sacrifice to see unsatisfactory local conditions remedied. The sacrifice might take the form of giving land at a low price, of giving time or advice gratis, or of lending money at a low rate of interest. Such a demonstration of public conscience, if sufficiently widespread, might well remove the apparent necessity for direct State interference in a business which the State is not really capable of carrying out cheaply and efficiently, and would mean an immense saving to the national exchequer. But Labour itself must recognise that every citizen owes a duty as well as possesses "rights"; and the tendency of the local demagogue to snub or cold-shoulder the efforts of others on his behalf will, we hope, be discouraged by Labour leaders at headquarters.

One of the factors that has arrested building is the fear that at any moment labour and materials may be artificially diverted from so-called luxury building, and a further source of trouble is the constant interference by trade unions who attempt to dictate as to whose job it is to do this or that regardless of who, in fact, is capable of doing it; such an attitude embodies the negation of progress and reflects the "caste work" system of the Indian compound. Whereas the attitude towards luxury building is an affair of Labour policy generally, the personal interference is, as a rule, the result of small local tyrannies which must be seriously checked from headquarters if real labour grievances are to hold public sympathy.

It is to be hoped that during the coming year co-operation between architect and builder in small house design will be extended, and that a high standard generally will be maintained. Private enterprise is on trial, and if it should fail to justify itself by not producing the best work, even though it produces the greatest quantity, it will, without doubt, eventually go by the board. One can assert with confidence that we are unlikely to witness any lowering of standard in local authorities' schemes, and it will be in comparison with these that the results of private enterprise will be judged. While we have no fears of the work being carried out by the more enthusiastic members of the National Federation of House Builders, we, as champions of private enterprise, fully realise that it is by its least efficient result that the principle will be judged, and the National Federation will, we are sure, not fail to realise this.

In respect to larger houses, the servant shortage and the consequent necessity for eliminating unnecessary labour will continue to act as a stimulus to economical planning, and the extra trouble that this entails will be visible in the greater care bestowed upon the elevations. This factor, together with the ever present necessity for strict economy, will keep house design along the straight road of direct self-expression and will further wean the public taste from the unwholesome condiments of 20 years ago. It is fairly certain that house design, taken as a whole, will consolidate the gains it has secured during the past three years. Nor is architecture likely to be the only art to make a distinct advance; indeed, a curious result of the turn of the political wheel will almost certainly be seen in the greater State encouragement that will be given to all the arts, since the arts have in the past been available only to the rich, and labour cannot fail to do its utmost to democratise them. Such a change can only be beneficial, provided that it contents itself with interpreting the more enlightened public opinion. Up to the present, this country has taken a mild pride in the fact that the Government has been less than almost any other in fostering the arts or even recognising them in any shape or form.

It is significant that many of the most far-reaching Acts of Parliament have found their way to the Statute Book during the tenure of office of Coalition Governments, when Bills must be as non-contentious as possible. As proof of this, we have only to cite Women's Franchise, Daylight Saving, and the Irish Treaty. Now, whatever Government may be in power, we are certainly going to have a Coalition Parliament, however much the word may be avoided. It is not hard to find a measure that public feeling would welcome from almost every quarter, and that would indirectly profoundly affect both the erection and the life of our buildings; we refer to a Bill to deal seriously and comprehensively with the whole question of smoke and air pollution. The spade work has been done by the Departmental Committee on Smoke and Noxious Vapours Abatement appointed in 1920, and ample evidence has been collected elsewhere. An Act such as this would mark a step in the progress of our civilisation that would be remembered for generations longer than any of the more vote-catching party measures.

The coming year will be the first in which town-planning schemes will really seriously affect considerations of building, and those districts concerned will be the pioneers leading the way to a system that in twenty years' time should be almost universal. In regard to the movement towards higher buildings, the arguments adduced against any serious change seem to outweigh the considerations in their favour, at least in so far as the good of the public is concerned. The increasing attention devoted to architecture in the columns of the Press and elsewhere reflect a growing public interest and appreciation; a welcome sign being the disappearance of tens of thousands of monstrous signs that for years past have blighted our towns and country villages.

We cannot do better as a New Year's resolution than determine to take an active part in stimulating a public indignation against those evils with which we are surrounded, and thus get them set right by the only agency that can effect a permanent cure.

London Omnibus Garages.

On January 9 the L.G.O.C. will open up two new garages at Barking and Sutton, providing accommodation for over 200 'buses. The garages are part of the big development scheme which the Underground have for developing their motor-bus undertakings, and have been erected at a cost of £63,000. Garages are now being erected at Bromley, Romford, and Sidcup.

GENERAL NEWS.

Professional Announcements.

Mr. Sidney Toy, A.R.I.B.A., has removed his offices to 1, Cloisters, Temple, E.C.

After December 28, the address of Mr. Evelyn Hellicar, A.R.I.B.A., will be 43, Bedford-row, W.C.1. Telephone No. : Chancery 7093.

The business partnership hitherto carried on in the name of Kennard & Kennard will cease to exist on and after January 31. From that date the partners will practise independently. Mr. J. H. Kennard, F.R.I.B.A., at No. 12, Gray's Inn-square, London, W.C.1, and Mr. Laurence Kennard, F.S.I., at No. 31, John-street, Bedford-row, London, W.C.1.

Fire.

On January 7 one of the largest fires that has occurred for some time in London broke out at Concordia Wharf, Managers-street, Coldharbour. Damage was caused to the extent of about £200,000.

Hampton Court Bridge.

The Surrey County Council reported that the County Surveyors of Surrey and Middlesex had been instructed to make a joint report as to the possibility, and the cost, of adapting Hampton Court bridge to meet the requirements of modern traffic, and also as to the desirability and the cost of a new bridge and the necessary approaches.

North Wales University Science Buildings, Bangor.

We understand from Mr. Alan Munby, F.R.I.B.A., that the announcement made some weeks ago in the public press as to the contractors for the above work now requires correction. The tenders were submitted to the North Wales Heroes Memorial Council when the lowest, that of Messrs. Trollope & Colls, was accepted by formal resolution as was reported, but before formalities could be completed Messrs. Trollope & Colls withdrew, and the work has now been placed in the hands of Messrs. John Laing & Sons, of Carlisle.

Strand Widening.

In connection with the Strand widening scheme, the part of the works which incidentally involves the widening of the Wellington-street approach to Waterloo Bridge, has been commenced. The block of shops at the corner of Wellington-street and extending along the Strand to Savoy-street, is being demolished. The Strand frontage will therefore be put back to the Savoy building line, and the Wellington-street frontage to a line with Lancaster-place—the block of buildings at the bridge end of Wellington-street. Lancaster-place stands on ground belonging to the Duchy of Lancaster, and the offices of the Duchy are still there.



Cartoon Study for West Window for the Church of the Good Shepherd, Leeds. By Mr. Reginald Hallward.

COLLEGE OF ART STUDENTS' WORK.

There ought to be a large attendance at the exhibition of work by old students of the College of Art. The proportion of good work is so large, compared with ordinary exhibitions, that a good deal of pleasure may be found in it. The fact that much of this work may have been seen before does not detract from the value of it, for it is well that we should obtain a retrospective glance and see whether we have advanced quite so nicely as we think. There are, however, works included which have been only recently done. It would take much time and space to do justice to such an excellent exhibition, and, good as it is, it might possibly have been much larger. The water-colour section is especially interesting, and sculpture is also well represented. An admirable collection of etchings and drawings include such things as the exquisite "Morning Haze," by Sir Frank Short, an admirable etching of St. Etienne by Walter M. Keesey, a beautiful plate of "College-street, York," by A. Michael Fletcher, and the "Street of the Forgotten Name," by Fred Richards. A commentary on Fame is afforded by a reference to the silent ones in the Foreword. This says: "Of the great silent army of designers and art workers who have been trained at South Kensington the world hears nothing. They are, so far as the public is concerned, the nameless ones. After having left the College what became of them, where they went, in what factories or offices they were employed, has been almost impossible to discover. Yet their works are more widely displayed than those of any other section of artists. For they, in the design of furniture, textiles, embroideries, pottery, glass, and kindred works, beautify the homes of England, and the near and far-flung countries of the Empire. But here in this Exhibition they are scantily represented for the reasons given above." The exhibition remains open until January 26.

MEETINGS.

Friday, *January* 11.

London Society.—Sir T. Chambers on "Satellite Towns." 18, John-street, W.C. 2. 5 p.m.

Monday, *January* 14.

Architectural Association.—Lecture by Professor A. E. Richardson. 7 p.m.

National Association of Master Plasterers.—Dinner. Holborn Restaurant, W.C. 1. 6.30 p.m.

Tuesday, *January* 15.

Electrical Contractors' Association.—Dinner. At Hotel Cecil. 6.30 p.m.

Wednesday, *January* 16.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Roman Architecture." 6 p.m.

Institute of British Decorators.—Mr. W. W. Davidson on "Stencils and Their Use." At Leeds. 7.30 p.m.

Thursday, *January* 17.

Society of Antiquaries.—Mr. C. L. Kingsford, on "A London Merchant's House and Its Owners." At Burlington House, W. 1.

Edinburgh Architectural Association.—Professor Hughes on "The Grand Manner in Architecture." At 15, Rutland-square. 8 p.m.

Institution of Electrical Engineers.—Mr. B. Marryat on "Electric Passenger Lifts." 6 p.m.

COMPETITION NEWS

Cairo.

The conditions of the Cairo Law Courts Competition are not in accordance with the regulations of the R.I.B.A., and Members are advised not to take part in it.

Other Competitions.

For other competitions still open, see our last issue.

CORRESPONDENCE.

Menai Suspension Bridge.

SIR,—Are not the two County Councils concerned too precipitate in adopting the Government's proposal to replace Telford's graceful structure by a ferro-concrete bridge, subject only to a prior examination of its design ?

We know the weakness of Telford's bridge in respect of :—

(1) Insufficient consideration of wind pressure.

(2) Localisation of weight of traffic.

(3) Consequent crystallisation.

All of which can be removed by :—

(1) Light lattice girders distributing the weight on to many, instead of, as now, on to but a few of the suspension rods.

(2) By a system of cross diagonal bracing in, or under, the floor, and to the chains.

(3) By annealing.

I suggest that accurate drawings of the present bridge, together with a report of its condition and statement of the new requirements, be prepared, from which tenders for a conservative strengthening be obtained before, if at all, proceeding with the Government's drastic proposal.

Objects of beauty are too little considered.

Might not both Councils unite to stop that vandalism, the destruction of Penmaenmawr Mountain ?

Had not our principal of fifty years ago intervened the beautiful oak roof of Conway Church would have been destroyed and been replaced by an acutely pointed one of common deal.

Manchester. A. H. STOTT.

R.I.B.A. (Alfred Bossom) Travelling Studentship.

SIR,—With reference to the notice headed "R.I.B.A." on page 4 of your issue for January 4, 1924, I shall be glad if you will make it clear in your next issue that admission to the competition for the Studentship is not confined to those students of the Recognised Schools of Architecture which enjoy exemption from the R.I.B.A. Final Examination, who, after passing through the School courses, have attained the Associateship of the R.I.B.A. In addition to those students, Associates R.I.B.A. who have attended certain other schools admitted to the competition by the Board of Architectural Education, and Associates who have obtained their Associateship without attending any School of Architecture, will be eligible for admission to the competition.

May I draw your attention to the fact that the correct titles for the Studentship and Scholarships mentioned in the same paragraph are "The R.I.B.A. (Alfred Bossom) Travelling Studentship," and "The R.I.B.A. (Archibald Dawnay) Scholarships ?"

EVERARD J. HAYNES,
Secretary to the Board.

"The Disfigurement of Buildings."

SIR,—The interesting picture illustrating the letter of Mr. E. O. Parsons fairly well depicts what we see every day on the building skyline in our large cities and towns. The poor, harmless chimney might have been kept out of the landscape. It must surely have been built before the days of radiators or hot air, and have tormented some poor thin-blooded clerk person, or perhaps smoked him out, and been crowned for its sins with a zinc or metal "lum" or cowl, put on to save it from the savage and no doubt righteously angry swoop of wind from the brows of the indignant cupola. However, there is a point I would like to refer to about high and large buildings in narrow streets. Do architects or building committees ever consider for one single moment that the placing of towers, minarets and huge masses of sculptured stone above the line of projecting cornice and in beyond the façade of the building is a waste of time, money and talent, and that the average passer-by seldom ever notes them any more than he does the atrocious chimney pots, things of utility which may once in a while raise the bile of the idealist ? What about other atrocities which mar our streets—sky signs, structural ironwork, shop fronts apparently resting on sheet glass and a few bricks, with huge masses ornate but sometimes—mostly sometimes—otherwise, of stone, marble, &c., all massed indiscriminately together, false in design and taste ?

The only word that I, as a reader, can coin for such a spirit is "Bungleism," or ignorant toleration. Some of our business men need to be awakened up and told bluntly by the profession that such things can't be done as they are a crime and a sin, because they are vicious and false in principle. Just as a minister or clergyman can condemn a lie for what it is, so should our leaders in architectural thought condemn it. J. H. EDWARDS.



Carbon Study for West Window for the Church of the Good Shepherd, Leeds.
By MR. REGINALD HALLWARD.

Architects' and Builders' Inquiry Bureau.

For "The Architects' and Builders' Inquiry Bureau," see p. 70.

Charlatans and Pests.

SIR,—The letter in your issue of December 28, 1923, is so irrational that I don't dare to assume that the writer is a mere man. I have glanced through the correspondence and gather that it was directed against charlatans, or "quacks" and pests, i.e., "anything destructive or troublesome." Ladies "who have designed houses for themselves all over the country" cannot be described as quacks *if* they designed them, though I daresay that the architects they commissioned "just to put their ideas into shape" (a phrase most of us have frequently been tortured by) might possibly have found them troublesome.

The objectionable quack is the man devoid of architectural training, and so ineligible for membership in any Architectural Society, who poses as an architect, charges fees for his faulty designs or for designs that he has misappropriated and imposes on an unsuspicious public. That he is also a pest goes without saying.

It is a trite truism to say that some doctors are better than others ; the point is that no doctor is allowed to experiment on patients until he has at least been taught his job.

With architecture this is not so, and the qualified man is bound to a standard of practice which the uneducated pirate ignores—except as a means of obtaining payment for his inadequate services. In this way the man who tacks "architect" to his other business descriptions becomes both troublesome and destructive.

Why should these quacks and pests be allowed to murder imaginative art and offend taste at every turn with their horrid experiments ? Not only men, but many women, are toiling away to graduate in a difficult profession and I venture to say that our lady architects will be equally vehement with the men in the war on quacks and pests. "INSECTICIDE."

PRINCIPLES OF MURAL PAINTING AND STAINED GLASS.

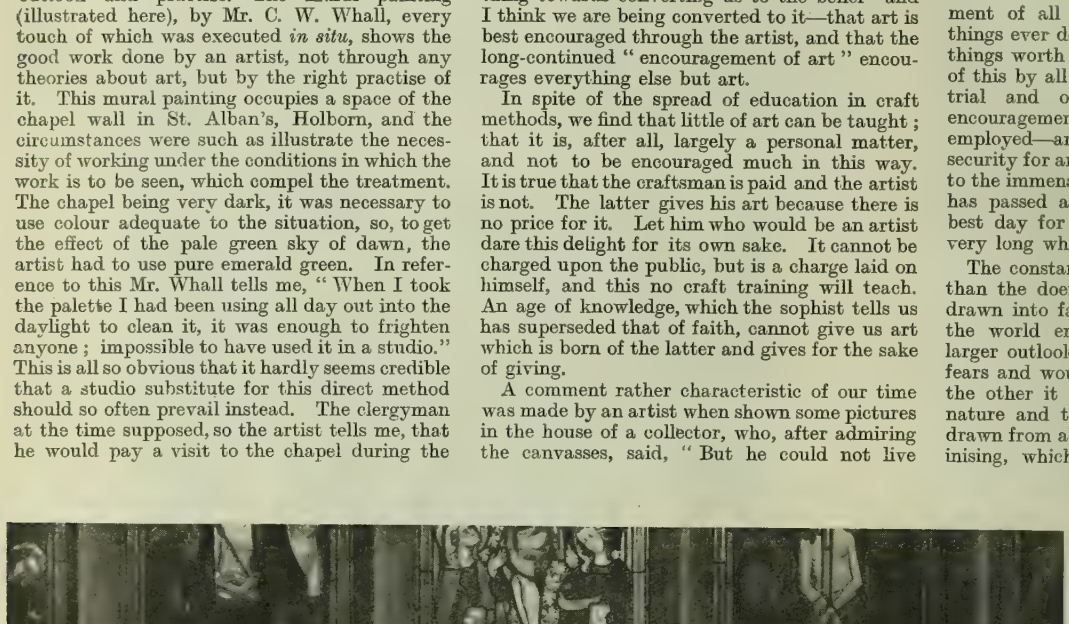
BY REGINALD HALLWARD.

ONE era succeeds to another. The ideals of one time have their period and pass, to make way for the new time which has superseded them. The emphasis changes its place, and what was first is no longer so. The difficulty always in understanding art is that so little can be taught. It is useless to gird at the commercialising of it under industrialism while we have so little understanding of its nature, and the record of three windows a week, attributed to a well-known firm of glass window manufacturers, suggests nothing to us. And it is much the same in regard to mural painting. Here and there the genuine impulse is seen quietly finding expression amid alien influences, quite contradicting all the sentimental talk about "encouragement of art," which ever finds its truest encouragement in the artist's own fidelity of outlook and practise. The mural painting (illustrated here), by Mr. C. W. Whall, every touch of which was executed *in situ*, shows the good work done by an artist, not through any theories about art, but by the right practise of it. This mural painting occupies a space of the chapel wall in St. Alban's, Holborn, and the circumstances were such as illustrate the necessity of working under the conditions in which the work is to be seen, which compel the treatment. The chapel being very dark, it was necessary to use colour adequate to the situation, so, to get the effect of the pale green sky of dawn, the artist had to use pure emerald green. In reference to this Mr. Whall tells me, "When I took the palette I had been using all day out into the daylight to clean it, it was enough to frighten anyone; impossible to have used it in a studio." This is all so obvious that it hardly seems credible that a studio substitute for this direct method should so often prevail instead. The clergyman at the time supposed, so the artist tells me, that he would pay a visit to the chapel during the progress of the work, and was quite surprised when told that he intended to paint the thing himself. How often has my own public work brought the same experience. It seems to some so much more gentlemanly to get it done by assistants, while the employer looks in once or twice in black coat and seals, "watching it go." The artist is primarily a worker, not an employer, a craftsman, not a director, and our values derived from the counting house lead us astray. That in certain of our art schools there should be a training in mural painting going on to-day, with opportunities sought for public work for the students engaged in it, work done in the wrong way in execrable materials, executed away from the actual site and under none of the conditions rightly governing such work, should do something towards converting us to the belief—and I think we are being converted to it—that art is best encouraged through the artist, and that the long-continued "encouragement of art" encourages everything else but art.

In spite of the spread of education in craft methods, we find that little of art can be taught; that it is, after all, largely a personal matter, and not to be encouraged much in this way. It is true that the craftsman is paid and the artist is not. The latter gives his art because there is no price for it. Let him who would be an artist dare this delight for its own sake. It cannot be charged upon the public, but is a charge laid on himself, and this no craft training will teach. An age of knowledge, which the sophist tells us has superseded that of faith, cannot give us art which is born of the latter and gives for the sake of giving.

A comment rather characteristic of our time was made by an artist when shown some pictures in the house of a collector, who, after admiring the canvasses, said, "But he could not live on work of this kind; I suppose he had a private income"—reminding one of that reply of the bishop when approached by a young clergyman who wanted to take up special work: "Well, have you the money for it," said the bishop, "the money will be the evidence of the call." This view that vocation cannot exercise itself without the security of private income is surprising, for not many artists are called by this reasoning. And yet it is difficult to believe that vocation and endowment hold no other security than that of money. Either there is some call higher than all this, or there is no place for the arts, for it is never worldly prosperity that most endows them. Inspiration does not seem to come that way. It is worth thinking over for all of us—worth deciding upon—for I have seen failure enough through lack of such decision. If we are but the creatures of circumstance, pawns of the counting house, and man is not master of his fate, what is the use if our heads are "bloody" as well as "bowed?" Better spend our empty days on nothing so we are paid for it. But how absurd even the statement of it sounds, containing as it does its own refutation, denying all the best achievement of all the noblest people, all the best things ever done in the world; perhaps all the things worth doing at all! I was set thinking of this by all the encouragement of art, industrial and other, that surrounds us now—encouragement of art with the best artists half employed—and I wondered when this sort of security for art on which we set so much store, to the immense insecurity of the artist himself, has passed away, whether it will not be the best day for the arts they have known for a very long while.

The constant danger is lest the talker rather than the doer become uppermost, and we get drawn into false estimations of value, such as the world endows, instead of the freer and larger outlook of the artist, which bureaucracy fears and would crush. If we mistake one for the other it bodes ill for art, which is by its nature and the compulsion of its work withdrawn from all the platform and official attitudinising, which obscures it so much. When I notice how much those who are not artists speak for art, I wonder how the public, except through its own better knowledge, can distinguish its right hand from its left in such matters. The people are none the less more capable of appreciating true values, as I have seen over and over again in the practise of my work, and it is not them but the intermediaries who intervene to darken knowledge and misdirect appreciation.



Reredos at Hillingdon Church. By Mr. JOHN D. BATTEN.

The reredos for Hillingdon Church, by Mr. John D. Batten (illustrated in this issue) is an interesting and beautiful example of one of our most scholarly and sincere artists, who has brought to his methods a knowledge and research of exceptional value and importance to the practise of art. This reredos, built mainly of walnut, occupies in elevation exactly the same space as the previous dossal, and stands wholly on the stone sill of the window, which is 15 in. deep.

The conspicuous features are a vine carved canopy, gilded and burnished, supported on four sycamore pillars with gilded caps in the spaces, behind which are three recesses, the arched tops of which are supported on smaller gilded pillars. The three lunettes are decorated with shallow carving enriched



Reredos at Hillingdon Church. By Mr. John D. Batten.

ith foil, lacquer and colour, but they only ll dimly in the dusk below the gilded nopy. The vine carving was done from Mr. atten's design, very beautifully, by William heeler, and I am glad to give some record his work in the photograph reproduced. e gilding was done by Mrs. Batten, who has astered the craft by a reverent obedience to e directions of Cennino Cennini, and it would t be too much to say that the gilding is up to e level of the finest work of the Quattrocento.

After the reredos was in place it was felt that e light from the east window on each side of e reredos was still distressing to a congregation oking towards the east, and Mr. Batten signed curtains to screen the lower portion of em. It occurred to him that leather would be suitable material, as it would not collect and ld dust. We are familiar with the achieve- ent of the Spanish leather hangings, but the tist kept purposely at a great distance from e Spanish design, though using pretty much e same means of embossing, colouring and quering. There is, however, an important fference in technique. The Spanish metal at shows like gold is always silver foil covered th a yellow lacquer, and the artist had intended t use this method, but the yellow lacquer faded hen superimposed, and he had no time for such search as could have secured a permanent sult and fell back on fine gold leaf (24 carat). l the gold in the curtains has been lacquered, d some of it coloured as well, lest it should mpete with the pure gilding of the reredos.

Much eloquence is expended on the subject of tained glass, and considerable impetus has been ven to it through the training bestowed, but is is the least part of the matter. The true actice of stained glass is no doubt found where e artist designs, executes and directs the work mself. Its fundamental requirements are not, wever, wholly included in this, but in the dowment and direct vision which inspire it. hen we speak of the more rare work of the rsonal craftsman we are not distinguishing ly between sound methods of workshop actice, which are necessarily included in the st results, but between the craftsmanship hich can be taught and the vision and treat- ent which are personal endowments of the dividual. It is because we forget this that e fail to distinguish truly. I do not know that e fostering of a certain class of craftsmanship all right of its kind—at all fosters the prospects art. Nay, it has in many ways gravely scured them. Art has to be extricated, and is, in fact, being extricated from all this sort of fostering, and reveals itself as something altogether separate and apart from the bulk of that which is now being so sedulously exploited as industrial art. The latter has its place; but if we were to suppose that this present "industrial art" movement could in any way replace or become an adequate alternative for the artist's personally endowed vision, we should be very much mistaken. "The marriage of art and mass production" is the slogan of the salesman, not the artist's vision of the conversion of the future through beauty.



Detail.

Mural Decoration, Mortuary Chapel, St. Alban's, Holborn.
By Mr. C. W. Whall.

The principles governing mural painting require that we should respect our work well enough to do it the right way and not be hirelings, embracing the obligations which its nature imposes on us, no longer lazily acquiescing in studio substitutes. And so with the art of stained glass; it is not enough that we should acquire the technical methods of its practice, but that the artist in us should be ever seeking towards new discovery and combinations, that it may not remain merely derivative, second-hand, and a survival only, but become the expression in its own way of the best experience and endowment of the artist's vision to-day. When this happy occasion arises we shall not look for an output of three windows a week as any recommendation, or for any commercial substitutes to supply for us what only the heart of the artist can give; nor shall we look upon mural painting as a resource for unemployed students aided by their professional art masters, or think that any artificial fostering will supply that which only the artist creates. It is to extricate art from all the tangle of interests, compromises and motives which beset it to-day and to restore it to its own clear and authentic purposes, that we need so much to re-state our beliefs, for it is only through clearness as to these that it can communicate its beauty and delight to the world.

The love of nature which guides the artist unfolds to him ever new revelations out of her inexhaustible treasury. How often, when we have thought to reach beauty through some preconception of our own, the sitter has taken some new position—a slight change of movement and gesture—unfolding a beauty exceeding any intention of our own. So the artist, humbled the more by what so much transcends him, yielding himself more completely to her inspiration, through service to nature and art, finds truth and beauty to be one—the interpreter of life and of all its fairest issues.

The examples illustrated comprise reference to one or two examples only which are typical of that improved temper in work which is now growing through the younger men; one which, while retaining the traditions and precedents that properly belong to all sound practice, develop an expression which is at once personal, endowed and efficient in technique.

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THE LAW RELATING TO BUILDING.

By W. T. CRESSWELL, LIC.R.I.B.A.; ASSOCIATE S.I.; F.R.S.I. (*Barrister-at-Law*).

I.—INTRODUCTORY.

THE above title is chosen to indicate the subject matter and scope of this and following articles, although, at the outset, paradoxical as it may seem, it must be stated tnat there *is* no particular law relating to building as distinct from, and beyond, the general laws relating to "agency," the rights and liabilities of architects, surveyors and others concerned with the carrying out of building works, being exactly the same as those of any "agent." The full definition of such rights and liabilities would necessitate a complete survey and résumé of the law relating to "persons."

Architects and surveyors, then, are neither protected nor harassed by any statutory rules and regulations governing the practice of their professions, their incident rights and liabilities. Those who are not members of any recognised society or institution, within the personnel of their profession, are free even from any code of professional etiquette regarding either practice or scale of fees.

It therefore follows that any private person may tout for practice as an architect or surveyor. His risk is, that if his client or employer is dissatisfied, the latter may sue him at law for negligence, incompetence and "not having used ordinary care and skill." In the case of Lanphier *v.* Phipos (1838) 8 C. and P. 475, Tindal, C.J., said: "Every person who enters a learned profession undertakes to bring to the exercise of it a reasonable degree of care and skill; he does not undertake, if he is an attorney, that at all events you shall gain the cause, nor does a surgeon undertake that he will perform a cure; nor does the latter undertake to use the highest possible degree of skill. There may be persons of higher education and greater advantages than he has; but he undertakes to bring a fair, reasonable and competent degree of skill."

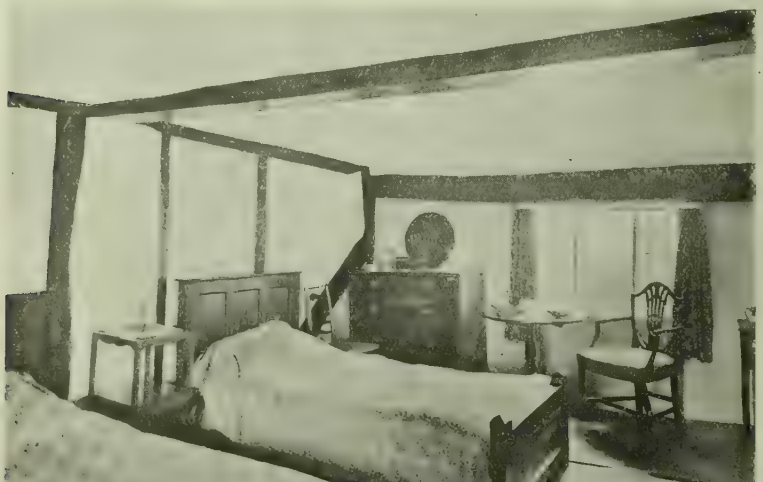
In fine, the only protection and guarantee provided for the public in reference to persons functioning, or seeking to function, as architects and surveyors, are the rules and regulations of various societies and institutions which formulate codes of etiquette, scales of fees, &c. But it must be clearly understood that these rules and regulations only affect continued membership of these bodies, and that expulsion or suspension from such bodies is no disqualification against practice.

Whereas, in such professions as are "registered," *e.g.*, the legal, medical and dental, these rules and regulations are statutory, and legal powers, of varying degree, are vested in their societies and institutes. The General Medical Council may take proceedings under the Medical Acts to strike off the medical register the name of any misdemeanant. The Law Society has power to strike off the roll of solicitors any misdemeanant (appeal being permitted in the Divisional Court); and in the Benchers of each Inn of Court is vested the power to expel, and thereby disqualify for practice at the bar, any offending member. In fact, "reasonable and competent degree of skill," in a registered profession may be said to mean membership of one of its recognised societies.

In the building professions, no licence is required to practise; but if either an architect or surveyor wish to act as valuer and appraise property, real or personal, and to recover fees for this work, he must hold a licence under Section 1 of the Revenue Act (1845) and Section 6 of the Revenue (No. 2) Act (1864). Should he value or appraise without a licence, he is subject to a penalty of £50 under Section 21 of the Inland Revenue Act (1890). In Palk v. Force (1848), 12 Q.B. 666 it was held that for an appraisement or valuation, made in one single instance, the licence fees and duties *must be paid*. Under Schedule 1 of the Stamp Act (1891) "appraisements and valuations made for, and for the information of, one party only, and not being in any manner obligatory as between the parties, either by agreement or by operation of law, e.g., approximate estimates, are not liable to stamp duty nor subject to the obligation of a licence."

"A valuation" must not be confused with an "arbitration." The latter is the outcome of dispute between parties, the former is not.

Architects and surveyors are then in fact persons holding themselves out to the public to perform as agents recognised functions requiring certain skill, and they therefore hold out the implied guarantee that they possess such skill. Membership of any recognised institute or society, or even proof of any special training, is not necessary to maintain an action for the recovery of "reasonable fees. However, proof of incompetence or lack of skill will not only defeat such an action, but will also uphold a claim for damages should loss or injury result to the employer; and even, may be, a claim of criminal liability, in case of fatal accidents resulting therefrom. (These liabilities will form the subject matter of a subsequent article.)



"Ockhams," Edenbridge. A BEDROOM.
MESSRS. BAILLIE SCOTT & BERESFORD, Architects.



"Ockhams," Edenbridge. A CORRIDOR.

Qualifications.

In these allied professions, therefore, the essential and real qualifications may be summed up as follows:—

I.—*For the architect*:

(*a*) Expert knowledge of design, styles, orders, &c., and of town planning.

(*b*) Skill in the preparation of plans, drawings and designs, defining, and as a guide to the carrying out of, proposed works.

(*c*) Knowledge of construction and materials to be used, with the application and use of these materials.

(*d*) Knowledge of Building Acts and by-laws, the requirements of local authorities, sanitary laws, easements of light, air, support, &c., relating to public and private buildings.

(*e*) The preparation of approximate estimates for works proposed.

II.—*For the building surveyor*:

(*a*) Skill in measurement and survey of land and the "development" of land.

(*b*) Skill in valuing property for mortgage or other purposes.

(*c*) As (*d*) in "for the architect," above.

(*d*) An intimate knowledge of the law of dilapidations, compensations, and arbitrations.

III.—*For the quantity surveyor*:

(*a*) Expert knowledge of building construction.

(*b*) Such knowledge of the styles and orders of architecture as will enable him to describe correctly particulars and details of the works.

(*c*) As (*d*) above, "for the architect."

(*d*) An expert knowledge of the mode of measurement of superficial, cubical and lineal dimensions; "numbered" items of various trades and other artificers' work employed in the erection and completion of buildings, together with the monetary value thereof, so that he may be able to place before the builder bills of the exact quantities of all materials and labour required, upon which bills the builder may make a correct estimate of cost for the purpose of tendering.

It may be mentioned that certain institutions and societies possess charters granted by the Crown giving them certain privileges and official recognition.



ENTRANCE FRONT



GARDEN FRONT

"Ockhams," Edenbridge. MESSRS. BAILLIE SCOTT & BEESFORD, Architects.

EGYPTIAN OBELISKS AND WORKMANSHIP: WITH A NOTE ON STONEHENGE.

By W. R. LETHABY.

THIS excellent book* by an expert is all first-hand observation or fresh thinking over the problems involved. The substance is technical; but the results are presented in such a clear, explanatory way that anyone might read it with ease. The author gives the history of an obelisk from the moment the ancient Egyptian engineers arrived at the granite quarries of Aswan until it was erected a finished monument of one block, weighing anything up to 1,000 tons. The author's recent clearance of the gigantic unfinished obelisk lying in the Aswan quarries has enabled him to be very definite on the main points of the problem. The book is fully illustrated, special attention being given to examples of the old technique seen in the quarry.

In the first chapter a general account of obelisks is given. Their origin and significance are somewhat obscure; "In sanctuaries of the fifth dynasty the obelisk took the place of the holy of holies of the later temples. Recent excavations have shown that these were different from those familiar to visitors . . . the shaft merely served the purpose of elevating the sacred pyramid or *ben ben*—the real emblem of the sun." The author then passes to an account of the great unfinished obelisk at Aswan, "which was never cleared until the end of the winter of 1922: all the visitor could see was the top surface of the *pyramidion* and about 20 yards of shaft, which sloped down into a vast heap of sand, chips and granite boulders. The obelisk is a piece of work that failed owing to an unexpected fissure in the rock. . . . Here we may see gigantic embankments on which the great blocks were transported, half-finished sarcophagi, and statues abandoned in various states of completion." The partially-isolated mass of granite, which is surrounded by a worked-out trench, is 137 feet long and would weigh about 1,160 tons. On it are many setting-out lines and measurements which are explained by the author. The trenches about the great mass were made by pounding with lumps of hard, greenish-black stone (*dolerite*): "All over the quarries, and especially round the obelisk, may be seen hundreds, some whole and some broken."

A long chapter treats of "architects" who erected obelisks: "The ancient records give us glimpses of the men who were responsible for their quarrying and erection. . . . Fortunately, the tombs of most of the obelisk architects are known to us, since their efforts were usually rewarded by the present of a tomb in the most fashionable part of the Theban necropolis." Here they recorded "what good workmen they were, how well they treated their subordinates, and the titles and decorations granted to them. But they say nothing as to how they did their job. . . . One obelisk at Karnak was erected by a noble called Ineni—Pasha, Count, Chief of all the works in Karnak, &c., &c. . . . After assuring us that he was a really first-class engineer, and immensely popular, he records the death of the King. . . . I became great beyond words; I will tell you about it, ye people; listen and do the good that I did—just like me. I continued powerful and met with no misfortune; my years were spent with gladness. I was neither traitor nor sneak, and I did no wrong whatever. I was foreman of the foremen and did not fail."

A second obelisk at Karnak was erected by Sennemut, chief "architect" at Karnak, Luxor, &c., &c. So great a favourite was he with the queen that he shared with another the bringing up of her daughter and heiress. A statue showing Sennemut holding the child Nefrurê (pretty name!) is illustrated. The queen's power seemed to rest on Sennemut and two other nobles (one of whom was also "an expert in obelisks"). His titles were Pasha, Count, Royal Seal-bearer, Sole Companion, &c., &c. "There is no doubt that Sennemut was the power behind the throne." An inscription says: "I was the greatest of the great in the whole land; one who had audience alone in the Privy Council. I was the real favourite of the King; foreman of foremen; superior of the great; one to whom the affairs of Egypt were reported. . . . I was a noble who was obeyed, I had access to the writings of the prophets; there was nothing which I did not know concerning what had happened since the beginning." His name appears at the quarry—"Sennemut came in order to conduct the work of the two great obelisks." Another of these "architects" was Controller of the Houses of Silver and Gold, High Priest of Ammon, and Director-General of Craftsmen: "I inspected when his Majesty erected obelisks. I pleased his Majesty while conducting the work on his monuments."

A fourth "architect" was a priest and prophet, and then High Priest of Ammon for twenty-seven years. He was Chief Overseer of Works to Rameses II: "I made for him a temple. I erected obelisks whose beauty approached Heaven. I made very great doors of electrum. I hewed very great flagstaves. I made great barges, I the Pasha and High Priest of Ammon."

I wonder what the exact meaning of the signs here and elsewhere translated "architect" may be? These high priests and nobles were, it is clear, rather ministers of state and commanders of the great "army" of labour engaged in building works than architects in any sense that we can understand. They were not chief workmen, but high commissioners and chief permanent secretaries of the Office of Works.

There is an interesting—especially to Londoners—reference to a later architect proper in the account of the obelisk now on the Thames Embankment. It and another now in New York were once a pair at Heliopolis and both had been moved to Alexandria in Roman times. Ours had fallen, but the American obelisk was still standing. The angles at the bottom of this one had been broken and bronze blocks had been put at the corners to support it. These were in the form of sea-crabs, and bore inscriptions in Greek and Latin, giving the name of Pontius the architect (APXITEKTON), who set it up at Alexandria in the year 13–12 B.C. (A photograph of one of these fine bronzes was once sent to me from New York. A reproduction of the original with a short description of the facts, if inserted in the base of the London monument, would add to its interest.)

The account given by the author of the methods of searching for suitable material, setting out the lines of the monument, and extracting it from the quarry are most informing. Long straight lines seem to have been obtained by vibrating a stretched string as carpenters do to-day. Flat surfaces were tested, either by sighting three rods (compare a much discussed passage in Vitruvius), or by testing, "as in engineering work to-day, by putting against them (the surfaces) a portable flat plane smeared with red ochre and oil, or 'ruddle,' as the red-lead and oil now used for the purpose is called." (The same method was made use of by the Greeks and the "red canon" is mentioned in their "specifications.") A block of granite was detached as mentioned above by pounding out a trench around it, thus breaking up the granite into a powder. "Nowadays work with rammers is always done to a sort of chanty, and there is ample evidence that the ancients made similar use of songs. With a good chanter who can extemporise rhyming lines full of personalities the work the Egyptian can do is little short of marvellous." The author experimented with this pounding method of working granite and proved that it can be done quickly.

Passing to the erection of the completed monolith, the author objects to Choisy's suggested method and works out another whereby it was gradually lowered from a ramp of earth into a funnel-shaped pit filled with sand. On the sand being gradually removed the great block found its basis with exactness "the obelisk is introduced into the funnel on a curved way leading from the surface of the embankment. The sand is removed by men with baskets through galleries from the bottom of the funnel." All this is clearly explained by photographs from a working model.

On reading in the short reference to the earliest obelisks the statement that the small pyramid at the apex seemed to be the essential part, and a symbol of the sun, I turned to the index to see if the great monumental pyramids were mentioned, but they are not. More than thirty years ago I was drawn to the conclusion that the pyramids must represent the Universe as conceived by the Egyptians, and I wondered now whether the sun symbol is not the pyramid of rays falling on the square earth from the sun at the apex of the "firmament?"

. . . . . .

A point of special interest appears in the fact that the author by carefully analysing the measurements marked on the granite finds that a foot of 11.77 inches was used for the setting out. This foot is practically the same as the Roman foot, which was used for works executed in London. It is also the Greek foot used (for instance) in the erection of the Temples of Artemis at Ephesus going back to the eighth century B.C. Our modern English foot which is about a quarter of an inch longer than the Egyptian foot must come from the same standard through the Greek and the Roman. Some years ago I ventured to suggest in *The Builder* that as the diameter of Stonehenge was about 97 feet English, it looked as if it had been set out to be 100 antique feet. The carrying back of such a standard to Egypt makes this possibility less unlikely, and what follows must be considered with the same question. Stonehenge is a wrought stone monument and the stones were dressed (as clearly appeared on a surface then newly exposed, which I saw many years ago when a lintel fell) by *bruising* off the surface rather than cutting it. A large number of hammer stone "mauls," or hammers, were found in the excavations of a few years ago which it was agreed had been used in the execution of the work. The discovery that obelisks in Egypt were dressed with hard stone boulders is a further confirmation as to the method of work at Stonehenge, and another link of connection with Egypt. "The trench and pits [in the granite rock] were not cut out, but rather bashed out. . . . These balls measure from 5 to 6 inches in diameter, their weight averaging 12 pounds. The blows were struck vertically; this suggests that they were shod on rammers. . . . The next step was to render the surface flat. This was done entirely by bruising with the balls of dolerite. Examples of unfinished dressing can be seen." Again, it seems obvious that the great lintel stones at Stonehenge were lifted on an earth ramp such as seems to have been the most usual form of scaffolding in Egypt. Recent studies have brought out the increasing likelihood that megalithic monuments spread from Egypt, and the points just mentioned are evidence in the same direction. The precision and accuracy of Stonehenge as an *architectural* monument is hardly understood. When it was new it must have been dazzlingly fair. Again, decimal numbering seems to have been used in the "design" of the monument. There were five great trilithons, having 10 uprights and 15 stones in all, and the circle has 30 uprights and as many lintels, 60 stones together. 5, 10, 15, 30, 60, 75 is a series that seems to point to a decimal base, and this makes the diameter of 100 units all the more probable. Considering the character of the work, I cannot think Stonehenge earlier than, say, 500–800 B.C., a thousand years more recent than is generally supposed.†

* "The Problem of the Obelisks: From a Study of the Unfinished Obelisk at Aswan." By R. Engelbach, Chief Inspector of Antiquities, Upper Egypt. (London: T. Fisher Unwin.) Price 9s. net.

† What is said of numbers and measures at Stonehenge is, I find, a memory of a remarkable study of the monument made by Sir W. Flinders Petrie some forty years ago. The ancient foot, he deduced, was 11 inches, "a unit originally derived from Egypt that could have been introduced at any date into Britain."





LIVING ROOM

"Ockhams," Edenbridge. MESSRS. BAILLIE SCOTT & BERESFORD, Architects.

ITALIAN TRAVEL NOTES.

I.—SOME ADVICE TO STUDENTS.

By THEODORE FYFE.

STUDENTS of architecture come and go, but they all go to Italy—at least, they all ought to go if they don't. Now going to Italy is an easy thing. One can take a ticket at Cook's, decide to take a particular boat train, and just get there. After a certain experience—the journey and arrival, to wit—one can find oneself on a cool, dark night, or on a light morning, in Milan or Turin or even Venice. How much exactly one gets out of the experience of journeying depends to some extent on one's youth, but more on one's zest for strange things. The love of travel is a gift, but it may be fostered and educated. It is important to know in most things how to go to work.

First, as to *Equipment.*—Even more now than in the past it is valuable to travel light when on a tour of a few weeks. A journey of two or three months, or longer, is a more serious affair, but one way or another one's baggage demands care. I remember that on my first trip to Italy, when I was six weeks away, I was able to carry all my luggage and myself for a mile, when I was pushed to do it. As a considerable part of my luggage was sketching equipment, this was not a bad achievement. Clothes may be severely compressed and still be adequate. Dress suits are rarely required, and are best left behind, if serious study is intended. A good waterproof cape or light mackintosh is more important than an overcoat. A cape is really good, as it is admirable for keeping sketching things dry, and with it and an umbrella, heavy rain can be resisted. A strong waterproof lined canvas bag with a shoulder strap, made to hold one's drawing board and all materials, is a great thing, and one's razor, &c., can occasionally be dumped into it, when there is uncertainty if night will overtake an expedition. It is hardly necessary to expand on the actual sketching and measuring requisites, but an opera glass should be included, as it is often invaluable for detail. One thing should be borne in mind when thinking of clothes—it is often advisable to look as like an Italian as possible. A good, unassuming lounge suit will always be safe, as the Italian male likes English fashions, but the Italian hat is more subject to the passing vagaries of fashion. Therefore, it is not a bad plan to travel in an old hat that will crush away, and buy a new one—which may be cheap—in the first good-sized town in Italy one stops at.

Second, as to *Language.*—Few English people know Italian well, or take the trouble to cultivate its accent. It is very important to do the best one can beforehand in this respect, but even a carefully-studied phrase book is much better than nothing. It is easier, I think, to get up a fair working knowledge of Italian, than of most other European languages, and if one studies pronunciation, the way is made much easier to understand the Italian when he talks fast to you. Talk all the time; the Italian is very courteous and will listen to you if he knows you are trying. Go to Italian inns; if you are blessed with a good digestion, you will feed more healthily and interestingly if you do. Don't go to swagger hotels and mix with English people, or you will miss half the pleasure of travelling in the by-ways. For this last, the small print of Baedeker is invaluable. Use your Baedeker discreetly, but use it. It is worth all its weight—not, after all, considerable. You can learn about the country in all sorts of ways if you will. Scorn not the obscure café or the wayside vendor of fruit. If you drink a country's wine you drink other things as well, besides keeping healthy. It is remarkable how the real instinct for travel is fed by simple things and how many Britishers miss this matter. Another great way of learning the language is to travel third class in local journeys and to talk to the country folk. The Italian countryman is a simple, primitive person, glad to know about you and your doings, though not inquisitive in an annoying sense. You can listen to his idioms with advantage, and practise your halting phrases on him with impunity, as talking to him is like talking to a child. It is very pleasant to bowl along quite comfortably in an omnibus train in the summer time, with no draughts, as there are merely openings where windows usually are.

When you have once got even a hand-grip on the language, buy newspapers and try and master a little bit of one every day. Listen to railway officials calling out the names of stations in journeys and keep a sharp ear for the stressing (or otherwise) of the penultimate syllables—a great deal of Italian pronunciation hangs on that. A friendly waiter will often teach you a lot and you can ask him in an off moment to read a bit of your newspaper, and thus check your own attempted pronunciation of the same. All this tends to the ultimate object—to understand the Italian when he talks to you.

Third, as to *Food and Accommodation.*—If you are a novice, it is as well to begin in a fairly good hotel where some English and French is spoken, taking your breakfast in it and an occasional dinner, but taking most of your meals in outside cafés or restaurants. There is at least one good eating house or *trattoria* in every place that is more than a village, and there you can sample Italian dishes, as a good working knowledge of these gives you an immense pull. There is nearly always an ordinary (*piatto al giorno*), and this can be counted on with fair certainty to be both reliable and satisfying. Quite often it is very appetising. In a primitive village you are best at the inn for all your meals, and at the worst you can fall back on cheese and fruit, with eggs if you can get them, and an occasional cut of roast veal (*arrosto vitello*), or a beefsteak (*bistecca*). When you are more up to things, it is often a good plan in a town to stay at a lodging (*locanda*), and take all your meals out, though such places will often arrange to give you morning coffee, rolls and butter. If you go to an inn (*albergo*), choose it with care. The best ones have a popular *trattoria* attached, and you are nearly always both well housed and well fed in such places. If you leave your baggage at the station, you can sample one or two before you settle down. Real Italian inns are usually clean and comfortable, even though the sanitary arrangements are primitive, and I have only once met with a damp bed. Your room won't cost you much, especially if you bargain for it and make a quiet fuss about essentials. Shut the door and put a clean tumbler under the sheets of the bed for a few minutes: if it comes out clear, the bed is quite dry. After a long journey and you arrive at your inn at night, there is one comforting item which can be obtained over the length and breadth of Italy—a glass of *zabaglione* (yolk of egg skilfully mixed with sherry)—which is both food and drink.

Fourth, as to *Work.*—For every architectural student who goes to Italy with a definite purpose there are at least five who go with only vague notions. To these I would say: map out your tour, and know, as far as possible, the things you must see. You will very soon discover things you want to sketch or measure, and you should lose no time in getting down to them; but don't miss the larger view. In any small town, find out the local characteristics in painting as well as architecture, and broaden your outlook by a visit to the local museum or picture gallery. It is a good thing to begin there. Visit your churches early, both for light and because many of them close at noon. In larger towns you will want at least a day to do your main sightseeing, but even in them you should quickly devote the best half of the day to work. It is astonishing how careful study of one subject will teach you about other things. Do not try and see too much at one time or you may get bewilde and do nothing. It is a good plan to conc trate on a particular line of study and st closely to it. I once had five days to spend Sicily and a wise traveller advised me to conc trate on the work of the Mediæval period took the advice and have never regretted Some day I will go back and see the Classi work. This is a big subject, and hard and f rules cannot be laid down; but a temptation the student to become aimless certainly exis tending to lead him away from the education eye and mind and hand by serious study. learn in fact, by activity, not by discursi sightseeing; but a morning of meditati wandering with a purpose is sometimes t activity.

Fifth, *Where to go.*—Italy is a land of c trast, but it is one country. You can go to t north in the autumn or the spring, but need n necessarily avoid all the south in the summ The worst months are, perhaps, August (beca of dusty heat) and November (because mosquitoes). But with discretion one can tra through the length and breadth of the land any season of the year. Bari, in Apulia, delightful in July; an hour of the forenoon c be occupied by bathing and an hour of the aft noon in resting. Hill towns like Perugia, As and Siena are delectable all through the summ and a short stay at Naples can be as fascinati in June as in February. In September make the real north—the Trevisan or the Val Camon —and avoid a long stay at malarious places l Ravenna. But if you feel done up at Raven you can pick up Rimini, not to mention Urbi Ancona is a fascinating bathing resort Bari.

Where to go is as big a subject as what to but here again one must concentrate. Th are beats that must be done *in toto*, by the selves, and in a tour of a few weeks it is unw to try and see Rome as well as Venice. So useful lines of study are (a) the north beat fr Milan to Venice, west to east, taking in Pav Saronno, Como, Bergamo, Brescia, Veron Vicenza, and Padua; (b) a more southerly be west to east, from Turin, taking in Piacen Parma, Cremona, Modena, and Mantua; (c) t Marches, Bologna and Ferrara to Ancona, way of Pesaro (for Urbino), and this might made to include Ravenna and Rimini, perhaps Spoleto; (d) an Umbrian trip; (e) t central west—Genoa, Pisa, Lucca, Sien (f) Apulia. Rome, Florence, and Naples, with their districts, can be taken by themselv For the rest, one passes notable places li Pistoia, Prato, Orvieto and Montepulciano, main line journeys. The wisdom of travelli light is proved when one decides sudden to stop at a place, often a refreshing a useful thing to do; but such procedure mu be worked out carefully in relation to tick taking.

Sixth, as to *Permits and Introductions.*—T Italian Government has now issued new reg lations for admission and study in museum galleries, &c. Bona-fide students can obta permits, through the British School at Ron for an annual tax payment of 10 lire. Wi such a permit the student could probably d pense with the usual letter of recommendati issued by the R.I.B.A., when seeking the go offices of the custodians of churches and oth non-Governmental buildings. In general, should be said that every personal introducti possible should be obtained beforehand, a this is particularly important for the Vatican Rome. A letter to a member of the Scotch Irish Colleges in Rome, or, better still, to son highly-placed ecclesiastic, is invaluable. T British Consul in any of the large towns is oft a most valuable ally, but any assistance he cou give in matters ecclesiastical could only personal, not official. Except in the Vatica a student who is courteous and civi.-spoken all, and who adopts Ruskin's invaluable advi of giving a sacristan a liberal *buona mano*, c usually secure all that he wants.

The second article in this series will deal wi a northern tour from Milan to Venice.



Mural Decoration, Mortuary Chapel, St. Alban's, Holborn.

By Mr. C. W. Whall.

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ILLUSTRATIONS.

"The Builder" Calendar.

Our Calendar this year is a drawing, by the late H. W. Brewer, of Pardon Church and Cloisters.

A London Vista.

There is no finer vista of its kind in London than that depicted by Mr. Raffles Davison on one of our plates this week, where the long frontage of Somerset House is seen through one of the bridge arches. It must have been extraordinarily fine when the river came right up to the lower story of Somerset House.

New Building, Gresham-street and Wood-street, E.C.

This building has been designed as a City warehouse, which can be arranged, in part, to give office accommodation. Every consideration has been given to secure light both from the exterior and from the interior areas. The building is to be of Portland stone, and the expression aimed at is extreme simplicity and the avoidance of architectural display.

Messrs. W. H. Lorden & Son, Ltd., are the contractors; Messrs. Crittall Manufacturing Co. are supplying the metal casements; lifts by the Express Lift Co.; steelwork by Messrs. Dorman, Long & Co. The carving is to be carried out by Mr. P. G. Bentham, A.R.B.S. Mr. Bylander is the consulting engineer, and Messrs. Richardson & Gill, FF.R.I.B.A., are the architects.

Cambridge University: School of Bio-Chemistry.

This building has been erected for the University of Cambridge by the Trustees of the late Sir William Dunn. It will be occupied by Professor Hopkins and his staff as a School of Bio-Chemical study and research.

The contractors are Messrs. William Saint, Ltd., of Cambridge, who have carried out the work under the direction of their agent, Mr. Braine.

The building is constructed of fireproof material with sand-face brick exterior facings and Portland stone dressings with Clipsham stone base and York stone steps. The roof is covered with Dawson pantiles. The entrance hall and stairs are treated in Subiaco stone, and all furniture and fittings have been to special design and made by Messrs. Wm. Saint, Ltd.

The sub-contractors are:—Electric light and power, Messrs. Higgins & Griffiths, Ltd.; asphalte work, Messrs. Lawford & Co.; heating, ventilation, hot water, steam, compressed air and hot rooms, Messrs. Mumford, Bailey & Preston, Ltd.; carving, Mr. Joseph Whitehead; Subiaco stonework in interior, Messrs. J. Whitehead & Sons; metal casements and wrought-iron work, Mr. William Smith; locks and door furniture, Messrs. James Gibbons, Ltd.; sanitary fittings and laboratory sinks and wastes, Messrs. Doulton, Ltd.; blinds, Mr. B. Holden; roof tiling, Messrs. Roberts, Adlard & Co.; fibrous plaster, Messrs. F. De Jong & Co.; steel roof principles, Messrs. A. Dawnay & Sons, Ltd.; patent roof glazing, Messrs. Heywoods & Co.

The clerk of works is Mr. G. T. Murton, to whom the architect and trustee are greatly indebted for the care, attention and skill devoted to the work.

Sir Edwin Cooper, F.R.I.B.A., is the architect.

Menin Gate Memorial.

A description of the foundations of the Menin Gate Memorial is given on p. 72. Sir Reginald Blomfield, R.A., is the architect, and Dr. Oscar Faber, O.B.E., D.Sc., the consulting engineer. Messrs. Somerville are the contractors.

West China Union University, Chengtu, China: Principal Gateway.

This gateway is the principal entrance to the University. With its flanking colonnades it expresses the spaciousness and dignity of the component groups of University buildings, whose higher roofs will be visible from the wide square. The building is of local brick, the walls of the great arch being unrelieved save for some small windows. The roof is in the grey-brown tiles of the district with patterns of glazed tiles. Glazed tiles are used in the frieze and upper tower, while bright colour adorns the rafter feet, beams and carved brackets. Messrs. Fred Rowntree & Sons, of 11, Hammersmith-terrace, W.6, are the architects.

Memorial to the Missing at Cape Helles.

This monument is designed specifically for the place it will occupy on the top of a cliff with a sheer drop of 100 ft. Being a country subject to earthquake, special consideration had to be given to the foundations. The monument is 25 ft. sq. at the base, tapering to 10 ft. 6 in., and then raised in the form of an obelisk to a height of about 100 ft. above the raised platform. Four plain stone Nabresina panels bear the names of the warships and military units engaged. On the north side of the approach will be placed a panel bearing a dedicatory inscription.

Sir John J. Burnet, A.R.A., is the principal architect. The contractors are Sir G. F. Payne Gallwey, Brown & Co., Ltd., 58, Victoria-street, S.W. 1.

Memorial at Port Thewfik.

The site for this memorial is at the southerly point of a promontory jutting into the Gulf of Suez, and which holds a commanding position of ships passing through the canal. It will be executed in Nabresina stone, and is in the form of a square obelisk, 65 ft. high and 12 ft. square. It has a reinforced concrete foundation placed on timber piles. It will be fitted with panels bearing the names of the Indian Regiments engaged in the Egyptian Expeditionary Force. Two couchant tigers are represented as guarding the memorial—the one from the canal, and the other from the sea. Sir John J. Burnet, A.R.A., is the architect, and Mr. C. S. Jagger the sculptor.

Liverpool Cathedral.

We give two progress photographs, specially taken for *The Builder*, of Liverpool Cathedral. Mr. G. Gilbert Scott, R.A., is the architect.

"Ockhams," Edenbridge.

This house has been recently altered by Mr. Baillie Scott as a country residence for himself.

New Premises for the Anglo-Persian Oil Company.

The building illustrated on p. 64 is being erected on a site having four frontages—one to Moorgate, one to West-street, one to Finsbury-circus, and another to South-place-mews. The building, which is the largest at present being erected in the City of London, has been carried out to the design of Sir Edwin Lutyens, R.A., and for the Anglo-Persian Oil Company, Ltd., who propose to occupy the building with their own staff and with all their subsidiary companies, such as the British Petroleum Co., and others.

The building consists of basement, lower ground floor, ground and seven floors over. The general excavation was to a depth of about 30 ft., and was continued through the usual "made" ground and through the old Moorfield Marsh, which covered this district to a depth of nearly 10 ft. for a period of about five hundred years, being just outside the old London Wall. Antiquaries have made many interesting finds during the progress of excavation. The Moorgate frontage was close to the line of the old Walbrook, which passed this spot on the way to the Thames. The building is continued over the Moorgate Station, Great Northern & City Tube, the foundations of which are continued to a depth of about 90 ft. right through the existing tube to steel grillage below.

The general contractors for the work are Messrs. Howell J. Williams, Ltd., of 7-17, Bermondsey-street, S.E.; the steel construction is by Messrs. Redpath, Brown & Co.; artesian wells by Messrs. C. Isler & Co., Ltd.; central heating with oil fuel boilers by Messrs. R. Crittall & Co., Ltd.; steel sashes by the Crittall Manufacturing Co., Ltd.; electric wiring and fittings by Messrs. Higgins & Griffiths; plumbing by Messrs. Stitson, White & Co.; synchronised clocks by the Synchronome Co., Ltd.; locks by Messrs. Joseph Kaye & Son; slating by Messrs. Sterling & Johnson; lifts by Messrs. Waygood-Otis, Ltd.; stone preservative to the Portland stone fronts by Messrs. Raines & Porter, Ltd.; pneumatic tubes installation by Lamson Pneumatic Tube Co., Ltd.; marble by Messrs. H. J. Jenkins & Sons, Torquay; internal telephones by the Relay Automatic Telephone Co., Ltd.; strong-room doors by the Chatwood Safe Co.; hardwood partitions and fittings by Messrs. Howell J. Williams, Ltd. The carving has been executed to the designs of Sir Edwin Lutyens, R.A., by Messrs. Broadbent & Co.

Progress Views.

The progress views show typical examples of the large number of commercial buildings now being erected in Central London. They include the new premises of the Anglo-Persian Oil Co., in Moorgate-street (Sir Edwin Lutyens, R.A., architect); the "Fortune" Theatre, Russell-street (Mr. E. Schaufelburg, architect); Banque Belge pour l'Etranger, Bishopsgate (Sir Edwin Cooper, F.R.I.B.A., architect); alterations to the Criterion Restaurant (Messrs. Wm. Woodward & Sons, architects); Messrs. Peter Robinson's premises, Oxford-street (Messrs T. P. & E. S. Clarkson and Mr. Austen Hall, joint architects); Messrs. Liberty's premises, Regent-street (Messrs. Edwin T. Hall, F.R.I.B.A., and E. Stanley Hall, M.A., F.R.I.B.A., architects); and new premises in Holborn (Messrs. Gilbert & Constanduros, architects).

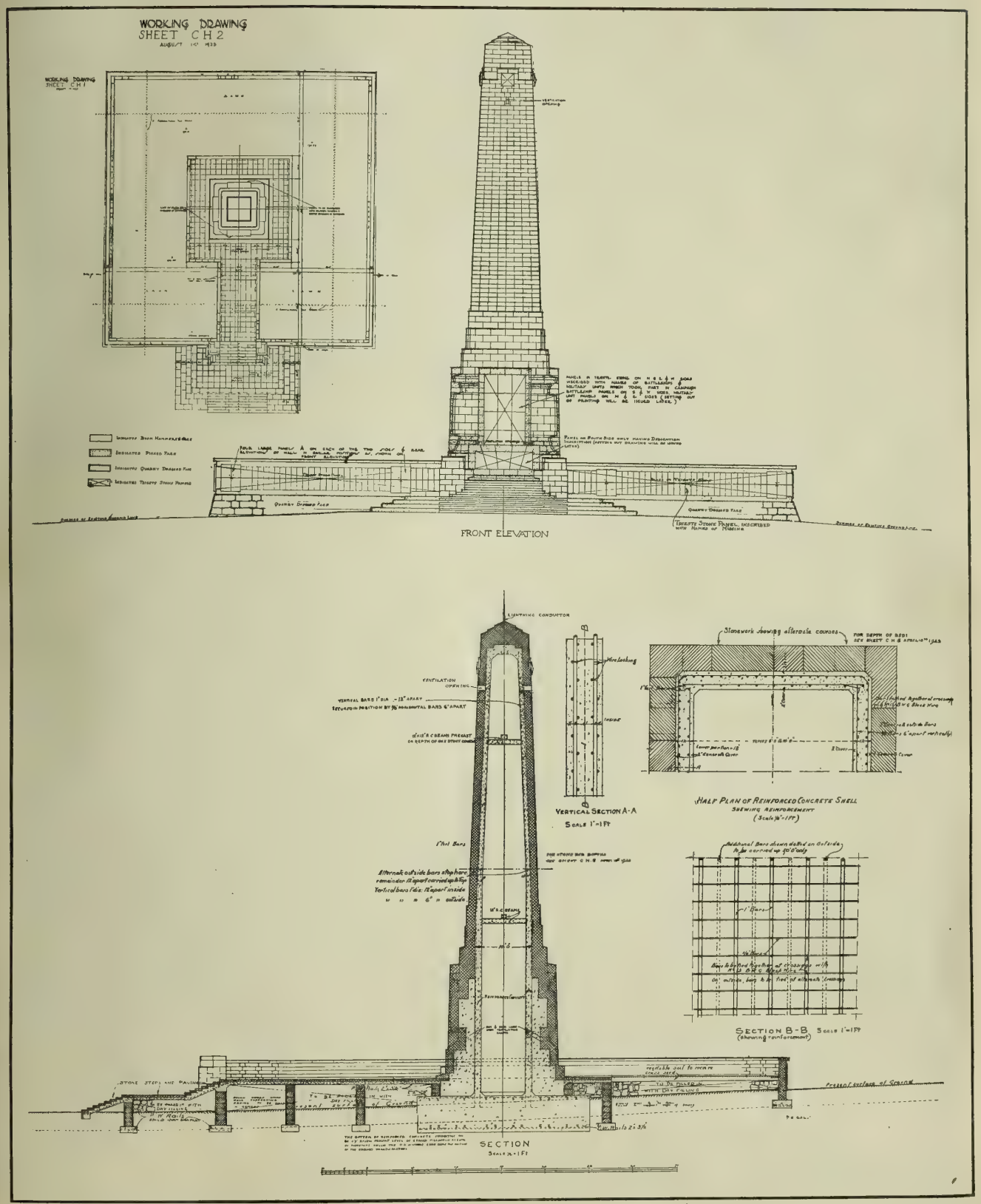
Nos. 105-109, Strand.

This building, which consists of two basements, ground floor and six floors above, will have a Portland stone front in which there is no main cornice. Part of the site was originally Terry's Theatre. The premises will have a considerable depth, and will overlook the Savoy Chapel and square at the rear. A feature of the site is the way in which it falls away at the back. This drop is so great that even the floor of the sub-basement will be at ground level at the far end of the premises, and both basements will light directly on to the road. The contractors are Messrs. Rice & Son.

Messrs. Trehearne & Norman are the architects.

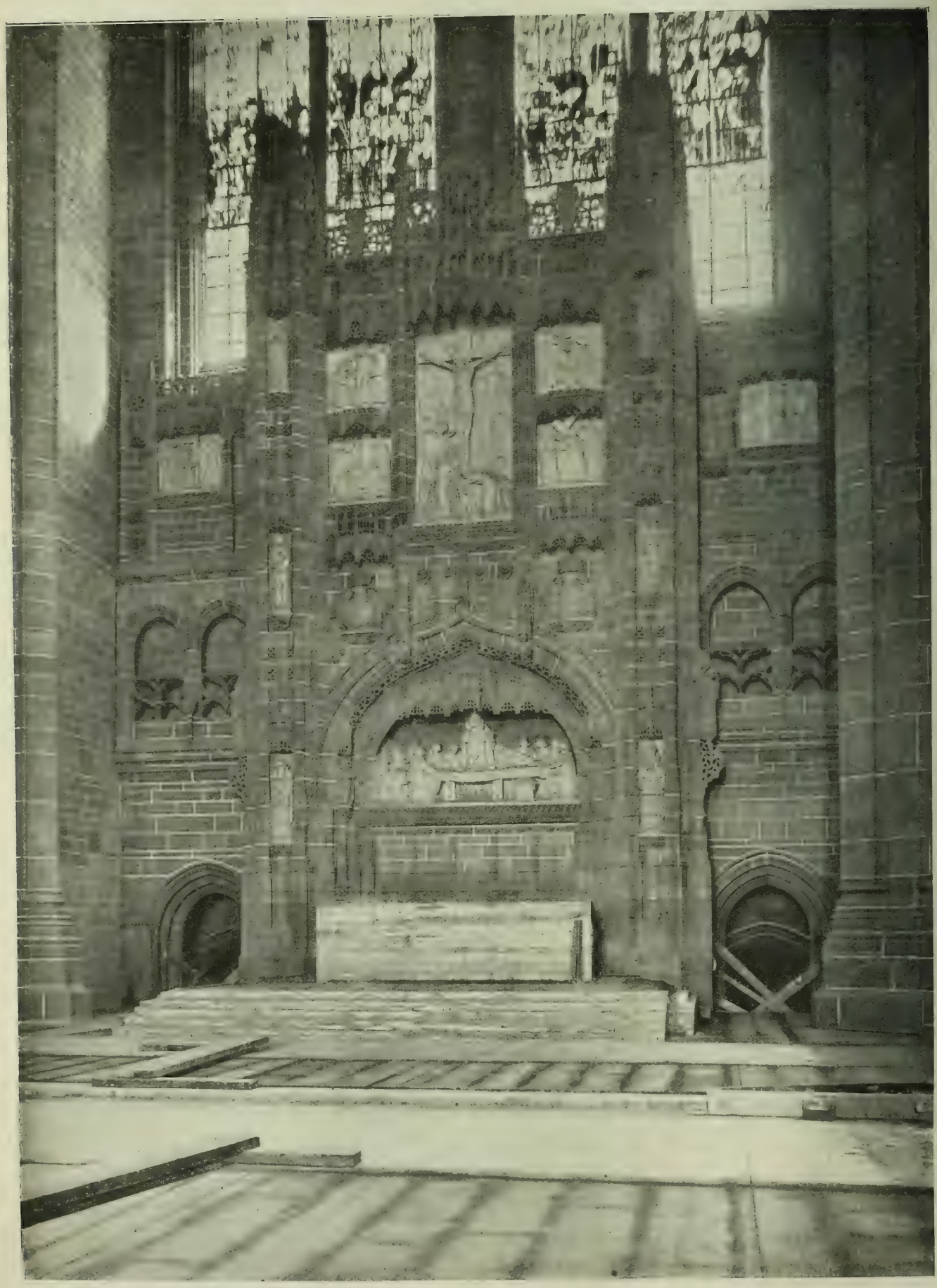
New Premises for the Gresham Life Assurance Society, Ltd.

A description of this building, for which Mr. T. B. Whinney, F.R.I.B.A., in conjunction with Messrs. Campbell Jones, Son, & Smithers, are the architects, is given on p. 67.



Cape Helles Memorial.

SIR JOHN J. BURNET, A.R.A., Principal Architect.



Liverpool Cathedral: A Recent View Specially Taken for "The Builder."

MR. G. GILBERT SCOTT, R.A., Architect.



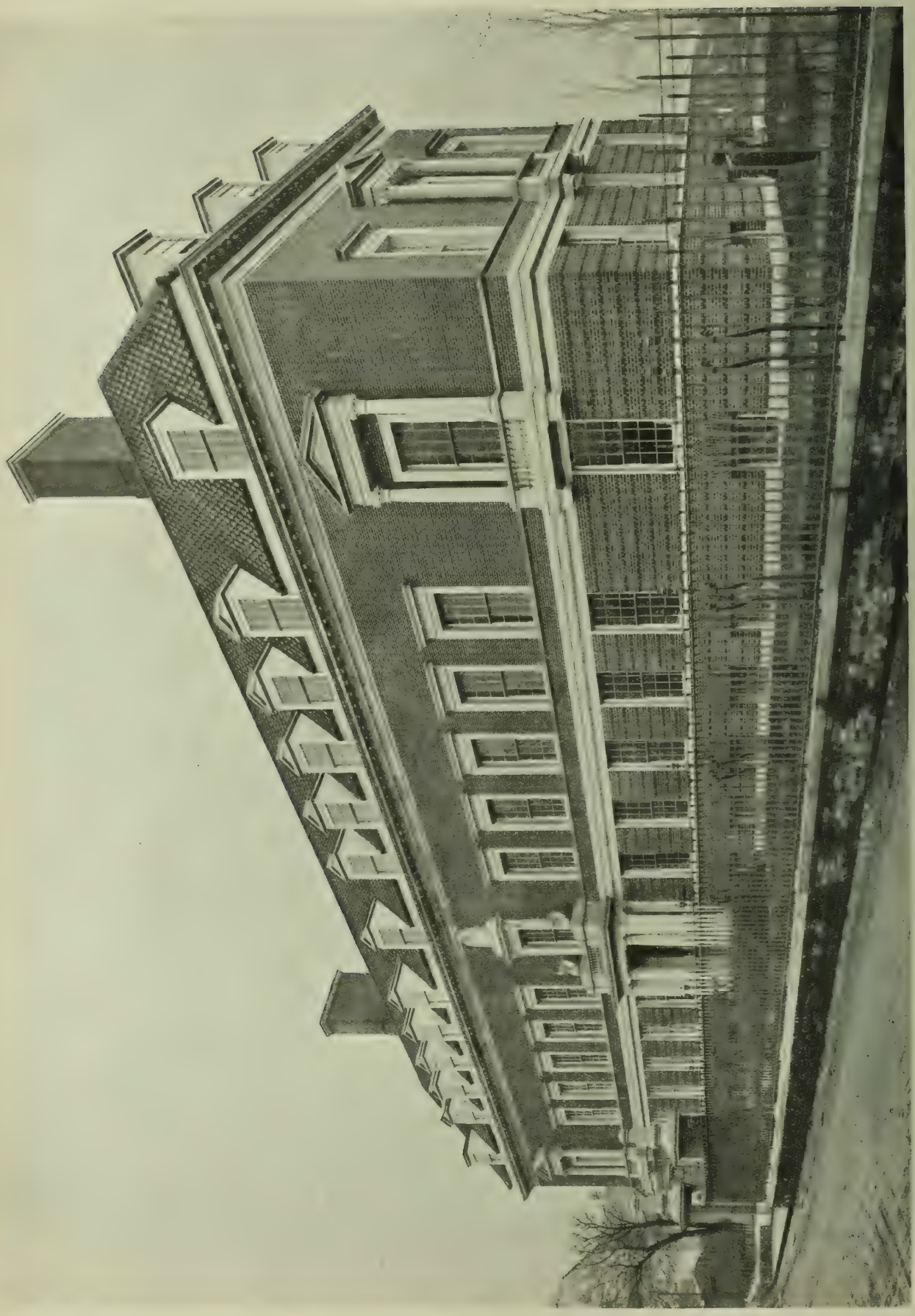
Liverpool Cathedral: A Recent View Specially Taken for "The Builder." Mr. G. Gilbert Scott, R.A., Architect.



THE LIBRARY.

Cambridge University: School of Bio-Chemistry.

Sir Edwin Cooper, F.R.I.B.A., Architect.



Cambridge University: School of Bio-Chemistry.

SIR EDWIN COOPER, F.R.I.B.A., Architect.



MAIN ENTRANCE.

Cambridge University: School of Bio-Chemistry.

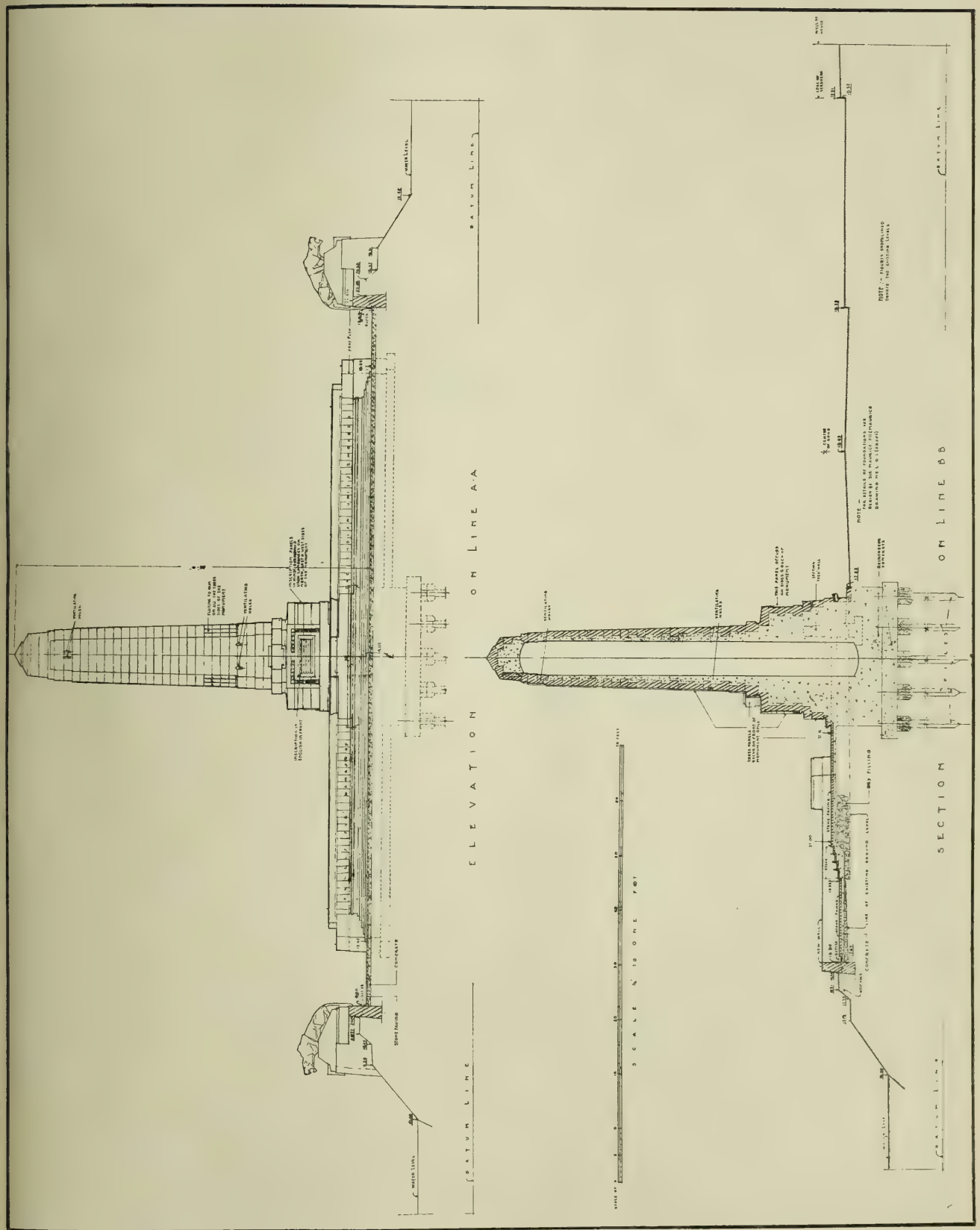
SIR EDWIN COOPER, F.R.I.B.A., Architect.



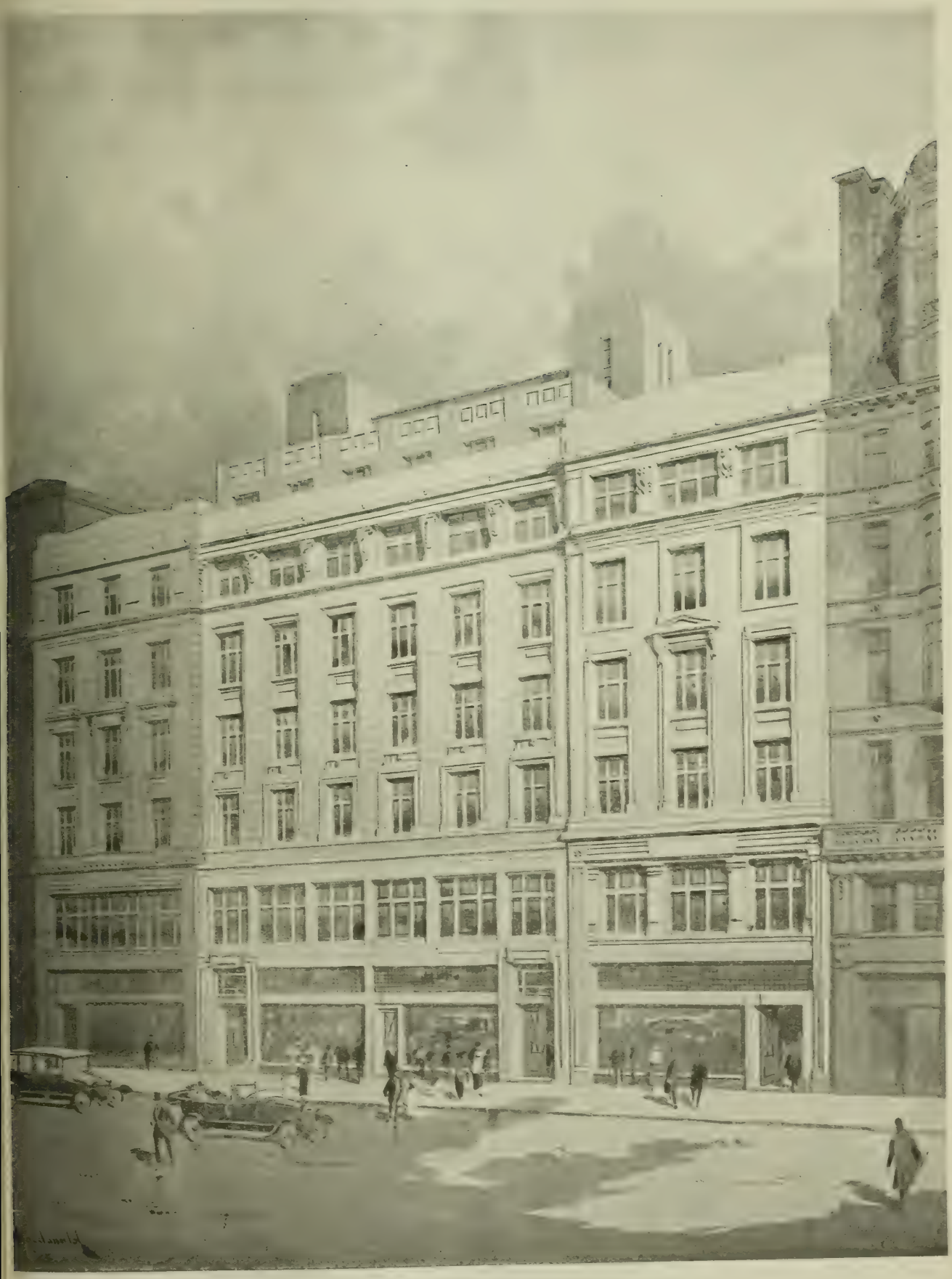
THE STAIRCASE.

Cambridge University: School of Bio-Chemistry.

Sir Edwin Cooper, F.R.I.B.A., Architect.

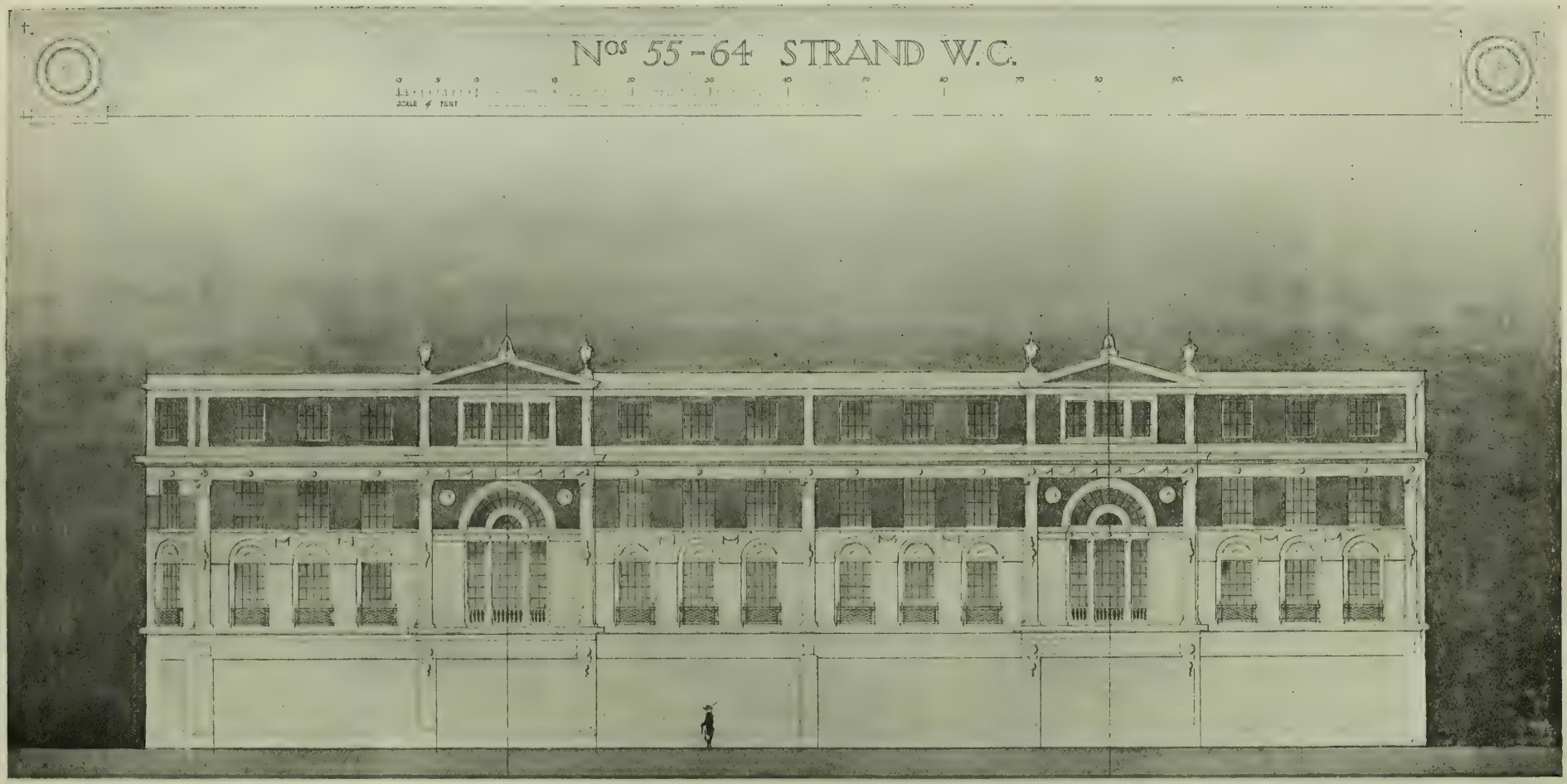


Memorial to the Missing, Port Thewfik, Egypt. Sir John J. Burnet, A.R.A., Principal Architect.



Nos. 105-109, Strand, W.C.

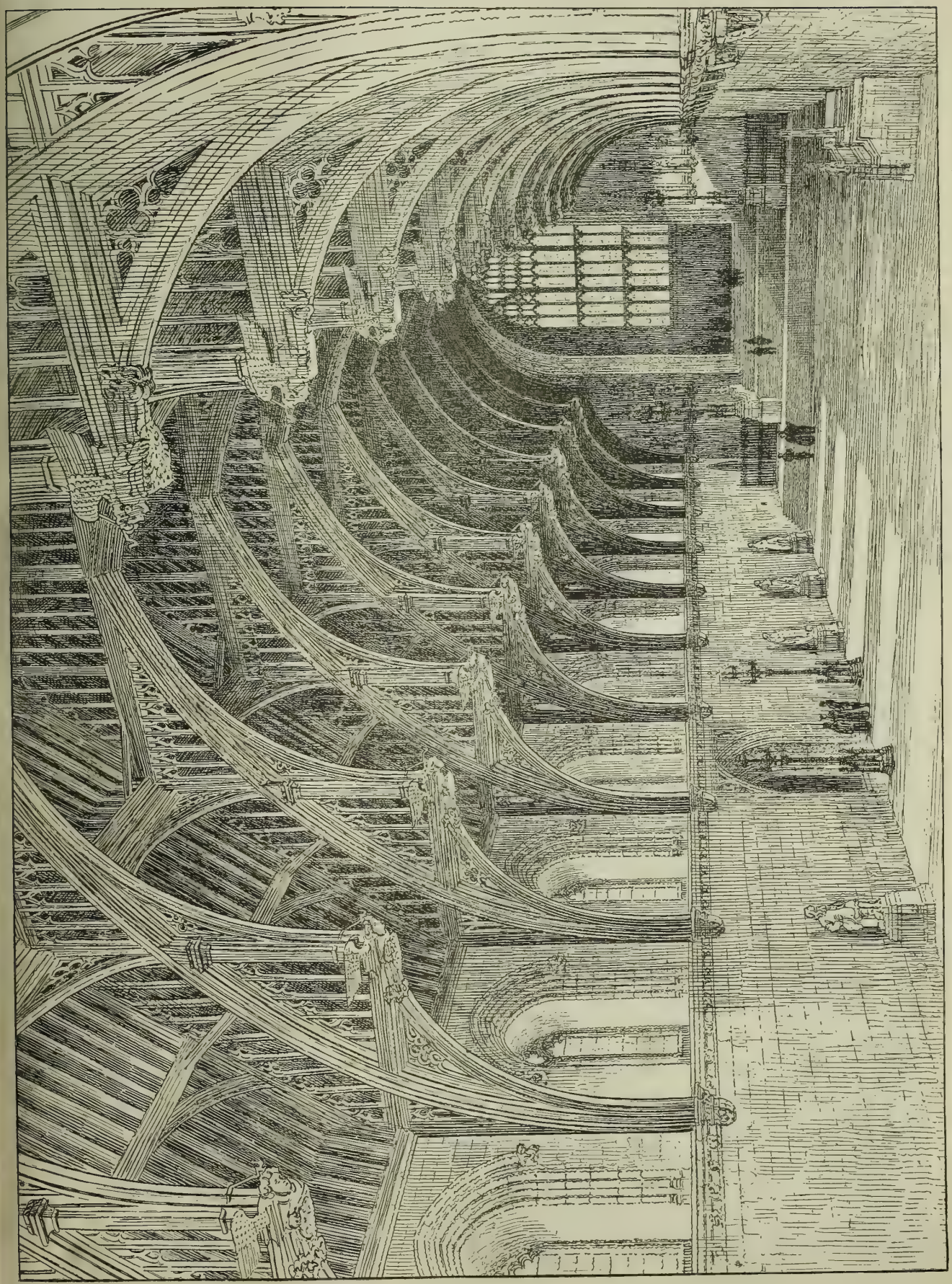
MESSRS. TREHEARNE & NORMAN, Architects.



Nos. 55-64, Strand, W.C.

MESSRS. YATES, COOK & DARBYSHIRE, Architects.

[The above drawing shows the proposed re-building of this block of premises. Half the site is to be occupied by the Saxone Shoe Co., Ltd., and the remainder of the site has been taken by Mr. F. G. Minter, building contractor, for development. Mr. Minter will be entrusted with the re-building of the whole block, but no sub-contracts have yet been let as the scheme is in its preliminary stages. An attempt has been made in designing the elevation to maintain the character and spirit of this part of London, made so famous by the Adam Brothers when they rebuilt the Adelphi. This forms part of the important Strand widening which is being carried out by the London County Council, and is immediately westward of the new "Tivoli" building which was lately opened. The new frontage line will coincide with that of the "Tivoli" building, and it is anticipated that when the widening of the Strand is extended down to Charing Cross Station the present congestion of traffic in this busy thoroughfare will be lessened.]



Westminster Hall Before the Recent Work of Conservation. From a Drawing by MR. T. RAFFLES DAVISON, Hon. A.R.I.B.A.

THE JEWEL TOWER, WESTMINSTER.

By W. HARVEY.

The preservation of Richard II's Jewel Tower at Westminster would be worth while were it only to keep in mind the accuracy with which Shakespeare has portrayed the character of England's most luxurious monarch. The jewelled insignia of royal state are continually referred to in his play, and the tragedy of Richard's fall is heightened by contrast with the artistic magnificence of his former tyranny. The King, who "every day under his household roof did keep ten thousand men," and who is reputed to have caused a garment for himself to be made of gold, silver, and precious stones to the value of 3,000 marks, may well have felt the need of a treasure house in which to preserve jewels obtained by his unjust and unconstitutional exactions. The charming but dilapidated building which now forms part of the Weights and Measures Office has suffered severely from decay and alteration since its original erection; but a fine chamber on the basement floor, ceiled with a ribbed vault, retains something of the sumptuous character imparted to it by its builders, who probably acted upon the express directions of their æsthetic sovereign. The chamber contains two bays of rib and panel vaulting, with level ridge-ribs meeting in grotesque carved bosses, where flowers unknown to botany merge imperceptibly into queer beasts as the spectator changes his position in looking up at them. One of the larger of these bosses (shown in the illustration) appears to be a somewhat outlandish vegetable product with four principal leaves when viewed from below, but reveals itself as a four-headed, open-mouthed monster when inspected from the side. The walls of the chamber are not very thick in proportion to the span and height of the vault, and no sign of buttresses remains upon the exterior of the building. It is not altogether safe to argue from this that none were originally provided, since the walls have obviously been repaired out of all knowledge, with windows, probably far larger than the originals, inserted in recent times.

It would be, however, quite in accordance with mediæval structural economy to dispense with buttresses where the vault of a ground story chamber was to be abutted by continuous solid walls supplied with the plentiful top weight of an upper story. Top weight may be made to modify the direction of an arch thrust, although, as was pointed out in Chambers' Cyclopædia of 1783, this function is only performed in ideal perfection when the top weight is infinitely great.

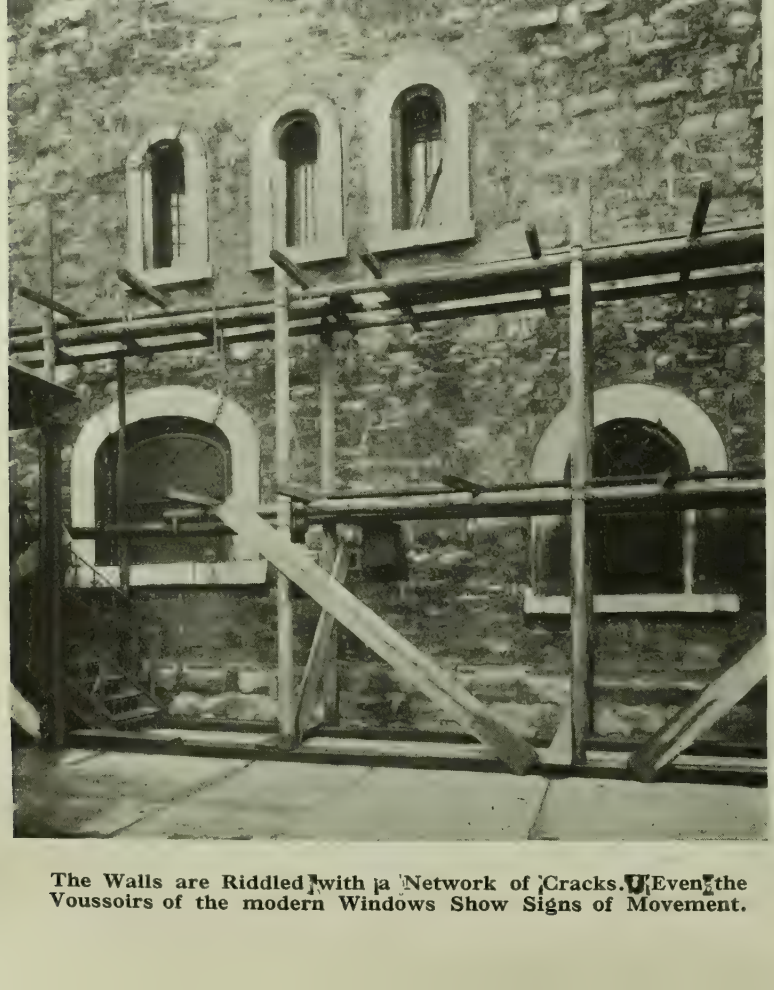
Notwithstanding the spread of cyclopædic knowledge and the growth of theoretical science, a rash experiment of comparatively recent times came near to overthrowing the whole tower. At some unrecorded date, but sufficiently recent to be described by Sir Gilbert Scott as "modern," the ground-floor chamber above the Gothic vault was also provided with a stone ceiling. This was given the form of a low elliptical intersecting barrel vault of plain ashlar set in mortar.

The tooling of the stonework resembles that of some repairs to Westminster Hall executed under the direction of Sir Robert Smirke in 1834, and, failing a more accurate figure, this date may be provisionally accepted for the construction of the ground-floor vault.



Part of Internal Walling and Vault Springer, with Modern Brick Patching and Serious Fractures before Present Repairs.

Long before the time of Sir Robert Smirke the theory of arches and vaults had already received the attention of scientists, Sir Christopher Wren himself having left a short tract on the subject; but as words were multiplied, practical good sense seems to have disappeared, and it is a remarkable fact that the use of the arch as a normal feature of ordinary utilitarian building construction was most common before the discovery of the principle of Catinaria. At the Jewel Tower theoretical knowledge seems to have been a poor substitute for the practical experience that comes readily to those who are working in the main current of a living tradition. The height of the new vault from the ground was a factor which should have been taken into consideration, but no special devices were employed to mitigate the damaging outward pressures of the vault, which naturally act with worse effect when applied at a high point than at a low one, since their leverage is increased in respect to the point of application of those forces by virtue of which all buildings stand—the pressures of the soil upon the foundations. The old walls, built, as was usual in Gothic times, of a facing of ashlar with an internal core of rather indifferent rubble, began to yield to the strain. A second story above the new vault supplied enough top weight above the points of application of the vault springers to stave off immediate collapse, but the walls bowed out and became riddled with a network of cracks, showing themselves as faint lines in the ashlar facings and as horrible cavities in the disintegrated internal core. Matters were by no means improved by the heavy loads placed upon the floor, which had been laid upon the upper surface of the vault and the lime concrete filling of the vault pockets. The upper chambers of the tower were used as a place for the storage of standard measures, generally made of ponderous metal. The repairs of the structure were postponed from time to time to suit the occupation of the building by the Weights and Measures Department, and it



The Walls are Riddled with a Network of Cracks. Even the Voussoirs of the modern Windows Show Signs of Movement.

was only upon renewed signs of movement in the bulging walls and the dangerous displacement of stones in the modern vault that the work of preservation was at length taken in hand.

Critics often express a wish that the buildings "might be left alone and allowed to remain just as they are," and this postponement of repairs long known to be necessary should indicate that in this instance repairs have not been applied without very careful consideration.

System and routine are in evidence in the methods of the conservators, but they are of such a nature as no sane man need find objectionable. Certain rules are indeed invariably applied, and each building is subjected to minute scrutiny, with the view of discovering the cause as well as the symptoms of its decay, in order that the best and most lasting cure by the least conspicuous means may be devised and put into operation. What shall be done to the building is only determined in the light of a full inquiry into its present condition and historical defects.

These inquiries are often highly interesting in a structural and historical sense, since the strength as well as the weakness of ancient work is brought into prominence in a manner impossible to casual inspection. A trial hole excavated at the north-west angle of the building to determine whether some part of the decay in the shattered walls might not have been due to imperfect foundations revealed an exceptionally sound footing upon a bed of rammed chalk superimposed upon the heads of elm piles 5 ft. in length. The heads of the piles are nearly 12 ft. below the present ground level, and, except for a thin layer of water-soaked fibres, the wood appeared to be in thoroughly sound condition. The piles were round logs driven in close contact with one another in the Thames mud. It was decided that the foundation was probably sound and should be left alone, and that the defects were due to the feeble and composite nature of the walls and their core, in which dust and chalk predominated, and to the bursting action of the two superimposed vaults.

The lines on which works of repair should be designed were clearly indicated by the state of the building itself, and it was, therefore, proposed to make the defective walls as nearly monolithic as possible by a process of cleaning, grouting, tamping, and pointing applied from both faces, and to restrain the outward thrust of the upper vault by the insertion of a system of reinforced concrete beams and ties above its crown, and designed ultimately to form part of a reinforced concrete floor to the uppermost chamber. Works were commenced in the lower part of the building, and the principal or Gothic vault and its supporting walls have now been satisfactorily treated without mishap. Upon the erection of a scaffold about the building public interest and vigilance were immediately demonstrated by a protest from some friendly critics, who prayed that the present patched and "picturesque" appearance of the walls might be preserved. These critics seem to have ignored the structural problems involved in maintaining the vaults in equilibrium, and to have judged the whole case from the point of view of a single factor, namely, the external appearance of the building.

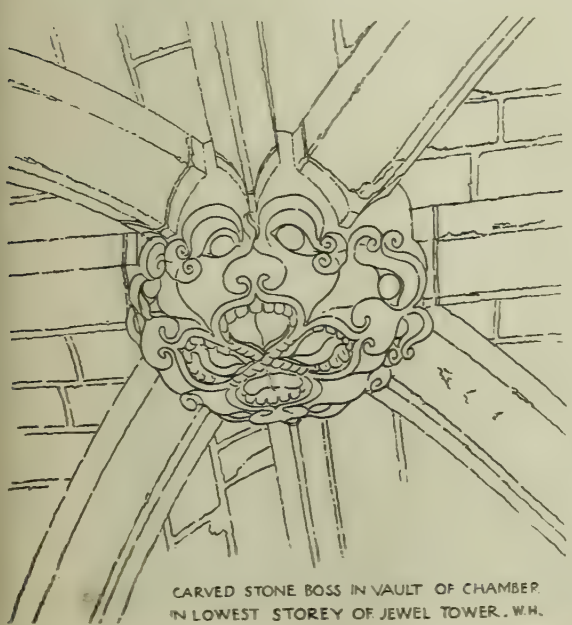
Such criticism is, indeed, far more valuable than crass indifference, and calls attention to certain aspects of the case, but it was not in this instance constructionally helpful, nor did it take into account the fact that in architecture appearance must go hand in hand with structural soundness if satisfactory results are to be achieved. It is doubtful, too, whether the advice to preserve the modern patches of tiles and bricks on edge and daubs of cement rendering could have been acted upon. Many of these extraneous additions to the decaying surface of the wall were themselves on the point of coming adrift, and could be shifted bodily with a touch of the hand, revealing again the old cavities they had been applied to conceal rather than to repair.

They are, perhaps, no worse than a great many other superficial patchings that have been executed on ancient buildings in other parts of the country, but they were in all probability put on only in the hope of keeping off the rain for a year or two until something better could be put in hand. Nothing would have been farther from the thoughts of the tilers of the last generation who dubbed on the patches of tiles than that their hasty bit of botched work should, in the course of fifty or sixty years, meet with blessing and approval from this generation.

The suggestion was nevertheless given careful consideration by the Historic Buildings Branch, but the state of the structure ruled it out as impracticable. Wherever fractures and cavities are found to be too bad for treatment with the existing stones and internal grouting a few old stones of similar character, obtained from demolished buildings, have been inserted as bonders so as to strengthen what were formerly the weakest parts of the wall. The insertion of the reinforced beam above the level of the upper vault will be a more difficult and hazardous operation, but the stability of the upper part of the wall will be guaranteed by the erection of heavy raking shores before the excavation for the beam is undertaken, and the work above the beam will also be consolidated in

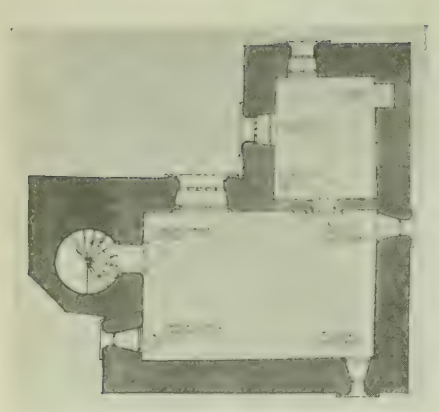


Though Considered Picturesque by Some Observers, the Brick and Tile Patchings are being Replaced by Sound Old Stone Bonders to give Strength to the Shattered Walls.

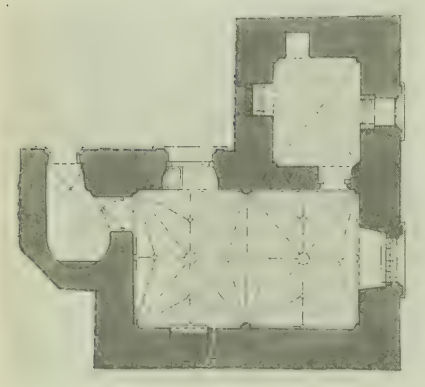


CARVED STONE BOSS IN VAULT OF CHAMBER IN LOWEST STOREY OF JEWEL TOWER. W.H.

The Vault has now been made Secure without Alteration to the Appearance of the Stonework.



FIRST-FLOOR PLAN.

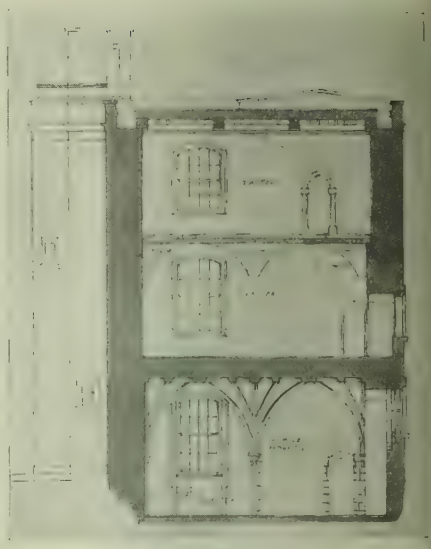


BASEMENT PLAN.

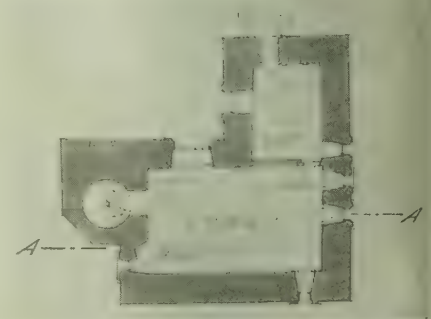
advance, so that whatever temporary supports may be used they will have something solid to act upon. The steel work for the reinforcement is made to take to pieces for convenient insertion in the cavities to be groped for it in the disintegrated core of the walls, and will be fastened together in position by means of special overlaps and fishplates, which will be left free of concrete for the purpose until the steel work has been thoroughly connected. The use of the tie-bars passing across the building to uphold the slipping stones of the vault and to form part of a reinforced concrete floor is worthy of note. The material is not only used economically, but the modern repair is adapted to the ancient work in a way that avoids, as far as may be, the well-known fate of new patches in old garments—a fate that was too well illustrated by the former fragmentary repairs.

In case any doubt remains as to the necessity of the work being put in hand it should be stated that the stones of the upper vault were slipped out of line to the extent of $1\frac{1}{4}$ in. Gaping cracks occur in the masonry of every corner of the building, and when one of the picturesque patches of modern tilework is struck with the fist showers of dusty *débris* run down the face of the work from fissures a yard or more away from the spot. The condition of the basement chamber, with its Gothic vault, where part of the work is finished and part remains in its old dilapidated state, is excellent evidence of the artistic reticence and discretion, as well as the workmanlike execution, of the present repairs.

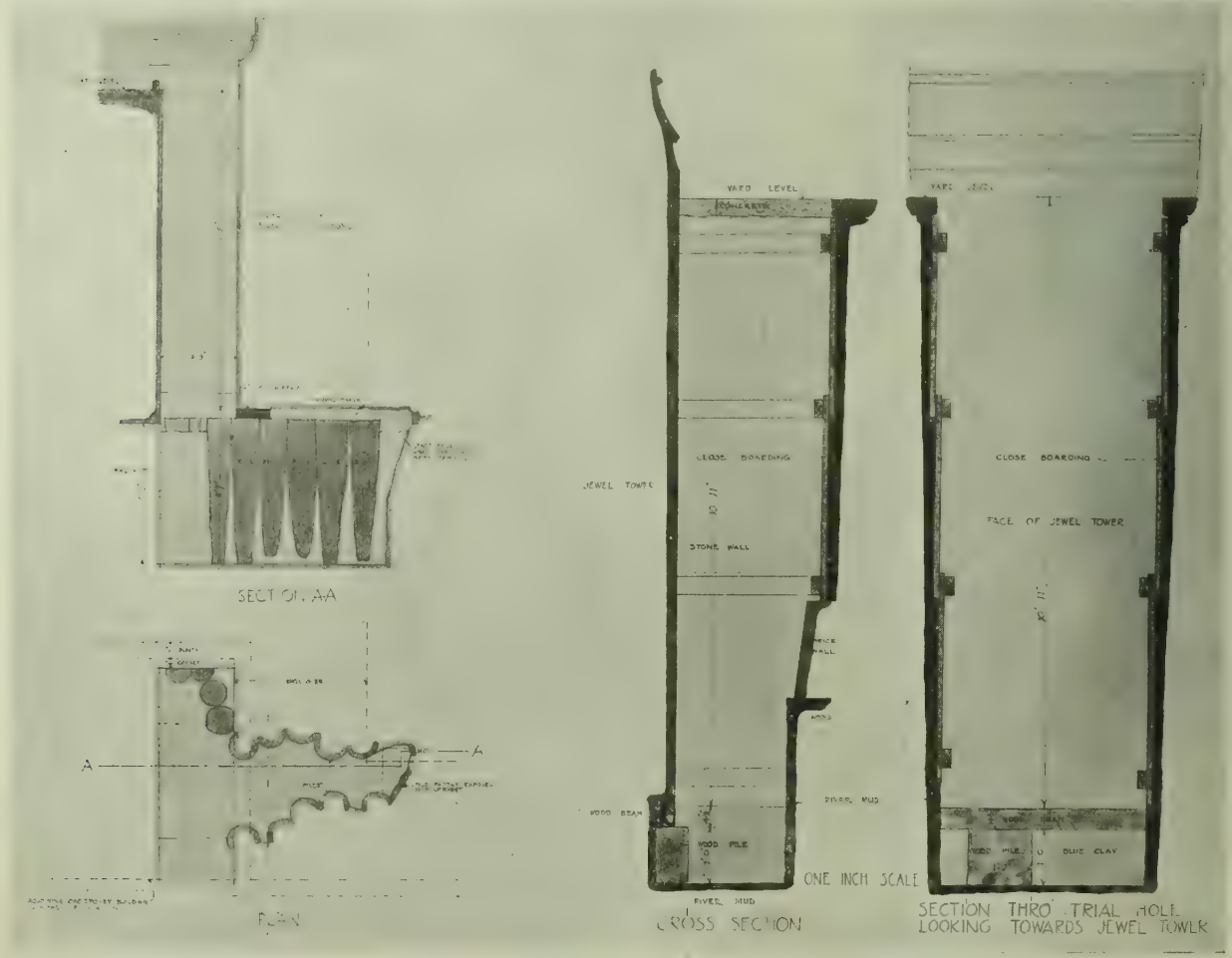
The plans and photographs illustrating this article are published by permission of H.M. Office of Works.



SECTION.



GROUND-FLOOR PLAN.



Trial Holes Dug to Investigate the Nature of the Foundation. The Elm Piles were in Good Condition, and the Foundation Sound.

TOWERS AND SPIRES.

I.—SALISBURY CATHEDRAL.

BY SIDNEY TOY, F.S.A., A.R.I.B.A.

THE erection of towers and spires over the central space of mediæval buildings presented problems of construction of such complex character as required the greatest ingenuity in solution, and, since the dynamic principles involved in these problems are constant and should be thoroughly understood, an investigation of the manner in which they were overcome and solved by the mediæval builders will form a useful field of study for the architect of the present day, who is often faced with problems of a similar nature. It is proposed, therefore, to devote a series of articles to the examination of some typical examples of towers with spires and similar finials erected during the Middle Ages over the central crossing of cruciform buildings: that is, in positions which before that time were usually covered by domes. The tower and spire of Salisbury Cathedral, though not in strict chronological order, will form the first subject for examination.

The cathedral church of Salisbury was begun in 1220 and, in respect to the church itself, was completed in 1258, but the upper stages of the tower and the spire were not added until about 80 years later. That the tower is the work of about 1330 is evident from its general character and details, and that so ponderous a superstructure was not contemplated by the first architect is obvious from the inadequacy of the support provided; but the exact date of the addition can only be inferred from the references to building operations in the chapter archives. In 1331 Edward III granted to the chapter permission to use the stone of the former cathedral at Old Sarum "for the improvement of the church of New Sarum and the close thereto belonging," and in 1334 Richard de Farleigh, an architect of repute, was commissioned for building work at the cathedral. It is probable, therefore, that Richard was responsible for the design and execution of the tower and spire, though the stones he selected for the facing of this particular work would be naturally taken directly from the quarry.* The lantern stage of the tower formed part of the church as finished in 1258, and this was covered, probably, by a timber fleche containing the bells; but even this weight and the thrusts set up occasioned considerable anxiety and arched struts with inverted arches above were soon thrown across the eastern transept, while about the period of the construction of the tower the bells were removed to an isolated campanile built for their reception to the north of the church.†

Before commencing the actual building of the tower and spire it was first necessary to support and secure adequately the lantern which was to form the base of the new work. This was effected by a skilful system of buttresses and ties. Flying buttresses were erected in the triforium and clerestory stages of the choir, nave and transepts (fig. 1). These were built in the rear-arches, as shown on the right-hand side of

* The provisionary character of the agreement between the precentor and Richard of Farleigh, showing as it does the timorous manner in which the proposals of the latter were regarded, lends additional support to this inference. *Vide*, "A History of Salisbury," by the Rev. E. E. Dorling, p. 71, and a monograph of the Cathedral by William Dodsworth, p. 151.

† This campanile was pulled down by Wyatt in 1790



Salisbury Cathedral.

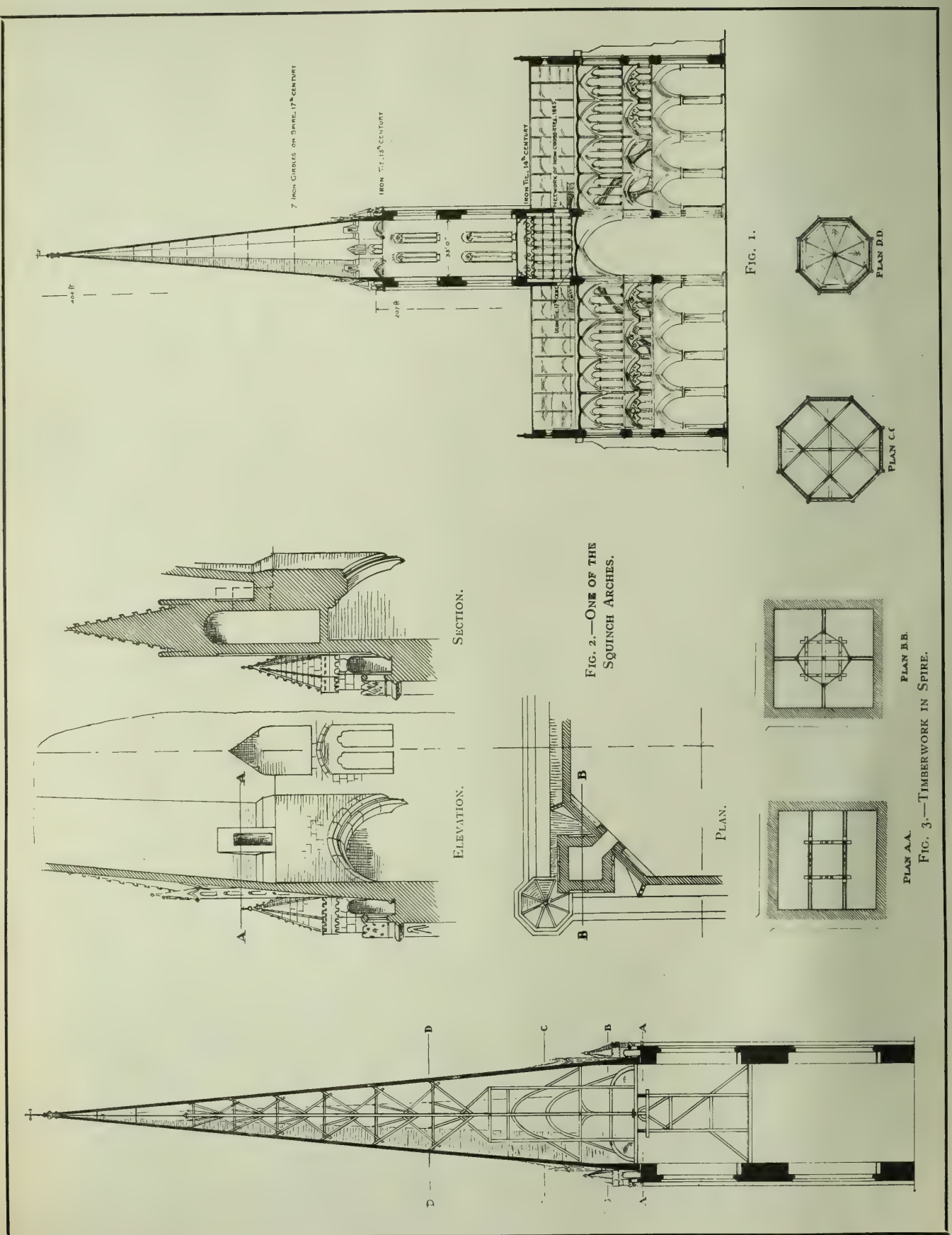


FIG. 1.

FIG. 2.—ONE OF THE SQUINCH ARCHES.

FIG. 3.—TIMBERWORK IN SPIRE.

The Tower and Spire of Salisbury Cathedral. (*See p.* 61).

e figure where the front arches are omitted, all cline towards the tower, and together form a werful system of what are virtually stone king shores, supporting the tower on all sides d distributing its thrusts over several arches the adjacent arcades. Diagonal flying ttresses were also added, which, springing om the re-entering angles of the aisle walls, vided near the head and abutted the angles the tower at two different heights, while low ttresses about 15 ft. deep were built against e tower on the top of the clerestory walls. aving established supports on all sides the ntern itself was consolidated by connecting e main piers of its arcades to the outer wall th stone webs thrown across the gallery, and the insertion of a powerful system of iron s at the level of the arches of these arcades. he latter securely clasps the walls of the tower gether both inside and outside, and is a fine ample of mediæval forging. It received the comium of Sir Christopher Wren, who was lled in to examine the fabric in 1669, and who tributed the preservation of the tower itself its presence; but the process of oxidation s produced serious effects on the stonework jacent to some of the ironwork employed, ough it was covered with sheet lead. Con-derable care and skill has been exercised in the nstruction of the two upper stages of the wer and the spire on this base. The squinch ches, which carry those sides of the octagonal ire falling on the corners of the tower, have eir voussoirs locked together by iron clamps ensure their rigidity despite their lack of equate abutment; and the tall pinnacles hich rise above the broaches, and are so cessary to counteract the thrust at these ints, are built hollow that their weight might distributed along their sides where it is quired and not act in the centre (fig. 2). he shell of the spire from the level at which it aches its true development throughout the hole of its height to the apex is only 9 in. thick. he newel stairways built at the corners of the wer, however, are a source of weakness and the course of time, probably owing to the reading of the great arches of the crossing, came considerably fractured.

Within the spire and rising from the upper stage of the tower to the apex of the spire itself is an ingeniously devised timber centering the design and construction of which will be understood by reference to the section and plans given in fig. 3. This timberwork, though considerably repaired during the seventeenth century and at later periods, doubtless represents the scaffolding erected for the construction of the spire, but it is equally unquestionable that it was especially designed with a view to its permanent retention in position as a security, of desirable elasticity, against the effects of storms and other adventitious occurrences. The lowest part of this work, in the tower, consists of two heavy beams 1 ft. 3 in. square and four strutted and braced uprights 10 in. square, and the underwork of the centering proper, within the spire itself, of two cross-beams supporting at their junction a central post which ascends through the whole height of the work to the level of the uppermost platform, and of four strutted and braced uprights rising from the crossbeams about midway between the central post and the wall. The resilient character of the junction of these two parts of the substructure will be appreciated by an examination of plan B.B. (fig. 3), from which it will be seen that the vertical timbers of the upper part have no correspondence with those of the latter. The head of the central post is pinned to the vane rod, and crossbars, projecting from the vane rod, are dowelled into the stonework as shown in fig. 3, so that the whole of the apex of the spire is securely held down to the timberwork beneath.

Such, then, is the design of this daring structure and the precautions taken for its security, and the result is a tower and spire of incomparable beauty, which concentrates and completes in an ideal manner the group of buildings beneath photograph. It has been, however, an occasion of considerable anxiety from the first. The great arches of the crossing became distorted and the substructure generally began to crack and settle. During the latter half of the fifteenth century arch struts were thrown across the transepts. In 1669, Sir Christopher Wren was called in to examine the fabric and, having noticed the important function filled by the iron tie, above mentioned, ordered other iron ties to be added. One of these additions is probably that at the base of the lantern, while others are those passed round the outside of the spire at various heights and seen in fig. 1 and the photograph. Reparations were also effected and iron ties added during the eighteenth and nineteenth centuries, particularly in 1865 when the lantern was secured by a whole network of iron ties. These last pass diagonally across the tower, and piercing the walls, are carried round the angles on the outside and over flat bars, laid vertically on the face of the buttresses. Wren estimated that the spire inclined towards the south-west, owing to the settlement of the western piers to the extent of about 2 ft., but subsequent and more accurate plumbing during the eighteenth century and within recent years has shown that the amount is 22⅜ in. and that this has not increased. The extent of the deflection is marked on the floor below the centre of the crossing.

It is interesting to record a simple act of faith in saintly protection performed by the builders of this spire after they had themselves taken every precaution to secure its safety. In a cavity of the capstone they inserted a relic consisting of a small piece of fabric, possibly a reputed fragment of the robe of the Blessed Virgin, enclosed in two boxes, the inner of wood and the outer of lead 5½ in. diameter. This was discovered in 1762, during the erection of a copper vane, and reverently replaced.

The Menai Straits.

The joint committee of the County Councils of Carnarvonshire and Anglesey appointed to consider the proposals of the Ministry of Transport for the erection of a new reinforced concrete bridge in place of the Menai Suspension Bridge, has decided to ask for a guarantee that the new archway it is intended to build will not hinder the navigation of the Menai Straits.



FIREPLACE IN LIVING-ROOM.
"Ockhams," Edenbridge. MESSRS. BAILLIE SCOTT & BERESFORD, Architects.

The "Fortune" Theatre, Russell-street, W.C.: Progress View.

New Premises for the Anglo-Persian Oil Co., Moorgate: Progress View.

'ALL BUILDINGS, TALLER BUILDINGS, AND SKYSCRAPERS.

By HORACE R. APPELBEE.

HAT a difference is made by the way a is presented. A street is 20 ft. wide and buildings on either side 50 ft. high. Is street narrow, or are the buildings lofty? en Middle Row existed in Holborn, Staple was, I suppose, a lofty building, and now dle Row is gone and forgotten, Staple Inn owhere near so high as the street is wide. Italy the main cornice often projects to centre of the street. Is it a dangerous ection, or is the street narrow? In Venice w buildings so tall that one could touch walls on both sides of the street at the e time; and even in London I have ed a party-wall notice on the adjoining er when there was a street in between. someone has been to America looking tall buildings and skyscrapers. He has e back telling us horrible tales and utter- warnings. He complains they make dark ets and cause congestion of traffic. The e here with low buildings, I think.

f course, the fault with the tall buildings New York and Chicago is not that they too tall, but that they are too close to- er (which is quite another tale). The lt with the low buildings of Cheapside and od-street and other City streets is just the e: they are too close together. I assert hout the slightest fear of contradiction t for a given amount of accommodation n a given area, tall buildings will give re light, more air, more sunshine, more ce for traffic in a business centre, more ce for recreation in a residential quarter n low buildings.

Buildings 50 ft. high on both sides of a et 20 ft. wide suggest dark, confined ce and congestion of traffic. Buildings ft. high and streets 200 ft. wide suggest my mind well-lighted rooms, open spaces, l plenty of room to move. These figures not chosen by chance; they are the result certain calculations showing different ways putting the same amount of accommodation the same site.

As I believe in argument of the two and make four type I will endeavour to prove contention mathematically. Take a unit m (or floor space) about 20 ft. square and, , 10 ft. high. One hundred such rooms l exactly cover an acre. In the form of a are there will be ten rooms on each face. the ground is covered. There are no ets or alleyways, and no windows are pos- le. Now put one room in the centre of the e and the others on top as a column, and have a skyscraper; but we also have 99 cent. of the acre of space open around for traffic, and every room has a window every wall. A skyscraper 1,000 ft. high a base 20 ft. square would, of course, be stable, and there is no need to make build- law against it, as no one would attempt to ild it.

Let us restack our rooms, four on a floor d 25 stories high. The result would be a ilding perfectly stable, no doubt, and every om would be a corner room with two ndow walls. And if adjoining acres were be treated in the same way, the buildings uld be 170 ft. apart. That seems to prove contention sufficiently. It is, however, sible to improve greatly the arrangement placing each building opposite the space tween two buildings on the other side of street, and in that case, while the same ea is covered, the buildings are 380 ft. art. Assuming the stories as much as ft. high, the building would only total) ft. Wonderful open lighting, and 96 per nt. of the ground area not built on.

So far we have only considered an acre of vered space on an acre of site; we often get more, of course, but probably, looking at a large area or district, it never exceeds two acres of covered floor space to one acre of ground. (Exact figures are, of course, unobtainable.) With tall buildings such as I have described there would still be 92 per cent. of total area uncovered, and all could be street and available for traffic. If the buildings were reduced to a uniform four stories, only 50 per cent. would be uncovered, and of that a large part would be in the form of private lighting courts, so that street space would not be more than one-third or one-quarter of that possible with tall buildings.

Mr. Unwin quotes 45 ft. of rentable floor space per head of population as the result of his American experience. Presumably we must about double that to obtain the building area. The day population of the "square mile," known as the City of London, appears to be about 700 per acre. 700 by 90 gives 62,000 sq. ft. of building required, and this in a fifteen-story building needs a ground area of 4,200 sq. ft. only. By making the building cross-shape for stability we may need a little more, and, say, 10 per cent. of the area is covered and 90 per cent. available for street. The cross will be about 80 ft. overall on plan, and a square of one acre about 210, so that the buildings will be 130 apart or 170 between the arms. If every square were dealt with in the same way we should have a chess-board city, every square representing an acre, and on it one building containing 700 persons, and with 10 ft. stories, 150 ft. high and on the average considerably more than 150 ft. apart. Consequently no rooms above ground get less than an angle of 45 degs. of light, and the worst angle applies to only one room in fifteen against one in every two or perhaps three in our present city. All look out on to wide open spaces.

All streets could have a clear traffic way of 130 ft. with recessed portions 20 ft. deep on the pavement where people could stop and chatter or do real business. This would be improved if two of these blocks were brought up together, thus ++. Our main avenues can then be 260 ft. wide between the buildings and the minor streets 130 ft. as before.

The object of this article is merely to show that tall buildings, as such, are not an evil, but for a given amount of accommodation on a given area they will provide more light, air and sunshine, more traffic space in a business quarter, and more recreation space in a residential one. In both many of the main avenues could be planted with forest trees without detriment to the light of the buildings. It will help to realise the nature of the change if it is pointed out that most of the rooms on the first floor would have an unimpeded horizontal outlook between the buildings of almost unlimited extent, and the same would apply to the ground floor except for the traffic. In the City to-day how many get 100 ft. or even 50 ft.?

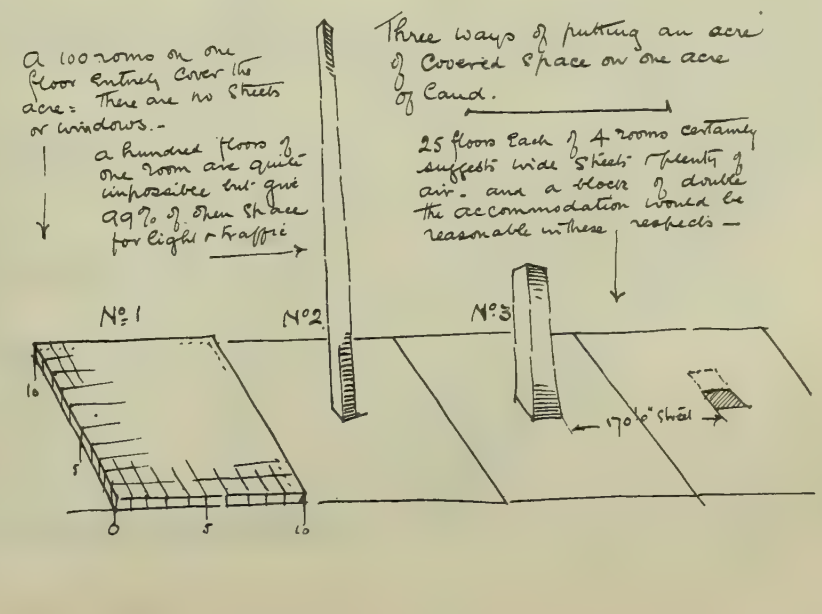
If we are to have new building law, let us, as architects, aim at the abolition of a maximum height clause, and for far greater stringency as to the angle at which light is admitted to a room used for office or residence. The London Building Acts require a good deal of amendment in this respect, especially the clauses relative to "light courts within a building." There is one point about by-laws we are apt to forget. It is that they are not made to protect an individual from the consequence of his own folly, but to prevent him performing an act of folly which will injure his neighbours. He is prevented from erecting an inflammable house in an urban area, not because he runs a risk of being burnt in his bed, but because the fire started on his premises may spread and injure others. It is much the same with air and sunshine. Nothing can prevent the owner closing and shuttering his own windows, but he must be stopped from preventing access of air and sunshine to others.

Having determined the model rules in these matters, we can apply them impartially to low buildings and high buildings. We shall then find, as a corollary to the previous proposition, that with equal amenities high buildings will give a greater floor area of accommodation than low buildings, on equal site areas.

[This article is of considerable interest at the present time, but we do not necessarily agree with all the opinions expressed therein, —Ed.]

Acoustics of Buildings.

Mr. Hope Bagenal recently lectured at King's College, London, on this subject. He asked his audience to dismiss popular notions on the subject, as they were nearly all misleading. It was common for a spoken syllable in a cathedral to last for five seconds and an organ note to last for ten seconds. The rate of syllables in conversational speech was something like four per second, so that with a reverberation of some five seconds in a lively sermon in a cathedral syllables assembled upon the ear twenty at a time. It was, he said, well known that new preachers in St. Paul's Cathedral were warned that their sermons must consist of only half the number of words that they would use in a parish church. The reverberation in St. Paul's Cathedral was such as practically to prevent rapid speech.

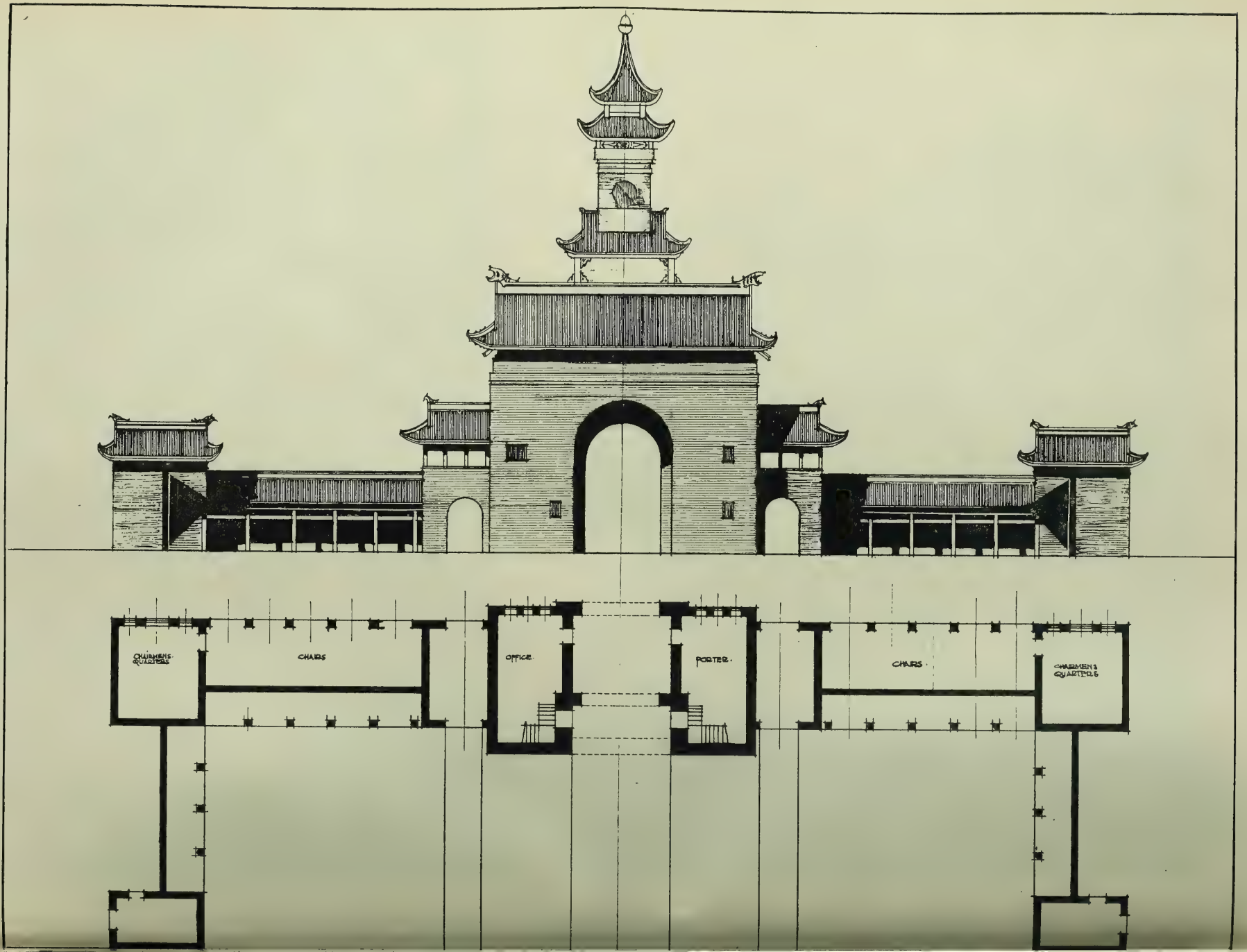


New Premises for the Gresham Life Assurance Society, Ltd., Fleet-street, E.C.

MR. T. B. WHINNEY, F.R.I.B.A., in conjunction with MESSRS. CAMPBELL JONES, SON, AND SMITHERS, Architects. (See p. 67.)

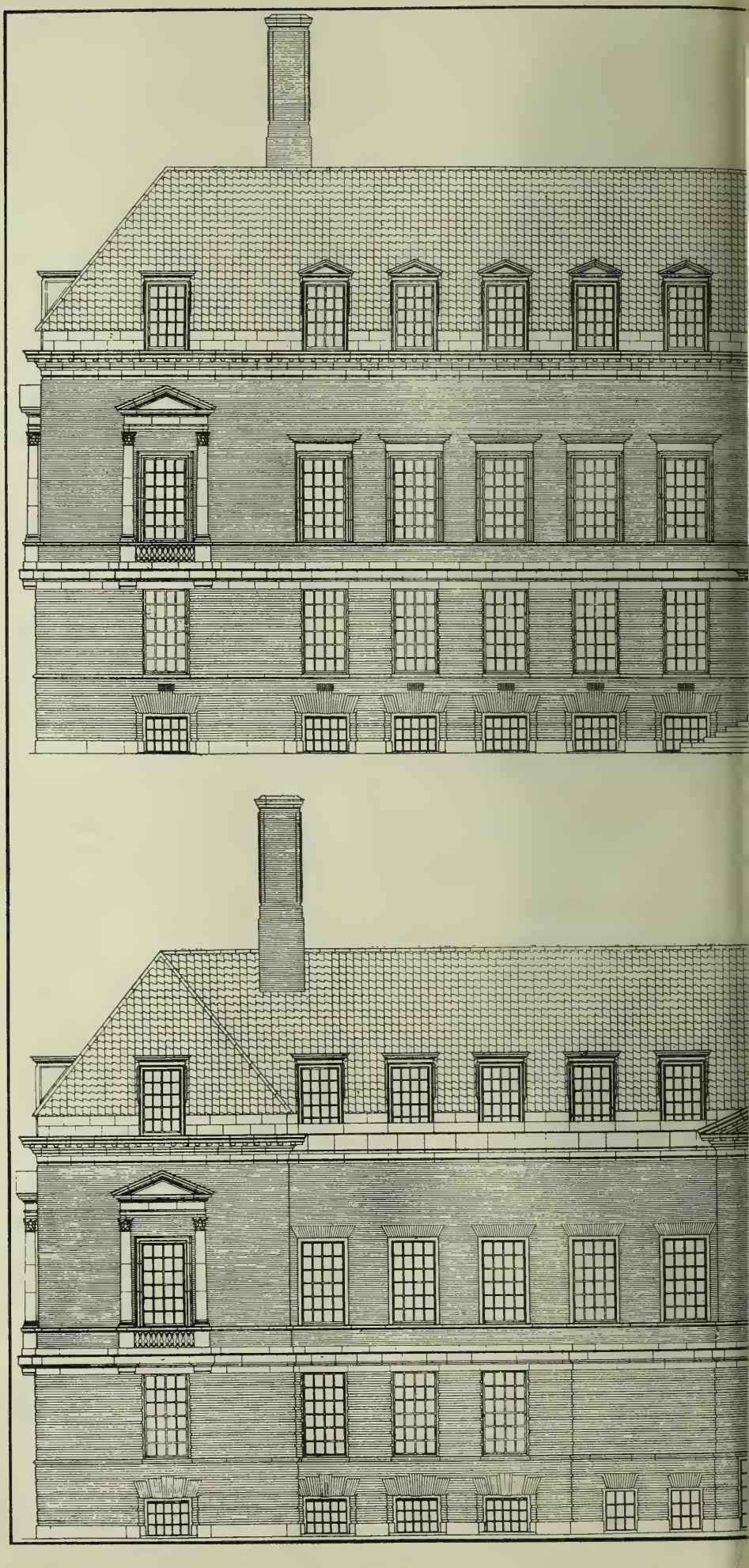
Banque Belge Pour L'Etranger, Bishopsgate: Progress View.

Sir Ernest George, F.R.I.B.A., Architect.

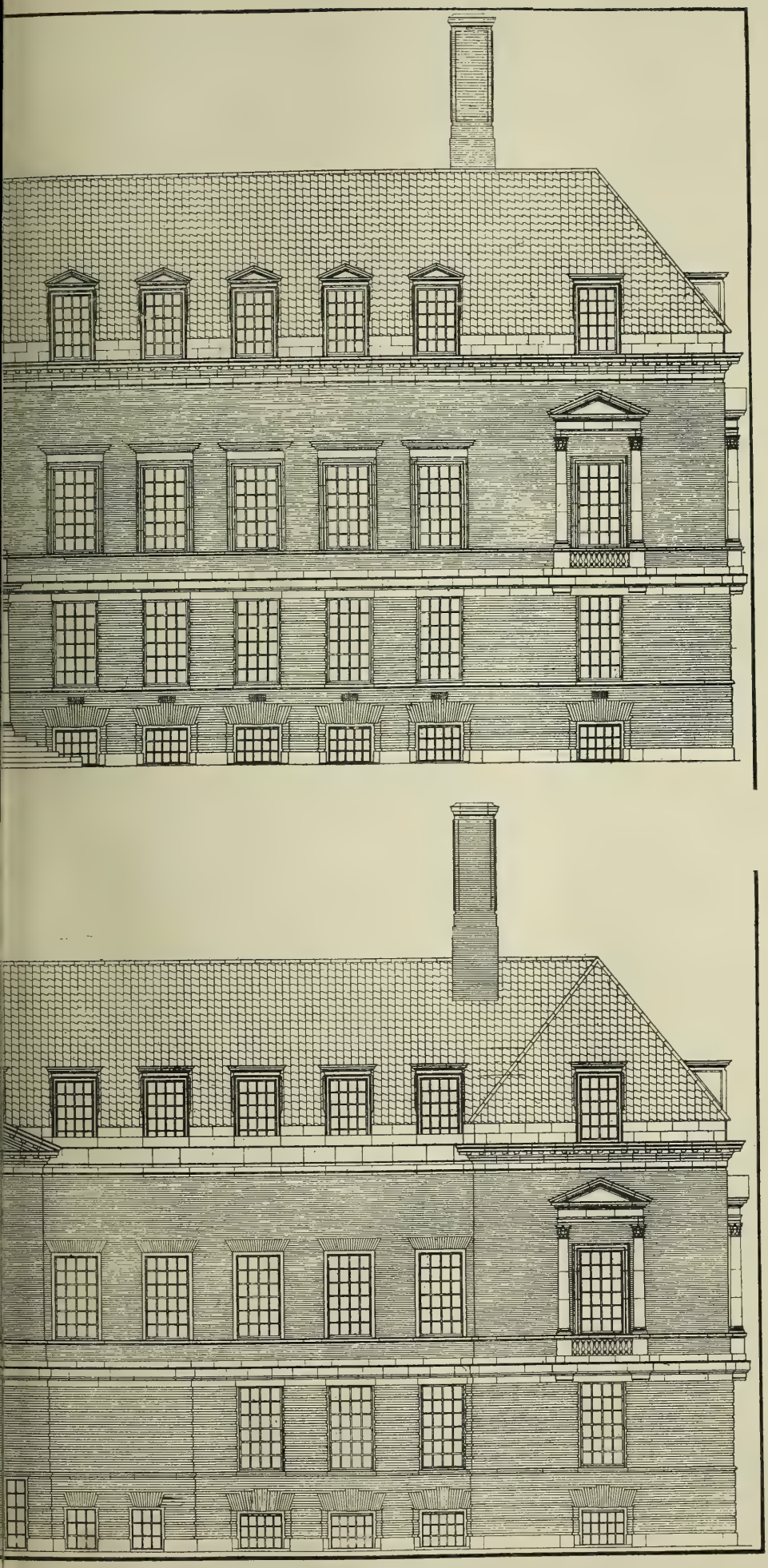

CHAIRS
OFFICE
PORTER
CHAIRS



West China Union University: Main Entrance Gateway and Clock Tower. Messrs. Fred. Rowntree & Sons, Architects.



Cambridge University : School of



Sir Edwin Cooper, F.R.I.B.A., Architect.



A LONDON VISTA: SOMERSET HOUSE, FROM



T. Raffles Davison, Hon. A.R.I.B.A.

The Builder

January

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PARDON CH

In the north-west corner of St. Paul's Churchyard stood a Chantry Chapel, founded by Gilbert
the reign of Henry V. On the wall of the Cloister may be seen the "Dance of Death"

alendar 1924



CLOISTERS.

inas à Becket) in the reign of King Stephen, and called "Pardon Church" It was rebuilt in reign of Henry VI. The houses of Paternoster Row appear above the Cloister wall.

July

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December

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47-57, GRESHAM S

MESSRS. RICHARI



WOOD STREET, E.C.

B.A., ARCHITECTS.



Memorial to the Missing, The Menin Gate, Y



D BLOMFIELD, R.A., Litt.D., Architect.

NEW PREMISES FOR THE GRESHAM LIFE ASSURANCE SOCIETY, LTD.

Mr. T. B. WHINNEY, F.R.I.B.A., in conjunction with Messrs. Campbell Jones, Son, & Smithers, are the architects for this building. The elevations were designed by Messrs. Campbell Jones, Son, & Smithers. The building is of steel frame fire-resisting construction. A large area at the back is faced white glazed bricks. The fronts to Fleet-street and Clifford's Inn-passage are in Portland stone, with a granite plinth 3 ft. high. The floors are fire-resisting, steel cased in concrete. The door architrave is carved with low-relief leaf ornament. All windows are steel, those to the ground floor being bronze faced. There are ornamental iron railings to the cornices and balconies on the Fleet-street elevation, as shown. The basement contains accommodation for filing and storage, heating and ventilating plant, lavatories and kitchen for messengers.

The ground floor is 18 ft. high, with walls lined Calocara marble, and ceiling ornamented in fibrous plaster. The public space (corridors) is paved with Roman mosaic, the remainder of the floor being wood block. The lighting is by alabaster bowl fittings. The first floor is to be used by the heads of departments and general managers, and contains a large board-room, committee, and luncheon room. The second and third floors are to be used as offices, with a luncheon room on the third floor.

On the fourth floor are offices and caretakers' quarters. There are kitchens, servery and luncheon rooms on the first and third floors.

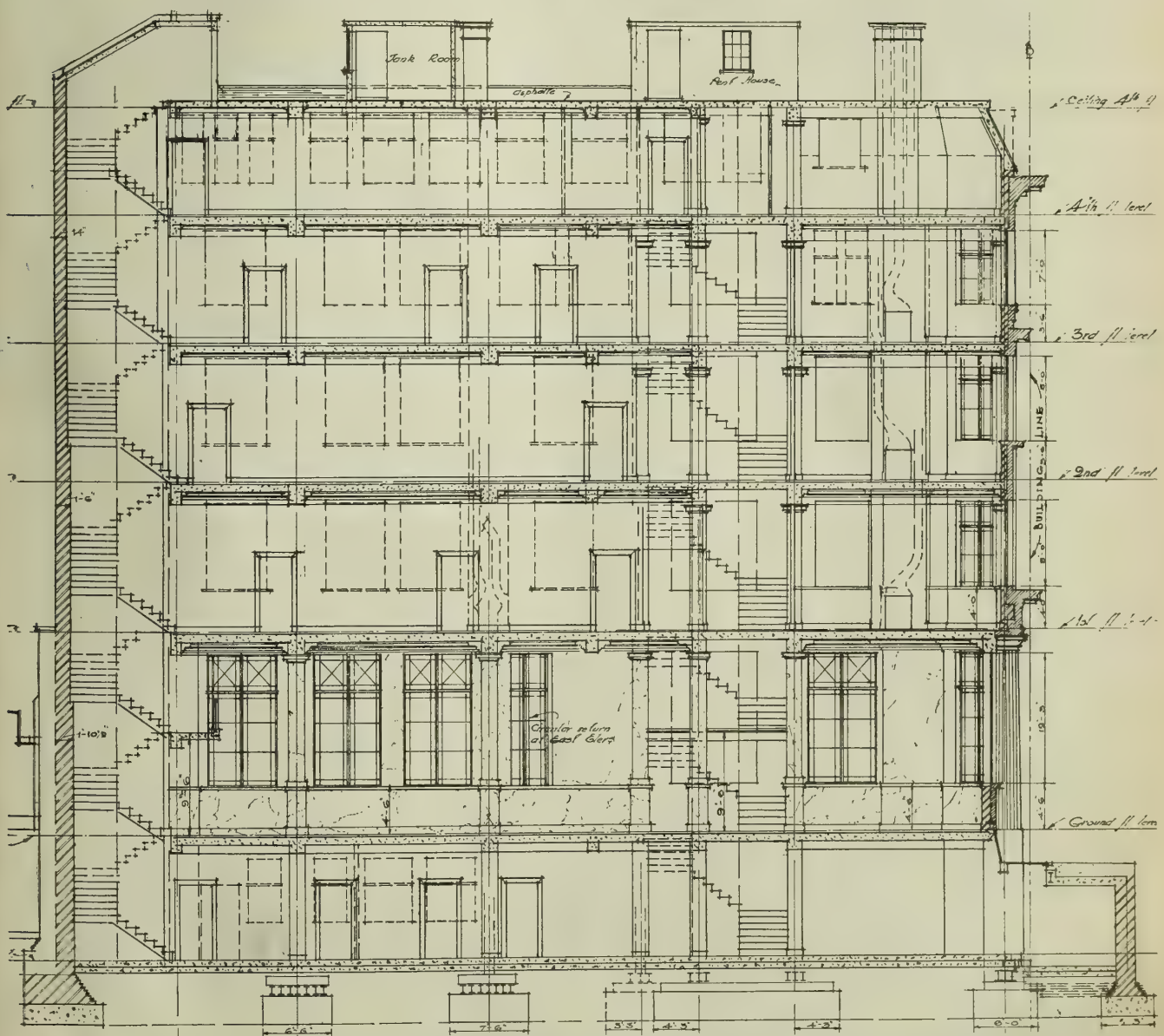
The stairs are of "Empire" stone, with marble dado. Mezzanine landings are placed between the ground and first floors, and have ornamental iron railings and bronze handrail. All other handrails are of mahogany, fixed with bronze brackets.

Heating is by low-pressure hot water; the basement is ventilated artificially.

The general contractors are Messrs. F. D. Huntington, Ltd., and the sub-contractors include: Steelwork: Redpath, Brown & Co.; stone: F. J. Barnes; floors: Kleine; windows and lantern lights: Crittalls'; drainage: Burn Bros.; electric wiring: Bell Bros.; strong-room and vaults reinforcements: B.R.C.; heating: Norris & Dutton; plumbing: Davis Bennett; lifts: Express Lift Co.; granite: Fennings & Co.; sanitary fittings: George Jennings; mosaic and terrazzo: Diespeker & Co.; fibrous plaster: John Tanner & Son; marble work: H. C. Tanner; ventilating plant: Sturtevant Engineering Co.; revolving door: Samuel Elliot (Reading); internal joinery: The Young Construction Co.; tile radiator backs and lavatory tiling: Martin Van Straatten; electric light fittings: Comyn Ching & Co., and Metropolitan Vickers Co.; wood-block flooring: Acme Wood-Block Flooring; metal railings: Comyn Ching & Co.; bricks: The Stourbridge Brick Co.; metal lockers: The Art Metal Equipment Co.; ironmongery: Marley Bros.; fire grates and tiles: O'Brien, Thomas & Co.; pavement lights and bulkhead lights: Hayward Bros.

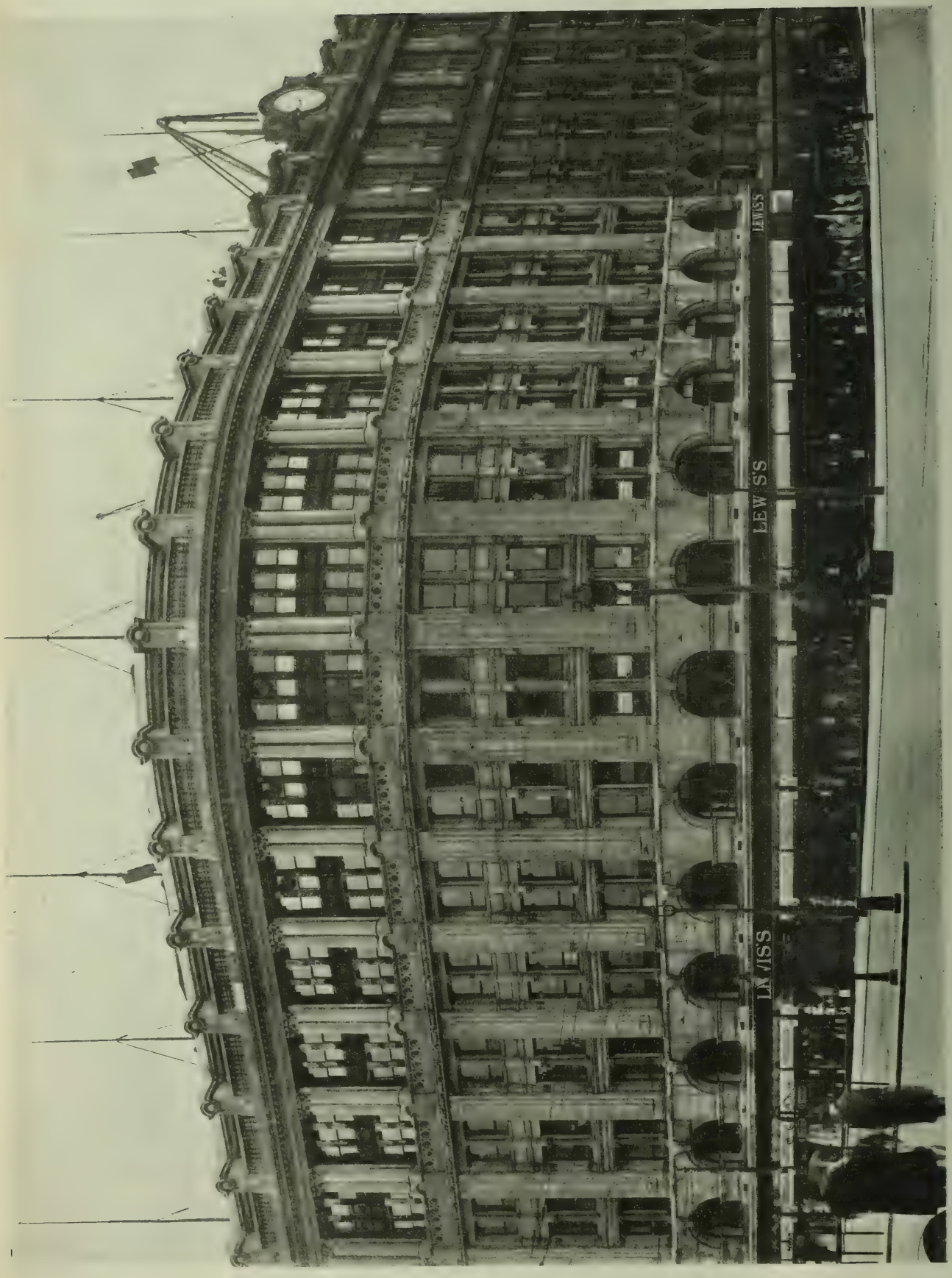
Bristol's Slum Area.

At the last meeting of the Bristol City Council, Alderman Sheppard presented the report of the Housing Committee dealing with the clearance of slum area in St. James'. It is proposed to clear this area in sections; as soon as one block of the dwellings they were now building in St. Jude's was completed they would remove some of the people from the condemned area to it. This is part of a scheme which he hoped would be developed on a large scale. The area proposed to be dealt with, Eugene-street, St. James', comprises a very congested district, in which most of the houses were built in the early part of the eighteenth century.



New Premises for the Gresham Life Assurance Society, Ltd., Fleet-street, E.C.

MR. T. B. WHINNEY, F.R.I.B.A., in conjunction with MESSRS. CAMPBELL JONES, SON, & SMITHERS, Architects.



New Premises for Messrs. Lewis's, Liverpool. MR. GERALD DE COURCY FRASER, Architect.
[The general contractors for this recently-completed building were Messrs. Wm. Moss & Sons, Ltd.; Messrs. Macintyre & Sons were the contractors for the steelwork, and passenger lifts were supplied by the Waygood-Otis Co.]



Messrs. Peter Robinson's New Premises, Oxford-street : Progress View.
MESSRS. T. P. & E. S. CLARKSON and MR. H. AUSTEN HALL, Joint Architects.



Alterations to the Criterion Restaurant, Piccadilly Circus : Progress View.
MESSRS. WM. WOODWARD, F.R.I.B.A., & SONS, Architects.

ARCHITECTS AND BUILDERS' INQUIRY BUREAU.

THE new heading to this column marks the inauguration of what we trust will prove a helpful and instructive weekly feature. The frequency with which technical questions have been asked and answered in our correspondence columns has suggested the need for more prominent facilities for the free exchange of ideas among our readers. We shall, therefore, welcome the receipt of little problems which have puzzled our readers, and also solutions to the same as they appear to others. Where no satisfactory answers are forthcoming in the natural sequence of correspondence, our readers will be given access to the experience of our own technical staff, who will also endeavour to treat judicially the conflicting views which may be forthcoming, upon contentious subjects. We look to our readers to establish the success of this new feature, which we confidently expect to meet a long felt need to those interested in the art of sound building.

We take the opportunity of printing below a query received from a correspondent. The point raised is of such immediate interest that we welcome it as a very auspicious opening to "The Architects' and Builders' Inquiry Bureau."

Correspondence for this column should be marked on the envelope "Inquiry Bureau."

Solid or Hollow Ground Floors?

SIR,—I have been for some time a little puzzled in the quest for economical methods in the construction of small houses. I notice, for instance, that, while the architect generally favours solid ground floors, covered either with composition or deal boards laid in tar mastic, the speculating builder almost invariably favours the old system of light joists on sleeper walls, with, of course, the usual surface concrete under.

It would certainly interest myself, and I think many others, to hear what some of your readers would advise, together with the considerations that would influence their decisions, both as to cost, upkeep, and convenience. Modern conditions tend to exaggerate the relative importance of initial cost, though this often becomes the decisive factor.

I have had frequent complaints as to the ill effects of condensation gathering on the cold, hard surfaces of solid floors to the detriment of carpets, linoleums, and the general atmosphere and temperature of the house. On the other hand I find few houses with the old type of hollow ground floor, entirely free from mice and vermin.

I think we are a little apt to follow precedence in these matters without sufficient deliberation, and an occasional "inquest" will frequently break up a blind game of "follow my leader."

ECONOMIST.

Use of Tar for Paint on Steelwork.

We have received the following reply to the letter in our issue for December 28:—

SIR,—May I refer to the letter from a correspondent seeking information as to the above?

The specification he refers to is certainly an unusual one, as ordinary gas-tar is hardly considered a good covering for steelwork; besides being subject to softening during hot weather, it is always more or less sticky, and induces the particles of dust in the atmosphere to readily settle. Again, it is an impossible covering if following tints may be required at some later time.

I think it will be generally admitted that no paint which attracts destructive particles, and increases the resistance to impinging wind on or along its surface, can be said to be good.

I enclose a copy of a very interesting old report from a French engineer, who refers to the experiments of M. Valet, then Chief Engineer to the "Chemin de fer de l'est français." It will be seen from this that his conclusions as to the effect of tar on iron structures are not favourable. The surfaces of the structures were badly attacked when coated with tar, or paints prepared with tar or its derivatives.

The cracking of tarred surfaces is a well-known phenomenon, and it is expressed in technical language by the editor of my notes, thus, "with tars the dissolvent of the second coating dilutes and dissolves a part of the first, and also evaporation does not proceed in a regular manner—thus a paint is produced which is not of a uniform thickness—(this, of course, increases the surface resistance). With the departure of each volatile element a void is produced, and we get in the semi-fluid coating as many cavities as there are particles lost if the molecular attraction is not sufficiently strong to reunite the elements in the line of dis-aggregation . . . the phenomena of retreat gives cause to spots and gaps by which the humid air will rapidly have access."

It is also pointed out that cheap paints composed of tar products are slightly volatile and decompose into their stable products. It is stated indeed that "tar preservatives are useless," and that iron minium (iron oxide) paint is the best. I trust that your correspondent may find assistance in these remarks.

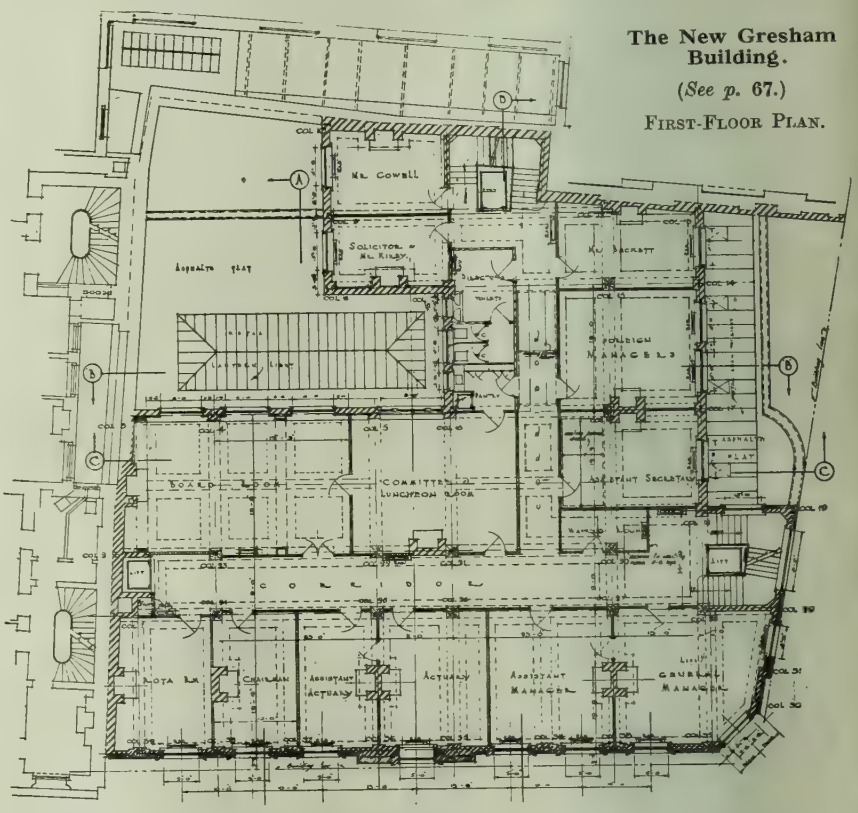
It will be understood that I am largely quoting from the papers mentioned in my possession, and also that, where reference is made to paints, it is to "cheap tar paints," and that there is and can be no reflection on any of the very well recommended bitumastic paints and compounds on the market.

Norwich. GEO. KENWORTHY.

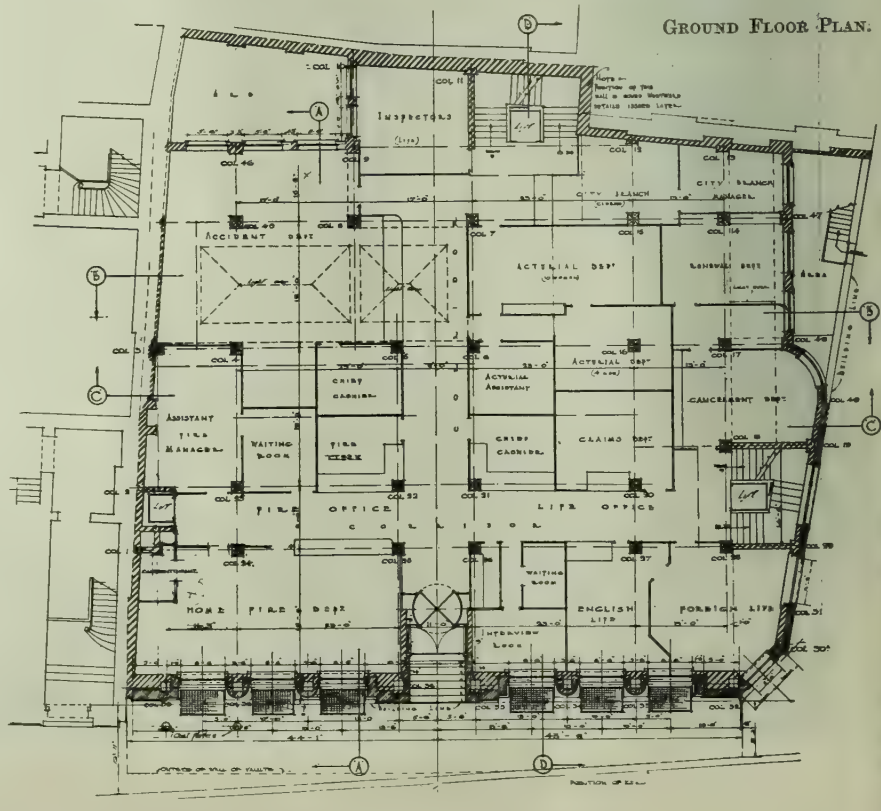
The New Gresham Building.

(*See p.* 67.)

FIRST-FLOOR PLAN.



GROUND FLOOR PLAN.





Rebuilding in Regent-street.



Messrs. Liberty's New Premises, Argyll-place Front: Progress View.

Messrs. Edwin T. Hall, F.R.I.B.A., and E. Stanley Hall, M.A., F.R.I.B.A., Architects.

THE FOUNDATIONS OF THE MENIN GATE.

WE give in this issue a perspective and working drawings of the Menin Gate Memorial, of which Sir Reginald Blomfield, R.A., is the architect. The following particulars regarding the foundations of the memorial have been supplied by Dr. Oscar Faber, O.B.E., D.Sc., consulting engineer for the work :—

The difficulty with regard to the Menin Gate from an engineering point of view was the nature of the foundations. A trial hole revealed the fact that the soil consisted, on the average, of the following formation :—The top 4 ft. black loam and ashes, below that yellow and grey clay and sand extending down to blue clay, which was found at a depth of about 27 ft.

This yellow and grey clay is entirely waterlogged from a distance of about 12 ft. downwards and behaves practically as a quicksand under certain conditions. So treacherous is it that a trial hole 12 ft. by 8 ft., in which the sides consisted of sheet piling extending down for a distance of 35 ft., was found almost impossible to excavate as the quicksand leaked through between joints in the piling and the bottom rose at night as rapidly as the excavators were able to deal with it in the daytime. It was found impossible to drive an excavator with runners more than 12 ft. deep for the same reason, namely, that the bottom kept blowing upwards.

The original design for the foundations consisted of hollow concrete foundations more or less in accordance with the section on Fig. 1, and alternative designs were considered for this box foundation in plain concrete and in reinforced concrete, the drawing shown in Fig. 1 being actually that for plain concrete. After the result of the trial hole above referred to it was, however, found possible to avoid the difficulties of this excavation by constructing a reinforced concrete raft just below road level and supporting this on reinforced concrete piles 40 ft. long, 16 in. square. These piles extend a matter of 16 ft. into the blue clay and carry on an average about 30 tons each. Those at the sides of the foundations are raking so as to deal with the horizontal thrust due to the arch in one direction and to the pressure of the earth from the ramparts in the other. These two pressures tend, of course, to counteract each other, but it was impossible to estimate their magnitude without a risk of error and therefore some provision was made to deal with a horizontal thrust in either direction. The general arrangement of the piling is shown in Fig. 2.

The whole of the superstructure also consists of reinforced concrete clothed in stone on the exposed surfaces, except in the case of the soffit to the arch and the floors over the loggias, &c., where the reinforced concrete will be visible.

The main arch and the loggias have a coffered soffit which is to be constructed by casting it direct in specially prepared moulds. Fig. 3 and Fig. 4 indicate this coffering, and also indicate the general nature of the reinforcement, both in the arch and in some of the vertical and horizontal members of the abutments.

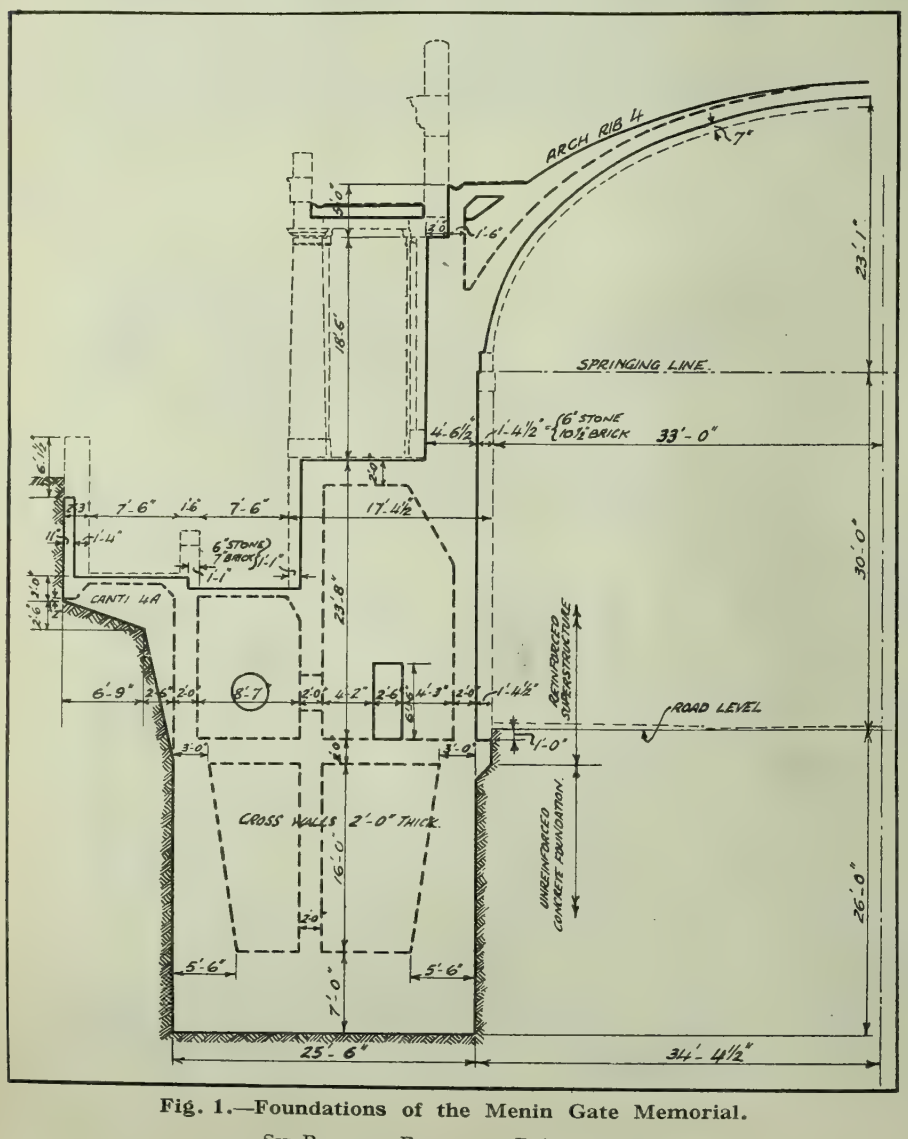


Fig. 1.—Foundations of the Menin Gate Memorial.

SIR REGINALD BLOMFIELD, R.A., Architect.

In the calculations for the arch, the stress due to variations of temperature received careful attention, and the whole structure was designed with a view to permanence, which explains why some of the provisions shown in the figure indicate rather better protection against the effect of stress and weather than might be necessary in a structure of a more temporary nature.

The concrete is to be composed of granite and Rhine sand, and the steel is to be British Standard Specification, although this is, perhaps, unusual in Belgium, the Belgian specification being considerably lower than ours in regard to mild steel.

An interesting feature of the site is the old brick walls to the ramparts, which, as many of your readers will know, project to a considerable height above the road on each side of the gate. What was, perhaps, not so well known was that these rampart walls continued across the road below ground right down to and into the blue clay. These walls are very massive, and were probably designed to resist artillery fire in old time warfare just as much as to act as efficient retaining walls to the earth forming the rampart.

These walls at road level are approximately 10 ft. thick, but are stiffened by massive buttresses at the back of the wall at approximately 16 ft. centres, the total width of the wall at ground level to the back of the buttress being approximately 20 ft. The front of the wall has a batter of approximately 1 in 5 extending right down to the foundations, so that at a depth of about 27 ft. below the road where the walls are founded the overall width over the buttresses is about 25 ft., of which the wall itself amounts to about 15 ft. It is found that this massive brickwork construction crosses the rafts forming the foundations of the new Menin Gate, and after careful examination and repair this brick structure has been taken advantage of for supporting that portion of the raft which comes immediately upon it.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Election of Members.

THE following were elected members of the R.I.B.A. at a Business Meeting, held at No. 9 Conduit-street, W.1, on Monday last :—

FELLOWS.

A. Ashton, St. Anne's-on-the-Sea.
J. S. Brocklesby, Merton Park.
C. D. Carus-Wilson, Sheffield.
P. I. Elton, Wandsworth.
E. C. Frere, London.
C. E. Hanscomb, Sanderstead.

ASSOCIATES.

A. R. Butler, Melbourne.
A. S. Hall, Melbourne.

R.I.B.A. EXAMINATIONS, DECEMBER, 1923.—The questions set at the Intermediate and Final (or Special) Examinations held in December, 1923, have been published, and are on sale at the Royal Institute, price 1s. 6d. (exclusive of postage).

THE LATE MR. ARTHUR CLYNE

ON January 6, the death took place at Charlwood House, Charlwood, Surrey, of Mr. Arthur Clyne, architect of Aberdeen.

Mr. Clyne was for many years in business in Aberdeen, first as a partner in the firm of Pirie & Clyne, and latterly for many years by himself. He specialised in ecclesiastical architecture and a number of buildings of the Episcopal Church were designed by him, including St. James's Church at Holborn Junction, Aberdeen, and the church at Drumtochty. He was the architect for a school at Fraserburgh which was destroyed by fire.

He was for ten years president of the Aberdeen Society of Architects, and was a late member of the Council of the R.I.B.A.

In 1914 Mr. Clyne left Aberdeen to reside at Cholmley Lodge.

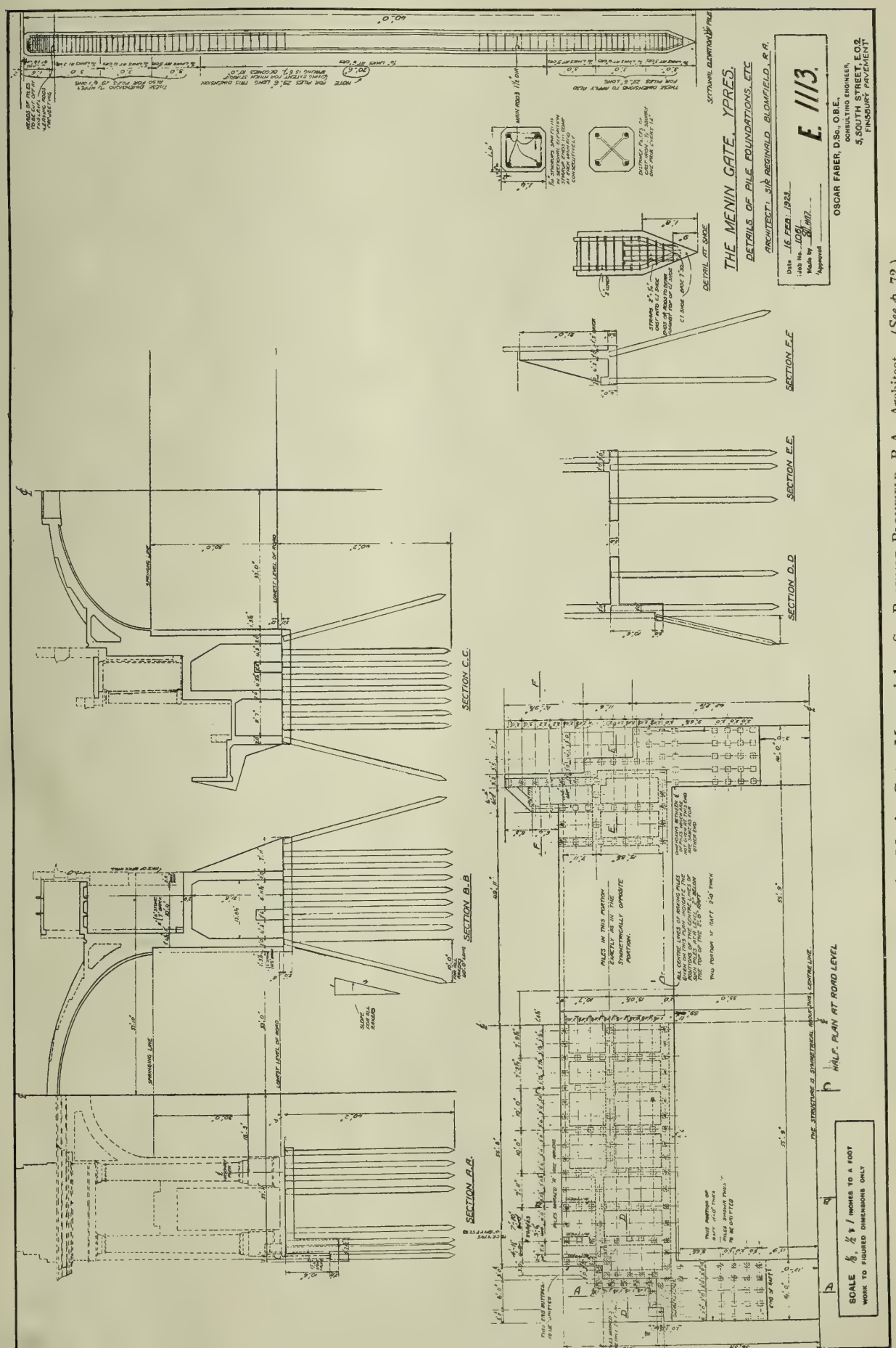


Fig. 2.—Foundations of the Menin Gate Memorial. SIR REGINALD BLOMFIELD, R.A., Architect. (*See p.* 72.)

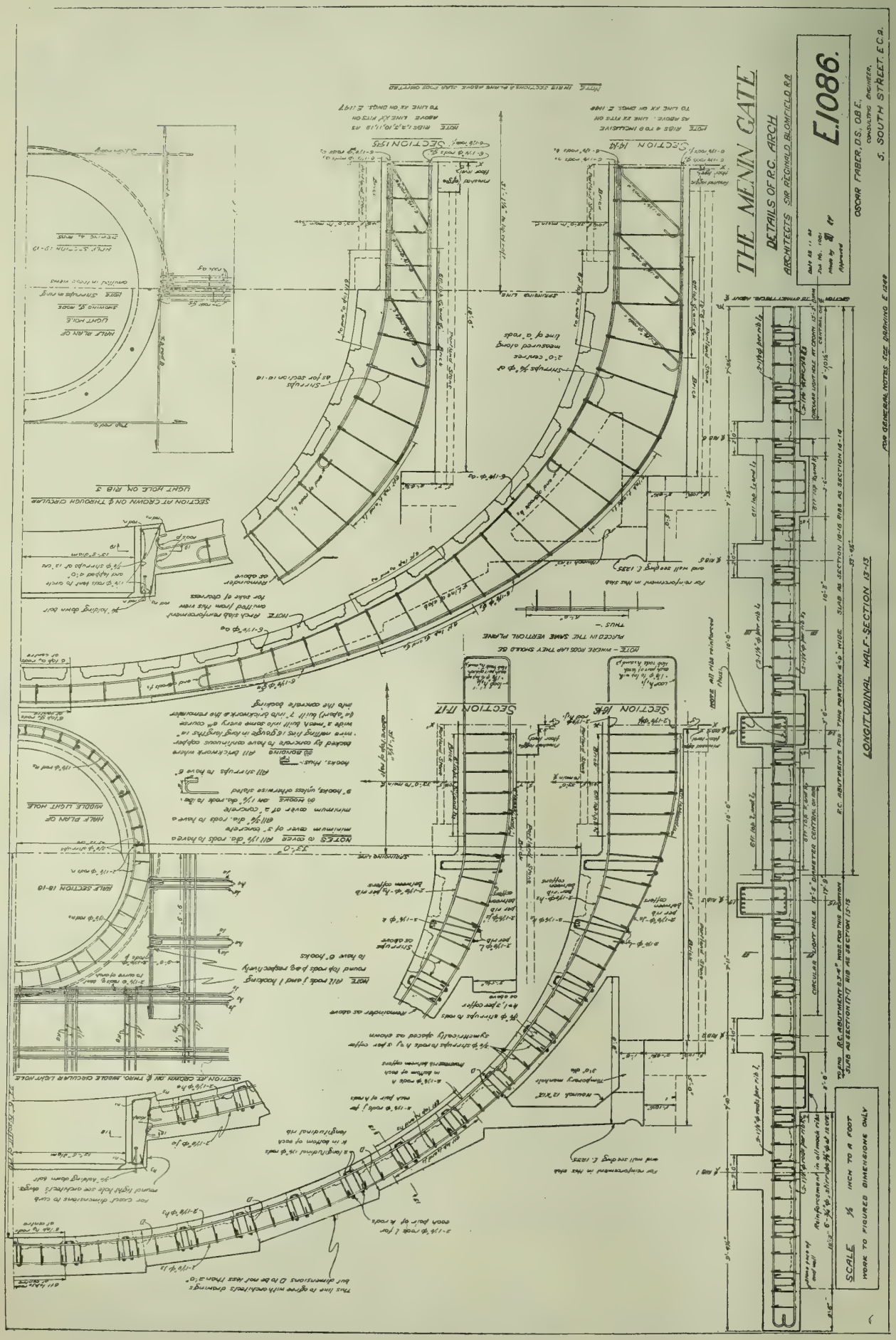


FIG. 3.—**Foundations of the Menin Gate Memorial.** SIR REGINALD BLOMFIELD, R.A., Architect. (*See p.* 72.)

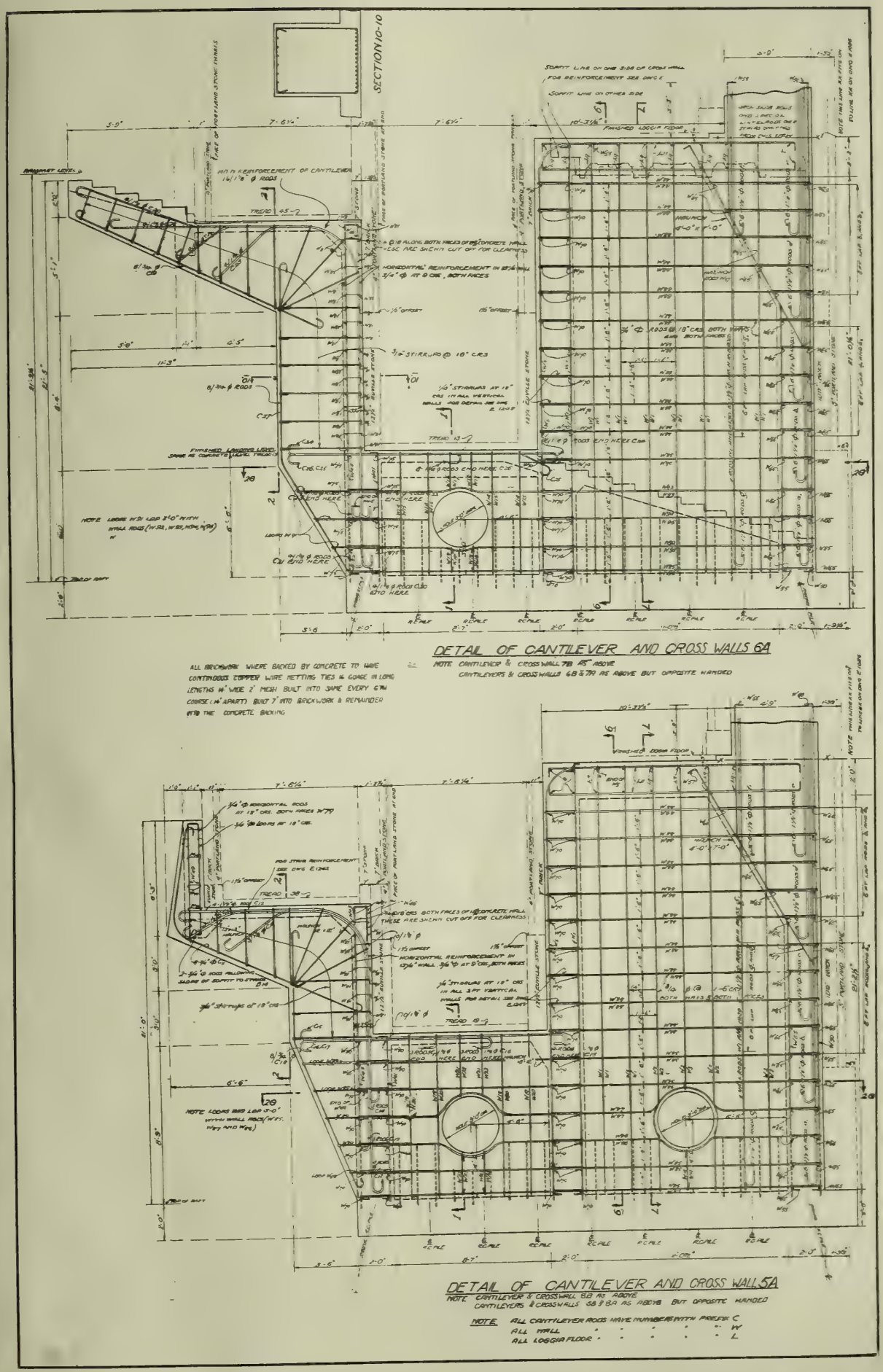


Fig. 4.—**Foundations of the Menin Gate Memorial.** SIR REGINALD BLOMFIELD, R.A., Architect. (*See p.* 72)

PRACTICAL DESIGN FOR BUILDING CONSTRUCTION

AN ELEMENTARY EXPLANATION OF THE APPLICATION OF THE THEORY OF CONSTRUCTION TO PRACTICAL DESIGN.

By EWART S. ANDREWS, B.Sc., M.I.Struct.E., A.M.Inst.C.E.

I.—WALLS AND FOUNDATIONS.

The following articles have been written with the hope of explaining to architects and builders the application to practical design of the principles of stress and strain without assuming upon the part of the readers a facility in following the mathematical language almost invariably employed by writers upon the subject. We think that it may be stated as a fact that most men who possess the qualities which draw them to the architectural profession are not proficient in the juggling with symbols which becomes second nature to men who are mathematicians.

Now the theory of construction involves certain essential scientific principles and experimental data which are commonly expressed in mathematical language, and, as architects do not understand that language, they are in danger of failure to appreciate the importance of the principles. Engineers usually have sufficient acquaintance with mathematics to understand the orthodox treatment, and to them the treatment which we shall give here may appear roundabout. At the risk, therefore, of incurring the criticism that our treatment might be made shorter, we propose to express the principles in words, and to illustrate them by diagrams and numerical examples of everyday problems arising in building construction.

In our investigations into various problems we shall have to use the terms "Strength," "Factor of Safety," and "Stability" to a considerable extent, and we must therefore at the outset obtain a clear idea of exactly what they mean.

Strength.

If we made a test of a block of concrete or of brickwork under compression we should find that at a certain load the material would fracture. If we divide this load by the area of the block we obtain a quantity which is called the compressive or crushing strength (sometimes called the ultimate compressive strength) of the material.

In a very important series of tests upon the strength of brick piers made by the R.I.B.A. the crushing load upon a brick pier 6 feet in height and 18 inches square, made of stock bricks with cement mortar (1 to 4), the crushing load was 88.5 tons. The area in square feet of the pier was $\frac{18\times18}{144}=2.25$ sq. ft., so that to obtain the crushing strength we divide 88.5 tons by 2.25 sq. ft., thus obtaining 39.3 tons per square foot. (All our calculations in these articles will be made by the slide rule, which saves a tremendous amount of time, and is quite accurate enough for all practical purposes.)

Factor of Safety.

Now in designing brickwork structures we calculate as nearly as we can the maximum pressure per square foot on the brickwork, and we arrange that this shall not exceed a certain value, which we call the permissible or working stress; in order to determine this working stress we divide the crushing strength by a number called the factor of safety. If, for example, we decide to adopt a factor of safety of 6 for stock bricks (in 1 to 4 cement mortar), we should obtain our working stress by dividing 39.3 by 6, giving 6.5 tons per square foot.

In materials of constant quality, such as steel and concrete made to rigid specification, it is usual to adopt 4 as a standard factor of safety; in other materials we employ a higher factor, according to the variation in quality of parts and workmanship that are likely to occur. Portland cement is now made to a very rigid British Standard Specification, whereas lime is a very variable material; we therefore think it necessary to use a higher factor of safety for brickwork in lime mortar than for brickwork in cement mortar. For the same reason we employ a much higher factor of safety for cast iron than for steel.

We shall treat in greater detail later the strength of brickwork and the importance of the composition of the mortar upon it, but before leaving the question of factor of safety we will point out that different authorities use the term in different senses. If we design a structure with a factor of safety of 4, it does not follow that four times the load actually carried by it will cause fracture. The factor of safety has to cover a multitude of sins; it is partly a factor of ignorance. It is not always possible to calculate exactly what is the maximum stress at a given point caused by a given loading, and, on the other hand, the loads that actually occur are very often much less than those which we take in our calculations. With the advance of knowledge we are able to forecast more accurately than before the stresses that occur, and a building designed to-day with a factor of safety of 4 may be stronger than one designed fifty years ago with a factor of safety of 6. There are still many things about the strength of some very common structures that we do not know, but we are gradually getting away from the condition of affairs some years ago, when a truthful expert was asked how it was that certain very imposing structures withstood their loads, and replied that it was "a combination of the force of habit and the kindness of Providence."

Stability.

We shall not use the word stability in quite the same sense as strength; but will use stability to indicate resistance to overturning as a whole. A wall may be strong enough in itself, but it may be unstable because it tends to overturn; this overturning may depend upon the soil upon

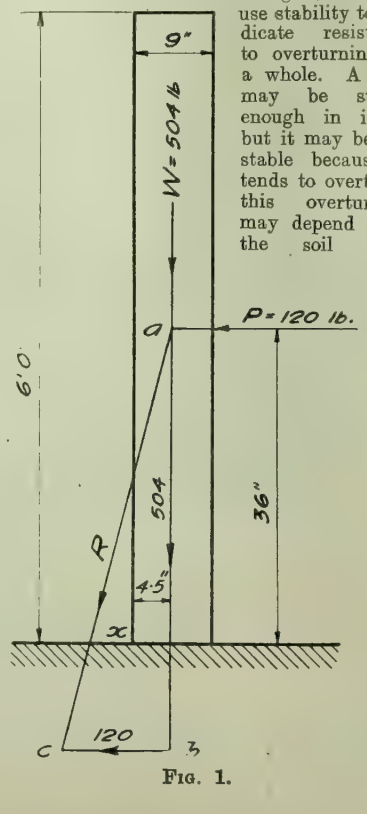


FIG. 1.

which it is placed. It might not turn over a very hard bed, but might do so by fi canting over and sinking into a soft bed.

As a simple example, take the case of 9-inch wall 6 feet high to a horizontal wi pressure of 20 lb. per square foot.

In all problems of this kind we consider t stability of a one-foot length of the wall, a in this case the forces acting on a foot len are as follows:—

(*a*) The weight W of the wall = 6×8 504 lb. (taking 9 in. brickwork as weigh 84 lb. per foot super.), which acts vertica down the centre line of the wall, as indica in Fig. 1.

(*b*) The wind pressure P = 6×20 = 120 (since the pressure is 20 lb. per square foo The wind pressure is assumed uniformly d tributed over the depth of the wall, so take 120 lb. as acting horizontally at the m height of the wall.

There are two simple methods of testi the stability of a simple structure of t kind:—

(1) To find the resultant of all the for acting upon the structure, and find where line of action of this resultant force interse the plane of the base; if this line falls ins the base, the structure is stable, but if it f outside it is unstable.

In the present case we proceed by find the point *a* at which the line of the w pressure P intersects the line of action of weight W of the wall. We then set down length *a b* vertically to a convenient scale represent 504 lb.—the value of W.

We next set out the line *b c* horizontal to represent to the same scale 120 lb.— value of P.

We then join *a c* which represents to sc the resultant force R on the wall and is of called the line of pressure; some people c it the equilibrium line. In this case the l of pressure comes outside the base, and so say that the wall is unstable.

(2) By considering the point *x* about wh the wall tends to turn and seeing whether leverage (or moment as it is called in t branch of dynamics) about this point of forces tending to overturn the structure greater or less than the moment of the for tending to keep the wall stable.

The pressure P is the only force in t case tending to overturn the wall, and moment about the point *x* is measured pound-inches by multiplying 120 lb. (the va of the force) by 36 in. (the "arm" of force, that is the perpendicular distance fr the point *x* to the line of action of the pr sure P).

This gives us:

Overturning moment = 120×36
= 4320 lb.-in.

The force tending to keep the wall stable the weight W, the moment of which ab the point *x* is obtained by multiplying 504 by 4.5 in.

This gives us:

Stability moment = 504×4.5
= 2268 lb.-in.

This is less than the overturning mom so that we say that the wall is not stable

In masonry structures built up of blo it is a general rule that the adhesive ten of the mortar shall not be relied upon securing stability, and so we say that above wall is unstable in spite of the fact t walls of this dimension can be found wh manage to stand up. We will consider l how we could allow for the adhesion of mortar if it were decided that it is safe.

In practice such a wall may never h had such a pressure due to wind as we h assumed, although the value which we h taken is less than that usually specified; m over, cross-walls and counterforts would to the stability.

THE BUILDING TRADE.

THE COST OF BUILDING.

By T. P. BENNETT, F.R.I.B.A., Hon. F.I.O.B.

THE following is the conclusion of the series articles on *The Builder* Cost of Building ompetition. Other articles appeared in our sues for December 7 and 14, 1923:—

The study of the forms giving the cost of aterials is interesting, firstly, because it ows a certain stability in the cost of most aterials, and secondly, because the varia-ons in cost seem to have little or no relation the completed tender. If reference is made the chart already reproduced it will be en that bricks and cement, while showing rtain fluctuations in price, produce graphs at are horizontal in character, and do not se and fall with the graph of tenders repro-ced below it. In both graphs the position of e relative tenders is the same. Lime shows rhaps rather greater movement than cement, might be expected from the fact that it produced locally, and is not subject to the ntrolling influence of the cement interests. ne items which vary most in the schedule e those relating to goods which are rmally given as p.c. items, as indicated the graph for the kitchen range reproduced December 14. It is natural that these ices should show marked differences because the opportunity for variation in quality and ish, but this would hardly seem to account r the very large differences which are ap-rent. The requirements of cottages have w become well known, and in the ordinary ay it would seem natural to expect that the pe of range, bath, w.c., etc., would have came standardised. **Again, it will be seen** at the cost of these items has little in-ence upon the final tender.

In the case of the range specified for type " the extreme prices are rather surprising cause they extend from £3 to £20. It is ficult to imagine that an efficient 3 ft. grate be obtained for £3. The range supplied the winner was priced at £10 10s. £20 ms an unnecessary extravagance, and one which few builders would be guilty.

The materials scheduled by the winners were be obtained locally, with the following ex-tions:—Bitumen, Wm. Briggs & Sons, d., Dundee; gas copper and boiler, Rown-, Drew & Clydesdale, Ltd., London; tiles, wkesbury & Bedworth Brick and Tile Co., dworth; stoneware pipes, Kendrick, Wel-rton, Salop; manhole covers, Hatton, Sons Bore, West Bromwich; bricks, Willenhall ick Co., Willenhall.

The result of a close examination of the ces of materials is to suggest that there e differences in different localities, and that ere is ample scope for good buying, but any in under these headings is a means of pro-ling a margin of profit for the builder her than a matter of substantially reducing cost of the building.

After examining the cost of materials in njunction with the tenders the conclusion ived at is that the following are the chief ses in determining the level of the final ce:—

(1) The standard of workmanship.
(2) The efficiency of labour and manage-nt.
(3) The amount of the allowance for over-d charges and profit.

Under (1) there can be no doubt that the lity of the work put into a small house susceptible to very big differences, and that all probability the kind of house that would built for the amount of the highest tender ,158 15s. 5d.) would be very different from t which would be built for the lowest. smuch as it is very difficult to lay down an exact permissible quality the standard allowed becomes a matter of judgment upon the part of the architect, and of the reputation of the building firm concerned. The lowering of the standard of the building is undoubtedly the principal reason why speculative houses are sometimes cheaper than those designed for the personal occupation of a client, and also one of the reasons why Council houses erected by unknown builders can sometimes be quoted in the press at quite impossibly low figures.

(2) Many of the differences in price arise from the efficiency of the firm and of their workmen. Where, as happens in some cases, employees are kept on from year to year, and especially where they in some way share the prosperity of their employers, it is reasonable to anticipate that there is an improvement in their output. Similarly, when most or all the operatives are skilled craftsmen, they not only produce better work but they work much faster. This increased efficiency is probably the reason for the somewhat curious fact that all the lowest tenders except one were from districts where the highest rates for labour are paid. This means that, broadly speaking, the good men migrate to the well-paid districts, and that one result of their skill is the production of work that is more economical than that of the duller and slower men who remain behind. Incidentally it should be a powerful factor in inducing employers to take a keen interest in the training of apprentices. It must, however, be borne in mind that " A " grade towns in general have much better facilities for the supply of materials than is the case in country districts. Management in building as in all other types of business is, of course, an important factor, but is again one which, while it is a source of profit to the builder, and enables him to take on work at a low price without loss, does not substantially lower the cost of building.

(3) Allowances for overhead charges must of necessity vary with the size of the firm executing the work and the amount of the profit. On the other hand a substantial business implies better buying facilities and more intelligent management and organisation. These factors are of relatively greater importance on a large than on a small contract, and consequently they become an important asset in reducing the cost of big works, but possibly do not have full scope on small ones.

A specific query was sent to the builders who sent the 30 lowest tenders, with the following questionnaire:—

1. Did the issue of bills of quantities cause an increase in the tender?
2. What variations in accordance with local practice would have reduced the cost?
3. What other modifications would you suggest in the design or specification with a view to reduction in the cost?
4. Do you consider the accommodation provided suitable for working-class houses in your district?

Thirteen builders have replied up to date, and in answer to query (1) six replies state that quantities do increase the tenders, and have done so in this case, and six state that quantities do not increase the tender, while one makes no reference to the question at all. There appears to be nothing to confine the above decisions to any one class of builder or locality; but although quantities must save the builder a certain amount of work it is safe to assume that there is some ground for the belief that quantities cause higher tenders on small work.

In answer to questions (2) and (3) the following are the most important suggestions made:—

TYPE " A " HOUSE.

Omit inodorous felt and roof boarding.

Half-brick manholes. Omit curb. Use half salt-glazed channels in lieu of three-quarters white.

Wood boarded or granolithic floor in lieu of tiles.

Omit roof boards and batten roofs only.

Use ⅞ in. floor in lieu of 1 in., and omit mitred borders to hearths.

Omit part of shelving, all pipe grounds and drawers to cupboards.

Use R.W. strength instead of L.C.C. for waste pipes.

12 COMPETITORS IN " COST OF BUILDING " COMPETITION.

Class " A."

	No.	Name.	Town.	Amount.
Prize	**47**	**William Roe**	**Wolverhampton**	**£1,195 11 4**
1	117	Robinson & Sons	Swannington	1,122 18 0
2	145	Shilton & Co., Ltd.	Coventry	1,127 10 6
3	120	P. C. Sayer	Witham	1,144 12 7½
4	119	R. A. Evans & Co., Ltd.	Lowestoft	1,177 19 2½
5	40	A. Sanders & Sons	Exhall	1,188 6 9
6	161	J. G. Richmond	Darlington	1,194 4 11½
7	95	T. Mortlock & Son	Willingham	1,200 0 0½
8	138	A. Anderson	Newcastle-on-Tyne	1,215 6 0½
9	107	Stephen Heath & Son	Newcastle, Staffs.	1,241 13 5½
10	67	S. S. Ambrose & Son	Ely	1,246 6 4½
11	147	I. G. Richards	London	1,249 18 11½
12	162	H. Cooper	Maltby	1,254 8 5

Class " B."

	No.	Name.	Town.	Amount.
Prize	**145**	**Shilton & Co., Ltd.**	**Coventry**	**£1,560 10 7**
1	21	Newcombe & Co.	Cardiff	1,599 9 2
2	162	H. Cooper	Maltby	1,607 2 2
3	119	R. A. Evans & Co., Ltd.	Lowestoft	1,621 10 8
4	161	J. G. Richmond	Darlington	1,621 12 9
5	47	William Roe	Wolverhampton	1,623 7 8
6	120	P. C. Sayer	Witham	1,625 16 9½
7	147	I. G. Richards	London	1,658 17 6½
8	107	Stephen Heath & Son	Newcastle, Staffs.	1,661 3 7
9	122	G. & J. Browell	Blaydon	1,667 2 1½
10	117	Robinson & Sons	Swannington	1,677 2 0
11	34	W. J. B. Halls	Gloucester	1,693 5 5
12	67	S. S. Ambrose & Son	Ely	1,713 10 11½

Omit all hot water work and lavatory basins.

Replan first floor and put bath in scullery and so save bathroom.

TYPE "B" HOUSE.

Use 3 in. surface concrete in lieu of 4 in. and 5 in.

Corbelling to manhole in lieu of concrete slab.

3½ in. by 2 in. in lieu of 4 in. by 2 in. rafters.

3½ in. by 2 in. in lieu of 5 in. by 2 in. ceiling joists.

1½ in. by 1 in. battens in lieu of feather edge boarding.

Reduce overhang of eaves from 15 in. to 9 in.

Reduce casements from 2 in. to 1¾ in.

Two-inch internal breeze partition in lieu of 3 in.

Omit hot water.

Omit plaster panels and trellis.

A number of competitors raised most of the points mentioned.

In particular, Mr. J. G. Richards, of 15, Ladbroke-square, London, W. 11, Mr. J. A. Davison, of West Malling, Kent, and Messrs. Shilton & Co., Ltd., of Little Heath, Poleshill, Coventry, sent very carefully considered replies.

Others, notably Messrs. Bunn & Green, of Berkhampstead, Herts, and Messrs. Green & Bird, of West Hill, Hednesford, Stafford, have given the matter much consideration, but had fewer comments to make.

Many replies considered the type of house called Type "A" quite suitable in the districts of the writers; several, however, thought them superior to others in the district, and many commented upon the need or modifications to reduce cost. Type "B" was considered generally to be too large.

As to drastic reductions in cost these can only be made by the substitution of semi-permanent for more solid construction, as, for example, the use of No. 2—3 in. breeze slabs with iron ties for 11 in. hollow brick walling, which would probably save £50 per house or £100 for the pair. "Eternit" slating for tiles would save about £20, and still leave quite a habitable building.

The important points which arise from this competition and its results may, therefore, be summarised as follows:—

1. Economical design is of the utmost importance.

2. Housing enthusiasts are still endeavouring to demand a standard of accommodation far in advance of that which a working man can afford, and that in order to build with a view to creating an economic rent the amount of accommodation must be substantially reduced.

3. That the lowest possible price at which substantially built cottages can be erected at the present time is from 10½d. to 11½d. per cubic foot.

4. That this translated into floor area should be about 11s. to 11s. 6d.

5. That these prices are only possible with the strictest possible economy and with low tendering, and on an average will probably be 11d. to 1s. 1d.

6. That a semi-detached house containing a living-room, scullery, sitting-room, three bedrooms, and bathroom will cost at least £595, if solidly constructed in brick with a tiled roof.

7. That a house containing two sitting-rooms, kitchen, scullery, four bedrooms and bathroom will cost at least £777.

8. That in practice these figures may quite easily be exceeded since practically all the tenders are above these amounts, and would show on an average prices of £650-£700 and £825-£875 10s. respectively.

9. That no district in the country shows any marked economy compared with other districts, and that it is as dear to build in the provinces as in London.

10. That towns paying "A" grade wages can build as cheaply as those paying lower wages, because the best men tend to migrate there and because the "A" towns have a much better market for the supply of materials, while haulage is less, and overhead expenses may be proportionately less.

11. That clerical errors are very prevalent and often serious in building tenders.

12. That nearly 75% of the cost of a building is absorbed by the "Bricklayer," "Carpenter," "Plumber," "Painter," and "Glazier."

13. That the greatest variations in price occur in these trades with an emphasis upon the "Carpenter."

14. That the carcassing of these houses accounts for about 88%, and of the most economical cottage imaginable 92% of the entire cost, and that these items are quite unalterable without abandoning the principle of building a permanent fire-resisting structure.

15. That the price of materials is fairly steady, and while affecting the general level of building costs is not the primary cause of variation in the amount of the tenders for an individual building.

16. That prime cost items vary substantially.

17. That probably the efficiency of the workman and the standard of the work are the principal factors in determining the relative cost of buildings.

18. That bills of quantities probably tend to increase tenders for small houses.

19. That houses can only be built at amounts substantially below the figures quoted if they are of a semi-permanent or temporary character.

These results are of considerable importance to the study of building costs, and there can be no doubt that *The Builder* competition has added very materially to an accurate appreciation of the present cost of building, a result upon which the promoters (Messrs. Rownson, Drew & Clydesdale, Ltd., 225, Upper Thames-street, E.C., and *The Builder*) deserve the thanks of the whole industry.

Models of the designs have been made for *The Builder*, and at the present time can be seen at the showrooms of Messrs. Parsons, and already houses are being erected from the architects' designs, under their supervision.

In the lists on page 77 are given the amounts of the tenders of the winners, after adjustment for clerical errors, and the amounts of the twelve nearest competitors in each competition without such adjustment.

Geysers Without Ventilation.

Recently two inquest verdicts of death from poisoning by carbon monoxide, through a window being closed while a person was having a bath in which a geyser was being used, were returned. These made five or six deaths from the same cause that had occurred in Bristol recently. The Bristol Medical Officer of Health recently strongly recommended means of ventilation which would operate mechanically when a geyser was was in use.

COMPARISON OF PRICES OF BUILDING MATERIALS IN JANUARY, 1923, WITH CURRENT PRICES.

WE again have pleasure in publishing a table giving the prices of the principal building materials at the present time as compared with the prices for January, 1923. We are glad to say that there has been a steady fall in nearly all the markets.

Material.	£ s. d. Jan., 1923.	£ s. d. Jan., 1924.	% Fall.	% Rise.
Bricks—				
Best Stocks	4 2 0	3 19 0	3.66	—
Flettons	3 1 0	2 13 3	12.70	—
Glazed	22 0 0	22 0 0	—	—
Thames ballast	0 13 6	0 10 6	22.22	—
Thames sand	0 16 6	0 15 6	6.06	—
Shingle (¾ in.)	0 14 0	0 14 0	—	—
Portland cement	3 3 0	2 18 0	7.94	—
Ground blue lias lime	2 18 6	2 13 6	8.55	—
Grey stone lime	2 16 6	2 10 9	10.18	—
Bath stone	0 2 11	0 2 9½	4.29	—
Portland stone	0 4 7	0 4 4	5.45	—
Good Sound Building Timber—				
4 in. × 11 in.	34 0 0	34 0 0	—	—
3 in. × 7 in.	22 10 0	26 0 0	—	15.5
3 in. × 11 in.	32 10 0	34 0 0	—	4.6
2 in. × 11 in.	32 10 0	34 0 0	—	4.6
2 in. × 7 in.	22 10 0	26 0 0	—	15.5
3 in. × 4 in.	21 0 0	24 0 0	—	14.2
Slates—				
24 in. × 12 in.	41 17 0	37 12 6	10.10	—
22 in. × 12 in.	38 0 0	34 0 0	10.52	—
R.S. joists	13 0 0	13 10 0	—	3.8
Iron—				
Common bars	12 10 0	13 10 0	—	8.0
Mild steel bars	12 0 0	12 10 0	—	4.1
Steel bars	12 0 0	13 0 0	—	8.3
Cut nails	21 10 0	20 10 0	4.65	—
Sheet lead	35 10 0	41 10 0	—	16.9
Glass—				
15 oz. sheet	0 0 2¾	0 0 3⅜	—	22.7
21 oz. sheet	0 0 4⅝	0 0 5	—	8.1
26 oz. sheet	0 0 5¾	0 0 6	—	4.3
Raw linseed oil	0 3 7	0 4 0	—	11.6
Turpentine	0 8 9	0 6 6	25.71	—
Ground English white lead	55 5 0	56 5 0	—	1.8
White lead paint	77 10 0	79 10 0	—	2.5
Red lead	39 0 0	43 0 0	—	10.2

REINFORCED CONCRETE GRAIN SILOS AT AVONMOUTH.

THESE silos were erected by the Co-operative Wholesale Society's Building Department, London, to the design of their architect for the Southern District (Mr. L. G. Ekins, F.R.I.B.A.).

The building is practically square on plan, the dimensions being 93 ft. 3½ in. by 92 ft. 7 in., and has a storage capacity of 447,000 bushels (13,000 tons) of grain. The height from ground level to roof is 132 ft. 6 in., and above this a tower extends for a further 16 ft., making the total height 148 ft. 6 in. A sprinkler tank of 20,000 gallons capacity is contained in the tower. The height of this building will be realised when it is remembered that the height of the Nelson Column in Trafalgar-square is 150 ft.

All grain is moved by belt conveyors and elevators, supplied by Messrs. Spencer & Co., of Melksham, Wilts; the milling plant is being supplied by Messrs. Robinson & Sons, Rochdale.

As the ground was too soft to carry the loads required, all the foundations were carried by 14 in. by 14 in. by 55 ft. reinforced concrete piles, which were driven to a set of from ½ in. to 1½ in. in ten blows, and were calculated to have a carrying capacity of 50 tons per pile. In all 575 of these piles were driven, in groups varying from four to twelve. The soft nature of the ground will be evident from the fact that the result of the pile-driving was to raise the level of the site and adjoining land by 2 ft. Very little difficulty was experienced in the driving, as all piles took their set at practically the same depth. The heads of the piles were broken up and a reinforced concrete cap cast round each group to form a base for the reinforced concrete columns supporting the structure. The space between the caps is covered by a 6 in. reinforced concrete floor.

All interior columns are octagonal to bin-bottom level, whilst the face of the external columns project beyond the external walls in conformity with the architect's requirements. It was decided to make the underside of the bin-bottoms level so as to minimise the cost of centering.

The bins are 60 in number, the dimensions of 36 being 11 ft. 9 in. by 12 ft. 6 in., centre to centre of walls; while the remaining 24 are 5 ft. 10½ in. by 7 ft. 8¼ in. centre to centre. The walls of the larger bins are 7 in. thick throughout; and those of the smaller bins, 5 in. Each bin is 100 ft. in depth from top to bottom.

Wooden centering was used throughout, the forms being raised as the work proceeded. All mixing of concrete was done by mechanical means, and the mixture was hoisted up an "Insley" steel mast hoist and fed by gravity to the position required. The concrete for the columns below the bins is a 1 : 1 : 2 mixture; while a 1 : 2 : 4 mixture was used for the columns above the bottoms of the bins.

The bin tops are covered with reinforced concrete slabs, 6 in. thick, which form the bandway floor. An opening 2 ft. square is left



Reinforced Concrete Grain Silos at Avonmouth. MR. L. G. EKINS, F.R.I.B.A., Architect.

in the top of each large bin, and 1 ft. 6 in. square in each small bin. Belt conveyors carry the grain over the floor to the bins.

This floor is covered by a reinforced concrete roof, which extends over the whole building, light being provided by three large lantern lights. A covering of asphalte is given to the roof, and falls are obtained by varying the height of columns as necessary.

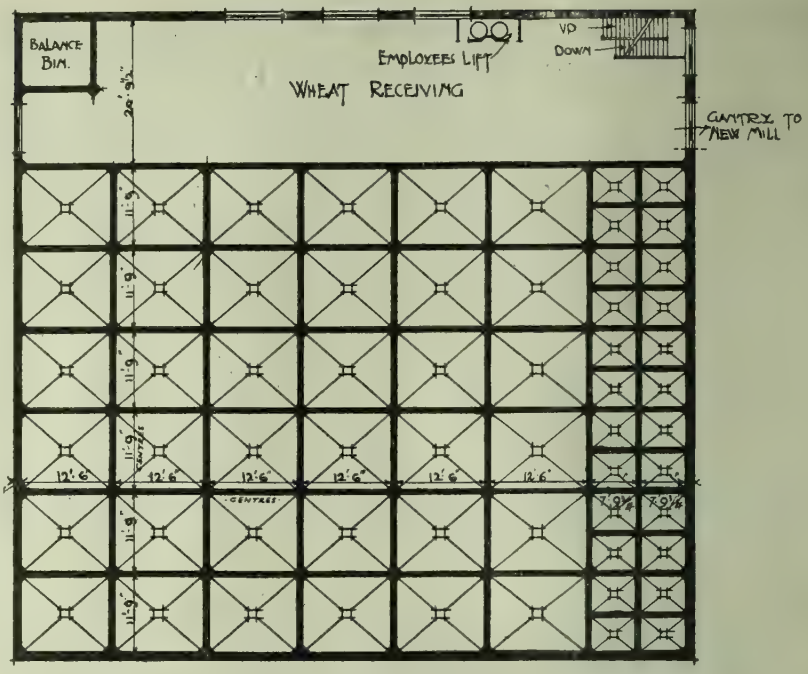
The east end of the building holds the elevators and milling machinery, carried on reinforced concrete floors. Elevator rooms are provided at the north-east and south-east ends of the building to carry the hoisting machinery; whilst a large balance bin occupies the north-east corner from the ground level to the fourth-floor level. A smaller balance bin occupies the south-east corner from the fourth to the bandway floor level.

External walls are in reinforced concrete, 7 in. thick, panelled on the external face. The wall surfaces are finished without any skimming coat of cement and sand, and are left as from the shuttering.

All steel is to British standard specification, and consists of round bars of mild steel.

A tunnel extends from the railway siding to the underside of the elevators to carry the belt conveyor, which conveys grain from trucks to the bins. This tunnel is 229 ft. 2 in. in length, 7 ft. wide, and 7 ft. 3 in. in height, and is supported by 21 piles, 14 in. by 14 in. by 50 ft.

The whole of the reinforced concrete work for this structure, which comprises the main grain store in connection with the Co-operative Wholesale Society's large flour mill adjoining, was designed by Messrs. Edmond Coignet, Ltd., reinforced concrete engineers, of 125, Gower-street, W.C. 1.

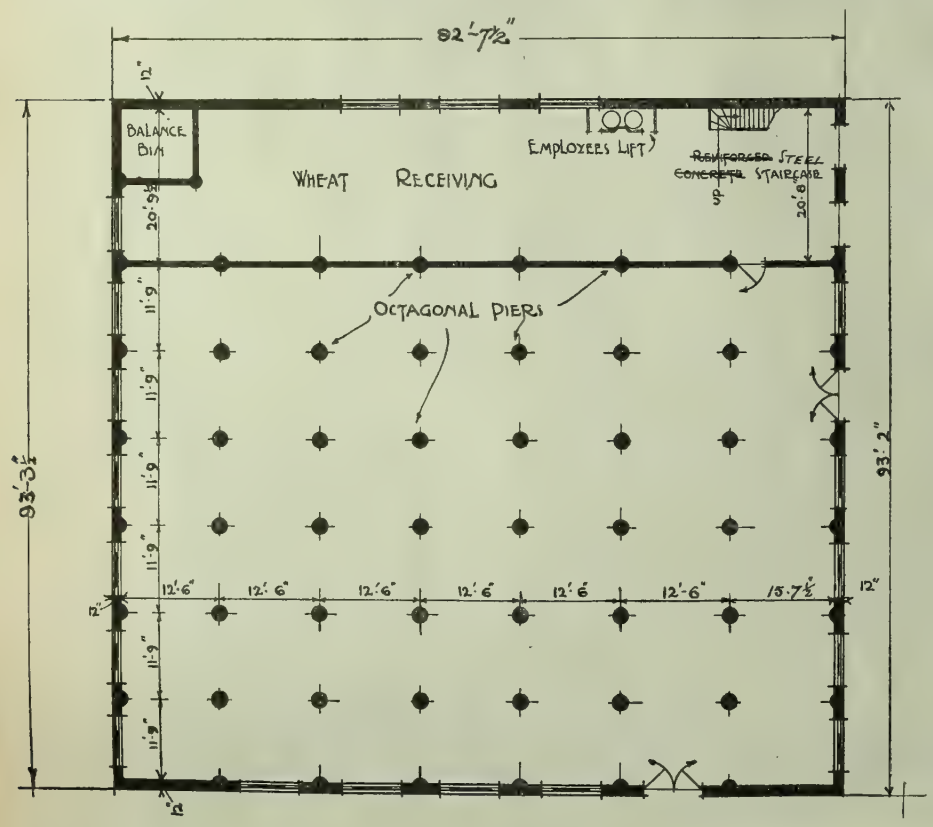


PLAN THROUGH SILOS.

Messrs. Hartley & Sugden are opening on February 1, 1924, new offices and extensive showrooms at 215, Tottenham Court-road, London, W. 1 (telephone, Museum 214), and will have at these premises a most extensive range of boilers, heating applicnces, and "Thermostoves." The general public, also the trade, are invited to call and make an inspection.

STAFF DINNER.

"A HAPPY New Year party" is perhaps the best description of the annual dinner of Messrs. A. Roberts & Co., Ltd., builders, of Earl's Court-road, Kensington, held at the Café Royal, Regent-street, on Thursday last week. This firm is justly proud of the cordial relations which exist between the directors, the staff, and the employees, and if, as we have no reason to doubt, the good fellowship between all concerned so much in evidence on this occasion is present throughout the everyday routine of office and job, the firm is indeed to be congratulated. Mr. G. S. Roberts, who occupied the chair, likened the firm to a guild in which capital and labour formed a brotherhood for the betterment of the craft and the provision of good buildings, and Mr. M. C. Doll, M.A., A.R.I.B.A., testified to the success accompanying work carried out on this principle by describing the excellent workmanship put into some recent buildings carried out by the firm; he had, he said, always found the operatives most interested in their work, and anxious to give of their best. Mr. E. J. Brown (Director of the London Master Builders' Association) also referred to the spirit of co-partnership which existed throughout the firm, and pointed out that it was only by trying to see "the other fellow's point of view" that difficulties could be understood and remedied. Mr. H. W. Capper, Mr. F. E. Nunnerley, Mr. A. Roberts, Mr. A. J. H. Sprague, F.S.I., Mr. M. V. Ely, and Mr. P. Roberts also spoke between the items in an excellent after-dinner musical programme.



GROUND FLOOR PLAN.

Reinforced Concrete Grain Silos at Avonmouth. MR. L. G. EKINS, F.R.I.B.A., Architect.

OBITUARY.

The death occurred recently at Ilfracombe, of Mr. Oswald M. Prouse, A.M.I.C.E., for 32 years engineer and surveyor to the Ilfracombe Urban District Council.

The death occurred at Weldon House, Barnard Castle, on December 25, of Mr. Wm. Appleby, aged 81 years, a retired builder and contractor.

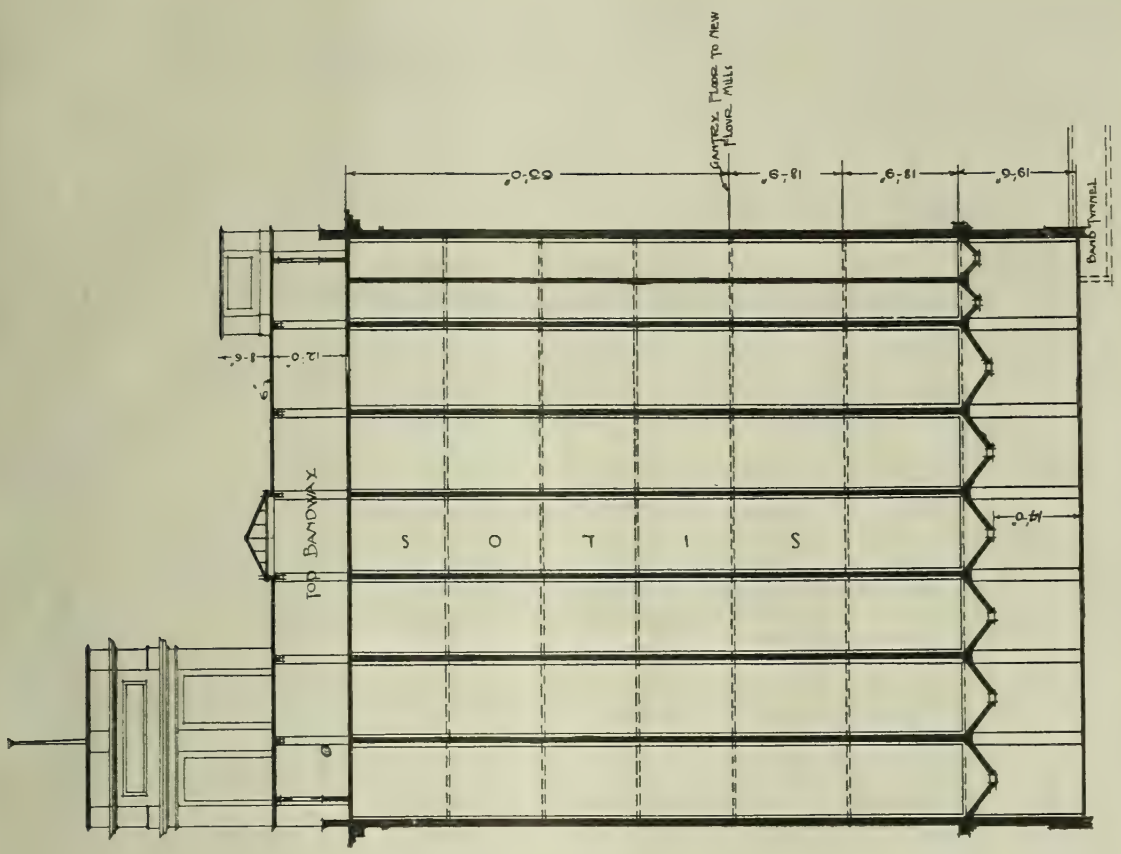
Mr. Donald M. King, joint managing director of Messrs. David King & Sons, Ltd., of Keppoch Iron Works, Possilpark, Glasgow, died suddenly at his residence on December 22 last. Mr. King had been associated with the firm from its inception in 1874, when the business was first established by Mr. David King, senr., and John King, J.P. (now Chairman of the National Light Castings' Association).

The death has occurred of Councillor Arthur F. Young, aged 68, who, prior to his retirement eight years ago, carried on for many years the business of a builder. Councillor Young was Mayor of Sunderland for the two years, 1908-10, a borough magistrate, and a director of the Sunderland Industrial and Provident Building Society.

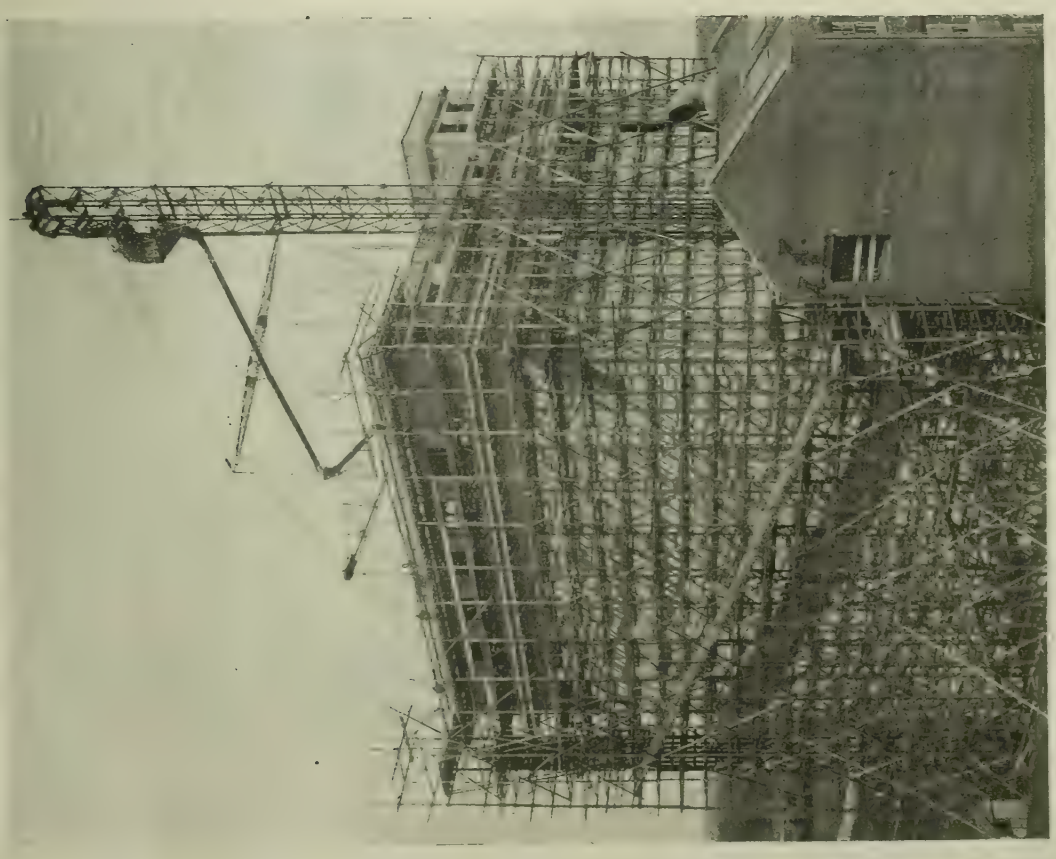
The death has taken place of Mr. John George Sayce, builder and contractor, Newport (Mon).

An Epstein Exhibition.

An exhibition of new sculpture by Jacob Epstein will be held during this month at the Leicester Galleries, Leicester-square.

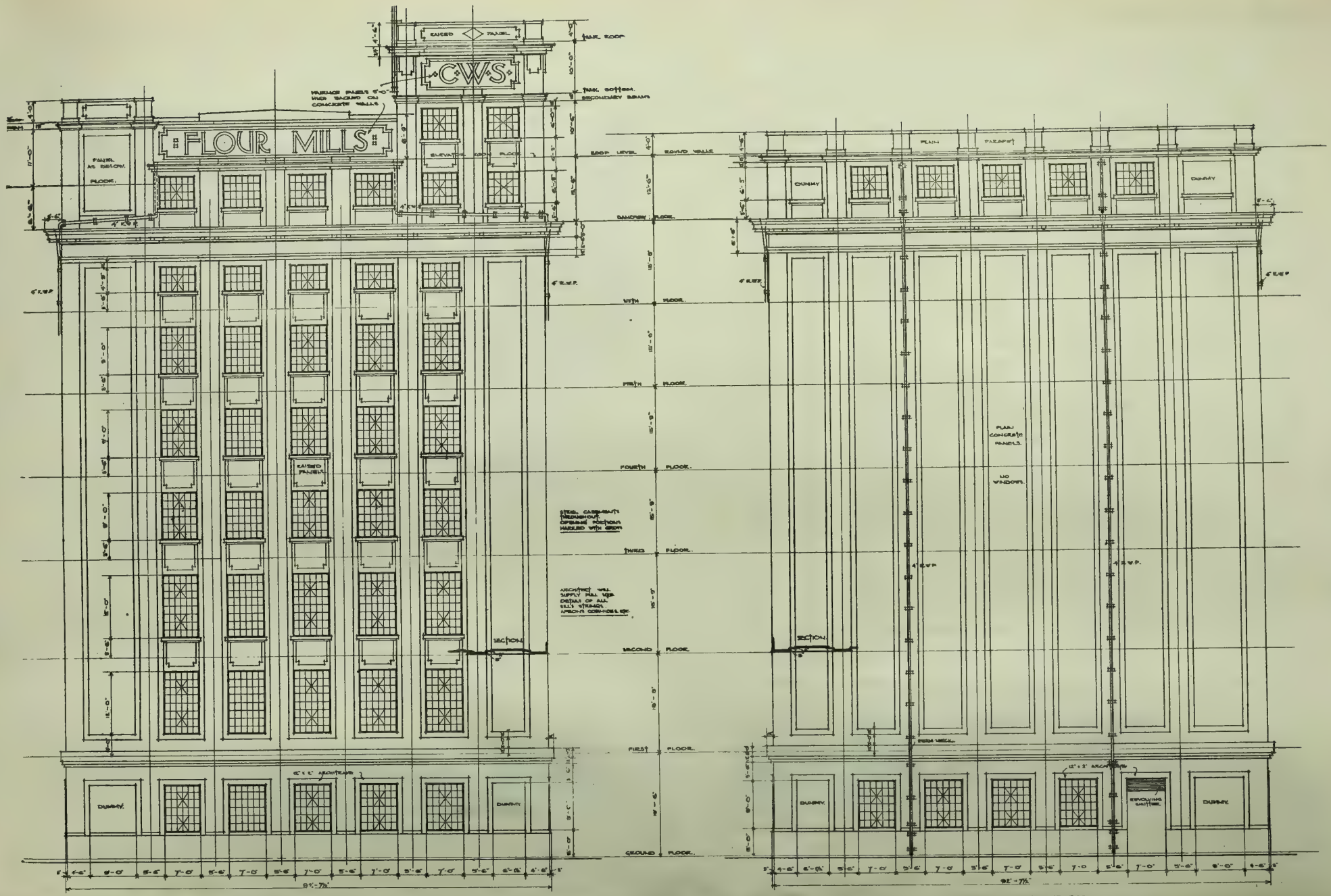


Section.



During Construction.

Reinforced Concrete Grain Silos at Avonmouth. Mr. L. G. Bliss, F.R.I.B.A., Architect. (*See p* 79.)



EAST ELEVATION.

WEST ELEVATION.

Reinforced Concrete Grain Silos at Avonmouth, for the Co-Operative Wholesale Society, Ltd. MR. L. G. ERINS, F.R.I.B.A., Architect. (See p. 79.)

ADVANTAGES OF THE NEW STEEL JOISTS.

By M. B. BUXTON, M.A.

THERE are at the present moment a vast number of schemes for the building of factories, offices, and flats which have never been actually commenced owing to the fact that the cost has not been brought down to what the promoters consider a paying proposition. The problem of lowering the cost of building materials and construction is of great importance, not merely in order to benefit those who wish to use the buildings when completed, but in order to alleviate to some degree the great amount of unemployment at the present time by profitably employing capital, brains, and labour in the promotion of commercial enterprises.

We have really to learn to make the best use of what we have at our disposal, and since in every large scheme steelwork plays an important part it is well that we should see if there are not means which could be used, and which in fact are being used by the more progressive architects and engineers to reduce the cost of work.

At the moment there is a very large selection of steel joists available, those of British Standard Specification 1904 range being still in use, while the New British Standard sections which were standardised in 1920 are now available. It is the latter sections which can help to a great extent at the moment to lessen the cost of building construction. A superficial glance at a list of the new sections and comparison with the old may not lead to any great appreciation of their value. But if the question be carefully studied we shall discover some surprising facts. In these sections we have a far better range of strengths of weights and shapes to carry the loads met with in ordinary building practice.

The metal in the section is placed to the greatest advantage in accordance with the latest ascertained scientific principles as far from the neutral axis of the beam as is practicable. Take, for instance, a joist weighing 30 lb. per ft. run: The problem is to so arrange the metal that we have the greatest load carried and yet a web stiff enough to resist the shear stresses. The old range gives us the 10 in. by 5 in. at 30 lb., which has a modulus of section, or measure of strength, of 29.12 in.^{3}, and can carry a distributed load of 7.2 tons on a span of 20 ft. with a factor of safety of 4. On the other hand, the new range of sections has a beam weighing 30 lb. per ft. of section 12 in. by 5 in., which has a modulus of section of 34.48 in.^{3} and can carry 8.6 tons distributed on a 20 ft. span. Thus for the same cost of metal we have a beam which is about 16 per cent. stronger.

Certain people are misled by seeing that some new sections are of similar weight and dimensions as the old, *e.g.*, 6 in. by 3 in. at 12 lb., 8 in. by 6 in. at 35 lb., 9 in. by 4 in. at 21 lb. In every case closer examination reveals a better disposition of the metal, with a proportional increase of strength.

There is also a far better range to choose from than in the old list of sections. In the latter the weights and moduli of section seemed to be haphazard, and we find joists weighing 28, 32, 35, 42 lb., for example. In the new the joists increase in weight by 5 lb. from 20 to 90 lb., so we have joists weighing 25, 30, 35 lb., etc., with moduli increasing gradually and in more regular series. Incidentally it is clear that the weights, being in multiples of 5, much labour is saved in arriving at the weight of steel when estimating.

There are also some most excellent new forms of section, the 13 in. by 5 in. at 35 lb., the 18 in. by 6 in. at 55 lb., and the 20 in. by 6½ in. at 65 lb., to cite a few examples. If, for instance, a beam to support a load of 23 tons on a span of 20 ft. with a factor of safety of 4 is required, a modulus of 92 in.^{3} is necessary. The choice would be between, in the old list, either a 16 in. by 6 in. at 62 lb., which only supports 22 tons, and so is really too weak, or an 18 in. by 7 in. at 75 lb., which is too strong. In the new range we have a beam of modulus 93.5 in.^{3}, viz., 18 in. by 6 in., able to take slightly more than 23 tons, and only weighing 55 lb. as against 62 or 75 lb.

Looking at the list of old sections to see if we have a beam of about 55 lb. weight, we find one of 54 lb., the 12 in. by 6 in., and on calculating its carrying capacity on a span of 20 ft., we find it will only take 15 tons. So by utilising the 18 in. by 6 in. we have a clear gain of almost 35 per cent. in strength, weight for weight, through the more scientific disposition of the metal.

It is apparent that we have similar results when the new joists are used as compounds with plates riveted to the flanges. We find compound girders able to bear the loads with the required factor of safety weighing less than those made from the old sections.

We have so far confined our attention to joists used as beams. As to pillars or stanchions, suffice it to say that we have a wider range of heavy beams or pillars from which to make our selection, with the metal disposed in such a manner as to give a greater radius of gyration in the weaker axis. Many are of deeper section, as 12 in. by 8 in. at 65 lb., 14 in. by 8 in. at 70 lb., 16 in. by 8 in. at 75 lb., and so afford more space in the webs and on the flanges for connections of girders bearing upon them, thereby affording opportunities for economical design.

If anyone will take the trouble to compare a handbook giving carrying capacities of the old joists with a handbook giving those of the new joists he will find that these few examples discussed here will be multiplied considerably.

The important question will naturally occur in the reader's mind as to whether these new sections rolled are available for general use. Joists are made from the steel ingots by gradually rolling them first in a cogging mill and then in a finishing mill into the finished dimensions. The finishing mill really resembles in principle the well-known household mangle, the steel being squeezed between two rollers on which the profile grooves are made, so that the shape of the section required is produced. It can be readily understood that these rolls will gradually wear or may possibly be broken, so that new rolls are required. The steel manufacturers have agreed that as the rolls of the old sections wear out rolls to replace them will be cut to the profile and dimensions of the new sections.

Almost every steelworks now rolls some of the new sections, and one large works has an almost complete range of them. Therefore there is no difficulty in purchasing the majority of them, and they are constantly now being utilised by architects and engineers, who are fully alive to the need of having the most efficient and economical scheme of steelwork for their buildings and factories.

Proposed Rural Libraries.

It is proposed to found several rural libraries in the North Riding area, and the E.C. have been instructed to prepare and submit a scheme for the adoption of the Public Libraries Acts 1892–1919, and application be made to the Carnegie Trustees of a grant.

INSTITUTE OF BRITISH DECORATORS.

"Fresco Painting."

MR. J. H. SEXTON gave a lecture on this subject at Painters' Hall, Little Trinity-lane, E.C., recently.

In the course of his remarks he said that fresco painting comprised one of the oldest forms of mural decoration. Certain forms of fresco were used by the Egyptians in their tombsin prehistoric times; Prof. Flinders Petrie put the date at from 8,000 to 5,800 B.C., and wall paintings discovered during excavations at the Palace of Knossos, on the Island of Crete, probably dated from about 1,500 B.C., but the greater development of the art began in Italy in the thirteenth century.

The Italians, however, increased its scope and possibilities; and it gained significance from the fact that it was more permanent than tempera or oil painting.

There were, the lecturer said, three processes of fresco painting: Buon, Secco, and Spirit. The first consisted of painting, whilst the plaster was still wet, with simple colours; the second painting after the plaster had been allowed to dry: it was similar to tempera painting. The third was an altogether different process, and consisted of the work being done on a specially prepared ground when it was dry, with material of which resin and white wax were essential ingredients.

Theorists differed as to the composition of buon fresco; according to some authorities the lime should have been slaked at least a year before using, and the proportions of lime and sand half and half. Cennino Cennini, however, made no such stipulation, and merely stated that if the lime were very fresh and rich it would require two parts of sand to one of lime ground well together with water, and allowed to rest for some days until it was quite slaked.

Together with the necessity for having the lime well tempered, it was essential to have the right kind of sand—river sand.

The lecturer then said that simplicity in colouring and design was the chief thing to be aimed at.

It was stated when Michael Angelo was at work on the ceiling of the Sistine Chapel he was very much upset at the various changes the fresco underwent, in succession, when drying. He asked the Pope to be allowed to resign from his work, but he was referred to San Gallo, who explained the matter to him.

The necessity of working with freshly-made plaster must not be overlooked; also colours appeared much lighter in the process of drying, and the work must not be continued after crystallisation had once commenced. It was the practice in the sixteenth century, when a fresco had been commenced but not completed the same day, to finish it in secco fresco with size or egg medium.

The colours used in buon fresco painting were chiefly simple earths. The lecturer gave a list as follows: White, lime-white that had been kept for a long time; yellow, all kinds of ochres and red siennas; reds, all kinds of burnt ochres, burnt sienna, oxides of iron, and lake coloured burnt vitriol; browns, umber raw and burnt, and burnt terre verte; black, burnt cologne-earth; purples, burnt vitriol, cobalt blue and lake-coloured burnt vitriol; greens, verona green (terre verte), cobalt and chrome green; blues, ultramarine, cobalt blue and factitious ultramarine (this did not always mix well).

Vasari, in "Lives of the Painters," spoke of the qualifications most requisite to obtain success in buon fresco. They were dexterity, resolution and rapidity, combined with sound and perfect judgment; this judgment played an even more important part than drawing. Much practice was necessary as a guide, and it was extremely difficult to bring fresco work to perfection.

Cleanliness in working was very necessary, and brushes, &c., should be washed with turpentine at the end of the day.

MODERN BUILDERS' MACHINERY.

By STAFFORD RANSOME.

I.—THE BUILDER AS A USER OF MACHINERY.

FROM the days when mechanical wood conversion began to rank as a commercial, or rather as an industrial, proposition, which may be put at about 150 years ago, the builder has been the best, if not the largest, customer of the manufacturers of woodworking machinery.

I say that he is the best customer for two reasons. First, he is the steadiest; he is always there and he is always growing individually and collectively. The small man becomes a big man, or perishes in the attempt, and his number is ever multiplying. Almost from the start he must have machinery of some sort—even if it is only a mortar mill, a saw bench, or a "general joiner." And a builder's plant may mean anything from a single machine up to a saw-mill and joiner's shop of very considerable size and of a peculiarly all-round capacity, even sometimes to the conversion of large logs of all sizes and qualities of woods. It is the multiplicity of these establishments, large and small, throughout every civilised country in the world, and the fact that builders, as a rule, work their machines very hard, that makes the demand for their requirements at once very large and constant.

A Direct Customer.

The second reason why the builder is welcomed of the manufacturer as a customer is because, as a rule, he knows what he intends to buy, though it does not necessarily follow that he always knows what would be the best thing for his purpose, and he goes direct to the maker and does not wish to introduce into the machines all sorts of special features, which may sometimes defeat their own end. Nor does he hamper the manufacturer unduly with penalty clauses and other galling restrictions.

On the other hand, the builder, at all events in the early stages of his career, often wants more latitude in the way of credit than is usual with other customers. After all, this is only natural, for the position of the small builder is much like that of the small farmer. Both are dependent on their crops and the contract is the builder's crop. His small capital is often strained to its utmost limit by the work and material which he has to put into the job before he gets his payments in, and the machinery, if it is to be of any use to him, must be forthcoming when the contract is started, just as the farmer must have his ploughing tackle months before his crops materialise.

As a rule, the respectable small man will find manufacturers who are prepared to accommodate him to some extent in this respect and, if bad debts are occasionally incurred in the process, they are generally of small amount and may be said, as a rule, to constitute a legitimate business risk. In short, the manufacturer and the builder understand each other's requirements and ways, and collectively the business done between them is considerable.

Stock Facilities.

Woodworking engineering firms, in this country, at all events, do not manufacture to any very large extent for stock as a general rule. Such of their machines, however, as are manufactured on this principle, may nearly all be classed as builders' tools. This is because the risk of that class of machine remaining on their hands for a lengthy period is far less than would be the case with others. The builder, too, is nearly always in a hurry for what he wants, because in the early part of his career the signing of a contract, which he may have to hurry through at high speed, may be the factor which alone would justify him in making his purchase, and he may not have known twenty-four hours before that event that he is destined to get this work.

The Influence of the Builder.

On the evolution of wood-working machinery the requirements of the builder and contractor have had a very great influence. Many hundreds of machines for sawing, planing, moulding, mortising, tenoning, boring, &c., have been designed and constructed primarily to suit his requirements, and it is no exaggeration to say that fifty years ago the trade publications issued by the various manufacturers of wood-working machinery were little more than catalogues of builders' plant. In them we found "contractors' frames," "contractors' saw benches," "general joiners for builders," and there would hardly be a machine in those earlier books which was not intended for the builder, or a page of the letterpress which was not addressed to him. That the makers in those days regarded the builder as their primary *objectif* is emphasised by the fact that, apart from their wood-working machines, they included in their catalogues such plant as stone-sawing and dressing machines, mortar mills and other tools which were of use only to the builder. Thus for generations the makers have catered particularly for the builder, and the builder has got into the habit of expecting to find what he requires, if not always actually ready-made, at all events deliverable at an early date from standard patterns.

The Builders' Requirements.

And what are the qualities he looks for in the plant he buys? Let us begin with the process of elimination. Except in the case of large builders we may, as a rule, cut out the conversion of logs. And yet many comparatively small builders are obliged to equip themselves for log sawing, because a builder never knows what quality of timber he may be called upon to use and, unless there are log mills in the neighbourhood, he may often find it necessary to do his own log sawing. We may also, as a general rule, eliminate from the builders' workshop those ultra high speeds in sawing and planing which are required in the general saw mills. This is because, although there is no user of machinery who at times requires to get the very utmost of production in a short time more than does the builder, those periods of rush in the machine shop are interspersed with periods of comparative stagnation. When such is the case he would not be justified in putting down saws which would cut at 200 ft. a minute, or planers that would cut at 300 ft. a minute, when his average requirements may be perhaps only a fifth or a tenth of that amount.

The special machinery required for the rush tactics adopted in these days in the larger general saw-mills working for the trade are only justified when a steady continuity both of demand for goods of a specific class and supply of materials for making them are both assured year in year out, and this is not the case in the ordinary builder's yard.

The Qualities of Builders' Machines.

The two great qualities that the average builder has to look for in his machines are: (1) endurance; and (2) versatility. The first is because he is often obliged to force the output unduly and to use his machines rather brutally in the process, and the second is because there is hardly an operation that is known in wood conversion that he will not be called upon to perform at one time or another by means of the machinery which he has at his disposal. This applies equally to the small man who has one or two machines, or to the large man who has twenty or thirty, and the selection of his machines is, therefore, a far more difficult problem for the former than for the latter, as is also the problem of continuity of work.

Extraneous Aid.

It is true that in these days very much of the woodwork which is put into the construction of the ordinary house by the builder is virtually prepared for the purpose before it reaches his hands. All the flooring and mouldings and most of the matchboarding, for instance, which are turned out systematically in the general sawing and planing mills are destined for the use of the builder, and much of this material need never be touched by his machinery beyond cross-cutting it to various lengths. Roofing timbers and joists may also be had cut to the required sections, and doors and window frames are imported ready made in huge and ever-increasing quantities.

This naturally simplifies the matter for the small builder, and greatly reduces the quantity of the machinery that he has to put down, but it in no wise reduces the number of different operations which his machinery will have to perform. This is because he has to work to specification, and that specification may or may not accord with the standardised dimensions of the articles available. Thus, as far as machinery is concerned, he must always be prepared at a pinch to make throughout any of the woodwork that may be required of him, even although he may expect to be able as a rule to purchase most of the material either completely formed or nearly so. This is because he cannot count with certainty on such being the case at all times. In fact, he knows not what to-morrow's contract may bring forth, and any deviation from the ordinary conditions may make the difference between whether the builder can purchase outside or must prepare his own material. Even so small a matter as a slight deviation in the contour of a moulding from accepted standards may affect this question very materially.

Question of Standardisation.

Though the standardisation of certain units in the cheaper class of house, and to some extent in the houses themselves, has been attempted, it has not gone very far in this or any other country except in Japan, where from time immemorial all the rooms and corridors and verandahs, and consequently the houses themselves, are built to multiples of the "tatami," or mat which carpets the floor, and is of a standard size (about 6 ft. by 3 ft.), and where rooms are always of a standard height. Thus a house which occupies an area of 900 sq. ft. would be described as a "50-mat house," and a room 15 ft. by 12 ft. as a "10-mat room." In that country alone would it be possible to adopt the principle of house building on the "Ford car principle," and although that policy has not been adopted it would be a comparatively easy matter in that country so to arrange matters that the whole of the wood-work, with the exception of the decorative work which varies, could be made throughout by mass production in large factories which would relieve the builder entirely of the purchase of machinery for his own use. Such an ideal state is never likely to exist elsewhere, and the individual builder must, therefore, employ machinery in varying quantities and of various types.

The Functions of Machinery.

And whether the plant be large or small he must be able to use it for sawing, cross-cutting, planing, moulding, recessing, trenching, mitreing, mortising, tenoning, boring, and, in fact, for nearly everything of which wood-working machines are capable. It often happens, too, that, quite apart from the conversion of material for building purposes, a builder, in order to work up his waste wood and make it a source of profit, may utilise certain special machines, such as those used for making paving blocks, wood-wool, firewood, or other readily saleable articles, which can be made from oddments.

Of the plant required by the builder, wood-working machinery is, of course, by far the largest factor, though he has also been a steady though small user of machine tools for metal work. A forge, a lathe and a drilling machine are all essentials to a builder's equipment when he has risen above the lower rungs of his ladder. These, and his faithful old friend, the mortar mill, with certain simple wood-working machines,

formed, thirty years ago, the whole of his requirements, mechanically speaking; but to these to-day have been added a multitude of modern machines such as pile-drivers, concrete mixers, asphalte plant, concrete slab machines, well-sinking tackle, pneumatic drills, and in some cases even road-making plant. Thus his requirements at the present day are both varied and extending, and the purpose of these articles is to show how his requirements can best be fulfilled and how his machinery can be utilised to the best advantage.

Machinery is Incidental.

We must always bear in mind that machinery, important and essential as it is to the builder, is, after all, one of a number of other factors which go to make up his business. It is, in fact, incidental to his calling and not the first consideration to occupy him to the exclusion of other matters. Unlike the saw-mill proprietor, who may be regarded as one who becomes an expert in saw-mill machinery from force of circumstances, because his living depends entirely on the efficiency of the machines he employs, the builder very often has not the time to devote himself to a close study of the question. This is because his main business is to erect buildings and carry out other important work from purchased materials, and any actual manufacturing of the units that he has to do is thrust upon him, and his machinery which enables him to do it is merely a necessary adjunct to his other work.

It is true that the ordinary sawmill owner has to purchase his timber; but he is a regular and steady customer and his purchasing may be reduced to a routine, and he can look ahead in purchasing. Not so is it with the builder, whose requirements for timber are often spasmodic and very varied. And in addition to his timber he has to buy everything under the sun in connection with his trade, even sometimes the land on which he builds. Over and above all this his brain and his time are primarily occupied in fighting for his contracts, financing them and carrying them out in all their intricate detail. Small wonder is it, therefore, that with all these anxieties he cannot always give that close attention to the purchase of machinery that is desirable. Consequently he frequently—especially in the early stages of his career—errs in the selection of his plant and fails to turn it to the best advantage when he has got it. Too often in this respect he is apt to follow an old-established practice, which may or may not be sound at the present day, and which may lead him into a policy in production which is neither efficient nor up to date.

These articles are intended to guide him out of that groove by discussing the evolution of the machines which he employs and by putting him in the way of obtaining the best results from the plant which is now available.

The Flavel Training School.

On December 28, the students of this institute spent an evening at the Flavel Social Club, Leamington. The chair was taken by Mr. Flavel; and Mr. W. E. Pengelly, the late head of the Weston Training School, gave a short address, in which he impressed upon them the very fine opportunity open to them for making a success of life, when they reached manhood. Mr. Flavel then explained the details of his scheme in founding the Training School, and pointed out the way for the students to obtain the full advantages offered. He appealed to the students carefully to assimilate the instruction given and so fit themselves to become really skilled tradesmen and useful citizens. The Superintendent of the Training School, Mr. F. P. Carr, then read the report, and thanked Mr. Flavel for all that he had done for them.

£10,000 Gift to Hospital.

The committee of the Kent County Ophthalmic Hospital, Maidstone, has received a donation of £10,000 from Mr. J. W. Wheeler Bennett, High Sheriff of Kent, for the extension and improvement of the institution.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam. (Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/2½
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/2½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	0/11½
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	

(For rates of wages in the Building Trade in Scotland, see page 91.)

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JANUARY 12.— **Dewsbury.**— ALTERATIONS.— For alteration of Moorlands Hall, for the T.C. Borough Surveyor, Town Hall, Dewsbury.

JANUARY 14.—**Aberdeen.**—HOUSES.—For erection of four blocks of dwellings, each containing 48 tenements, for the T.C. Mr. J. Coutts, Housing Department, Town House, Aberdeen.

JANUARY 14.—**Buxton.**—CHIMNEY.—For the reconstruction of the hot baths chimney, The Crescent, for the T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton. Deposit £2 2s.

JANUARY 14.—**Edgerton.**—HOUSE.—Erection of detached house in Talbot-avenue. Messrs. Abbey & Hanson, architects, 11, Cloth Hall-street, Huddersfield.

JANUARY 14.—**Edmonton.**—REPAIRS.—For repairs, 12, Queen Anne's-place, Bush Hill Park, Branch Library, for the U.D.C. Mr. Cuthbert Brown, Engineer, Town Hall, Edmonton, N.9.

JANUARY 14.—**Exeter.**—HOUSES.—Erection of 45 houses, for the T.C. City Architect, 2, Southernhay West, Exeter. Deposit £2.

JANUARY 14.—**London, N.6.**—COTTAGES.—Erection of 100 cottages, together with drainage and fencing at Coppett's-road, Muswell-hill, for the Town Council of the Borough of Hornsey. Mr. E. J. Lovegrove, Borough Engineer and Surveyor, Town Hall, Highgate, N.6. Deposit £2.

JANUARY 14.—**Oldbury.**—HOUSES.—Erection of 20 non-parlour type houses in Queen's-road, for the U.D.C. Mr. Roland Fletcher, Surveyor, Public Buildings, Oldbury.

JANUARY 14.—**Pulborough.**—FENCING.—Provision and erection of fencing on Hatches Estate, West Chiltington, near Pulborough, for the West Sussex C.C. Director of Agriculture, Southgate House, Chichester.

JANUARY 14.—**Rawtenstall.**—HOUSES.—Erection of 48 houses, for the T.C. Mr. A. Brocklehurst, St. James's Chambers, Waterfoot. Deposit £3 3s.

JANUARY 14.—**Stourbridge.**—FIRE STATION, &C.—Erection of a new fire station and public conveniences, and the conversion of existing fire station into offices, "Smithfield," Stourbridge, for the T.C. Mr. Fredk. Woodward, Borough Surveyor, Market-street, Stourbridge. Deposit £2 2s.

JANUARY 14.—**Wandsworth, S.W.18.**—FOUNDATIONS.—Excavation and construction of concrete foundations for proposed extensions to the Town Hall, High-street, Wandsworth, for the Wandsworth Borough Council. Mr. E. J. Elford, M.Inst.C.E., Borough Engineer, 215, Balham High-road, S.W.17.

JANUARY 14.—**Willenhall.**—HOUSES.—Erection of 34 semi-detached parlour type houses on the Wolverhampton-road site, Portobello, for the U.D.C. Mr. G. A. Waite, Town Hall, Willenhall. Deposit £2.

JANUARY 14.—**Yoker.**—HOUSES.—Erection of 60 houses (2 blocks) at Yoker-road, Yoker, for the Renfrew C.C. Mr. Jas. A. M'Callum, District Clerk, 15, West George-street, Glasgow. Deposit £1 1s.

JANUARY 15.—**Aldershot.**—SHOP.—Demolition of existing building and erecting new shop in Union-street, for Mr. H. Uglow. Messrs. Friend & Lloyd, architects, Aldershot.

JANUARY 15.—**East Ardsley.**—PARTITION.—Erection of a folding partition at East Ardsley Council School. Education Department, County Hall, Wakefield.

JANUARY 15.—**Gateshead.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Gateshead, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JANUARY 15.—**Isle of Wight.**—HOUSES.—(1) Erection on Trafalgar Estate, Newport, I.W., of (*a*) one or more pairs of 12 pairs of semi-detached houses, "C" design; (*b*) one or more pairs of 12 pairs of smaller semi-detached houses, "D" design; or (*c*) one or more blocks of eight houses of three blocks of eight houses, "E" design. (2) For the construction and laying of drains: (*a*) to 12 pairs of semi-detached houses, or (*b*) to three blocks of eight houses, for the Council of the Borough of Newport. Borough Surveyor, Municipal Offices, 38, Quay-street, Newport, I.W.

JANUARY 15.—**Newport, Mon.**—TELEPHONE REPEATER STATION.—Erection of a telephone repeater station at Newport, Mon, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JANUARY 15.—**Stromness.**—HOUSES.—Erection of two blocks of three-apartment houses and four blocks of four-apartment houses, for the T.C. Mr. T. S. Peace, architect, Kirkwall. Deposit £1 1s.

JANUARY 15.—**West Bromwich.**—HOUSES.—Erection of 47 houses on Tantany Estate, for T.C. Mr. A. Wickham, Town Clerk, Town Hall, West Bromwich. Deposit £2 2s.

JANUARY 16.—**Camberwell.**—FENCE.—For supply and erection of pale oak or iron fence at Casino-avenue, for the B.C. Mr. W. Bell, Borough Surveyor, Town Hall, Camberwell.

JANUARY 16.—**Edmonton.**—PAINTING.—For the carrying out of painting works on various buildings and premises, for U.D.C. Mr. C. Brown, Engineer, Town Hall, Edmonton.

JANUARY 16.—**Liverpool.**—PAINTING.—For internal painting, &c., at Smithdown-road Institution, Liverpool, for the West Derby B.G. Works Department, Belmont-road Institution, Liverpool.

JANUARY 16.—**Margate.**—PAVILION.—Alterations and additions at the Palm Bay Bathing Pavilion, for the T.C. Mr. E. A. Borg, Borough Engineer, 13, Grosvenor-place, Margate. Deposit £2 2s.

JANUARY 16.—**Newcastle-on-Tyne.**—REPAIRS.—For carrying out (1) bricklayer, drainer, concretor, carpenter and joiner, plasterer, painter and glazier; (2) plumber and electrician; (3) slater and tiler, in connection with municipal houses on the Walker Estate for one year. Housing Architect, No. 16, Cloth Market, Newcastle.

JANUARY 16.—**Norwich.**—HOUSES.—For erection of 48 houses and non-parlour cottages on Mile Cross Housing Estate, for T.C. Mr. A. E. Collin, City Engineer, Guildhall, Norwich. Deposit £1 1s.

JANUARY 17.—**Brighouse.**—HOUSES.—For erection of 12 type "B3" houses in Smith House-lane, for T.C. Mr. P. T. Grove, Town Clerk, Municipal Offices, Brighouse.

JANUARY 17.—**Edmonton.**—HUT.—Erection of a galvanised iron hut, 60 ft. by 20 ft., on concrete and brick foundations, at Nassau House Special School, for the Edmonton and Enfield Joint Managers. Mr. F. G. Apthorpe, Education Offices, Elm House, Gentleman's-row, Enfield.

JANUARY 17.—**Kingswear.**—GARAGE.—Erection of garage. Mr. W. L. Fairweather, River View, Kingswear, Devon.

JANUARY 17.—**Salford.**—HOUSES AND FLATS.—Erection of 62 houses and flats on the Weaste Housing Estate, for the T.C. Mr. G. Westcott, architect, 13, Bridge-street, Manchester.

JANUARY 18.—**Bromley, Kent.**—HOUSES.—Erection of 50 Class "A" houses, in pairs, at various sites, for Bromley Rural District Council. Council's Architect, Mr. F. Danby Smith, F.R.I.B.A., Parliament Mansions, Victoria-street, Westminster, S.W.1. Deposit £2 in Treasury Notes to the Architect.

JANUARY 18.—**Eglwyswrw, Pem.**—HOUSE.—Erection of house. Mrs. Evans, Spite, Eglwyswrw.

JANUARY 18.—**Holbeck.**—PAINTING.—For painting the exterior of the Poor Law Institution, for the B.G. Mr. George Diment, Clerk, Poor Law Offices, Holbeck, Leeds.

JANUARY 18.—**Leeds.**—WAREHOUSE.—For erection of a four-story warehouse in Park-place. Messrs. J. H. Bakes & Son, architects, Calverley Chambers, Victoria-square, Leeds.

JANUARY 19.—**Cheltenham.**—PAINTING.—For painting part of Municipal Offices, for the T.C. Borough Engineer, Cheltenham.

JANUARY 19.—**Ipswich.**—REPAIRS.—For repairs to school buildings, for T.C. Mr. E. T. Johns, surveyor, 8, Lower Brook-street, Ipswich.

JANUARY 19.—**Irchester.**—HOUSES.—Erection of six houses, for the Irchester Industrial and Provident Co-operative Society, Ltd. Mr. E. A. Taylor, Managing Secretary, Irchester.

JANUARY 19.—**Nelson.**—HOUSES.—Erection of 19 houses of the non-parlour type in blocks as follows:—8 blocks of two and one block of three at the Marsden Park Housing site, for the Housing Committee of the Borough of Nelson. Borough Surveyor, Town Hall, Nelson. Deposit £2 2s. for each trade specification.

JANUARY 19.—**Perth.**—HOUSES.—Erection of five tenements of dwelling-houses, comprising 52 two and three apartment houses, for the T.C. Mr. Thomas M'Laren, Burgh Surveyor, 16, Tay-street, Perth. Deposit £1.

JANUARY 19.—**Rotherham.**—HOUSES.—For erection of 50 houses on Eastdene Estate, for T.C. Mr. C. A. Broadhead, Housing Architect, St. George's Hall, Rotherham. Deposit £2 2s.

JANUARY 19.—**St. Helens.**—ALTERATIONS.—For alterations and additions to Boundary-road Baths, for the T.C. Mr. Arthur W. Bradley, Borough Engineer, Town Hall, St. Helens. Deposit £2.

JANUARY 19.—**Stocksbridge.**—HOUSES.—Erection of 20 houses on the Shay House-lane site, for the U.D.C. Mr. J. N. Singleton, surveyor, Stocksbridge. Deposit £2.

JANUARY 19.—**Warrington.**—SCREENS.—For supply of manual instruction wood screens to various schools, for T.C. Mr. J. Moore Murray, Secretary Education Office, Sankey-street, Warrington.

JANUARY 21.—**Bury St. Edmunds.**—HOUSES.—Erection of four houses in Mustow-street, for the T.C. Mr. Roland H. Beaumont, Borough Surveyor, Town Hall, Bury St. Edmunds. Deposit £2 2s.

JANUARY 21.—**Hastings.**—STEEL CONSTRUCTIONAL BUILDINGS, &C.—Steel constructional buildings, steel plate coal bunkers and chutes, reinforced concrete pond and plant foundations required for the Electrical Department by the County Borough Council of Hastings. Borough Electrical Engineer, 20, South-terrace, Hastings.

JANUARY 21.—**Reigate.**—NEW LAUNDRY AND EXTENSION OF BOILER HOUSE.—Erection of a new laundry and extension of the boiler house at the Guardians' Institution, Earlswood, for the Reigate B.G. Mr. O. J. Porter, F.S.I., 45, Bedford-row, W.C. 1. Deposit £2 2s.

✱JANUARY 21.—**Southend-on-Sea.**—HOUSES.—Erection and completion of 66 houses, comprising 26 parlour type and 40 non-parlour type, in the following blocks:—One block of 2 houses, 1 block of 3 houses, 6 blocks of 4 houses, 5 blocks of 6 houses, 1 block of 7 houses, for the Corporation of Southend-on-Sea. Mr. Robert H. Dyer, Borough Engineer, Municipal Building, Southend-on-Sea. Deposit £2.

JANUARY 22.—**Bute.**—HOUSES.—(1) Erection of house on Kerrycrusach Farm, County of Bute, 2½ miles from Rothesay, and (2) house on Goltans Farm, 2 miles from Rothesay. Chief Surveyor, Board of Agriculture for Scotland, Edinburgh. Deposit £1 1s.

✱JANUARY 22.—**London, E.**—PAVING, &C.—For taking up and relaying certain wood-block paving and incidental work in connection therewith to a portion of roadway at the Hospital, Bancroft-road, for the Guardians of the Poor of the Hamlet of Mile End Old Town. Mr. Edmund J. Harrison, Lic.R.I.B.A., 23, Berkeley-road, Crouch End, N.8. Deposit £2.

JANUARY 22.—**Southall-Norwood.**—HOSPITAL, CUBICLE BLOCK, STABLES, COTTAGES.—(*a*) The erection of an eight-bed cubicle block at the Sanatorium, North-road, Southall; (*b*) the erection of a depot, stables and cottages at Adelaide Dock, Endsleigh-road, Southall, for the Southall-Norwood Urban District Council. Mr. J. B. Thomson, Assoc. M.Inst.C.E., &c., Engineer and Surveyor to the Council, Town Hall, Southall, at my office, between 10 and 4 p.m. (Saturdays 10 and noon).

JANUARY 23.—**East Elloe.**—COTTAGES.—For the erection of 5 pairs of cottages in Whaplode Village, 4 pairs in Gedney Fen (Bells Bridge), and 2 pairs in Sutton St. James (Birds Drove), for the R.D.C. Mr. S. S. Mossop, Jun., Clerk, West End, Holbeach.

JANUARY 23.—**Hackney.**—PAINTING.—For painting exterior public baths, Lower Clapton-road, for the B.C. Mr. Norman Scorgie, Borough Engineer, Town Hall, Hackney, E. 8. Deposit £1 1s.

JANUARY 23.—**Worthing.**—PAVILION.—Erection of a sports pavilion at Beach House Park, Worthing, for the Borough Council. Borough Surveyor, Municipal Offices, Worthing. Deposit £1 1s.

JANUARY 24.—**Camberwell.**—FLOORS.—For taking up and relaying sectional wood flooring, including platforms, barriers, joists, cradles, sills, &c., over the Swimming Baths at the various Public Baths of the B.C. Mr. William Bell, Borough Engineer, Town Hall, Camberwell, S.E.5.

JANUARY 24.—**Liverpool.**—TENEMENT DWELLINGS.—Erection of six tenement dwellings on the St. Augustine-street frontage of the Blenheim-street site, for the Housing Committee of the City of Liverpool. Director of Housing, Municipal Buildings, Dale-street, Liverpool. Deposit £2 2s.

✱JANUARY 24.—**London, S.W.2.**—REPAIRS AND DECORATIONS.—Repairs and decorations to the Librarian's residence at the Tate (South Lambeth) Library, South Lambeth-road, S.W. 8, for the Metropolitan Borough Council of Lambeth. Mr. Osmond Cattlin, Borough Engineer, Town Hall, Brixton-hill, S.W. 2.

JANUARY 24.—**Ystradgynlais.**—HOUSE.—For erection of dwelling-house at Ystradgynlais (Glam). Mr. T. W. Thomas, 4, Canolrhiw Villas, Brecon-road, Ystradgynlais.

JANUARY 25.—**Richmond, Surrey.**—COTTAGES.—Erection of eight cottages in Darell-road and two in Dancer-road, for the B.C. Borough Surveyor, Town Hall, Richmond, Surrey. Deposit 10s. 6d.

JANUARY 26.—**Barnstaple.**—HOUSES.—For the erection of 13 houses on the Newport Housing Site, for the T.C. Borough Surveyor, The Strand, Barnstaple. Deposit £3 3s.

JANUARY 26.—**Exminster.**—OPERATING THEATRE.—Erection of an operating theatre at the Devon Mental Hospital. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter. Deposit £3.

JANUARY 26.—**Ilfracombe.**—ALTERATIONS.—For new cells and alterations and additions to Ilfracombe Police Station, for the Devon C.C. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter. Deposit £3.

✱JANUARY 26.—**Marylebone, W.1.**—SUNDRY REPAIRS, PAINTING, CLEANSING, &C.—Execution of sundry repairs, painting, cleansing and other work at the St. Marylebone Home, 1, Northumberland-street, W.1, for the Board of Guardians of St. Marylebone. Messrs. Constantine & Vernon, architects, 82, Mortimer-street, W.1, between the hours of 10 a.m. and 5 p.m. on January 7, 8, 9, 10, and 11. Deposit £1 (Treasury Note) to architects.

✱JANUARY 28.—**Guildford.**—HOUSES.—Erection of alternative types of non-parlour houses as follows:—twelve houses on the West Horsley site, six houses on the Peaslake site, in the parish of Shere, six houses on the Pathfield site, in the parish of Shere, for the Guildford Rural District Council. Mr. John Anstee, Council Offices, Commercial-road, Guildford. Deposit £2 2s.

JANUARY 28.—**London, S.E.1.**—HOUSES AND ROADS.—Development of a portion of the new Downham housing estate at Grove Park, Lewisham, S.E.: (1) Construction of roads, sewers and other works; (2) the erection of houses and such other buildings as may be determined. Tenders are invited on two alternative bases—(*a*) on the basis of the Council bearing the actual cost of and financing the undertaking and paying a fee or commission to the contractor for his services, the amount of such fee or commission being dependent partly upon a comparison or cost with a pre-determined value for the London County Council. Administrator of Housing Development Schemes, Old County Hall, Spring-gardens, S.W.1, upon payment of £10.

JANUARY 28.—**Whittingham.**—COTTAGES, &C.—For erection of 15 pairs of parlour cottages near Mental Hospital, and construction of 450 yds. of roads, &c., for Committee of Visitors for County Mental Hospital. Mr. E. J. Andrew, 33, Winckley-square, Preston. Deposit £1 1s.

JANUARY 28.—**Tendring.**—COTTAGES.—Erection of cottages in the parishes of Ardleigh, Lawford and Tendring, for the Tendring R.D.C. Mr. F. G. Vincent-Cowen, Cliff-road, Dovercourt Bay. Deposit 10s.

JANUARY 29.— **Consett.**— HOUSES. — Erection of 12 pages houses, to be in blocks of two, four, six and eight. Tenders for 50, 100 and 150 of such, for the U.D.C. Mr. Frank A. Coyle, Architect, 29, Newmarket-street, Consett. Deposit £2 2s.

JANUARY 29.—**Ebbw Vale (Mon).**—NEW STATION BUILDINGS.—For erecting, for the G.W.R Co. at Ebbw Vale (Mon), of new station buildings. Office of the Engineer, Newport (Mon), G.W.R. Station.

✱JANUARY 29.—**Enfield.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Enfield, for the Commissioners of His Majesty's Offices of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

✱JANUARY 30.—**Brentwood, Essex.**—BALCONY AND VERANDAH.—Erection of a balcony and verandah to the existing building at High Wood Hospital for children, Ongar-road, Brentwood, Essex, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱JANUARY 30.—**London, N. 21.**—WOOD BLOCK FLOORING.—Screeding and relaying a floor with new wood blocks at the Northern Fever Hospital, Winchmore Hill, N. 21, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

✱JANUARY 30.—**London, N.W. 5.**—CLEANING AND PAINTING.—Cleaning and painting at St. Margaret's Hospital, Leighton-road, Kentish Town, N.W. 5, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

JANUARY 31.—**Hemel Hempstead.**—COTTAGES.—Erection of 24 cottages (in sections of 12), for the Borough of Hemel Hempstead. Mr. Walter R. Locke, Borough Engineer and Surveyor, Market-square, Hemel Hempstead. Deposit £1.

JANUARY 31.—**Newport, Pembroke.**—PAINTING.—For the renovation of the Bethlehem Baptist Chapel. T. J. Harris, "Penfeeder," Newport, Pem.

FEBRUARY 1.—**Burlingham.**—REPAIRS, &C.—For repairing and repairing the farm buildings at Perowne's Farm, Jary's Estate, Newport Farm and Lodge Farm, Burlingham Estate, for the Norfolk C.C. Small Holdings Committee. Mr. Victor Playle, County Land Agent, Fakenham, Norwich. Deposit £1 1s.

✱FEBRUARY 1.—**Swansea.**—SCHOOL.—Erection of a new elementary school for 1,308 scholars on the Town-hill Estate, Swansea, for the Education Committee of the County Borough of Swansea. Mr. Ernest E. Morgan, Borough Architect, 3, Prospect-place, Swansea. Deposit £5 5s.

FEBRUARY 2.—**London, S.E. 18.**—EXTENSION.—For proposed extension of premises, for the Committee of the Woolwich Catholic Club. The Secretary, Woolwich Catholic Club, 28–30, New-road, Woolwich, S.E. 18.

FEBRUARY 9.—**Ashford.**—SHEDDING, &C.—For erecting shedding, offices, stands, and other works for the Agricultural Show to be held at Ashford on July 10, 11 and 12, for the Kent County Agricultural Society. Major R. J. Bacon, secretary, Otham, Maidstone.

✱FEBRUARY 26.—**London, E.3.**—BUILDING ADDITIONS, &c.—Building of a nurses' dining-room, alterations and additions, and redecorations at St. Andrew's Hospital, Devon's-road, Bow, E.3, for the Managers of the Poplar and Stepney Sick Asylum District, St. Andrew's Hospital. Messrs. Andrews & Peascod, architects, 135, Bow-road, E.3. Deposit £3.

NO DATE.—**Hull.**—DEMOLITION.—Hull Corporation invite tenders for the demolition of the St. John's Church, Victoria-square, Hull. Applications to Mr. A. Learoyd, Town Clerk.

NO DATE.—**Lindley.**—HOUSES.—For erection of two houses at Lindley. Mr. J. Ainley, architect, 3, Chapel-hill, Huddersfield.

NO DATE.—**Lockwood.**—HOUSE.—Erection of detached house in Woodside-road. Mr. J. Ainley, architect, 3, Chapel-hill, Huddersfield.

NO DATE.—**St. David's (Pembroke).**—PLASTERING.—For the whole of internal and external plastering in connection with the new vicarage at Puncheston. Mr. Edwin G. Thomas, builder, St. David's.

✱NO DATE.—Erection of several bungalows (small type). Only builders need reply who can refer to recent satisfactory work. Box 286, Office of *The Builder*.

FURNITURE, MATERIALS, etc.

JANUARY 12.—**Driffield.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. T. C. Beaumont, Surveyor, Driffield.

JANUARY 12.—**Stockton-on-Tees.**—STORES.—Supply of stores to the Stockton-on-Tees and Thornaby Joint Corporation Tramways. Manager, Bridge-road, Stockton-on-Tees.

JANUARY 14.—**Huddersfield.**—TIMBER.—Supply of creosoted open pale fencing to the T.C. Borough Engineer, 1, Peel-street, Huddersfield.

JANUARY 14.—**Silsden.**—RETORTS, &C.—Supply of retorts, fireclay goods and silica goods to the U.D.C. Mr. M. Driver, Gas Works, Silsden.

JANUARY 14. — **South Stoneham.**—MATERIALS.—Supply of broken stone to the R.D.C. Mr. W. R. Powell, Surveyor, Council Offices, West End, Hants.

JANUARY 16.—**Cardiff.**—FURNITURE.—For furniture for new Infants' Hospital block at Cardiff Workhouse, for the Board of Guardians. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

JANUARY 16.—**Dorchester.**—MATERIALS.—Supply of flar macadam, limestone, granite, tar, &c., to the Dorset C.C. Mr. W. T. Fletcher, County Surveyor, Dorchester.

JANUARY 19.—**Manchester.**—GRANITE SETS.—Supply of granite sets to the T.C. Paving, &c., Department, Town Hall, Manchester.

JANUARY 21.—**Chichester.**—MATERIALS.—Supply of flar and road materials to the T.C. Mr. F. J. Lobley, City Engineer, Chichester.

JANUARY 21.—**Darlaston.**—FILTERING MEDIUM.—Supply of 6,400 cu. yds. of cold blast slag or granite filtering medium, delivered on the Sewage Works, for the U.D.C. Messrs. Dodd, Dodd & Watson, County Chambers, Corporation-street, Birmingham. Deposit £1.

JANUARY 21.—**Egypt.**—STORES.—Supply of stores for one year to the Ports and Lights Administration. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 12,046–F.E.–G.P.

JANUARY 21.—**Newton Abbot.**—MATERIALS.—Supply of refined tar, surface dressing, ripping and breaking stones, and gravel and sand, to the Devon C.C. Mr. Andrew Warren, County Surveyor, Avenue-road, Newton Abbot.

JANUARY 21.—**Wandsworth.**—MATERIALS.—Supply of materials and execution of works, for the B.C. Mr. D. A. Nicholl, Town Clerk, Council House, Wandsworth, S.W. 18.

JANUARY 21.—**Warrington.**—FIRE HOSE.—Supply of 10 No. 25 yds. lengths of best quality flax canvas 2½ in. dia. fire hose to the T.C. Mr. Andrew M. Ker, Borough Engineer, Warrington.

JANUARY 22.—**Lincoln.**—MATERIALS.—Supply of tarred macadam, broken stone and slag, and hire of steam rollers to the Lindsey C.C. Mr. A. G. Bradshaw, County Surveyor, Newland House, Lincoln.

JANUARY 22.—**Worthing.**—REFINED TAR.—For supply of 50,000 galls. of refined tar, for T.C. Borough Surveyor, Municipal Offices, Worthing.

✱JANUARY 23.—**Chelsea, S.W.3.**—STORES, &c.—Supply and execution of various articles and works, the contract period being from April 1 next to March 31, 1925, unless otherwise stated, for the Metropolitan Borough of Chelsea. Mr. W. R. Manning, Acting Borough Surveyor. And contracts for stationery, coal, coke, winding and timing clocks, and tailoring from the Town Clerk, Town Hall, King's-road, Chelsea, S.W.3.

JANUARY 23.—**London.**—POLISHES.—Supply to the Commissioners of H.M. Works, &c.: (1) Liquid metal polish; (2) floor polish, &c. Controller of Supplies, H.M. Office of Works, &c., King Charles-street, S.W. 1.

JANUARY 23.—**Madras.**—PIPES.—Supply of stoneware pipes and specials, ranging from 4 in. to 18 in. diameter, and aggregating a total length of 400,000 lineal ft., for the T.C. Messrs. James Mansergh & Sons, agents, 5, Victoria-street, S.W. Charge 5s.

JANUARY 24.—**Bermondsey.**—MATERIALS.—Supply of stoneware conduits, meters, wiring accessories, engine oils, &c., to the Electricity Department. Borough Electrical Engineer, Town Hall, Bermondsey, S.E.

JANUARY 24.—**Egypt.**—STORES.—Supply of stores for one year to the Dept. of Public Health. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 12,038–F.E.–G.P.

JANUARY 26.—**Chelmsford.**—MATERIALS.—Supply to the Highways Committee of the Essex C.C. stoneware pipes, distilled tar, broken granite, tarred slag, and lubricating oil. Mr. Wm. H. Morgan, County Surveyor, Old Court, Chelmsford.

JANUARY 26.—**Northallerton.**—MATERIALS.—Supply to the North Riding of Yorkshire C.C. of roadstone, tar and bituminous mixtures, oils and grease, &c. County Surveyor, County Hall, Northallerton.

JANUARY 28.—**Camberwell.**—MATERIALS.—Supply of road and other materials, &c. Borough Engineer, Town Hall, Camberwell.

JANUARY 28.—**Uckfield.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. E. W. Ray-Johnson, surveyor, Buxted, Sussex.

JANUARY 29.—**Bermondsey.**—MATERIALS.—Supply of road and other materials for six months to the B.C. Mr. F. Ryall, Town Clerk, Town Hall, Bermondsey, S.E.

JANUARY 30.—**Ashford.**—TAR.—Supply of 20,000 gallons of No. 1 dehydrated coal gas tar, and similar preparations, for tarpainting roads, to the U.D.C. Mr. Wm. Terrill, Surveyor, 5, North-street, Ashford, Kent.

JANUARY 30.—**Islington.**—MATERIALS.—For electrical and engineers' stores, for the B.C. Borough Electrical Engineer, 60, Eden-grove, Islington, N.

FEBRUARY 1.—**Folkestone.**—MATERIALS.—For the supply of brooms and brushes, cast-iron goods, glass, iron and ironmongery, oils, paint, varnish, &c., Portland cement and timber, to the T.C. Mr. A. E. Nichols, Borough Engineer, Municipal Offices, Folkestone.

FEBRUARY 1.—**Hatfield.**—MATERIALS.—Supply of granite, slag and tar macadam, for the Herts C.C. Mr. A. E. Prescott, County Surveyor, Hatfield.

FEBRUARY 7.—**Wisbech.**—ROAD MATERIALS.—Supply of broken granite, slag and tar macadam to the Isle of Ely C.C. Mr. H. Farr Simpson, County Surveyor, Wisbech.

FEBRUARY 13.—**Middlesex.**—ROAD MATERIALS.—Supply of granite, tarred slag and granite chippings to the Middlesex C.C. Mr. A. Dryland, County Engineer, Middlesex Guildhall, Westminster, S.W.1.

FEBRUARY 29.—**Canterbury.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. P. H. Warwick, City Surveyor, Canterbury.

NO DATE. — **Blyth.**—BENCHES, &C.—Supply of benches and tools for a manual instruction centre. Mr. Fred Mitchell, Director of Education, Blyth.

ENGINEERING, IRON AND STEEL.

JANUARY 14.—**Dreghorn.**—ELECTRIC LIGHTING.—Electric lighting for 10 houses at Dreghorn, for the Ayrshire C.C. Northern District Committee. Messrs. J. & J. Armour, Irvine.

JANUARY 14.—**Ebbw Vale.**—SUPPLY OF MOTOR LORRY.—For supply to U.D.C. of a motor lorry, two tons, with body suitable for sanitary scavenging work. Mr. W. A. Jones, U.D.C. Offices, Ebbw Vale.

JANUARY 14.—**Hull.**—PIPES.—Supply of 3,600 tons of 24 in., 25 in., and 36 in. cast-iron pipes and specials to the T.C. Mr. C. B. Newton, City Water Engineer, Hull.

JANUARY 14. — **Ynysybwl (Glam).** — FOOTBALL FIELD.—For making of a football field on the Recreation Ground, Ynysybwl, work to include approximately 4,000 cu. yards of excavation, in connection with the local Welfare scheme. Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash.

JANUARY 15.—**Birmingham.**—ELECTRIC LIGHTING.—For the installation of electric lighting in the houses erected, or to be erected, on the following Corporation housing estates: York and Cateswell-roads, Hall Green, 68; Gipsy-lane and Brookvale-road, Upper Witton, 104; Mayfield-road, Tyseley, 44. Mr. E. J. Jennings, Secretary, 14, Dale End, Birmingham. Deposit £1 1s.

JANUARY 15.—**Goole.**—FENCING.—For supply of 323 lineal yards of galvanised corrugated iron fencing. Mr. J. H. Castle, Surveyor, Council Offices, Goole.

JANUARY 15.—**Toronto.**—SLUDGE PUMP.—Supply and erection at main sewage pumping station of centrifugal sludge pump, for the T.C. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 12614/ED/EC/2.

JANUARY 16. — **Glasgow.** — REFUSE DISPOSAL WORKS.—Tenders and designs for proposed refuse disposal works at Govan, Glasgow. Mr. W. Greig, Superintendent of Cleansing, 20, Trongate, Glasgow.

JANUARY 16.—**Keighley.**—IRONWORK.—For supply of ironwork for valve well, filter-beds, &c., for the T.C. Mr. M. Ratcliffe Barnett, Town Hall, Keighley.

JANUARY 16.—**Liverpool.**—BOILER REMOVAL.—For the removal of a steam boiler from Belmont-road Institution to the Cottage Homes, Fazakerley, and for fitting and refitting in connection therewith, for the B.G. Clerk, Union Offices, Broughton-terrace, West Derby-road, Liverpool.

JANUARY 16.—**Stoke-on-Trent.**—CRANE.—Fifty-ton electrically-driven overhead travelling crane. Borough Electrical Engineer, Stoke-on-Trent. Deposit £2.

JANUARY 17.—**New Zealand.**—**PIPES, &C.**—Supply of 10 in., 12 in., and 21 in. steel pipes and fittings, for the Orongorongo-Karori Water Main. Department of Overseas Trade, 35, Old Queen-street, S.W.1.

JANUARY 18.—**Great Yarmouth.**—LORRIES.—Supply to the T.C. of (a) one-ton Ford lorry, and (b) a three-ton petrol lorry, both for the collection of house refuse. Mr. S. P. Thompson, Borough Engineer, Great Yarmouth.

JANUARY 18.—**Haywards Heath.**—FILTERS.—Supply and erection of five mechanical filters, for the Mid-Sussex Joint Water Board. Mr. Francis Martin, Engineer, Waterworks Offices, Boltro-road, Haywards Heath. Deposit £3 3s.

JANUARY 18.—**Haywards Heath.**—PIPES.—Supply to the Mid-Sussex Joint Water Board of 1,750 tons of cast-iron socket pipes and specials. Mr. F. Martin, Engineer, Waterworks Offices, Boltro-road, Haywards Heath. Deposit £2 2s.

JANUARY 18.—**Haywards Heath.**—PUMPING PLANT.—Supply to the Mid-Sussex Joint Water Board of duplicate pumping plant. Mr. Francis Martin, Engineer, Waterworks Offices, Boltro-road, Haywards Heath. Deposit £3 3s.

JANUARY 19—**Aberdeen.**—TRAMWAY MATERIAL.—Supply of rails and other tramway material to the T.C. Mr. John Gordon, Burgh Surveyor, Town House, Aberdeen.

JANUARY 19.—**Depwade.**—HEATING, &C.—Supply of steel vertical boiler, horizontal semi-Diesel oil engine, dynamo and motors and accumulators, wiring for power and lighting, supply and fixing apparatus for hot-water heating and domestic hot-water supply, at the Poor Law Institution. Vulcan Boiler & General Insurance Co., Ltd., 67, King-street, Manchester. Deposit £1 1s. each for five sections.

JANUARY 19.—**Edinburgh.**—LATHE.—Supply to car repair works of a heavy pattern tramcar wheel lathe, complete with continuous current motor and equipment, for the T.C. Tramways Manager, 2, St. James'-square, Edinburgh.

JANUARY 19.—**Manchester.**—BOILER.—Supply, at the Ardwick Public Wash-house, of Lancashire boiler, 20 ft. × 8 ft., to work at 100 lb. pressure, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

JANUARY 19.—**Manchester.**—LAUNDRY PLANT.—Supply, at the Ardwick Public Wash-house, of wash-stalls, hydro extractors, drying horses, with heater, fan, &c., for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

JANUARY 21.—**Croydon.**—COOKING APPARATUS.—Supply and installation at Mayday-road Hospital of (*a*) one double-deck drawplate steam pipe oven in brickwork, and (*b*) two separate vegetable steamers or one double steamer, for the Board of Guardians. Steward, Hospital, Mayday-road, Thornton Heath.

JANUARY 21.—**Hastings.**—VARIOUS WORKS.—Erection of steel constructional buildings, steel plate coal bunkers and chutes, reinforced concrete pond and plant foundations, for the T.C. Borough Electrical Engineer, 20, South-terrace, Hastings.

JANUARY 21.—**Pontypool.**—BOILER SEATING.—Provision of a boiler seating for a 22 ft. by 7 ft. Lancashire boiler, for the Board of Guardians. Mr. T. P. H. Watkins, Clerk, Union Offices, Pontypool. Deposit £3 3s.

JANUARY 21.—**Pontypool.**—LANCASHIRE BOILER.—For provision and installation of a Lancashire boiler, 22 ft. long by 7 ft. diameter, for 120 lb. working pressure, for the Pontypool Board of Guardians. Mr. T. P. H. Watkins, Clerk to the Guardians, Union Offices, Pontypool. Deposit £3 3s.

JANUARY 22.—**Prestwich.**—FENCING.—For supplying and fixing 265 yds. of iron unclimbable fencing, for the U.D.C. Mr. M. A. Piercy, Surveyor, Town Hall, Prestwich.

JANUARY 23.—**Lanchester.**—HEATING.—For the extension of the heating scheme at the Poor Law Institution, for the Board of Guardians. Mr. J. J. S. Barker, Clerk, Lanchester, Durham.

JANUARY 23.—**Wood Green.**—FENCING.—For supplying and fixing about 1,250 yds. of wrought-iron unclimbable fencing, with gates, &c., for the U.D.C. Mr. C. H. Croxford, Town Hall, Wood Green, N. Deposit £1 1s.

JANUARY 25.—**Newcastle-upon-Tyne.**—DERRICKS.—Supply to the Tyne Improvement Commission of three 2½ tons lattice steel derricks, fitted with electric winches. Mr. Albert Blacklock, Secretary, Bewick-street, Newcastle-upon-Tyne. Deposit £2 2s.

JANUARY 28.—**Ecuador.**—CUSTOMS HOUSE, &c.—The date for tenders for the construction of the new Custom house and wharf at Guayaquil, Ecuador, has been extended to January 28. Consulate-General, 23, College-hill, E.C.4.

JANUARY 28.—**Glasgow.**—QUAY.—For the construction of about 1,928 lineal yards of concrete quay wall forming Dock No. 1 Shieldhall, Glasgow Harbour, for the Trustees of the Clyde Navigation. Mr. T. R. Mackenzie, General Manager, 16, Robertson-street, Glasgow. Deposit £10.

JANUARY 29.—**London.**—GIRDERS.—Supply to Director-General, India Store Department, of girders. Branch 15, Belvedere-road, S.E.

FEBRUARY 4.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland of steelwork for canal footbridge, Maynooth. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

FEBRUARY 5.—**Egypt.**—PUMPING PLANT.—For supply and erection of a pumping plant to replace an existing steam plant at Qussassin. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, S.W.1. Charge 10s.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.—Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.—For engine and pumping plant, for the U.D.C. Mr. S. W. Parker, Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

FEBRUARY 18.—**Bristol.**—ELEVATOR.—For the construction of a floating pneumatic grain elevator, to handle 150 tons per hour, at the Avonmouth Docks, for the Docks Committee. Mr. T. A. Peace, Engineer, Port of Bristol. Deposit £5.

MARCH 1.—**Jamaica.**—DAM.—For the construction of a cyclopean masonry dam and contingent works required in connection with the extension of the Kingston and St. Andrews Water Works. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.

MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £10 10s.

MAY 1.—**China.**—BRIDGE.—The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.

NO DATE.—**Cross Keys (Mon).**—DRIVAGE.—For driving of a drift about 650 yards long, 10 ft. by 7 ft. in the clear and at a gradient of 6 in. per yard, for the United National Collieries, Ltd. Agent, Offices of the Company, Cross Keys, Mon.

NO DATE.—**Salford.**—SIDINGS.—For the construction of railway sidings, for the Gas Committee of the T.C. Gas Engineer, Gas Offices, Bloom-street, Salford.

ROAD, SANITARY, AND WATER WORKS.

JANUARY 14.—**Cheddar.**—GAS MAIN.—Supply and laying of a 3-in. cast-iron gas pipe about ¼ mile, in Cliff-street, for the Cheddar Gas Co. Mr. R. Channon, Glendale, Cheddar.

JANUARY 14.—**Doncaster.**—ASPHALTING.—For asphalting playground at Doncaster Grammar School. Education Department, County Hall, Wakefield.

JANUARY 14.—**Hemel Hempstead.**—WATER MAIN.—Provision and laying of 550 yds. of 4 in. cast-iron water main at Markyate, for the R.D.C. Mr. T. H. Lighbody, 16, Alexandra-road, Hemel Hempstead.

JANUARY 14.—**Huddersfield.**—FENCING.—For supply of creosoted open pale fencing to Wakefield-road, for T.C. Borough Engineer, 1, Peel-street, Huddersfield.

JANUARY 14.—**Islington.**—ROADS.—For repaving with granite setts on a new foundation of reinforced concrete the carriageway of Wharfedale-road, for the B.C. Borough Engineer, Municipal Offices, Tyndale-place, N.1.

JANUARY 14.—**London, S.E.**—WATER SERVICE.—Laying of a new 2-in. water service at Castlewood, Shooter's-hill, S.E., for the London County Council. Chief Officer of the Parks Department, County Hall, Westminster Bridge, S.E.1.

JANUARY 14.—**Maldon.**—ROADS.—For the widening and extension of the Marine-parade, for the T.C. Borough Engineer, Municipal Offices, Maldon. Deposit £2 2s.

JANUARY 14.—**Mitcham.**—ROADS.—For making up Ashbourne-road, for the U.D.C. Surveyor, Broadway House, London-road, Mitcham.

JANUARY 14.—**Tipton.**—ROADS, &c.—For carrying out of sewerage, road widenings and improvements, new roads and sewers, and other work, for the U.D.C. Mr. Wm. H. Jukes, Surveyor, Public Offices, Tipton. Deposit £3 3s.

JANUARY 15.—**Bingley Harden.**—ASPHALTING.—For tar asphalting playgrounds at Council School. Education Department, County Hall, Wakefield.

JANUARY 15.—**Dover.**—ROADS.—For making up Brookfield-avenue, for the T.C. Borough Engineer, Dover.

JANUARY 15.—**Frinton.**—ROADS.—For street improvement works in Pole Barn-lane, for the U.D.C. Surveyor, Council House, Frinton-on-Sea.

JANUARY 15.—**Swinton.**—SEWER.—Construction of earthenware pipe sewer and surface water drain, and works at housing site, for the U.D.C. Mr. H. Birks, Surveyor, Council Offices, Swinton.

JANUARY 16.—**Ashburton.**—WATER MAINS.—For work of laying water mains, &c., for the U.D.C. Mr. F. A. Steer, Surveyor, 3, West-street, Ashburton, Devon. Deposit £1 1s.

JANUARY 16.—**Fulham.**—ROADS.—For making up section 1 of Daisy-lane, for the B.C. Mr. A. F. Holden, Borough Surveyor, Town Hall, Fulham.

JANUARY 16.—**Glamorgan.**—IMPROVEMENTS.—For improvement of main road, including reconstruction of bridge over Glamorganshire Canal, for C.C. Mr. W. E. R. Allen, Glamorgan County Hall, Cardiff.

JANUARY 16.—**Twickenham.**—ROADS.—For widening and making up Whitton-road, for the U.D.C. Mr. F. W. Pearce, Surveyor, Town Hall, Twickenham. Deposit £1 1s.

JANUARY 16.—**Twickenham.**—ROADS.—For making up seven roads, for the U.D.C. Mr. F. W. Pearce, Surveyor, Town Hall, Twickenham. Deposit £1 1s.

JANUARY 17.—**Nantwich.**—WATER PIPES.—For laying and jointing cast-iron water mains, &c., in Haslington, for R.D.C. Mr. H. Crabtree, engineer, 1, Dysart Buildings, Nantwich.

JANUARY 18.—**Burntisland.**—PLUMBING, &c.—For plumber and gas fitter works of five blocks of houses on the Haugh site, for T.C. Mr. J. A. Waddell, Burgh Surveyor, Burntisland.

JANUARY 19.—**Edinburgh.**—PAVING.—For laying smooth bitumastic paving along tramway track in Seafield-road, for T.C. Tramways Manager, 2, St. James'-square, Edinburgh.

JANUARY 19.—**Falmouth.**—SEWERAGE WORKS.—For laying 4,340 ft. of 21 in. concrete tubes, &c., construction of storage tank, &c., and cast-iron sea outfall, for the T.C. Mr. G. Midgley Taylor, 36, Victoria-street, S.W. Deposit £5 5s.

JANUARY 19.—**Manchester.**—SEWERS.—Construction of main drainage work, for the T.C. City Engineer, Town Hall, Manchester. Deposit £10 10s.

JANUARY 21.—**Anglesey.**—ROAD.—Reconstruction of approximately 12 miles of the main road from Amlwch to Llangefni, for the C.C. Mr. W. E. Jones, County Surveyor, Graig, Llanfair P.G., Anglesey. Deposit £3 3s.

JANUARY 21.—**Gleneagles.**—ROADS.—Construction of new roads at Gleneagles, for the London, Midland and Scottish Railway Company. Divisional Engineer, Buchanan-street Station, Glasgow. Deposit £2 2s.

JANUARY 21.—**Heywood.**—WATER MAINS.—Laying of 5 miles of 4 in. to 12 in. cast-iron water mains in Heywood, Middleton, and Chadderton, for the Water Board. Messrs. James Diggle & Son, civil engineers, 14, Brown-street, Manchester. Deposit £3 3s.

JANUARY 21.—**Southport.**—TRAMWAY TRACK, &c.—Construction of tramway routes of about 1,600 yards; also the reconstruction with concrete and bituminous asphalte of the carriageways, &c., for the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £3 3s.

JANUARY 21.—**Taunton.**—SEWAGE WORKS.—For reconstruction of sewage disposal works for the T.C. Mr. I. F. Shellard, Borough Engineer, Taunton. Deposit £3 3s.

JANUARY 22.—**Coulsdon.**—ROADS.—For making up Purley Oaks-road, for the U.D.C. Mr. R. Chart, Surveyor, Council Offices, Purley. Deposit £2 2s.

JANUARY 23.—**Chipping Norton.**—WATER WORKS.—For providing and laying about 541 lineal yds. of 2 in. cast-iron water main and specials, for the T.C. Mr. R. Stanton, Borough Surveyor, Chipping Norton.

JANUARY 23.—**Truro.**—WATER SCHEME.—Construction of cast-iron water mains, brickwork tanks, the repair of a water wheel, the supply and erection of a pump, &c., in connection with the water supply of St. Agnes, for the R.D.C. Mr. Coulter Hancock, Clerk, 12, Princes-street, Truro.

JANUARY 23.—**Wood Green.**—ROADS.—For works of private street improvements in King's-mews, for the U.D.C. Surveyor, Town Hall, Wood Green, N.22. Deposit £1 1s.

JANUARY 24.—**Ely.**—SERVICE CONNECTIONS.—For approximately 1,000 house service connections, from the main to the property line as follows: (7) excavating and refilling trenches for service pipes; (8) providing and laying lead and galvanised iron service pipes, for the R.D.C. Mr. F. W. Green, Clerk, Council Offices, 11, Lynn-road, Ely, Cambs.

JANUARY 26.—**Morley.**—ROADS.—For the surfacing of verges with red shale, planting of privets, and other incidental work on Victoria-road housing site, for the T.C. Mr. F. Turner, Borough Engineer, Town Hall, Morley.

JANUARY 26.—**Pembroke.**—ROAD MATERIALS, &c.—For supply to the Pembroke R.D.C., for a period of one year from April 1 next, of all the materials requisite for the maintenance of the highways in twenty-eight different parishes. Separate quotation of each parish. Also for supply on hire system of steam rollers and team labour, &c., and steam coal during the same period. Mr. F. S. Jones, Clerk to the Council, Main-street, Pembroke.

JANUARY 28.—**Alnwick.**—WATER MAINS.—For providing and laying 3,675 yds. of 4 in. cast-iron socket pipes along the road from Hawkhill to Alnmouth, for the R.D.C. Clerk, 24, Fonkle-street, Alnwick.

JANUARY 28.—**Amsterdam.**—PAVING.—For carrying out of about 150,000 super meters of asphaltic or other noiseless paving on foundation. Chief Engineer of Public Works, Paving Department, Town Hall, Amsterdam. Deposit £2 2s.

JANUARY 28.—**London, S.E.1.**—ROADS.—Completion of the carriageways and footways of certain roads on the Roehampton Housing Estate, Putney, in the Metropolitan Borough of Wandsworth, comprising surfacing carriageways with tarred slag macadam, paving footways with artificial stone and other work. Administrator of Housing Development Schemes, Old County Hall, Spring-gardens, S.W.1. Deposit £2.

JANUARY 29.—**Consett.**—ROADS, &c.—For 300 yards lin., and sewers, and 230 yards lin., with tarpaving and other general works, for the U.D.C. Mr. Frank A. Coyle, Architect, 29, Newmarket-street, Consett. Deposit £2 2s.

JANUARY 29.—**London.**—SEWER.—Construction of an 8 ft. internal diameter sewer in brick and iron of a total length of about 2¼ miles, Woolwich and Greenwich, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £10.

JANUARY 30.—**Hemel Hempstead.**—ROADS, &c.—Construction of a tarmacadam surfaced road about 175 yards in length, for the T.C. Mr. W. R. Locke, Borough Engineer, Hemel Hempstead. Deposit £1 1s.

FEBRUARY 2.—**Hythe.**—ROADS, &c.—Construction of roads and laying of sewers and water mains in various parts of the Borough, for the T.C. Mr. Walter Bickford, Borough Surveyor, 114, High-street, Hythe. Deposit £3 3s.

FEBRUARY 5.—**Cheriton.**—ROADS.—For private street improvement works in Marler-road and Kent road, for the U.D.C. Mr. A. S. Lilley, Surveyor, Public Offices, Cheriton.

FEBRUARY 6.—**Birmingham.**—SEWAGE DISPOSAL.—For the reconstruction of the sewage disposal plant and drains at Wassell-grove Convalescent Home, near Stourbridge, for the Board of Guardians. Mr. James Curtis, Clerk, Union Offices, Edmund-street, Birmingham. Deposit £1 1s.

FEBRUARY 16.—**Greenock.**—ROADS, &c.—Construction of streets and sewers in connection with the Cowdenknowes housing scheme, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

Competitions.

(*See Competition News, page* 40).

Auction Sales, Tenders, etc.

★JANUARY 14.—**Croydon.**—Messrs. Robt. W. Fuller, Moon & Fuller will sell, on the premises, 12 & 13, Wandle-road, Croydon (by order of the Receiver for the debenture holders, *re* H. D. Ebbutt Ltd.), the valuable beneficial interest in the lease of the spacious workshops and premises, held for a term having about nine years unexpired, at a low rent of £55 per annum; also the stock-in-trade and plant of a builder and decorator. Auctioneers, 83, High-street, Croydon; and High-street, Epsom.

JANUARY 15.—**London, N.W.**—Messrs. J. C. Skelding & Co. will sell, by order of Messrs. Tim Beckett & Partners, Ltd., unreserved clearance sale of the whole of the capital at the works, 38, Harlesden-road, Willesden-lane, N.W., stock of timber, plant and machinery of van and wagon builders, shoeing and general smiths. Auctioneers, 48, Gresham-street, E.C.2.

JANUARY 15 AND 16.—**London, E.9.**—Mr. F. H. Clerk will sell, at the National Projectile Factory, Hackney Marshes, E.9, absolutely without reserve, timber and material resultant of the demolition of the above factory. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

★JANUARY 17.—**London, S.W.11.**—Messrs. Chas. D. Davis & Co. (late Davis & Moon) will sell, by order of the Receiver for the debenture holder, *re* Naylor's, Ltd., upon the premises, No. 24A, Randall-street, Battersea Bridge-road, S.W.11, unreserved sale of the builder's, shopfitters', showcase and cabinet-makers' stock-in-trade, plant and woodworking machinery. Auctioneers, 285, Borough High-street, S.E.1.

JANUARY 17.—**North Finchley, N.**—Messrs. Wheeler & Wright will sell the remaining portions of the Wembury Estate at the Torrington Hotel. Auctioneers' adjoining Woodside Park Station, N.

JANUARY 22.—**London, W.**—Messrs. J. T. Skelding & Co. will sell, by order of Messrs. Selfridge & Co., Ltd., at the Yard, Balderton-street, Oxford-street, W., important unreserved sale of the capital surplus of builders' and contractors' plant and machinery, timber, stores and effects. Auctioneers, 48, Gresham-street, E.C.2.

JANUARY 22 AND 23.—**Banbury.**—Mr. F. H. Clark will sell, without reserve, timbers and building materials contained in the Banbury Filling Factory, Banbury, Oxon, at 11 a.m. each day. Auctioneer, Railway Wharf, York-road, Wandsworth.

★JANUARY 23.—**London, W.1.**—Messrs. Henry Butcher & Co. have received instructions to sell at the Auction Rooms, 556, Oxford-street, W.1, large quantities of miscellaneous tools and stores, &c. Auctioneers, 63 and 64, Chancery-lane, London, W.C.2.

★JANUARY 23.—**St. Albans, Herts.**—Messrs. Harding & Son will sell, by direction of the Right Hon. the Earl of Verulam and Viscount Grimston, at the "Peahen" Hotel, St. Albans, in lots, about 112 acres of exceptionally valuable freehold building land, all on gravel soil with over two miles of frontage to good main roads. Auctioneers, 36, St. Peter's-street, St. Albans.

JANUARY 24.—**County Down.**—Messrs. Garnet W. Holt & Co. will sell, by public auction, the Crowrea Quarries, Newry, with yard, machinery, plant, &c., on the premises at Catherine-street, Newry, to be sold in two lots. Auctioneers, Newry.

★FEBRUARY 7.—**London, W.1.**—Messrs. Knight, Frank & Rutley, in conjunction with Messrs. Oakden & Co. will sell, at the Hanover-square Estate Room (unless previously disposed of), by direction of the Eastbourne Waterworks Company, freehold commercial site of about 4¼ acres, with railway facilities, and including detached pouble-fronted residence, factory and warehouse buildings. Auctioneers, 20, Hanover-square, London, W.1.

Public Appointments.

JANUARY 14.—**Burnley.**—(*a*) An Assistant experienced in Architectural Work and Town Planning, (*b*) a general Assistant, experienced in the design and construction of Reinforced Concrete and Steel Frame Structures, and Estimating, required by the County Borough Council of Burnley. Borough Engineer and Surveyor, Town Hall, Burnley, endorsed "Assistant."

★JANUARY 19.—**Southend-on-Sea.**—Clerk of Works required by the County Borough of Southend-on-Sea; age not to exceed 45 years; applicants must be experienced. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Clarence-road, Southend-on-Sea.

★JANUARY 21.—**Southend-on-Sea.**—Building Inspector required in the Borough Engineer and Surveyor's Department, by the County Borough of Southend-on-Sea; candidates must be experienced in similar work. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Clarence-road, Southend-on-Sea.

★FEBRUARY 1.—**Swansea.**—Architectural Draughtsman required in the Borough Architect Department by the County Borough of Swansea. Borough Architect, Guildhall, Swansea, endorsed "Draughtsman."

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

AMMANFORD.—The M.H. has asked for plans and estimates of the U.D.C. scheme for sewerage scheme. The Council has decided to at once proceed with acquisition of land for cemetery and has requested Ministry sanction to undertake fencing of ground.

BATLEY.—Plans passed by T.C.: Additions to house, Wellington-street, for Mrs. Box.

BELFAST.—A sum of £80,000 is to be spent on providing new schools during the year.

BELFORD.—Plans passed by R.D.C.: Pair of houses, Seahouses, for Messrs. E. Fordy & Sons.

BLACKBURN.—Plans passed by T.C.: Lock-up shop, Stopes Brow, by Mr. W. T. Shaw; house, Pleckgate, by Mr. John Whalley; ice-cream factory, St. Clement-street, by The Blackburn Crystal Ice Co.

BRADFORD.—The T.C. has granted the following applications to proceed with the development of lands: Bradford Council of Social Service, Allerton-road, 104 houses; A. Chippendale & Co., Smith-lane, &c.; A. Robinson, Highfield-avenue, Highfield-road, Idle, 18 houses; W. A. Newell, Wrose-road, Idle, 12 houses; W. A. Wilman Bros., Pendragon-lane, four houses; C. A. Gadie, Wharncliffe-drive, two pairs of houses; J. H. Pitchers & Sons, Moor Park-drive, semi-detached houses; L. Holland, Parkside-road, bungalow; R. J. Patchett, Ltd., Harbour-road and Buttershaw-lane; Mr. A. Wilson, Thornton-road; Messrs. Foster Bros., Whitby-road; Mr. A. Priestley, Highfield-road, Idle; Mr. J. Briggs, Lower Wyke-lane; Messrs. Dickinson & Scott, Wellington-road, Eccleshill, six houses.

BRAINTREE.—The R.D.C. has passed plans for 20 houses at Bocking, for Messrs. Courtauld.

BRIDLINGTON.—The T.C. has received notification that the M.H. has conditionally approved the scheme for the erection of a sea wall on the south side at an estimated cost of £107,000, the first section to cost £54,000, and that an Unemployment Grant will be made towards the cost.

BURNLEY.—Plans passed by T.C.: Two bungalows, Underly-street, by Messrs. Lancaster, Son & Parkinson; conversion of four houses, Accrington-road, into shops, by Mr. W. Busius; lock-up shop, Extwistle-street, by the Burnley Building Society, Ltd.

BURTON-ON-TRENT.—It has been decided to erect a new building in place of the Mission Room, to accommodate 350 persons, at an estimated cost of £900.

BUXTON.—Plans passed by T.C.: Miss M. Thompson, house in Temple-road; Mr. A. Oldfield, house in Park-road; Buxton Cottage Hospital Committee, mortuary at Cottage Hospital; Mr. James Kirkland, bungalow in London-road; Messrs. J. & F. Brindley, house in Macclesfield-road.

CHICHESTER.—Plans passed by T.C.: Villa, off Stodsbridge-road, for Mr. W. P. Breach; two villas, Market-avenue, for Mr. Springings.

COLCHESTER.—Plans passed by T.C.: House, Straight-road, Lexden, for Mr. H. N. Major; house, King Harold-road, Shrub End, Mr. P. Stow; pair of houses, Bergholt-road, Mr. A. J. Diss; houses in Drury-road, for Mr. A. E. Warner, Mr. P. D. Smith, Mr. H. Westley, Mr. S. F. Dodson, and Mr. A. B. Gusterson; four almshouses, Winsley's-square, the Trustees; rebuilding of premises, High-street, Messrs. W. Paull & Co.; house, Victoria-road, Mr. A. Florey; new bank premises, High-street, Nat. Prov. Union; house, Straight-road, Shrub End, Miss E. Digby; bungalow, Shrub End, Mr. S. G. Purkiss; house, Straight-road, Shrub End, Mr. A. C. Pryke; five bungalows, Greenstead-road, Mr. A. Crowther; six houses, Old Heath-road, Messrs. Grimsey Brothers; houses, Ipswich-road, Mr. W. N. Best and Mr. C. H. Smy; pair houses, Greenstead-road, Mr. P. M. Sloman; house, Nelson-road, Mr. G. Ireland.

CROYDON.—A cottage is to be erected by the T.C. at Russell Hill Reservoir at an estimated cost of £650.—A laboratory is to be erected at the Croydon Mental Hospital at a cost of £500.—Sanction has been received from the Ministry of Health to borrow £20,000 for the enlargement of the Norbury outfall sewer.

DEVIZES.—Plans have been adopted by the T.C. for pairs of cottages on the Southbroom site, for Messrs. L. Maslen & Sons, Mr. T. Stevens, and Messrs. W. E. Chivers & Sons, Ltd.

DEWSBURY.—Plans passed: House on Wakefield-road site, for Mr. J. W. Clegg; house, Wakefield-road site, for Mr. A. Milner; house, Wakefield-road site, for Mr. J. E. Wilson; two houses at Longcauseway, Thornhill, for Messrs. H. D. & G. Benson; house, Longcauseway, Thornhill, for Mr. H. Pease; four houses, Commonside-road, for Mr. J. Crossley; house, Wakefield-road site, for Mrs. Atkinson; house, Wakefield-road site, for Mr. Kemp; house, Wakefield-road site, for Mr. Ledgard; 10 houses at Ouzelwell-lane, for Messrs. Ingham's Thornhill Collieries, Ltd.; three houses off Slaithwaite-road, for Messrs. Brooke Bros.; three houses at Wakefield-road site, for Mrs. Wainwright and Messrs. J. W. Hampshire & Tillotson. The M.H. has approved a scheme for the erection of a further 20 houses on the Wakefield-road housing site, No. 1. Application is to be made to the M.H. for sanction to borrow £1,500 required for the conversion of Moorlands Hall into a maternity home.

DONCASTER.—The Watch Special Sub-Committee has recently inspected the site of the Tannery, Church-street and Grey Friars'-road, which they considered suitable as a site for a fire station and firemen's dwellings, and recommended that the Chief Constable and the Estates Surveyor be instructed to submit schemes for the erection thereon of a fire station and firemen's dwellings, for consideration by the Watch Committee.—The T.C. have also approved of schemes for the erection of 50 houses at Warmsworth-road site, at an estimated cost of £18,082, and for 19 houses in Olive-road, estimated cost £6,942.

DROXFORD.—Plans passed by R.D.C.: Two houses at Meonstoke, for Mr. J. O. Chrystal.

DUDLEY.—Plans passed by T.C.: Christadelphian Trustees, Meeting-room and house, Stourbridge-road; Mr. George Jewess, bungalow, Pedmore-road, Woodside; Mr. Davis, house, Park-road; Mr. M. Hipkiss, house, Arch Hill-street, Netherton; Mr. M. Hipkiss, two lock-up shops, High-street, Netherton; Mr. G. Loat, house, Stourbridge-road.

EDINBURGH.—At the Dean of Guild Court, 25 cases were considered—19 full petitions were granted, the chief of which were the following: Bungalow, for Mr. James Lackie, Allermuir-road, Colinton; 2 houses, for Mr. J. A. Morton, Riselaw, Corstorphine; house, for Mr. Geo. A. Peat, Midmar-drive; 2 bungalows, for Mr. Wm. Robb, Drum Brae; war memorial, Castle, for the Scottish War Memorial Committee; bungalow, for Mr. T. Stoddart, Craiglockhart-drive; bungalow, for Mr. R. E. Taylor, Fernielaw-avenue, Colinton; 4 flatted houses, for Messrs. Topping & Co., Mayfield; double cottage, for Mr. John Westwood, Robbs-lane, Gorgie; sub-division of self-contained house into 3 houses, for Mr. John White, 15, Buckingham-terrace; house, for Mr. G. Williamson, Dovecot-road, Corstorphine; public wash-house, Abbeymount, for the Edinburgh Corporation.——A warrant was also granted for a new building in Duncan-street, Newington, to be used as a telephone exchange, at an estimated cost of £6,000. It is proposed to erect two other telephone exchanges—one at Murrayfield, and the other at Morningside; the present office in Rose-street is to be reconstructed and adapted to other uses. The estimated cost of these three exchanges is £20,000, exclusive of plant and installation.——The alteration and improvement of the Braid Hills Hotel has been considered by the magistrates. Plans have been passed whereby the hotel will be brought up to date, and a number of modern improvements will be introduced.——It has been decided to carry out extensions to the Royal Blind Asylum and School by erecting a pavilion with an area of 5,000 super feet on the ground. The extension is to be on the west side of main buildings, and tenders are to be invited for the work.—The T.C. have procured a site, 50 acres in extent, at Lochend, for the purposes of a town-planning scheme.

EXMINSTER.—It has been decided to construct a new loop-line on the down side of the G.W.R. at Exminster, where extended refuge sidings are included in a scheme of additional accommodation.

FALKIRK.—The Dean of Guild Court has sanctioned plans for steel-frame workshops and warehouse extensions by Messrs. R. & A. Main & Co., Gothic Iron Works, Camelon, and the application of the Camelon Iron Co. for warrant to extend their Berlin blacking shop at a cost of £400.

FERRYBRIDGE.—The Yorkshire Electric Power Co. is embarking upon a scheme for the erection of a large generating station at Ferrybridge, which is ultimately expected to cost £2,000,000; about 130 acres is available for the purposes of the station and provision will be made for a dock to cope with the largest size of canal barges, also for new railway sidings. Tenders will shortly be let for the supply of generating plant.

FOLESHILL.—Plans passed by R.D.C.: 28 houses, for Mr. G. H. Pickering in Hob-lane, Heath and Newtown-roads, Bedworth; two houses for Mr. Gilkes in Heath-road, Bedworth; two houses for Mr. A. Jones in Wheelwright-lane, Foleshill.

FOLKESTONE.—Plans passed by T.C.: House and shop, Canterbury-road, Mr. A. R. Bowles, architect for Messrs. Hayward & Paramor; two houses and shops, Cheriton-road, for Mr. E. Gibbons.

GLAMORGANSHIRE.—The Pontardawe Council has passed plans for 14 houses at Denea-road and 16 houses at Alltycham, for Messrs. Gilbertson (steel works).——The Treharris workmen are formulating scheme for erection of institute and cottage hospital; Mr. T. Andrews, J.P., is secretary.——The County Council is arranging with local authorities, several of whom have promised support, for erection of home for mental deficients.——Application has been made by the Tondu district for erection of public hall (estimated to cost £10,000); Mr. Mason, Cardiff, of the Welsh section of the Industrial Welfare Association, has the application in hand.——The C.C. is embarking upon a scheme for the erection of a large number of schools, together with several mining and engineering laboratories (as part of a scheme of mining education under the Mining Industry Act), and a metallurgical laboratory. The cost of the erection of these new schools and the sites is estimated to total £500,000, and it is proposed to carry out the work during 1924 and 1925. New secondary schools are to be built at Bargoed (£15,500), Gorseinon or Grovesend (£16,500), Pontyclun (£16,500), Pyle (£16,500), and at Whitchurch. The new intermediate school at Caerphilly will cost £30,000, the new girls' department at the Neath Intermediate School £20,000, and the new girls' intermediate school at Port Talbot £20,000. The adaptation of Duffryn House, the one-time residence of Lord Aberdare, as an intermediate school for Mountain Ash, will cost £6,000. Additions and extensions are also contemplated at Aberdare Girls' Intermediate School, the present Bargoed Secondary School, Barry Boys' Intermediate, Cowbridge Grammar School, Garw Secondary, Gelligaer Intermediate, Gowerton Intermediate, and the Ogmore and Pontardawe Secondary Schools. The following new elementary schools are to be erected:—Bridgend, new school for 300, £8,000; Bryncethin, mixed and infants' department for 350, £11,000; Cadoxton, senior and junior departments for 600, £13,000; Cymmer, boys' department for 320, £8,500; Cymmer special subjects centre, £2,500; Derwen Deg, additions for 100, £2,500; Dinas Isaf, senior and junior departments for 800, £19,000; Dunvant new mixed and infants' department for 300, £7,500; Gorseinon, new infants' department for 400 and addition of 80 to boys' department, £10,000; Gwyndy, girls' department for 400, £9,000; Hendre, girls' department for 300, £7,500; Laleston, mixed and infants' department for 150, £4,500; Llanharan, infants' department for 200, £4,050; Llantrisant, additions for 100, £2,000; Llantwit Fardre, boys' or girls' department for 350, £7,700; Maesmarchog, infants' department for 150, £3,450; Nantymoel, boys' department for 416, £12,500; Nantymoel, conversion of existing boys' and girls' departments into girls' department for 348, £4,290; Nantymoel, remodelling infants' department, £2,317; Pantynawel, mixed and infants' school for 400, £9,200; Pencoed, additions for 180, £3,600; Pontlliw, mixed and infants' school for 150, £3,500; Pontyclun, mixed and infants' department for 450, £8,900; Pontycymmer, boys' department for 500, £12,000; Pwllcarn, mixed and infants' school for 200, £5,000; Pyle, mixed and infants' school for 300 and special subjects centre, £9,500; Rhiwbina, mixed and infants' school for 350, £8,000; Skewen, handicraft rooms for boys, £1,250; Tiryberth, boys' and girls' departments for 800, £19,000; Tonmawr, additions for 150, £3,000; Tymeinwr, senior mixed department for 400, £11,000; Ystrad Mynach, boys' department for 400, £11,000.

GELLYGAER.—The U.D.C. has approved plans for erection of 100 houses at Penallta for the Housing Corporation of Great Britain, Ltd. The Surveyor has submitted estimates as follows, for lay-out of Bargold Park by the Council:—Fencing, gates, &c., £1,664; drainage £120; house and shed adjoining, £360.

HAGGONFIELDS.—The Nottinghamshire E.C. proposes building a school at once, in view of the housing scheme of the Shireoaks Colliery Co. at Phodesie.

HALSTEAD.—The R.D.C. has passed plans for a pair of houses at Parley Beams, for Miss K. M. Courtauld.

HEBDEN BRIDGE.—The local Trades and Labour Club Council are to erect a new Trades and Labour Club at Holme-street. The estimated cost is £5,000, of which £3,500 has already been raised. Plans have been prepared by Mr. J. T. Cockroft.

HOVE.—Plans passed by the T.C.: Mr. E. Harrison, for Mr. C. T. Watts, bungalow, Portland Villas; Mr. E. E. Brown, house and motor garage, Langdale-road; Messrs. Field & Cox, for Messrs. Carter Paterson, canteen, Cambridge-grove; Mr. W. H. Overton, for Mr. Marchant, three pairs semi-detached houses and 16 motor garages, Wilbury-avenue; Mr. F. Goodchild, for Mr. W. Querro, detached house and garage, Hallyburton-road; Mr. F. G. Sainsbury, for Mons. G. Fiessinger, house, Princes-crescent; Messrs. C. J. Kerridge & Son, Ltd., for Mr. H. Pears, workshops, Old Shoreham-road; Messrs. Young & Mackintosh, for Mr. F. E. Greville, pair semi-detached houses, Kingsway, at Saxon-road; Messrs. Young & Mackintosh, for Mr. F. E. Greville, three detached houses, Kingsway, at Tandridge-road.

ILFORD.—The Essex E.C. has approved the plans of the County Architect for a secondary school at an estimated cost of £45,041, and authorised the preparation of plans for a caretaker's cottage at a cost of £750.

ILKESTON.—Plans passed by T.C.: Pair of houses, Cantelupe-road, for Stenson & Chapman; pair of houses, Nottingham-road, for W. Holbrook; stable, Albert-street, for J. Loseby; two pairs of houses, Hallam Fields-road, for E. Cobb.

KEIGHLEY.—The T.C. have approved a recommendation from the Housing Committee for the acceptance of tenders for the erection of 30 houses on the Broomhill Estate at an estimated cost of £15,000.

KEXBROUGH.—The West Riding C.C. E.C. propose to erect a new elementary school to accommodate 300 children.

LEEDS.—The Finance and Parliamentary Committee of the Corporation has approved the proposals for alterations to premises in Park-lane. These offices are to be utilised by the City Treasurer's Department. It was decided to apply for borrowing powers to carry out the necessary alteration of premises, furnishing and equipment, at an estimated cost of £18,826.

LEYTON.—Plans passed by U.D.C.: T. Cox, garage and offices, 442, High-road, Leyton; J. A. Dartnall, new premises with billiard hall, 638, High-road, Leytonstone.

LIVERPOOL.—The T.C. has prepared an electricity extension scheme to cost £640,000.

LLANYBYTHER.—The M.T. has promised R.D.C. 50 per cent. of cost of reconstructing Nantyffin Bridge and has asked that plans of work be submitted.

MALTON.—The scheme for a new hospital has advanced a step by the generous gift of an excellent site in Middlecave-road by Earl Fitzwilliam. Plans have been prepared, estimated cost is £17,000, of which £6,500 has been raised. The various parishes are to subscribe the remainder.

MANCHESTER.—Plans passed by T.C.: Sixteen houses, Clevendon-street and Whiteway-street, Moston; eight houses, Whiteway-street and Vernon-street, Moston; eight houses, Clevendon-street and Vernon-street, Moston; two houses, Hill-lane, Blackley; 16 houses, Hill-lane, Blackley; 32 houses, Beresford-road and Elsdon-road, Rusholme; 34 houses and two shops and houses, Beaver-road, Adria-road, Veronica-road, and Gaddum-road, Didsbury; ten houses, Omer-drive, Burnage; addition to museum, Manchester University, Oxford-road, Chorlton-upon-Medlock; six houses, Alexandra Park; four houses, Waltham-road and Springbridge-road, Withington; four houses, Manley-road, Withington.

MERTHYR TYDFIL.—Plans passed by B.C. Plans Committee: Lock-up shop in Aberdare-street, for Mr. W. Morgan, Heolgerrig.——The Public Works Committee has decided to proceed with reconstruction

* See also our List of Contracts, Competitions, etc.

of west side of Taibach-road at estimated cost £2,250, and has applied for grant of necessary land.

MONMOUTHSHIRE.—The Bedwas and Machen U.D.C. has applied to the Ministry of Health for sanction to sell land at Trethomas to the Bedwas Navigation Colliery Co., who have applied for land to erect 120 houses.—The Bedwas U.D.C. has also decided to urge the Gellygaer U.D.C. to join in constructing a joint road viaduct from Hengoed to Maesycwmmer.—The Newport T.C. is to acquire St. Julian's House for conversion for secondary school purposes.—The Sites and Buildings Committee of the County Education Committee has decided to purchase land of a new school at Trauch, Pontypool. The architect has been instructed to prepare amended plans of a proposed new central school at Pontllanfraith. Notice has been given by the Bedwas and Machen U.D.C. that in March they will proceed with sewer construction and sewerage works schemes at Trethomas. It is proposed to lay 12 in. diameter mains.

MORECAMBE.—Plans passed by T.C.: Mr. W. H. Walker, 14 semi-detached houses, off South-road; Mr. T. F. Scales, house, corner of Regent-road and Windsor-road; Mr. F. Barber, house, Balmoral-road; Mr. E. A. Jowett, house, Hawarden-avenue; Morecambe Corporation, chapel, shelter, and lodge at Torrisholme Cemetery.

NEWBURY.—The T.C. has decided to erect 12 semi-detached cottages on Essex-street.

NEWPORT (ISLE OF WIGHT).—Plans passed. Mr. H. J. Dyer, architect, Southsea; ice factory, for the Isle of Wight Ice Co.

NORMANTON (YORKS).—Plans passed: Bungalow in Dalefield-lane, for Mr. J. H. Banks.

NORTHAMPTON.—Sir James Crockett has made a gift to the Northampton Hospital of £5,000 to establish an isolation building.—Plans passed by T.C.: Eight houses, Lincoln-road, for G. F. Sharman; two houses, Delapre-crescent, for E. H. Tibbs; four houses, St. George's-avenue, for A. Holloway; house, Lime-avenue, for S. Frost; house, Delapre-crescent, for J. E. Powell; house, The Crescent, for Mrs. West; house, Cedar-road, for A. E. Osborne; house, Chaucer-street, for H. Frisby; house, Garrick-road, for Supt. Thompson.

PAIGNTON.—The directors of the G.W.R. have authorised extensive improvements at Paignton station. Additional platform covering is to be provided, an enlarged booking-office and a new parcels office built, increased lavatory accommodation arranged, and a waiting shed constructed for the use of passengers. A refuge loop is also included in the plans.

PEMBROKESHIRE.—The St. Dogmael's D.C. has decided to invite tenders for repair of Moygrove Bridge, and has called for plans and estimates for proposed bridges at Pontsaithgarreg and Felinisaf, Whitchurch.

RAMSDEN CRAYS.—Plans by the County Architect of a school at an estimated cost of £5,000 have been approved by the Essex E.C.

ROTHERHAM.—Plans passed by T.C.: Mr. W. E. Taylor, jun., Moorgate-road, pair of semi-detached houses; Mr. W. Richardson, Broom-road, pair of semi-detached houses; Mr. A. J. Gill, Moorgate-road, pair of semi-detached houses; Mr. G. A. Catchpole, Boswell-street, bungalow; Mr. S. Hartley, Clough-road, house; Messrs. J. Fawcett, Ltd., 18–20, High-street, alterations to shop premises, Messrs. Williams Deacon's Bank, Ltd., High-street; Miss H. Wheatcroft, Boswell-street, pair of semi-detached houses.——Representatives of the R.D.C. and the Rother Vale and Dalton Main Collieries have met at the Ministry of Health. The colliery companies intimated that they were prepared to build a number of houses under the subsidy scheme if the Council would undertake to build an equal number. After a full discussion with the Ministry, a provisional sanction was given for the erection of 200 houses at Thurcroft—that is, 100 by the colliery company and 100 by the Rural Council; and 400 at Dalton or Thrybergh, or in that neighbourhood, of which 200 are to be erected by the colliery company and 200 by the Council.——A new police court house is to be erected, at an estimated cost of £23,000; out of this the local authority will have to contribute £10,000.

SALFORD.—Plans passed by T.C.: Construction of warehouse, Clowes-street, Salford; conversion of house into two houses, "Cona Manor," Duncan-street, Broughton; house into two houses and construction of garages, 11, Devonshire-street, Broughton.

SELBY.—At the last meeting of the R.D.C. the M.O.H. presented a report in regard to the supply of water for the extensive parish of Wistow, which had 4,312 acres and a population of 479 in 166 houses, and extended four miles from east to west and one-and-a-half miles from north to south. It was eventually decided to give notice of a proposal for two schemes to be prepared for the village and outlying parts for supplying the district with water from Selby Waterworks.

SOUTHPORT.—The T.C. agreed to the proposed expenditure of £9,000 odd on the Victoria Baths, Promenade, on condition that a plan be prepared showing the full extent of the contemplated alterations. The proposed expenditure so far is for a section of the Baths only.—The Corporation Gas Committee is applying to the M.H. for sanction to borrow £63,000 for various purposes connected with the gas estate.

SOUTHWICK.—The U.D.C. propose to proceed immediately with the erection of 90 houses, with the prospect of another 200 provided sanction is approved from the Ministry of Health to the laying out of the land.

SOWERBY BRIDGE.—Plans passed: Three houses, Milton-avenue, for Mr. F. Stockton.——The Ministry of Health has approved of the erection of 20 more houses on Albert-road Housing Site.

ST. HELENS.—Plans passed by T.C.: Four houses, Bishop-road, Mr. I. Griffiths; house, Hartington-road, Denton's Green, Mr. Henry Barton.

THORNCLIFFE.—Messrs. Newton, Chambers & Co. propose erecting general offices at Thorncliffe.

WAKEFIELD.—Plans passed by T.C.: Mr. W. H. Ogden, two houses, Bromley Mount, for Mr. G. L. Wild; Mr. A. Fisher, house, Horbury-road, for Mr. James Dyson; Mr. W. Wrigley, house, Carr-lane, for Mr. J. N. Hill; Mr. Herbert Dobson, house, Holmfield-lane, for Mr. N. Bedford; Messrs. Bell & Kay, house, off Dewsbury-road, for Mr. A. C. Milner; Messrs. Moore & Crabtree, rebuilding of wool warehouse and additions thereto, in Ings-road, for Messrs. M. P. Stonehouse, Ltd.; Mr. H. Dobson, two houses, Denby Dale-road, for Messrs. A. & H. Fisk.

WEDNESBURY.—Plans passed by T.C.: Mr. H. Waldron, house, St. Paul's-road.

WEST THURROCK.—The Thames Land Co. is seeking powers from Parliament to construct a wharf on the Essex foreshore at West Thurrock, and to carry out the scheme it is proposed to form a company with a capital of £1,500,000.

WETHERBY.—The R.D.C. has decided to commence erecting houses at once by direct labour.

WEYMOUTH.—Plans passed by T.C.: cottage, Belle Vue-road, T. G. Davidson, for Mrs. Penny.

WORTHING.—Plans passed by T.C.: House and shop, Broadwater-road, T. R. Hyde, for Potter, Bailey & Co., Ltd.; three houses, shop and showroom and 36 lock-up garages on the south side of Railway-approach, F. G. Abell, for Worthing Estates Building Co.; house, Langton-road, F. G. Abell, for Worthing Estates Building Co.; two houses, Gannon-road, J. E. Lund, for F. H. Butler; house, Lansdowne-road, E. G. Goodall, for N. L. Watts; 14 houses, Church-walk and Navarino-road, for E. H. Barton; house, Pavilion-road, J. Gausden, for G. W. Wyatt; two blocks of three flats and garage fronting Wordsworth-road and Heene-place, W. B. Collins, for T. R. Dewell; two houses, Gannon-road, for E. H. Barton; three houses and garages, Homefield-road, for G. Tickner; vicarage Victoria-road, T. R. Hyde, for Vicar and Churchwardens of St. Andrew's Church; house, Bath-road, A. Carden, for W. Boswell; house, Littlehampton-road, H. J. Sparkes, for W. Margesson; house, Ham-road, E. W. Sparkes, for —. Woffenden; house and garage, Grand-avenue, W. Weller, for W. Weller; houses and garage, St. Lawrence-avenue, for B. Barry; house and garage, Mill-road, A. Clare, for M. J. Huxtable.

WHARFEDALE.—The Ministry of Health has decided to hold an inquiry into the application of the R.D.C. to borrow £2,000 towards the cost of draining the newly developed garden city at Cookridge, on the outskirts of Leeds.

WHITBY.—Plans passed by R.D.C.: Bungalow, near Cross Keld, for Captain W. Estill, architect Mr. H. P. Hopkins; house, Lowdale, Sleights, for H. Richardson, architect Mr. G. S. French; bungalow, Glaisdale, for Mr. H. Fry, "Marieville," architect Mr. W. R. Robinson.

YORK.—Plans passed by T.C.: T. Belt, two houses, Lime-avenue; G. H. Pegg & Son, five houses, Cameron-grove; and Mrs. Taylor, house, Moorgate.

FIRE.

CLACTON.—On Friday last the electric power station of the U.D.C. was destroyed by fire.



New Premises, Holborn, E.C. MESSRS. GILBERT & CONSTANDUROS, Architects.

NEW BUILDINGS IN LONDON.

Old Broad-Street. — REBUILDING. — Messrs. Lazard Bros. & Co., Ltd., Bankers, of Old Broad-street, are having their premises rebuilt. Messrs. Gunton & Gunton, of Finsbury House, E.C.2, in conjunction with Mr. A. V. Heal, of 11, Gray's Inn-square, W.C.1, are the architects for the work.

Threadneedle-street.—INSURANCE OFFICES.—A new head office is now being erected for the Eagle Star & British Dominions Insurance Co., Ltd., at 1 and 2, Threadneedle-street, E.C. The architects for this work are Messrs. Gunton & Gunton, of Finsbury House, E.C.2, in conjunction with Mr. A. H. Moore, F.R.I.B.A., of 11, Dowgate-hill, Cannon-street, E.C.

Arthur-street West.—OFFICE BUILDING.—Messrs. Gunton & Gunton, of Finsbury House, E.C.2, are the architects for a new block of business premises in Arthur-street West, E.C., to be known as King William-street House. The site covers about 16,000 ft. super.

Seven Sisters-Road.—SHOWROOMS AND OFFICES.—New showrooms and offices are to be built in Seven Sisters-road for the Gas Light & Coke Co. The back portion of premises will be completed first, i.e., general stores, &c., and the showrooms later. The elevation is in red facings with Portland stone dressings, &c. The floors will be fireproof and flat roofs will be used. No sub-contracts have yet been placed. Messrs. Dove Bros., of Cloudesley-place, N.1, are the builders.

Strand.—REBUILDING.—Messrs. Gunton & Gunton, of Finsbury House, E.C.2, are the architects for the rebuilding of 112, Strand.

Tufton-street.—GENERAL OFFICES.—Mr. C. W. Ferrier, of 11, Waterloo-place, Pall Mall, is the architect for the Mary Sumner House, Tufton-street, S.W.1. The interior of the chapel is the work of Mr. Paul Waterhouse, P.P.R.I.B.A. These offices are being erected for the Mothers' Union. It consists of five floors with a flat roof, upon which it is subsequently intended to add an attic story, and comprises the general offices, together with an assembly room seating 250 persons, a chapel, library and some residential accommodation. Messrs. Perry & Co. (Bow), Ltd., are the builders and the structural steelwork is being carried out by Messrs. Drew-Bear, Perks & Co., Ltd.

Cannon-street.—FIRE STATION.—Messrs. C. P. Roberts & Co., Ltd., builders, of Tyssen-street, Dalston-lane, E.8, are carrying out various alterations required by the L.C.C. for altered accommodation. The steelwork is being executed by Messrs. C. A. & A. W. Haward, of 171, King's Cross-road, W.C.1.

LONDON MASTER BUILDERS' SPORTS' ASSOCIATION.

(FOOTBALL SECTION.)

League Table up to and including Dec. 29, 1923.

	P.	W.	L.	D.	GOALS F.	GOALS A.	Pts.
Perrycobow	10	8	1	1	42	12	17
Trocoll	7	4	1	2	46	8	10
Holancube	8	3	2	3	16	10	9
Holloways.....	7	4	2	1	7	7	9
Minter	6	3	3	0	20	13	6
Higadillo	7	3	4	0	11	30	6
Higgs	10	3	7	0	21	33	6
Vigor	5	1	4	0	10	20	2
Whitehead	8	1	6	1	11	61	2

THE SCOTTISH BUILDER

THE EDINBURGH DISTRICT PROPERTY MARKET.

DOWELL'S annual review of the heritable property market for 1923, issued on January 1 from 18, George-street, Edinburgh, gives a distinct indication that the property market is in a healthy state. The transactions noted show that the demand has been for occupation, and there is little evidence that the sales have been for speculative purposes or re-sales, though there has been a certain amount of investment in tenement property. The sales of town properties have increased, but there has been little demand for large houses in prominent streets and squares of the West End. Not a few of these have been converted into flats. The demand for flats and small houses, where possession can be given, is unabated. Many that have changed hands have done so at twice the pre-war figure. Important sales have also been made in commercial premises in Princes-street. A good demand for small residential estates in the country is recorded. Should agriculture be encouraged by the Government, there might be more demand for agricultural estates.

In town property, 152 lots sold realised £166,105, the increase on upset price being £11,000; the 52 lots sold privately realised £94,580. Of country property, 45 lots changed hands, realising £87,286, an increase on the upsets of £7,473; nine lots sold privately realised £29,385.

The Burgh Assessor's return for the year 1923–24 of the valuation of Greater Edinburgh is as follows:—

Dwelling-houses, business premises, public buildings, churches, &c.	£4,472,297 0 9
Railways, street tramways, harbours and docks, gas, electric lighting, water, sewers, telegraph and telephone wires	780,934 2 2
	£5,253,231 2 11

The total increase on the previous year is £159,730 8s. 7d.

The number of unoccupied houses is 305 with a total rental of £13,676 2s. 7d.; and the number of unoccupied shops is 67, with a total rental of £2.436.

The most important buildings for which warrants have been granted during the past year are: Seafield-road, British Oxygen Co., Ltd., £8,000; Hawkhill, Leith, J. K. Smith, bakery, £16,000; Princes-street, Messrs. D. S. Crawford, alterations, £13,000; Spring-gardens, Maternity Hospital, £30,000; Princes-street, Messrs. J. W. Mackie & Son, Ltd., alterations, £30,000; Stewart-terrace, Messrs. McVitie & Price, bakery additions, £8,000; Gorgie tenements, £40,000; Grassmarket tenements, £10,000; St. Leonard's-hill, James Clark Technical School, additions, £14,500; Charlotte-square, Ladies' Caledonian Club, alterations, £8,000; South Bridge British Linen Bank, £21,000; Granton, Caroline Park, Messrs. A. B. Fleming & Co., Ltd., additions to works, £11,000; Leith War Memorial (Children's Hospital), £27,000; Newcraighall, Workmen's Institute, £7,000; Westbank, Portobello, transformer house, £9,250; Dean Distillery, converting to bonded warehouse, £7,000; Castle-terrace, Synod Hall, reconstruction, £8,000; Wardie tenements, £14,750; Bryson-road, Edinburgh and Dumfries-shire Dairy Co., Ltd., alterations and additions, £16,000; Hope-street, Royal Bank of Scotland, £65,000; St. Clair-street, Leith, tenements, £23,130; Bellevue Technical School, £30,000; Leith, James-place, school, £30,000; Newcraighall, Benhar Coal Co., housing scheme, £20,160; Semple-street, St. Cuthbert's Co-operative Society, garage and workshops, £25,000; The Castle, Scottish National War Memorial, £50,000.

In the City of Edinburgh "Accounts," just published, the total expenditure amounts to nearly five millions sterling.

NEW BUILDINGS IN SCOTLAND.

Paisley.—FACTORY BUILDING.—The Dean of Guild has passed plans for the British Cotton and Wool Dyers' Association, 22, Cumberland-street, Deansgate, Manchester, to erect a stuff-house at Laighpark.

Stornoway.—HOUSES.—The Ross-shire C.C. has granted permission to the Lewis (Stornoway) District Committee to erect 28 houses, at a cost of £600 each.

Kingseat.—HOUSES.—The Kingseat Mental Hospital Committee of the Aberdeen City Board of Control has recommended the erection of two new houses and an addition to the nurses' home.

Edinburgh.—LABORATORY.—The Rockefeller trustees have offered £50,000 towards the erection of a clinical laboratory at the Edinburgh Royal Infirmary.——The Dean of Guild Court has approved of the reconstruction of existing premises for out-patients at Leith Hospital, Mill-lane.

Leith.—TOWN HALL AND LIBRARY.—The Lord Provost's Committee of Edinburgh T.C. has recommended the Council to provide a town hall and library for Leith.

Brighouse.—CHURCH HOUSE.—A church house is to be provided at Brighouse.

Crombie.—JANUARY 12-16.—SCHOOL.—Proposed new school to be erected at Crombie, near Dunfermline, for the Fife Education Authority. Mr. G. G. Storrar, architect, Cupar. Mr. J. Gentles, surveyor, Central Chambers, High-street, Kirkcaldy. £1 1s.

Aberdeen.—JANUARY 14.—HOUSES.—Four blocks, each containing 12 dwellings, in connection with Cattofield Housing Scheme, for the Town Council. All particulars from Mr. Coutts, Housing Dept., Town House, Aberdeen.

Royal Scottish Academy.

Mr. G. Washington Browne, R.S.A., was recently elected President of the Royal Scottish Academy in place of Sir J. Lawton Wingate, who has resigned.

He received his early training in Glasgow and afterwards served under London architects and gained the Pugin Travelling Studentship.

Mr. Browne designed the King Edward Memorial at Holyrood, which the King unveiled in the autumn of 1922; also the Edinburgh Public Library, and numerous war memorials throughout Scotland.

Yarrow Church.

This church (built in 1640), which was destroyed by fire last year, has now been re-opened.

New Docks for Glasgow.

Some years ago the Clyde Navigation Trustees acquired an area of land on the south side of the Clyde between Shieldhall and Renfrew having a frontage of about 1¾ miles. The first step has now been taken towards the construction of new tidal docks on this site, and tenders have been invited for the construction of a length of 1,900 yards of the quay wall of what will be No. 1 dock. A contract has already been let to Messrs. Sir Robert McAlpine & Sons for road works, and to Gray's Ferro Concrete Company for bridge work in connection with the scheme.

Three reinforced concrete bridges will be required to carry the new road over the railway which will serve the new dock, and to provide for the accommodation of the existing Renfrew District Railway, which will be diverted for a portion of its length. Two of the bridges will be four-span structures, while the third bridge will consist of two spans. All the bridges are being designed on the Considère system, and will make provision for the passage of heavy traffic to and from the docks.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	1/2½
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	1/1
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	1/2½
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/1 to 1/2
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	—
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	1/2
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	1/2½
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	1/2
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	1/1 to 1/2
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	1/2½
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1½	1/1
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1	1/2½
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1 to 1/2½	1/2½
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/1½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	1/2½
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1½	1/2½
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/2½	10d. to 1/2
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Inverness	1/8½	—	1/8	1/4	1/4½	1/4	1/3½	1/2½	1/2½
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/-
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	1/2½
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 85.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick :—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
		Two Sides and one End	32 10 0
		Splays and Squints	30 0 0
Headers	21 10 0		
Quoins. Bullnose and 4½in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 3	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
½ in. Shingle for Ferro-Concrete	14 0	" "
¼ in. "	15 0	" "
½ in. Broken Brick "	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" " Fine	5 12 0
Sirapite, Coarse	3 9 6
" Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/-	1¼	33/6
½	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	26/6	⅜	17/6
1¼	33/6	½	22/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2	0 to	0	2 6
¼ in. do. do.	0	1	6 to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9 to	0	2 6
Cuba Mahogany	0	3	0 to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0	0 to	50	0 0
American Whitewood planks, per ft. cube	0	14	0 to	0	16 0
Best Scotch Glue, per cwt.	4	10	0 to	—	
Liquid Glue, per cwt.	4	7	0 to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

		£ s. d.
Best machine-made tiles from Broseley or Staffordshire district		5 7 6
Ditto hand made ditto		5 12 6
Ornamental ditto		5 17 6
Hip and valley tiles (per dozen)	Hand made	0 9 6
	Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work "	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16 0 0
" " " 24 g.	16 0 0	..	17 0 0
" " " 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet. English, 4 lb. and up	41 10 0
Pipe in coils	42 0 0
Soil Pipe	45 0 0
Compo pipe	47 10 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	27	0	0 .. —
Do., ex country, carriage forward per ton	28	0	0 .. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin " "	0 2 4	..	—
Copper nails "	0 2 3	..	—
Copper wire "	0 2 4	..	—
TIN—English Ingots "	0 2 6	..	—
SOLDER—Plumbers' "	0 1 1	..	—
Tinmen's "	0 1 3	..	—
Blowpipe "	0 1 5	..	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 10
" " " in barrels "	0 4 0
" " " in drums "	0 4 3
Boiled " " in barrels "	0 4 4
" " " in drums "	0 4 3
Turpentine in barrels "	0 6 6
" in drums (10 gall.) "	0 6 9
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 5 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots per ton delivered	79 10 0
Red Lead, Dry (packages extra) per ton	43 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocot per cwt.	0 15 6
Size. XD Quality fkn.	0 3 6

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
3/16 Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 6
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

NEW INVENTIONS

The "Borwood" Bit.

We have received some particulars regarding the new patent "Borwood" bit, which is claimed to bore holes quicker than ordinary bits with less pressure and to leave the walls smooth and clean, as if they had already been sandpapered. The manufacturers state: "The bit is simply and strongly built, and is designed for use by machine or hand. The work it does is briefly as follows:—(1) Boring; (2) boring taper holes; (3) boring a countershaft in one operation; (4) making mouldings or sinkings of any circular design. The secret of the 'Borwood' bit lies in its design. Essentially simple in its construction, it is an all-round improvement on the ordinary boring bit.

"Owing to the depths of its shanks, the bit bores equally well across or end grain, and there is no danger of wandering even where it meets other holes or soft patches. It bores safely through any number of thicknesses, and through single unsupported thin boards. It is the only boring bit which will bore within a sixteenth-of-an-inch of the edge of the work without bursting the sides. After boring the job requires practically no cleaning up. The edges can easily be reached either with a file or an oil slip, and although it may have lain idle for months on end it can be restored to first-class condition in less than five minutes. The easy way in which they can be reached enables the cutting edges to be shaped as best suits the class of boring being done. The two routers are balanced so that there is an equal pull on both sides. Two cuts are taken for each revolution of the head. This construction allows ample room for clearance, and practically eliminates the risk of burning and choking. It is manufactured from special cast-steel, scientifically hardened and tempered to give durability. It can be run at high speeds with consequent increased production.

"The bit is made either with or without a centre. When a centre is provided it may be the ordinary screw pattern which takes hold of the wood and draws the bit after it. A special patent bit has been designed to obviate any danger of the work flying round on the bit. This new centre enters the wood freely, but it does not control the feed. In this way the operator is able to make a heavy or light cut at will, according to the class of work on which he is engaged. This bit is easily withdrawn from the hole without the necessity of reversing or the possibility of tearing. Unless specially mentioned the bit is supplied with this new centre in all cases where bits are ordered for machine use. For hand use the ordinary centre is provided.

"For moulding purposes the bit is an adaptation of the boring-bit. Almost any design of circular moulding can be made within a very short space of time.

"After the bit has been withdrawn it requires practically no cleaning up."

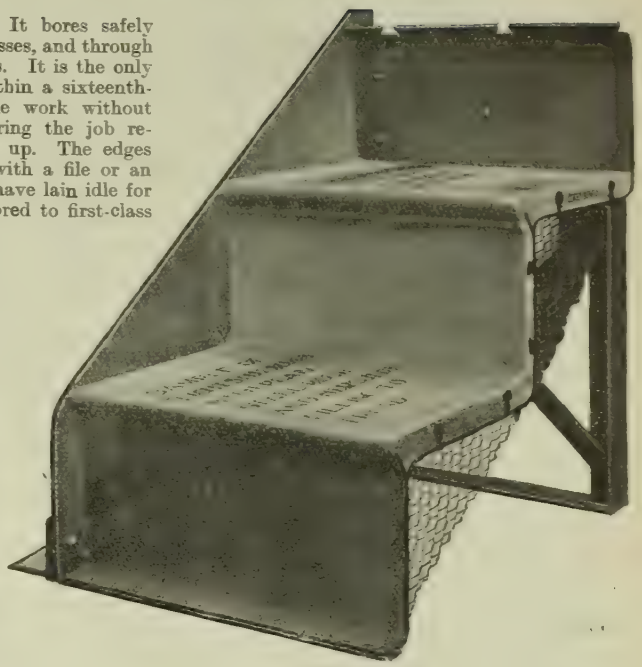
The manufacturers are the Borwood Tool Co., Ltd., Ditton Works, Newmarket-road, Cambridge.



The "Borwood" Bit.

New Staircase.

The new type of staircase illustrated above has been put on the market by the Light Steelwork, Ltd., 178, York-road, King's Cross, W. 1.



New Staircase.

The treads and risers are formed in one piece out of steel plate bent to shape. The sections are then riveted together and connected to a steel string by means of angle cleats built into or otherwise attached to walls as the case may be. When these individual sections are riveted together they form a series of trays or centering, and small studs or caulkings are provided to act as keys for the material or filling destined for the tread or wearing surface proper. This filling may be of granolithic, with a dusting of carborundum to make it non-slipping, or any suitable substitute of a hard-wearing or non-slipping nature. The steel sections thus perform three functions, viz., first, as permanent centering; second, as structural support; and thirdly, as the tensile member of a beam with the material used for filling under compression.

If desired, the risers may be coated with the same material as the tread, but in this case the top edge of each bent plate would be notched or serrated to act as a key for the nosing by allowing the filling of the tread to unite firmly with the riser covering. If it is considered desirable the underside of the stairs can be provided with expanded metal or other suitable lathing wired to the structure, which, when plastered, will form a soffit to the underside of the stairs. The same method is employed for the construction of winders and landings, each winder or landing being a tray of steel filled in with the composition selected and properly stiffened or supported to impart the necessary strength.

The manufacturers of this system of staircase construction claim several advantages to be gained by its use:—(1) Low cost of carriage owing to lightness; (2) Low cost of erection, because flights and landings, each in one piece, can be delivered to the site ready for hoisting into position and bolting or riveting together; (3) Time saved in erection; (4) Fire-resisting qualities; (5) In its simplest form the cost compares favourably with any other type; (6) It is especially suitable for use for area stairs where there is a risk of heavy weights being dropped; (7) It will carry safely very much greater loads than can be placed upon staircases in ordinary circumstances.

Where a staircase is to be fixed between walls, steel strings are unnecessary. In this case the sections could be delivered riveted together, braced by steel or wood booms bolted together and long enough to be built into the walls during the progress of the work. After being erected into position and built in, the braces or booms can be removed, and the stairs are ready for filling in.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	„ „	7	6
Add if in floors 6 in. thick	„ „	3	6
Add if in beams	„ „	4	0
Add if aggregate 1 : 2: 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	„	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	„ „	9	0
¾ inch on flats in two thicknesses	„ „	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	„ „	21	6
Bath stone and all labour fixed	„ „	10	6
Portland stone fixed	„ „	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	„	80	9
Do. 24 in. × 12 in. Do. Do.	„	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	„ „	5	9
Do. roofs, floors and partitions	„ „	6	3
Do. trusses	„ „	8	3

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	„	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	„	1	6
Gutter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	„		54/-	65/-	72/-
Do. matchings	„	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	„ „	3	9

DOORS.		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	„	2/5	2/8	2/11
Two-panel moulded both sides	„	2/8	2/11	3/2
Four-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	„	1/5	1/7	1/10
Add if cross tongued	„	2d.	2d.	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	„ „	6	0
Add if ramped	„ „	11	10
Add if wreathed	„ „	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	„	20	0
Do. stanchions	„	23	0
In roof work	„	28	0

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	„	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	„	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	„	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	„	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	„ „	1	6
Copper nailing	„ „	0	6

		½″	¾″	1″	1½″	2″	4″
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	„	1/7	2/1	2/6	3/10		
Do. soil	„						6/10
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	„	1/2	1/8	2/1	2/10	3/6	
Red lead joints	„	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	„	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	„				14/7	19/6	
Bib cocks and joints	„	6/4	9/7	15/4	41/-		
Stop cocks and joints	„	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	„ „	2	6
Do. Do. Keen's	„ „	3	6
Add sawn lathing	„ „	1	5
Add metal lathing	„ „	2	3
Portland cement screed	„ „	1	10
Do. plain face	„ „	3	0
Mouldings in plaster	per 1 girth	0	1
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	„ „	1	1
Obscured sheet	„ „	1	3
⅛ in. rolled plate	„ „	0	9
¼ in. rough rolled or cast plate	„ „	0	11
¼ in. wired cast plate	„ „	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	„ „	0	7
Plain painting 1 coat	„ „	0	9
Do. 2 coats	„ „	1	2
Do. 3 coats	„ „	1	9
Do. 4 coats	„ „	2	4
Graining	„ „	2	3
Varnishing twice	„ „	1	9
Sizing	„ „	0	3
Flatting	„ „	0	7
Enamel	„ „	1	1
Wax polishing	per foot sup.	0	6
French polishing	„ „	1	2
Preparing for and hanging paper	per piece	2/-	to 4/-

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

DEMOLITION & EXCAVATION (GREENHAM), LTD. (193,688). Registered November 12. Rosebank Wharf, Fulham, S.W. To purchase from Henry J. Greenham, Ltd., of Rosebank Wharf, Fulham, S.W., demolition of buildings and excavation of land as heretofore carried on by them. Nominal capital, £1,000.

F. J. RASHBROOK, LTD. (193,670). Registered November 10. Elm Works, 68, St. Ann's-hill, Wandsworth, S.W. Builders, decorators, electrical engineers, &c. Nominal capital, £1,000.

SALTER BROS. (ELLESMERE PORT), LTD. (193,734). Registered November 13. Heath Farm, Whitby Heath, near Birkenhead. General contractors, builders' merchants, &c. Nominal capital, £600.

BATEMAN'S CONCRETE WORKS (SLOUGH), LTD. (193,650). Registered November 9. Bush House, Aldwych, W.C.2. To manufacture and sell all forms of pre-cast concrete, and to acquire by lease or otherwise certain lands situate at Salt Hill Gravel Pits, Slough. Nominal capital, £750.

J. PULLAN & SONS, LTD. (194,023). Registered November 27. 15A, Marley-terrace, Beeston, Leeds. Builders and contractors, now carried on by Ernest Pullan and Alfred Pullan at Beeston, Leeds, under the style of J. Pullan & Sons. Nominal capital, £3,000.

BLYTH, LTD. (194,035). Registered November 28. 360, High-road, Kilburn, N.W.6. Builders and contractors, &c. Nominal capital, £3,000.

ARCHITECTURAL TOWN-PLANNING ASSOCIATION, LTD. (194,014). Registered November 27. 27, Victoria-square, S.W.1. To promote, develop, and improve housing and town-planning schemes of all kinds in Great Britain. Nominal capital, £1,000.

RAZIP MANUFACTURING CO., LTD. (193,973). Registered November 23. 38, Deansgate, Manchester. Dealers and manufacturers of Razip paint, enamel, varnish and mosaic cleaners. Nominal capital, £1,000.

J. W. JONES & SONS, LTD. (193,952). Registered November 23. Builders and contractors. Nominal capital, £12,000.

JEFFERYES & CO., LTD. (193,984). Registered November 24. 10, Lower John-street, Regent-street, W. Plastering decorators, builders and contractors. &c. Nominal capital, £2,000.

CAMEL ASPHALTE CO., LTD. (193,870). Registered November 20. To acquire lands, mines, quarries, minerals and slate dumps in the county of Cornwall and turn same to account, quarry masters and stone and slate merchants, &c. Nominal capital, £17,500.

BEN THOMAS & CO., LTD. (193,867). Registered November 20. Lon Fach, Rhiwbina, near Cardiff. Builders, contractors, civil, sanitary, mechanical and general engineers, &c. Nominal capital, £1,000.

COUNTRY HOMES, LTD. (193,846). Registered November 19. 49, Beech-street, Barbican, E.C.1. General building contractors. Nominal capital, £500.

TEMPLE & PYLE, LTD. (194,162). Registered December 3. Hill Heads, Whitley Bay, Northumberland. Builders, contractors and plasterers carried on at Whitley Bay, Northumberland, under the style of Temple & Pyle. Nominal capital, £2,000.

REGAL ASBESTIC JOINTLESS FLOORING CO., LTD. (194,156). Registered December 3. 42, Drury-lane, W.C.2. To carry on the business of builders' and contractors' flooring specialists. Nominal capital, £500.

W. CREIGHTON & CO., LTD. (194,194). Registered December 4. Cassiobury Mills, Watford, Herts. Builders' material merchants, timber merchants, coal and coke merchants. Nominal capital, £5,000.

PATENTS.*

APPLICATIONS PUBLISHED.*

205,342.—T. G. Rhodes and R. Gaunt: Combined valve and siphon-discharge apparatus for flushing purposes.

204,351.—A. Parks: Flush-cisterns.

204,356.—A. Rustige and C. Kuhn: Baths.

204,392.—Moler Fireproof Brick & Partition Co., Ltd., and B. P. F. Deane: Manufacture of articles from clay, diatomaceous earth, and similar mineral substances.

204,403.—I. W. Thomas: Fastening or catch devices for boxes or receptacles having hinged or pivoted doors or the like.

193,372.—H. Kontzler: Production of hydraulic cement.

204,487.—W. S. Akerman: Roofing-tiles.

204,490.—F. G. Price: Corrugated roofing-sheets.

204,516.—J. E. Miller: Angle concrete bricks and blocks.

204,517.—E. Carvell: Wall plugs or fixing-blocks.

204,535.—J. Skelton, Sen., L. J. Skelton and J. Skelton, Jun.: Built-up metal towers, particularly those for crane stagings employed in the construction of buildings.

204,539.—J. Lightbown: Coping and parapet cradle or platform carriage.

204,544.—Sir F. Lobnitz and Lobnitz & Co., Ltd.: Subaqueous rock-cutting apparatus.

204,567.—L. Lichtenfeld: Parquet flooring.

204,583.—M. J. Dark and H. A. Dawes: Enamelled metal ties.

204,604.—O. Cosins and L. Cosins: Brick-moulding machines.

204,618.—A. H. T. Hainselin: Manufacture of cement flags, paving-blocks, and the like.

198,327.—H. V. Whitlock: Rope structures.

204,656.—G. H. Walchli and Kant-Break Ladder, Inc.: Ladders.

186,598.—H. R. Bliss: Method of constructing packing-cases.

204,659.—J. McArthur: Vehicle sash constructions.

196,906.—Soc. Anon. "La Ceramique Nationale": Apparatus for the manufacture of patterned or fancy tiles.

205,547.—H. V. Potter, F. J. Robinson, A. Lloyd, and Damard Lacquer Co., Ltd.: Pottery, porcelain and earthenware.

184,167.—G. Borle: Process for manufacturing a material for moulded articles, plates and floor covering.

205,575.—R. M. Maunder: Domestic fire-grates.

205,591.—Sir H. Austin. Covers or lap plates of panels used in connection with doors or drawers, or for other purposes.

205,626.—F. Cross and G. Fabris: Door-locks.

205,640.—W. Green and J. H. Dean: Wall tie.

205,642.—L. De Brouckere: Drawing and the like tables.

205,647.—T. O. Owen: Paving of roadways and footpaths.

205,661.—J. M. Dossor: Chimney and ventilating-shaft tops.

205,665.—W. Pratt: Staging-attachment for ladders and scaffolding.

205,679.—J. W. Wood: Apparatus for moulding concrete.

205,688.—H. E. Steinberg: Moulds for reinforced-concrete flooring.

205,701.—A. H. M. Basart: Door fastenings for safes.

205,712.—C. M. Trautschold and R. E. Pellow: Trestles.

205,720.—W. P. Carpmael (Naamlooze Vennootschap Korrelbeton Maatschappij voor Woningbouw in Poreuze Beton): Moulds for use in the erection of concrete buildings.

205,728.—Pavement Publicity, Ltd., and W. G. V. Vaughan: Paving slabs and flags.

205,744.—C. P. Elwell and S. P. Wing: Wireless masts or like structures.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.
* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERDOVERY.—For additions to Brynmorwydd, for Mr. F. Griffin. Mr. F. Howarth, architect, Towyn and Barmouth:—
Lewis & Griffith £998
*Hugh Lewis & Jones 981

BATH.—For construction of relief storm water sewer from Bear Flat to Second-avenue, for the T.C.:—
*E. Ireland £1,435

BATH.—For construction of sewer at Wideombe, for the T.C.:—
*Axford & Smith £439 10

BATH.—For the supply of water pipes to the T.C.:—
*Staveley Coal & Iron Co.. £11 5s. per ton for 2 in., and £10 5s. per ton for 3 in.

DEWSBURY.—Erection of main buildings at Mitchell Laithes in connection with the Sewage Works extension, for the Sewage Disposal Committee of the Corporation:—
*Wm. Scott & Sons, Dewsbury £18,226 10 2

DONCASTER.—For erection of 19 houses in Oliver-road, for the T.C.:—
*G. T. Farrow..... £6,942 9 5

DONCASTER.—For erection of 50 houses on the Warmsworth-road site, for the T.C. Mr. R. E. Ford Housing Surveyor, 3, Priory-place, Doncaster:—
*F. Bate, Doncaster £18,082

DURHAM.—For paving on reinforced concrete 3,800 super yds., No. 2 Section, for the Corporation. Surveyor, Council Offices, Durham:—
†Sir Wm. Prescott & Sons, Ltd., London £10,663 9

FAREHAM.—For decorations in Earls-road, for the U.D.C.:—
*E. G. Moss £143

FERRYBRIDGE.—Construction of foundations, &c., for new super generating station; also docks, sidings and other works, for the Yorkshire Electric Power Co., Ltd.:—
*The Foundation Co., Ltd., Kingsway, London.

GLAMORGANSHIRE.—For alterations and additions to Cowbridge Police Stations and Court, for the Glamorgan Standing Joint Committee. The Surveyor of Police Stations, Glamorgan County Hall, Cardiff:—

Bright & Addicot, Cardiff ..	£4,155	0	0
Ernest Clarke, Bridgend	4,055	0	0
Penarth Building Co., Penarth	4,000	0	0
Thornton Hall, Cardiff	3,990	0	0
*R. E. J. Haines & Sons, Cardiff	3,894	0	0
Surveyor's estimate	3,765	9	9

HASTINGS.—For construction of a road at Ore, for the T.C. Mr. P. H. Palmer, Borough Engineer, Hastings:—
*Jno. Carter, Hastings £1,168

HAWARDEN.—New banking premises for the Midland Bank Limited. Messrs. Woolfall & Eccles, architects, Liverpool:—
Asphalte work—Thos. Faldo & Co., Ltd.

LEEDS.—For widening of existing bridges over the Leeds and Liverpool Canal, for the L.M. & S. Railway Co., giving improved access into the Wellington Station:—
*John Butler & Co., Ltd., Stanningley, near Leeds.

ROCHDALE.—For paving Gate-street and Midhurst street, for the Paving Committee. Mr. W. H. Hickson, Town Clerk, Town Hall, Rochdale:—
*Wm. Shepherd & Sons, Ltd., Rochdale.

SALFORD.—For street works, for the T.C.:—

*Thomas Wilson, Pendleton—			
Street behind Co-operative Stores, &c., Pendleton	£661	7	11
Street behind Nos. 2–52, Romney-street	481	12	6
Street behind Littleton-road, &c.	518	2	4
Street behind Suffolk-street, &c.	448	6	1
Street behind Littleton-road, &c.	165	15	7
Street behind Nos. 55–67, Littleton-road, &c.	133	13	5
Street behind Nos. 69–79, Litton-road, &c.	114	4	4
Street behind Nos. 20–32, Suffolk-street, &c.	109	8	8
Street behind Nos. 34–46, Suffolk-street, &c.	109	8	8
*Samuel Willshaw, Higher Broughton—			
Street behind Nos. 1–39, Hollingwood-street, &c.	146	17	9

TORPOINT.—For carrying out new water scheme, for the U.D.C.:—
*T. Doney & Sons, Plymouth..... £21,648
Engineer's estimate 20,786

TORQUAY.—For improvements at St. Marychurch-road corners, for the T.C.:—
*R. E. Narracott £465 8 6

WALLASEY.—For erection of pump house and culvert, for the T.C.:—
*Chappell & Sons, Liverpool..... £18,996

WALLASEY.—Supply of 350 yds. of wrought-iron fencing and gates in connection with improvement of Rake-lane, for the T.C. :—

W. A. Parker & Co., Workington—fencing 7s. 9d. per lineal yd., and gates £9 12s. 6d. to £10 per pair.

WATFORD.—For erection of cottage and sinking well on the Radlett Outfall site, for the R.D.C. Surveyor, 9, Market-street, Watford :—

C. C. Swain, Watford	£1,030
J. Dennis, St. Albans	849
Tonge, Garston	835
James Goss, Watford	809
†Wiggs & Co., Radlett	775

WHITSTABLE.—For erection of eight houses, in Reservoir-road, for the U.D.C. Mr. J. Dunn, Surveyor, Council Offices, Whitstable :—

Rice & Sons, Margate	£3,952 0 0
H. G. Perry, Whitstable	3,694 4 3
A. Merton-Hughes, Hammersmith	3,341 12 6
*S. Reeves, Ltd., Whitstable	3,199 18 6

WROTHAM.—For erection of Council Offices, at Borough-green, for the U.D.C. Mr. F. T. Moss, Engineer and Surveyor, Borough-green, Wrotham :—

F. Pierce, Sevenoaks	£1,188
*W. H. Simonds & Son, Sevenoaks	1,150
Goodwin & Sons, Tunbridge Wells	1,097

DIARIES & CALENDARS.

Messrs. Stone & Co., Ltd., of Nonsuch Fire Brick and Tile Works and Potteries, Epsom and Ewell, Surrey, have issued a useful waistcoat-pocket diary for 1924. In addition to the diary section, which is conveniently arranged with one week to each opening, there are several pages containing the usual information generally contained in diaries, and one page on which is given a list of the manufactures of the firm.

The Southern Counties Federation of Building Trades Employers, London, have issued a Diary and Year Book for 1924, containing a £1,000 Insurance Coupon.

From Messrs. Frank S. Mayo, 11, Queen Victoria-street, London, we have received a useful Daily Pad for 1924. From Messrs. Jenson & Nicholson, Ltd., Stratford, and Messrs. Young & Co., Westminster, we have received calendars respectively.

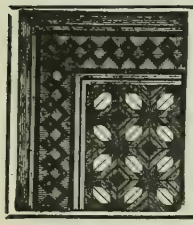
Messrs. N. Gerver, 204-206, Bethnal Green-road, London, inform us that on receipt of a trade card they will be pleased to send, post free, a calendar for the year 1924.

We have received calendars for 1924 from the following: Messrs. Lewis E. Nunn; The Ironite Co., Ltd.; The Ragusa Asphalte Paving Co., Ltd.; Mr. G. H. Carter; Joseph Freeman, Sons & Co., Ltd.; and Mr. Edward B. Holmes.

One of the handiest little diaries we have seen is that issued by the "Woco" Door Co., which is well arranged and serviceable in style and production. Incidentally, it will be none the worse for reminding us of the progress we are making in useful building materials.

We have received useful calendars from Messrs. Joseph Westwood & Co., Ltd., and W. H. Willcox & Co., Ltd. From The Ringmer Building Works a number of blotting pads; and from Kelly's Directories, Ltd., the Post Office London Directory for 1924.

The will has been proved of Mr. Alfred James Higley, of Herne Lodge, Severn-road, Weston-super-Mare, Somerset, retired builder—net personalty, £3,224; gross, £7,152.


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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXVI.—No. 4224. JANUARY 18, 1924.

THE ACCOMMODATION CHALLENGE.

MAJOR BARNES is fortunate in his moment for the appearance of his book.* It is at once a survey and a challenge, but because the survey is so conscientious, and the evidence amassed so exhaustive and detailed, the challenge gains in importance and is bound to make itself heard. Briefly, Major Barnes contends that private enterprise has never wholly met the housing requirements of this country, that in the present circumstances it is practically impossible for it to regain the efficiency even of pre-war days, and that whether we like it or not we are faced with a permanent State responsibility for housing the "working classes"; though he believes that the incidence will be gradual and not what he describes as alarming. It is this conclusion which will mainly attract attention to the book, coming as it does at a moment of political crisis rich in possibilities. No one can deny the competence of the author to deal with his subject; he has special knowledge and special experience, and, moreover, he possesses that art of concentration which devours every particle of evidence required to encompass the situation under review. But it is exactly here that the value of his judgment appears to weaken. Few sayings embody greater truth than that of not seeing the wood for the trees. Major Barnes sees the trees and classifies them with the enthusiasm of a scientist; but it is as trees that he sees them, and the forest in its relation to the surrounding country is overlooked.

He quite rightly asserts that the average working man cannot at the present rate of wages occupy a house of reasonable standard and pay an economic rent (including rates), even when he is in work. That this is a truth of extraordinary gravity and danger no one can deny, but it certainly can be denied that it implies the failure of the building industry in particular; rather, we contend, it is an indictment of industry as a whole—a failure which, if it persists, must involve the collapse of civilisation as we know it. The justification of the industrial principle depends on its ability to supply the public with the ordinary commodities of life, and also to maintain adequately the *personnel* dependent upon it and upon which it in turn depends. If it cannot organise itself directly to answer the demand of its own workers (and we are very far from suggesting that it has lived up to its responsibilities in the so-called "normal" years) and to support them with the means of life, even at the minimum subsistence level, including proper accommodation, then our civilisation is beyond hope. State help is no permanent cure for such a condition, however essential it may be in an emergency; by it the productive capacity of a people can only be weakened. In regard to the efficiency of State administration, Major Barnes is emphatic; he tells us that "such public provision is as a rule more expensive and less efficient and is, therefore, a regrettable necessity only to be accepted if it is inevitable."

Is it inevitable? We must admit that all forms of State help are an indirect subsidy to wages, and that in giving it the State pays for the casualties which industry fails directly to relieve. That certain burdens of industry are better "pooled" on public lines is undeniable, and it is the science of statesmanship to adjust the balance between State and industry for public services in special circumstances. As an example, some form of State assistance for housing after the war was clearly a national responsibility. There is, and should be, no set rule for deciding what is and what is not a special circumstance that cannot equitably be met by industry, but the principle that responsibility for the maintenance of its employees ultimately rests on the engine of production appears to us incontrovertible. In this adjustment lies the political arena of the future. Certainly our housing supply is at the moment very far from being self-supporting, but to assert with cheerful mournfulness with Major Barnes that after all public education did not destroy us, so neither need (very gradual) public rent subsidy, is to set up an unfair comparison. Education is a special charge on a special section of the public at a special time, which is best met and best administered centrally. State education strengthens a public responsibility that is entirely healthy and socially just, and it is admittedly efficient. Accommodation, far from being a special charge, is general in its widest sense, and instead of being better administered centrally is, even according to a sympathiser like Major Barnes, "more expensive and less efficient." If our productive organisations cannot recover and supply what will meet the accommodation rental, we cannot successfully substitute a permanent policy of small State workhouses. To us, we admit, there appears to be no heroic solution; it resolves itself solely into the wider problem of the effective wage and the ability of industry to provide it. Given the effective wage to pay an economic rent, the building industry will provide the houses more efficiently than any other agency to whatever standard the State and public opinion may and should impose.

We confess we are not hopeful of any such adjustment—for some time at least—being thought out and introduced on practical lines. Conflict and clamour are the enemies of reason, but some policy must be evolved probably associated with a form of national insurance on the broadest basis. The achievements of individual firms where they have been boldly executed in a social spirit have shown what can be done. Whether private enterprise takes the form of co-operation, profit-sharing, or the application of the "Whitley" principles, the public has learnt that good management is good business as well as good Christianity.

The fate of civilisation depends upon the fate of its citizens, and the ability to pay for a home is the hall-mark of independence. While admitting past shortcomings, we believe that industry will yet be able to justify her existence—as she has not hitherto done in the years of plenty—but she will have to set her house in order, and secure the independence of her own servants.

Although we have attempted to answer the particular challedge to the building industry, we may well thank Major Barnes for his amazing store of reference material, and for what we hold to be more valuable, the insistence on the gravity of the accommodation problem. We purposely avoid mentioning the word "housing" because the author tells us that "it is no part of this book to discuss the qualitative aspect of housing." Such an attitude is, in our opinion, untenable, since questions of cost are clearly involved. Also it encourages the idea that standard and architectural merit are unpractical, or anyhow do not necessarily affect practical issues, and such a delusion can only set back the cause of social reform, which is intimately connected with the size and character of our new houses. Apart from this criticism we believe that this volume will provide a valuable book of reference, one which no student of social conditions can afford to neglect.

* "Housing: The Facts and the Future," by Harry Barnes. London: Ernest Benn, Ltd. Price 25s. net.

NOTES.

Modern Architecture.

THE paper read by Professor Richardson at the Architectural Association on Monday night dealt with modern architecture and with the attitude we must adopt towards it if we are to produce a living architectural language. It was satisfactory to find that no single speaker said anything in favour of the existing state of affairs, neither did anyone deny Mr. Goodhart-Rendel's contention that we have precisely the architecture we deserve. It may be that every generation imagines itself to stand at a turning-point in the world's history, faced with unique opportunities, but very few have such excellent reason for such a belief as has the present one. A world upheaval is invariably followed by a period of energetic reform, and the question of whether war, with all its horrors and folly, is the only means of promoting this is one of the most difficult with which we can be faced. The attempt to understand the incomprehensible is always stimulating, but it must not be forgotten that inquiry into an art form, such as the source of beauty in architecture, is unlike a definite and limited scientific investigation in that there is no absolute answer.

The Advertisement of Architecture.

THE first annual general meeting of the Architecture Club was held on May 29, 1923, and now we have before us the first annual report, showing what are the activities of the club, and these may be pronounced a decided success for a first year's effort. It will be noted that "there can be no suggestion that the club supposes itself to include all the competent architects in the profession," and is only to be regarded as a small propagandist body. It is well that this has been stated, for the attempt to fix standards of quality is a very dangerous business, especially at a time like the present, when the distribution of awards and honours is so grotesque. We shall owe the club some gratitude if it helps to spread some enlightenment about architecture and architects amongst the public, and particularly if it clears away the fantastic notion that only those who are well known and advertised are capable. The promotion of the art of architecture is, of course, a great aim, and is not to be confounded with the advertisement of individual architects, however good their work may be. We want mainly to get the public to appreciate beautiful building and not to feel we are putting the well-being of the individual architect into the forefront of our propaganda. Hence, we wish the club all success.



House near Barcelona, Spain.
[Built of reinforced concrete.]



House near Barcelona, Spain.
[Built entirely of reinforced concrete.]

A Notable Art Critic.

THE death of A. Clutton-Brock will be widely regretted as the loss of a distinguished writer and a man of sincere character. To his art criticism he brought that rare accompaniment of a synthetic approach, interpreting the deeper relations of art to life, and connecting it with those beliefs which give to it this fundamental endowment. His was no superficial approach, shaped on the fashion of the time or habit, in that his thoughts about art were ever placed on a background of human welfare, from which he surveyed it. Not too much concerned with catalogue numbers and the small change of ephemeral art criticism, he avoided any morbid attraction to extreme cults and the exclusiveness of schools, to preserve for art that intrinsic value which associates it with the virtues of a people, away from preciousness and professional pretension. It is not, perhaps, the time to gauge fully the value of his contribution and it will appear to some that his later writings showed a tendency to become hampered by a more pronounced doctrinal attitude, by some little loss of the common touch; a stage perhaps only temporary and preparatory to a wider comprehension freed from doctrinaire influences and piercing deeper those realities of which his earlier work reveals him to have had so clear a vision. Art criticism such as his is rare, nor will his place be easily filled. At a time when the unstable atmosphere of mere opinion so much prevails, the death of a man of pronounced and illuminated conviction is a real loss.

Protection of Churches. THE Report of the Central Committee for the Protection of Churches, the first issued and published by the Oxford University Press, gives an interesting account of the work of a very useful organisation, directed by a central organisation consisting of representatives from each Diocese. The proper care of our parish churches, which have suffered so terribly in the past, is a matter of such national importance, that it is most reassuring to know that some control and guidance through responsible advisers is now available, and that we may look for a security from the vandalism from which our churches have hitherto suffered. Not that the task of these Committees is at all an easy one. The once so acclaimed and orthodox Gothic Revival is now no longer regarded as such; we can see its works, and it is now judged by them. But in their desire to avoid the mistakes of the past and to secure that the average standard of work in churches shall conform to the restraints and traditions which are becoming to it, we must not conceal from ourselves the drawbacks lying in the nature of such Diocesan Committees of Taste, and though endorsing their usefulness at the present time, we may not afford to neglect the defects in all such bodies. Where taste only is concerned, their usefulness cannot be doubted. But the matter is not one of taste only, or to be settled by its decisions.

Taste and the Artist. COMMITTEES of Taste, owing to their strong adherence to precedent and antiquarian preference, their familiarity with the known, and with what has been good in art, are seldom safe judges of what is to be, and tend towards sterility, and when it comes to the consideration of creative work which in its nature will not conform to standards of taste so established, are prone to become an obstruction to the entrance of the new and abundant life included in the creative spirit of art, and are, therefore, hostile to growth. Taste and the antiquarian are useful guides, but not for new expression which holds its prerogatives from other sources, and we must be careful to remember that the office of such Diocesan Committees of Taste needs, in addition to themselves, the reinforcement of an independence and freedom of appreciation to include the new, the unknown, of personally endowed vision. We say this in no way to deprecate the present usefulness of these Committees which, we believe, are wholly to the good—until something better supersedes them. But for the clergy and laity it needs that they shall fit themselves to exercise a wise choice, gradually freeing themselves from such tutelage, and from the fetters of organisation, if there is to be a living growth in church art.

London Factories. ADMITTEDLY it is an advance when great factories are moved out of our crowded cities into the country, and the exodus made in 1920 by Messrs. Crosse & Blackwell was an important step very much in the right direction. It is, therefore, all the more regrettable to learn (from the recent published report on the company's position) that a move back to London has not only been recommended in the report, but is in process of adoption. Financial urgency is not one to be ignored, and the save in turnover is estimated at 4 per cent.; but, while we are not in a position to judge on the factors and circumstances that have led to the company's present situation and decision, we do most sincerely regret the failure of a policy which we had hoped might be a successful example to other firms. We can now only hope that the "model" factories to be erected at Bermondsey and on the river wharf will be equipped with up-to-date smoke consuming apparatus, and, further, that the company will make some housing provision for their employees in connection with this renowned and important business.

A Suggestion from Nature. DURING our recent visit to the Empire Exhibition we could not help feeling that the recent covering of hoar frost over the countryside emphasised the value of unity of effect in many congregated masses of building. Though the different forms of trees, bushes and hedges were left with their own distinct individuality, this covering of white frost produced an impressive breadth of effect. The universal white at the White City Exhibition was a very effective quality, and it is rather to be regretted that a similar result is not to be had at Wembley.

Academic Dress. THE small amount of support which has been given to the idea of a professional costume may have been due to the influence of the wives and daughters of architects, but the average male mind probably sees in the proposal something of too doubtful a value. Anyhow, the majority of three at a small meeting in favour of it is an impossible verdict, and if the idea is pursued it will surely be essential to have a referendum of the whole profession.



Interior of a Bank at Barcelona, Spain.
[Reinforced concrete construction with marble decoration.]

GENERAL NEWS.

Professional Announcement.

Mr. R. R. Wentworth Hyde, M.S.A. (Singer, Hyde & Son), recently returned from the East, has reopened practice as architect and surveyor at Worthing. Manufacturers, &c., are invited to forward catalogues of building and engineering specialities to No. 8, Heene-terrace, Worthing.

Liverpool Memorial Hall.

On February 10 the Lord Mayor of Liverpool will lay the stone of the Liverpool Memorial Hall, which is being erected on a site near the memorial to the 55th Division at Givenchy. The Memorial Hall has been subscribed for by Liverpool people, and will be used as a library, cinema, &c.

Swedish Art.

The first representative exhibition of Swedish art in London, we believe, is now being held at the Royal Academy, and at the private view on Monday it appeared to be highly appreciated. There is a feeling of freshness of outlook and method about the work exhibited which comes with much varied interest in comparison with our usual Academy exhibitions. In figures, pictures, portraits and landscape, there is much to arrest attention, and sobriety of treatment and decorative quality are apparent in many of the pictures. The arrangement of pictures in groups of the work of the various artists enables one to see more clearly the individual qualities of each. That we could find an equal amount of breadth and dignity in an ordinary British exhibition is, we think, doubtful, and it is evident enough that though it may suffer in certain respects from some geographical isolation, Sweden has achieved an honourable and distinguished position in the world of art. There are some admirable pieces of sculpture shown, and one could have wished for more; we certainly might have derived much interest from exhibits of craftsmanship had it been possible to have included them in the exhibition. The writer finds the type in the catalogue both troublesome and inartistic. Some of the striking qualities of the exhibition are, however, reflected in the illustrations of the catalogue, such as the fine "Winter Night," by Karl Nordström; "The Hunter," by Bruno Liljefors; and the convincing portrait of Z. Renholm, by Ernst Josephson. How simple may be the materials for a successful picture may be seen in "A Swedish Farm," by Gustaf Rydberg. Such a picture as this is real, and we have the feeling of being able to move about from the foreground to the extreme distance. It would take a long review to do adequate justice to this well displayed Swedish exhibition.

COMPETITION NEWS

Result of Mint Competitions.

The Royal Mint announces the results of a series of competitions, held during the past year under the auspices of the Advisory Committee as follows:—

1.—For the best design for an award medal to exhibitors (£70), Mr. Percy Metcalfe, London. 2.—For a design for a plaquette commemorative of the holding of the exhibition (£70), Mr. E. Carter Preston, Liverpool. 3.—For the Royal Mint open competition for models for plaquettes illustrative of London, first prize of 100 guineas to Mr. Eric Bradbury, London. Two second prizes of 50 guineas each to Mr. A. Howes, Kew, and Mr. Percy Metcalfe, London.

Prizes of 25 guineas were also awarded to the following for designs symbolical of London as the capital city of the Empire:—Miss M. Kitchener, The Little Gallery, Ashtead, Surrey; Mr. W. H. Doxey, 8, January-street, Chorlton-on-Medlock, Manchester; Mr. C. L. J. Doman, The Studio, 9, Spencer Hill-road, Wimbledon, London.

4.—Designs for a small keepsake medal of the size of a shilling piece. First prize of £50, Mr. Percy Metcalfe, The Studio, Cleveland-road, Barnes; second prize of £20, Mr. William McMillan, 65, Glebe-place, Chelsea; third prize of £10, Mr. Langford Jones, 67, Shakespeare-road, Hanwell.



Foundation Stone.

Designed by Mr. H. C. CORLETTE, F.R.I.B.A.

[This stone is placed as a panel let into the base of one of the piers of reinforced concrete in the portico of the principal entrance to the College. Messrs. Foster & Dicksee, Ltd., are the contractors.]

Newcastle Concert Hall.

The sending-in day for this competition is Saturday, March 1, and not February 1, as advertised.

Talbot Memorial Park.

Design for a Lodge and Main Entrance Gates. A premium of 20 guineas is offered, and the successful architect will be engaged to supervise and carry out the work. Sending-in day, January 20.—*Banned by R.I.B.A.*

Coatbridge War Memorial.

The assessor, Mr. James Lochhead, F.R.I.B.A., has made the following award in this competition: 1.—(£75), Mrs. Edith Burnet Hughes, 27, Ashton-terrace, Glasgow, W.; 2—(£50), Messrs. Denny & Blain, architects, 144, St. Vincent-street, Glasgow; 3—(£25), Mr. Newbury A. Trent, 1, Beaufort-street, Chelsea, S.W. 3.

Newcastle Fire and Police Station.

Newcastle City Council have decided to hold a public competition amongst architects for plans for the proposed new police and fire brigade station on the Marlborough-crescent Market site. Buildings are to cover 2,465 yds., leaving the remainder for an open court yard. Exclusive of the installation of alarm system, the estimated cost is £12,500. Three prizes, amounting in all to £900, will be offered for designs, and an assessor, nominated by the President of the Royal Institute of British Architects and approved by the authority, will be appointed at a fee of £281 10s. to adjudicate.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Newcastle Memorial (Jan. 5; Sept. 14. 1923). Essays on Heating and Ventilating (Mar. 31; Nov. 9, 1923). Holmside Hospital (Feb. 14; Dec. 14, 1923). Industrial Designs (June; Dec. 21, 1923). National Theatre (April 26). Monument to Sir Wilfrid Laurier (April 3; Dec. 14, 1923). Belfast Union Lighting (March; Nov. 9, 1923). Dunfermline War Memorial (March 8; Dec. 28, 1923).



Bank at Barcelona, Spain.

[A reinforced concrete building with concrete-block facings.]

THE COMPLEAT ARCHITECT.

By DUDLEY HARBRON.

XIII.—Wholesomeness.

It is not popular to talk of wholesomeness to those who associate the picturesque with squalor. There are some poets and many artists in paint and words occupied in gilding the dust by their sedulous lauding of ruins and decay. Their influence is widespread, their appeal insidious, so that it is with difficulty that our minds, accustomed to find solace in the contemplation of the deserted village, can be brought to regard with favour the regulated garden suburb. We are depressed by the present ill more fully than by those we know not of. As a contrast to these people, who find so much superficial interest in grime and smuts, there exists another school, who can find little good to say of many aspects of modern life. The former are romantics, the latter realists: both of them are right. A writer who seems to unite the two qualities, Mr. Stoughton Holborn, in his very interesting book, "The Need for Art in Life," states the case concisely:—

"Can we approach the modern city and say that it looks like a jewel in the surrounding landscape, or must we rather say that it is like some festering sore, spreading its smoke and chemical fumes and destroying the vegetation for miles around? . . . Look at the ugly factories, the ungainly warehouses, the mean streets and drab costumes, and, above all, the squalid and appalling horror of the slums."

We have only to open the morning paper to find some crudely reported incident which reinforces, if reinforcement were necessary, the general truth of his picture. Only the other day we were told in plain words, with appropriate comment, the story of a woman who, having stolen some fish, sought to hide her culpability in the cellars of Les Halles. She forgot the cats, to which the basement of the Paris market is given over. The cats attacked her, and she was forced to issue from her hiding-place short of her fish, dishevelled, and bleeding. Could anything well be more disgusting, and yet there is not one word of comment that could lead one to suspect that there were anything unhealthy in such an incident. It will hardly be credited, but a reporter of this news found it funny! Such of us who live remote from the slums and ruins must not forget their menace. Unless architecture respond to the growing knowledge of the present of the need of health for life, it will have failed in the most cruel respect in consideration for the welfare of our fellow-men.

If we approach Mr. Holborn's city, past the leafless withered trees, the first sensation we experience, through our eyes, our throats, our nostrils, is the smoke, belching from countless chimneys. Activity! dreams the poet. Atmosphere! exclaims the artist. Pollution! answers the doctor. From their different angles all of them are right. The drifting haze does lend a wistful charm, so that we glimpse but shades instead of stark reality. A clear sky would reveal more crudity than we care to contemplate. None the less, men are more important than machines. The obvious waste of life in leisure to men, caused by being needlessly compelled to inhale impurities, continually to clean the ever-settling deposit of dirt on one's person and possessions, though it may entail expenditure in improvement of manufacturing methods, would more than be met by the saving in hospitals and gaols. Comically we bracket wholesomeness with hospitals, instead of making it so general that their services would not be required.

Architecture, if it is to be complete, must take cognisance of the absorbing need to promote an atmosphere within and without favourable to health. We are only just realising the full effects of our neglect to safeguard the integrity of those two essential requisites to existence—light and air; because they are free like the sea is no reason why we should cloud with carbon, pollute with sulphur, the atmosphere, or besmear our beaches with oil. If such evils are permitted to increase unchecked, life will not be worth living, if life were possible. Naturally such a sentiment will have far-reaching effects: chimneys will become as redundant as machicolations; let us hope that they did not linger so long after their use had ceased to be.

The provisions for lighting and ventilation of buildings are those which should most effectively regulate their proportions; the width of the rooms and their disposition should not be solely considered from the standpoint of intentional disposition, but should respect the need of their occupants for the necessities of life. It should not be left to a draper's assistant to have to write an article in the *Draper and Drapers' Times*, pointing out the unsuitability of basements as shopping centres. Architects who would scorn to be guilty of consigning the staff of a gentleman to the bowels of the earth to live, or to sleep among the roof spars, should now be mindful lest, having learned one lesson, they fall into kindred error, and relegate assistants and customers to a region where light has to be manufactured and air forced. Headaches and pale faces can only result at the mildest computation.

Whilst wholesomeness is needed by the occupant it must not neglect the onlooker. "Do unto others as ye would be done by" is still capable of revolutionising the world. Our neighbours' rights should not need the protection of the law.

Not only is building affected in this large manner by a regard for life: it is reflected, or should be, in the minute detail which, assembled, composes the structure. The persistence of parts and features appropriate to a clear climate have little to recommend them in one naturally humid as our own, more particularly as at present contaminated by smoke. The environment of plough lands and the prevailing winds will always carry a certain amount of foreign matter in suspension, and this, finding a favourable lodgment in nooks and crannies provided to give light and shade, ends in their rapidly losing the original power so to do. Respect for the canon of cleanliness entails a consideration of their conformation so that the cleansing properties of wind and rain shall be assisted and not impeded. That where their agency is not afforded the human hands which have the work to do shall find that the task has been lightened. If architects think more and always of these things there will be great hope for the art.

The disregard of wholesomeness is the opportunity awaited by those agencies of destruction, rot and rust.

Leicester City Rebuilding.

At a recent town's meeting a scheme to practically rebuild the city at a cost of £3,000,000 was defeated by the narrow margin of 679 votes to 532. The scheme, it is stated, has only been before the City Council for twelve months, and as a large number refrained from voting, the matter is as yet by no means settled. The enterprise can be described as popular in that it appeals to most of the leading men, the exponents of public opinion, and a certain proportion of the ratepayers. The work could not be taken in hand all at once. It would be set about in sections, one portion being completed before another was begun. In this way it might take 50 years in the doing.



DETAIL OF FRONT.

Municipal Auditorium, Colorado Springs, U.S.A.

Working Drawings by MR. C. E. THOMAS; Design and Supervision by MESSRS. T MACLAREN & T. D. HETHERINGTON.

CORRESPONDENCE.

The Menai Suspension Bridge.

SIR,—In suggesting that tenders be obtained for strengthening the Menai suspension bridge, as an alternative to the erection of a new structure, Mr. A. H. Stott may not be aware that, according to the statement of Sir Henry Maybury, of the Ministry of Transport, "a careful and detailed inspection of the bridge" revealed "increasing signs of fatigue and decay. The deterioration was accelerating, and the present bridge could only be maintained by a heavy annual increase in maintenance charges coupled with a further reduction in the tonnage permitted across the bridge. By those means the alternative of constructing a new bridge could only be postponed for a few years."

With regard to the broad question as to the suitability of reinforced concrete for the proposed new bridge, may I remind Mr. Stott that if the same prejudice against the use of a new material had existed when Telford's bridge was built that "graceful structure" (to use your correspondent's own words) would never have been built? It seems to me that a new material, when found suitable for a specific purpose both on the grounds of cost and strength, must be accepted, and it is the duty of architects to design beautiful structures in the new material. I enclose two photographs of reinforced concrete bridges, which, I think, amply prove that "graceful structures" can be built with this material if the designer sets out to make them so.

London. H. C.

Rolled Steel Joists.

SIR,—The writer of the article, "Advantages of the New Steel Joists," in your current issue, commenting upon these sections, claims for them more than the facts warrant. In each case in which, by example, he shows these beams to be better weight-carriers, the depth of the new is greater than that of the old beam with which it is compared. Generally for beams of similar section, economy as carriers of weight is proportional to depth, so that these results are to be expected. For joists not strictly similar, an economic index figure is given by :—

$$\frac{\text{Modulus of section.}}{\text{Area of section.}}$$

Applying this to the old and new 12-in. by 5-in. joists we get 3.895 and 3.906 respectively, a difference of 2.8 per cent. only in favour of the new, the web of which it should be noticed is thinner.

Consideration of the above will explain why it is that engineers so commonly clamour for depth—more depth.

London. W. H. T.



Reinforced Concrete Bridge at Mizen Head, Ireland.
(See letter on this page.)



Reinforced Concrete Bridge in Spain. *(See letter on this page.)*

America's Westminster Abbey.

SIR,—It is interesting to learn that America's new national cathedral to be built at Washington, at a cost of £10,000,000, will be Gothic, similar to our Abbey, with the exception of the centre tower—which will be carried up and pinnacled—and the chapter-house planned near the south-west tower. After the flood of gush a few months since on Wren's pagan temples, this should be particularly gratifying to Pugin's disciples.

Weston-super-Mare. E. VALE.

"Mezzanine."

SIR,—Some years ago, while crossing Bayswater-road, the above term came into my mind and has stuck fast ever since.

At the time I was considering the best form of roadway-street for cities, and this may be said to be the first time I have put pen to paper on the subject directly.

During the memorable conference on town planning in London, in 1910, a Frenchman proposed what may be termed the "tier" street, which, I believe, consisted of one line of communication above the other, but wholly underground.

"Mezzanine" may be taken as a development with the top tier projecting in some degree above the surface level of the side pavements and with its roof forming a roadway in itself.

The lower ground levels or basements of the structure on either side might then have a pavement the same width as the normal pavement above, and be thus the better available for business purposes; whilst the lodgement of the service pipes, cables and wires could be suitably arranged.

The question of the crossings and points in such a street as described seems at first to be one of the utmost complexity, until it is resolved to make some of the former *cul de sacs* for wheeled traffic and to arrange the latter as a one-way-street with traffic "flying off at a tangent" in the direction it desired to proceed. The diameter of the one-way circular street might be considerable, and be filled in with a structure rising to a great height and capable of being used as a traffic centre and otherwise as a public place.

O.B.I.T.

Problems of 1924.

SIR,—It is encouraging to find that, under the above title, you are of the opinion that the state of the building industry cannot be considered without touching upon political issues. The social spirit which places public interest before private advantage is gradually taking the place of the old-time game of politics, and decent-minded people now consider "programmes" without being affected by cheap jibes and newspaper stunts.

It is said that architecture reflects the state of contemporary civilisation. Surely the influence of architecture need not be so negative as all that. Architecture ought to be quite capable of leading the way in moral thought. As custodians of the Mistress Art, architects have a power to lead, which is not even second to that of the decent politician who puts the State before private gain.

You very rightly remark that "up to the present, this country has taken a mild pride in the fact that the Government has done less than almost any other in fostering the arts or even recognising them in any shape or form." Things are now changing. Oil companies are taking down their beastly posters over the countryside. A political leader has publicly uttered what most of us have been thinking in private or only in books up to the present—that private individuals should not be allowed to use a national housing shortage as a means of raising artificial prices. The same political party, if given the opportunity, will patronise the Arts in the highest sense of the phrase, so that private opinion may be enriched by the Arts.

If the architect is a man or woman worthy of his training and true to his ideals of good building, he should be acquainting himself with the problems of the human beings, who are the setting to his architectural compositions.

Architects who are, or ought to be, the guardians of the Nation's moral welfare, cannot entirely keep out of politics these days.

ALISTER G. MACDONALD.

TOWERS AND SPIRES.

II.—Tower of St. Front, Perigueux.

BY SIDNEY TOY, F.S.A., A.R.I.B.A.

As mentioned in the previous article, it is proposed in the treatment of this subject to confine attention to the examination of towers with spires erected over the vaults or central crossing of buildings. It is in these positions that the greatest structural difficulties were encountered, and it is here, therefore, that the examination will be attended with the greatest amount of useful instruction to the architects of the present day. In the case of towers with spires raised directly from the ground the dynamic problems are relatively simple and, generally, instances of this kind will be referred to only where they present analogous features of contemporary date or show conspicuous skill in structural treatment. In the case of central towers built of stone or kindred material, the difficulty of providing adequate support for both vertical and lateral pressures, without causing undue obstruction to the space below, is very considerable, and the architect must choose between external effect and internal convenience and beauty. But in edifices conceived on a large scale, well designed and skilfully built, a tower in this position forms an agreeable point of concentration dominating the whole structure and bringing all its parts into one group.

One of the earliest existing examples is that built over the vault of the "Latin" or more ancient part of the church of St. Front at Perigueux.* This tower stands over two bays of the church—which now forms a kind of narthex to the notable Byzantine addition with five domes—and rises to a height of 200 ft. (Fig. 1). Before beginning the erection of the tower proper the two bays of the church on which it was to stand were considerably strengthened and the work carried up to a height above the roof level to form a base for the new structure. Upon this base the tower was built in two tall receding stages and crowned by an open lantern with a conical stone cupola. Each of the two stages is pierced by two tiers of windows and is divided on all faces into three bays, the lower stage by wide pilasters, and the upper by engaged columns. Internally, the walls of each stage considerably overhang those of the stage upon which it stands; and the second stage, at the level of the upper cornice, is covered in by a hemispherical vault. Above the vault the angles of the square tower are stepped back externally to form the base of the lantern. The lantern is circular and has a colonnade of forty-eight antique columns, which stand upon a circular podium and support the conic cupola. These columns have evidently been taken from Roman buildings and are of varying diameters and heights.

It is difficult to state precisely the origin of the design of this tower, though it is Romanesque in detail. Probably it was the work of an intelligent architect of Perigord who was conversant with the campanili of the Venetian State, between which and Southern France considerable commercial intercourse existed at the period, and who in building a campanile of similar character adapted to his purpose the principle of superimposed orders he observed in the Roman Amphitheatre at Perigueux itself. It will be observed from the above brief description of the tower that its constructive principles are rudimentary and weak. The walls of the upper stage recede so much behind those of the lower that the engaged columns of the angles of the former stand partly above the arches of the windows of the latter, thereby increasing the thrust of these arches and their tendency to throw out the angles against which they abut. Again, the thrusts of the vault at the summit of the upper stage, thrusts which are greatly accentuated by the weight of the heavy lantern above, have apparently no other restraint than is offered by the walls against which they act. Some security was indeed provided here in the segmental arches of the upper windows which were actually lintels and arches in appearance only. These lintels, however, cracked under the forces to which they were subjected, and no longer fulfil the rôle of ties for which they were designed. There can be little doubt that, in conformity with the almost universal custom during the Middle Ages, both in the Levant and in Western Europe, timber ties were buried in the thickness of the walls between the tiers of windows, and that it is to this circumstance that the tower owes its stability. Notwithstanding this it has been found necessary for further security to partially block the upper tiers of windows and to build up entirely most of the square openings of the lower stage, as will be observed in Fig. 1. The external face of the cupola over the lantern is cut into a series of scallops which present a scale-like appearance with the scales pointing upwards. This is not primarily a decorative feature, but is provided in order that the rain water as it passes down the face of the cupola should be thrown clear of the vertical joints of the stonework, as shown in detail in Fig. 2.

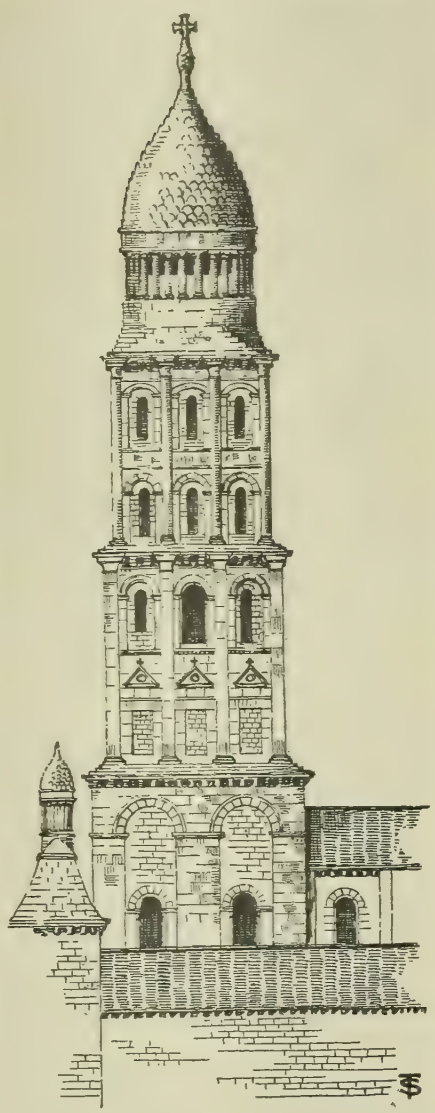


Fig. 1.—Tower of the Church of St. Front, Perigueux.

The tower over the crossing of the church of Notre-Dame-la-Grande at Poitiers and the central tower of the Abbey of Sainte-Marie-des-Dames at Saintes, near Rochefort, both present features of somewhat similar character to the tower at Perigueux, though they are later in style and detail and show considerable improvement in construction. The tower of Notre-Dame-la-Grande is built over a rectangular crossing and consists of two stages surmounted by a circular lantern with a conical roof (Fig. 3). The upper stage is pierced on each side by twin windows, which are sufficiently narrow to allow space for wide, solid masonry on each side for their abutment. The lantern is divided into six panels by engaged columns which ascend to the corbel course of the conical roof and each panel is pierced by twin windows. The manner of treatment of the broaches over the angles of the upper stage shows a great advance from that adopted at St. Front, Perigueux.

At Sainte-Marie, Saintes, the disposition of the tower is somewhat similar to that at Notre-Dame, Poitiers. Here, however, the work is much more elaborate and richly decorated. The stage above the roof line is pierced on each face by arcades of three richly decorated openings. These are of three orders and the inner order being relatively narrow, the clustered piers and responds are of a substantial character. As at St. Front, this stage is covered by a hemispherical vault, but in order to increase the resistance of the angles to the thrusts acting upon them the broaches above are loaded by pinnacles; this again shows an advance in the knowledge of constructive principles. The lantern is pierced by twelve round-headed openings of two lights, each opening being separated by engaged columns as at Notre-Dame, Poitiers, and is covered by a conical roof with a slightly convex surface. This roof has also the scale treatment shown in Fig. 2.

*M. Viollet le Duc ascribes this tower to the early years of the eleventh century; though Mr. Phené Spiers, in his monograph of St. Front, Perigueux, refers the structure to a period subsequent to 1120. It is difficult, however, to associate the general character of the tower with this later period.

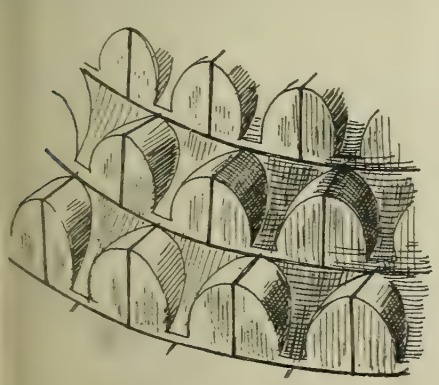


Fig. 2.



Fig. 3.—Tower of Notre-Dame-la-Grande, Poitiers.



MR. E. STANLEY HALL, F.R.I.B.A. (President), occupied the chair at a general meeting of the Architectural Association held at 35, Bedford-square, W.C., on Monday last.

New Members.

After the Minutes of the previous meeting had been passed and signed, the President announced six nominations for election to membership, and the following were unanimously elected new members :—

F. J. Watson.	E. L. Thompson.
S. L. Thomson.	R. B. Bana.
W. T. Lord.	G. H. H. Heritage.

THE RENEWAL OF VITALITY IN BUILDING.

PROFESSOR A. E. RICHARDSON, F.R.I.B.A. (Professor of Architecture at London University), then gave an address entitled "The Renewal of Vitality in Building," in the course of which he said the first quarter of the twentieth century was nearing its close, and the activities of those who had lived and worked during this exciting time stood clear. There was no need to recount past and current history, other than to make the statement, which they already knew, namely, that newer theories respecting building were, in every country, their own included, finding ready acceptance at the hands of earnest men.

They lived in the present and could not change or affect the present, but they could alter things for the future. That was their right and their duty. It involved a measure of self-sacrifice, a break from comfort, and a forceful severance from the filthy litter of custom. The incentive to emulation offered by the experiments and aspirations of other countries would not alone prove sufficient. Those experiments represented a viewpoint both enterprising and laudable, but the results had nothing in common with this country. The revitalising process would not come from abroad; the task was theirs and theirs alone.

He ventured to suggest that the development of sound theories, both intellectual and scientific, depended upon the schools and coteries of builders trained in the schools. It was his firm belief that England would eventually secure the leadership in all that pertained to the scientific art of building. They had to aim at collective effort as opposed to individualism. They were faced with the realities of modern life, and the whole range of economics. There were in addition such humane considerations as town and regional organisation. They had to consider in their special sphere the sources whence the profession of building drew its sustenance. They needed to pay more attention to technical considerations, and those essential to the comfort and well-being of their fellows. Building was no longer considered to be a matter for idyllistic experiment. It was now looked upon as a scientific art tending more and more to rely on expert knowledge of use and function for articulation. There was, for example, the study of acoustics, which implied the evolution of new forms for auditory chambers, as well as other branches, such as heating, lighting, and ventilation, all of which raised minor issues that in turn affected the scheme. In time civic authorities would draw up regulations whereby the existing by-laws would be augmented by others which would include the control of the main lines of building expression in the streets. Ten years hence this suggestion would be a reality.

As chief builders it was demanded that they keep before them a picture of past and present achievement, not only regarding the narrow limitations of their own calling, but a perspective of reasonable angle, which connoted all the arts; moreover, there was the question of paramount importance—the study of humanity.

The viewpoint to be aimed at was almost beyond their capacity, but nevertheless they should attempt its realisation. Other considerations included the preservation of amenities in town and country, the repair of historical buildings, and the fostering of interest in everything worthy of interest. The precision of modern building methods, particularly the handling of material, had not produced a definite departure from, or improvement on, the aspect of the conventional scenery. The buildings of the present, despite the care of the designer, and the labour of the workmen, were, with possible exceptions, listless and dull. Mere scholarship had not produced the desired result. How, then, could the revitalising process be attempted ?

The theory of building was gained in one or other of two ways : to some it was an abstract gift, amounting to intuition, which grasped the idea without effort or inquiry; to others less fortunate it was a question of a study of technicalities, and was attained by reasoning and experience.

Building was an affair of the intellect; primarily the term implied structure, secondly it connoted form, which was the natural outcome of structure, and responded directly to intellectual impulses; the third division was concerned with detail and colour. Structure, form, articulate membering, and colour had collectively and at all times determined the dominant characteristics of building. Those factors, as well as others of a subsidiary nature, had played their part in producing the concrete ideas which in bulk survived, and in all countries formed the conventional scenery, amidst which mankind had lived and moved. On such reasoning could be accepted the idea that building belonged to the intellectual side of human achievement. It was an outward and visible expression of the varied inspirations which from the earliest dawn had possessed mankind.

Gradually through the ages a system had been evolved, subjected it was true to all kinds of cross-currents, but retaining traits of humane significance. From the best of the impulses of the past, brought into being by force of circumstances and the intellectual efforts of nations, had survived ideas both forceful and logical. In that was to be seen the intellectual message projected from remote antiquity to the present, a message concerned with primary ideas and forces, and not to be confused with stylistic renderings.

To-day there was urgent need for renewal of vitality. They had reached a point where it was no longer possible to draw upon the reserve strength of the past to perform present-day functions. This was an age of introspection, with the whole sphere of research open to study and emulation, but they were forced to recognise the very narrow limits imposed on the development of building as a scientific art, if time-honoured methods alone were pursued. Granted the intellectual aspect of building, the need for historical reference as well as considerations both spiritual and emotional, the fact became insistently clear that something else was wanting. What was it ? Was it increased technical knowledge ? Was it greater proficiency in artistry, or some other factor to add to the complexity of their undertakings ?

The truth was that none of these attributes singly would help in the revitalising process. It was impossible to return to conditions that were obsolescent and out of harmony with the newer forces which were daily taking effect. They were gradually becoming accustomed to the thought that their outlook as builders needed broadening. It was a necessity with which they were faced. No longer was it considered good manners to speak of art and art alone; on the contrary, they were confronted with realities which demanded vital expression. Hence the need for a new viewpoint.

All buildings worthy of the name, irrespective of size, style or period, owed their qualities as such to the fact that use and purpose controlled the ultimate form. Structure, therefore, implied the geometrical arrangement of the spaces enclosed and connoted both form and function, horizontally, vertically and in a lateral sense. A building conceived on those basic principles, which had their origin in the beginning of things, was beyond question an intellectual achievement. It was structurally sound and functionally articulate in direct ratio to the statement of the plan formation.

The geometrical arrangement of the plan, with its nucleus and appendages, its circulation and conveniences, its voids, solids and vistral effects, each and several, made up the articulation of the structure. There were considerations of support and distribution, the legitimate use of materials, the calculation of mechanics, and other factors, all of which needed control if they were to be employed to assist the general effect. It was not possible for the architect, as a preliminary, to do more than marshal these latent forces in correct order; but an observance of such elementary factors would do much to produce a complete building.

The architect had, therefore, to follow the axiom that function and use were the factors which conjointly determined structure. It was a law present in all good building, irrespective of traditional usage. The more closely that law was observed the better the structural articulation and in varying degree the intellectual status of the building expression.

Form was the true manifestation and reflection of structure. The experiments of the nineteenth century, and after, illustrated the growth of complexity, in the main muddle-headed; a sort of unsuccessful groping after the secret of building through the manifestations and examples of form without sufficient and searching inquiry into the nature of function. While on this point the idea could be advanced that the primary theory of use and function allowed of licence, such as the flowering o detail, membering and decoration, the main structural attributes remaining intact and insistent. The designer who aimed at the true secret of building was one who was gifted with the instinct to rely for strength and ultimate effect on the inherent structural attributes of the fabric. The pre-classical civilisations in a great measure produced buildings of vast scale, representative of religion and military routine. They were not of high intellectual value. It was as though myriads of insects had been at work listlessly and without inspiration. The universal law of form in building arising from structural necessity and usage was common to all art. It was a law that brooked no interference; in the realm of building it had ever been present, and crystallised the intellectual impulses and culture common to any branch of art. If that law were ignored, building descended to the level of mere decoration; it lost its vitality and reason to be. Then the cross-currents of style, exploitation, and experiment in fantastic shapes took effect, the result being a species of Babylonian confusion. Building, of all the arts, relied primarily on the faculty of reasoning, which was the basis of design.

Buildings of European origin, from the age of Pericles to the latest examples of the Renaissance in the United States, in the main expressed the cool calculation and intellectual grasp of the building theory of function, combined with a dominant taste for decoration. The monuments of pre-classical days and later, in the East, from Assyria to India, appeared to have arisen in response to impulses that decreed

form to be more important than structure. The buildings of India in particular which to-day were receiving considerable attention from architects had no structural vitality. The silhouette and the form of the exterior represented a piled-up mass of material, interesting as abstract forms, but still-born in every other respect. They were creations stupendous in idea, but devoid of the vital spark. It was a style which had for its dominant expression the cult of cruelty and the subjection of humanity and individuality—a creed eloquent of the Hindoo religion and spiritual outlook. On such reasoning it must be conceded that the structural quality was vital to all building and sustained development of art. It was no longer possible to return to primitive ideals or to revert to primary forms, neither was it expedient to attempt, as heretofore, to exploit stylistic tendencies. Building as a living and vital art to-day had almost ceased to breathe. It had scarcely any reserve strength, and was at the mercy of every whim and fashion. They were seeking to escape from that species of *cul-de-sac* into which the thought of two eminents during the past century had diverted action. Among the many difficulties which beset them as builders was the fact that, apart from the necessity of building well and structurally, none recognised that a compelling interest was at hand to assist. The Greeks had the development of intellect as their ideal, the Romans had the lust of power, the Byzantine Greeks the impelling force of fusing eastern and western thought, the mediævalists the spiritual influence of religion, the artists of the Renaissance the revival of classical thought, which began in the fifteenth and lasted until the opening of the nineteenth century. The development of scientific research in the nineteenth century swept aside all idealistic leanings; the arts were relegated to a minor place; hence the furtive, but not quite abortive, revivals which in every country practically followed the same course.

Form, as understood, and culled from historical *motifs*, was forced to envelop structural arrangements, much as an extinguisher was placed over a candle. They were just beginning to apprehend the effect of that disastrous policy, which was not confined to practice in this country alone, but was the heritage of France and America. They were all guilty of the practice. Many beautiful buildings had resulted from such introspective study of the past, but that which appeared correct in the days of Sir Joshua Reynolds, and later of Cockerell, Pugin, Scott, and Ruskin, would afford little assistance at this crisis, when the need was delivery from the maze in which all the aspects of building were ensnared.

There were those who thought that the war would have swept away the old shibboleths, and that a new heaven and a new earth would be ready for enjoyment. Others opined that an expansion of commerce would provide the avenue for improvement in building matters, and yet others thought that salvation would come from America. The old habits and the slipshod methods had with few exceptions been followed; it had been a policy of despair, especially for the hackworkers and the journeymen. The issue before architects to-day was the definite one of studying and interpreting realities. The impelling interest was present; it had ever been present, although shadowy and scarcely realised. What was it? It was the interest of humanity, the study of one's fellows, whose needs, ambitions, emotions and struggles demanded assistance and comfort from the arts. Close and careful experiment with old forms and models might lead to a perfection of what was already known regarding stylistic expression; but the results were doomed to be soulless and unintelligible to the mass of opinion. What should they think of a painter who deliberately affected the style of Reynolds, Romney or Masquerier, other than to gain knowledge of technique? Yet architects in every country appeared to be content to strive after the shadow and to lose the substance. No past *motif*, however pleasant as building, or detail, could be accepted as the basis of a modern departure. It was structure and structure alone that would provide the germ of the new style, which, after all, was a very old one. Their intelligence should, therefore, be directed not to the theory of form, but to the theory of structure, of use, function and necessity. The minor attributes would take care of themselves. Theirs was the task to rescue the scientific art of building from foundering in the slough of ineptitude, to which the art had been led by over-observance of complex conditions. This was not the time for historical essays in material, however brilliantly conceived and executed; no paper facility would atone for lack of vitality and unobservance of structural necessity. The need of the moment was for a creative impulse based on present-day wants, having as its purpose the control of conditions that were fast becoming chaotic—more chaotic and perplexing than they were a century ago.

Foreign attainment and advance must be noted and weighed. There was plenty of scope for individualism, but individualism was dangerous; in like manner, the pursuit of idealism for the sake of spectacular effect must be curbed. Building must be studied by coteries of specialists with the end in view that vitality of expression was desired, closely representing the finest aspects of every-day life. Art must be entered upon on the big scale; no pains or time or expense could be spared. It must be understood that building embraced many crafts, that mere precision in the handling of materials would not produce the desired result, and that individual genius alone would not suffice to bring about the change. Again he would make the allusion to the value of schools and coteries as opposed to the isolated efforts of talented practitioners, whose time was rightly given to their individual work.

The architect who relied on form alone to express his ideas did not succed in producing results that were convincing. In general he sought to obtain interest by increasing the complexity of the detail and minor parts. But buildings that were entirely satisfactory were not produced in that way. No good could accrue if the latent forces were ignored. It was not a matter of richness of surface or scenic effect, but of the expression of the fundamental shaping of the building horizontally, vertically and laterally, having in view the articulation of the innumerable forces which were latent in every part of the structure. The addition of ornament, meretricious or otherwise, unless it were devised with the greatest care, would only confuse the issue. Detail that was studied and bookish would not assert the ultimate expression of use and function. If it were employed for pictorical effect it would only act as a delusion and a snare. In this country for over a century the making of books and the pursuit of research, with the building up of an almost incomprehensible repertoire of style knowledge, had obscured the finer vision of architects to the intrinsic merits of structural evolution.

It appeared as if present-day designers were handicapped by a chronic ineptitude for dealing with present realities. Once this simple truth were realised building would advance with renewed vitality and spirit.

What was wanted at the present moment was an entire reconstruction of the body of building; nothing else would suffice. Fine as the European tradition was, with its many excellent examplars of form, it had been found by experience to be closed to expansion; in other words it had reached the conventional limits imposed by the observance of the classical forms, which underlay its manifestations. They were bound, however, to observe certain of the laws which past achievement had made clear. It was not possible to discard them altogether, but it was equally certain that English builders and artists could no longer submit to the tyranny of the Mediterranean.

The fault of the building work of to-day was that in the main it bore no relation to everyday conditions. At its best it was scholarly to some degree, but it was contradictory: it was a law unto itself, but outside its sphere of action it was not understood. The public were in doubt as to what the parade of knowledge meant; hence the perpetual reactions and changes made by designers to achieve fashionable notoriety. True building, that was to say the observance of the theory of structure, should be above the tendencies and fashions of the moment; it must be neither vague nor dazzling; on the contrary, its message should be one of clarity. Until modern building regained the quality of articulation, until the idea of use and function became accepted as the only means whereby definite expression could be gained, all talk of a new style was so much nonsense. Buildings must have something to say, but the lesson should be definite: there must be the expression of purpose combined with spiritual impulses, the finesse of artistry and the rays of logic. The English character was the finest of its kind in the world, but English builders appeared to have lost, let it be hoped temporarily, the power to express that character. They had been too self-sufficient, too confident, too inadequate altogether to rise above worldly surroundings. Some had thought that interfusion and association of past ideas would be productive of great results. Such thoughts had been proved fallacious; they had seen the effects of such ill-advised doctrine in recent works in the streets of London—a greater complexity and muddleheadedness.

Revitalised building would depend entirely on the handling of the definite principle of structure, which in turn would draw its support from the logical employment of materials. In that way, and in that way alone, would the correct articulation of structural forms assist the evolution of a humane style of building, one answering the needs of the moment and worthy of being handed on to posterity. Fantasy or external novelty should be avoided. The realisation of a perfect building was no chance affair; no trick of draughtsmanship or artistic skill, no bookish lore or apish copyism of foreign ideas, would effect the desired result. Clarity of articulation was the only way, and the principle of intellectual penetration must be adopted. Architects had created a wall that shut out the public, and from behind that fastness they threw out ideas that had no reality in the world of facts. No progress was possible in that way; it was a mediæval method, one entirely unrelated to the world in which they lived and moved and from which they drew their means of living.

Too long had they pursued form for form's sake, too long had designers bowed down to the dictates of ephemeral and transient fashion, the result being that building had lost its grip on the majority of the audience. There was something deeper to be striven for than mere decoration; it was concerned with the instinct of man to touch upon the mysterious and the spiritual. If they looked around at recent buildings, the manifold evils of the pursuit of form irrespective of cool calculation of the exercise of the reasoning faculties were clear to the view. The attributes of present building appeared to be surface show, and inside confusion. There was no joy in such works, no spiritual expression, no exultation over structural victories, no attempt to make use of the latent forces inherent in upstanding materials. The stonework was laid with precision, the bricks were sound, the carving and ornament applied regardless of expense, but it was apparent that the men employed on the work had imbibed the listlessness of the paper creation from the architect's board. It is all very clever and touching, but it was not convincing. Neither designers nor artificers had succeeded in conveying a message.

Discussion.

Mr. Robert Atkinson, Mr. H. S. Goodhart-Rendel, Mr. K. N. B. Cross, Mr. Manning Robertson, Mr. H. M. Robertson, and Mr. W. J. Benslyn took part in a discussion which followed the paper, and a hearty vote of thanks was accorded to Professor Richardson.

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ILLUSTRATIONS.

Cambridge University: School of Bio-Chemistry.

We give this week further illustrations of the School of Bio-Chemistry, Cambridge University, of which Sir Edwin Cooper, F.R.I.B.A., is the architect. Other illustrations of this building were given in our last issue.

The woodcarving shown in some of the illustrations was executed by Mr. George Houghton.

Municipal Auditorium, Colorado Springs, U.S.A.

This building is primarily meant for the holding of conventions, the arena and balcony portion being for the large, and the three side halls for the small, conventions. In addition, it will serve for public meetings, orchestral concerts, and musical recitals. Space is provided on each side of the proscenium arch for an organ, and the arch is treated with perforated work for the emission of the sound. Chair storage is provided, so that the arena can be cleared for basket-ball games and exhibitions of various kinds.

The total seating capacity is 2,920; and the side halls seat 305, 255 and 90 respectively. The construction is fireproof throughout. The exterior walls are faced with light grey brick, and the stonework is of light buff Boise sandstone. A complete fan system of heating and ventilation has been installed, the fans being placed on the upper floor at each side of stage. In the ceiling of the arena has been installed acoustical felt, and the results are unusually successful. The cost of the building was £67,200; and it was completed in June, 1923.

The design and supervision of construction were by Messrs. T. MacLaren & T. D. Hetherington, and the working plans were made by Mr. C. E. Thomas.

No. 29, Weymouth-street, London, W.1.

This house, which was designed in 1914, but which, like other work on the Howard de Walden Estate, was held up owing to the war, is being built for Sir Walter Lawrence, J.P. The building is fronted with Portland stone, and the illustration was exhibited recently at the Royal Academy. In execution one of the bay-windows has been omitted in order to allow of one larger bay being constructed.

The architect is Mr. George Hornblower, F.R.I.B.A.

Barry Club.

The sketch design on p. 113 was presented to the Club by a member of the Committee, to enable it to see the accommodation that can be put on to the site of the present premises of the Club, and the site of the adjoining premises, which will be acquired. The gymnasium on ground floor will be used as a hall for lectures and entertainments. The basement has a dark room and skittle alley. The first floor has games rooms, and billiard room (over the gymnasium), which contains six tables. The second floor contains the caretakers' quarters. The building will be erected when funds permit. The design is by Mr. J. A. Hallam, M.T.P.I., Deputy Architect of the Welsh Town-Planning and Housing Trust, Cardiff.

MEETINGS.

MONDAY, *January* 21.

Royal Institute of British Architects.—Mr. P. E. Nobbs on "Architecture in Canada." At Burlington House, Piccadilly, W. 1.

WEDNESDAY, *January* 23.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Ancient Rome." At Southampton-row, W.C. 1. 6 p.m.

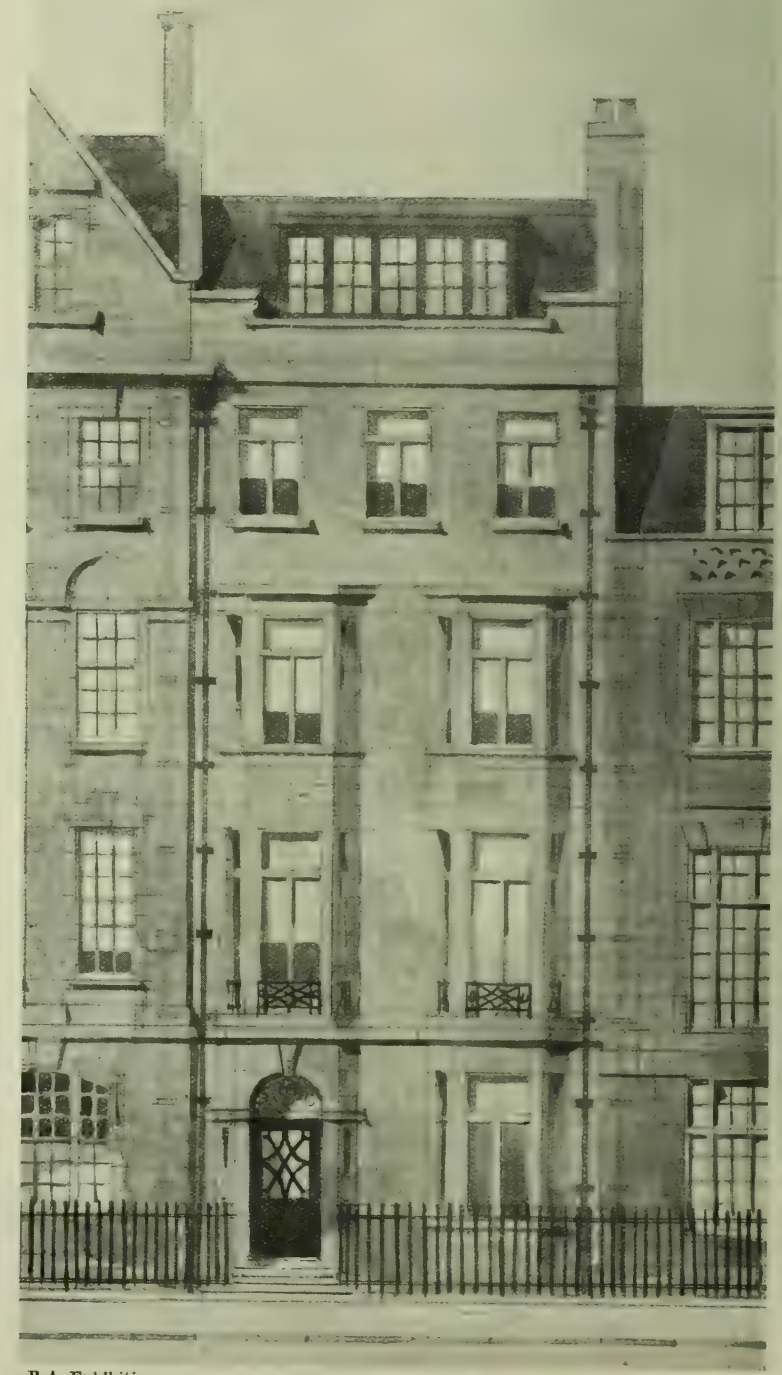
THURSDAY, *January* 24.

Society of Antiquaries.—Mr. R. A. Smith on "Examples of Anglian Art." At Burlington House, Piccadilly, W. 1.

Architects' and Surveyors' Assistants' Professional Union.—Annual General Meeting of the Metropolitan Branch. At Caxton Hall, S.W. 1. 7 p.m.

Institution of Structural Engineers.—Presidential Address by Major J. Petrie. At 296, Vauxhall Bridge-road, S.W. 1. 8 p.m.

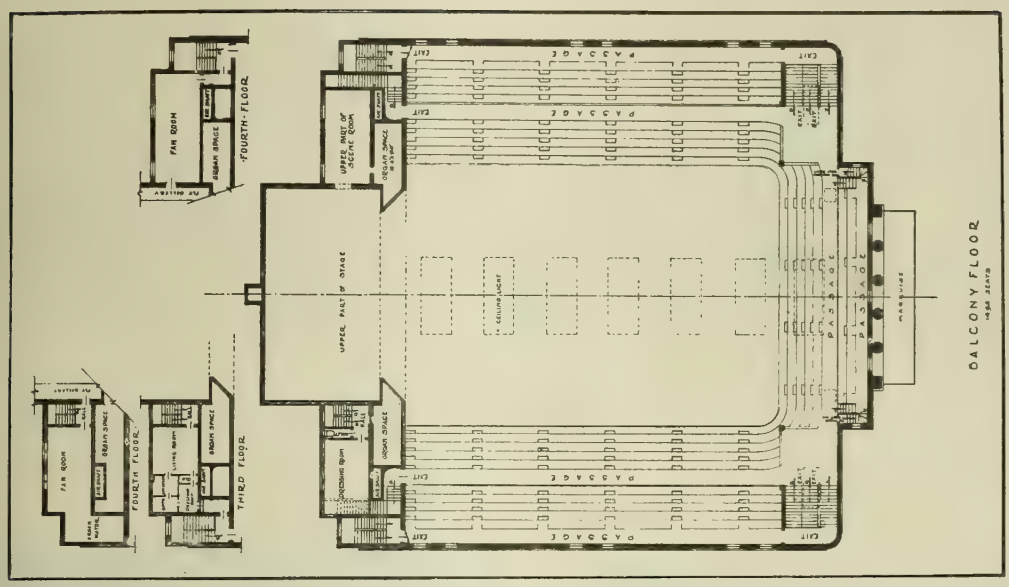
Leeds and West Yorkshire Architectural Society.—Annual Dinner.

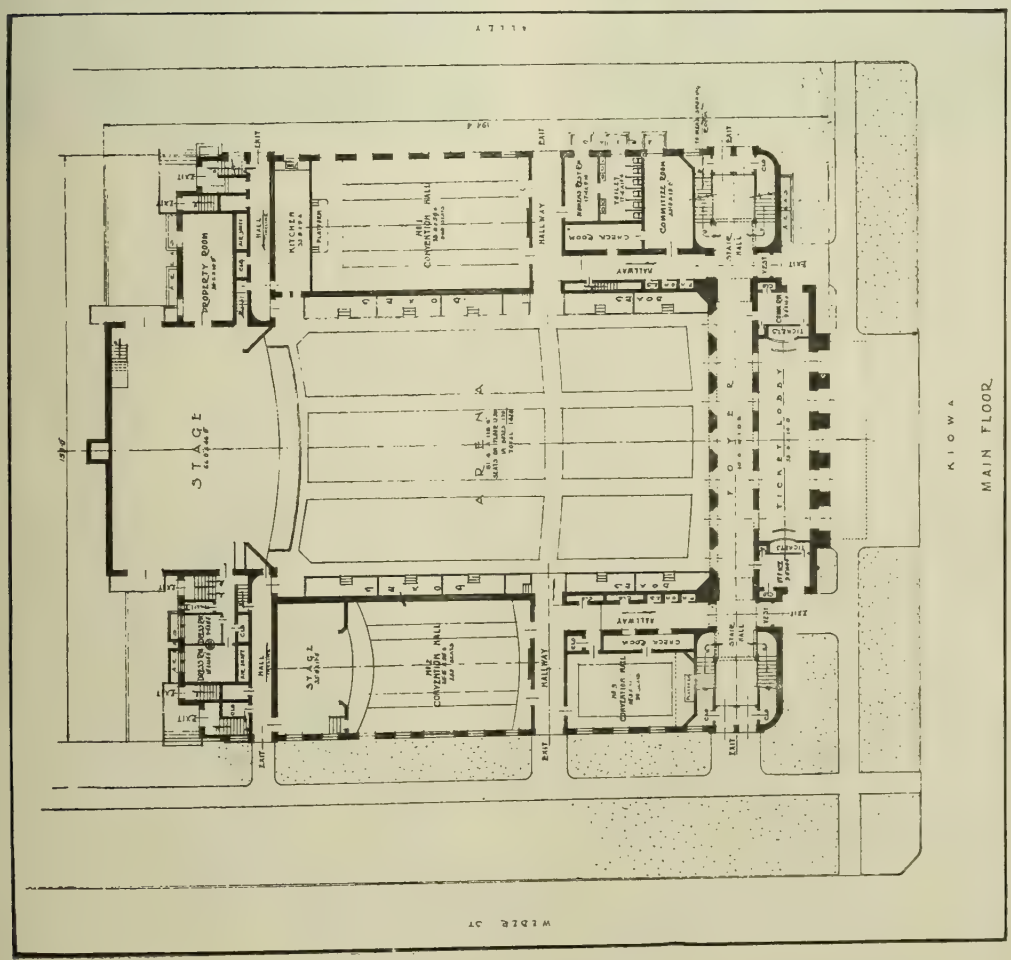


R.A. Exhibition.

No. 29, Weymouth-street, W.1.

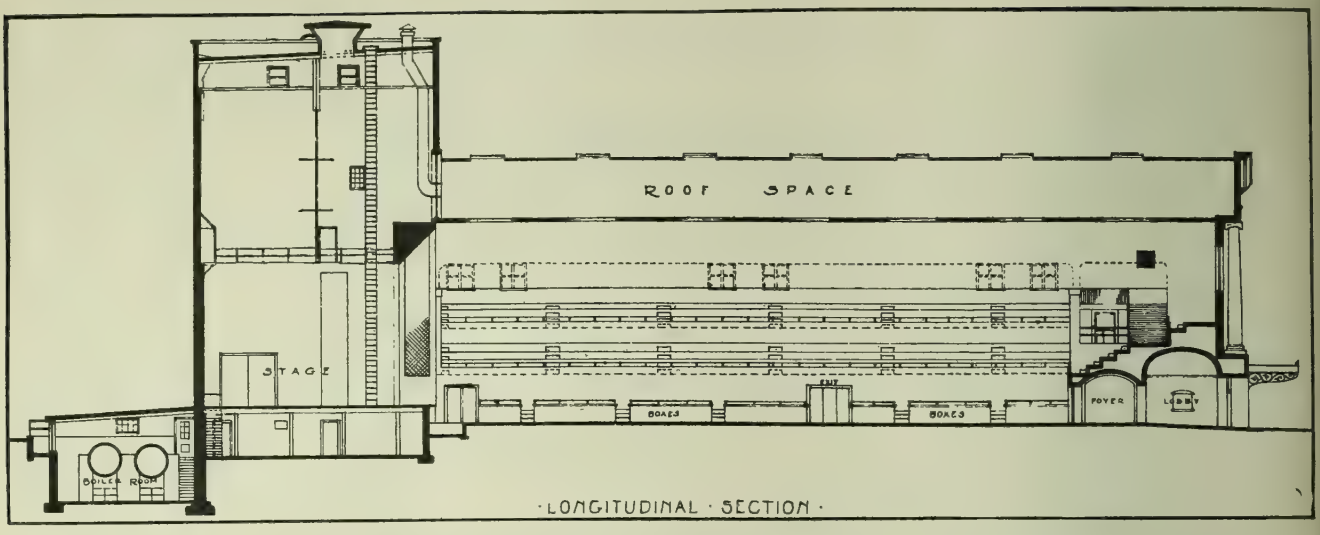
MR. GEORGE HORNBLOWER, F.R.I.B.A., Architect.

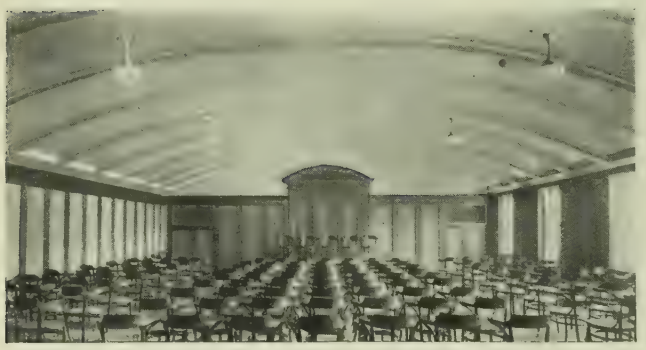




Municipal Auditorium, Colorado Springs, Colorado, U.S.A.

Working Drawings by Mr. C. E. THOMAS. Design and Supervision by MESSRS. T. MACLAREN & T. D. HETHERINGTON.

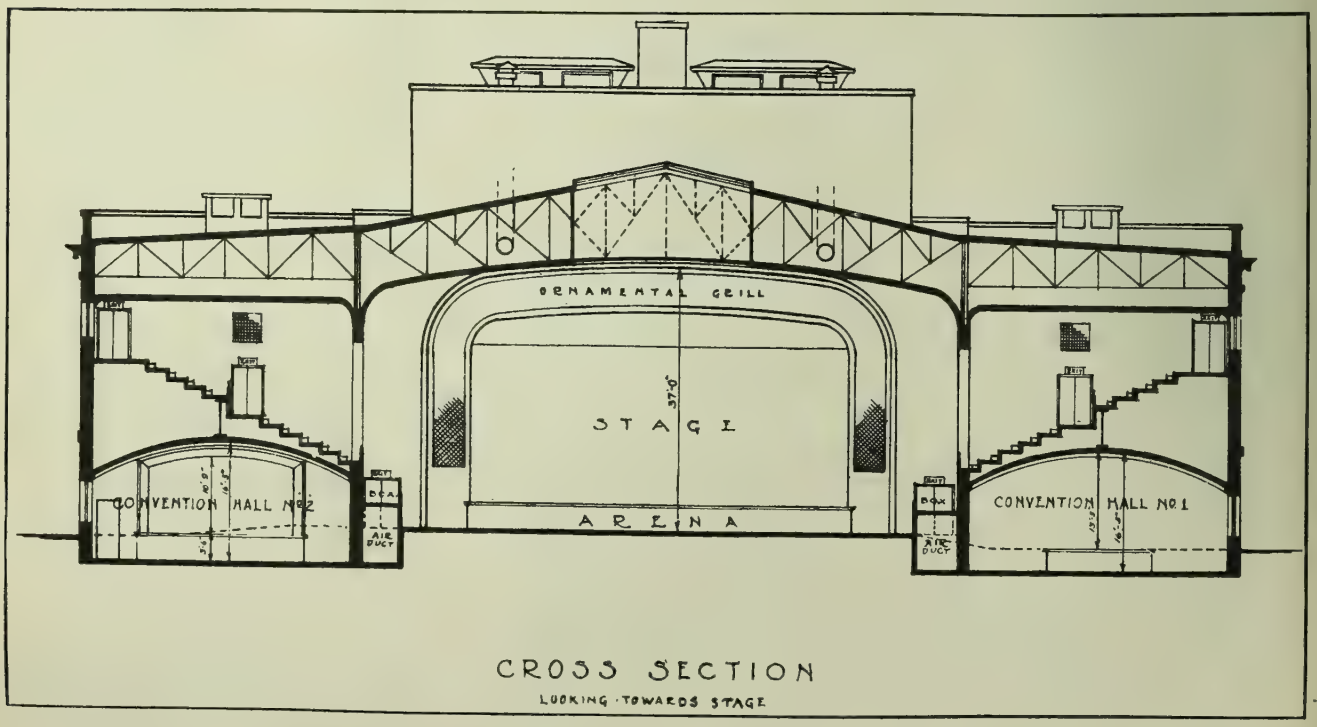




INTERIOR OF NO. 1 SMALL CONVENTION HALL.

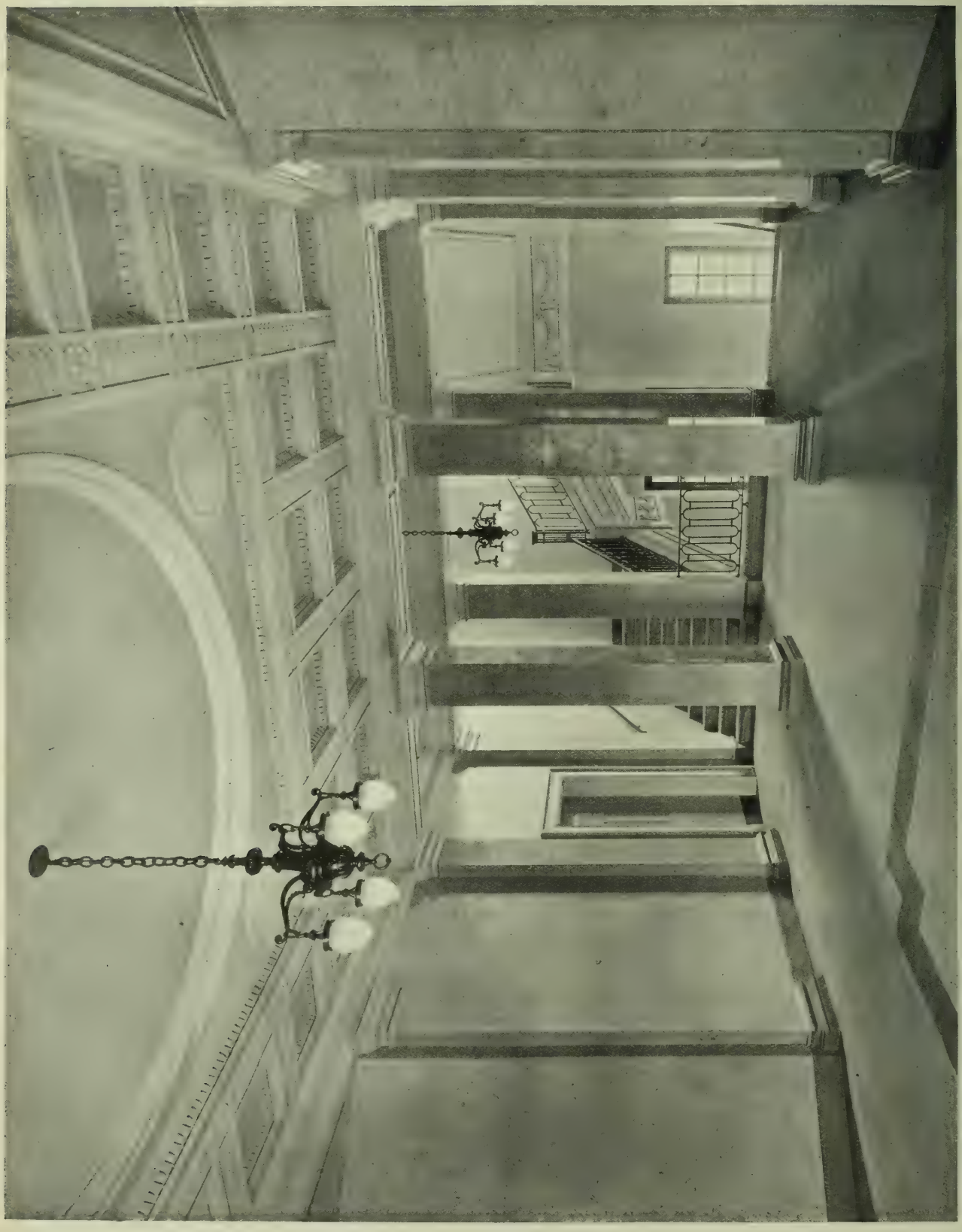


INTERIOR OF NO. 2 SMALL CONVENTION HALL.



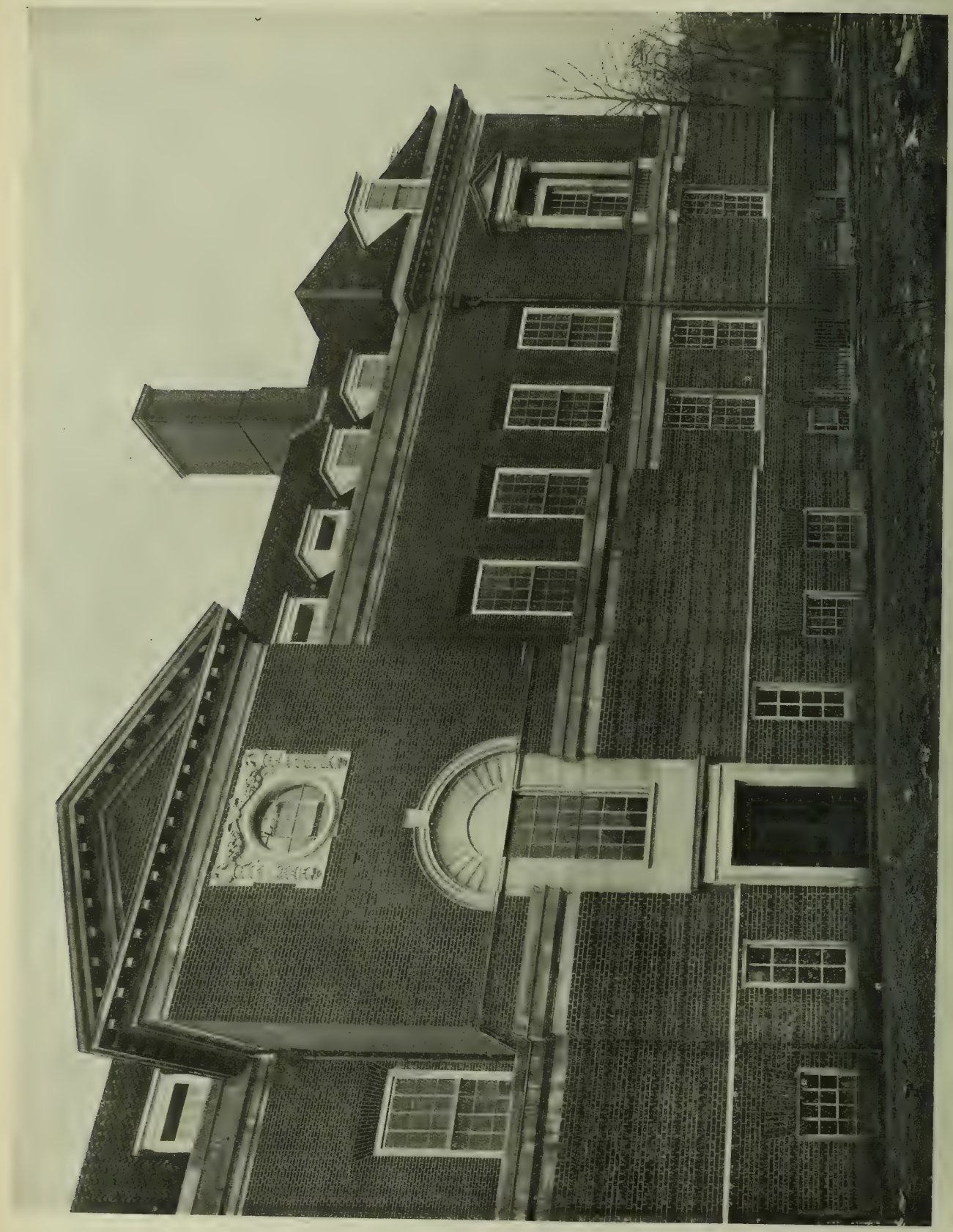
Municipal Auditorium, Colorado Springs, Colorado, U.S.A.

Working Drawings by MR. C. E. THOMAS. Design and Supervision by MESSRS. T. MACLAREN & T. D. HETHERINGTON.



FIRST FLOOR LANDING.

Cambridge University: School of Bio-Chemistry. Sir Edwin Cooper, F.R.I.B.A., Architect.



VIEW FROM THE QUAD.

Cambridge University: School of Bio-Chemistry. SIR EDWIN COOPER, F.R.I.B.A., Architect.



THE LIBRARY.

Cambridge University: School of Bio-Chemistry. SIR EDWIN COOPER, F.R.I.B.A., Architect.



THE COMMON ROOM.

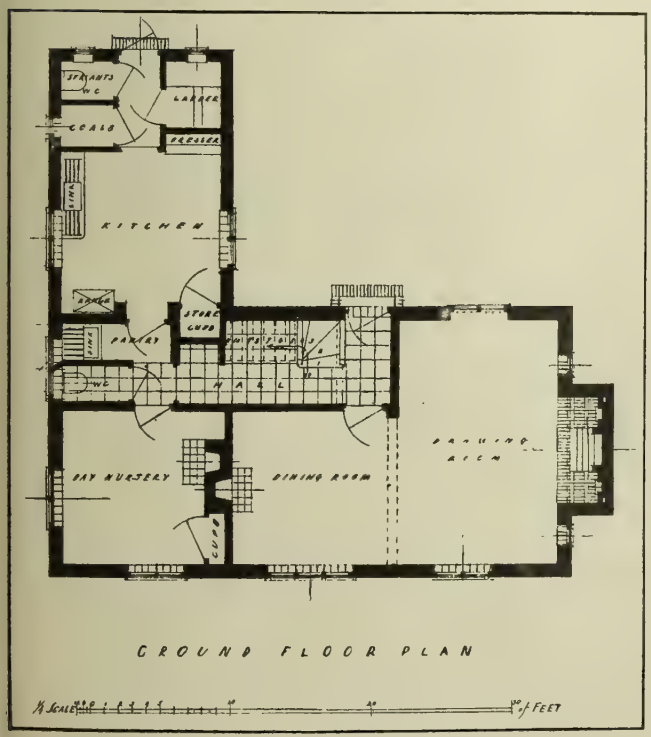


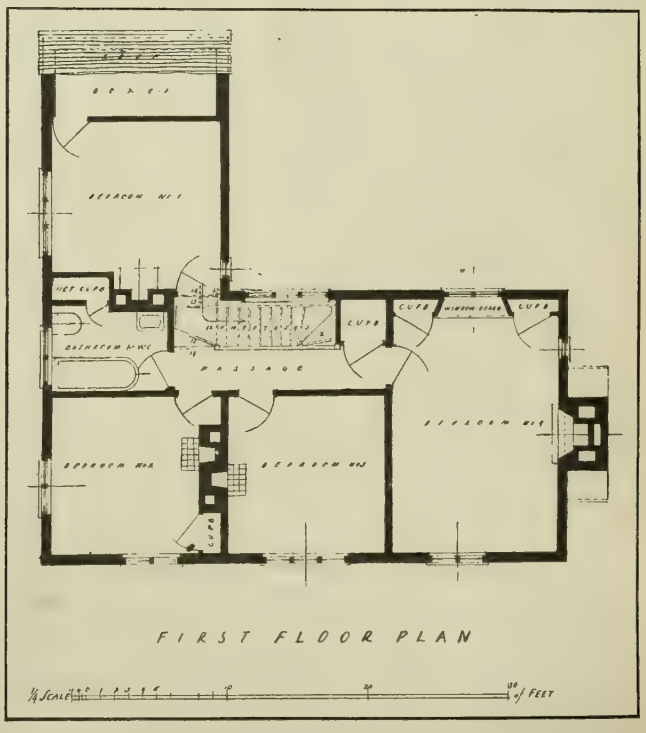
END ELEVATION.

Cambridge University: School of Bio-Chemistry. Sir Edwin Cooper, F.R.I.B.A., Architect.



R.A. Exhibition, 1923.





Cottage in East Sussex.

Mr. A. B. Llewelyn Roberts, A.R.I.B.A. (Messrs. Collcutt & Hamp), Architects.

ST. PAUL'S CATHEDRAL.

PROBLEMS OF REPAIR.

FOR several years past the structural condition of St. Paul's Cathedral has been the subject of inquiries undertaken by the Surveyor to the Fabric—Mr. Mervyn Macartney—and latterly by a Commission of architects and engineers appointed by the Dean and Chapter to advise with him upon the best methods of repair. From time to time a certain amount of information is published in connection with appeals for funds for the maintenance of the building, but the full report of the Commission is still a matter for the future to reveal. In the meantime, and in preparation to receive their report with intelligent appreciation, it is well to examine the broader aspects of the difficult problem the conservators have before them. St. Paul's Cathedral is the record of a life's development as well as a life's work.

Sir Christopher Wren at the end of a long life, his mind stored with the accumulated experience of a thousand experiments in building science, stands for all time pre-eminent as the inventor of sound structural expedients. What the great Brunelleschi had done with an extraordinary complexity of ribs and panels—still incomprehensible to most observers—Wren achieved by means so direct as almost to disguise with their very simplicity the wit that created them.

Compared with the lightness and buoyancy of Wren's design the work of Bramante and Michelangelo at St. Peter's looks heavy and inarticulate, and it seems extraordinary that Wren, this man of infinite capacities, should have been guilty of obvious faults; this mathematician be out in his calculations, this antiquarian commit the structural blunders that the ancients, whose records he studied, had succeeded in recognising and finding means to avoid.

But Wren, a young man already famous at thirty-four years of age as a theoretical and experimental scientist, was not yet a practical builder, nor can he have been well acquainted with the hundred and one difficulties of builder's work which may be solved in the light of experience or which determine themselves without any exact solution by the unconscious processes of established routine.

Wren's friends forced him to turn his attention to building, and building on the greatest scale yet seen in England at a time when his experience in this special class of work was practically nil. Nor was the time altogether favourable to a young man about to study the problems of practical construction. Church building on a large scale was a thing of the past, the Gothic manner of constructional architecture discredited, and the information concerning the fashionable architecture in process of introduction from Italy concerned itself, as Wren himself has left on record, rather with the proportions of orders and mouldings than with the abutment of arches. Science, in its infancy, was with difficulty struggling out of its swaddling clothes of superstition; astrology, and magic art and conditions were such as threatened to breed disaster rather than success. What might have been called a young man's rash presumption in undertaking to build a gigantic Cathedral with less practical experience than would be needed to encourage most of us to venture upon the erection of a humble cottage has been shown by the success of the experiment to have been not rashness, but wise confidence in his own resources. Wren's work at St. Paul's is none the less an experiment in the self-expression of an architectural giant and bears the impress of its experimental character in all its parts.

Throughout the great work Wren continually found himself called upon to take risks and adjust the conflicting claims of the ideal and the actual. His favourite design, admirable in its structural congruity, he was forced to abandon, and in regard to the expedients of building construction to be employed in commencing work upon the approved design, he seems to have consented at first to the use of the normal methods of his time without designing improvements of his own, though exercising surprisingly mature discretion and common sense. It was in the higher parts of the building that he exploited his own constructive skill, his inventive powers increasing with his difficulties. His estimate of the bearing capacities of the pot earth foundation now seems to have been slightly at fault. He was optimistic, and existing evidence of sliding and sinking on the foundations must be taken into account by the conservators, as well as the possibility of future movements resulting from the same cause and from the aggravation of it by the demands of modern life, such as the drainage of the subsoil for the formation of deep basements, sewers and underground railways, and the vibration caused by heavy traffic. Had Wren commenced the foundations after the full attainment of his great knowledge he might perhaps have exercised more caution, but in that case his Cathedral might never have been built.

The cost of taking down the foundations to a sure depth would have been enormous both in time and money, and patronage might have been frightened at the prospect. It will be interesting to learn by what method it is proposed to restrain the slight though general movement of the building to the south-west and the particular subsidence of one of its eight central piers towards the north-east. Another main defect which will demand careful attention is the inward lean and bulge of the eight central piers overloaded and eccentrically loaded by the weight of the drums and their load of cone and inner and outer domes. Examination reveals the fact that the substance of these piers has been racked apart in long, slanting lines by fractures extending from points near their inner edges at their tops to points near their outer edges at their bases. Stresses are so great as to make repair both hazardous and difficult, for, in removing any stone, however defective and useless it may appear to be, a risk is incurred that adjoining stones, hitherto sound, will be split by the transference to them of more pressure than they can safely bear.

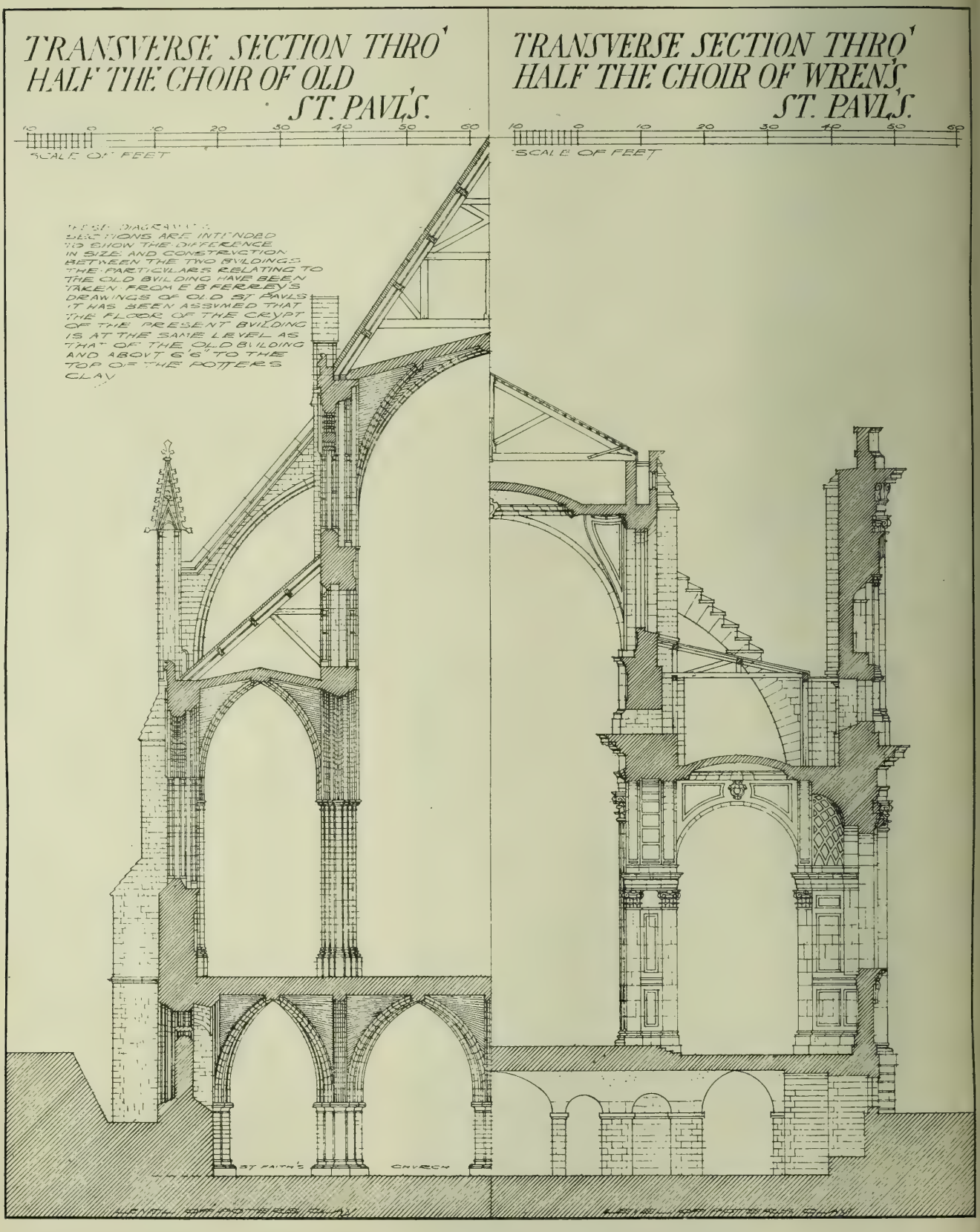
A sound method of repair will involve the provision of a substantial and convenient temporary staging to support the great weights, and a well-devised scheme by which the weakened piers can be made strong once more. The composite nature of the piers with an internal core of rubble enclosed in a skin of ashlar of varying and uncertain thickness, the whole shattered by the eccentric load, presents a special problem, and the part of the Commission's report dealing with it should provide an intellectual treat to all acquainted with the difficulties of the case. A brilliant solution is demanded, for nothing short of the highest efficiency will suffice to preserve the building or avoid grave danger to those concerned in the operations of repair.

The dislocation in surrounding parts of the building consequent upon the subsidence of the central piers raises an artistic as well as a constructional question. It is extremely improbable that any proposal to jack up the arches and the domes to their original level will be made or put into effect and, failing some such process, the lines of moulding and cornice will continue to dip more or less abruptly at the points where the lightly loaded portions of the building abut upon the central and heavily loaded parts. A certain amount of movement will continue in this zone whatever measures are adopted, and spalls of stone are liable to fall from time to time when heavily loaded masses tear free from lighter masses, or grind past them in further unequal settlements.

Suggestions have been made in the past for spreading the central load upon a broader basis either over the outer parts of the eight piers or by a still more extended scheme over the surrounding piers and bastions. The presence or absence of any such proposals in the Commission's Report and the technical details of



First Draft for an Explanatory Diagram Showing Component Parts of the Cathedral.



Diagrammatic Section through the Choir of Old and New St. Paul's,

From a drawing by MR. W. G. ALLEN.



One of the Southern Group of Buttresses.

any proposed treatment in connection with the zones of unequal settlement will be scrutinised with interest. The extension of the same series of fractures due to the parting company of heavily loaded and lightly loaded portions of the building also affects the upper portions of the drum and its surrounding external peristyle. These defects may be treated either with piecemeal repairs, such as replacing of fractured stones with sound new bonders, or by this process combined with some uniting framework which it may be thought advisable to introduce. Above the level of the white stone gallery the building is still large in scale, but the pressures more nearly conform to the limits covered by the ordinary experience of a building surveyor in active practice. The individual decay of materials under stress of weather and the attacks of anobiid beetles in the timbers of the outer dome have to be guarded against or made good. Even in the higher portions of the building the evidences of unequal settlement are to be seen, but they are slight in comparison with the serious defects below. The fragile nature of the stonework in the lantern exposed to violent winds at an exceptional height demands constant watching and periodical small repairs rather than any particularly drastic treatment.

The comparatively low outer walls of the building have in many places been pushed out by the thrust of its vaults, and are affected to some extent by subsidence and sliding on the foundations, these defects being easily apparent in the transepts and at the west portico and towers. Opinions will be divided as to whether these outward moving parts should be anchored to the inward sinking central group of eight piers by a light framework possessed of great tensile strength in an attempt to neutralise the opposite forces, or whether the high and heavy central part should be treated as an independent building—as its fractures have shown it to have accidentally become. This latter course would leave the low surrounding building to be dealt with by an entirely separate scheme of chainages by which movements of northern parts to the north may be harnessed to southern parts moving south, and so forth.

Several years ago tie-bars were made use of in the case of the south transept to tie in its outward leaning gable back into the body of the work. No ill results seem to have been precipitated by this use of ferrous metal, although in places the tie-bars are exposed to air in the loft of the transept roof. A consistent development of the same idea expressed in reinforced concrete might prove serviceable in avoiding or restraining in the future the outward movements in the side walls and towers.

One curious problem of repair is presented by the range of buttresses (see illustration) which project from the outer drum of the dome and spread some part of its weight and the wind pressures received by the upper part of the building upon the eight central piers and the four great arches and four semi-domes which span the spaces between them. All these buttresses have failed, more or less, and some of them are shattered from top to bottom by fractures practically parallel to the direction of their sloping outer edges. What view the conservators will take of these buttresses and their importance, whether they will be content to leave them fractured, to repair them with sound masonry, or to augment them by a scheme of reinforcement that might enable them more efficiently to function, remains to be seen.

In the meantime the Commission is going the right way to work and has very wisely spent a considerable amount of time in finding its way about the building, in surveying its deviations from the level and from the vertical and examining such details of its structure as can safely be made accessible for inspection. In such a complex building, where it is difficult even to know the exact position and orientation of certain details in the darkness of the lofts, some patience must be expended in these preliminaries.

To facilitate mental grasp of the subject a large isometric drawing is being prepared to show the co-ordination of the several parts of the building, especially in relation to its central mass. The first draft of this important drawing is here published, not so much for the artistic value of the sketch, but as an aid to the comprehension of what is in reality one of the most constructionally interesting buildings of all time.

A diagram published on page 110 shows the comparative sections of the choirs of Old and New St. Paul's, and throws into conspicuous emphasis the solid character of what may be called the lower parts of Wren's building.

Wren has left it on record that he made it a point to design for a long unbroken vista from end to end and from side to side of the church, and that he particularly wished to avoid the diminution of the main spans by the introduction of bulky piers at the crossing. These, as has been mentioned above, he kept so light as to give rise to a special problem in repair. To further the same artistic scheme, the piers of nave and choir were given greater sectional area than was absolutely necessary to support the comparatively light loads they are called upon to bear.

The much-debated screen wall above the exterior wall for the aisle of Wren's cathedral is prominently marked in the diagram. This upper portion of the wall has sometimes been compared to a Gothic pinnacle, and undoubtedly it acts as top-weight to modify the direction of the thrusts of aisle vault and flying buttress. It would have been placed to greater structural advantage on the inner rather than the outer face of the wall, but questions of stylistic propriety were allowed to take precedence over constructional fitness to this extent. The posing of an eccentric load upon the outer side of a wall which might be expected to rotate upon its base and move outwards under the pressure of two superimposed arches is not by any means ideal, and a detailed analysis of the pressures and resistances would seem to be necessary before it can be determined whether the top-weight, as applied at present, is useful or otherwise. The continuity of the wall from end to end of choir or nave probably helps considerably and brings in a factor not indicated in the section.

Attention has been concentrated upon the damaging effects of eccentric loads of late years by the use of steelwork under such conditions of financial stringency as to demand minute research into the strength of the material under differing conditions of loading.

It would be as absurd as it would be grossly unfair to expect from Sir Christopher Wren the best knowledge of our time on the subject, but the lack of it lies at the root of some of the principal defects in St. Paul's Cathedral.

The Study of the Past.

On January 8 Professor Theodore Fyfe lectured to the Liverpool Architectural Society on this subject. In the course of his remarks he said that they were trustees for posterity and should have constant regard to the fact that it was easy to destroy and impossible to replace. Architectural students, he said, would approach the study of the present with a certain amount of prejudice, but the greatest architecture of the past offered the desirable atmosphere of calm. Local museums of art should be encouraged liberally and English history in the schools ought to embrace the history of the arts and crafts. To this end, more local energy and enthusiasm were demanded. Students should receive training in the whole history of art on the broadest possible lines. Only when students were taught both to draw and to see would the modern methods of education get their chance to succeed fully. In conclusion, he suggested the constitution of an international committee to form central bureaux for comprehensive information about architecture, and to compile and publish an international catalogue.

The President (Mr. W. Glen Dobie) thanked the lecturer for a paper packed with thought and stimulating suggestions, and he was advised to further the establishment of a school of mediæval architecture. In reply, the lecturer said his students studied that form of architecture of their own free will.

THE LAW RELATING TO BUILDING.

By W. T. CRESWELL, LIC.R.I.B.A.; F.R.S.I. (*Barrister-at-Law*).

II.—AGENCY.

The Position of the Architect or Surveyor.

We have seen in the previous article that the position of the Architect or Surveyor, when superintending works for an employer or building owner under a building contract is that of agent. The majority of legal problems and complications, in business relations, between persons of every description, are settled by the law of agency. Disputes arise usually upon some question of simple contract, *e.g.*, (1) whether any contract exists; (2) whether there has been a breach of the provisions of such contract; (3) what remedy or legal rights the parties have. If an architect is employed to prepare a plan, or a surveyor to measure a piece of land or prepare a bill of quantities, and he performs the work as one holding himself out to have "reasonable care and skill" for such work, then he is entitled to be paid the stipulated (or a reasonable) remuneration for such work; and, when paid, his contract with the employer is at an end. The employer may decide not to use the plan, but is bound nevertheless to pay for it. Such simple transactions are rare.

Relationships with Third Parties.

In general a contract includes supervision of the work whilst in progress, granting of certificates for payment on account, and final settlement of accounts; and these bring the agent into certain relationship with third parties. It is this relationship which we have to consider, as it frequently gives rise to difficulties. Under a building contract, the architect or surveyor, in the interests of the work, is invested with certain special judicial or arbitration powers, anticipatory of possible disagreement. Let us review how an architect or surveyor may enter such employment or agency. Generally, when employed by a private individual no particular formality is customary. The custom is for the employer to interview the architect or surveyor, and make known to him his requirements. Though the latter would be well advised to obtain written instructions, or subsequent confirmation of what was agreed upon at the interview, before proceeding with any of the work, generally, he does nothing more than enter the facts in his diary. Without written evidence, it is difficult to prove any contract should the employer for any reason repudiate the verbal agreement.

Contracts in Writing.

Stress is laid on the fact, that to be binding, certain contracts must be in writing, and the knowledge of these as distinct from the above, is important to the architect or surveyor, to protect his own interests. A verbal agreement between the parties for work to be completed by all the parties to the agreement within a year, if it can be proved, is a binding contract. But anent a contract not to be completely performed by both sides within the year, the fourth section of the Statute of Frauds provides that "no action shall be brought . . . upon any agreement which is not to be performed within the space of one year from the making thereof unless the agreement upon which such action shall be brought or some memorandum or note thereof shall be in writing and signed by the party to be charged therewith or some other person thereunto by him lawfully authorised." Suppose, therefore, one party does all he has contracted to do inside the year, or, again, that by any possibility the other party could have fulfilled his undertakings within the year, then the statute does not apply and the contract need not be in writing. But if, on the other hand, the year is exceeded by a day, the contract must be in writing and duly signed, &c. In short, if the intention is that the contract shall be completed on both sides within the year, no writing is required; also, too, when the contract is to be entirely executed by one party within the year, no writing is required. (See Donellan *v.* Read (1832) 3 B. and Ad. 899.) In Hanan *v* Ehrlich (1912 A.C. 39) the House of Lords determined that where there is no mention of time, and the time is uncertain, the agreement is not within the statute; but, if a time longer than a year is mentioned, though there be a power to determine within the year, the agreement is within the statute and requires writing. In the event of litigation the contract, to be enforced, need only have been signed by the party to be charged. It must contain the names or a sufficient description of all parties, the subject matter of the agreement, and the consideration to be paid for the work to be done. It need not be one document, it may be more; but, if so, the papers placed together must include the essentials. Further, in any negotiations with corporations, it is necessary that the contract should specify the period of employment for each particular undertaking; and, in any case, all contracts with corporations (not being companies under the Companies Act, 1908), even those for work to be completed in less than a year, must be under seal of the corporation.

It behoves the architect or surveyor not to rely on a memorandum; indeed, any writing merely signed by an official of the corporation. Under Section 174 (1) of The Public Health Act, 1875, "every contract made by an urban authority whereof the value or amount exceeds fifty pounds shall be in writing and sealed with the common seal of such authority." Numerous actions have been lost where the plaintiff has relied on an unsealed contract made under the Public Health Act with an urban district council for work over fifty pounds; even though the authority has received the benefit of the work. Quite recently (October 15, 1923) such an action was lost by a quantity surveyor in the King's Bench Division. In Nixon *v.* Erith Urban District Council, plaintiff sued the Urban District Council for £1,150 for work done at the defendants' request in connection with a housing scheme. The contract was not sealed, and the court held that the plaintiff could not recover any fees.

It should be noted that the above quoted section applies only to contracts by urban authorities. Contracts with rural district councils are regulated by the ordinary law relating to corporate bodies, and, with few exceptions, must be made in writing under seal.

The Contract is "Personal."

The contract between an employer and an architect or surveyor is a "personal" contract, *i.e.*, the architect or surveyor undertakes to superintend the work himself. He cannot depute his duties, and it follows that in the event of his death the contract automatically terminates. In fact, his executors, &c., cannot even claim payment for work done up to the time of his death, excepting as the contract may have provided for payment of fees by instalments, when only those instalments already fully due may be claimed. In the event of the death of the employer, however, the employer' responsibilities devolve on his executors, &c., unless (and it is very rare) the contract provides against this. In the interests of everybody concerned the contract does usually provide that the executors, &c., shall complete the contract. In the event of the architect's or surveyor's services being retained at a salary, his executors would be able to render salary *pro rata* due to the day of his death. (See Stubbs *v.* The Holyhead Railway Co. 1867, L.R. 2 Ex. 311.)

Expert Evidence.

Architects and surveyors when employed to give expert evidence before Parliamentary Committees or the like, or in law courts, or at enquiries, arbitrations, &c., are allowed (as all other experts witnesses) peculiar privileges, *e.g.*, to refresh their memories by reference to their reports, accredited works, &c., on their special calling or topic, to quote cases or judgments in support of their evidence, also similar and accepted evidence given by them before in other cases, and to be paid fees commensurate with their standing and reputation.

HAMPTON COURT.*

Englishmen have a characteristic tendency to belittle the things of their own land, and it may come as a surprise to many of Mr. Law's readers to find Cardinal Wolsey placed among the great men of his time and in the first rank of the princes of the Renaissance. In a critical age names count for much, and Wolsey's position as a patron of the arts lacks just that dignity that is accorded to those who found employment for men who have since become famous as the master craftsmen of the period.

If only it could be discovered that Wolsey had persuaded Raphael or Michelangelo to work for him no more need be said; the critic who can afford to despise the work of an unknown native artist would immediately recognise the supreme value of that of the famous foreigner. As it is, some of the original decorations of Wolsey's palace at Hampton Court are the work of Italians attracted to England by his liberal patronage of the arts: the Arms of Cardinal Wolsey and certain roundels in terra-cotta including one with a head of Julius Cæsar, illustrated in the book, being the work of Joannes Majano. But whatever shortcomings may be attributed to Wolsey as an art patron, in accepting a lesser known craftsman in place of the great masters already overtasked with a multitude of commissions at Florence or Rome, the versatile spirit of the Cardinal statesman, whether measured by the magnificence of his buildings, his regal hospitalities and costly plate, or by his scholarly and statesmanlike qualities, can only be compared with the most famous rulers of his time.

In both Wolsey's sewerage works and pure water supply, with lead pipes passing under the Thames from Coombe Springs three and a half miles away, the attainments of sanitary science reach a level not usually credited to the Tudor period.

Mr. Law is prepared to see in the extraordinary pomp affected by Wolsey in all his affairs a regard for the good of the State which, the Cardinal evidently felt, could best be built up by an outward assumption of importance. This theory is borne out by a conversation between Wolsey and Dr. Barnes, "one of the new puritanic sect," in which Wolsey defends the extravagant show of his triumphant processions where crosses, pillars and pole-axes of silver were borne by attendants before him. The unpleasant reverse side to all this glory, instrumental as it may have been in lifting England to the place of a first-class power, was, if Shakespeare may be believed, nothing short of extortion ruthlessly applied.

Envy of the Cardinal's greatness found more than a colour of excuse in the contrast between the ideal character of a churchman and his actual behaviour as a statesman regulating all affairs by considerations of policy, and the profane subjects of some of his decorative tapestries were commented upon in a contemporary satire quoted in the book. Mr. Law's account is particularly opportune since it is published at a time when three rooms at Hampton Court Palace, formerly included in the residential portion of the building, have been thrown open to public inspection. These rooms have been identified as Wolsey's own private suite and retain a considerable amount of their original oak panelling and ceiling decoration, stone and brick fireplaces and mullioned windows. The illustrations include some very charming sketches in line, where the brick and mortar architecture is faithfully rendered, as well as some photographs of the newly-opened rooms.

* *Cardinal Wolsey at Hampton Court.* By Ernest Law, C.B. (London: George Bell & Sons. Price 2s. net).

EXHIBITION NOTES

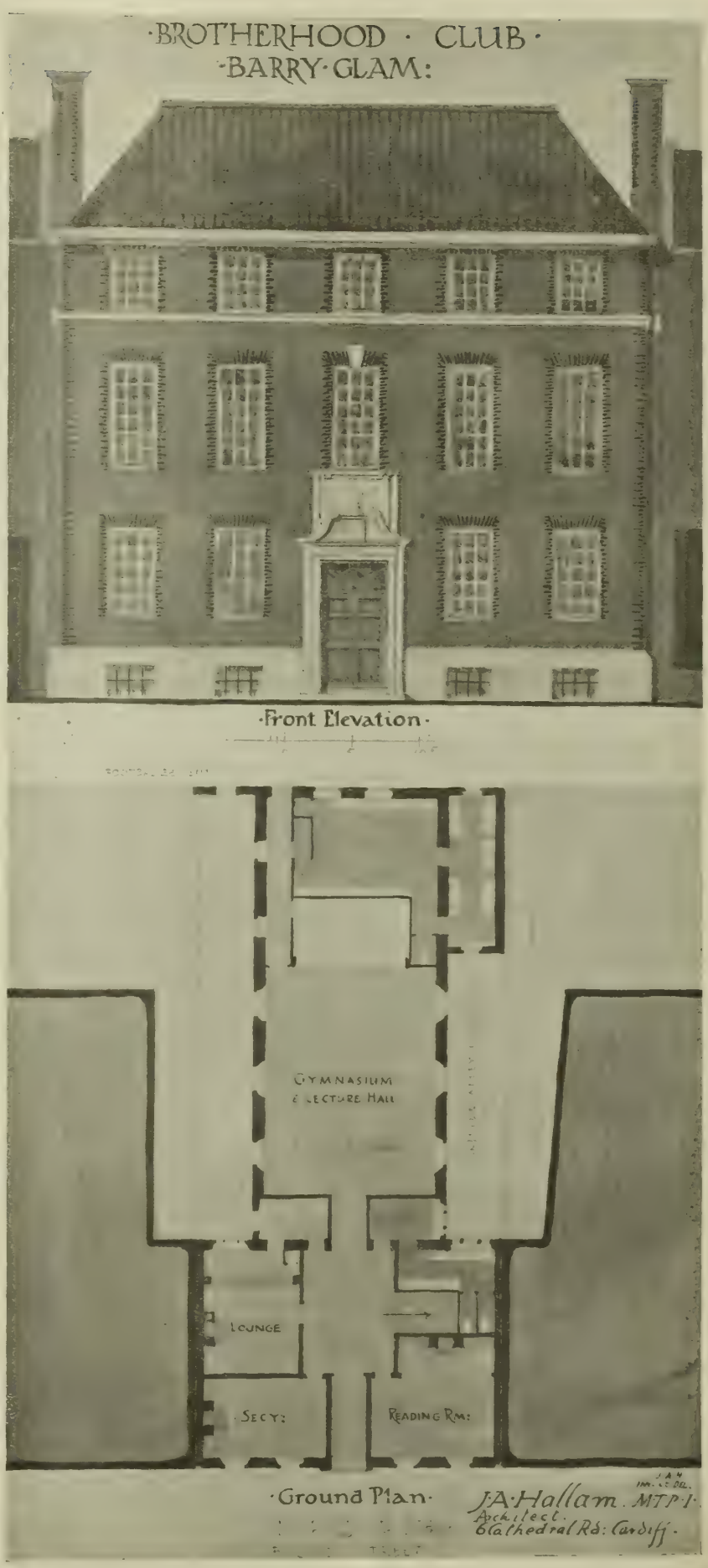
LEICESTER GALLERIES.

The water colours and paintings of Venice by Alfred Hayward, at the Leicester Galleries, will appeal to many for their delicacy of treatment; there is none of the *bravura* which many have essayed in treating of it, but the artist makes a distinctive choice of subjects and treats them with much refinement and good atmospheric effect: he certainly brings an artistic vision to play.

THE PASTEL SOCIETY.

Bearing in mind its possibilities, we always look forward to the exhibition of pastel drawings at the annual show of the Pastel Society with a certain degree of pleasurable anticipation. The present exhibition is well hung and has an attractive appearance in the pleasant galleries of the Institute. There are some undoubtedly able drawings to be seen, possibly more than usual, but there is still too much of mere pretty picture making, which might have been done, and perhaps better done, in other media.

Prominently displayed are three admirable drawings by Isaac Cohen. In the delightful portrait of Mrs. Edward McCormick (290) we see pastel at its best, for it shows the medium in its real value and colour, light, tone and drawing are skilfully combined. The "Blue Winch Ball" (289) is also admirable, and the "model posing" is a refined and charming sketch. The same artist has three other good exhibits. This central group is flanked by four pictures by Leonard Richmond, which indicate progressive attainment in the work of this brilliant pastellist. In a more subdued key than is usual to this gifted artist is the "Sand-dunes and Trees" (294), which is a restful and beautiful little landscape. More in his old manner is 287, which is full of a subtle cleverness. In the "Glow of Sunshine on the Sea" the artist has in some ways excelled himself, for he has obtained a breadth of softness which his skill often denies him. A very clever little drawing of St. Mark's, Venice (285), by Hedley Fitton, does not strike one as essentially pastellistic, whereas in the "Weigh-House "(284) J. B. Harrison uses the medium skilfully in a low tone of colour which is very pleasing. His "Old Harbour" has a telling charm of mystery. Mr. J. Littlejohns has a group of very clever drawings, amongst which Nos. 276 and 272 have a real touch of ideality. William Redworth, as usual, makes an interesting show of four drawings. Henry Butler's "Low Tide" (247), and his charming subject "Evening on the Hills," rank amongst the best. The former drawing has a freshness of treatment which is very effective. The "Old Mill on the Marsh," by T. W. Hammond (238), is an able drawing: it might well deceive one as to its medium. Miss M. G. W. Wilson comes to us in new guise with her "Casa Frollo, Venice" (231). This attractive picture of white colours and purple bloom does not recall her vigorous war pictures. Terrick Williams has a group of six clever drawings; the "Boats, St. Ives" is most like himself and very daintily expressed. "The Sandpit at Bramford" (190) is a fine broad vision by Leonard R. Squirrell. H. Davis Richter's "The Hillside" (205) is a super-brilliant expression of flowers. The portrait of E. J. Sullivan (123), by Mrs. F. Humphrey, is a masterly study. The snow scenes by Lawrence Ginnell (141 and 137) are noticeably good. Hanslip Fletcher has some interesting pencil sketches of Paris. Another very able portrait is the charcoal sketch of the Prime Minister (164) by R. G. Eves. There are shown three good pencil sketches of old architecture by Francis W. Bedford. The pen and pencil part of the exhibition is small, considering what excellent work in these mediums is being done to-day. We have not exhausted the list of what might well be praised, but on completing our round of the galleries we are inclined to think this is one of the best shows the Pastel Society has made.



Barry Brotherhood Club. MR. J. A. HALLAM, Architect. (*See p.* 106.)

SHEFFIELD SOCIETY OF ARCHITECTS AND SURVEYORS.

On January 10 Captain L. M. Gotch, F.R.I.B.A., lectured to this Society on "The Charm of the English Village." Mr. J. R. Wigfull, the President, was in the chair. In the course of his remarks the lecturer said his greatest difficulty in preparing the lecture had been to choose his illustrations from out of the overwhelming wealth of examples, and they must forgive him if he had had recourse to his native county more frequently than to others, for two somewhat cogent reasons: First, because he knew it best, and second because it contained some of the finest examples of the features of the village about which he wished to talk for a little time.

Villages were rarely found in England on the hills or upland country, and when they did occur they were generally hidden away in narrow valleys down which ran a babbling brook. A certain village in Derbyshire was said to have the highest altitude of any in England, and a bleak, barren place it was. The reason lay in the origin of the village, which was primarily to give shelter to man and beast, and though the history of the village was not part of his subject a very brief outline of its origin would add to its interest.

In general terms the village of to-day (not the small industrial mining village) might be classified as follows:—(1) The farm village; (2) the feudal village; (3) the industrial village.

The first was a gradual growth round one or more farms, and could usually be recognised by the number rather than the size of the barns and farm buildings, and was the oldest type of village, and was to be found nestling at the foot of the downs of Yorkshire moors and the Cotswolds.

The second was the overflow of the retainers of a landowner who, when times became more peaceful, built permanent houses under the shadow of the castle or hall, and dated chiefly from the twelfth and thirteenth centuries; whilst a fourth type was the ecclesiastical, and was the result of the numerous ecclesiastical communities, and accounted for many instances of small villages with fine churches often much too large for the population.

The third type consisted of those which originated in the housing of men employed in developing the natural resources of the country, such as stone and slate quarrying (Weldon), mining, brickmaking, timber felling, milling, brewing, etc.

All four were inevitably agricultural, and in addition there were innumerable hamlets or clusters of cottages which were usually purely agricultural.

The latter were often very picturesquely situated, and occasionally contained some feature of real interest, but they invariably lacked the dominant feature of a village—the parish church. Whether viewed from afar, when its tower or spire was a landmark for several miles around, or first glimpsed round a bend in the road, or found tucked away amongst a protecting cluster of cottages and trees, the church was to a village what a mother was to her children. And from it, in truth, much of the village history might be culled, provided it was built of stone. And why only if built of stone? Because timber churches, being subject to fire, had almost all been destroyed, and the oldest one existing was Margaretting, in Essex, which was not more than 350 or 400 years old. Also brick as a building material in England was not in use from the Roman times until well into the fifteenth century, and then was frequently covered with plaster, and thus its value archæologically was largely destroyed. Those of them who lived in a stone district had perhaps rarely seen an ancient timber or brick church, and yet he assured them that they could walk, cycle, or motor from London to Hull and see no more than a dozen stone churches, if as many.

They would think that he had forgotten that he was lecturing on the village, and that he was giving them a dissertation on the church, but it was the centre of interest, and he could not leave it without a word as to the three functions for which it was used for most of them in the course of their brief spell of existence, namely, baptisms, marriages, and burials.

If they looked into the churchyard they would find much to interest them in the inscriptions on the headstones of the graves which filled "God's acre." If a slight shower drove them for shelter to the lych gate they might look back at the church and notice the water running off the tower and chancel roof, pouring out of the mouth of a bishop or devil or some local celebrity perpetuated in stone by the humour of the mason. After the rain had ceased they might look along the village street. They all knew such streets, superficially, as he did, but possibly had not studied their character. Like many human beings they improved on closer acquaintance. They had not the fine clothing or magnificence of their city fellows, but they had frequently more definite personality. The houses in them often had wonderful chimneys like the stack at Newport, such as were to be found throughout East Anglia, whilst the stone district of the Cotswolds and Northamptonshire had their own types.

The great forests of olden times provided cheap building material such as they had at Wigmore, in Worcestershire, tarred to make it more weather-proof, and close enough together to fill in between with wattles and plaster. In the county of Northants there were over 100 villages with scenes possibly not all so picturesque as Devon, but with more objects of definite architectural interest, and this was due to their being in stone and having been preserved, and if they asked the father of the village as to the chief objects of interest, he would tell them to go and see the following items of interest. Village prisons were rare to find, but the "Ound" at Weldon had been used within his memory for the imprisonment of malefactors—for a short time only—and a dull dark place it must have been to spend a night in; but better than the stocks or pillory where one was left to the mercy of the populace who, should the unfortunate prisoner be unpopular, were wont to give him or her a most uncomfortable time. The whipping post needed no comment. The ducking stool was quite an ingenious contrivance; and used in moderation must have afforded much amusement to the onlookers, and would not seriously harm the occupant.

Village shops were once quite a feature of interest. The butcher's shop with its half-door, and wood shutter for window was a typical example of the shop to be found in any village. But one of the oldest trades, and that immortalised by Longfellow, was that of the blacksmith, and a village forge was surely one of the most picturesque sights in all England.

Interesting, too, were the institutions found tucked away down side lanes in many of their villages—those delightful houses of rest for the aged and infirm. Sometimes, and let them hope most frequently, they were built and endowed from beneficent motives, but frequently from munificent, or for love of ostentation; they varied from humble, but homely, dwellings to a building with the founder's coat of arms shouting to all who passed the glory of his gift. Hospitals, not run by voluntary subscriptions, but by the church or its supporters, were found usually in its shadow or adjoining the churchyard. They were more for chronic cases than casual or emergency cases, but those that remained were charming relics of a bygone institution.

The demands of the Board of Education had caused the demolition of many old schools, but there remained a number in our villages such as those at Grassington in Yorkshire. He was purposely taking simple examples and could tell them of finer buildings architecturally, but they should learn to look for what might be found of interest in any village and not in just a few special localities; and they would find in many of the villages of England the old manor house with gables and mullioned windows, chimneys, and dormers.

Mills were essential in old days for every village to grind the local crops, transport being a difficulty; but now they were less and less used, and often the wheels or the sails were idle. A fascinating thing was the windmill with the graceful movement of its sails, and the well proportioned and picturesque mill was found still in Norfolk and Lincolnshire, but rarely in other parts of England. It always appeared to him as mysterious, and he could easily associate it with some foul deed, or picture the villain tying the heroine to one of the sails and then, having loosened the brake, leaving her to her fate.

In conclusion, it was tradition and time that gave charm to buildings and communities, but there was one outstanding feature to be found in every village which one could not leave without seeing. It had many forms and might be only a little tablet on the wall, or a crucifix by the church gate, a simple cross on the village green, or a St. George-surmounted column at the main cross roads. Whatever form the memorial might take the names were there—"the names of those who gave their lives in the Great War"—and, as the inscription told them, "their name liveth for evermore," and more than their name.

At the conclusion of the lecture a vote of thanks to the lecturer, moved by Major C. B. Flocton, and seconded by Mr. H. L. Paterson, was accorded.

Proposed New Thames Tunnel.

Sir Maurice Fitzmaurice, who was the engineer of the Rotherhithe Tunnel and the tramways subway under Kingsway, has been authorised by the Government to make an official full survey and to prepare plans and estimates for the construction of a road tunnel under the Thames between Gravesend and Tilbury. The tunnel would involve a large scheme of road construction and connect a great new east and west highway north of London (crossing all the main roads from the north) with the new highways in Kent, and bring the whole of Kent in direct communication with the north and west without the necessity of traffic passing through the Metropolitan area.

Additions at Bolesworth Castle.

A squash racquets court, &c., has just been completed at Bolesworth Castle, Tottenhall, near Chester. The addition includes a court and entertaining room, with visitors' gallery, heating chamber, &c., and is constructed of local stone in the courtyard of the Castle. The building possesses various unusual features, and perplexities of planning due to the differences of levels. Thus the court itself is below ground, the gallery being on the level of and with an entrance from the carriage drive, with exit at a lower level to the courtyard. The massive courtyard wall was carefully taken down to make room for the building, the face of the wall towards the drive being of tooled ashlar, and that towards the courtyard was scutched. These faces were divided and provided the two separate surfaces of the external walls of the new building, and were backed by brickwork, and so complete harmony with the Castle was obtained and the character of the whole preserved. It was essential that walls and floors should be dry, although below ground, and this was successfully met by cement concrete forming a raft over the surface, together with similar cement wall rendering with a generous fillet all round the whole performed in one operation, thus forming a tank capable either of holding or withstanding water. The work was designed by and carried out with direct labour under Mr. A. Kirby Parkinson, architect, of Chester.

TALL BUILDINGS, TALLER BUILDINGS, AND SKYSCRAPERS.—II.

BY HORACE R. APPELBEE.

IN the previous article (January 11) I showed the advantage of taller building for a given accommodation on a given area so far as light, air, sunshine and space for traffic or recreation were concerned. In this issue I propose to examine one or two details more closely, and to do this it is necessary to assume certain conditions which never exist in actual fact, such as a uniform height of story and uniform size and shape of rooms.

The height of the story will be convenient at 12 ft. 6 in. The rooms as 20 ft. deep on each side of a 6 ft. corridor will amount to 46 ft., and 4 ft. more will cover the two external walls and partitions between rooms and corridor, 50 ft. over all. The blocks to run north and south. The space between to be equal to the height of block (45 deg. light from floor level of lowest room). Every alternate space between blocks must be a street, and the intermediate ones may be streets or private property. The walls of the blocks are vertical and not stepped back. Sloping roofs are ignored. The site may be assumed unlimited from east to west, and crossed by roads in that direction; the part under consideration being a section between and exclusive of the east and west roads.

Under these conditions a block of buildings 300 ft. high will contain 24 stories, and similar blocks will be 300 ft. apart, or 350 centre to centre. If we halve the height we double the number of blocks, also they are closer; 150 ft. (12 stories) becomes 150 between and 200 centre to centre. Ten 300 ft. blocks at 350 centre to centre need 3,500 ft. run; twenty 150 ft. blocks at 200 centre to centre need 4,000 ft. run; sixty 50 ft. blocks at 100 centre to centre need 6,000 ft. run, and so on, showing greatly increased space needed for low buildings providing equal accommodation with tall buildings. Fuller details are given in the table below :—

Height of building (ft.)	300	150	100	75	50	25
Number of stories, at 12 ft. 6 in. each	24	12	8	6	4	2
Space between blocks	300	150	100	75	50	25
Distance *c.* to *c.* of blocks (50 ft. each)	350	200	150	125	100	75
Number of blocks to give equal floor area	10	20	30	40	60	120
Total space required for equal accommodation	3,500	4,000	4,500	5,000	6,000	9,000
Area of ground covered	500	1,000	1,500	2,000	3,000	6,000
Area of ground uncovered	3,000	3,000	3,000	3,000	3,000	3,000

The last line reveals a fact that will perhaps be new to many, viz., that if we fix the height of building in relation to width of street, we at the same time fix the amount of uncovered space in relation to the amount of covered space and it makes no difference whether the accommodation is on two or twenty floors. There is not any increase of congestion from this cause. The covered floor space being equal, the uncovered (street) area is also equal. It does not answer the question, Is a 50 ft. road sufficient for the local traffic with 50 ft. buildings? but it does say that if 50 ft. is sufficient, then 150 ft. between 150 ft. buildings of similar character is also sufficient.

The London Acts seem to have contemplated originally that the windows of habitable rooms should have open light to the extent of 45 deg., but there are so many exceptions that there is, I think, no case where that can be enforced except (strangely enough) in very wide streets. In a street 49 ft. wide we are limited to a building 49 ft. high plus two stories in the roof at 75 deg.; this reduces the light to the opposite ground floor to less than 45 deg. An increase of 2 ft. in the street width enables us to be 30 ft. higher with the building. At the back 45 deg. seems to have been contemplated, but was expressed as two vertical to one horizontal (67½ deg.) on the owner's property. As the back can be stepped up to the diagonal line many windows get far less than 45 deg.

The closed internal court of a building is worse still. An open space 100 ft. super. and only 8 ft. across may be 20 ft. high above window sills. On three sides we may have windows of habitable rooms or the fourth a collection of w.c.'s, urinals, and slop sinks, and at the bottom a skylight over and ventilating the ground floor. These varying arrangements would by themselves often produce habitable rooms with insufficient window space area and they are to some extent held in check by a further clause requiring a window into open air of 10 per cent. of the floor area. The effect is to break up further the lines of the "back additions."

The encouragement of higher buildings of simpler outlines (especially at the back) of equal accommodation resulting in wider streets and wider open spaces at the rear at ground or first floor levels is highly desirable. The way to it is to insist on the minimum angle of 45 deg. for light everywhere. For shops and business premises such as banks and insurance offices requiring a large area, the ground floor is exceptional always and some concession would have to be made in respect of it. I suggest that in streets of 100 ft. width and upward at pavement level the 45 deg. should be between the walls above ground floor and coupled with this a proviso that the shops did not project more than, say, 10 ft. from the upper wall or we should never get streets exceeding 100 ft. at the pavement level.

The strongest argument that can be brought against tall buildings is the fire risk. But if the buildings are properly planned is it any greater than with low buildings? Low buildings as such are not exempt. Many of us can remember the Cripplegate and Wood-street fires. London has had regulations to prevent the spread of fire for hundreds of years. The 1905 Amendment Act was the direct result of a relatively small celluloid fire, but though small there were many fatalities and injuries. Fifty years ago Chicago, or the greater part of it, was burnt out, but then it was a city of low and mostly wooden buildings and wooden "sidewalks," and fire spread easily. It is doubtful to-day if a cow kicking over an oil lamp among the straw would burn down the tall building quarter, and it may even be doubted if the cow and the oil lamp and the straw are to be found in that area. Conditions change.

When I was in Chicago many years ago I noticed many buildings had an iron cat ladder on the external wall from near street level to roof. One side of the ladder was a hose pipe, so that the fireman had no great length to carry up, and while one man was ascending to the outbreak others were attaching a hose to the foot of the fixture. At the top a hydrant (there was one on each floor) was opened and local floor hose connected. Simple, of course, but useless unless there is sufficient pressure of water, which in that place must be solely due to pumping. There are no hills in or near Chicago (the maximum is 40 ft.). There is plenty of water in Lake Michigan (an inland sea 50 miles wide at Chicago), but that is below street level. London has the advantage of being in a valley between two lines of hills 400 ft. high, which ought to assist the problem.

As an illustration of what increase of height can do, the following extracts from "The Housing Question in London, 1885 to 1900," an L.C.C. publication, will be interesting. "The streets" (of the condemned area) "were 20 in number, and the average population per room was about 2¼; 107 rooms having five or more inhabitants each.

"The streets and courts were very narrow, the widest being only 28 ft. across. . . . A large number of the houses had no back yards . . there were 730 houses . . . with population exclusive of those in lodging houses of 5,566, viz., 3,370 adults and 2,196 children. Including the lodging houses the total . . . on the area was 5,719 . . . a large proportion . . . belonging to the criminal classes. Living in one street only there were at one time no less than 64 persons who had served various terms of penal servitude" (pp. 190–191).

The new scheme :—

". . . has accommodation for 5,380 persons on the area, and in addition 18 shops and 77 workshops have been provided. . . . Every habitable room on the area is provided with a 45 deg. angle of light horizontally and vertically. The buildings are so arranged that nearly every room commands a pleasant outlook. The Entrance-avenue and the Circus are 60 ft. wide, and all principal streets 50 ft. There are three public gardens between the various blocks of dwellings of an aggregate area of nearly three-quarters of an acre" (pp. 208-209).

The present population of this area under L.C.C. is about 360 to 370 per acre. For comparison, the County of London (exclusive of the City) is about 56, and those living in the City about 28 per acre.

Mr. Voysey's interesting study (*The Builder*, December 28 last) for the Devonshire House site, shows clearly enough the advantage, so far as light and air are concerned, of tall buildings of simple lines from the ground up, in comparison with what we may expect with the sanction of the Building Acts. Perhaps I may suggest that he has provided too much accommodation for the site, and obviously he has not regarded the vertical 45 deg. as so essential as did the L.C.C. for the working-class dwellings I have referred to.

In conclusion, while advocating higher buildings, I have only done so in conjunction with wider open spaces and the abolition of closed lighting courts within a building for lighting and ventilating habitable rooms and offices. To increase the height and provide additional floor space, as in Regent-street, without widening the thoroughfare, appears to me to be a mistake, both from the æsthetic and traffic-congestion points of view. My "City of the Future," which I hope to describe some day, would be very different.

[This article is of considerable interest at the present time, but we do not necessarily agree with all the opinions expressed therein. —ED.]

Urban Housing.

Sir Charles T. Ruthen, O.B.E., Director-General of Housing, Ministry of Health, recently delivered a lecture on this subject at the College of Estate Management.

The lecturer commenced his remarks by a reference to some of the causes of the existing house shortage, and proceeded to show the attempts which had been taken during the last few years to grapple with the problem. He emphasised the fact that housing standards at the present day were considerably higher than the pre-war standards, and illustrated his point by detailed reference to some of the requirements of modern housing schemes. Another point which received careful consideration was the effect of employment conditions in the building trade on the output of houses, and the lecturer discussed at some length the vexed question of "dilution."

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

Solid v. Hollow Floors.

SIR,—Many builders will welcome your Inquiry Bureau, which will doubtless add to the interest and usefulness of *The Builder*.

After an experience extending over 28 years I pronounce unhesitatingly in favour of the solid floor, and adopt it wherever practicable, in cottages and bungalows as well as in more expensive jobs. There are occasions when the solid floor cannot be laid with advantage, *e.g.*, where the soil level is more than, say, 1 ft. below the floor line, necessitating much filling in and ramming. Where there is a considerable space beneath the floor, one must perforce use joists and in these days of indifferent timber it is always advisable to thoroughly brush creosote the wood beneath the floor as a preventive of dry rot—not forgetting the sawn ends. The small extra cost is a good investment, especially in districts where dry rot is prevalent. The only advantage I find the hollow floor has, is that it can be laid more quickly, the coke breeze requiring a week or two to harden sufficiently to hold nails. Where time is an object, I have occasionally laid dovetailed slips in the coke breeze, but great care has to be taken to thoroughly soak the slips with creosote and well cover the whole surface with tar and mastic. If this is not done, dry rot may attack the slips and creep along under the floor. A great point in laying floors is to fix the boards pith side up, regardless as to which side is faced. This will in large measure counteract warping, which in a 7 in. board may be considerable, resulting in turned-up edges which crease floor coverings, especially lino. A word in reference to this. I have replaced scores of dry-rotted floors, and I think it is within the mark to say the inception of the rot has been caused by lino in nine cases out of ten. If this covering is to be used an uncovered margin of a few inches should be left around the room and the entire floor well stained with solignum before laying the lino.

The following advantages may be claimed for the solid floor :—

(1) A solid tread. There is a floor in my house which is part solid and part on joists. The difference in treading from one to the other is very noticeable, which I found by experiment is entirely a matter of sound, for, by closing the eyes and stopping the ears it is impossible to tell on which floor one is walking. The sense of a solid tread is, I think, generally appreciated. (2) Conduces to warmth. As there are no crevices there can be no draught. We hardly realise to what extent the discomfort of a room is due to draughts through the floor and around the skirtings. A hollow floor should always be laid with tongued and grooved boards for this reason. I have not met the objection raised by "Economist" that the surface is subject to cold and damp. In certain humid conditions of atmosphere all smooth cool surfaces inside a house will be found damp, but I cannot conceive a solid floor would be more liable than a hollow one. (3) Not so liable to dry rot. I have heard of dry rot in solid floors, but never met a case. I suspect lack of care in laying the floor. (4) Not liable to shrink away from the skirting. (5) The cost is about equal. In regard to cost—always a serious item to-day—if excavation for a hollow floor and filling for a solid, be taken as equal, the excess in cost of the solid floor is very small, say, about 5s. per square. Of course, the cost on different jobs is varied by price of aggregate and coke breeze. For purposes of comparison one has to take the following items :—(*a*) Solid floor : Level and ram earth ; cement concrete and coke breeze ; tar and mastic ; square edge flooring and labour. (*b*) Hollow floor : Level and ram earth ; lime concrete ; sleeper walls and bond; joists, tongued and grooved flooring, and labour.

As a general rule and where practicable I adopt the solid floor.

ERNEST EDWARD SMITH.

Cromer.

Damp on Ceilings.

SIR,—On Thursday and Friday of last week I noticed a peculiar fact in my house, which has caused me some worry, especially as I have not as yet been able to find any solution for it myself, nor to learn of the cause from any one else. Perhaps you would be so good as to publish the following in the hope that a solution may be forthcoming from one of your many readers.

The trouble is this. On going to bed last Thursday I noticed that the ceiling of my room which faces east, was thoroughly discoloured with damp, but on going into the next room, which faces south, there was no discoloration. Astonished at this I made an inspection of all the rooms, when my surprise was greatly increased by finding that only one of the other rooms was discoloured, and that faced north. Now, Sir, as it had not rained at all during that day nor for several days, a strange thing to say in this country at this time of the year, and as there had been no escape of steam to account for such a discoloration, and if there had been steam surely it would have been on the walls as well as they are distempered and not papered, as there were neither of these, I am at a loss. Also, if there had been rain unnoticed during the night, though so far as I am aware my roof does not leak, certainly it has never shown any signs at any other time however wet the weather, why, Sir, should the ceilings of only two rooms show signs of damp, and these rooms which face in different directions ? This last point will be appreciated the more thoroughly when it is realised that in this district there is a very considerable amount of wind, and it comes almost invariably from the south-west.

If you can answer my little riddle I shall be even the more indebted to you than at present, for if I may go so far as to refer to a personal matter, it would be to say that, living as I do so far out of things, the arrival of my weekly number of *The Builder* is an event looked forward to with very pleasant anticipation.

ERNEST MATTHEWS.

Polegate.

Acoustics.

SIR,—We have recently constructed a mess-room at the above works 32 ft. by 20 ft. by 14 ft. 6 in., having a ceiling with concave corners, and we find that the acoustics of the room are very unsatisfactory. It is very difficult to hear anyone speak, and meetings we have held have suffered very considerably in consequence. I would be glad if you could advise me of any means of obviating this trouble, or could recommend me to any firm who specialises in this line.

GEO. C. PEARSON.

Birmingham.

[We have no hesitation in referring our correspondent to Mr. Hope Bagenal, Architectural Association, Bedford-square, W.C. Mr. Bagenal has frequently contributed to these columns upon the subject of acoustics, and has been consulted by some of the leading architects of the day, who have been glad to take his very practical advice.—EDITOR.]

Plan and Specification.

SIR,—I should be obliged if you or one of your correspondents could advise me on the following query :—

"A" is erecting a small house, for which plans (one-eighth scale) and specification were prepared by an architect. "A" is supervising the erection himself ; "B" is the contractor. The plan shows three-panel doors for the internal doors, but they are specified as four-panel doors. Is "B" correct in assuming that the specification is to be followed, and not the plan ? Which is legally the more binding, the plan or the specification ?

"PERPLEXED."

Neath.

Brickmaking Machinery.

SIR,—Would you kindly ask a manufacturer of lime-sand brick machinery to let me have a fairly close estimate of the cost of the necessary machinery for producing, say, 50,000 (fifty thousand) bricks per month f.o.b. Persian Gulf ; also any other detailed information he can give me so as to form a reasonably reliable estimate of cost per 1,000 :—

	R.A.		s.	d.
Sand	13.2	100 c. ft.	19	0
Lime	95.8	„	136	0
Labour	150.	per month	7	4

and, further, whether the brick is suitable for use in a humid tropical climate.

In foundations the brick would come in contact with ground water having the following analysis :—Sodium Chloride, 6.172 ; Calcium Sulphate, 0.430 ; Magnesium Sulphate, 0.371 ; Magnesium Chloride, 0.127 grammes per 100 cc.

E. H. HARRISON.

Cement Concrete Partition Slabs.

What is the maximum length and height that cement concrete partition slabs (1½ in. to 9 in. thick and plastered both sides), can be used with safety without intermediate stiffeners, but all edges attached or bonded, and to what extent (if any) would doorways weaken them ?

"QUERY."

Inquiries Received.

INDIA.—Stone preservative solution. Particulars of two specialities sent on by post.

LANCASHIRE.—Your inquiry regarding architects and garage authorities has been answered by post.

GOVERNMENT DEPARTMENT.—Particulars of glass substitute forwarded.

BUCKS.—Information regarding the legal query you raised has been sent on to you.

"BOT."—Your inquiry with regard to red roofing tiles made in Scotland is being attended to.

BIRMINGHAM.—Particulars of reinforced concrete safes have been sent on.

RÈNEY ("WOOD-WORK MACHINERY").—Your inquiry for wood-work machinery has been answered by post.

If student will send us his address, we will be pleased to send him the particulars he requires.

New Underground Headquarters.

The new Underground offices, at the back of Electric Railway House, Broadway, Westminster, will be ready for occupation in February. Twenty-two girders, weighing 550 tons, were thrown across the platforms of St. James's Park Station, and upon the strong framework thus formed the six-story building has been built. The reconstruction work has enabled the company practically to rebuild the station and to introduce bright tiling on the platforms. The lighting has thus been remarkably improved, and the old St. James's Park Station is hardly recognisable under the new scheme of platform architecture.

Bradford Mill Collapse.

The managing director of the firm concerned stated recently that the collapse of the floors was a complete mystery, and he could not suggest a reason pending a thorough examination, which would be made. The mill was seventy-two years old, and was regarded as one of the best built in Yorkshire. At no time had the firm received any intimation from their workpeople that there were indications of the top floor being weak or of it giving way. He asked that rumours as to the cause of the accident be not accepted, but that a proper investigation be awaited.

New Building, Gresham-street and Wood-street.

In our description of this building (illustrated in our last issue) it should have been mentioned that the heating installation will be carried out by Messrs. F. A. Norris & Dutton, of St. Andrew's Hill, E.C., and fire sprinklers by Vigilant Sprinklers, Ltd., of 1, Tudor-street, E.C.

PRACTICAL DESIGN FOR BUILDING CONSTRUCTION—II.

AN ELEMENTARY EXPLANATION OF THE APPLICATION OF THE THEORY OF CONSTRUCTION TO PRACTICAL DESIGN.

By EWART S. ANDREWS, B.Sc., M.I.Struct.E., A.M.Inst.C.E.

SECTION I.—WALLS AND FOUNDATIONS (Continued).

The Strength of Brickwork.

In spite of the fact that a considerable amount of careful experiment has been made in the subject, our knowledge of the strength of brickwork is still rather indefinite. Before considering the results of some of the most important of these investigations, we will see what is usually allowed in by-laws.

The London County Council in the Steel Frame Act (1909) allow the following pressures in tons per square foot :—

Blue brick in cement mortar.....	12
Hard brick (including London stock) in ditto	8
Ordinary brick in ditto	5

Lime mortar is not allowed in brickwork under the Steel Frame Act, but the figure usually taken for brickwork in lime mortar is 3 tons per square foot; this would limit the height of a brick wall in lime mortar to 60 ft. if of constant thickness, apart from the question of floor loads of eccentric loading. As an interesting comparison we will give the results of some of the publications upon the subject.

R.I.B.A. Results.

We will take first the tests made by a committee of the R.I.B.A.; their report (1905) should be studied carefully by all requiring a full account of their experiments and results. Tests were made on piers 6 ft. high and 18 in. square; the cement mortar was 1 of Portland cement to 4 of washed river sand and their lime mortar was of grey lime in the proportion 1 to 2 and was probably stronger than that usually used in practice. Three series of tests were made and the first series gave low results. It is believed that it was discovered that the piers had not been bonded properly, and it is rumoured that, on being asked why this had occurred, the gentleman who had laid the bricks replied that he "thought they wanted them laid as we do in practice." The second and third series were bonded properly, and the following results were obtained for the crushing strengths in tons per square foot, the piers being five months old at the time of test.

	Lime Mortar.	Cement Mortar.
Stocks	18.6	39.3
Gault	31.1	51.3
Fletton ..	30.7	56.3
Leicester red ..	45.4	83.0
Stafford blue ..	114.3	135.4

We suggest that a factor of safety of 6 should be allowed for brick in cement mortar and of 8 for brick in lime mortar.

American Rules.

A comparatively recent American code (St. Louis, 1917) specifies the following allowable pressures on brickwork; the figures are in tons per square foot :—

Vitrified paving brick in cement mortar 1 : 3	20
Hard pressed brick in cement mortar 1 : 3	16
Ordinary hard and red brick cement mortar 1 : 3	13
Ordinary hard and red cement and lime mortar 1 : 1 : 3	11
Merchantable brick, good lime mortar..	6.5

Vitrified paving brick and hard-pressed brick must not crush at less than 320 tons per sq. ft.; ordinary hard and red brick must not crush at less than 150 tons per sq. ft., and merchantable brick must not crush at less than 110 tons per sq. ft.

Building Research Board's Tests on Thin Walls.

These important tests conducted by Dr. Oscar Faber were made upon thin walls with a view to obtaining information upon the bearing strength of thin walls employed in housing; a full account of the results will be found in Special Report No. 3 of the Building Research Board on "The Stability of Thin Walls," published by H.M. Stationery Office. To facilitate comparison with the results and rules already given, the figures which are given in Dr. Faber's report in pounds per square inch have been converted here into tons per square foot. The test specimen in each case was a short length of wall 14 ins. long and 8 ft. 6 ins. wide. Tests were made after the walls were from 22 to 26 days old and gave the following crushing strengths in tons per sq. ft. :—

1st Series, 4½ in. walls :

Stock bricks 1 : 3 cement mortar ..	40.9
,, ,, 1 : 6 ,, ,, ..	36.1
Fletton ,, 1 : 3 ,, ,, ..	67.0
,, ,, 1 : 6 ,, ,, ..	59.8
,, ,, 1 : 3 lime ,, ..	21.2
Concrete 1 : 2 : 4 cast in one piece ..	79.0
Concrete blocks 1 : 2 : 4 1 : 3 cement mortar	97.1

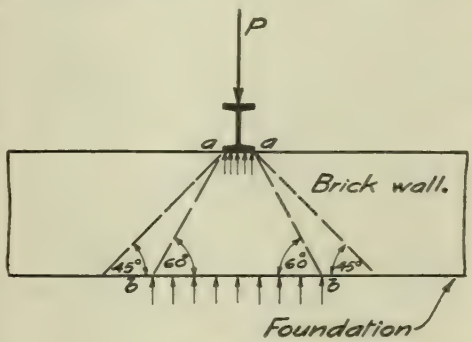


FIG. 2.

These tests were done in winter at an average temperature of 40 per cent.

2nd Series, varying thicknesses : 1 : 3 *cement mortar in each case* :

Fletton bricks on edge, 2⅞ in. thick ..	67.0
Coke breeze blocks, 3 in. thick ..	10.5
,, ,, ,, 4 in. thick ..	10.7
1 : 2 : 4 Concrete blocks, 4½ in. thick (semi-dry)	37.2
1 : 2 : 4 Concrete blocks 3 in. thick (wet process)	72.5

These tests were all made in May—a warm month.

These bring out certain very interesting and important facts; in the first place a 2⅞ in. wall of Fletton bricks on edge in cement mortar is actually stronger than a 4½ in. wall of the Fletton bricks on face in lime mortar. We also note the superiority of the wall built of concrete blocks made on the wet process over those made by the semi-dry process, as well as the comparative inferiority of the breeze block wall.

American Tests on Effects of Mortar on Strength of Brick Piers.

In Bulletin No. 300, of Columbia University, U.S.A., is given the results of interesting tests made by Professor T. S. Macgregor upon the crushing strength of small brick piers, some of face brick and some of common brick, made with various mixtures of cement and lime mortar varying from a 1 : 3 cement-sand mortar to a 1 : 3 lime sand mortar. Both the face brick and the common brick piers show higher strengths with mortars containing some lime than with mortars containing cement only, the highest strength (about 30 per cent. increase) being shown by cement mortars containing 15 to 25 per cent. of lime. Professor Macgregor explains the result of the more perfect bedding secured with the lime-mixed mortar on account of its higher plasticity, and by the decrease of the "suction" effect of the brick on the mortar.

General Conclusion from Test Results.

The general conclusion at which we have arrived as the result of the experiments which have been done up to the present on the strength of brickwork is that by careful choice of the mortar to suit the crushing strength of the brick itself and by care in preventing scamping of the work, brickwork of very high strength can be obtained. The stronger the brick, the stronger should be the strength of the mortar to develop the best strength of the brickwork; for blue bricks, for instance, a cement mortar of 1 : 2 mix can economically be employed, and the safe working pressure can then be taken at 25 tons per sq. ft. With poor bricks it is not wise to use a very hard mortar because the lack of yield on the bed is liable to lead to cracking of the bricks. There are among us some who would have us believe that the past generation of architects and builders carried out better work and were more honest as craftsmen than those of to-day. Should any of our readers share this hallucination, we recommend them to consult some of the District Surveyors of London.

Our attention was drawn a short while ago to some brick piers in London which were cracked and bulging and looking generally ill. Calculations of the loads on them showed that neglecting eccentricity of loads which would nearly double the stress, the mean pressure on one of them was 17.8 tons per sq. ft.

The wall was built of stock bricks in cement mortar, and some time after the building had been erected an optimistic plumber had generously hacked into this very bad pier to put in some hot water pipes, and had never made good. It is time that we inaugurated a Society for the Protection of Cruelty to Buildings.

"Dispersion" of Concentrated Loads.

When concentrated loads occur on brickwork, such as those due to girders resting upon brick walls, it is safe to allow a higher pressure immediately below the load than in the case of a pier in which the whole of the top surface is loaded.

Tests made many years ago by Bauschinger show that if the load may spread in two directions, as indicated in Fig. 2, we may allow the stresses to be increased by 50 per cent., and if the load comes near one edge but can spread in the other direction, we recommend that an increase of 25 per cent. be allowed.

This question of the dispersion of loads also effects the calculations of the pressures on a foundation or layer below the brickwork. If we have a pressure P applied on a length *a a* of brickwork, and we draw lines *a b* at 60 deg. to the horizontal, we find a length *b b* on the foundation upon which we may regard the pressure P as uniformly distributed for purposes of calculation of the foundations; if a similar spread or dispersion can take place in a plane at right angles we proceed in a similar manner for that plane. The angle of 60 deg. is called the *angle of dispersion*; some designers adopt an angle of 45 deg., as also shown, for this purpose, while others allow 45 deg. for stone and concrete and 60 deg. for brickwork. We believe there is evidence to support the view that the load will disperse at about an angle of 45 deg., but if we adopt that view we should allow for the fact that the pressure will be greater at the centre than at the outsides. By taking 60 deg. instead of 45 deg. and regarding the pressure as uniform over *b b* we are really making allowance for the variation in pressure.

Carlton House Terrace.

Three of the mansions at Carlton House terrace are in the process of being converted into flats. They are Nos. 8, 19, and 20 respectively.

THE SOCIETY OF ARCHITECTS.

THE thirty-ninth annual report of the Society of Architects has just been issued. In addition to those matters already announced in our pages, the following extracts are of interest:—

The Committee report that a total of 161 applications were received for admission to the various classes of membership, of which 123 were admitted, including 13 transfers to a higher class, and 5 members were reinstated. The Society lost 20 members by death, and 39 by resignation and lapses, and 5 were transferred to the retired list, the total strength of the Society on October 31, 1923, being: Fellows, 202; Members, 1,136; Honorary Members, 23; Retired Members, 41; Licentiates, 167; Students, 132; a total of 1701, being a nett total increase of 71 over last year.

The Society's arbitration rules have been redrafted and the scope of the Committee enlarged, so that it can deal not only with references as provided for in the Society's form of contract, but can also be available for reference by consent out of Court and under the order of the Court concerning matters in dispute affecting or connected with architecture, or the building or allied trades. Major Watson, F.R.I.B.A., Barrister-at-law, has been appointed Registrar of the Committee.

Competitions and Scholarships.—Last year the four quarterly Competitions and the travelling studentship and the architectural scholarship competitions were superseded by half-yearly design competitions each of the value of £40. It was found, however, that the latter did not receive the support which was anticipated owing to the greater attractions of other educational facilities such as the correspondence design course. It was, therefore, decided to discard the half-yearly design competition and to concentrate on the correspondence design course and the open competitions, viz., the Victory scholarship and the Trehearne-Norman essay competition, and the foreign travel scholarship.

Education Conference, 1924.—The Society is represented in an advisory capacity on the R.I.B.A. Board of architectural education, and has expressed its desire to co-operate and take part in the conference which is to be held under the auspices of the R.I.B.A. in the autumn of 1924.

The General Purposes Committee had referred to it the duty of submitting to the Council the names of candidates to fill the office of a Vice-President vacant by the regretted death of the late Mr. George Paine, and also vacancies on the Council due to the withdrawal of Messrs. Henry Tanner, T. Stewart Inglis, and F. Hall-Jones, who were unable to continue their services owing to the pressure of their other engagements. The Council subsequently co-opted Mr. Sullivan as a Vice-President, and Messrs. T. G. Davidson, W. G. Ingram, and P. M. Davson as ordinary members of the Council. To the vacancy caused by the transfer of Mr. Sullivan to the office of a Vice-President, the Council co-opted Mr. C. F. Norman.

With regard to the question of Unification and Registration, the dissolution of the Unification and Registration Committee of 1922 was followed by an announcement in the R.I.B.A. Journal of January 13, 1923, of a draft Bill for the registration of architects prepared by the Registration Committee of the R.I.B.A. and approved by that Council. The first official communication which the Society received from the Institute on the subject was a letter, dated January 23, enclosing a copy of the Bill which it was stated was to be introduced into the House of Lords the following month. This draft Bill differed in points of detail from the print in the R.I.B.A. Journal. It was considered by the Council of the Society on January 25, and an intimation was sent to the R.I.B.A. that the Society was unable to support the proposal in the form in which it was then presented. The draft Bill was presented to the general body of members of the R.I.B.A. on January 29, when the meeting decided not to consider it until the other professional societies and interests affected had been consulted and a general consensus of opinion obtained in favour of the Bill.

General.—The Annual Report being mainly a record of work in hand and accomplished, necessarily gives little indication to the members as to how the results were obtained. The greater part of the detail work of the Society is done in Committee and the members of the Society will realise that their representatives on the Council are called upon to devote a great deal of time to its affairs. It follows, therefore, that service on the governing body of the Society is an honour which carries with it a great deal of responsibility and entails much personal attention to the work.

BOOK REVIEWS.

Quantity Surveying for Builders. By WILFRID L. EVERSHED, F.S.I. The "D.U." Technical Series. (London: Chapman & Hall, Ltd. Price 10s. 6d. net.) 1923.

The author has succeeded in producing an essentially practical work, and one which will be found of great assistance to the student of quantity taking. It consists largely of examination papers of the City and Guilds of London Institute, and of the Surveyors' Institution, with examples of the answers to many of them. The author quite wisely credits quantity surveyors with a certain degree of individuality, a characteristic that many feared would be eliminated by the production of a "Standard" method. This, however, is happily not the case, so that while in some instances one would not be in complete agreement with some of the methods advocated in the book under review, the student on the whole may be safely recommended to study the work closely in the early stages of his training, leaving the personal element to the time when he can run alone. There is a long series of tables of volumes and areas with algebraic formulæ, but we think in practice the surveyor would use the more rough and ready methods now in use, which are to all intents and purposes practically correct.

The system of "timesing" and "dotting on" described on pp. 34 and 35 are somewhat confusing, and we think there is a clerical error in examples Nos. 31 and 32.

To be somewhat hypercritical, perhaps one might wish the method of arriving at the number of rolls in example No. 55 and the size of soakers in example No. 62 were more explicit, while we cannot understand how the width of boarding and lead to valley in the latter example is arrived at. Taking the work as a whole, it will be found most useful to the student for examination purposes, as well as for practical use in the exercise of his profession, and one which merits a place in the front rank of modern technical works.

Some Factors relating to the Re-housing of Slum Dwellers. By JOHN J. CLARKE, M.A. The University Press of Liverpool, Ltd. (London: Hodder & Stoughton, Ltd.) Price 2s. net.

It was opportune that this paper should have been read to the British Association when that body was meeting in a city that has been a pioneer in slum clearance, and that has also been in the forefront with large post-war housing schemes. The paper here reproduced deals with re-housing in three main divisions: before the war, after the war, and in the future—and the full horror of the slums is revealed. Tables of mortality are given covering a three years' average in an insanitary area, the same average in the area after reconstruction, and the same over the whole city. The following figures are those of infant mortality: 259, 162, 119 per thousand, the phthisis rate being 4.0, 1.9, 1.7. Such figures speak for themselves, and we must note that the figures for the reconstructed area are not as good as they should be because the inhabitants are dispossessed slum tenants on whom slum life has left its mark. We are reminded that there are 72,000 back-to-back houses in Leeds where adequate ventilation is impossible, and that similar conditions throughout the country are responsible for the existence of 1,166,784 children defective in some respect out of a total of 2,434,252 examined. In 1920 the insured population of England and Wales lost fourteen million weeks of work through sickness, most of it preventable. The following example is cited in illustration of the kind of conditions that thousands of our fellow-citizens have to tolerate; it is a description of a house that is rather typical than unique:—

The ground floor is occupied as workshops.

First Floor.—Two rooms: occupied by four adults. One room: husband, wife, and five children, aged ten and under. One room: lodger. One room: single woman.

Attic.—Husband, wife, and one child.

The roof leaks badly, and as the man, an ex-soldier, stood on the chair to repair it, the four legs slipped through the rotten floor. The rent was 3s. 6d. per week, but in consequence of his improvements it has been increased to 4s. 6d. per week. The total rentals derived from this house are about £170 per annum.

As a further example of the outrageous state of affairs at present existing we are given the following particulars of houses with rooms to let "furnished":—

Rent of house.	Tenant receives
6s. 2d. per week ...	32s. 6d. for rooms.
5s. 6d. ,, ...	36s. 4d. ,,
5s. 6d. ,, ...	32s. 8d. ,,
5s. 5d. ,, ...	34s. 0d. ,,
5s. 5d. ,, ...	42s. 0d. ,,

The author rightly insists that it is a fallacy to suppose that the normal slum dweller will not respond to better conditions, and we are assured that where the chance has been given "undoubtedly the improved environment has had a beneficial effect upon the character and health of the people." It is further asserted that the country could spend without loss £50,000,000 annually, or, capitalised at 5 per cent., £1,000,000,000, on clearing the slum areas and securing better housing and living accommodation, provided that the cost of sickness and disablement were thereby reduced by one-third; for every penny spent on housing we save the rates threepence on other public services.

The paper contains some considerations of the transport problem, especially in connection with the Liverpool docks, and a proposal for a great national scheme for re-housing slum dwellers is formulated. It is to be hoped that this paper will be read and taken to heart, since nothing but the force of public opinion is likely to make politicians and public bodies take the slum problem with the seriousness that it imperatively demands.

BOOKS RECEIVED.

EXAMPLES OF MODERN ARCHITECTURE (in Parts). By C. F. W. Dening, R. H. Goodsall, J. Stockdale Harrison, and Shirley Harrison, L. W. Barnard. (London: Ed. J. Burrow & Co., Ltd.) Price 2s. each.

PROCTOR'S USEFUL TABLES, 1923. (London: Edward Le Bas & Co.) Price 1s.

FURNITURE MOULDINGS. By E. J. Warne. (London: Ernest Benn, Ltd.) Price 25s. net.

THE CHEMISTRY OF PAINTS, PIGMENTS AND VARNISHES. By J. Gauld Bearn. (London: Ernest Benn, Ltd.) Price 30s. net.

I FOR ONE. By J. B. Priestley. (London: John Lane, The Bodley Head, Ltd.) Price 6s. net.

QUANTITIES. By Sir Banister Fletcher and H. Phillips Fletcher. (London: B. T. Batsford, Ltd.). Price 10s. net.

AN INVENTORY OF THE HISTORICAL MONUMENTS IN ESSEX. (London: H.M. Stationery Office.) Price 25s. net.

DOMESTIC ARCHITECTURE OF THE AMERICAN COLONIES AND OF THE EARLY REPUBLIC. By Fiske Kimball. (London: B. T. Batsford, Ltd.). Price £3 3s.

THE BUILDING TRADE.

MODERN BUILDERS' MACHINERY.

By STAFFORD RANSOME.

II.—THE SELECTION OF MACHINERY.

THE selection of a builder's plant, even if it is only a small one and the expenditure involved is not large, is a matter of the greatest importance if efficiency, profit and freedom from difficulties are to be secured. If a builder purchases bad materials for construction, bricks, cement, timber, or hardware, it may land him into difficulties in connection with the contracts for which he uses them, but there the matter, serious as it may be, ends. With bad machinery, however, there is no end to his difficulties and losses so long as that machinery is kept running. He goes on steadily wasting materials and turning out bad work until the day comes when he scraps his plant, and the sooner that day arrives the better for him.

It may be taken for granted that the large builder who has been using an extensive plant of wood-working machinery, and possibly a number of plants in different parts of the country, has a good idea of what he requires when he wishes to extend his installations. At all events, he usually has in his employ in connection with his wood conversion department highly competent sawmill experts, who should be fully alive to all new moves on the part of the manufacturers of machines and are consequently able to advise him in making his selection. With the medium and small man, however, such is by no means always the case. He must therefore rely on his own judgment and common sense, which may or may not be backed by any great technical knowledge in selecting his machinery.

The Sources of Supply.

Let us first consider the market from which he can pick and choose. In Britain, at all events, he is far better off in this respect than is the purchaser in any other country. Not only has he about a dozen British manufacturers, any one of whom will be able to fit him out with anything that he may require, but he will find as many more who make certain of the machines which would answer his purpose, though they could not complete his outfit. Quite apart from these, however, he has all the American, French, German, Austrian, Swiss, Scandinavian and Belgian makers sitting on his doorstep, for there is not a single important foreign maker of wood-working machinery in the whole world, of any sort of reputation, good or bad, who is not actively represented in England.

Foreign Machinery.

Many of these foreign firms carry stocks in this country. It is not my purpose here to discuss the virtues and vices of Free Trade and Protection, but in considering the question of the selection of machinery we cannot ignore the fact that under the former the builder in Great Britain has a far wider selection of makers to choose from than can occur in any other country under the sun. The only thing that he has to worry himself about is the question as to what *is* the best for his purpose. That question, however, is in itself a big one, and is greatly accentuated by the immense variety of machines which are at his disposal to choose from. It is further complicated by the diversity of the prices asked for by the different makers for apparently the same thing and by the sometimes exaggerated statements made by over-zealous salesmen as to the capacities and qualities of their respective machines.

In advising on the selection of wood-working machines, generalisation as a rule is apt to be both unsatisfactory and misleading. There is, however, one matter about which we may lay down a definite rule which covers all cases. That is, that it is always a fatal mistake to purchase a cheap machine because it is cheap. Get the best machine that is available for your purpose, not necessarily the most elaborate one, because you may not want extraordinarily high speeds of output, but get the best for your requirements and strike the best bargain in purchasing it that you can with the maker.

At the present day, speaking for the moment of British machines only, there is no scope for any considerable difference of price in the same type of machine from different makers unless the quality of those machines varies accordingly. Either the one is good and the other bad, or the one possesses certain features in materials, design or construction that are not possessed by the other. These differences and their value may not always be easily apparent to the unsophisticated purchaser, but they will be there and will be appreciable to the expert.

Tools of Precision.

We must bear in mind that practically all wood-working machines are, or should be, tools of precision. They all have to produce extremely fine and accurate work, and most of it is done by spindles revolving at very high speeds. The difference between good and bad planing, for instance, may sometimes be represented by one-thousandth of an inch, and the unnecessary waste of $\frac{1}{32}$ in. in the thickness of a saw-cut may make the difference between profit and loss. Machines for effecting this exactitude at high speeds do not lend themselves to being manufactured on the mass production principle, and they are never so made. All the makers manufacture virtually under approximately the same conditions as to labour and materials and facilities, and it is only by applying the principle of mass production to these machines that they could drastically reduce their cost. We may therefore take it as an axiom that variation in prices quoted, except within a very narrow margin, means a difference in the quality of the machines. Many builders start using machinery at an early stage in their career, when their financial resources are strictly limited, and in their anxiety to equip themselves they are more frequently apt to fall victims to the cheap maker. Such a policy often spells disaster, and has sometimes turned what would have been a profitable contract into a loss, at a time when a beginner was struggling to make headway.

It must be accepted as a fact that the difference in cost between good and bad machines will, as a rule, be paid for over and over again by the good machinery, if kept at work, in the course of a few months and often in only a few weeks. If, therefore, a purchaser considers that he has just enough money to pay the price of a cheap plant, but not of a higher-priced one, he will be wise to keep his money in his pocket until he can afford to raise the extra money. If such a man cannot get the manufacturers of the better machines to give him a certain amount of credit for a portion of the plant, it should not be difficult for the purchaser to arrange for someone outside to finance his purchase for him, provided that he can show he has *bona-fide* contracts which justify the purchase of machinery. This is merely a legitimate business proposition.

Some years ago I was consulted by a builder whose machinery was giving a lot of trouble. He was a beginner, and had only four simple machines, a saw bench, a mortising and boring machine, an irregular spindle and an over-and-under planer. He could not get good work, he had had constant troubles with his bearings and some breakages.

"Why did you buy this rubbish?" I asked him.

"Well," he said, "this contract is very rushed. I hadn't time even to put up a proper building for the machines, and I have to use them rather roughly, so I didn't think that it was worth while getting a more expensive plant, especially as I don't know whether I shall want the machines when this contract is done."

I explained to him that if he had purchased a good plant in the first instance it would have been saleable at the end of his contract for far more than the difference between the prices of the good and bad plant. It is true that the machines were being badly used, badly housed, and apparently handled without that care which is essential to the best results. But they were bad throughout, light, flimsy and roughly fitted. Properly constructed wood-working machines will always stand harsher treatment than bad ones, and they are much more easily adjusted and worked than are those of inferior quality.

In going into figures it was found that his machines, exclusive of the motive power, which was good enough, had cost him about £300, and breakages, repairs, stoppages and unnecessary labour had cost him in a few months another £250, and he had wasted a large quantity of material. He could have purchased a properly-made plant for rather less than £400. Thus, even when a builder has to subject his machines to rather rough treatment and to force their output, as is sometimes the case, especially when machines are accommodated temporarily in connection with a hurried contract, the best machines are by far the cheapest.

Metric Standards.

Quite apart from the question of sentiment or patriotism or quality, there is a difficulty in using Continental machines in this country, and that is that as all their parts are made to metric measurements, they do not conform to our standards. Thus, we may have a saw of 39.4 in. dia. capable of cutting a board 14.9 in. deep. The widths and diameters of the pulleys are also of odd dimensions, as are also the diameters of the spindles and bearings. Moreover, the threads of the screws which, in case of repairs, cannot be cut with British standard taps and dies, and the heads of the screws and bolts which cannot be negotiated by our keys and spanners. Driving pulleys, too, have to be revised, and repairs in the case of accidents or wear are difficult, costly and sometimes impossible.

American Machines.

The American machines that are offered to the builder in this country, and their name is legion, do not suffer from the same disadvantage of differing from our standard dimensions, and many of them are highly ingenious. More particularly is this so in the case of special tools for a particular class of work, such as sand-papering machines of elaborate design, ply-wood machinery, twin band saws for re-sawing, &c. None of these, however, is of interest to the ordinary builder in this country, and but few are required even by the large builder. Of the more general purpose American machines, there is little to differentiate them from those of British make, and certainly their quality is no better than that of the average British machines. As a rule, too, when compared with the best British machines, they are of a less durable construction.

The makers of different nationalities are quick to adopt any improvement that occurs in the designs of their foreign competitors, and British firms are very much alive to anything which goes on elsewhere in this respect. Their own models have been copied all over the world in times gone by, and, if the absence of an import tariff is of any good from the point of view of the manufacturer in the country where there is no duty on foreign machinery, it is that it affords him a very excellent opportunity to see every machine in the world with which he has to compete and to take measures to adopt anything new and to

improve upon those novelties in designing his own machines. It is for this reason that the best British wood-working machinery is always up to date. The British manufacturer cannot help knowing what he is up against by the object lessons afforded by the foreign machinery which is dumped at his door.

German Machinery.

Before the war if a builder in this country used other than British wood-working machinery it was usually of German construction. There were two reasons for this. First, it was extremely cheap, and, second, the purchaser could demand and obtain practically any terms of payment that suited him. There was never any question of the quality of such machines. They were in nearly every case belated copies of the American designs, and bad at that. In fact, many of these German machines were in design ten or fifteen years behind the rest of the world. Nevertheless, they sold because there is, and always will be, a class of customer to whom low first cost and credit facilities must appeal irresistibly.

To sum the matter up I would say again, that if the builder is to get the best or even good results he must purchase the best machinery that is procurable. In most cases for his purposes unquestionably British machines are the best. But he must remember that there are good and bad British machines. Let the purchaser look around and examine everything that is offered to him, and unless he is a man of technical experience let him get expert advice, for, as a builder once said to me, "one machine looks very much like another." That is actually the real danger which the unsophisticated or careless purchaser has to face.

THE NATIONAL ASSOCIATION OF MASTER PLASTERERS.

THE National Association of Master Plasterers held their annual dinner at the Holborn Restaurant on January 14. Mr. J. E. Chadwick, the President, was in the chair.

After the loyal toasts had been honoured, Mr. E. J. Brown, in proposing "The National Association of Master Plasterers," said he thought the building trade and the Association had a troublesome period ahead of them for many years to come. Owing to the shortage of skilled labour they were bound to find the situation very difficult. He appealed for unity among the builders, plasterers, plumbers, and allied trades.

Mr. H. H. Hodkin, in responding, said the plasterers were the friends of the builder, and tried to smooth the way in many directions. They kept the balance, and acted, as it were, as ballast. They wished to run on parallel lines and not diverge in an opposite direction. It was necessary that they should get to know one another. The bulk of them, after all, were connected with the London Master Builders' Association. At the same time, although they had much in common, the National Association ought not to lose its own identity.

Mr. Roland B. Chessum, in proposing "The President and Officers," said he wished the President every success in the position he now occupied. To a certain extent it depended on the assistance he received from his officers. The present situation made it a more strenuous office than it had ever been before. Years ago it was child's play compared with its onerous character at the present time. Although only representing one craft, there was a multitude of duties to be attended to by the President and his officers. They would be in a happy position if they could roll out the rough places in life to make it a bit easier for those that came after them. If they worked for the benefit of the industry, and the community in general, it would be much better than a merely selfish attitude towards their own particular problems.

The President, in responding, said the various trades were dependent on each other. In regard to their various troubles it was a poor soldier that turned his back upon difficulties. The Association would carry on for the best of everyone, and give credit to others for the desire to see eye to eye with them.

Mr. Samuel Wright, in proposing "The Visitors," said there was close co-operation between the sub-contractors and the London Master Builders' Association. There was no man like an expert to carry out the work of any particular branch—particularly so in the case of plasterers. They either inherited their craft, or spent years of their life in training. Their branch of the building trade was one of the oldest and one of the most important. The first pre-historic joiner had to call in the plasterer to join up the cracks. The master craftsman would remain for many years yet to come.

Mr. Somers, in briefly responding, mentioned that he had been connected with the Master Builders for a period of seven or eight years.

ELECTRICAL CONTRACTORS' ASSOCIATION.

ON January 15, at the Hotel Cecil, Mr. Robert Robson (President) occupied the chair at the annual dinner of the Electrical Contractors' Association, when some 170 guests and members were present.

After the loyal toasts had been honoured, Sir James L. Devonshire, K.B.E., proposed "The Allied Associations and Honorary Officials." It was the first time, he said, he realised that, since 1915, the Association really consisted of three Associations. In 1909 the Association secured an important clause for the protection of its members; and again in 1919 secured there should be no unfair municipal competition. It could not be too often emphasised that the success of any industry depended on the success of its retail traders.

In responding on behalf of the Allied Associations, Mr. R. Robson said he would like to see the Association spirit installed in every one of their members. If they could get enthusiasm members could carry through any project they had in hand. Their members were the last link between the public and the manufacturers; and it was up to them to educate the public in the use of electricity. He maintained that it was their duty to sell to the public electrical apparatus; and they should sell it in their own premises. He contended that the electrical industry was only in the infancy of its possible development; they had a tremendous field in front of them, and if they only realised it there was work for all of them.

In regard to the Wembley Exhibition, it was for the good of their industry, and they had just passed a resolution to induce other sections of the industry to use British material. By other sections he meant the merchants who supplied them with material. In regard to the Supply Authorities the first thing was to get on good terms with them, and when they were on a friendly footing it would be easier to open up negotiations than as strangers. It was also important to get their members on the City councils.

He was very glad to know that voluntary registration of electrical contractors was almost in being. In a few weeks he hoped contractors would be asked to register.

Mr. W. R. Rawlings proposed "The Guests," and, in responding, Sir John Snell said the duties of the Commissioners were of a fairly arduous character. As a result of a survey that had been made throughout the country by engineers it was estimated that within the next ten years the output of electricity in this country would be multiplied by 2½ to 3 times. It was really extraordinary that within the short time the Commission had been in being amongst local authorities it had to deal with 1,700 applications for loan grants.

Although it was only natural that electrical contractors should wish to carry out large contracts, he would put in a plea for the smaller premises. With the electrification of railways it should be possible to extend to rural districts electrical manufactures. This would go a long way to help the architects in their national cause of encouraging the people to leave the towns and settle in healthy country districts.

After Dr. Alex. Russell responded further for the guests the toast of "The Electrical Development Association" was proposed by Mr. H. Marryat and seconded by Mr. W. B. Woodhouse.

In conclusion, Mr. H. T. Young proposed "The Chairman," to which Mr. R. Robson briefly responded.

NEWCASTLE BUILDING TRADES' ASSOCIATION.

MR. THOMAS BERTRAM occupied the chair at the annual dinner of the Newcastle and Tyne District Building Trades' Employers' Association held on January 11.

The Building trade was submitted by Ald. Bramble, who said it was an industry they all wished to encourage. He spoke in appreciative terms of the work of the Association, whose activities were for the good of both the industry and the public, stabilising the trade, and creating harmony between employers and employees. He felt sure if there were fewer official restrictions and more freedom the industry would get along a good deal better.

Replying, the President made reference to building charges, and said 1914 costs would never return in the time of those present. During the next six years costs in the building trade would be between 60 and 75 per cent. above 1914. These facts must be appreciated and looked fairly in the face, and from a business standpoint. There was a more settled state in the industry which warranted the hope that in a short time the cogs would be moving considerably more rapidly than at the moment. The advances in wages just awarded on the sliding scale meant a return to first-class work, and there was no possibility of wages coming down. The building trade would now get away from a class of building which some of them did not consider exactly creditable to the industry—the building erected under stress of circumstances.

Replying, Major Steele said he thought every builder would like to go back to the times when craftsmanship was a pride. Owing to the commercialism of the last half century he was afraid craftsmanship as an art had declined, but he prophesied a return from signs of the present day.

TENDERS.

Received Too Late for Classification.

CATHERINGTON.—For Cowplain Water Scheme, for the R.D.C. Mr. G. C. Vernon-Inkpen, architect, 40, Commercial-road, Portsmouth:—

F. J. Privett, Portsmouth	£7,977	0	0
F. Bevis, Portsmouth	6,373	0	0
Gunn McNeill, Ltd., Westminster	6,300	0	0
The Lux Solis Lighting Co., Earley Station	5,960	14	3
C. E. Harvey, Prinstead, Emsworth	5,433	11	0
J. Hunt, Gosport	5,400	0	0
H. H. Barry, Nottingham	4,945	0	0
The Standard Construction Co., Swansea	4,866	10	4
P. Trentham, Ltd., London	4,732	15	0
H. Osman & Co., Shirley, Southampton	4,622	16	0
Crawford Bros., Havant	4,612	17	6
J. Croad, Portsmouth	4,600	0	0
*A. Streeter & Co., Ltd., Godalming	4,097	15	2

CHADWELL HEATH.—For erection of house and shop, for Mr. Robinson. Mr. E. Meredith, architect, 7, Goodmayes-road, Goodmayes, Essex:—

T. L. Hughes, Ltd., Ilford	£1,490
Luton & Sons, Stratford	1,468
Baker, Hammond & Laver, Rainham	1,272
*Romain & Sons, Chadwell Heath	1,249

GOLDER'S GREEN.—For erection of house, for Mr. Tozer. Mr. E. Meredith, architect, 7, Goodmayes-road, Goodmayes, Essex:—

Tavener & Son, London	£1,770
W. J. Lovell & Son, London	1,735
*H. J. Gower, Ltd., London	1,497

GOLDER'S GREEN.—For erection of six houses (and/or two lock-up garages) corner of Elmcroft-crescent and Hamilton-road:—

	Six houses.	*Two garages.*
G. E. Scutt	£6,500	—
Guild Housing, Ltd.	6,160	256
H. J. Gilbert & Sons	5,500	250
W. A. Taylor	5,400	225
Richardson & Howard	4,549	185
F. W. Romain & Sons	4,457	—
Allen Fairhead & Son	4,141	195
Thatcher & Pritchard	3,969	153
*J. E. Billings	3,695	179

THE PRINCIPLES AND PRACTICE OF ESTIMATING.

We give the following extracts from a paper on this subject read by Mr. T. SUMNER SMITH, F.S.I., before the Institute of Builders (Manchester Branch) on January 14:—

In considering the principles and practice of estimating in building works, we shall begin with the assumption that anyone desirous of acquiring the art and science of estimating is already equipped with a sound knowledge in construction, familiar with materials and their usages, and their conversion from the raw state to the finished product (except in those instances where they are a manufactured article, as, for example, bricks, cement, and the like, when he should be acquainted with their application to building works), also that he is conversant with craftsmanship and the methods employed in the execution thereof, and the amount of work a man is capable of performing in a given time, and finally, he is fairly well grounded in the principles and practice in the measurement of artificers' work. To those qualifications might also be added a sense of judgment of values. But this is largely a matter of experience, founded upon a catholicity of knowledge derived from amongst others, observation, induction, empirical comparisons of things of similar or like kind, always with an eye as to their costs, and also with a due sense of proportion of the fitness of things in their relation to one another. As to this, he would never compare, say, the price per cubic yard of concrete used in great bulk in which there had been facilities for handling and execution with that of a small quantity in which the conditions were the reverse—no proportion betwixt them as regards value.

The principal methods of estimating may be said to be two:—

(1) Pricing from correctly ascertained data of a like kind; (2) Pricing from data of a like kind, confirmed and checked by empirical methods founded upon experience.

The former may be taught and learned just as any other subject, and presents no great difficulties. The latter is more difficult to each and learn; but it is possible, bearing in mind that anything may be taught successfully when its application is understood and that it may be acquired by the right aptitude and industry.

Both are somewhat similar, but the difference is in the kind of experience.

Analysis.

Of the essential principles underlying estimating for building works analysis is one of the most important. Particularly so does estimating call forth for this, since by our system the modes of measurements are expressed, as a general rule, for artificers' work, in terms different from the purchase terms of materials; further, artificers' work may be composed of several and distinct kinds of materials whose values differ, and it may sometimes happen that their purchase terms differ. Take the example of a cubic yard of cement concrete. It is invariably made up of broken bricks or stone, shingle or gravel, ashes or coke breeze, or slag, together with sand and cement and water. The purchase terms of broken bricks, etc., and sand may either be by weight or by volume, whilst the purchase term of cement is by weight, and that of water by the gallon. And the value may vary in each case, even though bought on the same purchase terms. Similarly, there may be various kinds of labour employed whose rates of remuneration differ. Then, again, railway rates and cartage rates may vary—the price per ton of sand will obviously be less than the price per ton of cement, as the latter may require protection from inclement weather.

Also, although one may purchase sand at a rate on the terms of so much per cubic yard, the railway rate is invariably that based upon the terms of so much per ton. Here, then, we have a simple commodity or compound article, cement concrete, which, on analysis, for the purpose of estimating, presents numerous problems for solution. Analysis, then, is the first step in arriving at the price.

Reverting to our example: a cubic yard of cement concrete, say, composed of 5 parts broken brick, one part sand and one part cement, I propose to examine in detail the problems as they present themselves, and to give illustrations of the methods by which they may be solved with a view of ultimately arriving at the price per cubic yard.

The quantities of materials required to make a cubic yard of cement concrete are an important factor of the cost. It would be wrong to assume that the quantity of broken bricks in this case plus the quantity of sand and quantity of cement is equal to the volume of the finished concrete. Thus, five cubic yards of broken bricks, one cubic yard of sand, and one cubic yard of cement will not make 7 cubic yards of cement concrete since the grains of sand and cement fill, to a certain extent, the spaces or voids between the broken bricks. It is also incorrect, on the other hand, to assume the quantity of broken bricks alone as being exactly equal to the volume of the concrete, because the introduction of sand and cement may be in excess of the actual voids. Further, it is also incorrect to assume that the quantity of broken bricks must be either less or exactly equal to the volume of the finished concrete, because it depends upon whether the amount of sand and cement introduced is equal to the actual voids. In the example I have given the broken bricks amount to 1.2 or 1 1-5th cubic yard in volume to the finished cubic yard of cement concrete. To the beginner this may seem paradoxical, but as to this I will make clear later. Suffice it to say, it will have served the purpose of the illustration if it should have aroused your curiosity and have prompted you to argue a question in your mind as to how or why is it feasible to pack 1.2 cubic yards of materials into one cubic yard. And by this it will now be understood what I meant when I stated previously that an estimator must cultivate an inquiring and critical mind. He should exercise well and keep alert the critical faculty. It is so essential that the beginner should at the outset grasp the fact that it is possible to put more materials by measure into a smaller measure that I shall illustrate it by a simile.

For my simile I shall take water as my illustration. Pure water at a given temperature—39.2 deg. F.—is at its greatest density, and one gallon weighs 10 lb., or 6.25 gallons or 62.5 lb. equals approximately one cubic foot. Water at its greatest density is neither expandible nor compressible, but by increasing the temperature to 212 deg. F. water is converted into steam, and 1 lb. of steam at this temperature at atmospheric pressure will occupy approximately a space of 26 cubic feet, and by increasing the temperature, say, to 394 deg. F. 1 lb. of steam will withstand or exert a pressure of 230lb. per square inch, and will occupy only 2 cubic feet of space. So that by increasing the temperature the same weight of steam will occupy less space, in this case 13 times less, only, of course, it exerts greater pressure. We may, for our purpose, eliminate the point about pressure. However, what I wish to impress upon you is this: that these are recognised and accepted facts. I cite them to show that dubiousness alone will not suffice, but rather that you must proceed along the lines of reason in solving your problem. Our first problem, therefore, in arriving at the quantity of materials in a cubic yard of cement concrete is that of voids. How are we to ascertain and determine the amount of voids?

Voids.

The determination of voids of a unit volume of aggregate has been ascertained in the past mainly by actual trial—by filling a watertight box (a convenient size is 4 ft. 6 in. by 3 ft. by 2 ft.=27 ft. cube=1 yard cube) well wetted to avoid further absorption, and measuring the volume of water it is necessary to pour in to fill up all the interstices. The voids in sand were determined and ascertained in a similar manner. In practice these void tests gave anything but satisfactory results. In the case of sand the moisture which the sand contains so affects its volume that this test is scarcely of any value. If the sand is dry, for example, a fine sand with grains of a uniform size will have about the same percentage of voids as a coarse sand with uniform grains; whilst, on the other hand, if sand when tested contains natural moisture, the amount of this varies so much from day to day that the original volume of the sand, and, in fact, the volume of the voids, may be affected to the extent of 10 per cent. An increase in the percentage of moisture increases the bulk of sand and likewise the voids up to a certain point. The correct way to determine the voids of a unit of aggregate or sand is to ascertain the specific gravity of the materials. The specific gravity of a substance is the ratio of the weight of a given volume to the weight of the same volume of distilled water at a temperature of 62 deg. F. For ordinary tests of aggregate and sand the water need not be distilled and may be at ordinary temperature—say from 60 deg. to 80 deg. For ordinary bricks the specific gravity is 1.90, and the weight per cubic foot 118 lb. The specific gravity of sandstone may be taken as 2.6 and the weight of a solid cubic foot 160 lbs. As a rule the voids in cement are not ascertained. Loose Portland cement averages per cubic foot about 92 lb., but when packed tight averages about 115 lb. Portland cement is assumed in standard proportions to weigh 100 lb. per cubic foot

Specific gravity multiplied by 62.32=weight of a cubic foot in pounds. Therefore weights of aggregate or sand divided by 62.32 gives specific gravity.

Analysis showed that in a yard of 7:1 concrete there was .728 of a cubic foot of solid matter in excess, approximately 2.6 per cent. without considering the volume occupied, if any, by the water used in mixing. But in practice it is reasonable to assume that not every particle of solid matter is actually used. Quitting for the moment the point with reference to water, we can only say that this 2.6 per cent. is greater or less waste than is required by actual tests, either in the form of research or data derived from actual operations. Some waste will actually take place. Hence, the estimator must know this, to estimate accurately.

As regards water: what is the quantity required for a cubic yard of concrete? Does this vary with the temperature, the dryness and density of the materials? Again, does the cellular construction of the materials have any effect upon the quantity of water required? All these are matters awaiting investigation. Further, does an excessive amount of water weaken concrete, and, conversely, an absence of a correct quantity diminish the strength of concrete? We know that concrete sets a conglomerate mass physically as a result of the hydration of the cement. What causes the cementitiousness of the mass into a conglomerate whole remains as yet a mystery. We even as yet do not know whether the water combines chemically and consequently occupies no space in the mass; if, on the other hand, it retains a separate entity, then on evaporation the concrete would be honeycombed to the extent of the space occupied by the water used in mixing.

Organisation.

Another factor that must be taken into consideration by the estimator is the matter of

organisation. I do not refer particularly to the organisation of men in the performance of task work so much as the organisation for getting the materials to the men. It is futile to estimate the labour cost from constants of labour or any data which gives the time of performance for a given task under certain conditions, unless those conditions will actually apply in the particular case under review. The first thing requisite is that the materials and the correct implements shall be at hand for the man to perform the task, and the next thing, whether it is possible for it to be done in the time which it is thought it ought to take to perform the task.

Pricing.

Of course, in pricing, the most difficult of all is that of determining the labour costs. The actual amount of materials to be used, their value, and all charges upon them may be estimated with accuracy to within reasonable limits. Not so the labour costs. We may by analysis calculate the materials, but analysis of labour costs will not help us materially, unless we have data of costings of similar works, and that they would be applicable to the case under review.

Summary.

Summarising, the principles of estimating necessitate the splitting up of an item into its component parts, and each unit treated separately for costs, and which should be in relation to its component parts where they are affected by relation thereto. Taking our illustration of excavation as an example, the percentage to be added for plant must be considered in relation to the class of work, as it is obvious were the item a piece of joinery work the cost of plant would be greater than 4 per cent.

Owing to our method of measurements we mix up materials with labour, with certain exceptions, notably stonework. This complicates matters and renders it difficult for the installation of a scientific system of investigation—by costing or other means—for arriving at the cost of the respective units or the component parts of an item. When such has been ascertained the data may be rendered useless by a fluctuation in cost of any one of its component parts. For instance, why should not excavation be considered apart from filling-in, and these quite apart from carting away, tips, fees, overhead charges, and profits?

Unfortunately, since we have to consider the price of an item of many parts we are compelled to base our price mainly upon assumptions, but this is even more reliable than lumping or guessing the price, or because we know that so-and-so price for such an item is 10s. we must cut it by one penny to get the job, whether we can do it at 9s. 11d. or not. Would it not be more sensible to see whether we could do it for 9s., and if we can let that be the price, then the bogey of competition is non-existent.

Conclusion.

In conclusion, a scientific study of pricing, seeing that it must of necessity take into consideration a review of the whole field of operations, may ultimately lead to a reduction in costs, whilst at the same time it may not only assume profits but benefit the country in general by a reduction in the cost of building and engineering works, and guarantee better wages.

Concrete is now used in building, and engineering works beyond the dreams of those of 30 years ago, but it is as yet only in its initial stages. The study of the uses of concrete and its costs may effect many savings. For example: It is possible to reduce the time of setting of concrete by 100 per cent., and at the same time increase its hardness and watertightness, with the result that buildings and engineering works, particularly roads, may be completed in much less time than it ever were possible before, and superior to anything known in the past.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/3	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/3½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/5	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	0/11½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 125).

CENTRAL LANDOWNERS' ASSOCIATION AND THE RATING BILL.

THE Central Landowners' Association has issued a Memorandum relating to the Rating and Valuation Bill submitted for their consideration by the Minister of Health, and from the report published in the *Times*, January 9, it appears that the Association accepts the main principles of the Bill, but on the understanding that it is regarded as a first step towards comprehensive rating reform, which shall review the relations between local and Imperial taxation, and it urges the Government to make some authoritative pronouncement on the lines upon which they propose to deal with this further and most urgent problem as soon as possible after the Bill has passed. The abolition of parochial rating is approved, but doubt is expressed as to whether economy will be effected.

The Memorandum is a long one and we only intend noticing certain points: for instance, the Association regrets the proposal to continue and extend the provision for rating owners instead of occupiers in rural as well as urban districts, and urges that no expedient short of direct payment of rates can bring their weight home to the occupier and so help to secure economy in local expenditure.

This, no doubt, refers to clause 8 subclause (1) in the Bill, which makes it lawful for any rating authority by resolution to direct in the case of any hereditament to which this subclause applies that the owners shall be rated instead of occupiers and by subclause (3) the hereditaments included are "all hereditaments, not being agricultural land within the meaning of the Agricultural Rates Acts, 1896 and 1923, the rateable value of which does not exceed thirteen pounds or in respect of which a weekly rent is payable, and for the purpose of the foregoing provisions of this section the expression 'hereditament' includes in any case where parts of a building are assessed separately the parts so assessed."

There can be little doubt that the rating of owners in place of occupiers is a bad principle for more than one reason. The local electorate should have it brought home to them that local expenditure is reflected in the rates, and that lavish expenditure means high rates. If the landlord pays the rates in the first instance, not only is this fact lost sight of but the occupiers confuse rates with rent, and attribute increased rents due to high rates entirely to the landlord and consider he is making extortionate demands for rent.

As regards Part II of the Bill the Memorandum accepts the general principle underlying this part of the Bill, "viz., that in each area the aggregate cost of the various public services for which the area is responsible should be equally distributed among the ratepayers on the basis of a single uniform valuation," but as regards the centralisation of valuation areas the Memorandum suggests that in practice much will depend upon the scheme which will be "settled by the Minister." We understand this to mean the schemes to be submitted by the County Councils to the Minister for his approval under clause 11. The Association in this connection observes that the inconvenience and expense to which the ratepayer may be put who desires to object to the valuation list will depend more on the schemes as settled than upon the provisions of the Bill. As regards the proposed quinquennial revaluation which is to be adopted throughout the country on the system in operation in London, the Memorandum points out that that system has been modified by certain judicial decisions and the new Bill contains no definitions as to what may or may not be taken into consideration in revaluation so the system proposed is an intensification of the present London system.

The Association accepts the principle of gross value for rating being conclusive evidence of gross value for income tax, but whilst admitting that this must involve the participation to some extent of revenue officers in the settlement of valuation lists, deprecates the proposal that a rating authority (but not an assessment committee) may employ a person in the employ of the service of the Inland Revenue to make valuations. On this point the Memorandum states, "The Association strongly objects to this proposal, which seems to point to the State-encouraged employment by rating authorities on a large scale of officials of the valuation department of the Inland Revenue. On general public grounds they suggest that it is undesirable that such persons who are servants of the Crown should in effect be put into the position of expert witnesses. Cases would inevitably occur in practice in which in forming their opinion they consciously or unconsciously would be making use of information which had come to them in their official capacity in circumstances which would make the use of it by them a breach of confidence and they would thus be placed in a position of great difficulty. It is also inevitable that in view of past history this proposal will be regarded by a large section of the public as an attempt to bolster up a Department the original and main object for the establishment of which has disappeared."

Objection is taken in the Memorandum to the scheme for fixing deductions from gross values in respect of maintenance and the Association suggest the system authorised by the Finance Act of 1923 allowing deductions varying in percentage with the annual values of the properties should be adopted.

This point is connected with the whole question of accepting one valuation for the double purpose of rates and taxes, and the Association points out in connection with this question of deductions: "Another aspect of the matter and one which causes this question of the acceptance of the principle that gross value for rating be accepted as conclusive evidence of gross value for income tax to be closely bound up with the fixation of the maintenance deduction, is that while rates are concerned with real property only, taxes are concerned with real and personal property. For income tax purposes it is essential that the net figure upon which the tax is levied in the case of income from real property should be reduced to the same level as the net figure upon which the tax is levied in the case of personal income, *i.e.*, in order that like may be compared with like, *e.g.*, income from real property be compared with a salary."

Our readers will remember that Sir Trustram Eve, in a letter to the *Times*, November 19, noted some objections to the introduction of one assessment for both rates and taxes, and amongst these objections were first that it involved bringing the Inspector of Taxes or the Revenue Officer into the preparation of valuation lists, and secondly that the ideal aimed at by this system was wrong in itself, for "the underlying idea of Schedule A is a tax on the owner arising from the rent received, or its equivalent, from real property. The fairness or unfairness of Schedule A lists affects no one but the State and the owner. A local rate is a charge on the occupier and the annual value of the premises is by common consent taken as a token of his ability to pay for benefits received from certain expenditure of a beneficial nature to occupiers within a prescribed area, such as collection of dust, the service of water supply, disposal of sewage, education, roads, police, &c. It is most essential that for local rates occupiers of similar premises should be charged equally, and that all the annual values within that district should be fair one with another and on the same basis. In the case of Schedule A this is not necessary. There is a great difference in fact between rents and annual values. It is not possible in practice (especially in these days of extraordinary post-war values) to make a valuation list containing assessments which are fair for rates and yet conform to the practice of Inspector of Taxes or Revenue Officer for Taxes."

As regards the valuation of special properties such as railways, the Memorandum states that the principles to be applied and the formulæ to be adopted are so bound up with the consideration of the whole subject embraced by this Bill that if the scheme as regards these properties is deferred as is proposed, the Bill may be taken to have been accepted, whilst it is impossible to foresee the result of the proposals, and the Association therefore suggests that the present proposal shall be reversed and the provisions as to special properties be introduced first and passed subject to a suspensory provision that they shall not come into operation until the central authority is set up.

We have only referred to some of the points raised in this Memorandum.

A summary of the views expressed by the Association of Poor Law Unions on this Bill will be found in our issue, December 14 last.

PATENTS.*

APPLICATIONS PUBLISHED.*

205,752.—W. A. Williams and North British Rubber Co., Ltd.: Rubber paving and flooring blocks or slabs.

183,475.—J. Mugica: Method or process of asphalting by means of continuous strips of compressed reinforced asphalt.

193,006.—C. Didier: Method of protecting and rendering impermeable materials employed in construction.

192,372.—G. Lyon: Apparatus for seasoning wood.

205,848.—Williams, Gamon & Co. (Kaleyards), Ltd., and G. P. Gamon: Stay-bar fasteners for casement windows.

205,879.—J. F. Downing: Double water-trapped gullies.

205,887.—W. J. Mellersh-Jackson (W. E. Hacker): Bituminous concrete pavements.

205,932.—Wynn, Timmins & Co., Ltd., and W. F. Vanhagen: Heads of hammers, adzes and axes.

205,943.—E. M. Lawrence and G. T. Richardson: Safety plates for door or like locks.

205,970.—J. T. McNay: Reinforcements for concrete.

206,014.—G. Kelting, J. A. Webberley and J. Adams & Son, Ltd.: Door springs.

206,096.—A. Cabla: Pivoted sliding double windows.

200,094.—A. A. R. Fastborg: S-shaped hooks for holding together the roofing tiles in tiled roofs.

206,100.—J. T. Whittome: Sash windows.

206,604.—A. F. Shirreff: Load-lifting devices.

206,614.—Parker, Winder & Achurch, Ltd., and J. A. Wood: Operating devices for fanlights or other pivoted windows.

206,617.—A. D. Tipper and F. T. Taylor: Manufacture of door latches.

206,643.—W. A. Vaughan: Bricks, tiles and the like.

206,669.—M. Heymann: Metal coverings for walls and ceilings.

206,731.—J. Haag: Locks.

206,742.—R. Y. Ames and G. G. Scott: Roofing-tiles.

206,752.—A. H. Wilkes: Door springs and checks.

193,829.—F. Guy and M. L. Davey: Composition for use in the manufacture of concrete structures.

206,765.—R. Dixon: Sheet-metal buildings.

196,266.—J. C. Chevers: Metallic sheet for lining ceilings, walls, and other parts of structures.

206,173.—C. Kindstrom: Hollow building-blocks.

206,201.—A. Williams: Compositions for coating and producing texture and other decorative effects on plaster, "compo," asbestos sheeting, wood, iron and cement.

206,247.—H. A. Rimmer: Paint.

206,256.—G. D. Peters & Co., Ltd., and A. Brackenbury: Ventilators.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

RIGHT OF WAY: COVENANTS TO CONSTRUCT ABANDONMENT.

IN a recent case, Swan *v.* Sinclair (*The Times*, December 21), an interesting point was raised as to a right of way. In 1871 a row of houses and shops were put up for auction in eleven lots and one of the conditions of sale was that a strip of land 15 ft. in width at the rear of the back gardens of the lots should be formed into a roadway and the conditions prescribed that each purchaser should as soon as possible contribute to form the roadway and remove that portion of the garden fences which traversed this strip of land and the original conveyances to the several purchasers provided that the several lots were subject to and had the benefit of the intended roadway and subsequent deeds expressly referred to this right. The plaintiff had acquired the freehold of lots 2 and 3 in 1911 by a conveyance which expressed that the lots had the benefit of this roadway. His father in 1873 had acquired a lease of plot 1 from an original purchaser with covenants relating to the roadway, which would expire in 1922 and in 1883 he had levelled up the garden at the rear of that plot, so that over the prescribed strip of land for the roadway it was higher than the gardens of the adjoining plots. The plaintiff had become the leaseholder of lot 1 in 1904, by assignment of this lease, and in 1919 he had levelled up the end of plots 2 and 3 to the level of lot 1 and he intended to build a garage on those two plots with an exit to a road which ran as we gather at right angles at the further side of plot 1, and he had pulled down a wall which separated lot 1 from that road for that purpose and erected gates. When the lease of plot 1 determined the defendant had acquired the freehold of plot 1 and he (the defendant) had then erected a wall across the strip of land between that plot and plot 2, thus barring access from the rear of plots 2 and 3 to the road. The plaintiff then brought this action claiming a right of way along the strip.

It was proved in the Court below that from 1871 until 1922 no step had been taken to form the roadway and the fences running across the strip had never been removed, and the Court below had held that as the roadway had never been formed and the strip of land had always been obstructed and the plaintiff and other owners had acquiesced the easement had been abandoned. Further, the Court held that the conduct of the plaintiff's father in levelling up plot 1 across the strip thus creating a drop between that plot and plot 2 was not consistent with the right claimed by the plaintiff.

The Court of Appeal by a majority affirmed this judgment, but the Master of the Rolls (Sir Ernest Pollock) dissented from the judgment. All the members of the Court seem to have relied upon an old case, Ward *v.* Ward (7 Exch. 839), from which the following passage was cited in the judgment of Lord Justice Warrington: "The presumption of abandonment cannot be made from the mere fact of non-user. There must be other circumstances in the case to raise that presumption. The right is acquired by adverse enjoyment. The non-user therefore must be the consequence of something adverse to the user."

From the fact that not only had the user of the road been rendered impossible by the continuance of obstructions existing at the date of the grant (that is, the fences and at least one brick wall) but also by the creation of a fresh obstruction in 1883 (that is, the raising of the garden at the rear of plot 1 to a higher level and the building of a retaining wall), the majority of the Court held the presumption was raised not merely that the right was in abeyance and capable of being revived, but that it had been abandoned and had ceased to exist. The Master of the Rolls is reported to have held that circumstances had induced upon all the owners a common delay, and inactivity was not sufficient to justify abandonment being presumed nor was non-interference with what was done in 1883 by the owner of plot 1 a clear indication of an intention to abandon the right, as at that time the road was not in being and therefore there could be no cessor of user.

There appears to be a lack of authority by legal decisions on the point raised in this case, and yet it is an extremely important one to purchasers of house property. The duty to make this road was a burden upon each of the lots sold at the auction and would continue so until the abandonment could be proved. Would any layman purchasing one of these houses fifty years after the original sale and finding that the road had not been made in all that period, imagine that the obligation contained in the purchase deeds still continued? If any such question did cross his mind, would he not consider the right both dead and literally buried when he found the level of the proposed roadway had been raised six feet behind one of the houses at least?

But perhaps the most extraordinary part of the case is that the defendants predecessor in title was the plaintiff's father, and he had first obstructed the strip by raising his garden in 1883, whilst the plaintiff himself had also subsequently altered the level, so far as all the other houses were concerned, by also levelling up the ground behind his two houses to this higher level, rendering the strip of land more suitable for a "switchback" than for a road.

It is satisfactory to see that the majority judgment finds this alteration in 1883 only twelve years after the original grant, a fact on which presumption of abandonment could be founded.

THE RENT ACTS: POSSESSION.

UNDER the above heading in an article in our issue for November 9 we dealt with section 5 of the Act of 1920, which has now been superseded by section 4 of the Act of 1923, with the view of showing the amendments which have been introduced, as this is one of the most important sections in the Acts. Paragraph (d) has been very drastically amended, and it was our intention to show these amendments by italicising that portion of the old paragraph which had become incorporated with the new matter, but in the passage of the article through the Press an error was made, or it had not been clearly indicated what portion should be italicised, and as this may give an erroneous impression of the amendments introduced we revert to this paragraph, showing how the matter really stands.

In the Act of 1920 this paragraph stood, "The dwelling-house is reasonably required by the landlord for occupation as a residence for himself or for any person *bona fide* residing, or to reside with him, or for some person in his whole-time employment, or in the whole-time employment of some tenant from him and (except as otherwise provided by this subsection) the Court is satisfied that alternative accommodation reasonably equivalent as regards rent and suitability in all respects is available."

The new paragraph reads as follows: "The dwelling-house is reasonably required by the landlord for occupation as a residence for himself, or for any son or daughter of his over 18 years of age, or for any person *bona fide* residing with him, or for some person engaged in his whole-time employment, or in the whole-time employment of some tenant from him, or with whom conditional on housing accommodation being provided a contract for such employment has been entered into, and (except as otherwise provided by this subsection) the Court is satisfied that alternative accommodation is available which is reasonably suitable to the means of the tenant and to the needs of the tenant and his family as regards extent, character, and proximity to place of work, and which consists either of a dwelling-house to which this Act applies, or of premises to be let as a separate dwelling on terms which will afford to the tenant security of tenure reasonably equivalent to the security afforded by this Act in the case of a dwelling-house to which this Act applies."

The paragraph was correctly set out in our former article, but the portions of the old paragraph which were retained were not correctly indicated by the italics. Now that the character of alternative accommodation has been so much amplified, those cases in which it is declared that its existence "shall not be a condition of an order or judgment on any of the grounds specified in paragraph (d)" require careful consideration, and in particular the distinction created by paragraphs iv. and v. of section 4 subsection (1) between cases where the landlord became the landlord before June 30, 1922, or where he became landlord after that date has caused some correspondence in the Press.

In the former case the paragraph says the dwelling-house must be reasonably required by the landlord as a residence for himself or for any son or daughter of his over 18 years of age, whereas in the latter case not only must the house be so reasonably required, but the Court has to be satisfied that greater hardship would be caused by refusing to grant an order or judgment than by granting it. As we pointed out in our former article, the general discretion contained in the subsection at the end of the first nine paragraphs "and the Court considers it reasonable to make such an order," applies apart from the specific question of alternative accommodation, but from a letter from one of the County Court Judges which appeared in the *Times*, November 26, it would appear that in some Courts a difficulty has been experienced in excluding the question of alternative accommodation from the general discretion, and the writer of the above letter points out that this may render nugatory the provisions of the new Act, and he gave instances of how in his opinion the discretion should be exercised.

No hard and fast rules can be laid down upon a matter of discretion for if they are too rigidly enforced they are destructive of discretion.

In the first case, where the landlord was landlord before June 30, 1922, there is no mention of the tenant, the house has only to be "reasonably required for occupation," but in the second case, where the landlord has become landlord after that date, it is to be observed the Court has to be satisfied that greater hardship would be caused by *refusing* to grant an order than by granting it.

In the first case, reasonableness in the desire of the landlord, there is not much difficulty, and the Judge, the writer of the above letter, gives some practical suggestions; but the second case presents some difficulty, for how can the Court determine which is the greater hardship without considering the question of the alternative accommodation? The hardship of refusing the order has to be greater to the landlord than the tenant, and thus the position of the two parties must be weighed, and although in considering this question alternative accommodation must not be a condition of making the order, yet in considering the position of the tenant it must form an element in the conclusion arrived at. The writer of the above letter hardly seems to us to have solved this difficult question as regards this second case.

Builders' Wages.

A decision was made on January 10 by the National Wages and Conditions Council to increase the wages of employees in the building industry on and from February 1, in accordance with the sliding-scale agreement, which provides that the rates of wages shall be adjusted half-yearly by ½d. per hour in respect of each complete average variation of not less than 5½ points in the cost of living index figure. The following resolution was passed:—"That on and from February 1 the rates of wages payable to craftsmen shall be increased by one halfpenny per hour, and that the hourly rates payable to labourers shall be not less than 75 per cent. of the craftsmen's rates, calculated to the nearest farthing."

It was also agreed to regrade a number of towns throughout the country, which will mean an increase additional to the ½d. under the sliding scale for those workers in the towns affected.

The application of the Operatives' Federation for the readjustment of the base rate, or starting-point, of the sliding scale, to give the men an automatic increase of 2d. per hour, will be considered at the next meeting of the Council.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

✱JANUARY 18.—**Croydon.**—COTTAGE.—Erection of a cottage at Russell Hill Reservoir, Pampisford-road, Croydon, for the County Borough Council of Croydon. Borough Engineer, Town Hall, Croydon. Deposit £1.

JANUARY 19.—**Cheltenham.**—PAINTING.—For painting part of Municipal Offices, for the T.C. Borough Engineer, Cheltenham.

JANUARY 19.—**Ipswich.**—REPAIRS.—For repairs to school buildings, for T.C. Mr. E. T. Johns, surveyor, 8, Lower Brook-street, Ipswich.

JANUARY 19.—**Irchester.**—HOUSES.—Erection of six houses, for the Irchester Industrial and Provident Co-operative Society, Ltd. Mr. E. A. Taylor, Managing Secretary, Irchester.

JANUARY 19.—**Nelson.**—HOUSES.—Erection of 19 houses of the non-parlour type in blocks as follows:—8 blocks of two and one block of three at the Marsden Park Housing site, for the Housing Committee of the Borough of Nelson. Borough Surveyor, Town Hall, Nelson. Deposit £2 2s. for each trade specification.

JANUARY 19.—**Perth.**—HOUSES.—Erection of five tenements of dwelling-houses, comprising 52 two and three apartment houses, for the T.C. Mr. Thomas M'Laren, Burgh Surveyor, 16, Tay-street, Perth. Deposit £1.

JANUARY 19.—**Rotherham.**—HOUSES.—For erection of 50 houses on Eastdene Estate, for T.C. Mr. C. A. Broadhead, Housing Architect, St. George's Hall, Rotherham. Deposit £2 2s.

JANUARY 19.—**St. Helens.**—ALTERATIONS.—For alterations and additions to Boundary road Baths, for the T.C. Mr. Arthur W. Bradley, Borough Engineer, Town Hall, St. Helens. Deposit £2.

JANUARY 19.—**Stocksbridge.**—HOUSES.—Erection of 20 houses on the Shay House-lane site, for the U.D.C. Mr. J. N. Singleton, surveyor, Stocksbridge. Deposit £2.

JANUARY 19.—**Warrington.**—SCREENS.—For supply of manual instruction wood screens to various schools, for T.C. Mr. J. Moore Murray, Secretary, Education Office, Sankey-street, Warrington.

JANUARY 21.—**Bathgate.**—HOUSES.—Erection of two groups of houses (32 three-apartment houses and 20 two-apartment houses), for the T.C. Mr. Will. Allan, Town Clerk, Town Clerk's Office, Bathgate.

JANUARY 21.—**Bury St. Edmunds.**—HOUSES.—Erection of four houses in Mustow-street, for the T.C. Mr. Roland H. Beaumont, Borough Surveyor, Town Hall, Bury St. Edmunds. Deposit £2 2s.

JANUARY 21.—**Fermoy.**—HOUSES.—Erection of 8 dwellings, for the U.D.C. Clerk, Fermoy.

JANUARY 21.—**Hastings.**—STEEL CONSTRUCTIONAL BUILDINGS, &c.—Steel constructional buildings, steel plate coal bunkers and chutes, reinforced concrete pond and plant foundations required for the Electrical Department by the County Borough Council of Hastings. Borough Electrical Engineer, 20, South-terrace, Hastings.

JANUARY 21.—**Mallaranny, Ireland.**—REPAIRS.—For repairs, &c., at Mallaranny Hotel, co. Mayo, for the Midland Great Western of Ireland Co. Sec., Broadstone Station, Dublin.

JANUARY 21.—**Reigate.**—NEW LAUNDRY AND EXTENSION OF BOILER HOUSE.—Erection of a new laundry and extension of the boiler house at the Guardians' Institution, Earlswood, for the Reigate B.G. Mr. O. J. Porter, F.S.I., 45, Bedford-row, W.C. 1. Deposit £2 2s.

JANUARY 21.—**Southend-on-Sea.**—HOUSES.—Erection and completion of 66 houses, comprising 26 parlour type and 40 non-parlour type, in the following blocks:—One block of 2 houses, 1 block of 3 houses, 6 blocks of 4 houses, 5 blocks of 6 houses, 1 block of 7 houses, for the Corporation of Southend-on-Sea. Mr. Robert H. Dyer, Borough Engineer, Municipal Building, Southend-on-Sea. Deposit £2.

JANUARY 21.—**Truro.**—RECONSTRUCTION.—For the reconstruction of the Royal Printeries and alterations to shop front, &c., at Truro, for Mr. Oscar Blackford. Messrs. Cowell, Drewett, & Wheatly, architects, 11, Princes-street, Truro. Deposit £2 2s.

JANUARY 22.—**Acton.**—ALTERATIONS.—For alterations and additions to hut at cemetery, Willesden-lane, for T.C. Borough Surveyor, Municipal Offices, Acton, W.3.

JANUARY 22.—**Bute.**—HOUSES.—(1) Erection of house on Kerrycrusach Farm, County of Bute, 2¼ miles from Rothesay, and (2) house on Goltans Farm, 2 miles from Rothesay. Chief Surveyor, Board of Agriculture for Scotland, Edinburgh. Deposit £1 1s.

JANUARY 22.—**Edinburgh.**—LAIRAGES, &C.—(1) Lairages for imported cattle at the Cattle Markets, Gorgie, and (2) bench walls opposite North-West Section of Greyfriars' Churchyard, for the T.C. City Architect, Public Works Office, City Chambers, Edinburgh.

JANUARY 22.—**Edmonton.**—FLOORING.—For flooring over the first-class swimming-bath, in the Public Baths, Knight's-lane, for the U.D.C. Mr. Cuthbert Brown, Engineer, Town Hall, Edmonton, N.9.

JANUARY 22.—**Fowey.**—BUNGALOW.—Erection of a bungalow at Lankelly-road, Fowey, for Capt. Fred Collins. Mr. W. T. H. Northcote, surveyor, Fowey.

JANUARY 22.—**Glamorganshire.**—VARIOUS WORKS.—(1) Tynyrheol School (Llangeinor, Garw Valley), additional classrooms; (2) Pontlottyn Boys' Council School, minor alterations; (3) Port Talbot Secondary School, new science block; (4) Tonna Council School, conversion of offices and drainage; (5) Llangyfelach Council School, repairs. Mr. Henry D. Rowland, Assistant Secretary of Education Committee, Glamorgan County Hall, Cardiff.

JANUARY 22.—**Kilkeel, Ireland.**—HOSPITAL.—Erection of district hospital for Commissioner of Union. Mr. S. C. Hunter, quantity surveyor, 2, Wellington-place, Belfast. Deposit £2 2s.

JANUARY 22.—**Liverpool.**—SCHOOL.—Erection of new elementary school in New Hall-lane, Clubmoor, for the T.C. Land Steward and Surveyor (Architectural Dept.), Municipal Buildings, Liverpool. Deposit £2 2s.

JANUARY 22.—**Mile End.**—ALTERATIONS, &C.—For alterations and redecorations to the District Medical Officers' quarters at the Institution at Bancroft-road, E., of the Board of Guardians. Mr. Edmund J. Harrison, Lic.R.I.B.A., 23, Berkeley-road, Crouch End, N.8. Deposit £2.

JANUARY 22.—**Southall-Norwood.**—HOSPITAL, CUBICLE BLOCK, STABLES, COTTAGES.—(*a*) The erection of an eight-bed cubicle block at the Sanatorium, North-road, Southall; (*b*) the erection of a depot, stables and cottages at Adelaide Dock, Endsleigh-road, Southall, for the Southall-Norwood Urban District Council. Mr. J. B. Thomson, Assoc. M.Inst.C.E., &c., Engineer and Surveyor to the Council, Town Hall, Southall, at my office, between 10 and 4 p.m. (Saturdays 10 and noon).

JANUARY 23.—**Bath.**—HOUSES.—For the erection of 50 houses at Englishcombe Park, for the T.C. Mr. A. J. Taylor, architect, 18, New Bond-street, Bath. Deposit £1 1s.

✱JANUARY 23.—**Birmingham.**—HOUSES.—Erection of 287 non-parlour-type houses, and 134 parlour-type houses on the Brookvale Estate, Witton, under five contracts, Nos. 150, 151, 152, 153, and 154, for the Public Works and Town-Planning Committee of the City of Birmingham. Mr. Herbert H. Humphries, M.Inst.C.E., City Engineer and Surveyor and Executive Officer for Housing Schemes. The Council House, Birmingham. Deposit £2 2s.

JANUARY 23.—**Blackpool.**—CONVERSION.—For the conversion of the existing buildings in the Rigby-road Highway Depot into a laundry, for the T.C. Mr. Francis Wood, Borough Engineer, Town Hall-street, Blackpool. Deposit £2.

JANUARY 23.—**Bradford.**—WAREHOUSE.—For the enlargement of a warehouse in Canal-road, Bradford. Messrs. T. H. & F. Healey, architects, 42, Tyrrel-street, Bradford.

JANUARY 23.—**East Elloe.**—COTTAGES.—For the erection of 5 pairs of cottages in Whaplode Village, 4 pairs in Gedney Fen (Bells Bridge), and 2 pairs in Sutton St. James (Birds Drove), for the R.D.C. Mr. S. S. Mossop, Jun., Clerk, West End, Holbeach.

JANUARY 23.—**Hackney.**—PAINTING.—For painting exterior public baths, Lower Clapton-road, for the B.C. Mr. Norman Scorgie, Borough Engineer, Town Hall, Hackney, E. 8. Deposit £1 1s.

JANUARY 23.—**Manchester.**—ALTERATIONS.—For alterations at No. 31, Piccadilly, for the G.W.R. Co. District Goods Manager, 51, King-street.

JANUARY 23.—**Rochdale.**—HOUSES.—Erection of 50 houses on the Turf Hill Estate, for the T.C. Mr. S. H. Morgan, Borough Surveyor, Town Hall, Rochdale. Deposit £1 1s.

JANUARY 23.—**Tanderagee.**—COTTAGES.—Erection of four cottages in Tanderagee, Co. Armagh, for the Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-square West, Belfast. Deposit £1.

JANUARY 23.—**Worthing.**—FLATS.—For erection of (1) pair of flats in Charlecote-road: (2) an attendant's cabin in Denton-gardens, for the T.C. Borough Surveyor, Worthing.

JANUARY 23.—**Worthing.**—PAVILION.—Erection of a sports pavilion at Beach House Park, Worthing, for the Borough Council. Borough Surveyor, Municipal Offices, Worthing. Deposit £1 1s.

JANUARY 24.—**Camberwell.**—FLOORS.—For taking up and relaying sectional wood flooring, including platforms, barriers, joists, cradles, sills, &c., over the Swimming Baths at the various Public Baths of the B.C. Mr. William Bell, Borough Engineer, Town Hall, Camberwell, S.E.5.

JANUARY 24.—**Caterham.**—HOUSES.—Erection of 14 cottages on Queen's Park Housing Site, for the U.D.C. Surveyor, Council Offices, Caterham Valley. Deposit £1 1s.

JANUARY 24.—**Glasgow.**—PAINTING.—For (1) painter work; and (2) iron railings and gates, at Coplawhill Housing Scheme, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

JANUARY 24.—**Liverpool.**—TENEMENT DWELLINGS.—Erection of six tenement dwellings on the St. Augustine-street frontage of the Blenheim-street site, for the Housing Committee of the City of Liverpool. Director of Housing, Municipal Buildings, Dale-street, Liverpool. Deposit £2 2s.

✱JANUARY 24.—**London, E.**—ALTERATIONS AND REDECORATIONS.—Alterations and redecorations to the District Medical Officer's quarters at the Institution at Bancroft-road, E., for the Guardians of the Poor of the hamlet of Mile End Old Town. Mr. Edmund J. Harrison, Guardians' Architect, 23, Berkeley-road, Crouch End, N. 8 (from the 14th inst. up to the 22nd inst.). Deposit £2.

✱JANUARY 24.—**London, S.W.2.**—REPAIRS AND DECORATIONS.—Repairs and decorations to the Librarian's residence at the Tate (South Lambeth) Library, South Lambeth-road, S.W. 8, for the Metropolitan Borough Council of Lambeth. Mr. Osmond Cattlin, Borough Engineer, Town Hall, Brixton-hill, S.W. 2.

JANUARY 24.—**Ystradgynlais.**—HOUSE.—For erection of dwelling-house at Ystradgynlais (Glam). Mr. T. W. Thomas, 4, Canolrhiw Villas, Brecon-road, Ystradgynlais.

JANUARY 25.—**Liverpool.**—ALTERATIONS.—For alterations and additions to the Old Welsh Chapel, Crosshall-street, for the T.C. Land Steward and Surveyor (Architectural Dept.), Municipal Buildings, Liverpool. Deposit £2 2s.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick Masons' layers	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-	
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1	
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2	
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2	
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/2	
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½	
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1	
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½	
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½	
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/-	
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-	
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 122.

JANUARY 25.—**Newquay.**—HALL, &C.—Erection of a new recreation hall and cloakroom at the Atlantic Hotel, Newquay. Mr. Alfred J. Cornelius, architect, Truro.

JANUARY 25.—**Richmond, Surrey.**—COTTAGES.—Erection of eight cottages in Darell-road and two in Dancer-road, for the B.C. Borough Surveyor, Town Hall, Richmond, Surrey. Deposit 10s. 6d.

JANUARY 26.—**Barnstaple.**—HOUSES.—For the erection of 13 houses on the Newport Housing Site, for the T.C. Borough Surveyor, The Strand, Barnstaple. Deposit £3 3s.

✱JANUARY 26.—**Dorchester.**—DWELLING HOUSES.—Erection of two small farm dwelling houses on Holdings Nos. 1 and 10, Oborne Estate, for the Dorset C.C. County Architect, County Offices, Dorchester.

JANUARY 26.—**Edinburgh.**—HOUSES.—Erection of 18 two-apartment houses at Sheriff Brae, Leith, for the T.C. Messrs. W. N. Thomson & Co., surveyors, 87, Constitution-street, Leith.

JANUARY 26.—**Exminster.**—OPERATING THEATRE.—Erection of an operating theatre at the Devon Mental Hospital. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter. Deposit £3.

JANUARY 26.—**Ilfracombe.**—ALTERATIONS.—For new cells and alterations and additions to Ilfracombe Police Station, for the Devon C.C. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter. Deposit £3.

JANUARY 26.—**Marylebone, W.1.**—SUNDRY REPAIRS, PAINTING, CLEANSING, &C.—Execution of sundry repairs, painting, cleansing and other work at the St. Marylebone Home, 1, Northumberland-street, W.1, for the Board of Guardians of St. Marylebone. Messrs. Constantine & Vernon, architects, 82, Mortimer-street, W.1, between the hours of 10 a.m. and 5 p.m. on January 7, 8, 9, 10, and 11. Deposit £1 (Treasury Note) to architects.

JANUARY 28.—**Blackpool.**—CONVERSION.—For the conversion of the shop premises in West- and Lytham-streets into municipal offices, for the T.C. Mr. Francis Wood, Borough Engineer, Town Hall-street, Blackpool. Deposit £2.

JANUARY 28.—**Carlisle.**—COTTAGES.—Erection of 50 cottages on the Wigton-road Estate, for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle. Deposit £2 2s.

JANUARY 28.—**Ecuador.**—CUSTOMS HOUSE, &C.—The date for tenders for the construction of the new Custom house and wharf at Guayaquil, Ecuador, has been extended to January 28. Consulate-General, 23, College-hill, E.C.4.

JANUARY 28.—**Glasgow.**—QUAY.—For the construction of about 1,928 lineal yards of concrete quay wall forming Dock No. 1 Shieldhall, Glasgow Harbour, for the Trustees of the Clyde Navigation. Mr. T. R. Mackenzie, General Manager, 16, Robertson-street, Glasgow. Deposit £10.

JANUARY 28.—**Guildford.**—HOUSES.—Erection of alternative types of non-parlour houses as follows:—twelve houses on the West Horsley site, six houses on the Peaslake site, in the parish of Shere, six houses on the Pathfield site, in the parish of Shere, for the Guildford Rural District Council. Mr. John Anstee, Council Offices, Commercial road, Guildford. Deposit £2 2s.

JANUARY 28.—**London, S.E.1.**—HOUSES AND ROADS.—Development of a portion of the new Downham housing estate at Grove Park, Lewisham, S.E.: (1) Construction of roads, sewers and other works; (2) the erection of houses and such other buildings as may be determined. Tenders are invited on two alternative bases—(*a*) on the basis of the Council bearing the actual cost of and financing the undertaking and paying a fee or commission to the contractor for his services, the amount of such fee or commission being dependent partly upon a comparison or cost with a predetermined value for the London County Council. Administrator of Housing Development Schemes, Old County Hall, Spring-gardens, S.W.1, upon payment of £10.

JANUARY 28.—**Manchester.**—REPAIRS, &C.—For the execution of general contractor's and plumber's work in connection with the drainage of houses and other premises for 12 months, for the T.C. Mr. J. Irvine, Manager of the Drainage Branch, Public Health Dept., Civic Buildings, 1, Mount-street, Manchester. Deposit £1 1s., for each of three districts.

JANUARY 28.—**Whittingham.**—COTTAGES, &C.—For erection of 15 pairs of parlour cottages near Mental Hospital, and construction of 450 yds. of roads, &c., for Committee of Visitors for County Mental Hospital. Mr. E. J. Andrew, 33, Winckley-square, Preston. Deposit £1 1s.

JANUARY 28.—**Tendring.**—COTTAGES.—Erection of 28 cottages in the parishes of Ardleigh, Lawford and Tendring, for the Tendring R.D.C. Mr. F. G. Vincent-Brown, Cliff-road, Dovercourt Bay. Deposit 10s.

JANUARY 28.—**Thurstonland.**—HOUSES.—Erection of eight dwelling-houses at Town Moor Bottom, for the U.D.C. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield.

JANUARY 28.—**Whitfield.**—ALTERATIONS.—For alterations of shop, for the Whitfield Co-operative Society. Mr. Shield, West Side, Whitfield, Northumberland.

JANUARY 29.—**Consett.**—HOUSES.—Erection of cottages houses, to be in blocks of two, four, six and eight. Tenders for 50, 100 and 150 of such, for the U.D.C. Mr. Frank A. Coyle, Architect, 29, Newmarket-street, Consett. Deposit £2 2s.

JANUARY 29.—**Cork.**—VARIOUS WORKS.—(1) Reconstruction of soldiers' quarters, and (2) cookhouse and dining huts at Michael Barracks, for the Commissioners of Public Works. District Office of Public Works, Cork. Deposit £1.

JANUARY 29.—**Dover.**—WALL, &C.—Taking down and rebuilding wall, &c., at Crabble-hill, for the T.C. Borough Engineer, Dover.

JANUARY 29.—**Ebbw Vale (Mon).**—NEW STATION BUILDINGS.—For erecting, for the G.W.R Co. at Ebbw Vale (Mon), of new station buildings. Office of the Engineer, Newport (Mon), G.W.R. Station.

JANUARY 29.—**Enfield.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Enfield, for the Commissioners of His Majesty's Offices of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

✱JANUARY 29.—**London, E.**—DWELLINGS.—Erection of a block of dwellings on the Collingwood Estate, Bethnal Green, for the L.C.C. Architect of the Council, The County Hall, Westminster Bridge, S.E. 1. Deposit £3, payable to the Cashier.

JANUARY 29.—**Woolwich.**—PROSCENIUM.—For providing new scenery and extension of proscenium. Secretary, Woolwich Arsenal and Town Social Club, Mount Pleasant, Plumstead, S.E.18.

JANUARY 30.—**Brentwood, Essex.**—BALCONY AND VERANDAH.—Erection of a balcony and verandah to an existing building at High Wood Hospital for Children, Ongar-road, Brentwood, Essex, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JANUARY 30.—**Leeds.**—SCHOOL.—Erection of Council School at Meanwood, for the T.C. Mr. James Graham, Director of Education, Education Offices, Leeds.

✱JANUARY 30.—**London, S.E.14.**—REPAIRS & PAINTING.—Internal and external repairs and painting at No. 35, New Cross-road, S.E. 14, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱JANUARY 30.—**London, S.W.**—RECONSTRUCTION WORK.—Reconstruction of boiler house and laundry at the South Western Fever Hospital, Landor-road, Stockwell, S.W., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

JANUARY 30.—**London, N. 21.**—WOOD BLOCK FLOORING.—Screeding and relaying a floor with new wood blocks at the Northern Fever Hospital, Winchmore Hill, N. 21, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

JANUARY 30.—**London, N.W. 5.**—CLEANING AND PAINTING.—Cleaning and painting at St. Margaret's Hospital, Leighton-road, Kentish Town, N.W. 5, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

✱JANUARY 30.—**London, W.C. 1.**—ROOFING AND DECORATIVE WORK.—Works, comprising the reconstruction of the roof over the first-class swimming bath, and painting and decorative works at the building known as the first-class swimming bath, Broad-street, W.C., for the Holborn B.C. Mr. E. F. Spurrell, Borough Surveyor, Council Offices, 197, High Holborn, W.C. 1.

✱JANUARY 30.—**Saltash.**—HOUSES.—Erection of 18 houses for working classes (12 of Type A and 6 of Type B) on the New-road Estate. Mr. F. E. Cleverton, Town Clerk, Saltash.

JANUARY 30.—**Walton-on-Thames.**—ASSEMBLY ROOM.—Erection of a Scouts' assembly room at Walton-on-Thames. Secretary, Mr. J. R. Evans, Allington, Annett-road, Walton.

JANUARY 31.—**Bletchley.**—FILTER HOUSE.—For erection of filter house, &c., for the U.D.C. Mr. J. Chadwick, Civil Engineer, Bletchley, Bucks. Deposit £2 2s.

JANUARY 31.—**Harrow.**—COTTAGE, &C.—For (1) fencing and gates; (2) draining and levelling and providing hard tennis courts; and (3) erecting cottage, pavilions, &c., at West Harrow Recreation Ground, for the U.D.C. Mr. J. P. Bennetts, Surveyor, Council Offices, Harrow. Deposit £1 each contract.

JANUARY 31.—**Hemel Hempstead.**—COTTAGES.—Erection of 24 cottages (in sections of 12), for the Borough of Hemel Hempstead. Mr. Walter R. Locke, Borough Engineer and Surveyor, Market-square, Hemel Hempstead. Deposit £1.

JANUARY 31.—**Lislane, Ireland.**—ALTERATIONS.—For improvements at National School. Rev. J. M'Kee, Balteagh Manse, Limavady.

✱JANUARY 31.—**London, N.W.1.**—ALTERATIONS TO GATEWAY.—Alterations to the gateway of St. Pancras House, 4, King's-road, N.W.1, for the parish of St. Pancras. Clerk to the Guardians, Town Hall, Pancras-road, N.W.1.

JANUARY 31.—**Marske-by-the-Sea.**—HOUSE, &C.—The erection of a farmhouse and set of buildings at Loftus. Mr. Thomas E. Senior, Zetland Estate Office, Marske-by-the-Sea. Deposit £2 2s.

JANUARY 31.—**Newport, Pembroke.**—PAINTING.—For the renovation of the Bethlehem Baptist Chapel. Mr. J. Harris, "Penfeeder," Newport, Pem.

JANUARY 31.—**Paddock.**—HOUSES.—Erection of six dwelling-houses off Heaton-road, Paddock. Mr. Joe Ainley, architect, 3, Chapel-hill, Huddersfield.

JANUARY 31.—**Whitchurch.**—HOUSES.—For erection of six houses in Smallbrook-road, for the U.D.C. Surveyor, Town Hall, Whitchurch, Salop.

FEBRUARY 1.—**Burlingham.**—REPAIRS, &C.—For adapting and repairing the farm buildings at Perowne's Farm, Jary's Estate, Newport Farm and Lodge Farm, Burlingham Estate, for the Norfolk C.C. Small Holdings Committee. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

FEBRUARY 1.—**Swansea.**—SCHOOL.—Erection of a new elementary school for 1,308 scholars on the Town-hill Estate, Swansea, for the Education Committee of the County Borough of Swansea. Mr. Ernest E. Morgan, Borough Architect, 3, Prospect-place, Swansea. Deposit £5 5s.

FEBRUARY 2.—**London, S.E. 18.**—EXTENSION.—Proposed extension of premises, for the Committee of the Woolwich Catholic Club. The Secretary, Woolwich Catholic Club, 28–30, New road, Woolwich, S.E. 18.

FEBRUARY 5.—**Limerick.**—RACE-COURSE STAND, &C.—For erecting (1) reinforced concrete stand, and (2) 50 stables, for the Limerick Race Co. Mr. J. O'Malley, Glentworth-street, Limerick.

FEBRUARY 5.—**Sheffield.**—SUB-STATIONS.—(*a*) Erection of transformer sub-station in Upperthorpe; (*b*) alterations and additions to transformer sub-station n Newhall-road, for the T.C. Mr. S. E. Fedden, General Manager, Commercial-street, Sheffield. Deposit £1 1s. each contract.

FEBRUARY 5.—**Ventnor.**—CONVENIENCES.—For altering existing premises and constructing new conveniences at Marlborough-road, for the U.D.C. Mr. D. V. Howard, Surveyor, Town Hall, Ventnor.

✱FEBRUARY 5.—**Widnes.**—POST OFFICE.—Erection of a new post office at Widnes, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

FEBRUARY 7.—**Gateshead.**—HOUSES.—Erection of 100 houses of various types and designs on the Carr-hill Building Estate, for the T.C. Borough Engineer, Town Hall, Gateshead. Deposit £5.

FEBRUARY 9.—**Ashford.**—SHEDDING, &C.—For erecting shedding, offices, stands, and other works for the Agricultural Show to be held at Ashford on July 10, 11 and 12, for the Kent County Agricultural Society. Major R. J. Bacon, secretary, Otham, Maidstone.

FEBRUARY 9.—**Dewsbury.**—HOUSES.—Erection of 56 houses, for the T.C. Borough Surveyor, Town Hall, Dewsbury. Deposit £1 1s.

✱FEBRUARY 11.—**Mitcham.**—PUBLIC CONVENIENCES.—Erection of public conveniences on the Upper or Fair Green, Mitcham, for the U.D.C. The Surveyor, Broadway House, Mitcham. Deposit 10s. 6d.

✱FEBRUARY 11.—**Windsor.**—BOILER HOUSE, FIRE-BRICK LINED CHIMNEY, &C.—Construction of boiler house, foundations and setting of Cornish boiler, fire-brick lined chimney, and sundry builders' work in attendance on Engineers, for the Guardians of the Windsor Union. Mr. Walter W. Nobbs, M.I.Mech.E. (the Consulting Engineer in charge of the works), of 50, Fairhazel Gardens, N.W. 6.

FEBRUARY 26.—**London, E.3.**—BUILDING ADDITIONS, &C.—Building of a nurses' dining-room, alterations and additions, and redecorations at St. Andrew's Hospital, Devon's-road, Bow, E.3, for the Managers of the Poplar and Stepney Sick Asylum District, St. Andrew's Hospital. Messrs. Andrews & Peascod, architects, 135, Bow-road, E.3. Deposit £3.

FEBRUARY 28.—**Wakefield.**—WORKSHOPS.—Supply of 17 sectional wood workshops, for the West Riding C.C. Health Committee. West Riding Architect, County Hall, Wakefield.

NO DATE.—**Blofield.**—COTTAGES.—Erection of 16 cottages as follows: Thorpe St. Andrew, 9 cottages; Acle, 4 cottages; and South Walsham, 3 cottages, for the R.D.C. Mr. George J. Skipper, F.R.I.B.A., 7, London-street, Norwich.

NO DATE.—**Brighouse.**—PAINTING.—For painting Brighouse Mills and outbuildings, also canal warehouse. Messrs. Thomas Sugden & Son, Ltd., Brighouse Mills, Brighouse.

NO DATE.—**Burnhope Colliery.**—Tenders are being invited by the Lanchester R.D.C. for the erection of 12 two-story houses at Burnhope Colliery.

NO DATE.—**Carlisle.**—The Corporation are desirous of receiving tenders for the erection of 50 working-class cottages on the Wigton-road Estate, to be built in pairs, of bungalow type, with concrete walls.

NO DATE.—**Erwood.**—COTTAGES.—Erection of a pair of cottages at Erwood, Breconshire, for the Rt. Hon. Lord Glanusk. Mr. J. Vaughan Richards, architect, Crickhowell. Deposit £2 2s.

NO DATE.—**Harrogate.**—LABORATORIES.—For proposed laboratories at Royal Bath Hospital, Harrogate. Messrs. Gibson & Hill, architects, 5, Prospect-crescent, Harrogate.

NO DATE.—**Hebburn.**—The U.D.C. are desirous of receiving tenders for the erection of 11 houses, being part of their scheme for a total of 50.

NO DATE.—**Manchester.**—DEMOLITION.—For the demolition of the four story building at 34-36, King-street, Manchester. Mr. W. Dootson, architect, 83, Heaton Moor road, Stockport.

NO DATE.—**Penicuick.**—HOUSES.—Construction of four houses for the T.C. Mr. James Gray, A.R.I.B.A., 140, Princes-street, Edinburgh.

NO DATE.—**West Allotment.**—Tenders are being invited for the erection of a monument by the West Allotment (Northumberland) War Memorial Committee.

FURNITURE, MATERIALS, etc.

JANUARY 19.—**Manchester.**—GRANITE SETS.—Supply of granite sets to the T.C. Paving, &c., Department, Town Hall, Manchester.

JANUARY 21.—**Chichester.**—MATERIALS.—Supply of tar and road materials to the T.C. Mr. F. J. Lobley, City Engineer, Chichester.

JANUARY 21.—**Darlaston.**—FILTERING MEDIUM.—Supply of 6,400 cu. yds. of cold blast slag or granite filtering medium, delivered on the Sewage Works, for the U.D.C. Messrs. Dodd, Dodd & Watson, County Chambers, Corporation-street, Birmingham. Deposit £1.

JANUARY 21.—**Egypt.**—STORES.—Supply of stores for one year to the Ports and Lights Administration. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 12,046-F.E.-G.P.

JANUARY 21.—**Newton Abbot.**—MATERIALS.—Supply of refined tar, surface dressing, ripping and breaking stones, and gravel and sand, to the Devon C.C. Mr. Andrew Warren, County Surveyor, Avenue-road, Newton Abbot.

JANUARY 21.—**Ramsbottom.**—GRANITE SETTS.—Supply of 1,450 tons of 4 in. by 5 in. granite setts, to the U.D.C. Mr. Thos. H. Bell, surveyor, Ramsbottom.

JANUARY 21.—**Wandsworth.**—MATERIALS.—Supply of materials and execution of works, for the B.C. Mr. D. A. Nicholl, Town Clerk, Council House, Wandsworth, S.W. 18.

JANUARY 21.—**Warrington.**—ASHBINS, &C.—Supply of 500 galvanised steel ashbins and 500 galvanised steel sanitary pails, for the T.C. Cleansing Superintendent, Central Sanitary Depot, Howley, Warrington

JANUARY 21.—**Warrington.**—FIRE HOSE.—Supply of 10 No. 25 yds. lengths of best quality flax canvas 2½ in. dia. fire hose to the T.C. Mr. Andrew M. Ker, Borough Engineer, Warrington.

JANUARY 22.—**Lincoln.**—MATERIALS.—**Supply of** red macadam, broken stone and slag, and hire of am rollers to the Lindsey C.C. Mr. A. G. Bradshaw, unty Surveyor, Newland House, Lincoln.
JANUARY 22.—**Southall-Norwood.**—MATERIALS.—For pply of road and other materials to the U.D.C. . J. B. Thomson, Surveyor, Town Hall, Southall.
JANUARY 22. — **Stratford-on-Avon.** — MATERIALS.— pply of road materials, &c., to the T.C. Mr. F. W. nes, Borough Surveyor, Stratford-on-Avon.
JANUARY 22.—**Willesden.**—MATERIALS.—For supply road and other materials for one year, for the D.C. Mr. F. Wilkinson, Town Hall, Dyne-road, ilburn, N.W.6.
JANUARY 22.—**Worthing.**—REFINED TAR.—For pply of 50,000 galls. of refined tar, for T.C. Borough rveyor, Municipal Offices, Worthing.
★JANUARY 23.—**Chelsea, S.W.3.**—STORES, &C.— pply and execution of various articles and works, the ntract period being from April 1 next to March 31, 25, unless otherwise stated, for the Metropolitan rough of Chelsea. Mr. W. R. Manning, Acting rough Surveyor. And contracts for stationery, coal, ke, winding and timing clocks, and tailoring from the wn Clerk, Town Hall, King's-road, Chelsea, S.W.3.
JANUARY 23.—**London.**—POLISHES.—Supply to the mmissioners of H.M. Works, &c.: (1) Liquid metal lish; (2) floor polish, &c. Controller of Supplies, M. Office of Works, &c., King Charles-street, S.W. 1.
JANUARY 23.—**Madras.**—PIPES.—**Supply of stone-** are pipes and specials, ranging from 4 in. to in. diameter, and aggregating a total length of 0,000 lineal ft., for the T.C. Messrs. James Mansergh Sons, agents, 5, Victoria-street, S.W. Charge 5s.
JANUARY 23.—**Southampton.**—MATERIALS.—Supply road stone and slag to the C.C. Mr. W. J. Taylor, unty Surveyor, Winchester.
JANUARY 24.—**Bermondsey.**—MATERIALS.—Supply stoneware conduits, meters, wiring accessories, gine oils, &c., to the Electricity Department. Borough lectrical Engineer, Town Hall, Bermondsey, S.E.
JANUARY 24.—**Egypt.**—STORES.—Supply of stores r one year to the Dept. of Public Health. Dept. of verseas Trade, 35, Old Queen-street, S.W. Reference 2,038–F.E.–G.P.
JANUARY 24.—**Fulham.**—WOOD.—Supply of 100 ons of pole ends or wood, suitable for firewood chop- ing, for the B.G. Mr. E. J. Mott, Clerk, Guardians' ffices, 129, Fulham Palace-road, W.6.
JANUARY 24.—**Wallsend.**—MATERIALS.—Supply of ommon and facing bricks, lime, scaffold poles, battens, ars, F and G flooring, doors, windows, &c., required n connection with the erection by the Corporation of 6 houses. Borough Surveyor, Town Hall, Wallsend.
JANUARY 24.—**Worthing.**—BRICKS.—For supply of 35,000 2 in. red paving bricks, for the T.C. Borough rveyor, Municipal Offices, Worthing.
JANUARY 26.—**Chelmsford.**—MATERIALS.—Supply to he Highways Committee of the Essex C.C. stoneware pes, distilled tar, broken granite, tarred slag, and bricating oil. Mr. Wm. H. Morgan, County Sur- eyor, Old Court, Chelmsford.
JANUARY 26.—**Howden.**—MATERIALS.—Supply of anite, whinstone, slag, tarred macadam, refined tar, nd tar pounds, to the R.D.C. Mr. Bernard Shaw, irveyor, Howden, E. Yorks.
JANUARY 26.—**Northallerton.**—MATERIALS.—Supply the North Riding of Yorkshire C.C. of roadstone, tar nd bituminous mixtures, oils and grease, &c. County irveyor, County Hall, Northallerton.
JANUARY 26.—**Pembroke.**—ROAD MATERIALS, &C.— or supply to the Pembroke R.D.C., for a period of one ear from April 1 next, of all the materials requisite for he maintenance of the highways in twenty-eight fferent parishes. Separate quotation of each parish. lso for supply on hire system of steam rollers and team bour, &c., and steam coal during the same period. r. F. S. Jones, Clerk to the Council, Main-street, embroke.
JANUARY 26.—**Reigate.**—MATERIALS.—For the sup- y of road and other materials to the R.D.C. Mr. . J. Head, 48, High-street, Reigate.
JANUARY 28.—**Camberwell.**—MATERIALS.—Supply of ad and other materials, &c. Borough Engineer, Town all, Camberwell.
JANUARY 28.—**Sleaford.**—MATERIALS.—Supply of anite and slag, &c., to the R.D.C. Mr. E. H. Godson, erk, Northgate, Sleaford.
JANUARY 28.—**Uckfield.**—MATERIALS.—Supply of ad materials to the R.D.C. Mr. E. W. Ray-Johnson, rveyor, Buxted, Sussex.
JANUARY 29.—**Bermondsey.**—MATERIALS.—Supply road and other materials for six months to the B.C. r. F. Ryall, Town Clerk, Town Hall, Bermondsey, S.E.
JANUARY 30.—**Ashford.**—TAR.—Supply of 20,000 allons of No. 1 dehydrated coal gas tar, and similar eparations, for tarpainting roads, to the U.D.C. r. Wm. Terrill, Surveyor, 5, North-street, Ashford, ent.
JANUARY 30.—**Islington.**—MATERIALS.—For elec- ical and engineers' stores, for the B.C. Borough lectrical Engineer, 60, Eden-grove, Islington, N.
JANUARY 31.—**Cheltenham.**—MATERIALS.—For sup- y of materials to various departments of the T.C. for he year. Mr. J. S. Pickering, Borough Engineer, unicipal Offices, Cheltenham.
★JANUARY 31.—**France and Belgium.**—HEADSTONES. Supply of 12,000 headstones, packed and delivered O.R., to be divided into a number of contracts none which shall be for less than 100 headstones, for the mperial War Graves Commission. The Secretary, orks Department, Imperial War Graves Commission, , Baker-street, London, W.1.
JANUARY 31.—**Kettering.**—TAR, &C.—For supply of) refined tar, (2) ½-in. chippings, (3) ¼-in. Bedford avel, for one year, for the R.D.C. Mr. H. J. Parker, rveyor, George-street, Kettering.
JANUARY 31.—**Liverpool.**—STORES.—For various ores for the Electricity Dept. of the T.C. City lectrical Engineer, Liverpool.
JANUARY 31.—**Tring.**—MATERIALS.—For supply of ast furnace slag, flints, hoggin and crusted shingles, the U.D.C. Mr. H. N. Hedges, Surveyor, Tring.

FEBRUARY 1.—**Folkestone.**—MATERIALS.—For the supply of brooms and brushes, cast-iron goods, glass, iron and ironmongery, oils, paint, varnish, &c., Portland cement and timber, to the T.C. Mr. A. E. Nichols, Borough Engineer, Municipal Offices, Folkestone.
FEBRUARY 1.—**Hatfield.**—MATERIALS.—Supply of granite, slag and tar macadam, for the Herts C.C. Mr. A. E. Prescott, County Surveyor, Hatfield.
FEBRUARY 7.—**Wisbech.**—ROAD MATERIALS.— Supply of broken granite, slag and tar macadam to the Isle of Ely C.C. Mr. H. Farr Simpson, County Surveyor, Wisbech.
FEBRUARY 12.—**Tadcaster.**—MATERIALS.—For road material, stores, &c., for the R.D.C. Mr. Geo. A. Bromet, Clerk, Kirkgate, Tadcaster.
FEBRUARY 13.—**Middlesex.**—ROAD MATERIALS.— Supply of granite, tarred slag and granite chippings to the Middlesex C.C. Mr. A. Dryland, County Engineer, Middlesex Guildhall, Westminster, S.W.1.
FEBRUARY 29.—**Canterbury.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. P. H. Warwick, City Surveyor, Canterbury.
FEBRUARY 29.—**Ossett.**—MATERIALS.—For supply of materials, stores, workmen's tools, &c., for one year, for T.C. Borough Surveyor, Town Hall, Ossett.
NO DATE.—**Liverpool.**—TIMBER.—For the supply of about 87,000 cub. ft. of Oregon or pitch pine timber, in lengths varying from 14 to 55 ft., and from 12 in. by 6 in. up to 18 in. by 12 in. in section, to the Harbour Commissioners. Engineer, Harbour Office, Belfast.

ENGINEERING, IRON AND STEEL.

JANUARY 19—**Aberdeen.**—TRAMWAY MATERIAL.— Supply of rails and other tramway material to the T.C. Mr. John Gordon, Burgh Surveyor, Town House, Aberdeen.
JANUARY 19.—**Depwade.**—HEATING, &C.—Supply of steel vertical boiler, horizontal semi-Diesel oil engine, dynamo and motors and accumulators, wiring for power and lighting, supply and fixing apparatus for hot-water heating and domestic hot-water supply, at the Poor Law Institution. Vulcan Boiler & General Insurance Co., Ltd., 67, King-street, Manchester. Deposit £1 1s. each for five sections.
JANUARY 19.—**Edinburgh.**—LATHE.—Supply to car repair works of a heavy pattern tramcar wheel lathe, complete with continuous current motor and equipment, for the T.C. Tramways Manager, 2, St. James'-square, Edinburgh.
JANUARY 19.—**Manchester.**—BOILER.—Supply, at the Ardwick Public Washhouse, of Lancashire boiler, 20 ft. × 8 ft., to work at 100 lb. pressure, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.
JANUARY 19.—**Manchester.**—LAUNDRY PLANT.— Supply, at the Ardwick Public Wash-house, of wash-stalls, hydro extractors, drying horses, with heater, fan, &c., for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.
JANUARY 21.—**Croydon.**—COOKING APPARATUS.— Supply and installation at Mayday-road Hospital of (*a*) one double-deck drawplate steam pipe oven in brickwork, and (*b*) two separate vegetable steamers or one double steamer, for the Board of Guardians. Steward, Hospital, Mayday-road, Thornton Heath.
JANUARY 21.—**Pontypool.**—LANCASHIRE BOILER.— For provision and installation of a Lancashire boiler, 22 ft. long by 7 ft. diameter, for 120 lb. working pressure, for the Pontypool Board of Guardians. Mr. T. P. H. Watkins, Clerk to the Guardians, Union Offices, Pontypool. Deposit £3 3s.
JANUARY 22.—**Prestwich.**—FENCING.—For supplying and fixing 265 yds. of iron unclimbable fencing, for the U.D.C. Mr. M. A. Piercy, Surveyor, Town Hall, Prestwich.
JANUARY 23.—**Edinburgh.**—PIPES.—Supply of 1,200 tons of dry sand cast-iron pipes, 12 in. in dia., to the T.C. Messrs. J. & A. Leslie & Reid, 29, Waterloo-place, Edinburgh. Deposit £5.
JANUARY 23.—**Hackney.**—LIFT.—For installation of electric passenger lift at Central Institution, Homerton, for Board of Guardians. Mr. F. R. Coles, Clerk, Hackney Union, 2, Sidney-road, E.9.
JANUARY 23.—**Lanchester.**—HEATING.—For the extension of the heating scheme at the Poor Law Institution, for the Board of Guardians. Mr. J. J. S. Barker, Clerk, Lanchester, Durham.
JANUARY 23.—**Poplar.**—BOILING PAN.—Supply to the Institution, High-street, Poplar, E., of a steam jacketed boiling pan, for the Board of Guardians. Mr. H. E. Dennis, Clerk, Offices, Upper North-street, Poplar, E.14.
JANUARY 23.—**Wood Green.**—FENCING.—For supplying and fixing about 1,250 yds. of wrought-iron unclimbable fencing, with gates, &c., for the U.D.C. Mr. C. H. Croxford, Town Hall, Wood Green, N. Deposit £1 1s.
JANUARY 25.—**London.**—PIPES.—For supply of cast-iron pipes to India Store Dept. Branch No. 14, Belvedere-road, S.E.1.
JANUARY 25. — **London.** — SLUICE GATES. — Sluice gates for canal head regulator with 25 ft. gate spans, grooves, operating gear and cross bridge. Branch 12, Belvedere-road, S.E.
JANUARY 25.—**Newcastle-upon-Tyne.**—DERRICKS.— Supply to the Tyne Improvement Commission of three 2½ tons lattice steel derricks, fitted with electric winches. Mr. Albert Blacklock, Secretary, Bewick-street, Newcastle-upon-Tyne. Deposit £22s.
★JANUARY 28.—**London.**—IRON FENCING.—Supply and erection of wrought iron unclimbable fencing at parks under the control of the L.C.C. Chief Officer, Parks Department, The County Hall, Westminster Bridge, S.E. 1.
JANUARY 28.—**Manchester.**—GRIDS, &C.—Supply of ventilating grids and other castings, for 12 months. Mr. J. Irvine, Manager of the Drainage Branch, Public Health Dept., Civic Buildings, 1, Mount street, Manchester.
JANUARY 29. — **London.** — GIRDERS. — Supply to Director-General, India Store Department, of girders. Branch 15, Belvedere-road, S.E.
JANUARY 30.—**Girvan.**—PIPES.—Supply of 520 tons of cast-iron pipes and special castings of 8 ins., 7 ins., and 3 ins. dia., to the T.C. Messrs. Warren & Stuart, 94, Hope-street, Glasgow. Deposit £2 2s.
JANUARY 30.—**London and Carshalton.**—BOILER WORK, &C.—(*a*) Installation of a two-roller ironing machine at Goldie Leigh Homes, Abbey Wood; (*b*) conversion of two steam boilers from mechanical stoking to hand firing at Queen Mary's Hospital for Children, Carshalton, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 each contract.
JANUARY 30.—**London.**—VARIOUS WORKS.—(a) installation of a 144-tube economiser, (*b*) installation of a new continuous drying machine, (*c*) engineering work for new central boiler house, (*d*) revising the laundry engineering arrangements, (*e*) installing electric light and power wiring in boiler house and laundry, (*f*) covering of boilers, steam feed and suction, mains, &c., with non-conducting composition, at the South-Western Fever Hospital, Landor-road, Stockwell, S.W.9, for the Metropolitan Asylums Board. Offices of the Board, Victoria Embankment, E.C.4. Deposit £1 each contract.
JANUARY 30.—**Wembley.**—BRIDGE WIDENING.—For widening of the L. & N.E. Railway bridge in Wembley Hill-road. Mr. W. H. Lewis, Acting Surveyor, Council Offices, Wembley, Middlesex. Deposit £2 2s.
JANUARY 31.—**Alnwick.**—WEIGHBRIDGE.—For installing a weighbridge to weigh up to 3 tons, for the U.D.C. Mr. J. Temple Robson, Surveyor, Council Offices, Alnwick.
JANUARY 31.—**Poole.**—TRAINING BANK.—For con struction of a training bank on South Haven side of entrance to Poole Harbour, for Poole Harbour Commissioners. Mr. H. Kendall, Surveyor, Poole, Dorset. Deposit £3 3s.
JANUARY 31.—**Skegness.**—HEATING.—For heating Council offices by low-pressure hot-water system, for the U.D.C. Mr. R. H. Jenkins, Surveyor, Council Offices, Skegness. Deposit £1 1s.
FEBRUARY 2.—**Harrow.**—ROLLER.—Supply of 8-ton or 10-ton compound steamroller with scarifier, to the U.D.C. Mr. J. P. Bennetts, Surveyor, Council Offices, Harrow.
FEBRUARY 4.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland of steelwork for canal footbridge, Maynooth. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.
FEBRUARY 4.—**Manchester.**—CRANE.—For one locomotive jib crane and grab. Mr. S. L. Pearce, Electrical Engineer, Dickinson-street, Manchester. Deposit £1 1s.
FEBRUARY 4.—**Salford.**—COOKING EQUIPMENT.—For a complete cooking and kitchen equipment at Ladywell Sanatorium, for the T.C. Medical Officer of Health, 143, Regent-road, Salford.
FEBRUARY 5.—**Egypt.**—PUMPING PLANT.—**For supply and erection of a pumping plant to replace an existing steam plant at Qussassin. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, S.W. 1. Charge 10s.**
FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.— Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.
FEBRUARY 5.—**Richmond (Surrey).**—PIPES.—Supply of 80 tons of 9 in. and 7 in. dia. cast-iron pipes and special castings to the T.C. Mr. H. Will. Apted, Water Engineer, Waterworks, Richmond.
FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.— For engine and pumping plant, for the U.D.C. Mr. S. W. Parker, Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.
★FEBRUARY 11.—**Windsor.**—RECONSTRUCTION OF ENGINEERING SERVICES.—Reconstruction of the engineering services at the Poor Law Institution, Old Windsor, Berks, for the Guardians of the Windsor Union. Constructors must tender for the whole of the work. Mr. Walter W. Nobbs, M.I.Mech.E. (the Consulting Engineer in charge of the works), of 50, Fairhazel Gardens, N.W. 6. Deposit £5 5s.
FEBRUARY 14.—**Argentine.**—POWER STATION.—**For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.**
FEBRUARY 18.—**Bristol.**—ELEVATOR.—For the construction of a floating pneumatic grain elevator, to handle 150 tons per hour, at the Avonmouth Docks, for the Docks Committee. Mr. T. A. Peace, Engineer, Port of Bristol. Deposit £5.
FEBRUARY 27.—**Madras.**—PIPES.—Supply of cast-iron pipes, special castings, &c., to the T.C. Messrs. J. Mansergh & Sons, agents to the Corporation, 5, Victoria-street, S.W.
MARCH 1.—**Jamaica.**—DAM.—For the construction of a cyclopean masonry dam and contingent works required in connection with the extension of the Kingston and St. Andrews Water Works. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.
MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £10 10s.
MAY 1. — **China.** — BRIDGE. — **The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference 11647/F.E./E.C./2.**
NO DATE.—**Bargoed.**—DRIVAGE.—For driving two drifts, each approximately 220 yds. long. Manager, Gilfach Colliery, Bargoed.

ROAD, SANITARY, AND WATER WORKS.

JANUARY 19.—**Edinburgh.**—PAVING.—For laying smooth bitumastic paving along tramway track in Seafield-road, for T.C. Tramways Manager, 2, St. James'-square, Edinburgh.

JANUARY 19.—**Falmouth.**—SEWERAGE WORKS.—For laying 4,340 ft. of 21 in. concrete tubes, &c., construction of storage tank, &c., and cast-iron sea outfall, for the T.C. Mr. G. Midgley Taylor, 36, Victoria-street, S.W. Deposit £5 5s.

JANUARY 19.—**Manchester.**—SEWERS.—Construction of main drainage work, for the T.C. City Engineer Town Hall, Manchester. Deposit £10 10s.

JANUARY 21.—**Aberystwyth.**—EXCAVATION, &C.—For excavations, drainage and clay puddling at No. 1 service reservoir, Llangamsa, for the Aberystwyth T.C Mr. W. D. Puddicombe, F.S.I., Borough Surveyor Aberystwyth.

JANUARY 21.—**Anglesey.**—ROAD.—Reconstruction of approximately 12 miles of the main road from Amlwch to Llangefni, for the C.C. Mr. W. E. Jones, County Surveyor, Graig, Llanfair P.G., Anglesey. Deposit £3 3s.

JANUARY 21.—**Blackpool.**—ROADS, &C.—For surface draining and forming of private streets, for the T.C. Mr. Francis Wood, Borough Engineer, Town Hall-street, Blackpool. Deposit £1.

JANUARY 21.—**Gleneagles.**—ROADS.—Construction of new roads at Gleneagles, for the London, Midland and Scottish Railway Company. Divisional Engineer, Buchanan-street Station, Glasgow. Deposit £2 2s.

JANUARY 21.—**Heywood.**—WATER MAINS.—Laying of 5 miles of 4 in. to 12 in. cast-iron water mains in Heywood, Middleton, and Chadderton, for the Water Board. Messrs. James Diggle & Son, civil engineers, 14, Brown-street, Manchester. Deposit £3 3s.

JANUARY 21.—**Islington.**—ROADS.—For surfacing 50 miles of roads with tar or bituminous material, for the B.C. Municipal Offices, Tyndale-place, N.1.

JANUARY 21.—**Rhostyllen.**—BOWLING GREEN.—For a bowling green 40 yds. sq. with a 9 in. crown. Mr. W. Herbert Jones, Clerk, Rhostyllen.

JANUARY 21.—**Southport.**—TRAMWAY TRACK, &C.—Construction of tramway routes of about 1,600 yards; also the reconstruction with concrete and bituminous asphalte of the carriageways, &c., for the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport. Deposit £3 3s.

JANUARY 21.—**Taunton.**—SEWAGE WORKS.—For reconstruction of sewage disposal works, for the T.C. Mr. I. F. Shellard, Borough Engineer, Taunton. Deposit £3 3s.

JANUARY 22.—**Blackpool.**—ROADS.—Construction of cantilever extension to Queen's Drive, North Shore, for the T.C. Mr. F. Wood, Borough Engineer, Municipal Buildings, Blackpool.

JANUARY 22.—**Bridgend.**—CULVERT.—For rebuilding in cement concrete Bridgend culvert (7¼ miles from Ashperton station), for the Hereford C.C. Mr. G. H. Jack, County Surveyor, High Town, Hereford.

JANUARY 22.—**Coulsdon.**—ROADS.—For making up Purley Oaks-road, for the U.D.C. Mr. R. Chart, Surveyor, Council Offices, Purley. Deposit £2 2s.

JANUARY 22.—**Coulsdon.**—SEWER.—Construction of 550 lin. yds. of 9 in. sewer and manholes, for the U.D.C. Mr. R. Chart, Surveyor, Council Offices, Purley. Deposit £2 2s.

JANUARY 22.—**Enfield.**—SEWERAGE WORKS.—For construction of 148 yds. of granite concrete tube sewer, in Church-street, for U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield. Deposit £2 2s.

JANUARY 22.—**London, E.**—PAVING, &C.—For taking up and relaying certain wood-block paving and incidental work in connection therewith to a portion of roadway at the Hospital, Bancroft-road, for the Guardians of the Poor of the Hamlet of Mile End Old Town. Mr. Edmund J. Harrison, Lic.R.I.B.A., 23, Berkeley-road, Crouch End, N.8. Deposit £2.

JANUARY 23.—**Aldeburgh.**—WATER MAINS.—Supplying and laying 517 lin. yds. 6 in. and 516 yds. 4 in. cast-iron water mains, for the T.C. Mr. John Cooper Gordon, Borough Surveyor, Aldeburgh.

JANUARY 23.—**Barnet.**—ROADS.—For supply of artificial stone paving and repaving Sydney and Cromwell-roads footways, for the U.D.C. Mr. F. P. Kindell, Surveyor, Council Offices, The Priory, Friern Barnet-road, New Southgate, N.

JANUARY 23.—**Birmingham.**—SEWERS. — Construction of about 670 yds. of brick and concrete sewers, and 2,250 yds. of stoneware pipe sewers, &c., on the Batchelor's Farm Housing Estate, Bordesley Green, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

JANUARY 23.—**Chipping Norton.**—WATER WORKS.—For providing and laying about 541 lineal yds. of 2 in. cast-iron water main and specials, for the T.C. Mr. R. Stanton, Borough Surveyor, Chipping Norton.

JANUARY 23.—**Edinburgh.**—SANITARY.—Supply and install additional sanitary appointments at Gogarburn House, for the Edinburgh District Board of Control. Mr. James D. Gibson, Surveyor, 60, Frederick-street, Edinburgh.

JANUARY 23.—**Stockton-on-Tees.**—ROADS.—For the completion of Greta-road, from Lune-road to Norton-avenue, for the T.C. Borough Engineer, Victoria buildings, Stockton.

JANUARY 23.—**Truro.**—WATER SCHEME.—Construction of cast-iron water mains, brickwork tanks, the repair of a water wheel, the supply and erection of a pump, &c., in connection with the water supply of St. Agnes, for the R.D.C. Mr. Coulter Hancock, Clerk, 12, Princes-street, Truro.

JANUARY 23.—**Wood Green.**—ROADS.—For works of private street improvements in King's-mews, for the U.D.C. Surveyor, Town Hall, Wood Green, N.22. Deposit £1 1s.

JANUARY 24.—**Dungannon.**—WATER AND SEWERAGE.—For construction of works for supplying Coolisland with water and for a complete scheme of sewerage, for the R.D.C. Mr. J. H. H. Swiney, engineer, Avenue Chambers, Belfast. Charge £1 1s.

JANUARY 24.—**Ely.**—SERVICE CONNECTIONS.—For approximately 1,000 house service connections, from the main to the property line as follows: (7) excavating and refilling trenches for service pipes; 8) providing and laying lead and galvanised iron service pipes, for the R.D.C. Mr. F. W. Green, Clerk, Council Offices, 11, Lynn-road, Ely, Cambs.

JANUARY 24.—**Holborn.**—ROADS.—For supplying and laying (*a*) 2 in. compressed rock asphalte; (*b*) 2 in. bituminous jointless material; and (*c*) 2 in. compressed rock asphalte on bituminous jointless material paving, for the B.C. Mr. E. F. Spurrell, Borough Surveyor, Council Offices, 197, High Holborn, W.C.

JANUARY 24.—**Lambeth.**—ROADS.—Supplying and laying of two-coat bituminous paving in Brook-street (part) and Priory-road, for the B.C. Mr. O. Cattlin, Lambeth Town Hall, Brixton-hill, S.W. 2.

JANUARY 26.—**London.**—DRAINAGE, &C.—For drainage work and earthwork bridges in connection with construction of new arterial roads, viz.: Orpington by-pass, Bexley Heath by-pass, West Wickham and Farnborough by-passes, for Ministry of Transport. Chief Engineer, Arterial Roads' Department, Ministry of Transport, 7, Whitehall-gardens, S.W. 1. Deposit £25.

JANUARY 26.—**Morley.**—ROADS.—For the surfacing of verges with red shale, planting of privets, and other incidental work on Victoria-road housing site, for the T.C. Mr. F. Turner, Borough Engineer, Town Hall, Morley.

JANUARY 28.—**Alnwick.**—WATER MAINS.—For providing and laying 3,675 yds. of 4 in. cast-iron socket pipes along the road from Hawkhill to Alnmouth, for the R.D.C. Clerk, 24, Fonkle-street, Alnwick.

JANUARY 28.—**Amsterdam.**—PAVING.—For carrying out of about 150,000 super meters of asphaltic or other noiseless paving on foundation. Chief Engineer of Public Works, Paving Department, Town Hall, Amsterdam. Deposit £2 2s.

JANUARY 28.—**Kirkintilloch.**—WATER WORKS.—For forming roads, &c., and laying pipes in connection with the installation of a pumping plant at Antermony Loch, for the T.C. Messrs. W. R. Copland & Sons, Civil Engineers, 146, West Regent-street, Glasgow. Deposit £2 2s.

JANUARY 28.—**London, S.E.1.**—ROADS.—Completion of the carriageways and footways of certain roads on the Roehampton Housing Estate, Putney, in the Metropolitan Borough of Wandsworth, comprising surfacing carriageways with tarred slag macadam, paving footways with artificial stone and other work. Administrator of Housing Development Schemes, Old County Hall, Spring-gardens, S.W.1. Deposit £2.

JANUARY 28.—**Loughborough.**—SEWER.—For construction of sanitary pipe sewers in Forest-road, for the R.D.C. Messrs. A. E. King & Co., architects, 19, Baxter Gate, Loughborough. Deposit £3 3s.

JANUARY 28.—**Sheffield.**—SEWER.—Construction of 970 yds. of brick and concrete storm sewer in the Upperthorpe District, for the T.C. Mr. W. J. Hadfield, City Surveyor, Town Hall, Sheffield. Deposit £2 2s.

JANUARY 28.—**Weardale.**—ROADS.—For road diversion on Wolsingham to Tow Law-road, including construction of reinforced culvert, for the R.D.C. Mr. G. W. Egglestone, Stanhope, Co. Durham.

JANUARY 29.—**Consett.**—ROADS, &C.—For 300 yards lin., and sewers, and 230 yards lin., with tarpaving and other general works, for the U.D.C. Mr. Frank A. Coyle, Architect, 29, Newmarket-street, Consett. Deposit £2 2s.

JANUARY 29.—**London.**—SEWER.—Construction of an 8 ft. internal diameter sewer in brick and iron of a total length of about 2¼ miles, Woolwich and Greenwich, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £10.

JANUARY 29.—**Rogerstone.** — EARTHWORKS. — For earthwork at Rogerstone, near Newport, Mon, for the G.W.R. Co. Engineer, High-street Station, Newport.

JANUARY 30.—**Girvan.**—WATERWORKS.—Supplying and laying six miles of cast-iron pipes, together with the construction of two break pressure tanks, &c., for the T.C. Messrs. Warren & Stuart, 94, Hope-street, Glasgow. Deposit £2 2s.

JANUARY 30.—**Hemel Hempstead.**—ROADS, &C.—Construction of a tarmacadam surfaced road about 175 yards in length, for the T.C. Mr. W. R. Locke. Borough Engineer, Hemel Hempstead. Deposit £1 1s.

JANUARY 30.—**Wembley.**—ROADS.—Execution of road works in Wembley Hill-road contingent upon the widening of the bridge over the L. & N.E. Railway (Great Central Service), for the U.D.C. Mr. Walter H. Lewis, Surveyor, Council Offices, Wembley. Deposit £2 2s.

JANUARY 31.—**Bilston.**—SEWAGE DISPOSAL WORKS.—Construction of storm-water tanks, screening bay, detritus tanks, diversion of outfall sewer, cast-iron and stoneware pipes, &c., for the U.D.C. Messrs. Dodd, Dodd & Watson, County Chambers, Corporation-street, Birmingham. Deposit £5.

FEBRUARY 1.—**Wallington.** — TARSPRAYING. — For work of tarspraying roads within the district for the year, for U.D.C. Mr. S. F. R. Carter, Surveyor, Council Offices, Wallington.

FEBRUARY 2.—**Hythe.**—ROADS, &C.—Construction of roads and laying of sewers and water mains in various parts of the Borough, for the T.C. Mr. Walter F. Bickford, Borough Surveyor, 114, High-street, Hythe. Deposit £3 3s.

FEBRUARY 5.—**Cheriton.**—ROADS.—For private street improvement works in Marler-road and Kent-road, for the U.D.C. Mr. A. S. Lilley, Surveyor, Public Offices, Cheriton.

FEBRUARY 5.—**Sedbergh.**—WATER SUPPLY.—For laying about 2,200 lin. yds. of 5 in., 4 in., and 3 in. cast-iron pipes, construction on an intake tank, mechanical filters, concrete service tank (95,000 galls.), &c., for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5.

FEBRUARY 6.—**Birmingham.**—SEWAGE DISPOSAL.—For the reconstruction of the sewage disposal plant and drains at Wassell-grove Convalescent Home, near Stourbridge, for the Board of Guardians. Mr. James Curtis, Clerk, Union Offices, Edmund-street, Birmingham. Deposit £1 1s.

FEBRUARY 6.—**Watford.**—ROADS.—For construction of new estate roads and sewers, &c., at Wiggenhall, for T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.

FEBRUARY 7.—**Swansea.**—SEWERS.—For construction of stoneware and cast-iron sewers at Llansamlet, totalling 9,943 lineal yds. for the T.C. Mr. J. R. Heath, Engineer, Main Drainage Dept., Guildhall Swansea. Deposit £5 5s.

FEBRUARY 9.—**Lancashire.**—ROADS.—Construction of a new road and the widening and reconstruction of part of the existing main road between the "Rose and Crown Inn," Much Hoole, and Sollom, for the Lancashire C.C. County Surveyor, County Offices Preston.

FEBRUARY 16.—**Greenock.**—ROADS, &C.—Construction of streets and sewers in connection with the Cowdenknowes housing scheme, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

★MARCH 1.—**Montgomeryshire.**—STORAGE RESERVOIR AND WATER MAINS.—Construction of a small storage reservoir, and the laying of a main in connection with an additional water supply, for the T.C. of Llanidloes. Mr. James Grant, Surveyor, Llanidloes, Montgomeryshire.

Competitions.

(*See Competition News, page* 100).

Auction Sales, Tenders, etc.

JANUARY 22.—**London, W.**—Messrs. J. T. Skelding & Co. will sell, by order of Messrs. Selfridge & Co., Ltd., at the Yard, Balderton-street, Oxford-street, W., important unreserved sale of the capital surplus of builders' and contractors' plant and machinery, timber, stores and effects. Auctioneers, 48, Gresham-street, E.C.2.

JANUARY 22 AND 23.—**Banbury.**—Mr. F. H. Clark will sell, without reserve, timbers and building materials contained in the Banbury Filling Factory, Banbury, Oxon, at 11 a.m. each day. Auctioneer, Railway Wharf, York-road, Wandsworth.

JANUARY 23.—**London, W.1.**—Messrs. Henry Butcher & Co. have received instructions to sell at the Auction Rooms, 556, Oxford-street, W.1, large quantities of miscellaneous tools and stores, &c. Auctioneers, 63 and 64, Chancery-lane, London, W.C.2.

JANUARY 23.—**St. Albans, Herts.**—Messrs. Harding & Son will sell, by direction of the Right Hon. the Earl of Verulam and Viscount Grimston, at the "Peahen" Hotel, St. Albans, in lots, about 112 acres of exceptionally valuable freehold building land, all on gravel soil, with over two miles of frontage to good main roads. Auctioneers, 36, St. Peter's-street, St. Albans.

★JANUARY 23.—**Sutton, Surrey.**—Mr. C. E. Clark will sell without reserve, opposite the Green, High-street, Sutton, Surrey, timber and builders' effects, including 300 squares, prime weather boards, &c. Auctioneers, Beddington, near Croydon.

JANUARY 24.—**County Down.**—Messrs. Garnet W. Holt & Co. will sell, by public auction, the Crowreach Quarries, Newry, with yard, machinery, plant, &c., on the premises at Catherine-street, Newry, to be sold in two lots. Auctioneers, Newry.

FEBRUARY 7.—**London, W.1.**—Messrs. Knight, Frank & Rutley, in conjunction with Messrs. Oakden & Co., will sell, by direction of the Eastbourne Waterworks Company, the freehold commercial site of about 4¼ acres, including detached double-fronted residence, factory and warehouse buildings. Auctioneers, 20, Hanover-square, London, W.1.

★MAY 6.—**London, W.1.**—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

JANUARY 19.—**Southend-on-Sea.**—Clerk of Works required by the County Borough of Southend-on-Sea, age not to exceed 45 years; applicants must be experienced. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Clarence-road, Southend-on-Sea.

JANUARY 21.—**Southend-on-Sea.**—Building Inspector required in the Borough Engineer and Surveyor's Department, by the County Borough of Southend-on-Sea; candidates must be experienced in similar work. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Clarence-road, Southend-on-Sea.

★JANUARY 22. — **Merthyr Tydfil.**—The B.C. is to appoint two temporary Architectural Assistants for approximately six months' service. One assistant must be experienced in preparation of contract drawings, bills of quantities, &c., for housing schemes; and the other experienced in outdoor surveying, levelling, and preparation contract drawings for housing schemes. Applications to be made to Mr. T. A. Aneuryn Rees, Town Clerk, Town Hall, Merthyr Tydfil, and should detail experience, age, qualifications and be accompanied by two testimonials.

★JANUARY 23. — **Manchester.** — Draughtsman required by the Joint Committee of the Manchester and District Joint Town-Planning Advisory Committee. Mr. P. M. Heath, Hon. Secretary, Town Hall, Manchester.

★JANUARY 23.—**Southport.**—Temporary Architectural Assistant required in the Borough Engineer Department by the County Borough of Southport. Mr. A. E. Jackson, M.Inst.C.E., Borough Engineer, Town Hall, Southport, endorsed "Temporary Architectural Assistant."

★JANUARY 24.—**Edgware.**—Quantity Surveyor required in connection with the proposed Redhill Hospital, Edgware, for about 175 beds, for the Guardians of the Hendon Union. Mr. F. J. Seabrook, Clerk to the Guardians, Union Offices, Edgware.

★JANUARY 28.—**Stoke-on-Trent.**—Competent temporary Assistant Quantity Surveyor required by the County Borough of Stoke-on-Trent. Mr. A. Burton M.Inst.C.E., F.S.I., Borough Surveyor, Town Hall, Stoke-on-Trent, together with copies of three testimonials.

★FEBRUARY 1. — **Swansea.** — Architectural Draughtsman required in the Borough Architect's Department by the County Borough of Swansea. Borough Architect, Guildhall, Swansea, endorsed "Draughtsman."

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council: E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B C for Borough Council; and P.C. for Parish Council.

ABERDEEN.—Plans passed by T.C.: Six houses, Braemar-place, for the Broomhill Home Building Syndicate, per Messrs. M'Andrew & Sutherland, architects; additions to warehouse, Palmerston-road, for William Davidson, Ltd., per Messrs. Sutherland & George, architects; loading shed, Palmerston-road, for the Caledonian Milling Company, Ltd., per Messrs. Wilson & Walker, architects; house, Spri gfield-road. for Mr. Alexander Duff, steward, per Mr. William E. Gauld, architect.——The Corporation propose to erect 48 houses at Cattofield, tenders for which are to be invited at once.

ALNWICK.—With a view to encouraging private enterprise in building, the U.D.C. have intimated their intention to subsidise intending builders to the extent of £100 per house, subject to permission being secured from the M.H.

ARNOLD.—The Rev. Nenson, of the Church of the Good Shepherd, has secured a site for a new church, but has not yet appointed an architect to prepare plans.

ASHTON-IN-MAKERFIELD.—The following plan was approved: Two houses in Soughers-lane, for Mr. J. Gorner.

AUCKLAND.—The M.H. has sanctioned a loan of £19,302 for the erection of a housing scheme at Conndo.

AUDENSHAW.—Sanction has been given by the M.H. to the borrowing by the Council of £3,310 for the reconstruction of Droylesden-road.

AYLESBURY.—Plans passed by T.C.: Two houses, New-street, Messrs. Fleet & Roberts, for Mr. Geo. Allen, Bierton Hill.

BARNES.—Plans passed by U.D.C.: Two houses, Gerard road, by Messrs. Bell & Kay; 10 houses, Kingsway, east of Clifford-avenue, by Messrs. Evans & Sons; house, Christ Church-road, by Mr. W. Burridge; two houses, Shalstone-road, by Mr. R. B. Rowell; Parish Hall, Rectory Grounds, Barnes, by Mr. R. B. Rowell; five houses, Kingsway, by Mr. W. H. Pecover; house, Derby-road, by Mr. G. McCarthy.

BARNSLEY.—Plans passed by T.C.: W. & J. Wainwright, two houses, Burton-road, Monk Bretton; Barnsley Brewery Co., off-licence shop and house, Rowland-road; C. Holroyde & C. B. Chadwick, two houses, Keresforth Hall-road; J. E. Holroyde & G. W. Blenkinsop, two houses, Keresforth Hall-road; A. E. Wood, two houses, Allendale-road; Miss C. Simmons, two houses, Locke-avenue; A. Ibbotson, two houses, Woodstock-road: F. W. Rogers, house, Woodstock-road; G. Ambler, bungalow, Pontefract-road; L. Barraclough, two houses, Locke-avenue; T. Dyson, house, Woodstock-road; F. Birkinshaw, three houses, Cavendish-road; Mrs. J. Beadman, house, Barnsley-road, Stairfoot; W. Avill, two houses, Locke-avenue; E. Ashton, two houses, Locke-avenue; Alan Pye, four houses, Spencer-street; T. Goulding, two houses, Wombwell-lane; Mrs. W. Squires, extension to workshop, Britannia-street; W. H. Lister, house, Cawthrow-avenue, Monk Bretton; G. & C. Bland, two houses, Wentworth-street, Honeywell Mount; Alfred Murton, house, Welbeck-street; F. Gelder, house, Field-lane, Stairfoot; A. J. Jacobs, house, Lamb-lane, Monk Bretton; W. R. White, house, Woodstock-road; W. Hill, house, Burton-road, Monk Bretton; F. Wilson, house, Woodstock-road.

BELFAST.—Plans passed: Two villas, Ormiston-parade, for Mr. Charles Dickey (architect, Mr. W. J. Walshe); five houses, Newtownards-road Upper, for Mr. Joseph Robinson (architect, Mr. Hugh Gault); stores, Edinburgh-street, for Mr. James Wylie (architect, Mr. J. C. Stevenson); additions to Ulster Club, Castle-place, for the trustees of the Club (architect, Mr. Godfrey W. Ferguson); six villas, Old Cavehill-road, for Mr. Alexander Jones; reconstruction of shop and showroom, Cromac-street, for the representatives of the late Felix O'Hagan (architect, Mr. W. J. Gilliland); workshops and stores, Charlotte-street, for Messrs. Wm. Coates & Sons (architect, Mr. R. I. Calwell); stables and stores, Frank-street Upper, for Mr. James McCullough (architect, Mr. R. Lynn); shop and stores, Antrim-road, for Messrs. E. & W. Pim (architect, Mr. John Seeds); three shops, East Bridge-street, for the Ulster Banking Co. (architect, Mr. T. W. Henry); four villas, Luxor-gardens, for Mr. John Buckley; workshop and offices, Wandsworth-gardens, for the East Belfast Housing Society; seven houses, Ardilea-street, for the White Cross Building Society (architects, Messrs. F. & J. McArdle); two villas, Skegoniel-avenue, for Messrs. S. M. Thompson & Charles McCallion (architect, Mr. J. St. John Phillips); football pavilion, near Fairfield-street, for the Highfield F.C.; two houses, Oldpark-road, for A. E. Fair; shops and stores, Lisburn-road, for B. Stafford; house, Sandown-road, for Mrs. V. Neill; alterations to shop and house, Woodstock-road, for J. Crawford; shed and engine-house, Sydenham-road, for H. Bodel; two houses, Northroad, for G. Mercer; house, Finvoy-street, for the East Belfast Housing Society, Ltd.; stores, Divis-street, for Wordie & Co.; six houses, Sandown road, for W. Evans; house, Balmoral-avenue, for A. W. Stewart; house, &c., New Forge-lane, Malone-road, for T. B. Johnston; houses, Somerton-road, for A. Taggart; four houses, College Park, Belmont, for R. O. Templeton; house, Castlehill-road, for A. W. McMillan; house, Chlorine-gardens, for W. D. R. Taggart; store, Holmes-street, for D. W. Corry; two houses, Lansdowne-road, for T. McKee & Sons; shop and house, Crumlin-road, for Miss H. M. McConnell; house, Myrtlefield-park, for A. McDowell; store, High-street, for J. Currie & Co.; additions to four houses, Dunowen-gardens, for J. Carson & Son; additions to eight houses, Dunowen-gardens, for J. Carson & Sons; vestry to Cathedral, Donegall-street, for the Select Vestry of St. Anne's Cathedral; house, "Beechlands," Malone, for C. P. Chapman: five houses and shop and house, Beechmount-avenue, for the Belfast Building Guild, Ltd.; two houses, Kincora-avenue, for T. Glover; eighteen houses, Kerrsland-drive, Kerrsland-crescent and Kerrsland-parade, for R. Hewitt; seven lock-up shops, Peter's-hill, for Frederick McKibben; eight houses, Rugby-road, for W. J. Ervine; shop and house, Templemore-avenue, for J. Gordon; shop and house, Great Victoria-street, for W. Breathwait; two houses, Park-avenue, for J. Johnston; house, Myrtlefield-park, for A. McDowell; alterations to premises, Chichester-street, for W. Brown & Sons; two houses, Ormiston-parade, for C. Dickey; five houses, Newtonwnards-road Upper, for J. Robinson; alterations to shop and store, Annadale-street, for R. Simpson.

BILLINGBOROUGH.—A new heating installation is to be installed at St. Andrew's Church, tenders for which are to be invited.

BISHOP AUCKLAND.—The U.D.C. Streets' Committee have received from the Durham County Surveyor a sketch plan showing a suggested new road in the district, at a cost of between £30,000 and £35,000, by way of Castle Chare to the Market-place. The cost to the U.D.C. will, it is thought, be between £5,000 and £7,000.

BLACKBURN.—On the recommendation of the Parks Committee, the T.C. have appointed a sub-committee to deal with the question of purchasing additional land adjoining a site at Knuzden, proposed to be bought by the Corporation, and to be used as playing fields, also to deal with the question of erecting a fence on such land. The Council approved of the sub-committee's proposal to construct an unclimbable fence and to purchase land at an estimated cost of £550, and have approved a recommendation of the Health Committee for an alteration to No. 8 and No. 9 slaughter-houses for uses as a head rate slaughter-house, at an estimated cost of £650.——Improvements are proposed by the Congregation of St. George's Presbyterian Church to the church and manse, estimated to cost about £2,000, and the funds have been provided.

BLACKPOOL.—Corporation are seeking sanction to commence building immediately 100 new houses on the Watson's-lane estate. Mr. E. D. Dennis is the architect.

BOLTON-ON-DEARNE.—The U.D.C. received sanction from the Ministry of Health for the erection of 20 more houses. These will be built in Barnburgh-lane and form part of a larger scheme.

BRADFORD.—Plans have been prepared and tenders are being invited for the reconstruction and conversion of premises in Hammerton-street, for the "Shell" Oil Syndicate. Included in the scheme is the construction of huge petrol storage tanks.

BRAMPTON.—Plans passed by R.D.C.: Four semi-detached bungalows at Faugh, for Granham & Son, Fenton.

BROMLEY.—Plans passed by R.D.C.: Mr. T. Stagg, cottage at St. Winifred's-road, Cudham; Mr. H. R. Jennings, house, Holwood Park-avenue, Farnborough; Mr. H. A. Pierpoint, two pairs semi-detached houses, Tower-road, Orpington; Mr. J. E. Blencowe, house with garage, Beckenham-road, West Wickham; Mr. J. Kent, three pairs semi-detached houses, Grosvenor-road, Ladywood Estate, Orpington.

BROOKWOOD.—Surrey C.C. has authorised the expenditure of £20,237 for the improvement of the nurses' quarters at Brookwood and Nethern Mental Asylums.

BURNLEY.—The question of the erection of a new super power electricity station is under consideration, estimated to cost £300,000.

BURTON-ON-TRENT.—The M.H. has approved the erection of 48 houses by the Corporation, and the Housing Committee has decided to erect an additional 48, subject to the approval of the T.C. and the Ministry.

CARLTON (NOTTS).—Plans passed by the Council included 11 houses and 5 bungalows.

CASTLEFORD.—Plans passed: Covered way into premises at the back of Carlton-street, for Messrs. Smith Bros.; nine houses in Smawthorne-lane, for Mr. L. J. Gallagher.

CASTLE WARD.—The M.H. have given sanction to the R.D.C. for the erection by private enterprise of 15 houses, by means of lump sum grants; and also approve of the Council's proposal to erect 15 houses at Dinnington and six at Ponteland, under the Housing Act.

CHICHESTER.—The West Sussex E.C. has approved an expenditure of £750 for the improvement of the heating arrangements at the High School for Girls.

CLOWNE.—The R.D.C. has approved plans of a public hall and institute which the Whitwell Miners' Welfare Committee propose erecting at Hangar Hill.

CONSETT.—The U.D.C. have approved plans for the erection of 285 houses by the Consett Iron Co., Ltd., in the Knitsley-lane neighbourhood.

COUNDON.—Sanction has been given by the M.H. for a loan asked for by the Bishop Auckland R.D.C. for the purpose of erecting houses at Coundon; and £648 for sewerage work in connection with these.

DARLINGTON.—Plans passed by T.C.: A. Chilton, bungalow and shop, Coniscliffe-road; W. W. Lee & Son, house, Woodland-road; F. Jackson, house, Linden-avenue; Bussey & Armstrong, eight houses, Haughton-road.

DARWEN.—The Corporation propose to submit to the M.H. for their approval plans for the erection of four cottages.

DERBY.—Mr. J. C. Dawes has held an inquiry in respect of an application by the T.C. to borrow £6,800 for a motor garage at the Ford-street Depot.

DUBLIN.—Plans passed: Additions to the Skin and Cancer Hospital, Hume-street, for the Hospital Governors; cooperage stores on Jones'-road, for the Dublin Distillery Co., Ltd.; extension of Boys' National School East-wall, for the Very Rev. Canon J. Brady, P.P.; reconstruction of premises, 24, Poole-street, for Messrs. Rogan & Co.

DURHAM.—The R.D.C. has approved of the proposal of Dorman, Long & Co. to build 50 houses at Bowburn.

EDINBURGH.—Warrants granted by Dean of Guild Court: Andrew Walker Bell, double house at Grant-avenue, Colinton; G. Dickson, convert self-contained house at Ferry-road, Leith, into four separate houses, and garages; Thomas S. Henderson, four bungalows off Hillview-terrace, Blackhall; Simon Keppie, jun., villa and garage at Lasswade-road; D. M. Duncan, 16 self-contained houses at Glebe-road, Corstorphine.

ESHER.—The U.D.C. has decided to erect 48 cottages.

FEATHERSTONE.—Plans passed by U.D.C.: Eight houses at Burston, for Mr. W. Sawyer, and Mistal at Loscoe Grange Farm, for Messrs. Hy. Briggs, Son & Co., Ltd.

GARSTANG.—The Highways Committee of the R.C. have under consideration the proposed improvements to Carr Bridge Stalmine estimated to cost £5,000.

GATESHEAD.—The T.C. have adopted a proposal of its Housing Committee to erect a further 100 houses.

GLASGOW.—The Clyde Trustees have obtained Government assistance for the provision of a new £2,000,000 dock for Glasgow.—Linings granted by Dean of Guild Court: William Cook, jun., 1,010 Pollokshaws-road, Crossmyloof, two double villas in Herries-road, Maxwell Park; Trustees of Shettleston and District Miners' Welfare Society, institute hall and offices in Amulree-street, Shettleston; Houston & Young, builders, Cochrane-street, Barrhead, double villa at Merrylee-road, Newlands; Duncan Campbell, 25, Mossgiel-road, Newlands, picture house at Paisley-road, at Halfway and corner of Elizabeth-drive, Mosspark. ——New ground is to be broken in a projected building scheme, which has been prepared by Messrs. J. A. Mactaggart & Co., Ltd., building contractors, Glasgow, under which it is proposed to erect a number of five-apartment houses on ground at present forming part of the farm of Meikle Aikenhead, on the east of Carmunnock-road, Cathcart.

GRAYS.—The M.H. has sanctioned the erection of 50 more houses by the U.D.C.

GREASBOROUGH.—Plans prepared by Messrs. J. Simmons & Sons, Doncaster, for new sewage outfall works for the Mangham district, in place of the existing works at Greasborough, have been approved by the U.D.C.; and it has been decided to apply to the M.H. for a local inquiry to be held for a loan of £5,259 to carry out the scheme.——Plans passed: Two houses, Potter's-hill, for J. W. & E. Binns.

GREENOCK.—The T.C. is considering a scheme for new slaughter-houses, estimated to cost £60,000.

GUIDE BRIDGE.—The L.N.E.R. Co. have decided to increase the Marshalling yard at Dawsnap. Work will shortly commence on 27 additional sidings at an estimated cost of £34,000.

HASWELL.—The Easington R.D.C. has granted the Northern Sabulite Co., Ltd., of Darlington, permission to erect an explosives factory at Tuthill Quarry, Haswell.

HEXHAM.—Plans passed by R.D.C.: Bungalow for Miss S. E. Melville, near Edge House Farm, Barrasford; villa for Mr. R. W. Forster, Riding Mill; villa at The Eals, Corbridge, for Mr. R. T. S. Bertram.

HEYWOOD.—Sanction has been given by the M.H. for loan of £18,750 for the construction of new water mains in Heywood, Middleton, Chadderton and Morden, and the engineers have been instructed to obtain tenders for the work.

KING'S LYNN.—Plans passed by T.C.: New premises, High-street, for Messrs. Hepworths; 14 houses, Luke-road, for Mr. J. C. Horn.

LEEDS.—Plans have been prepared and approved for the erection of a four-story warehouse in Park-square. Each floor will have an area of 3,550 super yards. Tenders for this work are about to be invited by the architects, Messrs. J. Harper Bakes & Sons, Calverley Chambers, Leeds.

LINCOLN.—The Ironstone Area Church Extension Fund decided to proceed with the building of the naves of the Ashby and Crosby Permanent Churches. Under an agreed scheme between the Corporation and the local builders 300 houses are to be erected, each party erecting half of the total number.

LITTLE LEVER.—Application has been made to the M.H. by the D.C. for sanction to borrow £4,750 for the purpose of improvements at the Ginger Fold Sewage Disposal Works, which involves increased filtering area, new detritus tanks and improved arrangements for dealing with storm water.

LIVERPOOL.—Plans passed by the Corporation (the name of the the architects is given in parenthesis): Sub-station, Carlton-street, for Corporation Electric Supply Department (Land Steward and Surveyor); six lock-up garages, Olive Vale, for A. Harrison (Barlow Davies); one house, Queen's Drive, Mossley-hill, for R. J. Jones (J. W. Jones); two houses, Bellvair-road, for Selves (Mersey Building Co.); eight houses, Avonmere-avenue, for R. L. Burns (R. Owens & Son); new shops, offices and meeting room, Islington, for The Transport and General Workers' Union (Rees & Holt); new factory, Marybone, for J. E. Hughes (Travis & Co., Ltd.); two houses and garage, Beechlane, for O. Owens (T. Wainwright & Sons); nine houses and shops, Long-lane, Garston, for David Roberts, Son, & Co. (R. Owens & Sons); 16 houses, Lanville-road, for Selves (Mossley Hill Estate, Ltd.); 22 lock-up garages, Aigburth-road, for W. Livesey (Turner & Moss); electric sub-station, Harrington-street, for Wright Crossley & Co. (Wm. Tomkinson & Sons); garage and house, Townsend-lane, for G. Linacre (Pritchard & Lewis); four houses and garages,

(*Continued on p.* 131.)

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	9 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick:—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
Headers	21 10 0	One Side and two Ends	31 10 0
Quoins. Bull-nose and 4½ in. Flats	28 10 0	Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 0	3 in. per yd. super	2 11
2½ in. ,,	2 6	4 in. ,,	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	,, ,,
Thames Sand	15 6	,, ,,
Best Washed Sand	15 6	,, ,,
¾ in. Shingle for Ferro-Concrete	14 0	,, ,,
½ in. ,,	15 0	,, ,,
¾ in. Broken Brick	10 6	,, ,,
Pan Breeze	5 6	,, ,,

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 51/– alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
,, ,, Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
,, ,, White	3 12 6
,, Fine	5 12 0
Sirapite, Coarse	3 9 6
,, Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE. Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/–
Random blocks from 10 ft. and over ,,	17/–
Sawn two sides ,,	27/–
Sawn three or four sides ,,	32/–
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto ,,	5 9
3 in. sawn two sides slabs (random sizes) ,,	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) ,,	1 5¾
1½ in. to 2 in. ditto, ditto ,,	1 3
HARD YORK— Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto ,,	6 0½
4 in. sawn two sides slabs (random sizes) ,,	2 10
3 in. ditto. ditto ,,	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded ,, ,,	7 9
Cills ,, ,,	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£4 0	3 × 6	225 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10
1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/–	1¼	33/6
⅞	23/–	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/–
1	26/–

BATTENS

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

	s. d.		s. d.
Per bundle	0 2 10		
Dry Wainscot Oak, per ft. super, as inch	0 2 0	to	0 2 6
¾ in. do.	0 1 6	to	0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9	to	0 2 6
Cuba Mahogany	0 3 0	to	0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0	to	50 0 0
American Whitewood planks, per ft. cube	0 14 0	to	0 16 0
Best Scotch Glue, per cwt.	4 10 0	to	—
Liquid Glue, per cwt.	4 7 0	to	5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc in truck loads delivered London area. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9

METALS.

	£ s. d.
JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
2 in.	1/1⅜	11d.	3½d.
2½ in.	1/2⅜	1/0½	3½d.
4 in.	1/4	1/1⅜	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7⅜	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2⅜	3½d.
3½ in.	1/6⅜	1/2⅜	3½d.
4 in.	1/7⅜	1/4	3½d.
4½ in.	1/9⅜	1/6½	4d.
5 in.	2/1⅜	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1⅜	1/8
2½ in. ,,	1/9⅜	1/4	2/0½
3 in. ,,	2/1½	1/8	2/5⅜
3½ in. ,,	2/6½	1/11½	2/10½
4 in. ,,	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. ,,	3 6½	2 5½	3 3½
3 in. ,,	4 2½	2 8	4 0½
3½ in. ,,	4 7	3 3½	4 8½
4 in. ,,	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. ,, ,,	6 3	6 8	11 4
5 in. ,, ,,	7 6	11 6	18 2
6 in. ,, ,,	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars— good merchant quality	14 0 0	to	15 0 0
Staffordshire "Marked Bars"	17 0 0	to	18 0 0
Mild Steel Bars	12 10 0	to	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	to	14 0 0
Hoop iron, basis price	16 10 0	to	17 10 0
,, Galvanised	31 0 0	to	32 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 0 0	to	16 0 0
,, ,, ,, 24 g.	16 0 0	to	17 0 0
,, ,, ,, 26 g.	18 0 0	to	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 20 g.	21 10 0	to	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	to	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	to	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	to	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	to	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	to	25 0 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	to	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	to	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	to	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	to	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet. English, 4 lb. and up	41 10 0
Pipe in coils	42 0 0
Soil Pipe	45 0 0
Compo pipe	47 10 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	27 0 0	—
Do., ex country, carriage forward per ton	28 0 0	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/–	45/–	76/–	153/–	246/–	510/– per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/–	92/–	174/–	300/–	588/– per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/–	23/–	30/–	42/– per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/–	29/–	36/–	63/– per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in,	1½ in,
35/–	56/–	98/–	162/–	228/– per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/–	41/–	56/–	101/– per doz
8 lbs. S. traps	35/–	45/–	66/.	126/– ,,

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	—
Thin ,, ,,	0 2 4	—
Copper nails ,,	0 2 3	—
Copper wire ,,	0 2 4	—
TIN—English Ingots ,,	0 2 6	—
SOLDER—Plumbers' ,,	0 1 1	—
Tinmen's ,,	0 1 3	—
Blowpipe ,,	0 1 5	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 10
,, ,, ,, in barrels ,,	0 4 0
,, ,, ,, in drums ,,	0 4 3
Boiled ,, ,, in barrels ,,	0 4 4
,, ,, ,, in drums ,,	0 4 7
Turpentine in barrels ,,	0 6 8
,, in drums (10 gall.) ,,	0 6 11
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 —

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots per ton delivered 79 10 0

Red Lead, Dry (packages extra) per ton	43 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocot per cwt.	0 15 6
Size. XD Quality ,,kn.	0 3 6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.	
oz. fourths	3½d.	32 oz. fourths	8½d.
„ thirds	4½d.	32 „ thirds	10½d.
„ fourths	5d.	Obscured Sheet, 15 oz.	4d.
„ thirds	6½d.	„ „ 21 „	5½d.
„ fourths	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
„ thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK.

SIZES.	Per Ft
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

	Per gallon	£	s.	d.
Oak Varnish	Outside	0	14	0
Fine ditto	ditto	0	16	0
Fine Copal	ditto	0	18	0
Pale Copal	ditto	1	0	0
Pale Copal Carriage	ditto	1	4	0
Best Ditto	ditto	1	12	0
Floor Varnish	Inside	0	18	0
Fine Pale Paper	ditto	0	18	0
Fine Copal Cabinet	ditto	1	2	6
Fine Copal Flatting	ditto	1	0	6
Hard Drying Oak	ditto	0	18	0
Fine Hard Drying Oak	ditto	0	19	0
Fine Copal Varnish	ditto	1	0	0
Pale ditto	ditto	1	2	0
Best ditto	ditto	1	12	0
Best Japan Gold Size		0	12	0
Best Black Japan		0	12	0
Oak and Mahogany Stain (water)		0	12	0
Brunswick Black		0	9	0
Berlin Black		0	14	0
Knotting (patent)		1	5	6
French and Brush Polish		0	17	0
Liquid Dryers in Terebine		0	9	0
Cuirass Black Enamel		0	7	0

NEW BUILDINGS IN LONDON.

Hackney.—MISSION HALL.—A new Wesleyan Central Mission Hall and Institute are to be erected in Mare-street. The architects for the work are Messrs. Gunton & Gunton, of Finsbury House, E.C. 2.

Essex-street. — OFFICES. — Offices are being built in Essex-street, Strand, W.C. 2, for Messrs. Derlikon, Ltd., of 34, Norfolk-street. The architects for the work are Messrs. Gunton & Gunton, of Finsbury House, E.C. 2.

Cornhill.—OFFICES.—A new block of offices is now being erected for the Union Insurance Society of Canton, Ltd., at 78–80, Cornhill, E.C. The two fronts are built of granite up to the second floor, with Portland stone for four floors above, and then two further floors in the Mansard roof. The building also has a lower ground floor and basement. Messrs. Bovis, Ltd., of 43, Upper Berkeley-street, W.1, are the builders; Messrs. Somerville-Barnard are doing the steelwork; Messrs. Seigwarts, floors throughout; Messrs. Jenkins, of Torquay, marble and granite wall linings; Messrs. Crittalls, windows; Waygood, lift; Messrs. Gunton & Gunton, Finsbury House, E.C.2, are the architects for the work.

Obituary.

The death has occurred at Scarborough of Mr. Wm. Garbutt Miers, aged 77, a retired builder and contractor.

The death occurred, on January 14, of Mr. John Mauchlen, of Moorside, Fenham, Newcastle, a member of the firm of Messrs. G. H. Mauchlen, builders and contractors, of that city. He was a director of the Fenham Building Estate.

The death has taken place of Mr. Evan Matthews, builder and contractor, Aberkenfig (Glam), at the age of 78 years.

PROPOSED NEW BUILDINGS.

(*Continued from page* 129.)

Menlove-gardens, for R. J. Jones (J. W. Jones); house and garage, Harthill-road, for T. N. Thomas (E. Russell Taylor); gardener's cottage, Allerton-road, for Major Tod (Morton & Dobie); house and garden, Menlove-gardens, for J. Clarkson (J. W. Jones); 10 houses, Dudlow-lane, for Self (J. W. Jones); two houses and garages, Sinclair-drive, for T. Jones (Gray & Evans); masonic hall, Island-road, Garston, for Garston Masonic Hall Co., Ltd. (E. B. Bailey); new workshop, Jasper-street, for J. Atherton (D. J. Nixon); rebuilding premises, Eccles-street, for Vauxhall Tanning Co. (R. Routledge); 52 houses, Stanley-gardens, for W. H. Furphey (A. Meadow); conversion to flats, Willesley-terrace, for C. Porter (G. H. Ashurst); conversion to flats, Sunnyside, Princes Park, for A. Fry (Campbell & Honeyburne); 24 houses, Uttingavenue, for J. Hughes (S. A. Kelly); 50 houses, New road off, for J. Hughes (S. A. Kelly); 272 houses, Hulton's-lane and 5, New-road, adjoining, for R. Jones & Co. (T. Wainwright & Sons).

LLANELLY.—The M.H. has sanctioned a loan by the B.C. for building 60 new houses at Llanerch. The loan is £27,000.

LONDON (CHELSEA).—The New Prince's Ice Rink Co. have secured a site covering 60,000 ft. in King's-road, Chelsea, for a new ice rink, club, winter garden, and restaurant, and plans have been prepared for a £50,000 building.

LONDON (LEWISHAM).—Plans passed by B.C.: Edmonds & Beale, eight houses, Woolstone-road; E. C. Christmas, 17 garages and office, Sydenham-park; L.C.C., addition to school, Elfrida-crescent; E. King, factory, Honor Oak-road: W. Pamphilon, factory, Algernon-road; H. D. Bennett, house, 1, Avenue, Grove Park.

LYTHAM ST. ANNES.—Sketch plans for a public hall and public baths to be erected on the site of the present baths and Council offices at Lytham have been approved by the Town Council. The baths portion of the scheme is to be proceeded with at once, and the Borough Surveyor has been requested to draw up estimates, &c.

MALVERN.—Plans passed: New entrance gates to Malvern College, in Woodshear-road; new residence, adjoining Golf Club House at Malvern Common, for Mr. E. C. Mann: and new residence in St. Peter's-road, for Mr. J. Mason.

MANCHESTER.—Plans passed by the Corporation: Hardy & Co., Ltd., revised plan of steelwork to premises, Victoria-street and Gateston-street; Failsworth Golf Club, clubhouse, Moston-lane, Moston; A. Wykeham & L. Gibson, two houses, Hill lane, Blackley; H. Bradshaw, 16 houses, Hill lane, Blackley; E. Nove, details of steel roof to works, Sidney street and York street, Chorlton upon Medlock; Manchester Crematorium Authorities, addition to Manchester Crematorium, Barlow Moor road, Chorlton cum-Hardy; Walker & Homfrey, Ltd., details of reinforced concrete construction, addition to brewery, Denmark-road, Moss Side; J. Scott, 20 houses, Beaumont-road and Belgrave-road, Chorlton-cum-Hardy; M. Kanton, two shops and houses, Lloyd-street South, Withington; Mrs. M. H. Gaffrey, six houses, Wilbraham-road and Morville-road, Chorlton-cum-Hardy. ——The Housing Committee proposes to arrange for the erection of 2,000 houses by builders, under the subsidy scheme.

MELTHAM.—Plans passed by U.D.C.: Bakehouse in Etherd Fold, for Mr. H. Sykes.

MEXBOROUGH.—The allotments in Adwick-road, near the Montagu Hospital, have been acquired by a local builder for the erection of 100 houses by private enterprise. The Council having received sanction for the erection of 44, are proceeding with the erection of 33.

MOTHERWELL.—Unusual activity prevails in the building trade in the district. At the recent Dean of Guild Court plans were passed for the erection of private dwellings and cottages amounting to £12,000.

NEW ROMSEY.—Plans passed by T.C.: House, Littlestone-road, for Messrs. Lacey & Jackson, Ashford.

NEWBURN.—The U.D.C. have resolved to apply to the M.H. for permission to borrow £1,600 for the widening of Union Hall-road, Lemington.

NORTHAMPTON.—An application is being made for sanction to raise a loan of £4,313 16s. 6d. to cover the expenditure of the construction of roads on the south and east sides of Far Cotton recreation ground. The Maternity and Child Welfare Committee have decided to transform St. Giles Mission Room, Dychurch-lane, into a Maternity and Child Welfare Centre at a cost of £700. Application is being made for sanction of a loan of £2,347 5s. 5d. in respect of the construction of roads and sewers on the site of a new school at St. James' End; also a loan of £1,500 to purchase a site at Far Cotton for a new school.——Plans passed by T.C.: New isolation block, General Hospital, for Mr. F. W. Dorman.

OLDHAM.—The Trustees of the Honeywell-lane Primitive Methodist Church are proposing to erect a new church, estimated to cost £4,500 and building is to commence in the near future. Pastor the Rev. W. P. Porter. Messrs. Dixon Hill & Co., architects, Oldham, have prepared the plans. Approval has been given by the Surveyors, and Building Committee of the Corporation for the clearance of the slum area of Smethurst-street, Grosvenor-street and West-street (approximately 4¾ acres) and to erect thereon 300 dwellings. The drawing of plans for these latter would be open to competition amongst architects, to whom it is proposed to offer prizes of £100, £50, and £25. The Town Clerk is Mr. J. J. Williams.——Plans approved by the Council: Mr. J. Kemble, two houses, Sheepfoot-lane, Hollins Green; Messrs. A. Pellowe & Sons, 10 houses, Manley-road.

OSWALDTWISTLE.—The D.C. have appointed a subcommittee to go into the question of provision of new plant at the Gas Works. Plans passed by the D.C.: Miss Alice Bury, house, Stanhill-lane; Messrs. W. H. Bury & Son, Ltd., eight houses, Alice-street; Mr. W. Clegg, 6 houses, Duke-street; Mr. Milton Gregson, plan of streets, Broadfield.

PADIHAM.—The Housing Committee of Padiham U.C. have recommended the erection of 12 houses at an estimated cost of £475 per house on the Drysden site.

PATELEY BRIDGE. — Plans passed by R.D.C. Bungalow, Smelthouse-lane, for Messrs. H. P. Cooper.

PONTEFRACT.—Plans passed by T.C.: House at Townville, for the Airedale Collieries, Ltd.; fish and chip restaurant in Bondgate, for Mrs. D. Glover; house in Southgate, for the Conservative Club; house at Townville, for Mr. P. Champion; two houses in Spital Hardwick-lane, for Messrs. Howson & Clark; house in Colonel's-walk, for Mr. Bacon.——Plans passed by R.D.C.: 20 houses at Brotherton, for the Council.

POULTON.—Application is to be made to the M.H. for sanction to borrow £1.270 for the purchase of land at Lower Green for the purpose of housing.

PRESTON.—The Health Committee of the B.C. have recommended the proposed extensions to the Chestnut Sanatorium, estimated to cost £13,000, subject to the approval of the M.H. Plans for 67 houses and three bungalows have been passed by the Corporation.

ROBROYSTON COLLIERY.—Plans for the erection of 124 houses at Robroyston Colliery have been approved by the Lower Ward District Committee of Lanarkshire. The proposed houses are to be built by Messrs. John Watson, Ltd., 19, St. Vincent-place, Glasgow, and comprise one and two-story cottages. The plans provide for 100 houses of two apartments and 24 houses of three apartments, all with scullery, washhouse, bath and other modern conveniences.

ROYTON.—Plans passed by the D.C.: Extension of mill premises, for the Empire Mill, Turf-lane.

RUGELEY.—Plans passed by R.D.C.: Bungalows, New-road, for Mr. Pedley and Mrs. Stokes; two cottages Green-lane, for Mr. C. Mason; two cottages, Sandy-lane, for Mr. Smith.

RYTON.—At the last meeting of the U.D.C. Messrs. J. & W. Dixon submitted a block plan for 30 houses at Sealburns, and plans for six houses, the plans being approved.

SHOEBURYNESS.—Subject to sanction the U.D.C. will erect two cottages at the Gasworks.

SILLOTH.—With a view to encouraging private enterprise in the building of more houses, the Holme Cultram R.D.C. have decided, subject to the approval of the M.H., to offer free sites on the surplus land of their housing site at Silloth to people building houses there in conformity with the Housing Act, 1923.

SKEGNESS.—Plans passed include a rest home for the employees of Messrs. J. B. Lewis & Sons, Ltd., Nottingham, the site being at the Winthorpe end near the sea.

SOUTH LINCOLNSHIRE.—Activity in house building prevails in this area, as the following programme of the various Councils in the district shows: Spalding U.D.C. are to erect an additional 30 houses and the R.D.C. another 24 houses; East Elloe (Holbeach) R.D.C. are to erect 32 houses; Boston R.D.C. are to erect seven pairs of houses; Bourne R.D.C. are also to erect further houses.

STOURPORT.—Plans passed: Thirteen houses in Kidderminster-road and Warwick-street, for Mr. Shepherd.

STRETFORD.—Plans passed by U.D.C.: 14 houses, Derbyshire-lane West, &c., for Mr. Thomas Pollock.

THORNE.—At a meeting of the R.D.C. the approval of the M.H. was received for the erection of 400 houses in the district by private enterprise, such houses to be eligible for the subsidy of £75 per house. The question of the erection of houses by the Council under the provisions of the Housing Act, 1923, was considered, and it was decided to submit a scheme, comprising 48 houses to be built at Thorne.

THURNSCOE.—The M.H. has inquired into the application of the U.D.C. to borrow £11,700 for extensions to the water undertaking.

TIVERDALE.—The Upper Stour Valley Main Sewerage Board has passed plans for the improvement of the outfall works at Tividale at an estimated cost of over £5,000.

TRURO.—Plans for the erection of twenty houses at Newham, Truro, have been prepared, and the City Council is making application to the M.H. for sanction to start building forthwith.

WALLSEND.—The Housing and Town-Planning Committee report that they have secured the approval of the M.H. to the proposals of the T.C. in regard to affording financial assistance to private enterprise in the erection of houses to the number of 200, which are likely to be commenced prior to March 31.——The T.C. have agreed to offer a price not exceeding £350 per acre for the acquisition of the golf course for a housing site.

WELLINGBOROUGH.—The U.D.C. has passed plans for a bungalow in Leys-road, two houses in Gisburne-road, two houses in Robert-street, and 12 houses on the Swanspool estate.

YEADON.—The U.D.C. is acquiring the Henshaw-lane housing site, which will allow of the erection of 51 houses.

FIRES.

DORKING.—The Dorking Electric Laundry has been almost completely destroyed by fire.

HORNSEY.—The church of St. Augustine, facing Archway-road, Hornsey, at the corner of Langdon Park-road, has been destroyed by fire.

SUNDERLAND.—Considerable damage has been caused by fire to the tallow factory at Dunning-street, owned by Mr. W. D. Humphries

Town Planning.

The Town Clerk, Manchester, informs us that a book containing all the proceedings of the Town Planning Conference recently held at Manchester has been issued, and can be obtained from him on the payment of 8s. 6d., post free in England.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	" "	5	9	
Do. roofs, floors and partitions	" "	6	3	
Do. trusses	" "	8	3	

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/11	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1¼"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/10
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to	4/-

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TRADE NEWS.

On the occasion of the formation of the new ompany, at the beginning of this year, Messrs. . McNeill & Co., Ltd., send us a few interesting articulars of their past activities. They were he original patentees and manufacturers in 833 of the felts known as tarred felts, and nder this designation are included asphaltic oofing, sarking, black sheathing felt, inodorous elt (Nos. 1 & 2), brown sheathing felt, and hoemakers' felts. The original trade mark is the Lion," and their felts are well-known by the dvertisement of "Lion" brand. They also nanufacture Slagbestos, which is the trade nark under which they now sell McNeill's patent lag wool "Lion" brand, which is the finest on-conducting material in existence.

It is interesting to note that their asphaltic oofing was used for covering the huts, hospitals, c., during the Crimea War. By special com-nand of Her late Majesty, Queen Victoria, the avilion at Aldershot was entirely covered by Messrs. F. McNeill & Co., Ltd., who were also he sole contractors for roofing the Great Inter-national Exhibition building of 1862. In later lays, millions of yards of roofing have been upplied to the devastated regions after the arthquake in Messina and the recent calamity n Japan; as well as for the covering of huts, ospitals, canteens, &c., during the Great War 1914–1918).

Messrs. MacAndrews & Forbes, Ltd., the proprietors of the well-known wall-board, 'Fiberlic," are removing from 65, South Molton-street to larger and more central and convenient offices at Bush House, Aldwych, W.C. 2.

We have received from Messrs. The "Woco." Door Co. an illustrated catalogue. It shows, in a very convincing manner, the quality of the wood used for Columbian pine doors.

The certificate of the Incorporated Institute of Hygiene has been awarded to the Fairfield Paint Co., of the London Colour Works, Mile End, E., stating that the Fairfield Washable Distemper has been passed by the examining Board as fulfilling the Standard of Hygiene Merit required by them.

We have received from Messrs. George Wright (Rotherham), Ltd., a copy of their stainless steel booklet. It is the first of its kind entirely devoted to stainless steel goods other than cutlery.

A new list has been issued by the Birnwell Iron Co., Ltd., of 1, Regent-street, S.W. 1, describing and illustrating the "Birnwell" hot-water boiler and stove, which from one fire provides a constant hot-water supply, warms the house, and provides ample facilities for cooking. This boiler and stove embodies many improvements and special features, making for economy in fuel and saving in labour, and has the additional advantage that it will burn smokeless fuel and house refuse.

The Midland Joinery Works, Ltd., inform us that negotiations have now been completed for the purchase of the softwood section of Messrs. Charles Perks & Sons, Ltd., Lichfield-street, Burton-on-Trent, with the extensive plant, buildings, &c. Additional plant, buildings and offices are now being erected, upon completion of which the registered office of the company will be transferred from Shobnall-road to Lichfield-street; the Shobnall-road premises being retained as a branch works. Messrs. Charles Perks & Sons are continuing the Oak Stave branch of their business from their present offices, as heretofore.

We have received from Messrs. The Midland Joinery Works, Ltd., a schedule of prices of joinery timber mouldings. It will be sent post free on the receipt of 6d.

We are informed by Mr. H. Johnston Thomas, builders' merchant, 11, Duke-street, London Bridge, S.E. 1, that he has now arranged for additional telephone facilities, and his new numbers are Hop 6550 and 6551.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.
* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERYSTWYTH.—The M.H. has approved acceptance of following tender by T.C., for erection of seven houses at Glanrafon site:—
J. E. Morgan Jones & Co., Oswestry £2,766

BARNSLEY.—For repairs to Champeny-hill reservoir, for the T.C.:—
*Cementation Co. £385

BELFAST.—For extension of tramway track along Chichester-street, &c., for the T.C.:—
*John Graham, Dromore..... £31,912 14 11

BIRKENHEAD.—Erection of electricity substation at Woodchurch-road, for the T.C.:—
*W. E. Hughes, Birkenhead..... £1,445

BIRKENHEAD.—For making-up (*a*) Daffodil-road, and (*b*) Primrose-road, for the T.C.:—
*C. L. Warren, Wallasey (*a*) £909 6s. 4d. and (*b*) £895 16s.

BLYTH.—For erection of 50 houses, for the T.C. Borough Engineer, Blyth:—
A. R. Robertson, Blyth £24,532 0
J. W. Tebble, Blyth 22,364 15

BOSTON.—Erection of pair of cottages in each of the parishes of Old Leeke, Leverton and Butterwick, for the R.D.C.:—
*F. Evison ..... £690 per pair

BOSTON.—Erection of two pairs of houses at Bicker, for the R.D.C.:—
*Mowbray ..... £780 per pair

BRADFORD.—For cleaning and painting work at Pathological Laboratory, for the T.C.:—
*Taylor & White £105 16 8

BRADFORD.—For painting and cleaning work at Cartwright Memorial Hall, for the T.C.:—
*E. Harland & Sons £250

BRECON.—For erection of a lavatory, for the T.C.:—
*A. H. Taylor & Son £166

CHELTENHAM.—For the erection of 15 pairs of non-parlour type houses, for the T.C.:—
*W. Drew ..... £400 per house

CHIPPENHAM.—For decoration of the Town and Neeld Halls, for the T.C.:—
*Downing & Rudman £337

CHORLEY.—For conversion of buildings in Astley Park into tea-rooms and lavatories, for the T.C. Town Clerk, Council Offices, Chorley:—
*J. R. Lucas & Sons, Chorley.

COLCHESTER.—For erection of (*a*) 12 non-parlour houses, and (*b*) two parlour houses, for the T.C.:—
H. Allston—(*a*) £4,175, and (*b*) £889 18s.

DURHAM.—Construction of roads and sewers at Ushaw Moor housing site, for the R.D.C.:—
*T. Hilton & Sons, Bishop Auckland.. £1,037

DURHAM.—For erection of 16 houses, at Framwellgate Moor, for the R.D.C.:—
*Ainsley Bros., Durham ..... £370 per house

FALMOUTH.—For erection of 20 houses on Penwerris site, for the T.C. £9,071

FAREHAM.—For alterations to master's quarters at the Institution, for the Board of Guardians:—

James Crockerell, Southsea	£1,640 0 0
H. G. Ross, Netley Abbey	1,600 0 0
A. Fry, Fareham	1,380 12 0
J. Hunt, Gosport	1,337 0 0
G. H. Riches, Fareham	1,258 17 6
Glover & Son, Fareham	1,250 0 0
M. H. Gibbs, Lee-on-the-Solent	1,224 0 0
*F. W. Bartlett, Fareham	1,215 0 0

FEATHERSTONE.—The U.D.C. has accepted the following tenders for relaying of the Snydale outfall sewer:—
A. Graham, Fartown, Huddersfield.. £4,800
(*Subject to approval of the M.H.*)

GLASGOW.—Erection of extensive sugar factory in Jamaica:—
Duncan Stewart & Co., Glasgow
approx. £200,000

GLASSHOUGHTON (YORKS).—Erection of foreman's house at the Airedale Sewerage Works, for the Pontefract Sanitary Committee, R.D.C.:—
L. Rodgers & Sons, Castleford £452

HANGING-HEATON.—Reconstruction of the "Fox and Hounds" Hotel, for Messrs. Ind, Coope & Co., Ltd., Burton Brewers. A. & F. Mosley, Leeds, architects:—
*R. Lawson, 90, Dewsbury-road, Leeds.

HORBURY.—Erection of a new steel railway bridge, for the London, Midland & Scottish Railway Co.:—
John Butler & Co., Ltd., Stanningley, near Leeds.

HOUGHTON.—For the erection of 12 houses, on Hetton-road site, for the U.D.C.:—
*I. Berriman, Fence Houses.... £338 per house

HOVE.—For erection of dressing-rooms in Hove Park, for the T.C.:—
*A. W. Leney..... £184 15

HULL.—For erection of 26 houses on Cottingham-road Estate, for the T.C. The City Architect, Council Offices, Hull:—
*P. T. Kettlewell, Hull £9,220

HUNSTANTON.—For resetting bench of retorts, for the U.D.C.:—
*Drake £310

KIDDERMINSTER.—For paving in Comberton-hill with stone setts, for the Highways Dept. of the T.C.:—
*G. Law, Kidderminster..... £8,933

LONDON.—For laying asphalte matrix road surface on roadway on Blackheath, from Maze-hill to the borough boundary, for the Greenwich B.C.:—
*Val de Travers Paving Co.—at 16s. per yd. super and eight years' maintenance at 4d. per yd. super per annum.

LONDON.—For supplying and laying compressed asphalte in the following roads, viz., Tower Bridge-road, Guy-street, Kipling-street, Richardson-street, Stainer-street Arch, Weston-street Arch, Neckinger, Market-street, and Weston-street (Long-lane to Snowsfields), for the Bermondsey B.C.:—
Neuchatel Asphalte Co., Ltd.—
12s. 6d. per sq. yd., 5 years free maintenance.
Limmer & Trinidad Lake Asphalte Co., Ltd.—
12s. 6d. per sq. yd., 5 years free maintenance.
French Asphalte Co., Ltd.—
12s. 3d. per sq. yd., 5 years free maintenance.
T. Faldo & Co., Ltd.—
10s. 10d. per sq. yd., 1st and 2nd years free maintenance; 3rd year 3d. per yd.; 4th and 5th years 6d. per yd., measured all over.
Highways Construction, Ltd.—
10s. 3d. per sq. yd., 3 years free maintenance; further 2 years maintenance at 4d. per yd. super, per annum.
London Asphalte Co., Ltd.—
10s. per sq. yd., 5 years free maintenance.
Whitehall Asphalte & Engineering Co., Ltd.—
9s. 4d. per sq. yd., 7 years free maintenance.
*Val de Travers Asphalte Paving Co., Ltd.—
9s per sq. yd., 5 years free maintenance.

LONDON.—For supply of materials to the Lewisham B.C.:—
*Improved Wood Pavement Co., Ltd.—for creosoted deal blocks 8 in. by 3 in. by 4 in., at £9 17s. 6d. per 1,000.
*Sir Wm. Burnett & Co., Ltd.—for creosoted deal blocks 8 in. by 3 in. by 3½ in., at £8 17s. 6d. per 1,000.
*Wettern Bros., Ltd.—for 6 in. by 12 in. Norway granite kerb, at 2s. 7½d. per foot run.
*Atlas Stone Co., Ltd.—for 2 in. artificial stone paving, at 5s. 11d. per super yd.

NORFOLK.—Construction of two swing bridges over the Waveney, at Beccles and St. Olaves, for the London & North Eastern Railway Co.:—
*Horseley Bridge and Engineering Co., Tipton £150,000

NORTHAMPTON.—For erection of 20 houses, "A" 3 type (non-parlour and 3 bedrooms), for the T.C.:—
*Walker & Perrett, Northampton..... £7,890

NORTHAMPTON.—For completion of four houses and four shops, Abington site, for the T.C.:—
*A. P. Hawton & Sons, Ltd..... £1,849

NORTHAMPTON.—For decorative repairs to (1) 32 houses, London-road; (2) 40 houses, Queen Eleanor-road, Queen Eleanor-terrace and Towcester-road, for the T.C.:—
*(1) F. Brown £170
*(2) W. B. Parbery 217

NORWICH.—For erection of six cottages, at Whitlingham Farm, for the T.C.:—
*Walter Evans & Son, Norwich £2,598 15

PONTEFRACT.—Erection of 10 houses on the Wakefield-road site, for the Corporation:—

Builder—Wm. Horner	£2,099 17 10
Joiner—C. L. Jackson	1,120 0 0
Plumber—W. Pearson & Sons ..	555 0 0
Tiler—Stewart Bros. & Son....	445 15 0
Plasterer—T. W. Senior	250 0 0
Painter—Hy. Butler & Sons ..	125 18 4
Roadmaker—Wm. Horner	156 5 6
	£4.752 16 8

PONTEFRACT.—Erection of 24 houses on the Baghill-road site:—

Builder—Wm. Horner	£4,640 2 0
Joiner—C. L. Jackson.....	2,620 0 0
Plumber—W. Pearson & Sons..	1,104 0 0
Tiler—George Spurr & Sons ..	865 4 0
Plasterer—T. W. Senior	600 0 0
Painter—Hy. Butler & Sons....	306 4 0
Roadmaker—Wm. Horner	572 5 0
	£10,707 15 0

PORTSMOUTH.—For erection and completion of four blocks of flats, Landport, and maintenance for six months, for the T.C. Mr. A. W. Ward, Borough Engineer, Town Hall, Portsmouth:—

Cortes & Hankins, Drayton ..	£8,073 6 3
Light Bros. & Flowers, Portsmouth	7,924 0 0
John Lay & Co., Portsmouth ..	7,654 0 0
E. & A. Sprigings, Portsmouth	7,295 0 0
*Tanner Bros., Castle-road, Southsea	6,400 0 0

RADCLIFFE.—For erection of 16-Chamber "Manchester" Kiln, Outwood Brickworks, for the Company. Mr. W. Beech, Building Surveyor, The Clifton & Kenley Coal Co., Clifton, Manchester:—
*Dean, Hetherington & Co., Leek..... £3,800

RADCLIFFE.—For erection of 26 semi-detached cottages, Outwood-road, for the Outwood Collieries Co., Ltd. Mr. W. Beech, Building Surveyor, The Clifton & Kenley Coal Co., Clifton, Manchester :—

*G. & T. Seddon, Manchester.... per house £405

READING.—For erection of additions to factory, for Messrs. M. Venner & Sons, Ltd. Mr. F. G. Sainsbury, architect, 154, Friar-street, Reading :—

*W. J. Harris, Basingstoke..... £8,978

ROTHERHAM.—For conversion of privies into water-closets at Treeton, for the R.D.C. Mr. C. O. Rawstron, Surveyor, Council Offices, Grove-road, Moorgate, Rotherham :—

*Chas. Boyd, Rotherham.

ROYSTON.—For erection of 12 houses, Station-road. Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley :—

The Royston Builders & Contractors, Ltd.—Houses : £4,200 ; Roads and sewers : £330

SALFORD.—For erection of house at sewage works. Weaste, for the T.C. :—

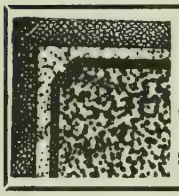
*A. Fenton, Manchester..... £766

SALFORD.—For extension of Langworthy-road, for the T.C. :—

*W. H. Worthington, Manchester £7,919 16 11

SKIPTON.—Construction of a new bridge. for the L. M. & S. Railway Co. :—

*John Butler & Co., Ltd., Stanningley, near Leeds.



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Mason—Wm. Holroyd & Sons, Huddersfield.
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STAFFORD.—For (1) laying and jointing 2,470 yds. of 6 in. dia. cast-iron pipes and special castings ; (2) 650 yds. of 21 in. dia. reinforced concrete pipe sewer, &c., for the T.C. Mr. W. Plant, Borough Engineer and Surveyor, Borough Hall, Stafford :—

*(1) J. Taylor & Sons, Stoke-on-Trent	£630	5	0
*(2) G. Sandy & Co., Stafford ..	865	2	4

STAFFORD.—For the erection of twenty houses in Blackwalls North and South, for the T.C. :—

*Espley & Son, Contract No. 1 (11 houses	£3,784	0	
Contract No. 2 (3 houses)	1,047	0	
*G. Dyke & Son, Contract No. 3 (3 houses)	1,148	15	
*G. Sandy & Co., Contract No. 4 (3 houses)	1,155	0	

STAFFORD.—For laying concrete floor in Fish Market, for the T.C. :—

*F. Espley & Son £434

STAFFORD.—For laying 6 in. diameter water main along Silkmore-lane, for the T.C. :—

*J. Taylor & Son, Stoke-on-Trent.... £630 5

STAFFORD.—For piping of Thieves' Ditch for the T.C. :—

*G. Sandy & Co..... ..... £865 2 4

STOWMARKET.—For erection of isolation hospital for the U.D.C. :—

Seaman & Cole, Stowmarket.. £3,195 16 9

STRETFORD.—For paving works, for the U.D.C. :

*Bethell & Sons : Repaving in 12 public streets	£12,868	6	5
*W. Turner (Ardwick), Ltd. : Repaving in Empress-street	1,143	14	0

TILBURY.—For reconstruction in reinforced concrete of Dock-road, area 11,200 sq. yds., for the U.D.C. Mr. S. A. Hill-Willis, Surveyor, Council Offices, Tilbury :—

†F. Mitchell & Son, Manchester..... £5,610

WEYMOUTH.—For making-up Baycliffe-terrace, for the T.C. :—

Jesty & Baker	£229	8	0
W. Whettam	207	7	6
*Jenkins, Hitt & Grant, Ltd.....	160	0	0

WIVENHOE.—For erection of a statuary marble memorial in the cemetery. Mr. H. Fuller-Clark, architect, 11, John-street, Bedford-row, W.C. :—

H. T. Jenkins & Son, Ltd., Torquay	£147	10	
Fenning & Co., Hammersmith	141	10	
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A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

VOL. CXXVI.—No. 4225. JANUARY 25, 1924.

VARIATIONS ON AN OLD THEME.

"Towns should be made to house a proud and intelligent race of people, and we have to see to it that they are thought of and dealt with from that point of view."—W. R. LETHABY.

WE gather from a recent meeting of advertisers that advertising is only in its infancy in this country. We are told that we are shy of advertising here; that shyness is our national characteristic and that America is far ahead of us in salesmanship. In the coming year the leading representatives of the advertising world who are attending the International Advertising Convention will be given an opportunity of seeing English life from all "angles." This ugly word is well chosen. The tendency during the last few years has been to examine every problem from an angle—the modern substitute for perspective, we suppose. Philosophy was simpler when we recognised only two sides, our own and the wrong one.

The problem of advertising is much too complicated to examine in detail, particularly from an ethical point of view; and from the architect's standpoint we are interested not so much in the amount of advertising as in the form it takes. Mr. Aldous Huxley discusses advertising from the literary point of view. As a form of literature he prefers to speak of it as "applied literature" for the sake of those who still believe in the "romantic superiority of the pure, the disinterested, over the immediately useful." "No one should be allowed," he says, "to talk about the *mot juste* or the polishing of style who has not tried his hand at writing an advertisement of something which the public does not want, but which it must be persuaded into buying." Without going into the matter in detail it is evident there is ample room for further discussion upon the relationship of commercial values to their architectural expressions.

The architectural mind immediately begins to think of advertising in relation to buildings. Huge gilt signs by day and twinkling sky-signs by night, have reduced the architect to a state in which he begins to wonder whether his building is to become merely a background for advertisements. It cannot be said truthfully that some of the older buildings suffer very much architecturally at the hands of the sign-writer, though we are fully aware of the danger of admitting an argument based upon the theory that the finer the architecture the more it will suffer from the advertiser. It is possible to contend that advertisements make an ugly building more hideous. The thought is painful we admit, but it is certain that if the given problem for the architect were to design a building as a background for advertisements the results would not be so disturbing as those we have to tolerate now. The other alternative is that the building shall be vested with architectural dignity and individuality, that the happy owner will appreciate it so much that he will consider his building to be sufficient advertisement in itself.

Already we can hear the murmuring protests of those who believe that fine architecture is to be traduced for advertising purposes. Many architects feel that importance is being given to utilitarian buildings, which is not wholly in keeping with the case. This may or may not be sound architectural philosophy, and the public, at least, could claim to see some clear-cut definition of what architects do approve. We have discussed this question several times, and here we can leave it, in the hope that a better understanding will come as the years go on. In the march of civilisation we may lose a certain illusion, but it is a true observation which says that we seldom fail to find another. If it is a question of ideals, architecture most go down with its flag nailed to the mast; but if we ventured to prophesy we would say it is fairly certain it will not go down. The philosophic doubt may be there, and if architects do not reason it out the constant pressure of any social development compels them to recognise it ultimately. There is a strong feeling that architecture must be indicative of the age in which we live, and if this is true it should always produce the best results that can be obtained in the circumstances. The history of architecture is proof of this contention, and we would like to see modern architecture taking its proud position, not as a vehicle for the publicity agent, but as a structural work of art carrying its own direct appeal so unmistakably that the owner would think twice before listening to the arguments of the sales expert. We are convinced that architects would make greater headway with the public if they attempted to analyse the psychological difference lying between the client's attitude and their own. It is not a question of being interested, and neither is it a question of right or wrong. When views upon art become dogmas we have lost the corrective value of seeing realities as they are.

There are only two solutions we can see to the problem of advertising on buildings: either architects must make an eloquent plea in their buildings for the social recognition of the value of their work, or, failing this, we must lay the responsibility upon legislation to protect us and lead us to a nobler conception of civilisation. We look to the general development of education for a remedy; we educate architects and artists, then we lose our courage and fail to deal with the problems which our own day brings to us. And the answer is that as a nation we seem to be fully alive to the value of the arts as a social factor; we believe that fine buildings and fine pictures add to the nobility of life, but we seem powerless to deal with the narrow view of life which makes so much ugliness possible.

Legislation against ugliness is a quicker process, we are told, than waiting for education to raise the standard of taste and affect public opinion, but the philosopher will tell us that legislation on these lines would indicate that we had received our education. The whole problem is a direct challenge to us to think clearly on the subject, and to face the results of our thinking. Who knows? We may eventually reach the stage when we shall cease to advertise by regarding the hoarding as a public nuisance and placing it where it is least likely to be seen.

Professor Lethaby tells us that, "the faces of buildings, which are turned outwards towards the world, are obviously of interest to the public, and all citizens have a property in them. The spectator is in fact part owner." The enterprising publicity agent threatens to give this paragraph a new meaning.

NOTES.

Ugly Hoardings.

When once a reform movement is set going, especially one so beneficial to communal life as the tidying up of our streets and countryside, it accelerates on itself, so that we are hardly surprised to read that the London County Council is now asking the Borough Councils to make the fullest use of their powers to secure the removal of advertisement hoardings on the roadside. All this is most satisfactory, and we may hope for a more becoming appearance in our roads and streets. But we should be wise to accompany our satisfaction at this promise of better things with a certain caution. Very few of these desirable improvements have as yet been carried out, though in course of being so, and it will require a certain doggedness of public pressure to get rid of many of the more unsightly features of advertising. If we were led to expect, as the result of what is being effected, that the matter could be allowed to rest, or that it will accomplish itself on what may be only a temporary wave of reforming zeal, we should ignore many untoward influences which remain antagonistic to change. On the other hand, we welcome the evidence of an awakening of civic pride, and a conforming of trade interests to the general welfare in response to the strongly declared expression of public opinion on the matter.

Gas Flash Signs.

One of the great advantages that a gas-lit town enjoys over one lighted by electricity is that its inhabitants are spared the irritating vulgarity of the recurring sign. Gas illuminated signs have in the past been obliged to content themselves with delivering their messages in a straightforward and permanent manner. We understand that gas is now in a position to vie with electricity in flashing at intervals, and we may well be confronted with a more universal spread of blinking lights than exists at present. Sooner or later those that employ these methods of self-assertion will find themselves forced to emulate the action of the motor spirit firms and bow to a public opinion whose patience in seeing our towns disfigured is not inexhaustible.

Landlord's Fixtures.

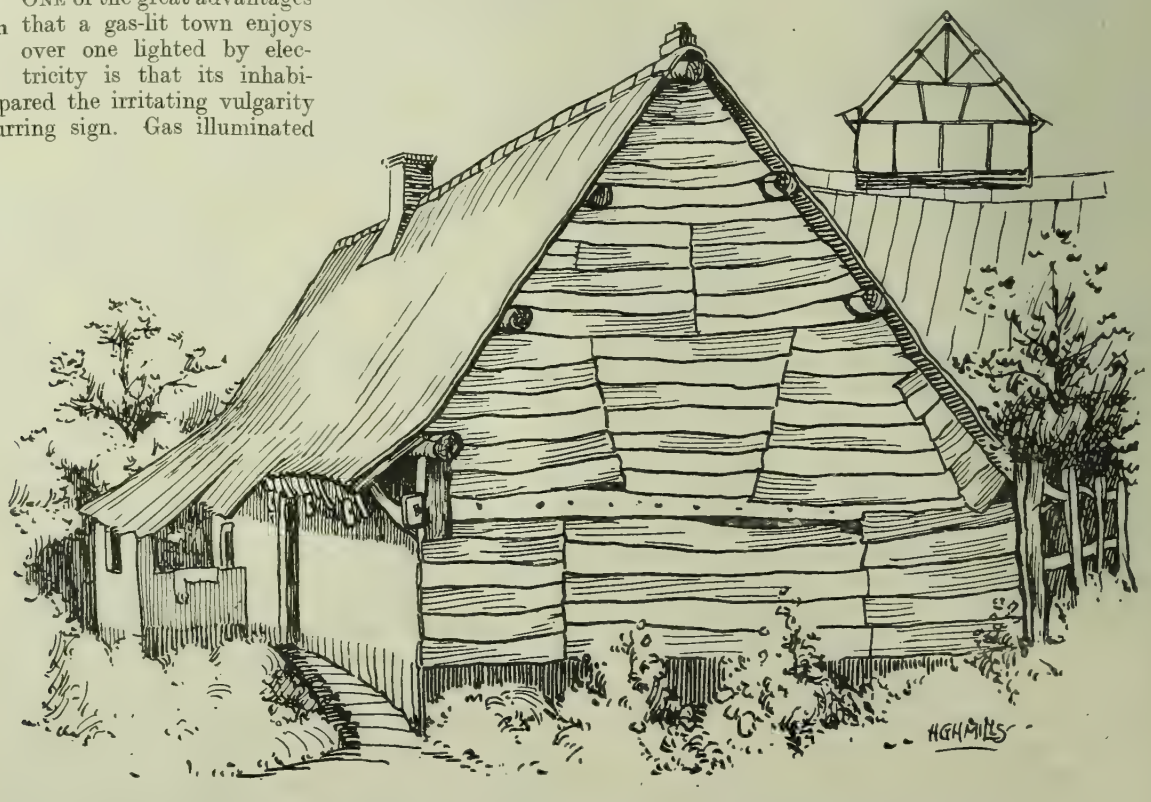
The limited fittings of the pre-war house are in process of revolution, and it will be interesting to see how far the movement towards elaborate fixtures spreads. Undoubtedly the initial capital outlay involved by fitted cupboards, lockers, hot-water basins, sinks and radiators adds enormously to the original purchase price, but, provided the intending occupier has little furniture of his own, the subsequent economy will repay him. In America, where the great distances militate against the familiar "removals" of this country, the elaborate fittings are an institution, but we doubt if they are coming here to quite the same extent. We all like our household goods, especially if they have family associations, and while the present movement will certainly affect the production of cheap modern furniture, people will still hesitate to part with their individual and portable possessions in exchange for what is permanent and standardised.

Panaceas.

With every political crisis affecting the housing situation we have the usual crop of crank solutions; and, while any effort that emphasises the importance of the housing shortage may be of value, the assumption that there is any single panacea to solve our troubles is misleading and mischievous. Indeed, if we were at once to surmount such obstacles as trust-rings, "ca' canny," and trade-union restrictions; if we could be quit of hampering by-laws; obtain easy money, cheap land and ready transport; if we could also employ standardised construction, and ideal planning, we should still have to face a long uphill journey with no royal road to the top. Let us again repeat that nothing but hard work and general co-operation can form a basis for a policy, and that however welcome the enthusiastic amateur may be he has much to learn before he can instruct in a complex situation that has defied the ingenuity of many experts.

Rebuilding in Ireland.

From accounts in the papers it would appear that an advance has already been made to cope with the devastation caused in Dublin by the tragedies of the last few years. Apart from town-planning schemes, activities



Sketch in Northern France.—No. 3. By Mr. H. G. H. Mills. (*See p.* 144.)



An example of French-Canadian Domestic Architecture. (*See p.* 142).

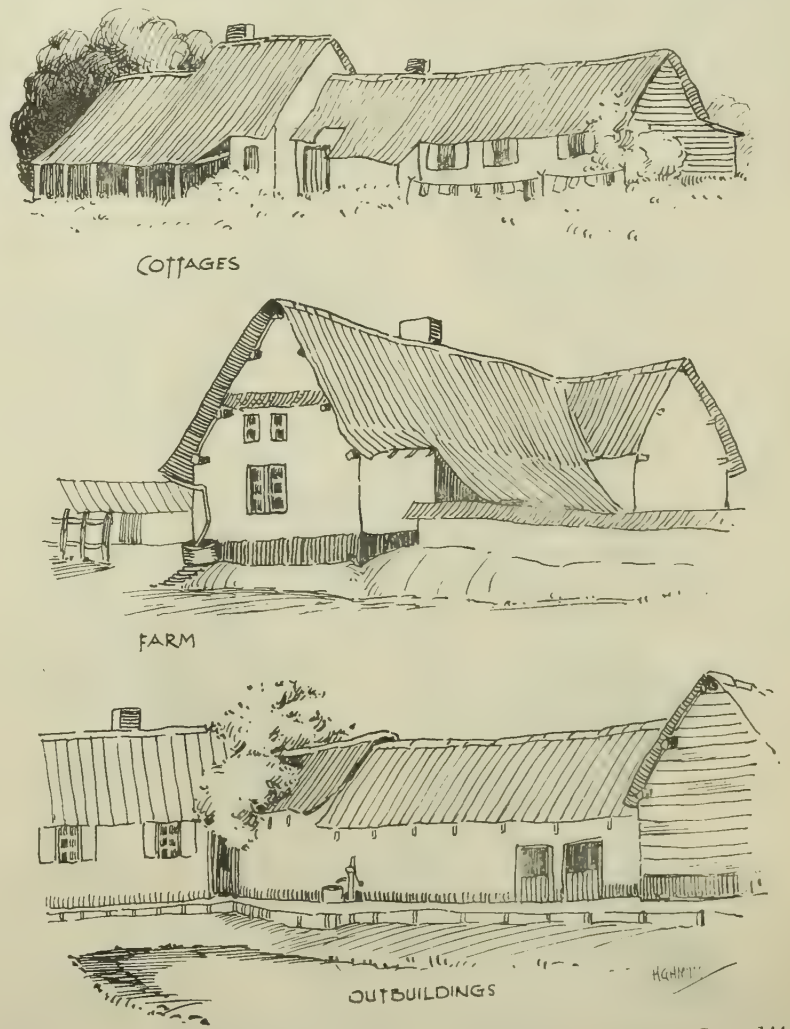
have begun to replace shops, hotels, and public buildings in Dublin and Cork, but it would be interesting to learn how far the reconstruction has spread to private buildings. It is natural that delays in fixing and obtaining awards should have kept things back, and owners of country mansions are naturally not in a hurry to re-erect their homes until an assured peaceful prospect is in sight. Given settled conditions we hope that restoration and rebuilding, even of a partial nature, may be undertaken and that the peculiar quality of the fine Irish country house will be maintained.

The Coke Shortage. NOTHING has been more baffling or discouraging to the householder who has installed a smokeless heating system dependent on a coke stove than the laconic notices which certain local gas companies have recently circulated. Briefly, these companies regret that owing to the present railway strike they cannot undertake to execute further deliveries of coke. The most effective appeal that the gas companies can make to the public is their help in overcoming the smoke plague, either directly by gas heating or indirectly by the use of the smokeless by-product of coke. It is not a sufficient excuse to claim that better and cheaper gas is obtained as the coke gets poorer and dearer; the by-product is as valuable to the community as the gas is to the company, and the companies are equally responsible for this essential supply. If the public is to submit to these periodical withholdings it will re-establish the open coal fire, the anti-smoke movement will be set back, and the gas companies will be the first to suffer.

Modern Taste. THE series of articles on the great picture galleries, which Mr. E. V. Lucas has contributed to *The Times*, is not only intensely informing, but must have a valuable reflection on our own taste. Few of us possess important original works; at the best we muster some creditable sketches, a few dearly-prized etchings, some attractive old prints (whose authenticity is probably doubtful), and apart from these we are wise if we leave our walls bare or adorn them with good reproductions. Unfortunately for the architect and the house decorator the average taste is neither wise nor fastidious, and there exists a zeal for covering wall-space that would do justice to a missionary desiring to clothe a converted cannibal. Almost every second house is desecrated with badly framed, ill-hung and ill-executed pictures, distracting both in their lack of purpose and their lack of relation to one another. The familiar defence that the owner is entitled to his own likes in his own house may be legally true, but there is an increasing sense of responsibility for artistic values which will make such efflorescence unfashionable, and as a contribution to that end Mr. Lucas's articles deserve our praise.

House Purchasing. WE noted a comment the other day in a weekly paper upon the fact that only eighteen copies of "A Guide to House Purchasers" had been sold. It was suggested that the difficulty of finding a house in these days would have assured a large sale for such a book, and that there was nothing more difficult than to determine what the public really wants. We should have thought the public has small need of a guide book on this subject; it is much more interested in trying to avoid purchasing houses. Besides, there are many other more fascinating luxuries in which we are interested. The nation is still absorbed in the fascinating game of compelling itself to build and rent houses at a loss, in the happy belief that there can be neither losses nor penalties when they are shared. Happier still is the individual who believes they are shared equally.

Early Stained Glass. THE collection of ancient stained glass at the Victoria and Albert Museum is continually being strengthened by further additions, under the appreciative direction of Mr. Bernard Rackham. This collection is already full of instruction for the student of glass, containing many delightful examples. The Swiss Minister, M. C. R. Paravicini, has now lent to the Museum seven panels of early stained glass, which are exhibited on the stairway leading from Room 131 to Room 112 on the first floor. Some of these panels are of the Salzburg School, others rare and early Swiss work.



Sketches in Northern France.—No. 1. By MR. H. G. H. MILLS. (*See p.* 144.)

GENERAL NEWS.

Professional Announcement.

Mr. James Burford, A.R.I.B.A., has opened an office for the practice of architecture at 3, Staple-inn, Holborn Bars, London, W.C. 1. Telephone, Holborn 1870.

Architect's Estate.

Mr. Ernest Flint, F.R.I.B.A., of Crouch End, and of 80, Coleman-street, E.C., architect and surveyor left estate valued at £16,700 (net personality, £16,481).

Employment in the Building Industry.

According to the current issue of the "Ministry of Labour Gazette," employment with skilled operatives during December (except painters) was fairly good in the building trade.

Hastings Music Pavilion.

The Hastings Corporation has accepted the tender of a Nottingham firm for the building of the new music pavilion on the site of the old East Sussex Hospital, at a cost of £60,930.

Incorporated Church Building Society.

At the monthly meeting of this society grants were made towards building new churches at Ashby, S. Paul, Lincs., £300; and Crosby, S. George, Lincs., £300.

Singapore Post Office.

The contract for the new post office at Singapore, valued at £500,000, has gone to Perry & Co. (Bow), Ltd. It will involve a large expenditure in the United Kingdom for reinforced work.

Obituary.

The death occurred on January 9 of Mr. Edwin Rutherford, aged 47, a well-known Durham architect. During the war he served with the Royal Engineers.

The death occurred, on January 12, at Treforest, of Mr. Frederick Gibson, architect and surveyor, Pontypridd.

Fulham Schemes.

Colonel Vaughan-Morgan, M.P., at a meeting recently convened by the Mayor of Fulham, put forward a scheme that Cheyne-walk, Chelsea Embankment, should be extended to run right through to Fulham. Another proposal was for the use of the Earl's Court Exhibition grounds, a letter being read from the freeholders of the property, the District Railway Company, stating that it was not their intention ever to use the grounds for an exhibition site. A committee was formed to devise schemes and to canvass employers in order to provide employment.

Building Surveyors' Association.

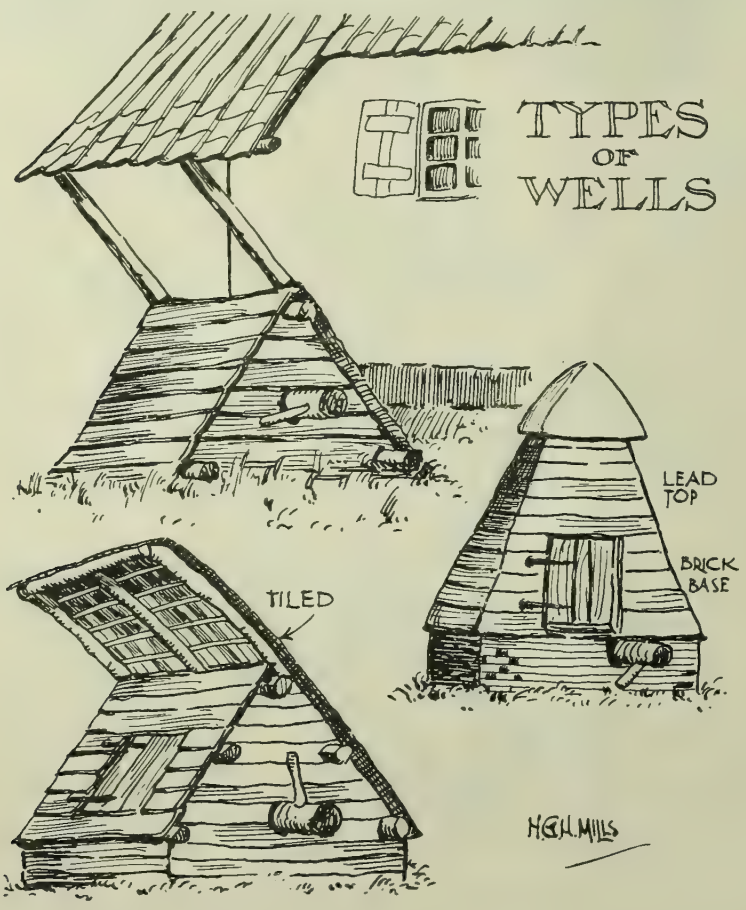
A meeting of this Association was held at Caxton Hall, Westminster, S.W.1, on January 12, for the purpose of forming a London Area Branch. The meeting was representative of members of the London District.

The chairman, Mr. W. J. Stone, M.R.S.I., read the by-laws and objects of the Association, and after a discussion it was unanimously resolved that a London Area Branch be formed. Mr. W. S. Dalton, of the L.C.C., was duly appointed chairman of the new branch, the headquarters of which will be at Caxton Hall, Westminster, S.W.1.

London County Hall.

No decision has yet been reached as to when the new wing required to complete the London County Hall is to be constructed, although work has been proceeding for some time on the foundations. The London County Hall, originally planned to cost about £1,000,000, has already cost well over £2,000,000, and the extension, which was part of the original scheme, will increase the total cost to something like three times the original estimate arrived at before the war.

The plans provided for a building with a strongly-marked centre and two wings. The south wing and the centre are complete, but the north wing is seven bays and the pavilion shorter than the south wing The original cost for the completion of the extension was considered too expensive in 1921, and the County Council is waiting for prices to come down still further.



Sketches in Northern France.—No. 4. By Mr. H. G. H. Mills.. (*See p.* 144).

COMPETITION NEWS

Raffles College, Singapore.

The assessor in this competition, Mr. John Begg, F.R.I.B.A., has made the following awards :—

First premium, No. 17, Messrs. Cyril A. Farey, A.R.I.B.A., & Graham R. Dawbarn, M.A., A.R.I.B.A., 19, Bedford-square, W.C. 1. Second and third premiums, Nos. 16 and 21 bracketed equal: No. 16, Mr. E. Vincent Harris, F.R.I.B.A., 29, St. James's-square, S.W. 1, No. 21 : Messrs. S. Woods Hill & E. C. Henriques, AA.R.I.B.A., Bombay. Hon. mention : No. 10,477, Mr. W. S. Huxley, F.R.I.B.A., 44, Great Russell-street, W.C.

Dudley Memorial.

The assessor, Mr. W. Curtis Green, A.R.A., F.R.I.B.A., has made the following awards in this competition :—

1.—(£300), No. 54, Messrs. W. Alexander Harvey, F.R.I.B.A., & H. Graham Wicks, A.R.I.B.A., 5, Bennett's-hill, Birmingham.

2.—(£200), No. 3, Messrs. Stockdale, Harrison, F.R.I.B.A., & Sons, and Geo. Nott, A.R.I.B.A., 7, St. Martin's East, Leicester.

3.—(£100), No. 6, Messrs. H. V. Ashley & Winton Newman, FF.R.I.B.A., 14, Gray's Inn-square, W.C.

Memorial Designs.

Designs are invited (they may be submitted up to September 30) for a statue in bronze, and pedestal, in honour of Sir Ross Smith, the Australian airman who, in 1919, with his brother, Sir Keith Smith, and two Australian mechanics, made an aeroplane flight from England to Australia. The memorial is intended to cost about £5,000. Conditions and full particulars may be obtained from the Agent-General for South Australia, Australia House, London.

The memorial will probably be set up in Adelaide, Sir Ross Smith's native city.

Worcester.

The Education Committee has decided to invite designs from local architects for the erection of a proposed new secondary school at the Thames House site. Final choice of assessor has not yet been made.

Newcastle Fire and Police Station.

Newcastle City Council have decided to hold a public competition amongst architects for plans for the proposed new police and fire brigade station on the Marlborough-crescent Market site. Buildings are to cover 2,465 yds., leaving the remainder for an open court yard. Exclusive of the installation of alarm system, the estimated cost is £12,500. Three prizes, amounting in all to £900, will be offered for designs, and an assessor, nominated by the President of the Royal Institute of British Architects and approved by the authority, will be appointed at a fee of £281 10s. to adjudicate. Sending-in day, March 27.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Essays on Heating and Ventilating (Mar. 31; Nov. 9, 1923). Holmside Hospital (Feb. 14; Dec. 14, 1923). Industrial Designs (June; Dec. 21, 1923). National Theatre (April 26). Monument to Sir Wilfrid Laurier (April 3; Dec. 14, 1923). Belfast Union Lighting (March; Nov. 9, 1923). Dunfermline War Memorial (March 8; Dec. 28, 1923). Newcastle Concert Hall (March 1; Oct. 26, 1923).

RAFFLES COLLEGE COMPETITION.

THE drawings submitted for these Educational Buildings were on view last week at the Office of the Crown Agents for the Colonies, at Millbank, near the Palace of Parliament at Westminster. Twenty sets of plans, many of them being of extraordinary interest, were submitted to the assessor, Mr. John Begg, F.R.I.B.A., who, as Superintending Architect to the Indian Government for several years, is in every respect qualified as an expert of long experience to advise wisely in a local project of this importance. Unfortunately his award had not come to hand when the public exhibition opened; under these circumstances the preferable course in making our notes upon the designs was to follow seriatim the order of the hanging, which appeared to have been made without prescript and quite casually. Identification was out of the question, as it should be for the purpose of the competitions, although in our review critical or descriptive remarks are not easy to follow.

Commencing at the rear end of the exhibition room the first pair of designs, marked "10321" and "10311," seem to have been submitted by the same competitor, judging by their similarity of style, though they are more unlike in plan. At the outset we may briefly explain that the splendid open site is formed by the tableland on the top of a slope, giving in the main a difference of about 80 ft. drop in front. Herein was comprised an important factor in solving the problem, which consisted in accommodating such varying gradients. Naturally the diverse methods adopted by the competitors produced vastly differing lay-outs. So far as we could follow, some of the designs appeared to have ignored these contours. "10321" locates the School Block with its four internal courts in the middle of the site, the students' blocks being grouped round. A water tower facing the Science Building fronts the southern approach road. The main entrance is on the north, terraced to fit the incline. This has a refined and well-considered façade flanked by hostels, right and left. "10311" transversely disposes of the three main college buildings, and connects them with cloisters; the lecture room blocks are set on the south. In front the Administration Building comes between three hostels. Both designs show reserved taste and much study. In "10383" there are scampering roads which scatter the buildings over the site. The good squarish Assembly Hall, carried out behind the Administrative Block, is worthy of its purpose, with open verandahs, so important in the tropics. Plain and unpretentious, this design is British in idea. "10310" displays local knowledge and the value of covered ways. The airy Library is set behind the front portico which furnishes the centre piece of a capital façade ranging before the Assembly Hall. "10342" flanks his hall with the Art School and Science Department, ingeniously adapting the premises to the various gradients, while forethought situated the "native quarters" apart from the hostels and students' blocks. "10476," quite unlike the rest, adopts a capacious boulevard with the cruciform Administration block in the midst, crowding the space rather, and in front this approach is flanked by the six main buildings of the College. "10441" sends a compact lay-out made up of many quads distributed puzzle-fashion round the administrative centre piece, with a portico on each front leading to the Assembly Hall. This feature in the College will probably not be erected for some years to come; therefore a difficulty may arise when it is incorporated, as many of the designs provide, with parts not immediately essential for use when the College is started,

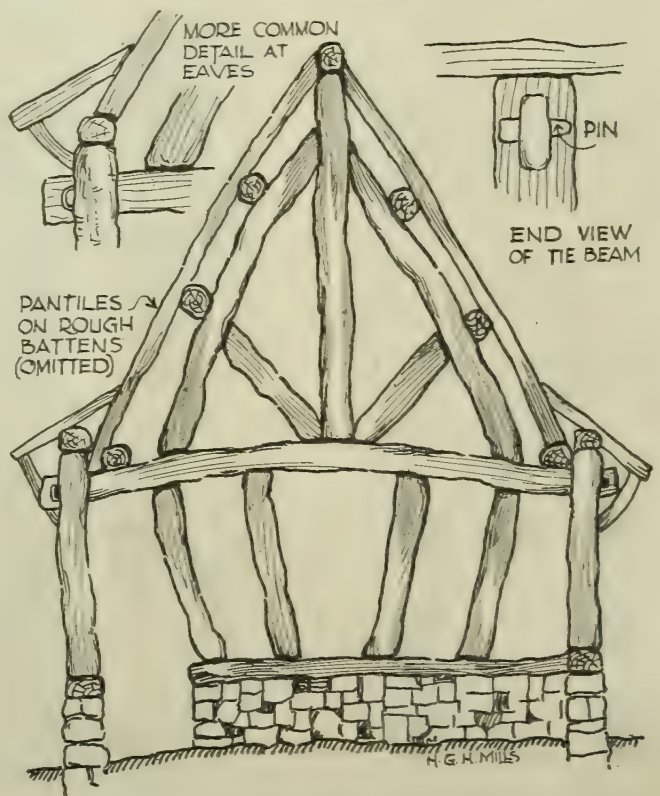
"No. 18" attracts us rather by placing the chief buildings across the site with the Lecture Room buildings disposed on either hand. The Principal's residence is located hard by on the left without intruding needlessly. The ornamental grounds are skilfully laid out with paths geometrically devised, though terraced contrivances to fit the falls are omitted, and no steps are shown. The professors' houses are behind, with playing fields beyond on the north. This is an inexpensive proposal, and presents a scheme with much character worthy of the occasion. The Assembly Hall could be built by itself, as it divides the two internal courts of the main school buildings. The Arts and Engineering Departments are contrived as the frontispiece worked out capably handled as a composition, devoid of pretension and architectural fussiness. "10471" hangs close by, but is of a different order with a plan too cramped for a successful college though not lacking in merit.

"No. 17," shown by nine big strainers of excellent drawings, is quite one of the most satisfactory and meritorious schemes produced for this competition by presenting a direct and practical solution simply devised on broad lines. The hostel buildings flank a great quad, and this is situate where a comparatively level area is obtainable on the little plateau above the escarpment of this Singapore site. The Assembly Hall is complete in itself and adjoins the Administrative Building. It is on an upper floor level above a throughway treated as a cortile. The Hall is admirably contrived with galleries round beyond a colonnade, supporting its segmental ceiling. An apsidal platform recess is well adapted for an organ, also having regard to acoustic efficiency. Offices and business rooms flank the ground floor entry, which leads to the secondary quadrangle in front of the big court previously mentioned. The Library is well arranged and the subsidiary buildings take their proportionate positions proficiently. Ample provision of wide eaves and facilities for good "blow through" ventilation give a sense of airiness so essential even for a hillside college at tropical Singapore. The arched verandahs leave nothing to be desired and greatly enhance the breadth of the façades which, while conforming to the essentials of native architectural comeliness, avoid mere meaningless attachments of the classical orders and entablatures. This proposal relies rather upon a tasteful massing of mural dispositions with monumental proportions adapted to vertical sunshine and Oriental environments. The scheme is comparatively inexpensive. The draughtsmanship is workmanlike and practical, care being taken to set out the falls and gradients so necessary where a site deviates continually in all directions. The perspective is excellent.

"No. 21" looks essentially British in conception, though the architectural embellishment adheres more to Hindu forms. The cupola which surmounts the great Assembly Hall furnishes a handsome composition dexterously devised and located to the hinder part of the Administrative Building, of which it forms a fine constructive finish. The long range of hostel accommodation extending N. to S. along the axial line of the site suggests the likelihood of some complications incidental to the divergence of contour in that direction should the flooring throughout be kept to one uniform level. The verandahs have shafts of Indian character emphasising their vertical lines strongly. Possibly in the sunshine of the tropics this effect might be very different from that suggested by the thick ink lines of these elevationals. The school arrangements are well thought out, and if carried into execution this design undoubtedly would present a handsome and capable college of much architectural excellence. "No. 16" develops in elongated proportions stretching along a terraced lay-out by adapting the curved continuity of the several levels on extended segmental lines. Facility of administration is thus made less easy and vast corridors are unavoidable. The author deserves credit for the ability displayed.

"10475" attaches his Library over the Administrative block to the Assembly Hall, an arrangement suggested by the conditions of the competition, but on the whole the scheme is not exactly attractive. The bulbous dome shown by "10474" may be an oblation to the Orient as marking his Assembly Hall in a recognisable style.

[Since the above was written the award has been made. The result is given on p. 138, and the first premiated design, by Mr. Cyril A. Faney and Mr. G. R. Dawbarn, is given in this issue.]



Sketch in Northern France.—No. 2.
By MR. H. G. H. MILLS. (*See p.* 144.)

CORRESPONDENCE.

A.A. Year Book and Deficit.

SIR,—The office diary now incorporated with "The Year Book of the Architectural Association" is admirably got up and well arranged, with ample space on each page for two days' entries, instead of three, also lined throughout for recording cash accounts. Owing to unfortunate delay members did not receive their copies, or at any rate I did not, till the middle of January, by which time in all likelihood many had already procured their diaries and started book-keeping. A new feature on this occasion is introduced giving miscellaneous technical data and architectural information amplified by several pages of advertisement matter. This thickening makes the volume (measuring 11 ins. by 8 ins.) rather too bulky and heavy to handle for ready reference. Its production, according to the balance sheet, cost £500, modified to some extent probably by the advertisement returns. The "Old Brown Book" was much handier if less pretentious, but its expense was nominal. Having joined the A.A. in 1872 I remember "the day of small things," and admit "being old fashioned enough" to reckon much on "making both ends meet." Consequently, perhaps, I may be forgiven for pointing out how sincerely I regret to learn from the new "Year Book" that on a total income for the session of £17,660 8s. 5d. there still remains a significant annual deficit in the neighbourhood of £700. The sessional subscriptions of 1,649 members reached £2,010 10s. 6d., and the fees from students amounted to £9,497 10s. 2d.; but how this last sum is made up, or by how many students, does not appear. The numbers should be clearly stated, particularly as the Board of Education grant stands at £1,884 10s. How much does this State aid work out per head? I hope my inquiry is not to be considered untimely, for I cannot help urging that under such favourable conditions our prosperous and popular "Alma Mater" ought to pay its way. I need not now go into the various items in the balance sheet, but possibly the overhead charges might be modified more proportionately without loss of efficiency. The rent for the three houses comes to only £475, and rates £241 13s. 4d. The executive and administrative expense, amounting to approximately half the gross receipts, occasions the discrepancy, judging by the figures tabulated in the balance sheet set out in this well-produced brochure.

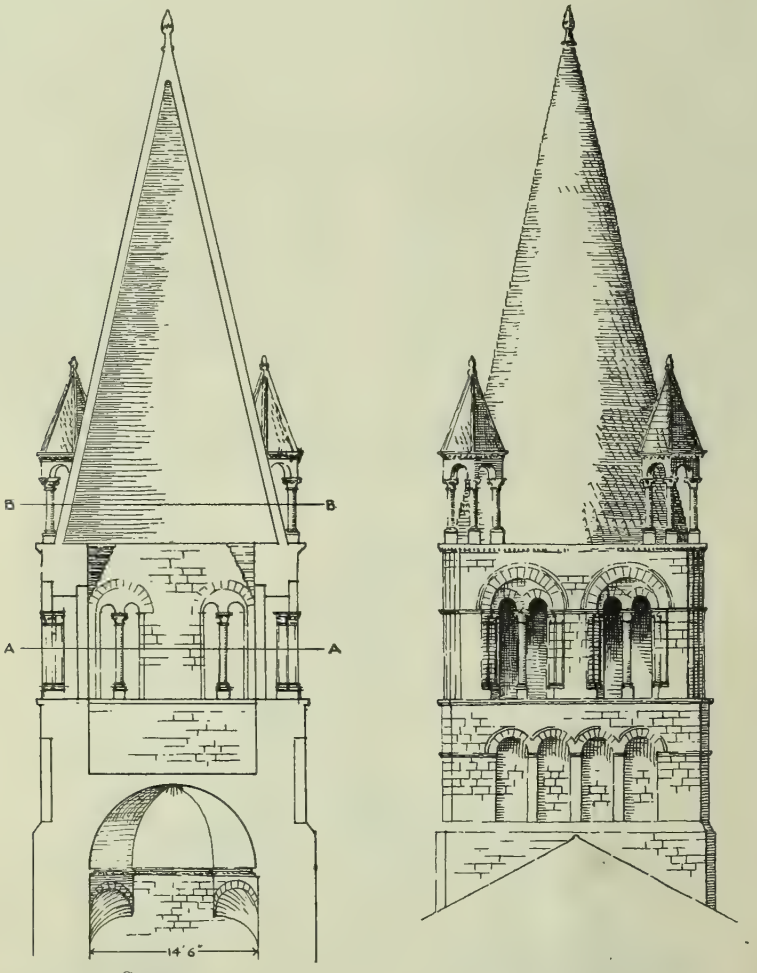
MAURICE B. ADAMS.

London.

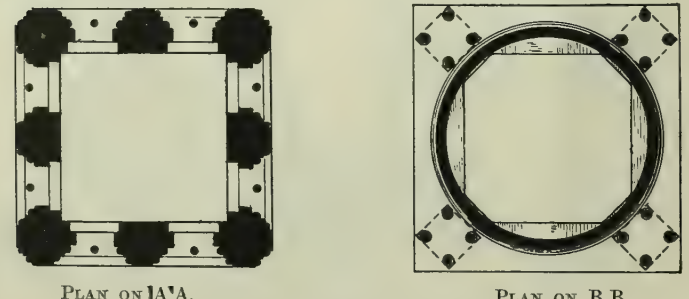


Fig. 5.—Pinnacle of the Tower at Isomes.

(*See p.* 141.)



SECTION. ELEVATION.



PLAN ON A A. PLAN ON B B.

Fig. 4.—Tower of the Church at Roulet. (*See p.* 141.)

Academic Dress.

SIR,—Has not the paragraph in your issue of 18th inst. been written under a misapprehension?

The meeting to which you refer, and which practically filled the available accommodation, was not called, and did not attempt, to give the Royal Institute's decision on the principles of academic dress. This had been done at the large meeting held last May and by a large majority. But it prevented the new Council's endeavour to negative that decision. In these circumstances it surely is not desirable to refer the matter to "the whole profession," especially as only the members of the Institute have any concern in the subject.

E. H. WOODCOCK, A.R.I.B.A.

"Brighter Bristol."

SIR,—I think the following is too jolly altogether to be missed by the general reader:—

Competition Question: Are the stables for mounted Police?

Answer: Accommodation required for horses only.

Evidently, in spite of the "Geddes' Axe," Bristol intends to go on pampering the public services.

"BRISTOL READER."

The Menai Suspension Bridge.

SIR,—Will you permit me to call the attention of your correspondent "H. C." to the clear width and height required for the navigation of the Straits, 550 ft. by 100 ft. (high tide minimum), respectively? He will then see the impracticability of the ferro-concrete arch.

The subject is too important to be decided by what Professor Lethaby calls "the poverty of one mind."

A. HENTHORN STOTT.

Other Letters.

[Several other letters are unavoidably held over.—ED.]

TOWERS AND SPIRES.

III.—Tower of the Church at Roulet.

By SYDNEY TOY, F.S.A., A.R.I.B.A.

AT Roulet, near Angoulême, in the Department of Charente, there is a tower built about the middle of the twelfth century, which, while retaining many of the characteristics, shows a considerable development on those already noted; and this, both in regard to principles of construction and to beauty of form (Fig. 4), the church above which it stands, in common with most of the smaller churches in the south-west of France, is an aisleless building covered by two cupolas, and the tower is built over a bay between the nave and the choir, so that two of its sides are supported by the lateral walls of the church, and two by transverse arches thrown across the building at this point. The bay destined for the support of the tower was especially strengthened, and both the lateral walls and the transverse arches are of a substantial character. The vault above, therefore, finds sufficient abutment in the thick walls by which it is enclosed, aided by the great weight of the work above. The vault itself is of octagonal form, with long and short sides, the latter being carried across the angles on squinch arches.

Above the roof of the church the tower rises in two square stages surmounted by a conical spire and open pinnacles. The first stage, which actually embraces both the vault and the lower part of the belfry, is relieved by plain blind arcades, and the belfry above is pierced on each side by twin windows of two lights. It will be observed that the spire here no longer retains the convex form, observed at St. Front, Perigueux, and at Saintes, but is of true conical form, and rises relatively to a much greater height. A platform is secured for the spire by making its internal diameter at the base greater than the internal width of the tower, so that the portions of the base which cross the angles of the tower are relatively small, and the angles are encorbelled out to support them, as shown in the section and on the plan BB (Fig. 4). The outer surface of the spire is decorated in a manner similar to that observed at St. Front, Perigueux, and at Saintes, and shown in Fig. 2 (vide second article), but that the scales here are pointed instead of being circular. The pinnacles are placed diagonally across the triangular spaces on which they stand in order that their centre of gravity might be brought nearer to that of the spire and their weight thus become more effective than would be the case if their sides were true with the sides of the tower (plan BB, Fig 4).

In design the tower at Roulet is much in advance of any of those already noted. The proportions of the stages to each other and of the tower to the spire are happy, the structure is obviously designed for the purpose of containing bells, and due importance is given to the chamber destined to contain them, the angles of the belfry are moulded, and the whole tower is tied together aesthetically by the string courses, all of which, those at the springing of the arches as well as that between the stages, are continued round the walls. The pinnacles also, while being sufficiently widespread to be effective as loads, are preserved from heavy appearance by their hollow construction. The general effect is pleasing, and graceful to a high degree. Fig. 4 shows a section, an elevation, and two plans of this tower.

The central towers built in the Rhenish provinces during the eleventh and twelfth centuries were principally of octagonal form throughout, after piercing the roof of the church above which they rise. An example of this is seen at Guebwiller, near Colmar. Here the sides of the octagon passing the angles of the crossing are carried on squinch arches, and the tower of octagonal form rises above the roof line in three stages, the first plain and the others pierced by windows, and is surmounted by a stone spire which springs directly from the walls at the top and is also octagonal. Eight pinnacles, one at each angle at the base of the spire, are formed by continuing a portion of the angle of the tower up to a point well above the base of the spire, and from this point breaking back the sides of the projection steeply towards the sides of the spire. This imparts a somewhat crown-like appearance to the upper part of the tower.

Pinnacles, or acroteria, of a similar form occur on the western tower of the church of St. Martin d'Ainay, at Lyons. This tower dates from about the same period as the tower at Guebwiller—the end of the eleventh or beginning of the twelfth century. Here, however, the tower is square, and is surmounted by a low pyramidal spire. The angles of the tower are carried above the base line of the spire, are brought to an acute point, and from this point returned back steeply to the faces of the spire, thus forming earlike triangular projections with the vertical sides in line with the angles of the tower. A more elaborate and pleasing development of these acroteria occurs on the tower of the church of Isomes, near Langres, in the Department of Haute Marne (Fig. 5). The tower dates from the second half of the twelfth century, and rises over a bay of the church similarly to that at Roulet. It is square, rises two stages above the church, and is lighted in the belfry stage by a single window of two lights on each face. The spire is octagonal, and rises rapidly from above the belfry to an acute point. At the base of the spire are four acroteria and four gables. The acroteria occupy the triangular spaces at the angles of the tower, and provide the requisite load at these points. The function of the gables is mainly aesthetic, in that they preserve the continuity round the tower of the broken line given by the acroteria, so that the bizarre effect produced by the isolation of the latter at St. Martin d'Ainay is avoided. Decorated relief is provided by columns at the angles of the acroteria, openings in the gables, and a sculptural cornice which is continued round both the acroteria and the gables. It is probable also that the triangular platforms at the summit of the acroteria were designed to accommodate seated figures of the evangelists, or allegorical subjects. As a result of these refinements, the general effect of the tower at Isomes is far more pleasing, and its character more uniform than is the case in the earlier examples of this treatment at the base of the spire. Provision is made for discharging the rainwater from the spire clear of the tower walls by means of plain gargoyles placed at the junction of the gables and acroteria.

An example of similar treatment of the angles above the squinch arches from the West of France exists at the tower of St. Radégonde, Poitiers, also dating from the twelfth century (Fig. 6). Here the acroteria occur at the base of an octagonal lantern, and surmount very heavy angle columns. Since, in this instance, they are dominated by the lantern above, are themselves of subdued proportions, and have sculptured terminals, they fulfil admirably their aesthetic rôle of breaking the awkward junction between the square at the octagon, as well as their constructive purpose of providing the requisite load at these points.



Fig. 6.—Tower of St. Radégonde, Poitiers.

Tramway Extension at Dulwich.

The London County Council's proposal to extend the tramways from West Norwood to the Crystal Palace met with a good deal of local comment. The trustees of Dulwich College, in particular, were very adverse to the scheme. On the other hand it was contended that the traffic requirements, as well as the growth of the population of the district, justified the extension. At a meeting of the Camberwell Borough Council, recently, the Finance Committee's report, that the Council do not consent to the proposed tramways, was carried.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

A MEETING of the Royal Institute of British Architects was held at Burlington House, W.1, on Monday last.

Obituary.

The Hon. Secretary (Mr. A. Keen) announced the deaths of Mr. Arthur Clyne, elected Fellow 1901, a Past-President of the Aberdeen Society of Architects and the representative of that body on the R.I.B.A. Council, Session 1901-2; Mr. Arthur Clutton Brock, elected Hon. Associate in 1922; Mr. Charles William Reeves, elected Associate 1880.

It was decided that a message of sympathy and condolence be conveyed to the relatives.

CANADIAN ARCHITECTURE.

Mr. Percy E. Nobbs, M.A., F.R.I.B.A., read a paper, illustrated by lantern slides, on this subject. He mentioned, in the course of his paper, that it was just over twenty years since he had been privileged to attend a meeting of the Institute

It was, perhaps, not necessary to embark on a critique of the ugly to justify a claim to their gratitude for not unduly stressing their work from the third quarter of the nineteenth century.

Previous to the cession in 1763, French Canada had a well-established tradition in rouble building, with shingle, and later with sheet tin roofing. Strange to say, the French never evolved a log architecture in Canada, and their clapboard and framing was an adaptation of New England methods founded on prototypes evolved between the Thames and the Channel, where the typical English forests of oak ever gave way to pine. The French-Canadian steeples had always had distinctive character, and the earlier ones were distinguished by simplicity of composition, combined with extraordinary grace. The French window (casement, opening in) had been adhered to with a tenacity almost as great as that bestowed upon language and religion, and only of late years had its supremacy been challenged by the mullioned ranges of casements, and the sliding sash, respective heritages of the English Gothic and Classic traditions. But by far the most characteristic feature of old French building craft in Canada was the exaggerated belleast designed for shade and shelter and an essentially bad snow form. Perhaps its grace had been sufficient justification. It was dead; but it had died hard.

Just after the end of the French régime there was a school of crafts established at St. Joachim, on the north shore of the St. Lawrence, below Quebec. There, among other things, iron latches, locks and cockspurs were made with distinct signs of Gothic method—the only trace of natural, traditional, unrevived Gothic culture he knew of in America. Again, from about 1800 to 1825, one Quevillon established a School of Design and Craft at St. Vincent de Paul, near Montreal, and much of the quaint and interesting work in the way of pulpits and altar-pieces in French-Canadian churches was to be ascribed to his school, which at one time numbered about one hundred apprentices.



FRENCH-CANADIAN CHURCH NEAR QUEBEC
(Built 1750; now demolished.)

Until a century ago there were two well established traditions in Eastern Canada, with French and English origins, both curiously parallel to the contemporary work in the cities of the Baltic. The English tradition was, of course, closely allied to that of New England. The traditions, inherited from the France of the Louis and the England of the Georges, were partly ameliorated by climate and partly by the use of that greatest of all timbers, now well-nigh squandered out of existence, white pine. But the semi-indigenous traditions were no more, for to build in the good old ways has now become desperately expensive, and that part of the goodness which was craftsmanship was quite unattainable. In Halifax and St. John, Quebec, Montreal and Kingston there



CHURCH NEAR MONTREAL (Built 1787; demolished 1885).

were buildings from the design of men trained in the offices of Adams and Cockerel, who came to Canada as civil officials attached to naval and engineers' services. Their works were equal in delicacy and grace—and, he might add, in stability—to anything of the kind in England. But such treasures were in a sad way, and public interest in their preservation was as yet non-existent. A survey of the older architecture was now begun by the students of the Department of Architecture at McGill, while the Province of Quebec Association of Architects had a scholarship for travel and study of old French work. These were poor expedients when public pride was lacking.

Such things belonged to an era that had passed, and exceeded in grace and accomplishment anything done since in Canada. Here and there, up to 1860, a little work in the older manner was still occurring, but a grander scale soon supervened, bringing with it a somewhat vulgarised taste in detail. Thereafter, the most virulent phase of "American Victorianism" had a vogue. Some fine square houses were built about this time, with better detail outside than in, but the vernacular taste became wholly corrupted, and the use of galvanised iron for feigned stonework made all things possible. By 1880 people were no longer building so large; the cycle of economy in scale had set in; but prodigality in the use of pine and oak was still manifest. By 1900 rapidly-rising prices and the depletion of the supplies of the better qualities of timber had inaugurated an era of condensed planning and inferior construction. Craftsmanship disappeared.

Some time about the fifth year of this century, he had the pleasure of showing Mr. Salm, the Dutch architect, the charms of Montreal in mid-winter, and it befell that they sat us down in a then famous hostelry before a mighty jig-saw doorway, manifesting in sundry natural and grained woods, with some gilding, an inarticulate volley of broken pediments and chamfered whatnots. "Why did he make it so ugly?" asked my friend; and again and again, "But why did he make it so ugly?" And then, after a long pause, he grabbed the lecturer by the thigh in enlightenment, and chirruped, "I know! I know! *Because he could not make it any uglier!*" After that they went slumming, and he was charmed with some of the gracious and dignified simplicities of a bygone day, more particularly several buildings since demolished.

The horrors into which the Neo-Greek tradition, after a good start, degenerated in Canada laid open the way for Gothic revivalism, even in its crudest forms, as a welcome relief. This was in turn supplanted by the robust American Romanesque of Richardson during the last twenty years of the century, only to be superseded by a second phase of Gothic, which looked to Mr. Goodhue, rather than the Tudor originals, for inspiration. Their mediævalism was thus seen to be both artificial and exotic in its inspiration. It had been most successful when least scholarly, as in the case of the choir in St. Patrick's Church, Montreal, in which material and climatic considerations joined with a vaguely felt tradition to embody a noble scale and sensitive proportions.

Office buildings were a highly specialised line in what used to be listed as "Yankee notions," and many thoroughly effective examples had been built in Canada both by American architects and Canadians. So also with the institutional work and collegiate buildings, the American models had, for the most part, been followed, with their good and bad points evenly accentuated.

Now, the outstanding curse of life, and therefore of art, on the American continent was standardisation. This vitiated everything from the plans of pantries to the outlook on foreign affairs, and carried with it a vast momentum of inertia. So, one town became like another throughout the States of the Union and, by an infection which there was no possibility of avoiding and no use in denying, throughout the provinces of Canada as well. The older towns still had the bouquet and savour of individuality. Halifax and St. John retained their rugged silhouettes on ridge and crag; Quebec, her discreet fronts on narrow and precipitous lanes, with dainty spires wherever a church might cling upon her slopes; Three Rivers, her ancient memories in stone; Montreal, the disordered picturesqueness of a lingering eighteenth-century civilisation at odds with modern commercialism; Kingston, her forts and her Palladian façades; and London (in the bush) her shaded avenues of elms.

Toronto, till the other day, possessed an element, if not of the picturesque, at least of the intimately reminiscent, that brought to mind the flavour of old English towns. Then that was taken away, as they knew; it was the public-houses redolent of the "putty, brass and paint" of old England.

The smaller towns of Ontario still retained a certain charm due to a not over-accelerated development. But the cities of Ontario, and the cities and towns of the plains, were American, with certain very American standard features such as useless but elegantly designed columnar porticoes to the banks, and useless and ill-designed Gothic towers upon the churches; and, where educational institutions of any importance occurred, a display of collegiate stage-setting, mullions and buttresses, and parapets all turned out by the acre, with a singular lack of all that Mr. Prior would understand as of the Gothic spirit. Now, in the Eastern States of the Union, the demure and legitimate classic inherited as a real tradition from Georgian times was able to achieve solutions for all manner of collegiate problems.

Materials throughout Canada varied about as much as they did in the similar range of distance from London to Moscow. Of lumber the best went abroad, White pine had been wantonly exhausted. British Columbia fir was now used even in Nova Scotia. Except birch and maple for flooring, all good hardwood came from the United States. Barring the West, all lumber was now inferior or expensive, or both, a striking



A French-Canadian Cottage.

example of exploited natural resources. In Alberta there were superb brickfields, whose product matched the best in the United States—that was in the world—but the brickfields of the chief centres of population yielded sound material, uninteresting in texture and colour. Most first-class face brickwork in Canada was done with American bricks. The situation as to stone was similar. Most stone used came from the States. Nova Scotia, Quebec, Ontario and British Columbia had granite, and some of the plants were as highly developed as any in the world. The grey limestones of the St. Lawrence Valley, Kingston, Montreal, and Quebec were unsurpassable as a dignified material, but they were costly to work compared to the softer sandstones and limestones from the States. The olive sandstones of Alberta and New Brunswick are sad in tone and not really comparable with the grey limestone or American sandstone for weathering quality. Winnipeg had a pale limestone with a strong shell mark admirably suited to large scale work; this found its way as far east as Montreal and as far west as Edmonton. Material had thus but little local significance in Canada. In many cases, whole streets of buildings had involved transport in the raw over five hundred miles and more, from half a dozen directions.

Now, as to the culture which found a general expression in Canadian architecture through the co-operation of the lay and professional minds, there was, of course, that easy generalisation to fall back upon about Canada as an interpreter of Britain to America, and America to Britain. For this view there was some superficial corroboration in the fact that to English eyes Canadian architecture was very American, while to American eyes it often appeared a little English. But all travellers were predisposed to react to the unfamiliar.

Strenuous efforts were made from time to time in magazine articles, novels, histories and caricatures to elaborate a Canadian type—so far without success, for the all-sufficient reason that there were many types, all abundantly characteristic, and much water would pass down the Great Lakes before there was assimilation. The best rooted elements of society in the Maritimes, in Quebec, in Ontario, on the plains, and on the coast, were all distinctive, and long would they remain so. Current Canadian architecture, however, did not reflect these distinctions at all. An understanding of the constituent elements of the architectural profession in Canada was necessary to explain this.

A word upon the building trades in Canada. They were not as highly unionised as in England, but unionisation was an international affair in the United States and Canada. The effect of this was complicated by the racial apportionment of the several labours of building in a district, and the prevalence of racially homogeneous gangs for different work on a job. Apprenticeship was practically non-existent. The trade schools had so far failed of their purpose. As a result the skilled trades were recruited by immigration from overseas. Against such recruitment the "progressive" influences marshalled their strength. Meanwhile the building booms of their prosperous protectionist cousins to the south robbed them of such skilled labour as they might generate or capture.

In the large communities of Canada skilled men could, indeed, be found to carve, model, hammer, cast or paint anything the wit of man could conceive, but they were few, and very inadequately remunerated, and facilities were woefully lacking for the dissemination of their craft knowledge. A few shops still retained the high standards of execution of a former generation, but very few. Within his own experience the standard of execution had gone steadily down in spite of a great improvement in professional services, so far as drawings and details were concerned. A certain mechanical perfection of execution could, it is true, be realised at a price, but for the time being the vital touch and sense of craft had departed from their midst.

As to Canadian contractors, generally speaking, both great and small, were of high ability, conspicuously so in all matters of organisation and administration. They were not, however, invariably masters of their craft. The present tendency was for the execution of works to be regarded as a profession requiring a college training in civil engineering or in architecture. The man bred in the builder's yard thus often found himself in a subordinate capacity, and so tended to extinction. As a consequence, great actual responsibility fell on the clerk of works. A good one would often shoulder the real control on a job, the contractors putting themselves quite cheerfully in the position of agents to assemble material and labour, as required, leaving the clerk of works to issue all instructions. This led to rather subtle situations now and then; but generally to very good value for the client's outlay.

As the ordinary surveyor was all but unknown in Canada, and the contractor took his own quantities (rarely requiring more than a week even on a big undertaking), everyone concerned on a job had a good deal more discretion as to interpretation than with the English system. This added to the architect's responsibilities, but on the whole it made for self-respect, and professional dignity and standing on the part of the contractor.

In conclusion he had come to appreciate architecture most when she came simply robed in scale and cloaked in proportion, leaving off her heirloom adornments and abstaining from the garlandings of the season. Thus one could best conjecture both the grace of her limbs and the moods of her heart.

Discussion.

The Right Hon. Sir Hamar Greenwood, Bart. P.C., in moving a vote of thanks to the lecturer, said in connection with architecture he liked assurance. The architecture of the old castles of England consisted of serious motives rooted in fear, and was reflected to-day in the immense walls surrounding those who inhabited huge houses. In Canada the element of fear was unknown, and their architecture, at any rate, did not possess the immense walls that ruined the landscape of England. He regretted that the Canadian Government had not taken steps to preserve, historically and literally, those structures that represented the commencing of architecture in romantic Quebec. He would impress upon the Commissioner the necessity for taking steps to preserve ancient buildings which now formed one of the great traditions of that part of the British Empire.



A French-Canadian Cottage.

After Mr. W. C. Noxon had seconded the vote of thanks, Professor Beresford Pite said the lecturer had taken a wide and sane view of the architecture of a great country. It was a valuable contribution to the profession, but he was not sure what the lecturer was looking for in his description of Canadian architecture. The sense of scale was the most impressive thing in the buildings shown. In regard to the influences in Canadian architecture which had been derived from America, he thought it would have been better if they had turned their attention to the elements of the Old World. Few of the buildings shown appealed to the higher qualities of thought and life. The buildings of religion and education had only been slightly referred to. Perhaps they were not in the purview of the paper. Ultimately there was no spiritual appeal in commercial buildings; there was an absence of a deep and subtle feeling of serious reflection, although he did not suggest putting a facile spiritual meaning on an ordinary design. The impressive buildings of the world in all ages had been buildings devoted to other purposes than commerce or self-aggrandisement: it was unchallengeable.

After the President had put the vote of thanks to the meeting, and Mr. Percy Nobbs had briefly replied, the Secretary read the Deed of Award of Prizes and Studentships for the current year as follows:—

PRIZES AND STUDENTSHIPS.

The R.I.B.A. Essay (Silver Medal and 25 Guineas).—The Council regret that they are unable to award the Prize.

The Travelling Studentships (The Soane Medallion and £150).—The Council has awarded the Medallion, and, subject to the specified conditions, the sum of £150 to the author of the design submitted under the motto "England." Mr. J. S. Kelsall, Eastbourne.

The Pugin Studentship and £75.—The Council regret that they are unable to award the Pugin Studentship.

The Owen Jones Studentship and £100.—The Council has awarded the Certificate, and, subject to the specified conditions, the sum of £100, to Mr. J. H. Sexton, Battersea.

The Grissell Gold Medal and £50.—The Council regret that they are unable to award the Prize.

The Ashpitel Prize.—The Council has, on the recommendation of the Board of Architectural Education, awarded the Ashpitel Prize (which is a prize of books, value £10, awarded to the candidate who has most highly distinguished himself among the candidates in the Final Examinations of the year) to Mr. Eustace Harry Button, of No, 1, Royal York-crescent, Clifton, Bristol, Probationer 1920, Student 1921, and who passed the Final Examination December, 1923.

The R.I.B.A. Silver Medal for Recognised Schools.—The Council has awarded the Silver Medal for the best set of drawings submitted at the Annual Exhibition by Post-Graduate Students of the Recognised Schools exempted from the Final Examination to Miss Isabel Maud Chambers, of the Architectural Association School of Architecture.

Cheadle Development Scheme.

A contract consisting chiefly of large girders and roof trusses to the extent of, we understand, nearly 1,000 tons, has recently been placed with Messrs. Lambourne & Co., of Manchester, and will provide employment for some months at their Openshaw works. The steelwork is to be used in the erection of an engineering works involving building covering many acres of land, in connection with the industrial development scheme at Cheadle.

THE LAW RELATING TO BUILDING.

By W. T. CRESWELL, LIC.R.I.B.A., F.R.S.I. (*Barrister-at-Law*).

III —REMUNERATION.

"Implied" Agreement.

When an architect or surveyor enters into a contract for the employment of his services, his remuneration will, in general, be provided for in the contract; but if no such provision is made, then there is an "implied" agreement on the part of his employer that he shall be paid "reasonable" remuneration. This agreement is constituted by the request and acceptance of the architect's or surveyor's services. See Manson *v.* Baillie (Sir W.), Bart. (1885) 2 Macq. 80. Nevertheless, plans, designs or suggestions may be requested for the approval only of a prospective employer, in which case, of course, no fees can be claimed unless the work is approved; or, at any rate, made use of by the employer. See Moffatt *v.* Dickson (1853) 22 L.J. C.P. 265.

Competitions.

Again, such plans, &c., may be submitted in response to a general invitation in open or limited competition, in which case, unless remuneration is offered to all competitors in the terms of the invitation, unsuccessful competitors cannot claim any remuneration unless they are able to prove that their plans, &c., or any portion of these, have been used, either for the work advertised in the competition, or for any other purpose not mentioned therein. See Landless *v.* Wilson (1880) 8 Court of Sessions, Cases 289.

Supposing, however, it is expressly stated that plans, &c., will not be paid for, but that, in the event of any architect's or surveyor's plans, &c., being accepted and a decision on the employer's side to carry out the work according to those plans, the architect or surveyor will be paid fees for supervision in this case, and supposing his plans are used and he is *not* employed to supervise the works, he has a legal complaint. See Moffatt *v.* Laurie (1855) 15 C.B. 583. If, under any circumstances, the conditions of his employment are to make plans *and* to supervise works, then he is entitled to reasonable remuneration even if the work is not proceeded with. See Burr *v.* Ridout, *The Times*, Feb. 22, 1893. In such a case he would be entitled to bring an action for damages for breach of contract in respect of his supervision of the works See Horton *v.* Hensley, *The Times*, February 19, 1908.

Manner of Payment.

Should there be no mention in the contract of the times and manner of payment of fees, the architect or surveyor will, in general, be entitled to payment by instalments as the work proceeds. See Appleby *v.* Myers (1867) L.R. 2 C.P. 651. Should his undertaking, however, be to supervise the execution of an entire contract, payment being by way of commission on the total cost, he may not be able to enforce any remuneration until the work is complete. See Johnson *v.* Gandy (1855) 26 L.T. (O.S.) 72. Instalments, when due under the terms of contract, are "debts due and payable," and the architect or surveyor is at once entitled to sue for payment. See Workman Clarke & Co., Ltd., *v.* Lloyd Brazileno (1908) 1 K.B. 968.

"Reasonable Remuneration."

The decision of what is "reasonable" remuneration is based on the nature of the work requested and done, the time occupied, and, to some degree, on the professional standing of the architect or surveyor employed. If it is a condition of the contract that a reasonable fee will be paid, and, if he has reason to believe the employer acts unfairly in his final offer of remuneration, the architect or surveyor may take the matter into Court, when a jury would decide what is reasonable. See Bryant *v.* Flight (1839) 5 M. and W. 114. Further, if he is specially employed for additional works, such as measuring for extras and omissions, variations, &c., the employer is responsible for payment to him of extra fees or commission, not the contractor.

Forfeiture of Fees Already Paid.

In Columbus Co., Ltd., *v.* Clowes (1903) 1 K.B. 244, it was laid down that, even if an employer have finally paid fees to an architect or surveyor, the latter may be compelled to refund the whole or a part of such fees, if he have wholly or in part shown lack of skill, by reason of which the employer derives no benefit or only partial benefit from his services. In this case the plaintiffs, in 1897, being lessees of land in Carmelite-street, employed the defendant as architect to prepare plans and specifications, &c., and to engage a quantity surveyor to prepare quantities—for the erection on the site of a factory and offices. The defendant neglected to measure the site; and, acting on unauthorised information in that particular, prepared plans, &c., for a site smaller than that to be built upon. The plaintiffs subsequently found they were unable to raise the necessary funds for the scheme and agreed to pay the architect £200 for his plans, &c., and the quantity surveyor £200 for work done. In 1901 plaintiffs sold the site, when the plans were more carefully examined. It was then discovered that they did not meet the dimensions of the land, and plaintiffs sued defendant for the return of the £200 paid to him; upon a consideration that he totally failed to exercise due care and skill, or in the alternative for damages for negligence. It was held that there had not been a total failure of consideration, but that the plaintiffs were entitled to damages, which damages were nominal, since the plaintiffs had not been in a position to use, or suffer loss, by reason of the faulty plans, &c. Plaintiffs were therefore allowed £40, being the estimated charge for adapting the bills of quantities to the dimensions of the actual site.

Scales of Fees.

Certain institutions—*e.g.*, the Royal Institute of British Architects—have prepared scales of professional charges, mainly based on percentages of the total cost of works carried out; but these, as being recommended by those who are to benefit themselves, have not been viewed favourably by the Courts, and are in no way binding on an employer unless specifically agreed to by him. Juries have, however, usually accepted these scales as "reasonable"; and, in any case, it has always been held that any scale or practice in reference to remuneration, if adopted by a large proportion of the profession, should be considered as a reliable guide by the Courts.

"Ryde's Scale" has more than once been condemned in court as "not being the customary scale of fees which surveyors can insist on receiving" and in Faraday *v.* Tamworth Union (1916) L.J., Ch. 436, the Court refused to assess remuneration on a *quantum meruit* claim by reference to this scale.

Under the Housing Acts the Ministry of Health have determined the scale of fees payable for work in connection with housing schemes, but this is an exceptional case.

Ownership of Plans, &c.

When an employer employs an architect or surveyor in the usual way, does he purchase the plans, &c., or only the use of them for the work proposed? Collins, M.R., in giving judgment in the case of Gibbon *v.* Pease (1905) 1 K.B. 810, said "the contract results in the making of plans, the property in which passes to the building owner on payment of the remuneration provided under the contract, The case cannot be distinguished from that of a contract to paint a picture or design a coat of arms, as to which no question of ownership could arise." However, it is the custom for the architect to retain the plans, even though such custom has been held to be unreasonable and, in any case, he has a lien on them until final payment of his fees.

It may be added that in the above judgment, the case of Ebdy *v.* McGowan, *The Times*, November 17, 1870, in which similar questions arose, was considered and approved.

It would appear therefore that when an architect or surveyor is employed to prepare plans, &c., for remuneration, such plans, &c., become, when paid for, and in the absence of any specific agreement to the contrary, the property of the employer; and, consequently, that he can make any use of them when he pleases.

SKETCHES IN NORTHERN FRANCE.

In sending the sketches, given in this issue, Mr. H. G. H. Mills, of Egham Hill, Surrey, writes:—

"These sketches were made in the country districts of Northern France, the principal interest being the manner in which natural building materials are made use of, in forms of construction sound in principle and well suited to the requirements of a rural population at small cost.

"The walls are generally of roughly squared timber posts, rough lathing, and covered with a coarse plaster or clay lime-washed, or sometimes weather-boarded in the case of outbuildings, and are superimposed on a foundation carried about 2 ft. above ground level, of rubble or brickwork, either being invariably tarred. The roofs are usually pantiles on rough battens, and carried well down at the eaves, the whole giving a very pleasing external appearance, an idea of three different types being given in Sketch No. 1.

"Sketch No. 2 is a truss in an outbuilding, of which the partition forms part, a detail of a more common construction at the eaves, and an end view of the tie beam. The latter is of most interesting construction, being carried through the wall post of the truss and secured by a pin or cotter, and thus utilised to prevent the wall spreading. This form of construction is very common.

"Sketch No. 3 is of a weather-boarded end, covering a more elaborate truss, the construction of which can be fairly well seen, and is more fully indicated by the diagram. The tie beam would normally be covered, the weather-boarding in this particular case having carried away.

"The wells (Sketch No. 4) show, in two cases, an attempt to provide some sort of weather protection to the 'drawer.' The winding apparatus is very primitive, and the wells are generally placed in positions which violate all principles of hygiene, but contaminated water appears to have little effect on those inured to it."

Obituary.

We regret to announce the death of Mr. William Higgs (the senior governing director of Higgs & Hill, Ltd.), who died at his home, at Stockwell, on January 17, in his seventy-second year. Mr. William Higgs was the eldest son of William Higgs, the founder of the business carried on at Crown Works, South Lambeth. He entered his father's business in 1868, and continued with him till his retirement in 1874, when he was joined by the late Mr. Joseph Hill, who, prior to this, was trading with his brother, in Islington, as Hill & Sons. The business was carried on at Crown Works from 1867, under a deed of partnership, until 1898, when it was converted into a private company, the sons of the partners becoming directors. Mr. Higgs devoted his private life to the Spurgeon's Orphan Home, of which he had been trustee since his father's death forty-one years ago, and treasurer since 1900. The interment took place in the family grave, at Norwood, on Monday the 21st inst.

The death has occurred, at the age of eighty-three, of Mr. John Williams, Pencoed (Glam), founder of the Pencoed Brick Works.

R.I.B.A. STUDENTS' COMPETITIONS.

IT is not a great year amongst the R.I.B.A. prize-winners, but we can hardly expect a revival of the keen interest which was felt years ago in these competitions until we get some fresh life and interest into our students' work. We fear there is a lack of some inspiring quality, and yet it should hardly be so, for architecture is not without ardent devotees both amongst our older and our younger men. We sometimes think our students are apt to forget that whilst study and knowledge, effort and tenacity, are very valuable things, they are only, in a sense, the tools with which we work, and an innate consciousness of the artistic appeal must accompany our efforts if we are ever to create beautiful work. We have the greatest admiration for the pluck and hard work which so many drawings at the Institute show from year to year, but we cannot help asking where it all leads. Take, for instance, the interesting subject for the Soane Medallion this year—a cathedral church. However we may fortify ourselves with considered details of measurement and construction, the main idea of such a building is to create a great structure which shall not only make worship conveniently and comfortably possible, but by its exterior expression shall satisfy our need for beauty, help to elevate our thoughts, and typify our aspirations.

We admit that a fine plan suggests all sorts of beautiful possibilities in elevation to the imaginative mind, but we venture to think that a certain disappointment meets us in all these cathedral designs when we turn from the plans to see how they are expressed in elevation.

Do our students feel a thrill of pleasure when they sit down to rear the fabric from the plan? Do they very really try to evolve some beautiful quality of dignity of tenderness of mass; some sense of breadth and repose, or some gem-like quality of beautiful detail? We can hardly believe, judging from the average designs we see, that they are anything more than a more or less arduous task. We should like thoroughly to discourage everyone who is aiming to practise an art for which his mind and thought are unfitted, but we would encourage to our utmost any evidences of a capacity to appreciate the qualities of fine architecture. We have seen in our time many extremes of statement, and amongst them there have been alternating a warning or a praise for good draughtsmanship. This is one of the things a student must settle for himself, but he need no more be discouraged because he cannot accomplish great tricks or great cleverness in draughtsmanship than he should be afraid that fine draughtsmanship will mislead him in his work. We ought not to be afraid of our critics. If we see a student becoming so distinguished in his mere handling of a pen or pencil that he neglects or injures his design through it, we should be inclined to think he had, after all, found himself in one thing though he had lost himself in another.

We feel that these annual competitions only answer their purpose if they give inspiration to those who are capable of profiting by it and gain encouragement in their studies. We still think the lessons of art which they are supposed to teach are aimed too high, and that simpler subjects would be better.

The Soane Medallion subject is an Anglican cathedral church with a nave floor area of 15,000 square feet. There was no limitation as to style, and the walls were to be faced with stone. What may be considered the most originally treated church is a sort of early Flemish Gothic design, "Phœnix," with a strongly pronounced verticality. It has lofty, double flying buttresses and very tall, narrow windows, no string courses or parapet moulding. Over the crossing is a lofty tower some 14 ft. square, with belfry windows 30 ft. high. A good character and proportion is observed throughout. The width of nave and aisles is about 50 ft., and the vista from narthex to altar is about 220 ft.

"Seep" has a fine monumental plan. The nave is only 25 ft. wide, aisles of about 10 ft., and outside that are six chapels north and south, of same width as aisles. The transept is of same width as the nave, with similar aisles. The east end has a semi-circular apse, with six radiating chapels, and in the centre between these the lady chapel is prolonged out to the east. There is a saucer dome over the crossing, 70 ft. diameter. The exterior is well treated, with an octagon lantern at the crossing and an outstanding square belfry tower. This detail is carefully thought-out, but there appears to be little or no light in the building.

"England" is a design in middle-pointed Gothic, worked out with some care and quality. The nave and aisles, about 55 ft. wide, with two low square towers flanking the crossing of nave and choir, and incipient towers at the west end.

"Dean" has an admirably treated design, very well drawn. The interior is designed with boldness and in good proportion, the east end suggesting the Baths of Caracalla. The columnar arcade to the aisles is good. The twin flanking towers and dome between and simple mass of the whole group would be telling. The design does not suggest nearly so large a building as that indicated in the conditions, and the large spacing of parts would lessen the apparent size, as in the case of Bentley's Westminster Cathedral. The author of this design, if he is not forced into other ways, should go far. It is a pleasure to see a design so well and feelingly drawn; it is quite nice sometimes to see good draughtsmanship not aping Beaux-Arts methods.

"La Trinité" does even worse to belittle his building, for he has only two wide bays and one small one to his nave. The proportions of the design are unhappy. "Lampsacus" shows a design with some Greek feeling, but the proportions are not very pleasing.

For the Pugin studentship, Donald H. McMorran has several careful drawings of the beautiful church of Northleach and a few quite good freehand sketches. Jas. F. Hampton shows a large selection of interesting subjects. W. J. B. Price has made some interesting choice of subjects, but his work is rather heavy-handed. Claude J. W. Messent has some nice drawings, but no freehand sketches; there are good subjects in the East country: and they include the unusual door of Salle Church, Norfolk. Altogether, the Pugin Competition has fallen from its high estate this year.

For the Grissell Gold Medal there is only one design—of a motor garage engine factory. The construction is carefully worked out, but the design is very poor.

In the Owen Jones Competition the drawings by J. H. Sexton show commendable power of illustration, and his design for wall-painted decoration for a guild room shows some real knowledge of colour effect.

Some excellent drawings and sketches by N. Goodson and D. S. Holt (Tite Prizeman, 1922) are exhibited. One or two, at least, are almost models of what a drawing may be at its best.

It is quite a treat to look over the admirable studies by Mr. A. Newton Thorpe, the Pugin Student, 1923. We have never seen anything better, and when the history of our contemporary draughtsmanship is fairly represented it will not do to overlook such things as Mr. Thorpe's "Poppy Heads in Southwold Church." It is indeed good to see draughtsmanship so evidently speaking from the feeling of one who appreciates his subjects so well.

Irish Housing.

President Cosgrave introduced in the Dáil recently a bill providing £300,000 to facilitate the building of dwelling-houses, by grants to builders. Since the war, he said, an enormous difference had existed between the cost of working-class houses and the price people were able to pay for them, and it was to some extent the object of the Bill to bridge that difference.

R.I.B.A. MINUTES.

WE take the following notes from the Minutes of the Council meeting held on January 7:

Visiting Board for the Recognised Schools.—On the recommendation of the Board of Architectural Education, the Council sanctioned the creation of a visiting board to assist and report upon all schools applying for or enjoying exemption from the Royal Institute Examinations.

Interchange of Students between Schools of Architecture.—The Council accepted the principle of the interchange of students between one recognised school and another on the understanding that, in the case of such students, exemption from the examinations of the Royal Institute would be granted only on the joint recommendation of the Head of the School and the external examiner or examiners.

It was also decided that in the event of students from schools of architecture not recognised (for exemption from the examinations of the R.I.B.A.) entering a course at a recognised school, each application from such a student for exemption from the the R.I.B.A. examinations should receive sympathetic consideration on its merits.

Ashpitel Prize, 1923.—On the recommendation of the Board of Architectural Education, it was decided to award the Ashpitel Prize for 1923 and the Mark of Distinction for Thesis to Mr. E. H. Button.

Shortage of skilled labour in the building industry.—The National Federation of Building Trades' Employers and the National Federation of Building Trades' Operatives have accepted the invitation of the Council of the R.I.B.A. to appoint representatives to take part in a joint conference on the subject of the shortage of skilled labour in the building industry.

MEETINGS.

FRIDAY, *January* 25.

Royal Institution of Great Britain.—Sir Aston Webb on "Future Development of London." At 21, Albemarle-street, W. 1. 9 p.m.

Glasgow Architectural Craftsmen's Society.—Mr. A. Cullen on "Notes on the Building Stones of Scotland." At Royal Technical College. 7.45 p.m.

SATURDAY, *January* 26.

Royal Institute of British Architects.—Visit to the Bank of England.

MONDAY, *January* 28.

Architectural Association.—Mr. B. Oliver on "Case for the Preservation of Old Buildings." At 34, Bedford-square, W.C. 1. 7 p.m.

TUESDAY, *January* 29.

Society for the Promotion of Roman Studies.—Mr. R. G. Collingwood on "British Frontier in the reign of Septimus Severus." At Burlington House, Piccadilly, W. 1. 4.30 p.m.

National Federation of Building Trade Employers.—Annual Dinner. At Hotel Victoria, Charing Cross, W.C. 2. 7.15 p.m.

University of London.—Mr. G. A. Sutherland on "Acoustic Demands in Auditorium Design." At Gower-street, W.C. 1. 5.30 p.m.

WEDNESDAY, *January* 30.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Roman Architecture." At Southampton-row, W.C. 1. 6.30 p.m.

THURSDAY, *January* 31.

Auctioneers' and Estate Agents' Institute.—Mr. M. Beavan on "Valuations." At 34, Russell-square, W.C. 1. 6.30 p.m.

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ILLUSTRATIONS.

The Raffles College, Singapore.

In their report, the authors of the successful design, Mr. Cyril A. Farey, A.R.I.B.A., and Mr. G. R. Dawbarn, M.A., A.R.I.B.A., state:

"The main College buildings face north-east. This choice is governed by the following considerations:—

"(*a*) As the sun passes almost directly overhead from east to west, it is very undesirable that any building should face either due east or due west. On the other hand, the atmosphere of Singapore is so humid that it is highly desirable that direct sun should be able to enter every room for a short time every day. That this may be attained, and that the rooms may, at the same time, be kept cool, a north-east aspect is considered ideal.

"(*b*) A spur runs from the hill summit in a north-east direction. An economic, and, at the same time, symmetrical lay-out, has been obtained by placing the buildings astride this spur, the axis of the spur being taken as the axis of the scheme.

"(*c*) The Bukit Timah-road is the most important boundary. By choosing a north-east aspect, a comprehensive and effective view of the scheme is obtained from this road.

"The houses for the European staff and the three hostels, occupy the summit of the hill. The main College buildings are 13 ft. lower. All the principal buildings are thus on high ground. Great care has been taken to minimise 'cut and fill.'

"The Administrative block is placed on the main axis, and is in direct communication with the main College buildings. Cars and pedestrians have direct access to this block from the main approach without first entering the quadrangles.

"Although the lay-out has been conceived on the assumption that the complete accommodation given will be required, care has, at the same time, been given to so dispose the blocks which are to be erected immediately, that, as they are completed, they will group together and will be in due relation to each other.

"The main College blocks have been planned so that they can, if necessary, be extended at some future date. These possible extensions are suggested on the lay-out plan by dotted lines.

An area for playing fields is reserved axially beneath the sports pavilion, whence a comprehensive view could be obtained.

Each hostel looks over its own garden and has direct access thereto.

The main approach is from the Bukit Timah-road and ascends gradually to the administrative block.

On either side two quadrant carriage drives proceed under the Arts and Engineering Blocks and ascend past the hostel blocks to the road containing the staff quarters. The College quadrangle is intersected by two paths connecting the main entrances to the different blocks, and the hostel quadrangle has a continuous path surrounding an uninterrupted lawn.

Complete circulation is provided in the various buildings by verandahs containing large openings to the air.

The Science Block is grouped with the other buildings, included in the first building operation

All three Hostels give precisely the same accommodation for students' quarters, all rooms being protected by ample verandahs. Each student has a cubicle opening on to a verandah. Rattan swing half-doors are fitted allowing continuous ventilation whilst allowing adequate privacy. The pitched roof runs over the verandahs and is ventilated at ridge and eaves.

The five houses for staff quarters included in the first operation are grouped together as one unit. On the ground floor verandahs are placed on all sides except N.E. The first floor is protected by broad 4 ft. eaves.

In the provision for future building operations, in respect of the administrative block, the porte cochère gives access to the waiting hall, whence there is access to the principal and the registrar, to the main quadrangle, and to the great stair leading to the hall above. On the right is the librarian's wing and on the left the stage, with retiring rooms; also caretakers' rooms and chair store for 500 chairs. The library is combined with the great hall, the books being housed on three levels. In the galleries tables are provided where the students can work direct from books of reference. Additional rooms are provided for manuscripts and special collections.

The design for the arts block is only tentative and has not been fully worked out.

The engineering block is also very tentative and no comments are necessary at this stage.

The sports pavilion is on slightly rising ground overlooking the whole of the playing fields.

Quarters for 20 general servants are shown in the form of a court, three sides of which are formed by rooms of about 90 ft. sq.

A similar plan is adopted in quarters for six gardeners.

Additional staff quarters are all placed on high ground and are similar in type to those previously dealt with.

The architectural style adopted is of collegiate character and it has been thought desirable to group the main buildings around two quadrangles in order to give the collegiate character of the older universities.



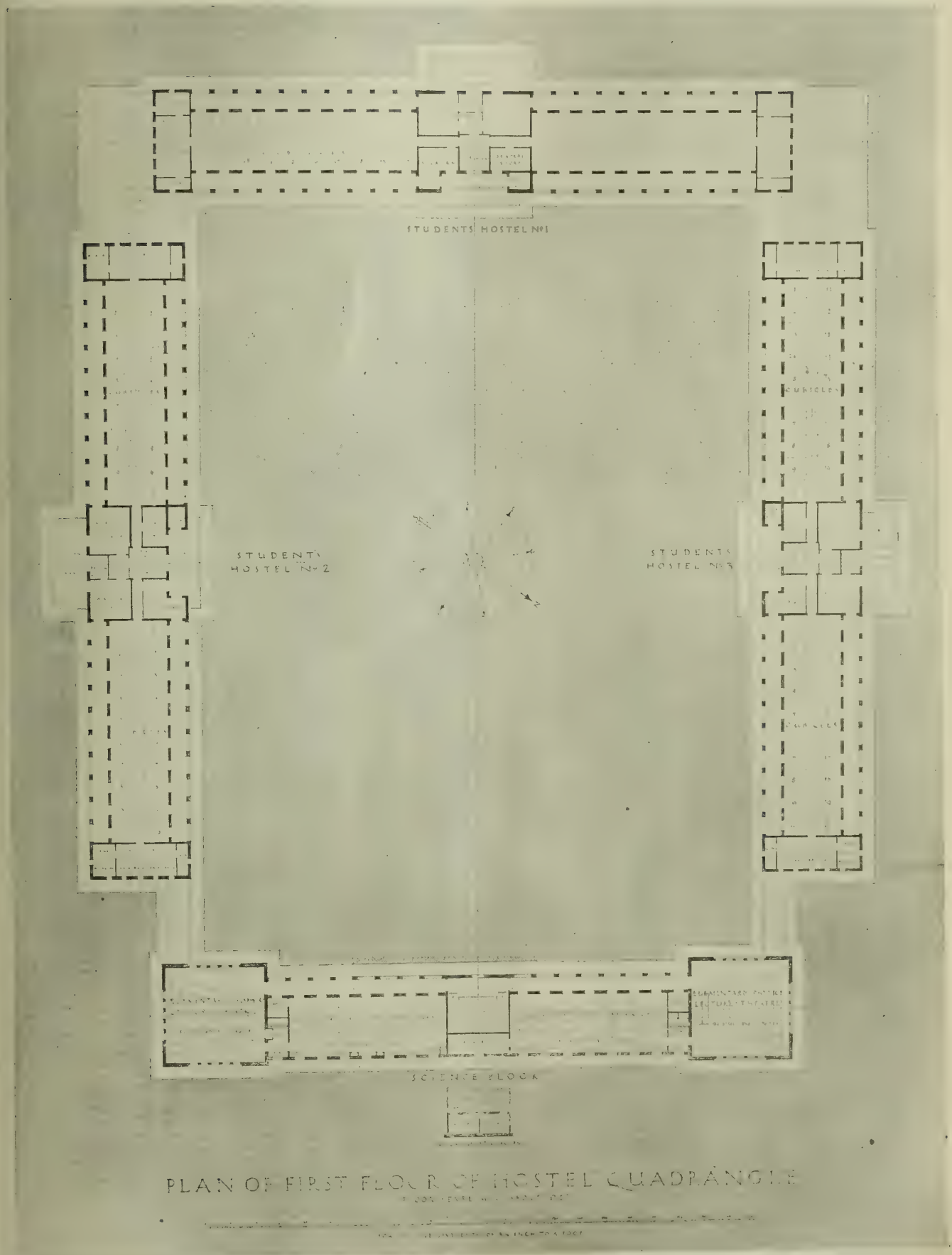
Raffles College, Singapore, Competition. Design Placed First: By Mr. CYRIL A. FAREY, A.R.I.B.A., and Mr. GRAHAM R. DAWBARN, M.A., A.R.I.B.A.

R.I.B.A. Prizes and Studentships.

A list of the prizes and studentships awarded by the Royal Institute of British Architects this year is given on p. 143, and a review of the designs submitted on p. 145. In this issue we illustrate the Design for an Anglican Church, by Mr. J. S. Kelsall, which was awarded the Soane Medallion and £150.

Dudley Memorial.

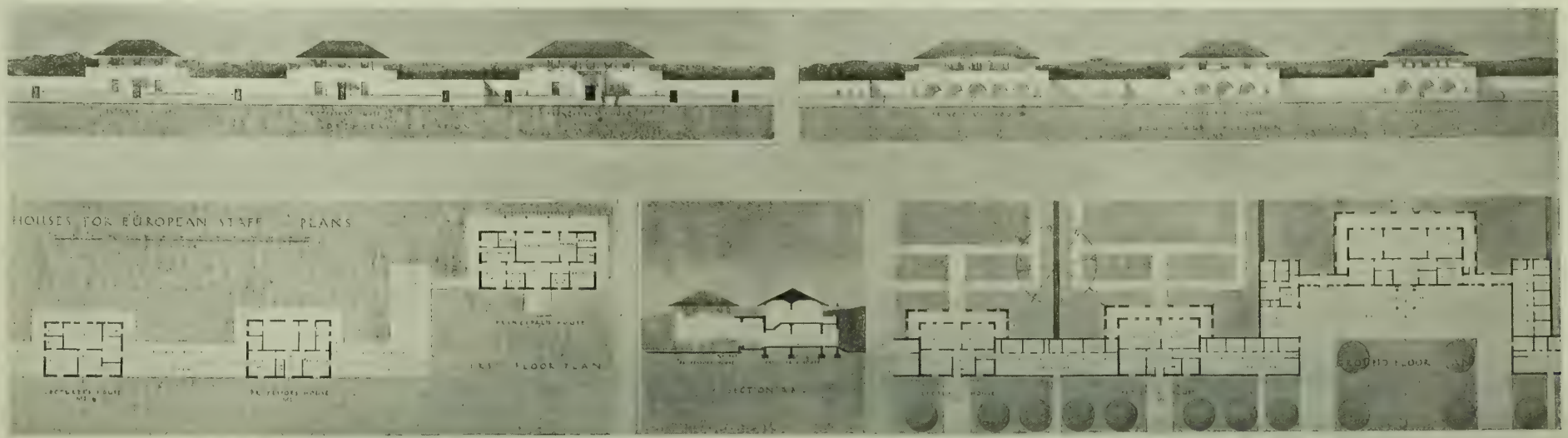
We also illustrate the design by Messrs. W. Alexander Harvey, F.R.I.B.A., and H. Graham Wicks, A.R.I.B.A., in the Dudley Memorial Competition.



Raffles College, Singapore, Competition.

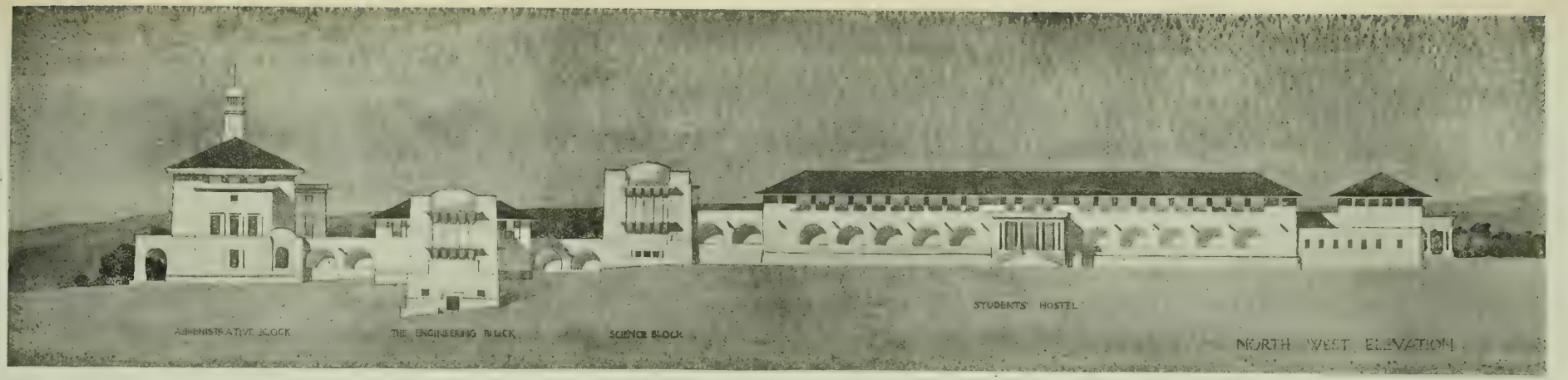
Design Placed First: By Mr. Cyril A. Farey, A.R.I.B.A., and Mr. Graham R. Dawbarn, M.A., A.R.I.B.A.



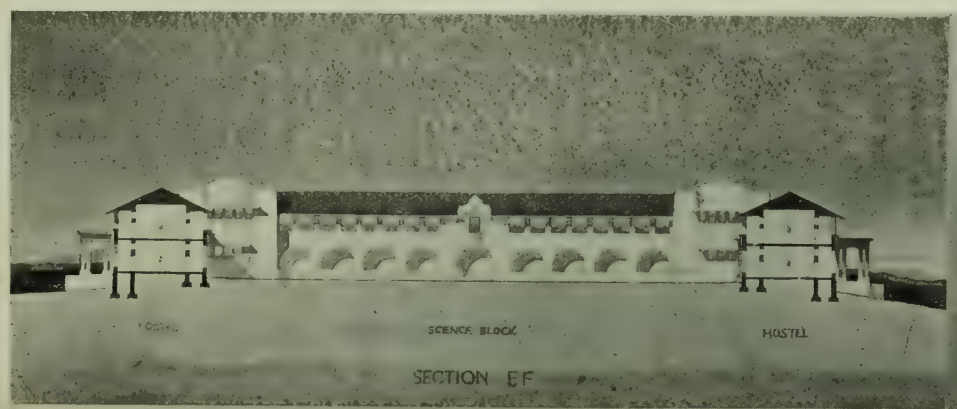


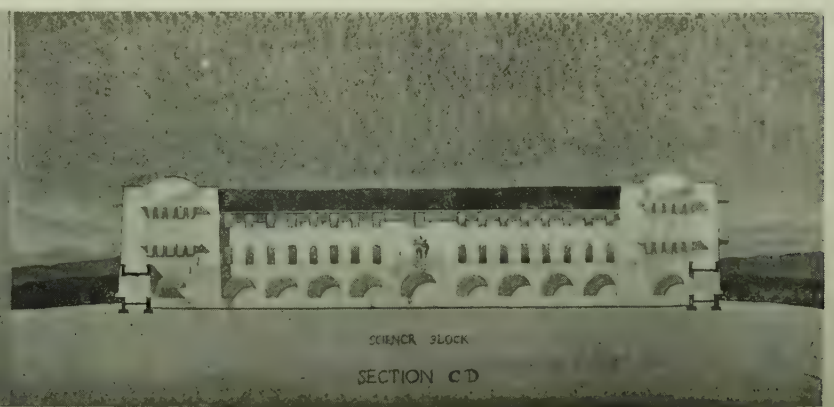
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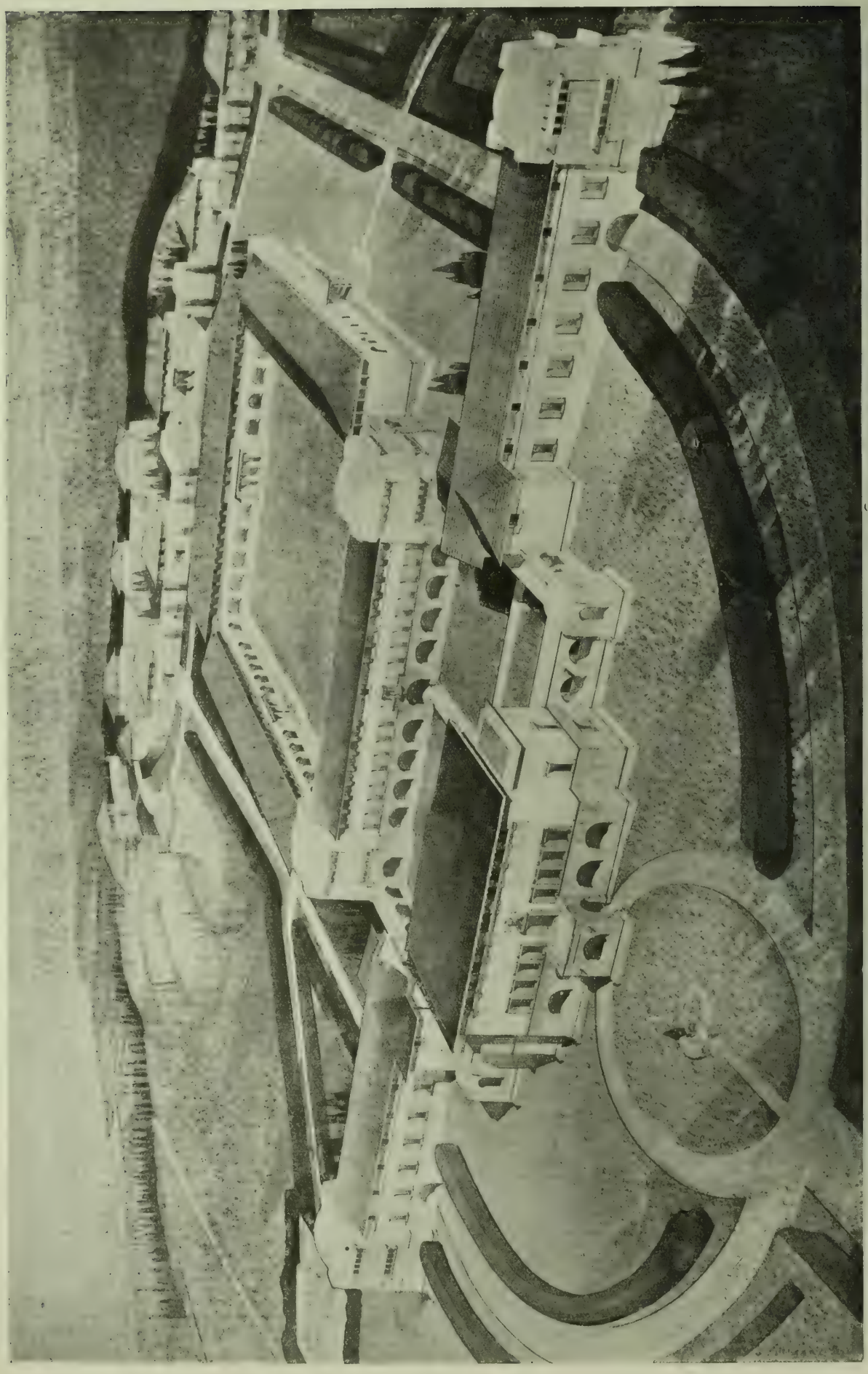






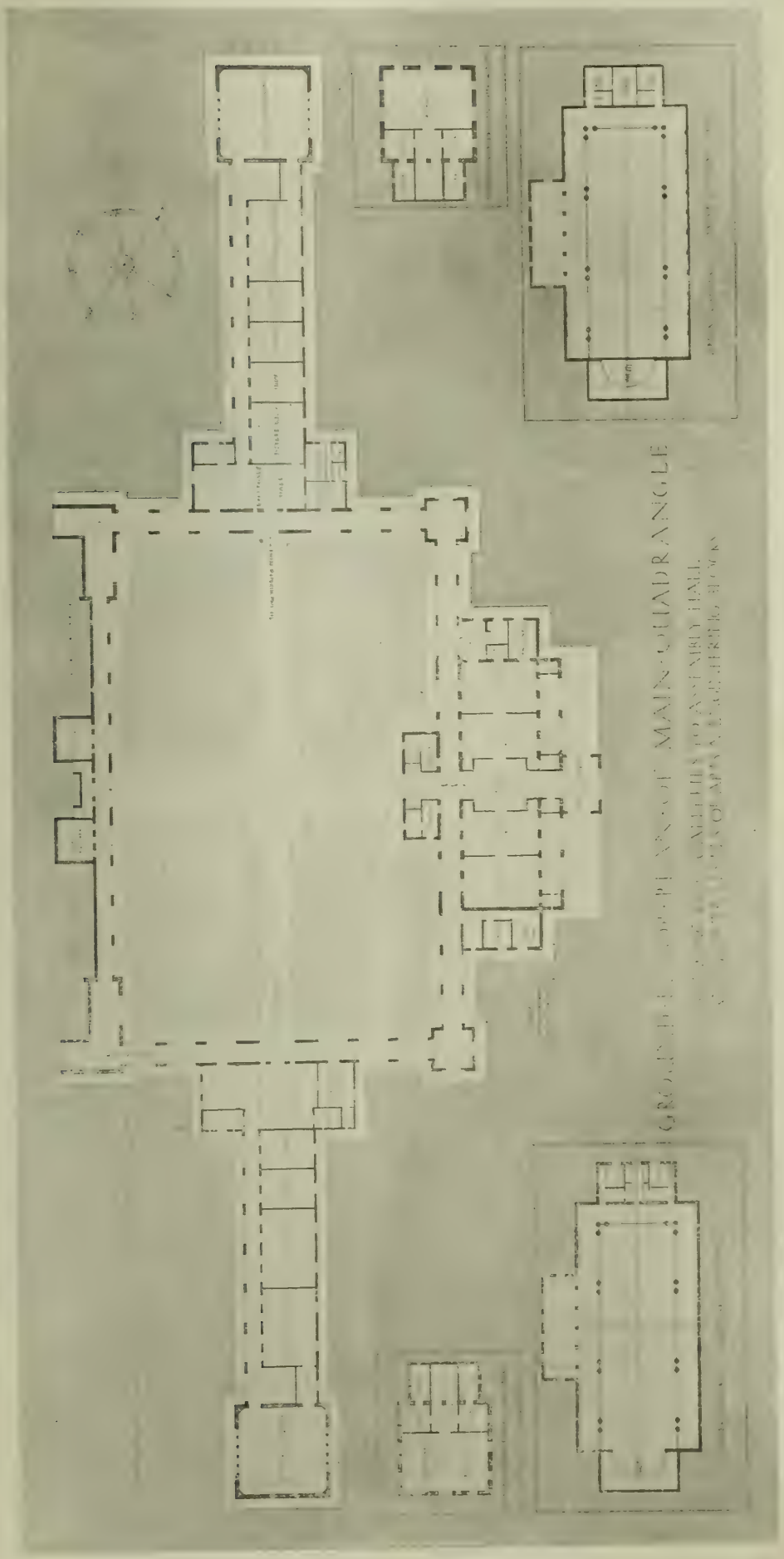


Raffles College, Singapore, Competition. Design Placed First: By Mr. Cyril A. Farey, A.R.I.B.A., and Mr. Graham R. Dawbarn, M.A., A.R.I.B.A.



Raffles College, Singapore, Competition.

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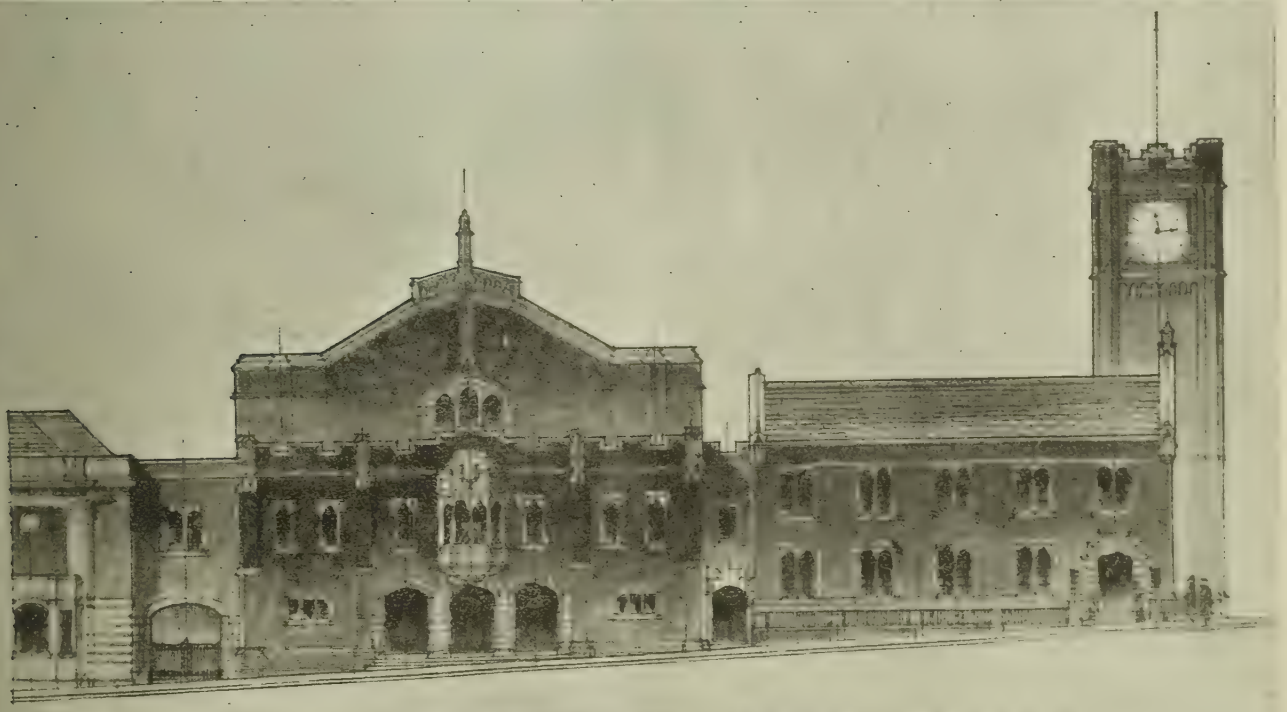


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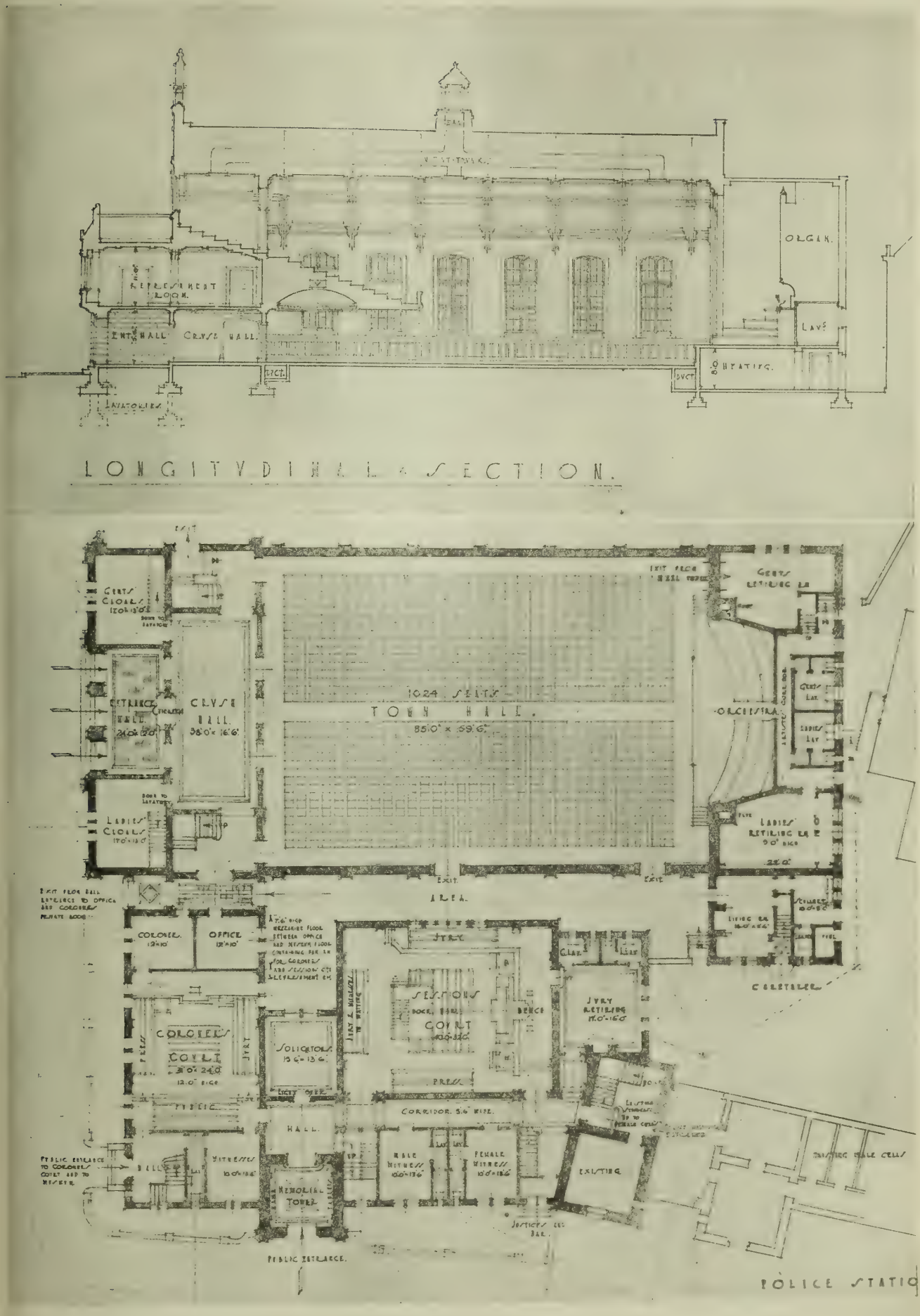
ELEVATION TO PRIORY STREET.



ELEVATION TO ST. JAMES ROAD.

Dudley Memorial Competition.

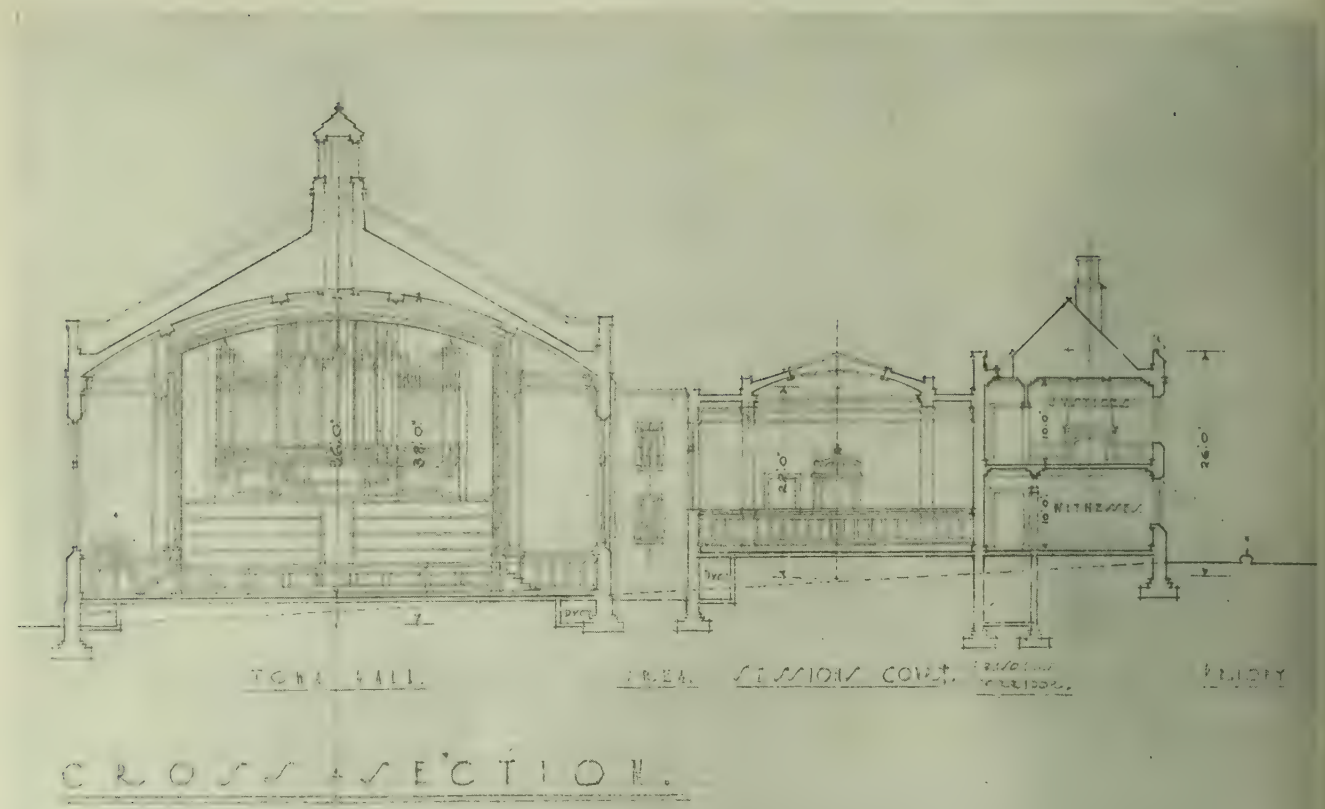
Design Placed First: By Messrs. W. Alexander Harvey, F.R.I.B.A., and H. Graham Wicks, A.R.I.B.A.

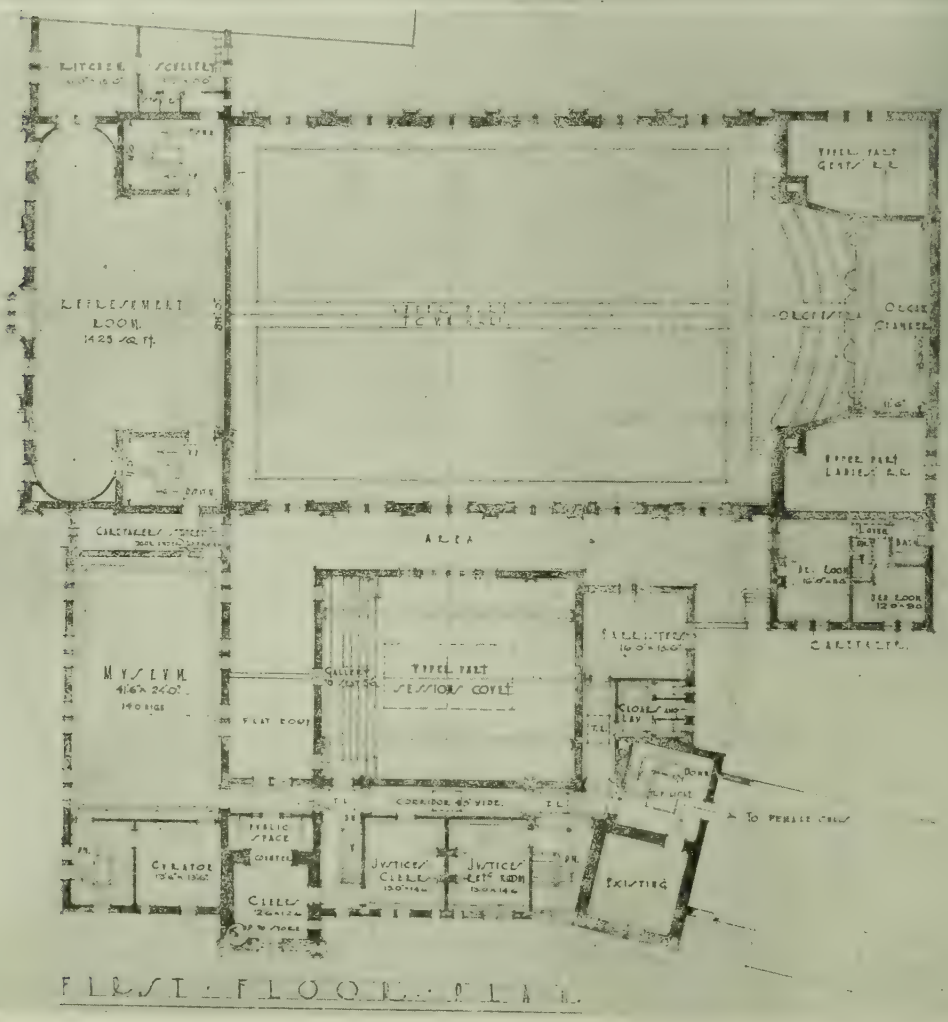


GROUND FLOOR PLAN.

Dudley Memorial Competition.

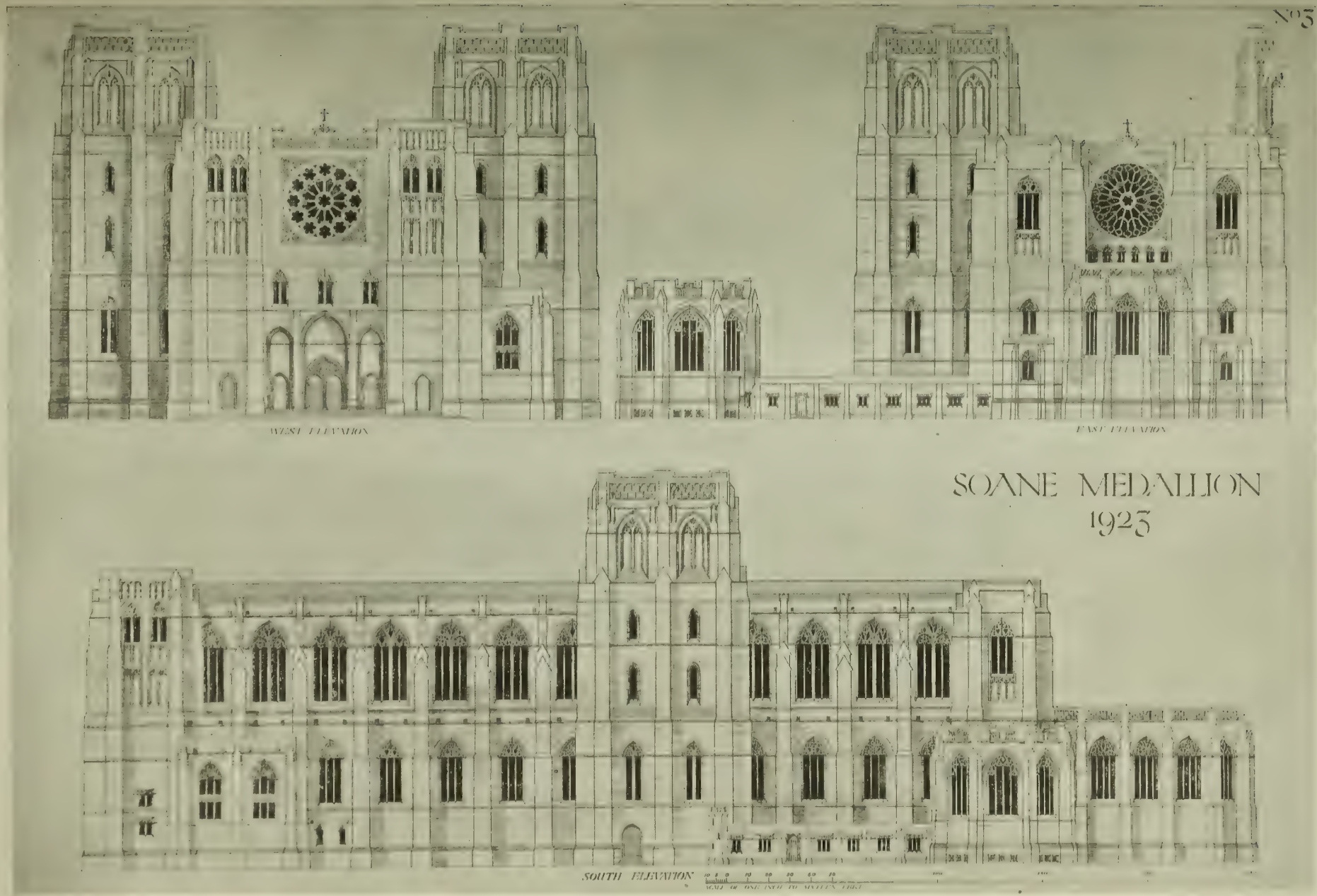
Design Placed First: By MESSRS. W. ALEXANDER HARVEY, F.R.I.B.A., and H. GRAHAM WICKS, A.R.I.B.A.





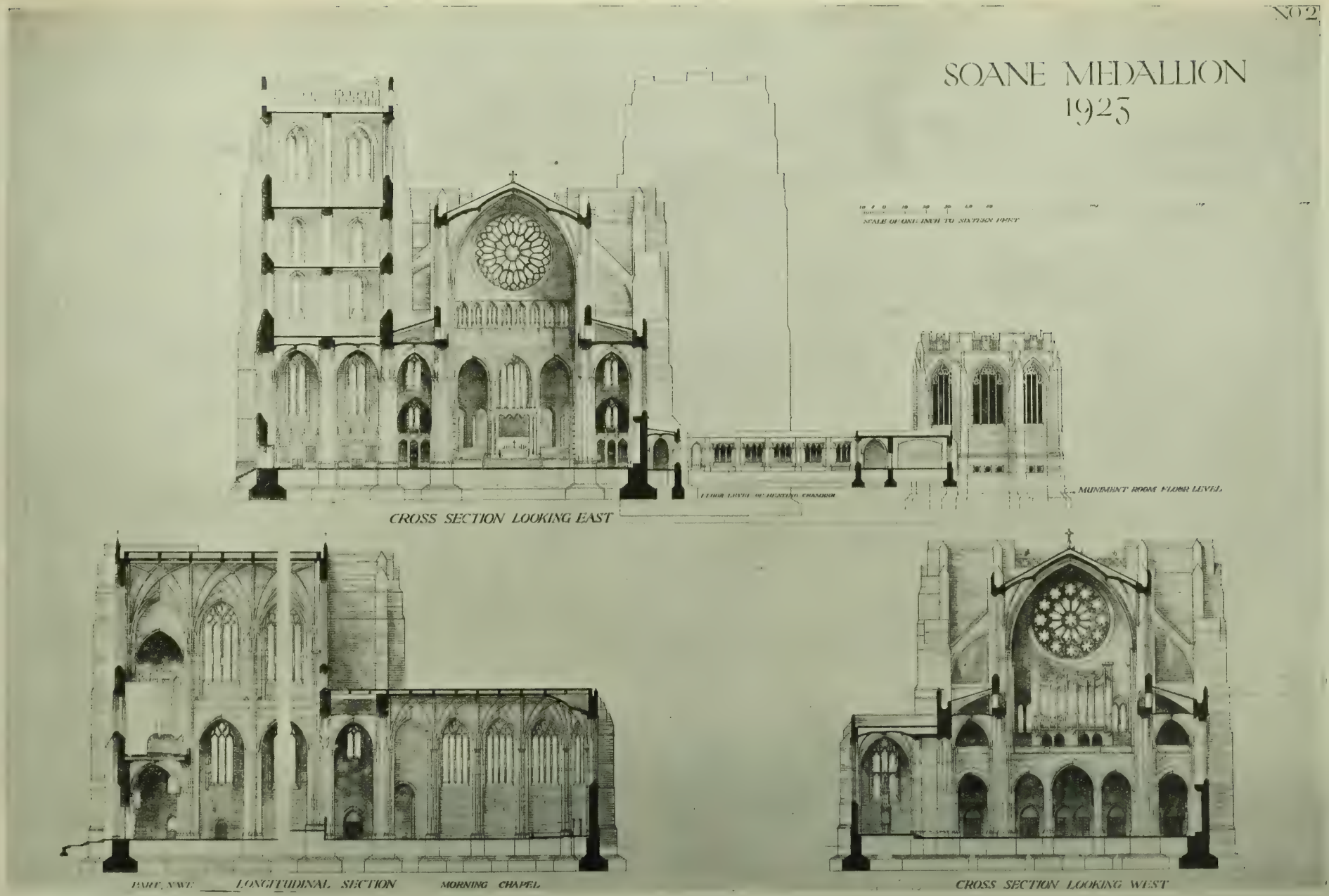
Dudley Memorial Competition.

Design Placed First: By Messrs. W. Alexander Harvey, F.R.I.B.A., and H. Graham Wicks, A.R.I.B.A.



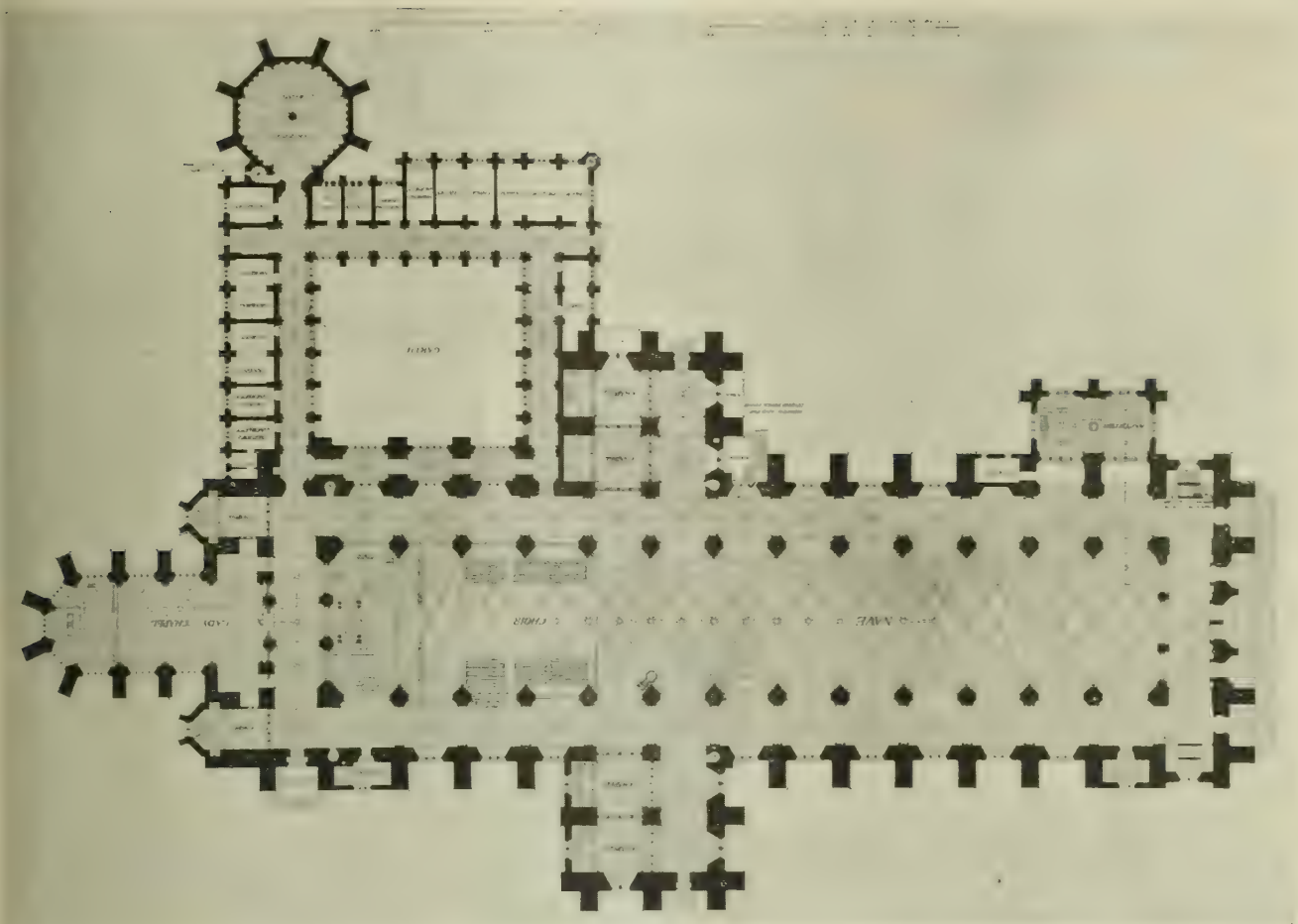
R.I.B.A. Prizes and Studentships.

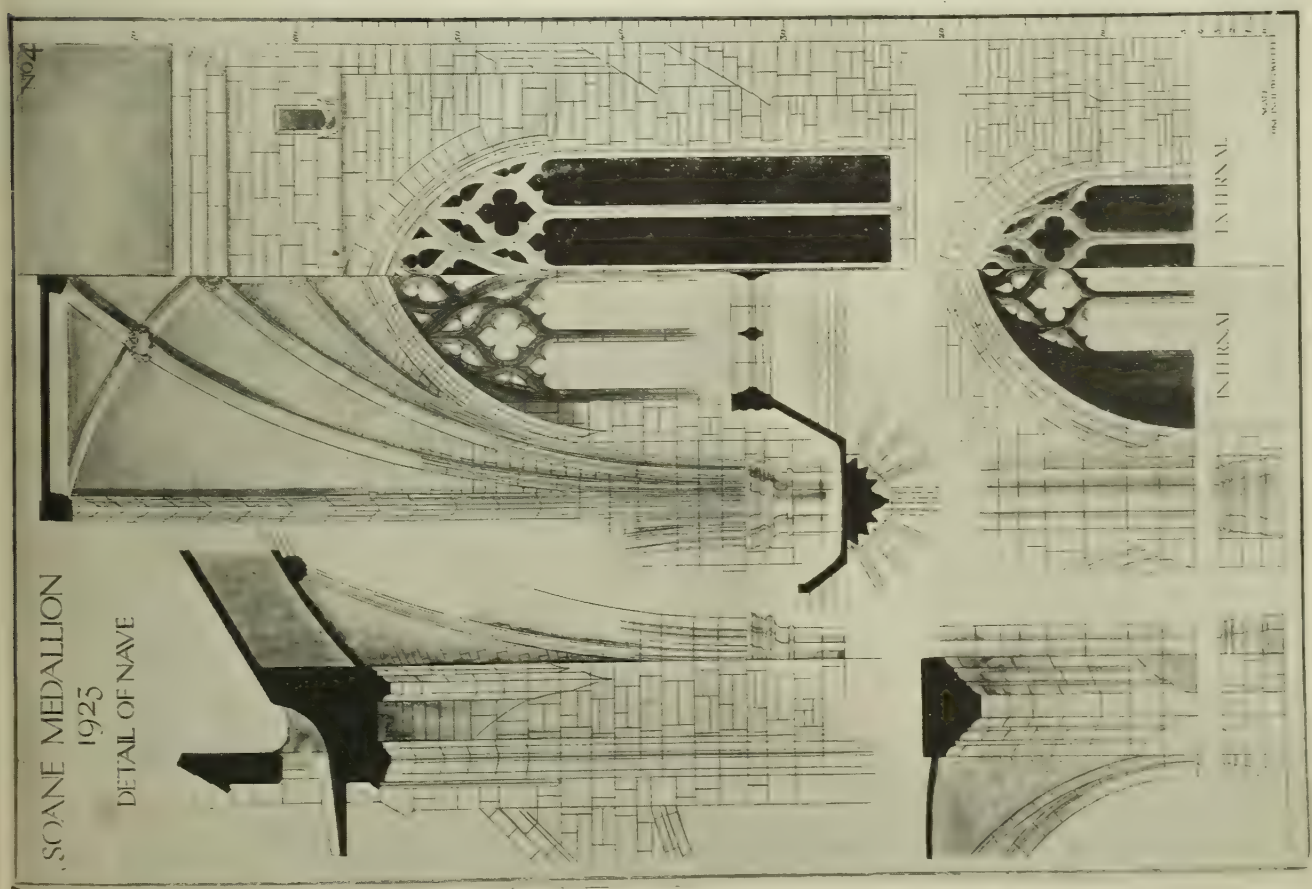
Design for an Anglican Church. By MR. J. S. KELSALL: Awarded Soane Medallion and £150.



R.I.B.A. Prizes and Studentships.

Design for an Anglican Church. By Mr. J. S. Kelsall: Awarded Soane Medallion and £150.





Design for an Anglican Church. By Mr. J. S. KELSALL: Awarded Soane Medallion and £10

R.I.B.A. Prizes and Studentships.

THE COMPLEAT ARCHITECT.

By DUDLEY HARBRON.

XIV.—Economy.

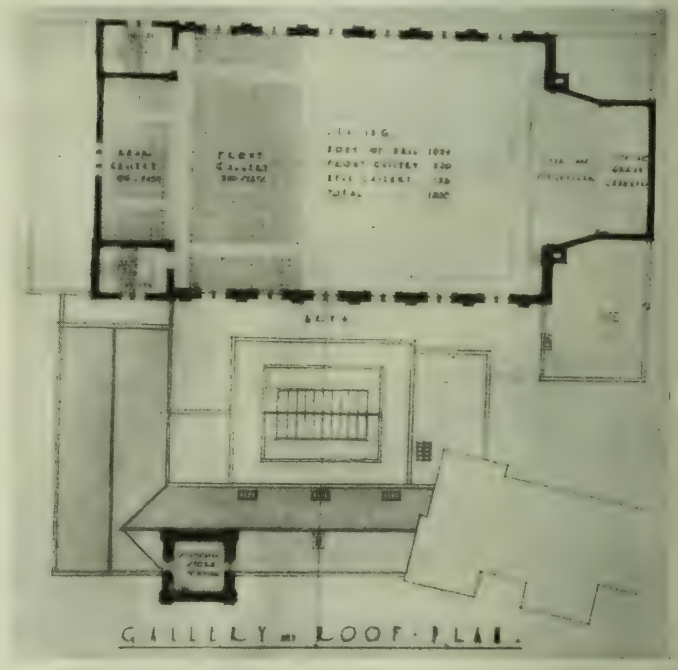
"I WOULD not have that useless expense in unnoticed fineries or formalities, cornices of ceilings and graining of doors, and fringing of curtains, and thousands such." These words are from "The Lamp of Sacrifice," one of the Seven Lamps of their author, John Ruskin. They were to result in a revolution of artistic values, far more comprehensive than the prophet dreamed. When we consider how anarchistic they were when first uttered, how menacing to the vested interests of the day, it is indeed a tribute to the force of an idea when we remark the vast fabric of mumbo-jumbory that, as its significance was realised by the Victorian mind, gradually fell away; nor is it entirely surprising that there still linger vestiges of the queer heresy which Ruskin exposed. We have done with the fringes; we have almost finished with the graining; but the cornices, though threatened, still flourish.

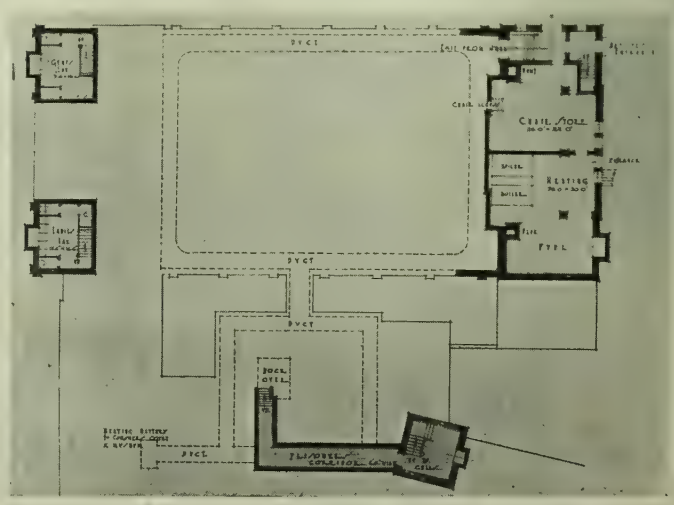
There is about building still far too much hocus-pocus in construction and carving, which has not the least justification, but which continues as a weariness to the eye and a puzzle for the mind of the spectator, who, if he thinks at all, is irritated because he can find no solution for the insoluble. Not only in carving is it evident that death is upon it. It is long since it had the flame of life, but, that in a hundred and one of the trimmings of buildings, in columns and pediments, domes and turrets, hang about our ears, as meaningless affectations and wasted expenditure. Of course, everyone is not equally guilty, though the number who are blameless is surprisingly few. There are obvious signs of the growing realisation of the important influence of economy, in that creators are eliminating every vestige of needless form and ornament, yet they persist in retaining non-committal square plinths, string courses, pilasters and cornices, very evidently the result of the tee-square and the set-square with which they were fashioned. It is gain that we have evolved so far; still, there is a difference between economy and miserliness.

Economy is readily considered in respect to sculpture, not merely by its profusion or its omission, but by its technique. The decline of sculpture preceded that of architecture, and its revival is more evidently manifest. Who recognises as ever having had a separate existence those pretty curly-haired cherubs, burdened with rose wreaths and wrestling unequally with cartouches; they are stock properties, each as like each other as they are dissimilar from anything on earth, blindly, conventionally exact representations of some impossible, never-existent model. For real children have curiously misshapen heads, comical mouths, pig-like eyes, protruding ears, recognisable, individual, and adorable, as unlike the *amoret* as possible in their appearance and habits. And yet innumerable hours have been wasted on the fabled representations. Every wisp of hair, every eyelash, every finger-nail, wasted, for the sum total is death, not life. Living sculpture does not lose the wood for the trees: every stroke of the chisel disturbs in order to reveal, and the moment revelation comes, leaves well alone: not a single stroke too many, not a single stroke too few, that is economy. Representation is the aim of sculptors, not imitation. It is equally true of building.

That ubiquitous person, the ordinary man, who delights to dub himself practical, regards the question, as he rightly considers, in the unemotional light of high finance, the adequate payment of return upon capital sunk in building. In a general way this is a very useful guide and corrective, especially in regard to commercial building, which owes its very existence to the system of which it is a part, but even in reference to commerce certain magnates have realised the potentiality of altruism, and latterly the psychological effect of surroundings upon their staff and customers; truly these still show a return, though it is different in kind to that originally sought after by their kind. But there are whole hosts of buildings the value of which cannot be reckoned to the community in so ready a fashion. There are monuments which it is entirely impossible so to appraise. We do not care to assess the sum appropriate to be expended upon a war memorial upon any commercial basis: the mere thought of so doing is repugnant. The rigid humanitarian looks upon any expenditure as waste which does not supply some need of the living. Expenditure upon triumphal arches and artificial mounds will never again reach the proportions of the past. The booty and the captives are not available to the victors in modern war. We require that they shall be lasting, because they are intended not to remind ourselves, but future ages. They are not to glorify the present, nor yet to impoverish it: they are to bear witness to our gratitude to the sufferers, not to the subscribers; thus to inscribe the names of the commemorated is fitting, but to add that of the donors is extravagance, if not worse. Having determined the prospective life of a building, it is economy that so selects the material that it shall serve its time, neither perishing too soon nor subsisting too long. Economy further demands that neither materials nor labour shall have been abused. The cathedrals were afforded in times when the wealth of the Church or the nation was nothing like so high as to-day, because all men were of the conviction that nothing was too precious to be consecrated to the service of God. But over-emphasis is balanced by under-estimate: a treatment unworthy and insubstantial is equally to be deplored.

In all the arts economy is a quality after which the creator should strive. Instinctively we are repelled by extravagance. In etching we recognise the maximum in suggestion by the minimum of lines. In poetry we require the crystallisation of wisdom and emotion. Architecture is no exception. The Spartans did without city walls: possibly they over-exaggerated the art of repression. Though they escaped the vulgarity of Rome they failed to attain the sublimity of Athens.





LOWER GROUND FLOOR PLAN.

Dudley Memorial Competition.

Design Placed First: By MESSRS. W. ALEXANDER HARVEY, F.R.I.B.A., and H. GRAHAM WICKS, A.R.I.B.A.

PRACTICAL DESIGN FOR BUILDING CONSTRUCTION—III.

AN ELEMENTARY EXPLANATION OF THE APPLICATION OF THE THEORY OF CONSTRUCTION TO PRACTICAL DESIGN.

By EWART S. ANDREWS, B.Sc., M.I.Struct.E., A.M.Inst.C.E.

SECTION 1. WALLS AND FOUNDATIONS (continued).

Pressures on Foundations.

The design of the foundations of a building is a matter of very great importance and sometimes of considerable difficulty. We like to distinguish between matters of real difficulty and those of difficulty in the sense of complexity. Many of the calculations for steel stanchions and continuous reinforced concrete beams are complicated and difficult in the sense that it takes some considerable amount of study to become familiar with them and the calculations are sometimes lengthy; but we are quite confident in the results, and the difficulty is not real in the sense that we cannot obtain sufficient reliable data to guide us. In the case of foundations, the calculations themselves are not at all difficult, but the difficulty lies in deciding upon what should be taken as the safe pressure on the soil and whether the soil is constant in resisting power over the whole site.

Another difficulty arises with foundations upon clay soils that the clay in some cases seems to move bodily, sometimes by one stratum sliding over a lower inclined stratum or by the movements caused by the differences in volume according to the amount of moisture in the soil. In very dry summers the bay fronts of houses built upon clay soils sometimes develop the unpleasant habit of dissolving partnership with the main portion of the house, and other troubles arise for which it is a matter of real difficulty for the architect to advise a certain remedy without incurring great expense. Certain principles can be adopted which will minimise the troubles due to unequal settlement, which is the greatest trouble, there being little danger if a building settles uniformly.

With this in mind, the foundations should be so proportioned that the pressure per square foot thereon is as constant as possible. This is done by calculating the loads coming down the various walls, piers and columns when the floors of the building are fully loaded and making the areas of the foundations proportioned to the loads.

We should remember that most buildings are seldom fully loaded to the full extent for which the floors are designed, so that at any time the actual pressures on the soil are less than those which we calculate; except in certain warehouse buildings, therefore, which commonly carry heavy loads over long periods, we have a margin of safety in our foundations which does not appear in our calculations.

Safe Pressures on Soils, &c.

The following figures are usually taken as the safe pressures which may be assumed in calculations, the figures being in tons per square foot:

Made ground	0·5
Soft clay or loose sand	1
Ordinary clay or compact sand ..	2
Blue clay, compact gravel or chalk	4
Soft, friable rock	5
Ordinary rock	10
Hard rock	20

In cases in which heavy loads have to be carried or in which the subsoil varies on the site, the bearing power can be measured experimentally by loading cylinders until they sink in; working pressures may then be taken as about one-fourth of the values thus taken. These tests should be made at the depth at which it is proposed to make the foundations, and it should be remembered that the pressures on large areas should not be taken as high as those measured on small areas.

In one of the most serious failures in foundations which have occurred in recent years, namely, that of a grain elevator at Winnipeg, Canada, the pressure on the foundations was less than that given by loading tests on cylinders, and it is usually regarded that the trouble was due, in part at least, to failure to reduce the pressure to allow for the large area over which it acted. A study of this failure is well worth the attention of all interested in the subject of foundations; an account will be found in a paper by Mr. Lawson S. White, in the Proceedings of the Concrete Institute, 1921.

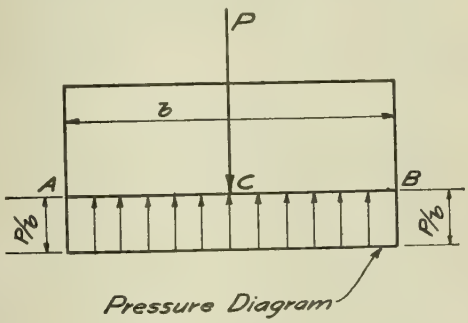


FIG. 3.

Calculations for Intensity of Soil Pressure.

If we know the total pressure upon a foundation we calculate the intensity of pressure according to the one of the following rules which is appropriate.

(*a*) *Pressure Central.*—In this case, as illustrated by the pressure diagram, shown in Fig. 3, the pressure is uniform over the whole section.

It is usual to consider the pressure on foundations per ft. of their length. If P is the pressure per ft. length, the intensity of pressure (p) on the soil is given by dividing the total P by the breadth (b) of the base; expressing this in terms of a formula we have:—

$$\text{Intensity of pressure} = p = \frac{P}{b} \qquad (1)$$

(*b*) *Pressure Eccentric but Inside "Middle Third."*—Now, suppose that the resultant pressure P comes eccentric, but inside the points X and Y, Fig. 4, which are called the *middle third points*, and are each at a distance equal to $\frac{b}{6}$ from the centre so that the distance between them is one-third of the base.

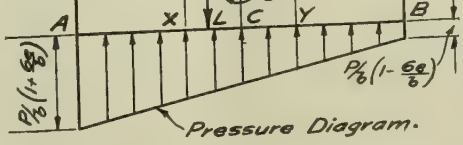


FIG. 4.

The effect of the eccentricity of the load is to cause the intensity of the pressure to become greater on the edge A, nearer the *load point* L, at which the line of the resultant pressure cuts the base than at the other edge B, the intensity of pressure gradually decreasing from the edge A to the edge B, as shown on the pressure diagram.

The maximum intensity of pressure occurs at A and is obtained by multiplying the mean intensity of pressure (which is equal to the total pressure P, divided by the breadth b) by the quantity $(1 + \frac{6e}{b})$ i.e.:

$$P\,max = \frac{P}{b}\left(1 + \frac{6e}{b}\right) \qquad (2)$$

The minimum intensity of pressure occurs at the edge B, and is given by the relation

$$P\,min = \frac{P}{b}\left(1 - \frac{6e}{b}\right) \qquad (3)$$

We must wait for a later stage of the subject before we explain why it is $\frac{6e}{b}$ that is added to allow for the eccentric effect of the load, but will remark that it is due to the application to this problem of the formulæ for beams, a wall being really a form of vertical cantilever.

We will note that if the load point L comes at the extreme edge X of the middle third we have $6e = b$ and the intensity of pressure at the edge A becomes equal to $\frac{2P}{b}$ and that at the edge B becomes zero, the pressure diagram becoming a triangle.

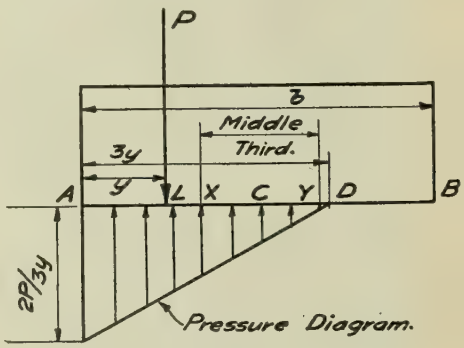


FIG. 5.

(*c*) *Pressure Eccentric but Outside "Middle Third."*—In this case, Fig. 5, we take a length A D equal to three times the distance A L of the load point L from the edge A, and assume that the intensity of pressure is spread over the length A D and varies uniformly from the edge A to the point D.

The pressure diagram thus becomes a triangle and the maximum intensity of pressure is obtained by dividing twice the total pressure by three times the distance from the edge to the load point.

This is expressed in symbols by the formula

$$P\,max = \frac{2P}{3y} \qquad (4)$$

This is sometimes called Wray's rule and is very useful and based upon a reasonable assumption.

In all cases of these pressure diagrams it should be noted that the area of the pressure diagram represents the total pressure P and that the line of action of the total pressure will pass through the point called the centroid of this diagram.

Memorial at Monchy.

The Isle of Wight County Committee for assisting Monchy-le-Preux under the British League of Help met recently, Major-General Seely presiding, to inspect drawings prepared by the Chairman's son, Captain John Seely, of the ancient Lych Gate at Mottistone, Isle of Wight. They were approved as a visible and permanent memorial of the island's help, to be erected at the entrance to Monchy Cemetery, and the Committee regarded them as admirably suited to the purpose.

The chairman said it was proposed to introduce in the design of the gate some old panelling of the time of James the First, which had just been found and which probably came from old Brook House, which once occupied the site of his present island residence.

THE ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

Solid or Hollow Ground Floors ?

SIR,—Your inquirer "Economist" is interested in the search after economical methods in the construction of the small house. He notices that whilst the architect prefers solid ground floors, the speculating builder almost invariably favours the old system, or rather, what "Economist" terms the old system, of light joist on sleeper walls. Though why he should designate this the old system is not quite clear; for, if the enquiry were to be made, it is quite possible that it would be found that a far greater proportion of old cottages had solid floors than framed floors; if, indeed, it were not proved that the hollow floor was quite a recent innovation of no greater antiquity than the early Victorian period, that time when so many cheap and nasty things were introduced.

Possibly the most satisfactory way of arriving at what is most economical in building small houses is not by comparing the methods of the architect with those of the speculative builder, for their interests are obviously opposed. But, as the comparison has been made, and "Economist" desires information as to the cost of the two methods, it may be pointed out that there is no real difference in the cost of the two methods of construction, provided that each is properly performed; and that it is just this opportunity that the hollow floor affords for improper construction that leads the speculative builder to favour it. Given a site more or less level and with a satisfactory subsoil at not more than three feet below ground line, and as has been said a proper method of construction in both cases, it is quite within the possible that the solid floor would work out the cheaper. The point as to the proper method of construction is somewhat stressed, as it is just the opportunity that the hollow floor affords for scamping that has led to its popularity in certain instances.

In the formation of any kind of floor the first essential is the removal of all vegetable soil from the whole of the site of the proposed house; and in both cases, hollow or solid, the second essential is the laying in of a solid bed of concrete, never less than 9 in. thick. This, in the case of the solid floor, becomes the foundation on which the surfacing for the wood blocks or other flooring is laid, and in the case of the hollow floor it becomes the foundation for the sleeper walls. But in the latter instance, it has a far more important function to perform. This may be shortly described as the exclusion of damp, vermin, and vegetable growths. Here it may not be out of place to refer to an incident which came under the notice of the writer, as it has a very definite bearing on the point under discussion, and is illustrative of the result of omitting the "all-over" concrete foundation. Bad smells had for some time troubled the nostrils of the occupants of a house in one of those rows that spread like measles before the war; and these were particularly offensive in the kitchen. Bad drains were feared; but an inspection led to no more satisfactory discovery than that the drains were as they should be. This, in itself, was satisfactory, but it did not remove the trouble. Time passing and the trouble growing worse, the cook one day reported that one of the floor boards in the kitchen where she had for some time noticed an unevenness, had now by some invisible agency been raised up right out of their proper seating. The sequel has to be seen to be believed; nevertheless, it is a fact. When the floor board was prised up it was found that the cause of its eruption was a very healthy plant of horseradish! But that was not all that was revealed to sight. The whole area beneath the kitchen floor was a miniature forest of fungoid growths!

This, of course, was the result of the vegetable soil not having been removed at the time of erection, and the omission of any surface concrete. Of the two, the removal of the vegetable soil is, perhaps, more important than the surface concrete, though, of course, the latter should never be omitted; but if one of the two had to be dispensed with, it would be the concrete surfacing. For so great is the strength and vitality of certain of the deep rooting plants that they have been known to grow through a 9 in. paving to a stable yard.

It was said above that, given equal conditions of an average site, perhaps there would be very little difference in the cost of the two methods. This brings me to the point as to why the solid floor is more suitable in some cases and the hollow in others. Obviously, if the top soil was very deep, and considerable excavation was necessitated to arrive at a suitable foundation, to refill with other soil, rubble or concrete would be altogether too expensive. And as a solid floor should never be built below ground level, unless it is in a basement, where the added accommodation will compensate for the additional expense of waterproofing the horizontal walls below ground level, in such an instance as this it would obviously be cheaper to lay in 9 in. of surface concrete all over the excavated area, and to build sleeper walls and bridge over with a joisted floor. On the other hand, if the top soil is shallow and a good hard sub-soil suitable to build on is soon reached, it is a matter open to doubt if the hollow floor would work out very much cheaper, if at all; and certainly there can be no two opinions as to the much greater satisfaction to be gained from the solid floor.

"Economist's" next point raises a question, the satisfactory discussion of which would possibly necessitate the occupation of more space than is at the disposal of the Enquiry Bureau. The distinction between the water due to condensation and that due to the percolation of damp is a very large and difficult subject, and one on which a book might well be written.

In the present instance, it might be permissible to ask if "Economist" can give proof that the moisture that has been complained of as gathering under the linoleum is due to condensation at all, and not to percolation; for if the floor in question is entirely covered by linoleum it is not easy to see how the solid floor underneath can condense water from the air, for, surely a surface, to act as a condensing surface, must be exposed to the air. On the other hand if the damp be due to percolation, it raises the whole question of water-proofing, and into this might come the question as to whether there is any really satisfactory method of the entire exclusion of damp from percolation through concrete surfaces known to the building trade?

London. N. B. H.

SIR,—Your correspondent "Economist" is certainly correct in stating that the speculative builder favours the old fashioned joisted floor on sleeper walls, and it is safe to a certain extent to take this fact as an index of relative cost. It is taken for granted that the term speculative builder is intended to mean a man who builds the cheapest sound work to sell, and not our old friend "Jerry."

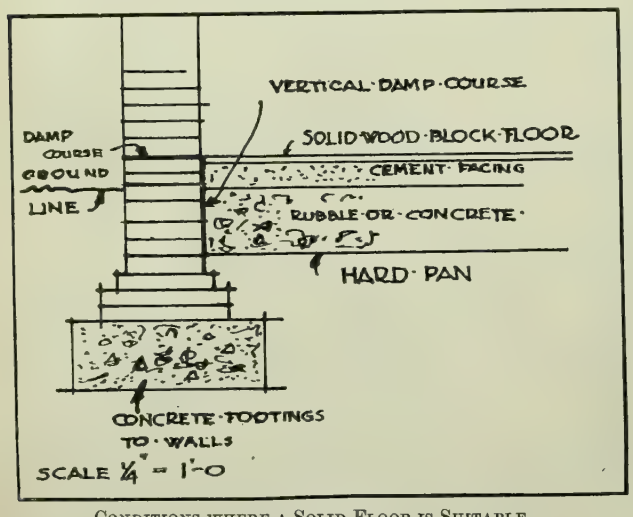
Surface concrete is intended mainly to arrest vegetable growth and its purpose is adequately fulfilled by a very mild mixture of lime concrete. The concrete under a solid floor must be, on the contrary, a very efficient damp resister, accurately laid and levelled, and quite possibly of double the cost of ordinary surface concrete. Honeycombed sleeper walls, which rest direct on the surface concrete, are a very minor matter of expense, as are the light floor joists.

I think there is little doubt that the hollow floor has it every time.

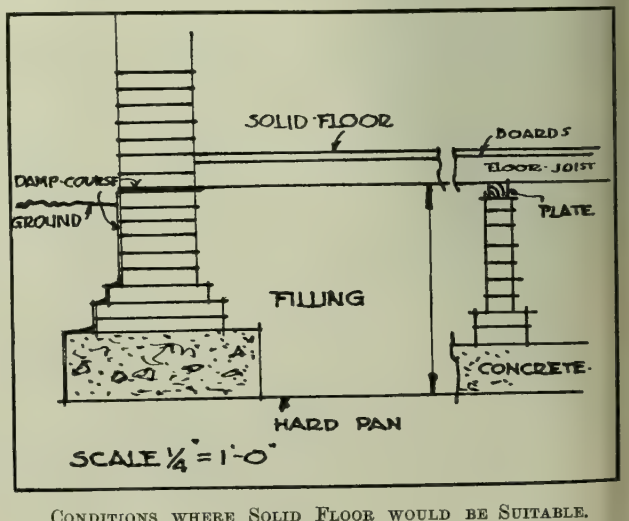
"INTERESTED."

SIR,—The question of solid or hollow ground floors is a very important one.

The complaint is often made against the solid floor that it is colder than a hollow one, but if the concrete is covered with boards and as wood is an excellent non-conductor, I do not see how this alleged defect can be a real one. Where the subsoil is naturally damp a good layer of broken



CONDITIONS WHERE A SOLID FLOOR IS SUITABLE.



CONDITIONS WHERE SOLID FLOOR WOULD BE SUITABLE.

THE DIAGRAM ON THE RIGHT SHOWS HOW HOLLOW FLOORS WOULD BE PREFERABLE IN SUCH CONDITIONS.

Solid or Hollow Ground Floors. (*See Reply by* "N. B. H.")

brick or stone under the concrete will serve to keep the concrete dry and so minimise loss of heat downwards. Mr. E. E. Smith is content with square-edged boards, but is it not advisable to have them tongued and grooved, so that in the event of some of the nailing not holding well there is less likelihood of boards becoming loose?

I am surprised to see that in Mr. Smith's experience the two types of floor are about equal in cost, because if the damp-proof course is kept at the same height above the ground level in both types, the floor level of the hollow floor must be higher than that of the solid floor, otherwise the fresh air inlets will have to be cranked and their efficiency impaired. This increased height means one or two extra courses of brickwork to every wall and partition, which would appear to put the balance of cost in favour of the solid floor. In addition, all houses require some portion of the ground floor to be solid, at scullery, &c., and when the solid and hollow meet there is trouble with the damp-proof course, and the fresh-air flues require to be carried through the solid portion, all of which adds to the cost.

The coating of pitch and tar required to the solid floor must be very carefully done; a few square inches missed—and there is great danger of this around hearths—may result in an outbreak of dry-rot, from which solid floors are not immune.

Taking everything into account, the balance seems to be in favour of the solid floor.

J. GRIEVE.

Hot Water Circulation Pipes.

SIR,—I should like to take advantage of the new column you are devoting to enquiries, to ask the following question:—

What is the best method to run the hot water circulation pipes in a bungalow? The boiler is behind the kitchen range, but the cylinder is fixed in the bathroom on the same floor level; in order to reach the cylinder, it is necessary to pass a door, which ever direction the pipes are run.

Is it possible to arrange pipes with the cylinder fixed on the floor level, and still ensure a good circulation and hot water supply?

STUDENT.

Huddersfield.

Damp on Ceilings.

SIR,—The explanation asked for by Mr. Ernest Matthews is very simple. During the rough weather we had the wind was north and east, accompanied by very fine snow and sleet, which was driven under slates and tiles (where not felted or torched) in numerous cases, and laid on the top side of plastered ceilings until it thawed and showed through into the room.

WILLIAM BROWN.

Luton.

SIR,—Your correspondent hardly gives enough information to advise him in his difficulty. He does not state whether the roof, in question, is high or low pitched. Also the covering, whether slates or tiles? If a store cistern is fixed in the roof? If there are rooms above those, where the damp stains appear? Whether there are parapet gutters; eaves gutters; or a centre box-gutter passing under the house from front to back?

The position of the stains on the ceilings would, to some extent, locate the defect; although rain-water is sometimes blown along by the wind, and does not always reveal itself at the place of entrance. Rain-water and wind, are the two enemies to roofs. There is a cause for every abnormal state of affairs, and the best advice to give is, to find out the cause and apply the remedy. To put the whole case in a nutshell, it would be well to have an examination made (if this has not been done) as near the damp stains as possible, when the source of the evil may be traced. The roof is the crowning member of a house, and requires constant attention.

ANDREW SOUTH.

Kingston-on-Thames.

SIR,—There seems to me little doubt but that your correspondent, Mr. Ernest Matthews, of Polegate, has had a snow drift on the particular ceiling where the damp showed through.

This may be caused through the tiles not being torched, or perhaps bad places in the torching, especially behind the rafters.

It seems the foolish practice of the architect to-day to specify tiles to be laid to a four-inch gauge and not to have them torched, whereas before the war it was the usual practice, even with jerry work, to specify them to be laid to a three-inch LAP and to be TORCHED with hair mortar. If necessary then, why not now?

I assume from the district that this would be a tiled roof; our friend does not give the necessary information.

GEORGE GODDARD.

Cost of Walls.

SIR,—I shall be very much obliged if you can give me any information with regard to the comparative cost of walls in buildings built of hollow porous terra-cotta partition blocks (12 in. by 9 in. by 2½ in. or 3 in.) and ordinary brickwork.

H. M. SANKEY.

London.

Housing Subsidy.

SIR,—I am intending commencing business as a builder and shall build houses of a type costing from £600 to £700 each (detached), exclusive of ground.

Can you tell me if there is any grant or subsidy towards the cost of this type of house, and will you tell me where I can obtain all information of this sort?

GEO. A. BRIERLEY.

Reply.

[We would refer you to the Housing Act, 1923, and to Circulars 388A and 471, issued by the Ministry of Health and published by H.M.S.O., Imperial House, Kingsway (2d. and 1d. respectively). Both of these explain the extent to which local authorities can assist builders. Before taking action it is desirable to ascertain that the local authorities will help you to the extent they are allowed by the Government. Assistance is not, we understand, given direct by the Ministry of Health.]

Plans and Specification.

SIR,—In reply to your correspondent "Perplexed," of Neath, where drawings and specification are at variance it is usual to decide in favour of the latter, provided both are contract documents and duly signed as such; as the specification should be a concise explanation of requirement indicated on the drawings.

A. E. FLOWER.

Croydon.

SIR,—Your correspondent, "Perplexed," quotes a striking instance in which a trifling 2½ per cent. appears to have been saved with after regrets.

A builder would naturally refer ambiguities to a supervising architect for his ruling, though when dealing with a layman he will choose the easier way.

The panels of a 4-panel door can be got out of single-width stuff, and so he wisely keeps quiet and makes the doors.

Where drawings and specification form the basis of the contract they each, in many respects, hold an equal authority unless the latter defines their "order of merit" or appoints a source of appeal.

I think "A" must make up his mind that in this case he has no redress, and must look upon the 4-panel abominations as a standing object-lesson as to the wisdom of putting such matters under the control of a trained man.

"ARCHITECT."

Cement Concrete Partition Slabs.

SIR,—In answer to "Query," I should consider that using good mortar and the best class of material, 4 in., 6 in. and 9 in. blocks may be safely used to the height and length of wall allowed in the L.B.A. or Model By-Laws for brick walls 4½ in., 9 in. and 14 in. respectively, taking into consideration a keyed bed and joint.

I should not personally build 3 in. work for a greater length or height than 13 ft. without intermediate stiffening. I look upon 2 in. slabs as suitable for small division walls, such as w.c. divisions about 6 or 7 ft. wide and high.

I should not use the 1½ in. slab for more than such small patches as stair spandrils, &c.

It is advisable in 3 in. and thinner work to carry a stud each side of a doorway up to the ceiling joists and secured to same, the portion up to door height having grounds nailed on each side to clip the slab. In cottage design, quite a pleasing feature can be effected in much the same way by carrying the door frames up to the ceiling as exposed timbers, the back of the frames being grooved out 3 in. wide to grip the slab.

These methods are a great source of strength.

Generally speaking, a doorway may be said to reduce the linear strength of a slab partition to about one-third that of a similar uninterrupted partition in walls of ordinary height (say 8 to 10 ft.) unless stiffened as suggested.

"CONSTRUCTION."

Brick-Making Machinery.

We are sure that Mr. Harrison, with the remainder of our readers, will appreciate that the gratifying popularity which this Bureau has so quickly gained, makes it necessary for us to limit the scope of these columns to matters of more general interest to the building fraternity.

Mr. Harrison will, no doubt, find little difficulty in obtaining his information through the usual channels.

THE MASTER BUILDERS OF ROME.

ETRUSCAN and ancient Roman architecture formed the subject of the first lecture of the Lent course given by Sir Banister Fletcher, F.R.I.B.A., at the Central School of Arts and Crafts, on January 16. He pointed out that Roman architecture proper covered five centuries (100 B.C. to A.D. 400) during the time when the world-wide Empire of Rome was at the zenith of her greatness. Then Italy was rich in building materials—white and coloured marbles of her own quarries, abundance of building stone and brick-earth for terra-cotta, granite from Egypt, porphyry from Greece, and all the glowing marbles from the coasts of the Adriatic and the Mediterranean. An expanding Empire, and a complex civilisation, gave birth to a variety of building needs, to meet which the Romans invented a new composite material, which was made up of broken stone and Pozzolana cement and poured like a household jelly into shapes and left to set. Then the wooden casing was removed, and the concrete remained hard and rigid. The invention and use of this material was the great outstanding fact in the structural aspect of Roman architecture; for this quality of rigidity made it possible to span great areas with domes and vaults of concrete. Thus these complicated types of buildings broke away from the simple trabeated style of the Greeks. This revolution in methods and plans opened the way for great utilitarian works, such as city aqueducts and cisterns, military bridges, public baths, and imperial palaces, some of which were allied to engineering undertakings.

These splendid Roman structures, often so complex in plan, were yet symmetrical, for they were planned on axial lines, which gave long vistas and an appearance of unity. The circular sweep of the Pantheon also showed that the old Roman architects could command, as well, the perfection of simplicity. Sir Banister laid stress on the composite origin of Roman architecture, for it was a union of the old native Etruscan arch and vault with the Greek column, to which the Romans added their own cross vault and dome. Above all, it was evident that their idea was not Art, but Empire—it was not so much to create a thing of beauty as to produce a lasting evidence of power.

LEGAL SECTION.

NOTES ON CURRENT CASES.

Building Estates and Restrictive Covenants.

A CASE was reported in the *Times*, December 22, Kelly *v.* Barrett, which raises questions of interest to those acquiring land on building estates.

The action was brought by Edward Kelly, Sir Spencer Maryon-Wilson being added as another plaintiff, against the defendant in the following circumstances: In 1877, Kelly and his brother, since deceased, were carrying on business as builders, and by an agreement, dated May 14, 1877, Sir Spencer had agreed to sell to them certain land on the east and west sides of Fitzjohns-avenue, and by this agreement Messrs. Kelly agreed to erect houses on the premises, and it was provided that the whole of the premises or separate plots should be conveyed to Messrs. Kelly or their assigns according to model forms of conveyances and be subject to certain restrictions and stipulations. Some 28 plots, including that on which subsequently the defendants' house was erected were conveyed to Messrs. Kelly, but others had been disposed of to subpurchasers who either had erected houses thereon, or had taken conveyances from the vendor after Messrs. Kelly had erected houses thereon, but all the conveyances were substantially in the model form, and the plaintiffs alleged that each subpurchaser was aware of the agreement of May 14, 1877, and of the restrictions and stipulations contained in it, and that they well knew that the restrictions and stipulations contained in the conveyances were intended by the vendor and by Messrs. Kelly to be for the benefit of all the plots and other land comprised in the agreement and that Messrs. Kelly and the sub-purchasers purchased upon that footing.

The conveyances to Messrs. Kelly of Nos. 40 and 42, Fitzjohns-avenue, the houses in question in the action, were substantially in the model form, each containing a covenant by Messrs. Kelly with the vendor, his heirs and assigns, owners for the time being of the site and soil of Fitzjohns-avenue (amongst other things), that no building other than buildings of a certain description to be used for private residences should be erected on the land, or when erected should be otherwise used.

In 1880, No. 40 had been conveyed by Messrs. Kelly to one Horner, subject to the above covenants and conditions, and the purchaser covenanted for himself, his heirs and assigns, to observe the same and to indemnify Messrs. Kelly against any breach. In 1881 No. 42 had been conveyed to one Harris on similar terms, and both these properties had since become vested in the defendant in this action, as the report says, "with notice of the restrictive covenants," but no other particulars are given.

The breach of covenant complained of was that the defendant had thrown the two gardens into one and converted the houses into a nursing home, and was so using them in breach as it was alleged of the covenants as to private dwellings.

The plaintiff Kelly was the owner of a large number of plots adjoining Fitzjohns-avenue, as to one moiety for himself and as to the other moiety as trustee of the will of his brother. Sir Spencer Maryon Wilson was the tenant for life of all the real estate of which his father died seized, and the plaintiffs alleged such real estate included the site and soil of Fitzjohns-avenue, and that they "or one of them" were entitled to the benefit of the covenants.

According to the report the learned judge stated that the plaintiffs had framed their case in three ways—(1) on behalf of the plaintiff Kelly it was said that the dealings by the Kelly's with the land they had bought from Sir Spencer were such as to constitute a scheme under which all the purchasers from them intended to contract with them and with each other to abide by the various stipulations which were imposed on the subsales, but the Court held on the evidence this view of the case could not be supported; (2) that each of the subpurchasers who took a conveyance directly from the vendor, had constructive notice of the agreement of May 14, 1877, and that notice of that agreement taken with the form of the conveyance was sufficient material upon which to infer the existence of a scheme whereby mutual covenants between such subtenants and the Kelly's were imposed. On this point the Court pointed out that there was nothing to show from start to finish either that the estate was ever intended to be laid out in defined plots or that the Kelly's were not free at any time after they had sold one or more plots to deal with the residue of the estate in any way they pleased, provided they could get from the vendor his consent to a variation of the original agreement, and the Court held that to give effect to this view contended for the Court would have to hold that each subpurchaser was willing to make himself liable not merely to the vendor, but to use the words of Mr. Justice Farwell in Osborne *v.* Bradley (1903, 2 Ch. 440) "also to unknown persons indeterminate and indeterminable in number in respect of plots of the particulars of which he knew nothing—that he had entered blindly into a bargain of which he could not possibly know the particulars," and there never had been a case where upon such indefinite material a scheme had been held to exist. The Court referred to Reid *v.* Bickerstaff (1909, 2 Ch. 305; *The Builder*, July 10, 1909), and held the material was too indefinite to constitute a scheme.

The third ground of claim related to a point for which Sir Spencer has been added as plaintiff as he claimed as tenant for life under the will of the vendor, but the Court found against this claim mainly on the ground that as the roadway of Fitzjohns-avenue had been taken over by the local authority, and as this would vest in that authority so much of the actual soil in the avenue as might be necessary for using it and maintaining it as a street (Mayor of Tunbridge Wells *v.* Baird, 1896, A.C. 434), the plaintiff could not show that the surface was vested in him or that he sued in respect of the estate and interest which belonged to his predecessor or that the restrictions touched such land as he now had, but the Court further intimated that even were this point not rightly decided, yet in such circumstances it would be oppressive to grant an injunction.

Possibly this case will be reported more fully subsequently in the Law Reports, when we shall be able to explain it further, for these cases of restrictive covenants in laying out estates are of considerable importance to our readers. All that we can say at present is that in the case Elliston *v.* Reacher (*The Builder*, September 2, 1908) certain guiding principles were laid down for application in such cases which may elucidate the findings in this case.

In the issue above referred to we summarised these principles, (1) Both plaintiff and defendant must derive title from a common vendor. This was the case in the case we are considering so far as the particular parties to the action were concerned, but it appears that parts of the estate had been sold by the Kellys and part by the original vendor direct, Whether this is material we need not now inquire, because the second condition laid down in Elliston *v.* Reacher was, (2) That previous to selling the vendor must have laid out the estate or a defined portion thereof, including the land purchased by the plaintiff and defendant or their predecessors subject to restrictions which, though varying in details, must be consistent in themselves and with a general scheme of development. . . . This principle as is shown by the judgment, was lacking in this case. The third principle was—the restriction must be for the benefit of all the lots sold, whether or not they were intended to benefit the land retained by the vendor; and the fourth was that both plaintiff and defendant must have purchased from the common vendor on the understanding that the restrictions were to enure for the benefit of other plots included in the general scheme. Here, as there was held to be no scheme it appears this principle could not be complied with.

In Reid *v.* Bickerstaff (see *The Builder*, July 10, 1909) the predecessors of the plaintiffs in the action had, in 1843, purchased land on an estate subject to restrictive covenants; the defendant's predecessors had in 1840 bought portions of the same estate from the same vendors, subject to similar covenants; other land had at various times been sold to other purchasers. There was nothing to show that the conveyance to the plaintiff's predecessors contained any reference to the conveyance to the defendant's predecessors or that the defendant's predecessors had any knowledge of the covenants entered into with other purchasers before their conveyance in 1840. The Court of Appeal held that the plaintiff had failed to show a building scheme involving reciprocal obligations between the purchasers, or that the plaintiff was entitled to the benefit of the covenants contained in the conveyance to the defendant's predecessors. We have not the full report of this case before us, but it seems a less strong case than that we are now considering, for here the conveyances were in one model form showing the existence of restrictive covenants, whilst there, there was nothing in the plaintiff's conveyance containing any reference to the previous conveyance to the defendant and thus principle (4) cited above was not complied with; all knowledge was absent.

We shall revert to the case we are considering if it is reported in the Law Reports.

Workmen's Compensation "Out of" the Employment.

The House of Lords, in the case Upton *v.* Great Central Railway Co., which we noted October 30, 1923, has unanimously reversed the decision of the Court of Appeal in which the majority of that Court had held that the accident in question had not arisen "out of the employment."

The applicant was the widow of a man who was in the employ of the respondents, and on the day he met with his accident was employed to go from his home station to another station on the line and from there go to work at a water main some distance from the station. It was admitted that his employment extended from the time that he left his home station until he returned to the same, and that the accident happened "in the course of" his employment, but the question was whether it arose "out of" it. He was returning from his work and had reached the station where he had to take train for his home station, and when the train came in he hurried across the platform and slipped and fell, injuring his knee, and septicæmia set in and he died. The platform was wet, but the arbitrator had found it was not slippery, and the majority of the Court of Appeal held that the accident did not arise "out of" the employment as there was no special risk of location and no causal connection between what the workman was employed to do and the accident. We may here mention that in our former note the word "causal" was accidentally printed "casual" in two places.

The House of Lords has now reversed this decision, but at present only one of the opinions delivered by the House is reported (*The Times*, December 19).

Lord Haldane, who delivered that opinion, is reported as having said that although some causal relation with the employment must be shown, that need not be a direct or physical causation. If there had been a hole in the platform that would have been an illustration

of direct or physical causation, but the statute does not prescribe such causation, and the right given is not dependent on negligence on the part of the employer, but is in the nature of insurance against injuries by accident provided they arise out of the conditions on which the man is employed; thus the only kind of causation that is demanded is that the accident should have arisen out of the man's fulfilment of those conditions. In other words the statute by its language requires the Courts to interpret the kind of causal connection required as satisfied where the accident has arisen out of what the workman had to do because of the conditions of his employment as distinguished from being directly physically caused by it. Lord Haldane then, having thus defined the causal connection, said it was not easy to lay down with precision how far such conditions may extend; the mere fact that they have arisen in the course of the employment is not sufficient, but if in the course of his employment the workman meets with injury by accident which has arisen directly out of the circumstances encountered, because to encounter them fell within the scope of the employment, compensation can be claimed.

Lord Haldane also pointed out that if the accident occurred from carelessness that afforded no bar to the claim, for serious and wilful misconduct is the only bar, and where death or permanent disablement ensues from the accident that is also no defence.

We do not know when all the judgments are reported if any more definite principle can be extracted than what we have summarised above from Lord Haldane's judgment, for it will be seen it seems as difficult as ever to read the expressions "in the course of" the employment and "out of" the employment so as to qualify the first by the second, if so wide an interpretation has to be given to the Act as that laid down in this judgment.

The following cases were referred to in the judgment as supporting the view expressed in it: Thom *v.* Sinclair (1917, A.C. 127; *The Builder*, June 22, 1917); Dennis *v.* White (1917, A.C. 479; *The Builder*, October 26, 1917); Stewart *v.* Longhurst (1917, A.C. 257; *The Builder*, April 6, 1917); and Davidson *v.* McRobb (1918, A.C. 757; *The Builder*, August 2, 1918). These are all cases in the House of Lords, but the Courts have not found it easy to draw any certain principle from them. They were considered in this same case when before the Court of Appeal, and the majority of that Court came to a contrary decision to that now delivered in the House of Lords, and it must be remembered that in the very recent case, St. Helen's Colliery *v.* Hewitson (*The Builder*, December 7, 1923), where the question was whether a man had been injured "in the course of" his employment, Lord Shaw of Dunfermline strongly dissented from the opinion expressed by the majority of the House.

In our note on the case we are considering, when decided by the Court of Appeal, we thus summarised what we considered to be the effect of the cases, Thom *v.* Sinclair and Dennis *v.* White: "If a workman whilst performing the obligations of his employment, incurs a risk which the conditions of that employment involve and sustains an injury from that risk, the accident arises 'out of' his employment, and that whether the risk is common to mankind or not."

In the light of the decision now delivered in the House of Lords, this summary of the law, which we based on those two cases, seems to require alteration, as it is now too narrow, and the word "risk" must at least be left out, for, according to Lord Haldane's judgment, the Act amounts to an insurance, not against the risks attending the employment, but against "injuries by accident" arising out of the conditions under which the man is employed, and thus the summary should now read, "If a workman in the course of his employment, whilst fulfilling the conditions of his employment, that is, doing what he has to do because of the conditions of his employment, sustains an injury by accident, the accident also arises 'out of' the employment." We have added the words "doing what he has to do," because of the decision of the House of Lords in St. Helen's Colliery *v.* Hewitson, for in that case the majority of the House held that the accident did not arise "in the course of" the man's employment, because, although he was in the train under a recognised right and by arrangement with his employers, yet it was optional for him either to use the train or to arrive at his place of work by any other means he chose.

The facts of the cases referred to by the House of Lords in giving the decision in Upton's case will be found very briefly summarised in our note on that case when heard in the Court of Appeal (*The Builder*, October 26, 1923), and in our note on St. Helen's Colliery *v.* Hewitson.

THE RENT ACTS.

Statutory Tenant's Right to Assign.

IN two cases recently appealed, Keeves *v.* Dean, and Nunn *v.* Pellegrini (1923, 2 K.B. 804), a question was raised under the Rent Act, 1920, upon which it was said there was no direct decided case. That question was whether a tenant who has received notice to quit, but who retains possession as a statutory tenant, has the right to assign the premises?

The facts of the two cases as reported in the Divisional Court in the *Law Reports* are as follows:—In Keeves' case the plaintiff Keeves was the owner of a house at Thornton Heath, and in April, 1919, he had let the premises to one Beach as a weekly tenant. There was no written agreement, and in August, 1922, the plaintiff had given Beach notice to quit, but he remained on as a statutory tenant. On January 5, 1923, the plaintiff received a letter from the defendant Dean's solicitors, stating that by an indenture dated January 3, 1923, Beach had assigned the premises to the defendant. The defendant was requested to vacate the premises, but he declined, saying the assignment to him was regular, and the plaintiff brought this action to recover possession.

The facts of the second case are very similar: there was a letting of the premises to one Stebbings on a weekly tenancy. In May, 1920, notice to quit had been given, and the rent was increased within the statutory limits. In the letting there was no prohibition against assignment, but in the later rent books there was a prohibition against sub-letting. In December, 1922, the goodwill, stock and fixtures of the business carried on by Stebbings had been sold, and it was part of the bargain that Stebbings' interest in the premises should be transferred to the defendant, and on the sale being completed Stebbings had erased his own name from the rent book and inserted that of the defendant. The plaintiff had refused to receive rent from the defendant, and in March, 1923, the plaintiff brought this action against the defendant, claiming possession and damages or mesne profits. In the first case the County Court judge had made an order for possession, but in the second case the judge of a different County Court circuit had held the defendant was entitled to judgment.

The Divisional Court had reversed the decision of the County Court in the first case, and affirmed the Court in the second case, thus holding in favour of the statutory tenant in both cases. The decision mainly turned on section 15 subsection (1) of the Act of 1920, which provides "A tenant who by virtue of the provisions of this Act retains possession of any dwelling-house to which this Act applies shall, so long as he retains possession, observe and be entitled to the benefit of all the terms and conditions of the original contract of tenancy so far as the same are consistent with the provisions of this Act. . . ." The Divisional Court held that as at common law a tenant has a right to assign his interest unless he is precluded from doing so by the terms of the contract of tenancy, and as it had been held in Parkinson *v.* Noel (1923, 1 K.B. 117; *The Builder*, December 8, 1923), that a statutory tenant's interest is "property" within the meaning of the Bankruptcy Act, 1914, section 167, and therefore not a mere personal right, the statutory tenant, unless precluded by the agreement of tenancy, could assign his interest, and there was no provision in the Act contrary or inconsistent with such a construction.

In Nunn's case also a point was raised that the assignment must be under seal, but the Divisional Court approved the finding of the County Court judge that although the assignment of the statutory tenant was not under seal, yet upon the facts proved a Court of Equity would grant specific performance and would direct a formal deed of assignment to be executed.

The Court of Appeal has now reversed this judgment of the Divisional Court (see *The Times*, December 20), but it must be noticed that the decision relates to assignments only, the question of sub-letting being left for decision in a case where that point arises.

The Court referred to section 15 subsection (1), part of which we have set out above, and pointed out that in two cases, Remon *v* City of London Real Property Company (1921, 1 K.B. 49; *The Builder*, February 11, 1921) and Cruise *v.* Terrell (1922, 1 K.B. 38; *The Builder*, April 21, 1922), it had been decided that a person who is in possession by virtue of the Statute only, is a tenant within the Act, and held that the right to assign is not a condition of tenancy, for the right to assign is a right incidental to an estate, but the right conferred on a statutory tenant is a personal right which cannot be assigned unless the Statute authorises it. Having thus laid down the principle, the Court then referred to subsection (2): "Any tenant retaining possession as aforesaid shall not, as a condition of giving up possession, ask or receive the payment of any sum or the giving of any other consideration, by any person other than the landlord" under penalties described in the subsection, and said that the two subsections showed that when in subsection (1) the legislature used the words "terms and conditions of the original contract of tenancy," it was clear the words were used in their strict legal meaning, and the conclusion to be arrived at was, reading the two subsections together, that a person remaining in possession under the Act after the expiration of the term has no right to assign the premises.

It will be seen that the question is a difficult one, and we may revert to it when the case is reported in the Law Reports, but the decision is definite that a statutory tenant holding over after the determination of an agreement, such as those before the Court, with no provision allowing him to assign in the agreement of tenancy, has no right to assign.

If, however, the contract of tenancy did contain license to assign it might still be a question whether under subsection (1) that was not a "term and condition of the original contract of tenancy" to the benefit of which the statutory tenant would be entitled, for that question was not before the Court.

Therefore, it is very important to note that the Rent Restrictions Act, 1923, in section 4 subsection (1) paragraph (*h*) has a provision dealing with this matter. That paragraph provides a new ground upon which an order for possession may be made, that is where "the tenant without the consent of the landlord has at any time after July 31, 1923, assigned or sublet the whole of the dwelling house or sublet part of the dwelling house the remainder being already sublet." The only question, therefore, which can now arise is what meaning is to be attached to the words "without the consent of the landlord." If the lease or agreement of tenancy contained a license to assign or sublet, would that be a term or condition of the contract of tenancy under section 15 subsection (1) to which the statutory tenant is entitled "so far as the same is consistent with this Act," and therefore amount to a consent under paragraph (*h*) of the new Act, or must special permission be asked and obtained? We imagine that it would be held that where the tenancy agreement permits assignment, the statutory tenant can avail himself of the license, but at any rate one point is clear which, as we have said, was specially reserved in the above decision, for the Statute places assignments and sub-letting on the same footing.

INDUSTRIAL ART.

BY REGINALD HALLWARD.

Two events, each of them directed to the improvement of the standard of industrial art at the present time, both of them of more than usual importance—the one promoted by the Royal Society of Arts and the other by the London, Midland & Scottish Railway Co., have already called forth a considerable amount of notice. In the case of the first, the Society of Arts, in order to encourage the study of design for industrial purposes, have decided to hold annual competitions. The first of these will take place in June, 1924, and will be open to two classes—(*a*) students in British Schools of Art, and (*b*) all British subjects. The competition is divided under the following heads:—(1) Architectural Design, (2) Textiles, (3) Furniture, (4) Book Production, (5) Pottery and Glass, and (6) Miscellaneous, from which it is seen that the scheme covers a wide field. The Society will confer its Diploma on any candidate whose work shows exceptional artistic ability and practical knowledge of the materials and processes of his trade. After the awards, by permission of the Director, the designs will be exhibited at the Victoria and Albert Museum. Under the title of "Miscellaneous," two firms offer prizes for designs for chocolate boxes. The L.M.S.R. scheme takes the form of commissions to members of the Royal Academy to design posters of places and industries on their line. Many of these posters are already nearly complete, and as many as 17 Royal Academicians are engaged on the work. The suggestion of this movement came from Mr. Norman Wilkinson, whose poster work is well-known, and no pains will be spared in their reproduction in order to secure the best result. In regard to this scheme it will be of interest to quote a passage from an article in a contemporary on the subject in which it is stated: "The artist is the very man that we require more of in our social swirl of routine, catchword and claptrap . . . And the Academician going out into the highways should not only find his work, but find himself." From which it would appear that he has not already found himself, to which perhaps Academicians will have something to say.

We are glad, however, to see the good example set by the Underground Railways being followed by other companies. For the success of the former has not been only that it has sought to improve advertising—for which good intentions are insufficient—but that it has shown so much judgment in the choice of suitable material, avoiding the over-pictorial, and touching advertising with the lightness and buoyancy which fits its more, or less, ephemeral character. We have only to think of the enchanting alphabet known to travellers by the Underground, and the more recent and provokingly droll little poster, called "Theatreland," to see that the Underground enters into the genius of the art, which is not to load us with ponderous and realistic scenery, printed in a great number of colours, but touch it all with the magic wand of gaiety, brightness, humour, and with treatment adequate to these. This—though we do not praise everything—they have done in a way that is deserving of thanks from all who use their system of railways. We are at moments afraid that the Midland Company are relying on the prestige of certain artists, instead of the applicability of their work, and it was in avoiding the mistake of this more conventional attitude that the Underground was able to go straight towards success, and it would not be too much to say that they have created advertising through this independence of choice. So that, when we hear of Scotch scenery, and think of the peril that lochs and lakes are to the artist, we are anxious to encourage a direction in which fancy is more than fact, art more than nature, and genius more than reputation. In justice to the artists who have done such good work already, we may add that Academy rank is no greater assurance of improved industrial design than the work of other good artists who have been pioneers in the movement which has preceded theirs. We welcome and look forward to seeing these Royal Academy posters, many of the members not having before done a poster; but when reports state that "a great move forward in industrial art is to be expected," we see no reason to think that the enterprise which has done so much for industrial art in the case of the Underground Railways is going to be left behind. We want to make this clear, while welcoming the Academy contribution. From what we read of the intentions, the Midland Co.'s scheme is not unattended with dangers. "Mr. Wilkinson," so we are told in the *Observer* account, "was evidently delighted with the subject. The L.M.S. lines, he pointed out, run through the loveliest scenery in the kingdom—the mountains of Wales, the Mediæval Border, the wildly beautiful Highland glens and forests, the glens of Antrim, and the great loughs of Ireland," and so on. But realistic portrayals of Highland glens can be very dismal things, and the traveller, so it seems to us, in his minutes of waiting for the train, would prefer something else, something that arrested by its unexpected whimsical character, that had genius and personality to beguile us through impressions drawn from art rather than local scenery. And what we are concerned to point out here is that lightness, fancy and personal vision are better than pictorial landscapes of glens and lakes. The advertisement is by nature of its situation and purpose more or less ephemeral, and should be touched with the lightness which such a use connotes; this does not preclude a fine sense of design and treatment, but directed to its purpose and place and the limitations which such imposes.

It may be suggested in reply to this that the mediæval period brought art into the daily life, touching it everywhere, and that there is a sort of parallel in this introduction of academic art to advertise railway travelling. On the other hand, there will be those who see danger to art in the artist being brought more and more within the orbit of industrialism, and that the nature of his vocation may be sacrificed to it. We do not say this is the case, but some will doubt—there will yet remain some who find another scope for art, which is not included in industrialism, as the expression through beauty of the highest religion and noblest truth. We are not deprecating industrial uses for art—far from it—but are wishing to keep before the public those other aims for art which industrialism obscures. Is there not some parting of the ways for art disclosed through present issues? which reveals the craftsman on one side absorbed more and more into industrial art, and finding through it his scope, and on the other the pursuit of beauty by the artist for itself, trusting the inspiration of his high vocation in a world more occupied in material wants, and so to raise and purify it. This appears to us at such a time to need saying lest we forget the larger issues of life for mere "meat and raiment."

We have already commented on the proposals of the Royal Society of Arts, and while in no way deprecating any steps which may improve industrial design, we are unable to forget that this is only one more of a very great number since the time of the Great Exhibition of 1851, directed towards that end. It must be remembered also that the deterioration in our industrial standards of craftmanship has in many ways progressed since that time. Such schemes, under one guise or another, are hardy perennials which have not yet led to that decisive improvement hoped for.

We yield to none in our desire to see improvement, but does it lie in craftsmanship alone? Can the problem of industrial art be solved through giving diplomas, or because seventeen Academicians design posters for the railway stations? No doubt great changes are foreshadowing themselves as the result of the war, but have they penetrated through all ranks of society to seek new and better ends for industry raised above the war of industrial competition to seek beauty as an end in itself? Yet something like this must ensue before the industries of the country can be again stamped with authentic beauty. Are we quite whole-heartedly seeking beauty for our industries, or are we proposing to make use of it for our commercial purposes, to push our sales? There is a world of difference between the two, and we shall find what we seek.

There is yet another thing which must also be considered when we are showing so much concern for the needs of industrial art. There is only art, there is not industrial art and some other; nor is art necessarily of a character that would be at once understood and appreciated by the general public. Every artist knows that this is a negation of the nature of art, which asks something from us as well. We cannot have it both ways. What art is this that is to be secure of appreciation by the public as a condition of itself? For it suggests there is some other art which the public may not like so well. Are we making terms with art on the basis of our pockets or our hearts? For we need to look at things as they are, not as some of us would wish them to be. Will the Royal Society of Arts award its diplomas to art or to the art the public is supposed to like? For they may not be the same. We would not be misunderstood: given good design, the public would in time appreciate it. But the thing we are all needing is to believe in beauty for itself; and it is this grand amelioration we await, and industry awaits, and when this deliverance comes we shall awaken to a new world.

The danger is lest we should appear to be doing something when we are not really doing it. We are anxious to encourage industrial art, but is the artist, when we have him kept in full use of his abilities in the best way? We pursue the shadow so often for the substance—encouraging art, industrial or other—while the artist is seldom fully employed. It is worth while thinking of these things when regarding new schemes for improving industrial art, because they lie as the foundations of any possible success. For it is not that beauty is far off from us, but that we are far off from it, through an outlook with which the industrial era has accustomed us; in which expediency, and worldly wisdom, and the power of money—to which beauty will never yield—have ruled over us. And so, though welcoming all efforts directed towards the improvement of industrial art, we speak here of what must also not be left undone, if we are to disentangle life from the half-truths and expediencies under which we live. It may be that we have yet to plough our feet through deeper loss and suffering before there returns that belief in the good and the beautiful which directs us to trust it before aught else and for its own sake; but when that time comes we shall rely less on diplomas to restore to industry the beauty—the want of which we feel—because it will then have become what all our hearts desire.

The Wren Society.

This society, which was founded shortly after the Bicentenary Celebrations of February, 1923, for the purpose of publishing the drawings of Sir Christopher Wren and other documents throwing light on his work, has now in hand a portfolio to contain the drawings of St. Paul's in the All Souls' Collection, which will be issued with explanatory text as early as possible this year. It is hoped that many who have not already joined the society will avail themselves of the opportunity of doing so now, since wider support will be needed to enable the society to extend its activities to other subjects and other collections. Matter is abundantly available, but must remain little known till it can be reproduced. The annual subscription is one guinea, and subscribers will receive annually a portfolio of from 20 to 25 collotype plates with text. The Hon. Sec. is Mr. W. H. Ward, 2, Bedford-square, W.C. 1.

THE BUILDING TRADE.

COST OF BUILDING MATERIALS.

THE report for November and December, 1923, of the Inter-Departmental Committee appointed to Survey the Prices of Building Materials, states that the most appreciable fluctuation to which attention need be drawn is the price of lead between October and November, 1923. The general rise in price mentioned in the October report was still further accentuated, and in the majority of districts included in the schedule the November prices show an increase of approximately £6 or £7 per ton. Timber appears to be somewhat easier in price in London and Edinburgh. The price of bricks and cement remains generally at the same level; there has, however, been an advance of 2s. a thousand in common bricks at Swansea, and a fall of 2s. at Edinburgh. From Manchester, where a fall of 5s. a ton in British Portland cement was shown in October, a further drop of 2s. is reported. There has been no change in the price of light castings. There have been a number of local fluctuations in other materials, but no general move in either direction.

There has been practically no change in the level of prices between November and December, the one point mostly of note being a fall of 6s. 2d. a thousand in facing bricks at Dundee.

MESSRS. WALTER LAWRENCE & SON, LTD.

ON the occasion of Mr. Walter W. Lawrence's majority, the staff of Walter Lawrence & Son, Ltd., were entertained to dinner at the Great Eastern Hotel, on Tuesday.

After the loyal toasts had been honoured, Mr. W. A. Ward, in proposing "Mr. W. W. Lawrence," presented him—on behalf of the staff—with a gift of silver as a mark of their appreciation.

Mr. W. W. Lawrence, responding, said he hoped to be in touch with them in the future. As they had known him years ago, he hoped they would be content to know him then. In spite of the troubled times of commerce, he trusted the foundations of friendship would last for many years to come.

Mr. B. T. Rice Pyle then proposed "The Architects and Surveyors." Messrs. Victor Wilkins and J. M. Theobald responded.

Sir Walter Lawrence, in proposing "The Staff of Walter Lawrence & Son, Ltd.," said no firm could succeed without a loyal staff, and, it was interesting to know, that several members had served for over twenty-five years—hard work seemed to agree with them. They were the men who had stood by the firm and brought it to its present position.

Mr. W. L. Thorpe, responding, presented to Sir Walter Lawrence, as a mark of their appreciation, an address signed by the whole of the staff.

Sir Walter, in a brief reply, said the address was totally unexpected, and he was pleased to think his treatment of the staff had been appreciated.

NEW BUILDINGS IN LONDON.

FLEET-STREET RECONSTRUCTION.—Messrs. B. Colley & Sons, Ltd., builders, of 135, Portland-road, W.11, are reconstructing 144, Fleet-street, the reconstruction and alteration consisting of gutting out the whole of the floors from top to bottom and the roof, and underpinning the party wall between 114 and 113; also new concrete floors in the basement and to the shop. Messrs. Seigwarts have put in their patent concrete reinforced block floors. The Empire Stone Co. has built new stone stairs from the basement up to the top of the house.

MODERN BUILDERS' MACHINERY.

BY STAFFORD RANSOME.

III.—SECOND-HAND PLANT.

IN the last article the very wide range of makers of machinery from whom the builder may make his selection and the difficulties in arriving at a sound decision were discussed, and a certain policy for purchasers recommended. Here it is proposed to deal with the problem of second-hand machinery, which often plays an important rôle in the building industry, especially with young firms who are beginning to launch out.

There is always a considerable amount of second-hand builders' plant floating about the country, mostly in the hands of dealers, and the rest is to be found at auctions or in factories which have ceased work where the owners prefer a private sale to an auction. Just now there is an unusually large amount available, as there are hundreds of machines that were used for rush work during the war and whose functions ceased when the war ended, and the large surplus Government stocks that were never used, and which have not even yet all been absorbed.

Let me say at once that in the abstract I am no believer in the adoption of second-hand machinery as a principle. At the same time there is a very large trade in second-hand plant, and in it the smaller builder is a large purchaser and is not infrequently to be found as a seller. He is a purchaser for a variety of reasons: The low cost may appeal to him; he may be in a hurry and cannot wait for new machines; he may see just what he wants, or thinks he wants, in the way of second-hand plant ready for his use just at the right time; he may want machines temporarily and consider that second-hand plant may suit him for the purpose. He becomes a seller because: His business may be expanding and he discards his combined machines of the "general joiner" or "universal wood worker" type in favour of separate machines; he may have been only a temporary user of machines; he may be going out of business; he may realise that he has bought a bad plant and wants to get a better one. Second-hand machinery, then, is a serious factor in the trade and, while the idealist may scoff at it, it cannot be laughed off or ignored, for it is there, good or bad, a real thing which must not be passed over lightly as of no account.

Nothing that can be written against it will stop or even discourage it, and after all the chance of making a wonderful "bargain" is often irresistible to many purchasers. To the purchaser who has a thorough knowledge of wood-working machinery and has an opportunity of carefully examining the plant before purchasing the risk is not great, but to anyone else the danger of making an appallingly bad bargain is evident. In a previous article I emphasised the point that the best machines are the cheapest. Well, second-hand machinery is seldom likely to be the "best," even if it is of good make and in good condition, but it may well be that a second-hand plant by a good maker will prove itself to be infinitely better than a cheap new plant. On the other hand there are many second-hand machines which have the appearance of being "as good as new" which are virtually worthless. A pot of paint will do wonders in making an old machine look presentable. On the other hand some machines which appear, and actually are, nearly new may also be worthless, because, owing to some inherent fault in their design or construction, they were wrong from the start. Such a defect may not be noticeable to any but an expert until the machines are in operation.

If a purchaser of second-hand machines is himself an expert and a millwright, and can afford the time to look around and wait for what he wants, he can sometimes equip himself eventually with a second-hand plant which will answer his requirements quite well after he has put the machines in working order himself. Many builders in a small way have started on these lines, and some have gone on doing so and, in fact, have made a hobby of it. Personally I do not consider the game is worth the candle, because the waste of time involved in the process is very considerable, and although the machines may have been made "as good as new" some of them assuredly will be somewhat out of date.

In trying to avoid the pitfalls that lie in the path of the purchaser of second-hand plant let us analyse the stuff those machines are made of.

Long-Lived Machines.

One often hears a saw-mill owner say that a certain machine of his, after working for twenty years, is "as good as new." Only recently I saw a letter from a man, well known as a saw-mill authority in India, stating that a saw-frame which had been running there for twenty-eight years was still in perfect condition, and he gave as its present output a rate that was at least equal to that of a good log frame made to-day. This is due to three causes: (1) The machine was by a first-rate maker; (2) it had been looked after intelligently; and (3) there has been no material increase in the outputs of general purpose log frames or drastic alterations in their construction since that date. The best makers in those days erred on the side of heaviness in their machines, and the materials they used, though not so scientifically apportioned, were always good. This all tended to longevity, and there is no reason why a frame saw constructed a quarter of a century ago should not be virtually as good to-day as it was when new, provided that it has been intelligently used and had its wearing parts renewed from time to time. Nor is there any reason to scrap it in favour of a new log frame, for the new one would not give an appreciably larger output or a better quality of work.

The steady slow-going log frame is almost alone among wood converting tools to which the above condition may be said to apply, for although the above period is by no means an extraordinary lifetime for a wood-working machine of almost any type, if properly made in the first instance and carefully treated, and although there are thousands of them other than log frames of that age working to-day as well as they did when they were put down, they are nearly all out-classed by more modern machines which do better work at higher speeds. Not only that, but to-day they are much more scientifically made, stresses are dealt with theoretically, all unnecessary material is eliminated from the working parts, spindles are accurately balanced, feeding gear vastly improved, and ball and roller bearings have at once, by greatly reducing friction and the amount of lubricants consumed, lowered the driving effort.

Users of wood-working machinery proverbially hang on to their machines far longer than they should, for it is merely a truism to say that a machine is obsolete as soon as there is a better one to replace it. Thus it is that in normal times second-hand machines do not, as a rule, come on to the market in any large quantity, except from some accidental cause, until they have long been obsolete in comparison with new machines, or until they have been used up or damaged, or unless they were originally bad. This makes the purchasing of second-hand plant a very dangerous proceeding to the tyro.

Obsolete Machines.

One cannot, of course, place even an approximate date as to when a particular class of machine becomes obsolete, but we may take it as a general rule that with the exception of the log frame and possibly one or two of the simpler machines, such as a plain saw bench or plain lathe, no second-hand machine that is anything approaching ten years old is worth buying at any price, and nothing in the shape of an automatically fed machine, either in the form of a planer or a saw, is worth considering after it has been in use for much more than half that period; not necessarily because it is worn out, but because there are far better designs to be had to-day. This computation, rough as it is, can only hold good when it is a question of a choice between second-hand machinery and the best new machines that can be got. If the choice lies between second-hand plant and cheap new stuff, whether in the form of Continental machines or those made by certain firms here who cater for the cheap trade in competition with the Continental firms, it is quite possible that a ten-year-old plant by a good manufacturer will be far the better proposition of the two. The reason for this is because the cheaper machines do not, as a rule, contain the latest improvements and their construction is liable to be faulty.

A point to be borne in mind when purchasing second-hand plant is that if it is in such a condition that much money has to be spent upon it to make it "as good as new" most or all of the advantages in purchasing it at a low cost are done away with.

The proper people to renovate a second-hand machine are the firm who made it. Their price may be higher than that of a local millwright, but the latter may have but little experience in wood-working machinery, and if it is a question of replacing broken or worn-out parts there is no one but the maker who is likely to have in stock the required exchange pieces. Besides this, the maker whose name is on the machine will assuredly make a good job of the renovation or refuse to undertake it, as his prestige is at stake.

A Machine's Past Life.

One of the most important things to ascertain when purchasing second-hand machinery is its past history, and the first item to find out is the maker. If it is by a well-known manufacturer the name will be on it. If there is no name, or if it bears the name-plate of some factor instead of the actual maker, there is some reason for it. Even a factor does not remove the name of a reputable firm, because it is a guarantee that the machine is, or ought to be, a good one. Still less does the second-hand dealer do so, because a good maker's name may quadruple the price that he can get for the machine.

The next most important thing to ascertain is the age of the machine. With the maker's name it should not be difficult to find this out, especially if it is known where the machine has been working, as there is probably a record in the maker's books. At all events, a representative of the maker will easily be able to date its birth within a year or two if he has an opportunity of inspecting it. It is usual for the maker to cast his name on the machine, usually on some part of the main standard.

The safest way to buy a second-hand machine is from a factory which is about to stop, or from which the machine is about to be removed, because then the purchaser or his technical adviser can see the machine at work and examine the quality of the work done by it. It is not often, however, that this is possible, as the machines are seldom put on the market until the factory has stopped work.

By far the cheapest market in which to buy second-hand plant is the auction room, for here good machines will sometimes be sold for a twentieth or less of their value though often rubbish will fetch as high a price as good machines. For this reason it is a very risky business unless the purchaser has had a previous opportunity of fully examining the machines. When such is the case, if the machinery is good and what is wanted, it would be better to buy it in before the sale if you can get it at your own price. It is possible that at the auction you might buy it cheaper, but then you must risk the chance of someone else getting it.

Quite recently I had to advise on the purchase of a plant for making a certain special article. The machines were in a factory which had given up work, and this special plant, with the rest of the property, was shortly to be put up to auction. I inspected the plant, recommended its purchase at a certain price, which was accepted by both parties, and the goods were withdrawn from the sale. Here my work ended, but it transpired that in error one of the machines concerned had not been taken out of the sale and was knocked down to a dealer for a few pounds. When the mistake was discovered the dealer was located and his price was five times that amount. Big as was the profit, it was a legitimate one as he had taken a big risk, for he might have had to hold it for a long time; but the machine was a good one and worth certainly three or four times the dealer's price to the man who wanted it.

Buying second-hand machinery from a dealer is the easiest procedure for the man who is in a hurry, because, by looking round the dealers, he may get a fairly wide selection of machines. It is also the easiest way of falling into a bad mistake. When this policy is adopted, however, it is safer to purchase from a dealer who sells his machines in the condition in which they were when he bought them, without, that is to say, any attempt to make them "as good as new." With the former, if we have an opportunity of inspection and are conversant with these machines, we, at all events, know the worst at once, and can form our own estimate as to what the repairs will cost. The price, too, will be comparatively low. With a dealer, however, who makes a practice of renovating the machines he buys and selling them as in good working order, if not new, we are facing a much more risky proposition. To begin with his price will be within measureable distance of that of a new machine. Quite possibly he has honestly tried to put the machine in good repair, but his one and only object is to make the machine presentable for sale at a good price, and he spends as little money in the process as possible. We must further bear in mind that, with all the good will in the world to do the work thoroughly, he cannot do it as efficiently as it should be done if there are any complications involved in the process. Essentially is this the case where anything in the shape of an elaborate machine is concerned, such as a four-cutter planer or a general joiner. Nor is such a man going to order and fit special exchange parts which may be necessary to the proper renovation of a machine. Further, whatever his knowledge of machinery repairs may be, he is not an expert in all sorts of machinery, and wood-working machinery is intended for high-speed and delicate operations, and all repairs to it, as above explained, should be done by an expert, preferably by the maker of the machine.

Apart, however, from the conscientious dealer, there are others whose renovations consist solely in camouflaging defects, and some of these dealers are extremely ingenious in their methods. Quantities of vamped-up and very bad wood-working machines are made presentable by such dealers and are readily sold, and it is in this trade that the worst bargains are made from the purchasers' point of view. In short, if you buy second-hand machinery from a dealer, buy it in the rough, and see to its being put in workable order by someone of your own selection.

Characteristic Deficiencies.

Now I will endeavour to summarise the points which are most likely to cause trouble in second-hand plant. Some of these may be fairly obvious, but others are sometimes difficult to locate at the time of purchase.

(1) It is seldom that a second-hand machine, however good its condition may be, unless it is nearly a new one, will give as good results in output as a new machine, as types change and improvements take place frequently.

(2) It will be less convenient to handle, because the arrangement of spindle, feeding gear pressures, &c., has improved greatly during recent years.

(3) It may, and probably will, have solid bearings which are out-of-date for wood-working machinery to-day for anything except perhaps a saw frame.

(4) Its bearings in any case will probably require renovating or replacing, and if the spindles are badly worn they, too, will have to be replaced.

(5) The gear wheels and racks are almost certainly worn and require replacing. Very possibly they are of cast iron instead of cut out of the solid. This causes them to work jerkily, makes them noisy and absorb more power.

(6) The tables of saw benches and, worse still, of planing machines may be worn out of truth, and will require either replaning, replacing, or the machine may have to be thrown out.

(7) In four-cutter planers there may be no replaceable sectional tables to facilitate replacing when worn.

(8) There may be no provision for withdrawing the bottom block from a planer for adjusting the cutters.

(9) Spindle headstock fences, sliding parts and lathe centres may have been worn, or jarred, out of alignment.

(10) Cutter-blocks may have been knocked about and thrown out of balance and must be replaced or at all events re-balanced.

(11) The pins and collars or sleeves forming articulated joints will almost certainly be worn, thus producing "back-lash" and jerky movements.

(12) Hand-feed planers will almost certainly be unprovided with the circular blocks now required by the Home Office regulations.

(13) The guards and other safety appliances will probably not accord with these regulations.

THE WEEK IN PARLIAMENT.

Westminster, *Wednesday.*

Defence of the 1923 Housing Act.

During the debate on the Labour Party's motion of "No confidence," which began on Thursday, January 17, Sir Wm. Joynson-Hicks, the Minister of Health, said that, although the Housing Act of 1923 had been in operation for only five months, he had already approved plans for the building of 85,036 houses. Of that number 31,000 were to be built by the local authorities and 53,600 by private enterprise.

Already, under the 1923 Act, contracts for 44,000 houses had been made; 17,600 houses were in course of erection, and 3,500 had been completed. All this had been done in five months. He prophesied that there would be built in the first year after the passing of the 1923 Act no fewer than 100,000 houses. That number would be greater than the number built in any year during the last twenty years, except in one year, when 105,000 were built. The average annual pre-war figure was 63,000. In addition to the 85,000 he had mentioned, he was every week approving over 3,500 further houses. The best year under the Addison scheme only produced 88,900 houses. In 1901 there were 101,000 bricklayers, and to-day there were only 53,000. There were 27,000 plasterers, and to-day there were only 13,000. There were 8,400 slaters, and to-day there were only 2,880. There was practically no unemployment in the skilled sections of the building trade to-day. Of bricklayers there were 1.6 per cent. unemployed, of plasterers 3.5 and of slaters 4.9. He had been asked at the Ministry of Health by nearly every town in the country for more slaters, more plasterers and more bricklayers. He had had demands from local authorities who desired to build more houses, but who could not build more houses.

Sir W. Joynson-Hicks said, as regarded the skilled operatives, there was ample work in sight for them, and for at least 25 per cent. dilution for the next ten years.

Mr. D. G. Somerville, on the previous day, said the reason why too few houses had been

built was because of the shortage of bricklayers and plasterers. Why were there no bricklayers and plasterers in this country? Because, after the war, owing to the Socialistic doctrines which impregnated them, the trade unions did not allow any dilution of building labour.

Houses Built.

Sir Wm. Joynson-Hicks informed Mr. A. T. Davies that during the year ended December 31 last, apart from houses built by private enterprise without subsidy, 19,185 houses were completed in schemes approved under the Housing Acts of 1919 and 1923, and on January 1 last 18,975 houses were under construction.

Vacant Houses.

Mr. W. Adamson asked the First Commissioner of Works the number of dwelling-houses under the control of his department which were now vacant.

Sir J. Baird said that out of a total of 9,763 houses managed by his Department, 172 were void, over 75 per cent. of such houses being in Barrow and Invergordon; 149 houses were available for re-letting, but owing to the industrial conditions, especially in those two areas, considerable difficulty was being experienced in finding tenants. Only 23 houses out of the total of 9,763 were being held for sale, and in the event of there being no sale within the short period allowed by the Department, they would again be offered for letting.

Smoke Abatement.

Sir Wm. Joynson-Hicks informed Sir H. Brittain that it was proposed to reintroduce the Smoke Abatement Bill and he hoped it might be found possible to secure its passage into law during the present Session.

Light on the Cenotaph.

Colonel Vaughan-Morgan asked the First Commissioner of Works whether he was prepared to favourably consider the proposal to fix a light at the top of the Cenotaph to be kept constantly shining; and whether he was aware that the French authorities had put into practice a proposal having a similar object?

Sir John Baird said that the question was considered in June last year. Sir Edwin Lutyens, the designer of the Cenotaph, stated in the Press his objection to the proposal on the ground that the Cenotaph was not designed for the purpose. He shared the views of the distinguished architect in the matter.

CRAFTSMEN COMPETITIONS AT OLYMPIA.

It is intended this year to revive the competitions for craftsmen at the forthcoming Building Exhibition, to be held at Olympia in April, and all the Trades Training Schools are being asked to compete. A committee to arrange the details has been formed consisting of Mr. J. Alfred Gotch, President of the R.I.B.A., Mr. Stanley Hall, F.R.I.B.A., President of the Architectural Association, Mr. E. J. Partridge, F.R.I.B.A., President of the Society of Architects, Mr. Roland Chessum, ex-President of the Institute of Builders, Sir Banister Fletcher, F.R.I.B.A., Director, Trades Training School, Great Titchfield-street, W., and Mr. T. P. Bennett, F.R.I.B.A., of the Northern Polytechnic Institute.

At a recent committee meeting the time for holding the competitions and the conditions to be observed were agreed upon, the subjects to be set being left for further consideration.

It was resolved that the competitions should take place in the following trades:—Carpenters and Joiners, Plumbers, Bricklayers, Smiths, Plasterers, Masons, Painters and Decorators, Glaziers.

The management of the Exhibition offered to give a money prize of £5 to the first prize-winner, £2 10s. to the second, and books to the value of £1 to the third, together with a Diploma of Merit. It was agreed to approach the Companies of the City of London, interested in the Building trades, with a view to their giving special diplomas to the Schools, as apart from prizes to individuals. Particulars may be obtained from Mr. A. Cameron, 43, Essex-street, Strand, W.C.2.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Accrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Altrincham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ashton-under-Lyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barnsley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barrow-in-Furness	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Barry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bath	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Bedford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bishop Auckland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackburn	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Blackpool	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bolton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Bournemouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bradford	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Brentwood	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bridgwater	1/3	1/3	1/3	1/3	1/3	1/3	1/3	0/11½
Brighton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bristol	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burnley	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Burton-on-Trent	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bury	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Cambridge	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cardiff	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chatham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chelmsford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Cheltenham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Chester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Chesterfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Colchester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Coventry	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Crewe	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Darlington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Derby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Doncaster	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Dudley	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Durham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
E. Glam.(Mon. Vall.)	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Eastbourne	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Exeter	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Folkestone	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Gloucester	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Grantham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Grays	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Grimsby	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Great Yarmouth	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Guildford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Halifax	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Harrogate	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hartlepools	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hastings	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	0/11½
Hereford	1/4	1/4	1/4	1/4	1/4	1/4	1/3	1/0
Huddersfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Hull	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Ipswich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Lancaster	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leamington Spa	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Leeds	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Leicester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Lichfield	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Lincoln	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
London	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2½
Loughborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Luton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Maidstone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Manchester	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Mansfield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Merthyr Tydfil	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Middlesbrough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newcastle-on-Tyne	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Newport, Mon.	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Northampton	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Norwich	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Nottingham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oakham	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Oldham	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Oxford	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Plymouth	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Pontypridd	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Portsmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Preston	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Reading	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rochdale	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Rochester	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Rugby	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Albans	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
St. Helens	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Scarborough	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Sheffield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Shrewsbury	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Southampton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southend-on-Sea	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Southport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
South Shields	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockport	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stockton-on-Tees	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Stoke-on-Trent	1/7	1/7	1/7	1/7	1/7	1/7	1/7	0/11½
Stroud	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3	1/2½
Sunderland	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Swansea	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/0
Swindon	1/4	1/4	1/4	1/4	1/4	1/4	1/3	0/11½
Taunton	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/3½	1/0½
Torquay	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Tunbridge Wells	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/2½
Wakefield	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/1½
Walsall	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/2½
Warrington	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
West Bromwich	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Wigan	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Windsor	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Wolverhampton	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Worcester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
York	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2

(For rates of wages in the Building Trade in Scotland, see page 165).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JANUARY 26.—**Barnsley.**—HOUSES.—Tenders are invited for the erection of 20 houses, Woodstock-road, Barnsley. Apply Mr. P. A. Hinchliffe, 14, Regent-street, Barnsley.

JANUARY 26.—**Barnstaple.**—HOUSES.—For the erection of 13 houses on the Newport Housing Site, for the T.C. Borough Surveyor, The Strand, Barnstaple. Deposit £3 3s.

JANUARY 26.—**Dorchester.**—DWELLING HOUSES.—Erection of two small farm dwelling houses on Holdings Nos. 1 and 10, Oborne Estate, for the Dorset C.C. County Architect, County Offices, Dorchester.

JANUARY 26.—**Edinburgh.**—HOUSES.—Erection of 18 two-apartment houses at Sheriff Brae, Leith, for the T.C. Messrs. W. N. Thomson & Co., surveyors, 87, Constitution-street, Leith.

JANUARY 26.—**Exminster.**—OPERATING THEATRE.—Erection of an operating theatre at the Devon Mental Hospital. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter. Deposit £3.

JANUARY 26.—**Ilfracombe.**—ALTERATIONS.—For new cells and alterations and additions to Ilfracombe Police Station, for the Devon C.C. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter. Deposit £3.

JANUARY 26.—**Marylebone, W.1.**—SUNDRY REPAIRS, PAINTING, CLEANSING, &c.—Execution of sundry repairs, painting, cleansing and other work at the St. Marylebone Home, 1, Northumberland-street, W.1, for the Board of Guardians of St. Marylebone. Messrs. Constantine & Vernon, architects, 82, Mortimer-street, W.1.

JANUARY 28.—**Aberdeen.**—HOUSES.—Erection of 33 blocks, each of two cottages; two blocks, each of four flatted houses; two blocks of houses, each for six tenants, for the T.C. Mr. A. H. L. Mackinnon, Architect, 245, Union-street, Aberdeen.

JANUARY 28.—**Barnsley.**—CLUB.—For the erection and completion of an official's club, Little Houghton, near Barnsley. Apply Messrs. Dyson, Cawthorne & Coles, 10, Regent-street, Barnsley.

JANUARY 28.—**Blackpool.**—CONVERSION.—For the conversion of the shop premises in West- and Lytham-streets into municipal offices, for the T.C. Mr. Francis Wood, Borough Engineer, Town Hall-street, Blackpool. Deposit £2.

JANUARY 28.—**Blything.**—ALTERATIONS.—For alterations and additions to the Old Boys' School, Holton-road, Halesworth, and converting the same into a Children's Home, for the Board of Guardians. Mr. A. A. Hipperson, Surveyor's Office, Wangford, Lowestoft.

JANUARY 28.—**Bridgnorth.**—HOUSES.—Erection of 16 non-parlour type houses and six parlour type, for the T.C. Borough Surveyor, Bridgnorth.

JANUARY 28.—**Budock.**—BUNGALOW.—Erection of bungalow at Trescobeas, Budock. Mr. A. J. Cornelius, architect, Truro.

JANUARY 28.—**Carlisle.**—COTTAGES.—Erection of 50 cottages on the Wigton-road Estate, for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle. Deposit £2 2s.

JANUARY 28.—**Ecuador.**—CUSTOMS HOUSE, &c.—The date for tenders for the construction of the new Custom house and wharf at Guayaquil, Ecuador, has been extended to January 28. Consulate-General, 23, College-hill, E.C.4.

JANUARY 28.—**Glasgow.**—QUAY.—For the construction of about 1,928 lineal yards of concrete quay wall forming Dock No. 1 Shieldhall, Glasgow Harbour, for the Trustees of the Clyde Navigation. Mr. T. R. Mackenzie, General Manager, 16, Robertson-street, Glasgow. Deposit £10.

JANUARY 28.—**Guildford.**—HOUSES.—Erection of alternative types of non-parlour houses as follows:—twelve houses on the West Horsley site, six houses on the Peaslake site, in the parish of Shere, six houses on the Pathfield site, in the parish of Shere, for the Guildford Rural District Council. Mr. John Anstee, Council Offices, Commercial-road, Guildford. Deposit £2 2s.

JANUARY 28.—**Hinckley.**—CONVENIENCE.—Erection of convenience off George-street, for the U.D.C. Mr. J. S. Featherstone, Surveyor, Hinckley. Deposit £1 1s.

JANUARY 28.—**London, S.E.1.**—HOUSES AND ROADS.—Development of a portion of the new Downham housing estate at Grove Park, Lewisham, S.E.: (1) Construction of roads, sewers and other works; (2) the erection of houses and such other buildings as may be determined. Tenders are invited on two alternative bases—(*a*) on the basis of the Council bearing the actual cost of and financing the undertaking and paying a fee or commission to the contractor for his services, the amount of such fee or commission being dependent partly upon a comparison or cost with a predetermined value for the London County Council. Administrator of Housing Development Schemes, Old County Hall, Spring-gardens, S.W.1, upon payment of £10.

JANUARY 28.—**Manchester.**—REPAIRS, &c.—For the execution of general contractor's and plumber's work in connection with the drainage of houses and other premises for 12 months, for the T.C. Mr. J. Irvine, Manager of the Drainage Branch, Public Health Dept., Civic Buildings, 1, Mount-street, Manchester. Deposit £1 1s., for each of three districts.

JANUARY 28.—**Plymouth.**—HOUSES.—The Council are prepared to receive tenders for the erection of 120 houses (the whole or a portion of the number) on four sites at North Prospect (Section No. 2). Form of tender, specification, plans and lay-outs may be obtained, and conditions of contract seen at office of the undersigned, on and after the 17th inst. Tenders, sealed and endorsed "Tenders for houses, North Prospect," together with all documents, &c., must be delivered to the Town Clerk not later than 10 a.m. A deposit of £2 2s. will be required, to be refunded on receipt of *bona fide* tender and return of plans and all documents. The Council do not bind themselves to accept the lowest or any tender. J. Wibberley, Borough Engineer and Surveyor, Municipal Offices, Plymouth.

JANUARY 28.—**Queensferry.**—PAINTING.—For the painter work of 16 houses at Hopetoun-road, for T.C. Mr. W. M. Scott, architect, Linlithgow.

JANUARY 28.—**Tendring.**—COTTAGES.—Erection of 28 cottages in the parishes of Ardleigh, Lawford and Tendring, for the Tendring R.D.C. Mr. F. G. Vincent-Brown, Cliff-road, Dovercourt Bay. Deposit 10s.

JANUARY 28.—**Thurstonland.**—HOUSES.—Erection of eight dwelling-houses at Town Moor Bottom, for the U.D.C. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield.

JANUARY 28.—**Whitfield.**—ALTERATIONS.—For alterations of shop, for the Whitfield Co-operative Society. Mr. Shield, West Side, Whitfield, Northumberland.

JANUARY 28.—**Whittingham.**—COTTAGES, &c.—For erection of 15 pairs of parlour cottages near Mental Hospital, and construction of 450 yds. of roads, &c., for Committee of Visitors for County Mental Hospital. Mr. E. J. Andrew, 33, Winckley-square, Preston. Deposit £1 1s.

JANUARY 29.—**Beddington.**—PAVILION.—Erection of brick and concrete pavilion in Stafford-road recreation ground, for the U.D.C. Mr. S. F. R. Carter, Surveyor, Council Offices, Wallington. Deposit £1.

JANUARY 29.—**Carmarthen.**—PAINTING.—For cleaning and repairing bridges, station buildings, &c., at the following places:—(4) Carmarthen and Carmarthen Junction, (5) Pencader, Newcastle Emlyn, &c., for the G.W.R. Co. Engineer, Neath Station.

JANUARY 29.—**Consett.**—HOUSES.—Erection of cottages houses, to be in blocks of two, four, six and eight. Tenders for 50, 100 and 150 of such, for the U.D.C. Mr. Frank A. Coyle, Architect, 29, Newmarket-street, Consett. Deposit £2 2s.

JANUARY 29.—**Cork.**—VARIOUS WORKS.—(1) Reconstruction of soldiers' quarters, and (2) cookhouse and dining huts at Michael Barracks, for the Commissioners of Public Works. District Office of Public Works, Cork. Deposit £1.

JANUARY 29.—**Dover.**—WALL, &c.—Taking down and rebuilding wall, &c., at Crabble-hill, for the T.C. Borough Engineer, Dover.

JANUARY 29.—**Ebbw Vale (Mon).**—NEW STATION BUILDINGS.—For erecting, for the G.W.R. Co. at Ebbw Vale (Mon), of new station buildings. Office of the Engineer, Newport (Mon), G.W.R. Station.

JANUARY 29.—**Enfield.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Enfield, for the Commissioners of His Majesty's Offices of Works, Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

JANUARY 29.—**London, E.**—DWELLINGS.—Erection of a block of dwellings on the Collingwood Estate, Bethnal Green, for the L.C.C. Architect of the Council, The County Hall, Westminster Bridge, S.E. 1. Deposit £3, payable to the Cashier.

JANUARY 29.—**Woolwich.**—PROSCENIUM.—For providing new scenery and extension of proscenium. Secretary, Woolwich Arsenal and Town Social Club, Mount Pleasant, Plumstead, S.E.18.

JANUARY 30.—**Brentwood, Essex.**—BALCONY AND VERANDAH.—Erection of a balcony and verandah to an existing building at High Wood Hospital for Children, Ongar-road, Brentwood, Essex, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JANUARY 30.—**Cudworth.**—HOUSES.—Erection of 34 houses with streets and sewers, for the U.D.C. Mr. J. R. Shephard, Surveyor, Council Offices, Cudworth, near Barnsley. Deposit £1 1s.

JANUARY 30.—**Leeds.**—SCHOOL.—Erection of Council School at Meanwood, for the T.C. Mr. James Graham, Director of Education, Education Offices, Leeds.

JANUARY 30.—**Llandudno.**—OFFICES, &c.—Construction of additional offices at Town Hall, and lavatories, &c., in George-street, for the U.D.C. Mr. W. T. Ward, Surveyor, Town Hall, Llandudno.

JANUARY 30.—**London, N. 21.**—WOOD BLOCK FLOORING.—Screeding and relaying a floor with new wood blocks at the Northern Fever Hospital, Winchmore Hill, N. 21, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JANUARY 30.—**London, N.W. 5.**—CLEANING AND PAINTING.—Cleaning and painting at St. Margaret's Hospital, Leighton-road, Kentish Town, N.W. 5, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

JANUARY 30.—**London, S.E.14.**—REPAIRS & PAINTING.—Internal and external repairs and painting at No. 35, New Cross-road, S.E. 14, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JANUARY 30.—**London, S.W.**—RECONSTRUCTION WORK.—Reconstruction of boiler house and laundry at the South Western Fever Hospital, Landor-road, Stockwell, S.W., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JANUARY 30.—**London, W.C.1.**—ROOFING AND DECORATIVE WORK.—Works, comprising the reconstruction of the roof over the first-class swimming bath, and painting and decorative works at the building known as the first-class swimming bath, Broad-street, W.C., for the Holborn B.C. Mr. E. F. Spurrell, Borough Surveyor, Council Offices, 197, High Holborn, W.C. 1.

JANUARY 30.—**Marshland.**—HOUSES.—Erection of six houses in pairs in the Parish of Tilney St. Lawrence, for R.D.C. Mr. W. D. White, Paradise Chambers, King's Lynn, Deposit £1 1s.

JANUARY 30.—**Saltash.**—HOUSES.—Erection of 18 houses for working classes (12 of Type A and 6 of Type B) on the New-road Estate, Mr. F. E. Cleverton, Town Clerk, Saltash.

JANUARY 30.—**Walton-on-Thames.**—ASSEMBLY ROOM.—Erection of a Scouts' assembly room at Walton-on-Thames. Secretary, Mr. J. R. Evans, Allington, Annett-road, Walton.

JANUARY 31.—**Blairhall.**—FENCING.—For 950 lineal yards of fencing alternatively in iron and timber, at Blairhall Village, for the Fife C.C. Mr. H. F. Hodge, District Engineer, County Buildings, Dunfermline.

JANUARY 31.—**Bletchley.**—FILTER HOUSE.—For erection of filter house, &c., for the U.D.C. Mr. J. Chadwick, Civil Engineer, Bletchley, Bucks. Deposit £2 2s.

JANUARY 31.—**Carlton.**—CLUB.—Erection of new Working Men's Club, steward's house, &c., Crookes-lane, Carlton, near Barnsley. Mr. C. F. Moxon, architect, Regent-street South, Barnsley.

JANUARY 31.—**Croydon.**—ALTERATIONS.—For alterations to the engine-room at the Electricity Works, for the T.C. Electrical Engineer, Croydon.

JANUARY 31.—**Duffryn Rhondda.**—ALTERATIONS, &c.—For alterations and extensions of the roof and walls of the Power House at Duffryn Rhondda. Agent, Imperial Navigation Coal Co., Ltd., Duffryn Rhondda, near Port Talbot. Deposit 10s.

JANUARY 31.—**Harrow.**—COTTAGE, &c.—For (1) fencing and gates; (2) draining and levelling and providing hard tennis courts; and (3) erecting cottage, pavilions, &c., at West Harrow Recreation Ground, for the U.D.C. Mr. J. P. Bennetts, Surveyor, Council Offices, Harrow. Deposit £1 each contract.

JANUARY 31.—**Hemel Hempstead.**—COTTAGES.—Erection of 24 cottages (in sections of 12), for the Borough of Hemel Hempstead. Mr. Walter R. Locke, Borough Engineer and Surveyor, Market-square, Hemel Hempstead. Deposit £1.

JANUARY 31.—**Kilmacolm.**—HOUSES.—Erection of two blocks of dwelling-houses, for the Renfrew C.C. Mr. Andrew Robertson, Master of Works, County Buildings, Paisley.

JANUARY 31.—**Linthwaite.**—HOUSES.—Erection of two dwelling-houses at Causewayside, Linthwaite. Mr. F. C. Baxter, architect, Broad Oak, Linthwaite, Huddersfield.

JANUARY 31.—**Lislane, Ireland.**—ALTERATIONS.—For improvements at National School. Rev. J. M'Kee, Balteagh Manse, Limavady.

JANUARY 31.—**London, N.W.1.**—ALTERATIONS TO GATEWAY.—Alterations to the gateway of St. Pancras House, 4, King's-road, N.W.1, for the parish of St. Pancras. Clerk to the Guardians, Town Hall, Pancras-road, N.W.1.

JANUARY 31.—**Marske-by-the-Sea.**—HOUSE, &c.—The erection of a farmhouse and set of buildings at Loftus. Mr. Thomas E. Senior, Zetland Estate Office, Marske-by-the-Sea. Deposit £2 2s.

JANUARY 31.—**Newport, Pembroke.**—PAINTING.—For the renovation of the Bethlehem Baptist Chapel. Mr. J. Harris, "Penfeeder," Newport, Pem.

JANUARY 31.—**Paddock.**—HOUSES.—Erection of six dwelling-houses off Heaton-road, Paddock. Mr. Joe Ainley, architect, 3, Chapel-hill, Huddersfield.

JANUARY 31.—**Truro.**—REBUILDING.—For taking down and rebuilding the William IVth Inn, Kenwyn-street, Truro, for Walter Hicks & Co., Ltd., The Brewery, St. Austell. Mr. Leonard Winn, architect, Truro and Redruth.

JANUARY 31.—**Whitchurch.**—HOUSES.—For erection of six houses in Smallbrook-road, for the U.D.C. Surveyor, Town Hall, Whitchurch, Salop.

FEBRUARY 1.—**Barry (Glam).**—ERECTION OF 18 HOUSES.—For erection of houses, as follows, for the Barry U.D.C.:—(1) Six semi-detached parlour type houses; (2) 12 semi-detached non-parlour type houses, at Central Estate, College-road site, Barry. Separate quotations required; for each contract is a separate work. Mr. E. R. Hinchliff, F.S.I., Public Offices, Barry.

FEBRUARY 1.—**Burlingham.**—REPAIRS, &c.—For adapting and repairing the farm buildings at Perowne's Farm, Jary's Estate, Newport Farm and Lodge Farm, Burlingham Estate, for the Norfolk C.C. Small Holdings Committee. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

FEBRUARY 1.—**Swansea.**—SCHOOL.—Erection of a new elementary school for 1,308 scholars on the Town-hill Estate, Swansea, for the Education Committee of the County Borough of Swansea. Mr. Ernest E. Morgan, Borough Architect, 3, Prospect-place, Swansea. Deposit £5 5s.

FEBRUARY 1.—**Thropton.**—HALL.—For erection of War Memorial Hall, Thropton. Mr. S. T. Wood, Thropton, Morpeth.

FEBRUARY 1.—**Dewsbury.**—ADDITIONS, &c.—For alterations and additions to Heaton Lodge, Earlsheaton. Messrs. Kirk Sons & Ridgway, architects, Market-place, Dewsbury.

FEBRUARY 2.—**Dewsbury.**—HOUSE.—Erection of a house at Wakefield-road, Messrs. C. H. Marriott, Son & Shaw, Church-street Chambers, Dewsbury.

FEBRUARY 2.—**London, S.E. 18.**—EXTENSION.—Proposed extension of premises, for the Committee of the Woolwich Catholic Club. The Secretary, Woolwich Catholic Club, 28–30, New-road, Woolwich, S.E. 18.

FEBRUARY 2.—**Tadcaster.**—HOUSES.—Erection of six houses in the Parishes of Allerton Bywater, Kippax, Micklefield, and Tadcaster, for the R.D.C. Mr. H. M. Driver, Surveyor, Garforth, near Leeds, and Mr. H. C. Wood, Bromfield-terrace, Tadcaster, Deposit £1 1s.

FEBRUARY 4.—**Aberkenfig (Glam).**—ERECTION OF HOUSES, &c.—For carrying out the following works for the Aberkenfig Building Club: Contract 1, Erecting 30 houses, parlour type, in pairs, complete with boundary walls and drains. Contract 2, Short extension of road, with surface water drainage, &c., planting of trees. Mr. Frank H. Heaven, architect, 39, Coronation-street, Aberkenfig. Deposit, Contract 1, £3 3s.; Contract 2, £2 2s.

FEBRUARY 4.—**Aldershot.**—REPAIRS.—For repair work at 78, Ash-road, for the T.C. Borough Sanitary Inspector, Municipal Buildings, Aldershot.

★FEBRUARY 4.—**Brentford.**—COTTAGE AND COACH-HOUSE.—Erection of a caretaker's cottage and coach-house at the Isolation Hospital, Clayponds-lane, Brentford, for the Brentford Urban District Council. Mr. W. J. W. Westlake, F.S.I., Engineer and Surveyor to the Council, Clifden House, Brentford.

FEBRUARY 4.—**Bristol.**—EXTENSION.—For extending and altering the offices at Queen-square, Bristol, of the Docks Committee. Messrs. W. S. Skinner & Sons, architects, 27, Orchard-street, Bristol. Deposit £3 3s.

FEBRUARY 4.—**Huddersfield.**—HOUSE, &c.—Alterations to premises; also new caretaker's house for the Lockwood Conservative Club. Mr. Joe Ainley, architect, 3, Chapel Hill, Huddersfield.

★FEBRUARY 4.—**Scarborough.**—HOUSES.—(*a*) Erection of 50 houses on the Edgehill Park Estate; (*b*) one block of eight houses, Potter-lane, Scarborough; (*c*) one block of nine flats, Longwestgate, Scarborough, for the Council of the Borough of Scarborough. Mr. Harry W. Smith, A.M.I.C.E., Borough Engineer and Surveyor, Town Hall, Scarborough. Deposit £1 1s.

FEBRUARY 4.—**Stirling.**—HOUSES.—Erection of the following houses:—Brightons, Polmont, 42 houses; Redding (Cross-roads), 12 houses; Glen Village, eight houses, for the Eastern District Committee of the Stirling C.C. Mr. T. M. Copland, architect, 76, High-street, Falkirk, for the Brightons scheme, and Messrs. A. & W. Black, architects, 76, High-street, Falkirk, for the Redding (Crossroads) and Glen Village schemes. Deposit £1 1s.

★FEBRUARY 4.—**Sunbury-on-Thames.**—HOUSES.—Erection of 20 houses in or near Manor-lane, Sunbury, for the Sunbury-on-Thames U.D.C. Mr. Harold F. Coales, A.M.I.C.E., Council Offices, Green-street, Sunbury.

FEBRUARY 5.—**Cardiff.**—HOUSES.—For the erection (in lots) of 250 houses at Ely, for the T.C. Architect, City Hall, Cardiff. Deposit £2 2s.

FEBRUARY 5.—**Limerick.**—RACE-COURSE STAND, &C.—For erecting (1) reinforced concrete stand, and (2) 50 stables, for the Limerick Race Co. Mr. J. O'Malley, Glentworth-street, Limerick.

FEBRUARY 5.—**Sheffield.**—SUB-STATIONS.—(*a*) Erection of transformer sub-station in Upperthorpe; (*b*) alterations and additions to transformer sub-station in Newhall-road, for the T.C. Mr. S. E. Fedden, General Manager, Commercial-street, Sheffield. Deposit £1 1s. each contract.

FEBRUARY 5.—**Ventnor.**—CONVENIENCES.—For altering existing premises and constructing new conveniences at Marlborough-road, for the U.D.C. Mr. D. V. Howard, Surveyor, Town Hall, Ventnor.

FEBRUARY 5.—**Widnes.**—POST OFFICE.—Erection of a new post office at Widnes, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

★FEBRUARY 6.—**Ashton-under-Lyne.**—HOUSES.—Erection and completion of 58 houses (34 Class "A" and 24 Class "B") in pairs, to be erected on the Heys Estate, Montague-road, Ashton-under-Lyne, for the Housing Committee of the Borough of Ashton-under-Lyne. Messrs. W. H. George & Son, architects, 7, Warrington-street, Ashton-under-Lyne. Deposit £1 1s.

FEBRUARY 7.—**Erdington Hall.**—BRIDGE—Rebuilding of Erdington Hall Bridge over the Birmingham and Fazeley Canal, for the Birmingham Tame and Rea District Drainage Board. Mr. A. E. Harris, Clerk, 117, Colmore-row, Birmingham.

FEBRUARY 7.—**Gateshead.**—HOUSES.—Erection of 100 houses of various types and designs on the Carr-hill Building Estate, for the T.C. Borough Engineer Town Hall, Gateshead. Deposit £5.

FEBRUARY 8.—**Tiverton.**—POWER HOUSE.—For building a power-house in connection with the installation of an electric supply, for the T.C. Mr. T. E. Corrigan, Gas Office, Blundell's-road, Tiverton. Deposit £2 2s.

FEBRUARY 9.—**Ashford.**—SHEDDING, &C.—For erecting shedding, offices, stands, and other works for the Agricultural Show to be held at Ashford on July 10, 11 and 12, for the Kent County Agricultural Society. Major R. J. Bacon, secretary, Otham, Maidstone.

FEBRUARY 9.—**Dewsbury.**—HOUSES.—Erection of 56 houses, for the T.C. Borough Surveyor, Town Hall, Dewsbury. Deposit £1 1s.

FEBRUARY 11.—**Bishop's Stortford.**—SWIMMING BATH.—Construction of open-air swimming bath in reinforced concrete, for the U.D.C. Mr. Robert S. Scott, Surveyor, Council Offices, Bishop's Stortford. Deposit £2 2s.

★FEBRUARY 11.—**Kingston-upon-Thames.**—HOUSES.—Erection of 10 pairs of houses on the housing estate, for the Corporation of the Borough of Kingston-upon-Thames. Borough Surveyor, Town Hall, Kingston-upon-Thames. Deposit £1 1s.

★FEBRUARY 11.—**London, S.W.19.**—HOUSES.—Erection of 5-roomed houses, 12, 24, or 87 in number, on the Council's Housing Estate, Toynbee-road, Burstow-road, and Dennis Park-crescent, within the Borough, for the Corporation of Wimbledon. Borough Engineer and Surveyor, Town Hall, Wimbledon. Deposit £2 2s.

FEBRUARY 11.—**Mitcham.**—PUBLIC CONVENIENCES.—Erection of public conveniences on the Upper or Fair Green, Mitcham, for the U.D.C. The Surveyor, Broadway House, Mitcham. Deposit 10s. 6d.

FEBRUARY 11.—**Windsor.**—BOILER HOUSE, FIRE-BRICK LINED CHIMNEY, &C.—Construction of boiler house, foundations and setting of Cornish boiler, fire-brick lined chimney, and sundry builders' work in attendance on Engineers, for the Guardians of the Windsor Union. Mr. Walter W. Nobbs, M.I.Mech.E. (the Consulting Engineer in charge of the works), of 50, Fairhazel-gardens, N.W. 6.

★FEBRUARY 12.—**Reigate.**—PUBLIC CONVENIENCES.—For various works required in the construction of public conveniences in the Market-square, Reigate, for the T.C. of the Borough of Reigate. Borough Surveyor, Municipal Buildings, Reigate.

FEBRUARY 12.—**Wallingford.**—REPAIRS.—For repairs to Casual Ward buildings, for the Board of Guardians. Mr. F. G. Sainsbury, architect, Reading.

FEBRUARY 13.—**Pershore.**—BRIDGE.—Construction of a new bridge over the River Avon, to be carried out in ferro-concrete, for the Worcestershire C.C. Mr. C. F. Gettings, County Surveyor, 30, Foregate-street, Worcester. Deposit £5.

FEBRUARY 26.—**London, E.3.**—BUILDING ADDITIONS, &c.—Building of a nurses' dining-room, alterations and additions, and redecorations at St. Andrew's Hospital, Devon's-road, Bow, E.3, for the Managers of the Poplar and Stepney Sick Asylum District, St. Andrew's Hospital. Messrs. Andrews & Peascod, architects, 135, Bow-road, E.3. Deposit £3.

FEBRUARY 28.—**Wakefield.**—WORKSHOPS.—Supply of 17 sectional wood workshops, for the West Riding C.C. Health Committee, West Riding Architect, County Hall, Wakefield.

NO DATE.—**Barnsley.**—HOUSES.—Erection of 10 houses in Blenheim-road, Barnsley. Mr. N. A. Whitham, architect, "Chronicle" Buildings, Barnsley.

NO DATE.—**Barnsley.**—HOUSES.—Erection of houses in Woodstock-road. Mr. P. A. Hinchliffe, F.R.I.B.A., 14, Regent-street, Barnsley.

NO DATE.—**Barnsley.**—PAINTING.—For painting three villas, Huddersfield-road, 18 houses, Agnes-road, and five houses, Pond-street. Mr. C. H. Charlesworth, 45, Huddersfield-road, Barnsley.

NO DATE.—**Dringhouses.**—HOUSE.—Erection of detached house at Dringhouses, near York. Messrs. Fred Mitchell & Sons, architects, 9, Upper Fountaine-street, Albion-street, Leeds.

NO DATE.—**Inverkeithing.**—HOUSES.—For the following works in connection with the erection of 10 houses:—1, Electrician; 2, glazier; 3, painter, for T.C. Mr. P. Reid, Park House, Inverkeithing. Deposit £1 1s.

NO DATE.—**Little Houghton.**—CLUB.—Erection of an Officials' Club at Little Houghton, for the Houghton Main Colliery Co., Ltd. Messrs. Dyson, Cawthorne & Coles, Architects, 10, Regent-street, Barnsley.

NO DATE.—**Methley.**—RENOVATIONS, &C.—For the heating, lighting, renovating, &c., of the Methley Institute. Mr. Thos. Thompson, Surveyor, Red House, Methley.

NO DATE.—**Puncheston (Pemb).**—PLASTERING.—For the internal and external plaster work in connection with the new vicarage at Puncheston. Mr. E. G. Thomas, builder, St. David's (Pembroke).

NO DATE.—**Stoke-on-Trent.**—HOUSES.—Erection of 38 houses, for the Stafford Coal and Iron Co., Ltd. Messrs. Lynam & Bloore, Architects, Wolfe-street, Stoke-on-Trent.

FURNITURE, MATERIALS, etc.

JANUARY 26.—**Chelmsford.**—MATERIALS.—Supply to the Highways Committee of the Essex C.C. stoneware pipes, distilled tar, broken granite, tarred slag, and lubricating oil. Mr. Wm. H. Morgan, County Surveyor, Old Court, Chelmsford.

JANUARY 26.—**Howden.**—MATERIALS.—Supply of granite, whinstone, slag, tarred macadam, refined tar, and tar compounds, to the R.D.C. Mr. Bernard Shaw, Surveyor, Howden, E. Yorks.

JANUARY 26.—**Northallerton.**—MATERIALS.—Supply to the North Riding of Yorkshire C.C. of roadstone, tar and bituminous mixtures, oils and grease, &c. County Surveyor, County Hall, Northallerton.

JANUARY 26.—**Pembroke.**—ROAD MATERIALS, &C.—For supply to the Pembroke R.D.C., for a period of one year from April 1 next, of all the materials requisite for the maintenance of the highways in twenty-eight different parishes. Separate quotation of each parish. Also for supply on hire system of steam rollers and team labour, &c., and steam coal during the same period. Mr. F. S. Jones, Clerk to the Council, Main-street, Pembroke.

JANUARY 26.—**Reigate.**—MATERIALS.—For the supply of road and other materials to the R.D.C. Mr. A. J. Head, 48, High-street, Reigate.

JANUARY 28.—**Basingstoke.**—TAR.—Supply of tar or bituminous tar compound to the T.C. Mr. J. H. Drew, Borough Surveyor, Basingstoke.

JANUARY 28.—**Beverley.**—STONE.—Supply of 5,000 to 6,000 tons of stone for macadamising roads to the U.D.C. Mr. E. Picker, Surveyor, Beverley.

JANUARY 28.—**Camberwell.**—MATERIALS.—Supply of road and other materials, &c. Borough Engineer, Town Hall, Camberwell.

JANUARY 28.—**Sleaford.**—MATERIALS.—Supply of granite and slag, &c., to the R.D.C. Mr. E. H. Godson, Clerk, Northgate, Sleaford.

JANUARY 28.—**Uckfield.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. E. W. Ray-Johnson, surveyor, Buxted, Sussex.

JANUARY 29.—**Bermondsey.**—MATERIALS.—Supply of road and other materials for six months to the B.C. Mr. F. Ryall, Town Clerk, Town Hall, Bermondsey, S.E.

JANUARY 29.—**London.**—TOOLS, &C.—For supply of Sheffield tools to the Great Indian Peninsula Railway Co. Secretary, 48, Copthall-avenue, E.C.2. Charge 5s.

JANUARY 30.—**Ashford.**—TAR.—Supply of 20,000 gallons of No. 1 dehydrated coal gas tar, and similar preparations, for tarpainting roads, to the U.D.C. Mr. Wm. Terrill, Surveyor, 5, North-street, Ashford, Kent.

JANUARY 30.—**Islington.**—MATERIALS.—For electrical and engineers' stores, for the B.C. Borough Electrical Engineer, 60, Eden-grove, Islington, N.

JANUARY 30.—**London.**—BRICKS.—For supply of (1) sand-faced red facing bricks; (2) grooved Fletton bricks, grooved wire cut bricks or hard "seconds" stock to Tooting Bec Mental Hospital Extensions, for the Metropolitan Asylums Board. Offices, Victoria Embankment, E.C.4.

JANUARY 30.—**West Ashford.**—MATERIALS.—Supply of gravel, flints, and Kentish ragstone to the R.D.C. Mr. T. W. Dickinson, Surveyor, Tufton Hall, Ashford, Kent.

JANUARY 31.—**Aylesbury.**—MATERIALS.—Supply of granite, slag and tarmacadam to the Bucks C.C. Mr. E. Winfield, County Surveyor, County Hall, Aylesbury.

JANUARY 31.—**Birmingham.**—TAR.—Supply of 850 tons of No. 1 tar, for the T.C. Mr. Herbert H. Humphries, City Engineer, Council House, Birmingham.

JANUARY 31.—**Cheltenham.**—MATERIALS.—For supply of materials to various departments of the T.C. for one year. Mr. J. S. Pickering, Borough Engineer, Municipal Offices, Cheltenham.

JANUARY 31.—**France and Belgium.**—HEADSTONES.—Supply of 12,000 headstones, packed and delivered F.O.R., to be divided into a number of contracts none of which shall be for less than 100 headstones, for the Imperial War Graves Commission. The Secretary, Works Department, Imperial War Graves Commission, 82, Baker-street, London, W.1.

JANUARY 31.—**Kettering.**—TAR, &C.—For supply of (1) refined tar, (2) ¾-in. chippings, (3) ½-in. Bedford gravel, for one year, for the R.D.C. Mr. H. J. Parker, surveyor, George-street, Kettering.

JANUARY 31.—**Liverpool.**—MATERIALS.—For supply of timber, ironmongery, steel, wrought-iron, and files, iron castings, glass, &c. General Manager, Liverpool Corporation Tramways, 24, Hatton-garden, Liverpool.

JANUARY 31.—**Liverpool.**—STORES.—For various stores for the Electricity Dept. of the T.C. City Electrical Engineer, Liverpool.

JANUARY 31.—**Tring.**—MATERIALS.—For supply of blast furnace slag, flints, hoggin and crusted shingles to the U.D.C. Mr. H. N. Hedges, Surveyor, Tring.

FEBRUARY 1.—**Cowbridge.**—SUPPLIES.—For supply to Bridgend and Cowbridge Board of Guardians of hardware, ironmongery, drapery, boots, &c., for Cottage Homes and Workhouse; also for supply of boots for relief recipients in Maesteg, Bridgend and Cowbridge relief districts. Mr. R. Hamar Cox, Clerk to the Guardians, Union Offices, Bridgend.

FEBRUARY 1.—**Folkestone.**—MATERIALS.—For the supply of brooms and brushes, cast-iron goods, glass, iron and ironmongery, oils, paint, varnish, &c., Portland cement and timber to the T.C. Mr. A. E. Nichols, Borough Engineer, Municipal Offices, Folkestone.

FEBRUARY 1.—**Grimsby.**—MATERIALS.—Supply of highways materials and sanitary requirements to the T.C. Mr. H. Gilbert Whyatt, Borough Engineer, Municipal Buildings, Grimsby.

FEBRUARY 1.—**Hatfield.**—MATERIALS.—Supply of granite, slag and tar macadam, for the Herts C.C. Mr. A. E. Prescott, County Surveyor, Hatfield.

FEBRUARY 1.—**Headington.**—GRANITE.—Supply of granite chippings, for the R.D.C. Mr. A. Walker, Windmill-road, Headington, Oxford.

FEBRUARY 2.—**Glamorgan.**—ROAD MATERIAL.—For supply to Main Roads Committee of the Glamorgan C.C. of road materials and haulage for year ending March 31, 1925: (1) Eastern Division—Extreme points—Glyn-Neath, Rhymney Bridge, Caerphilly, Bedwas, Whitchurch and Nantgarw; (2) Southern Division: Extreme points of which are—Culverhouse Cross–Ely, Llandaff, Whitchurch, Llantrisant, Bryncethin, Coytrahen, Port Talbot, Nottage, Ewenny, Llantwit Major, and Aberthaw; (3) Western Division: Extreme points—Port Talbot, Neath, Glyn-Neath, Ystalyfera, Brynawman, Morriston, Pontardulais, Lougher, Killay and Port Eynon. Separate tenders for material and haulage. Mr. George A. Phillips, County Surveyor, County Hall, Cardiff.

FEBRUARY 2.—**Glamorgan.**—TOOLS AND IRONMONGERY.—For supply to the Glamorgan C.C. Main Roads Committee of tools and ironmongery of sufficient quantity for 12 months' use, as from April 1 next. Mr. George A. Phillips, County Surveyor, County Hall, Cardiff.

FEBRUARY 2.—**Lydd.**—TAR.—Supply of 100 barrels of crude tar, and (or) 100 barrels of dehydrated tar, to the T.C. Mr. T. W. C. Laslett, Borough Surveyor, Town Hall, Lydd.

FEBRUARY 2.—**Sutton-in-Ashfield.**—MATERIALS.—Supply of tar-macadam and broken slag to the U.D.C Mr. W. Burn, Surveyor, Sutton-in-Ashfield.

FEBRUARY 2.—**Wokingham.**—MATERIALS.—Supply of tar-macadam granite, limestone and granite to the R.D.C. Mr. A. H. Prince, Surveyor, Office, Wokingham.

FEBRUARY 3.—**Rishworth.**—MATERIALS.—Supply of road stone and tar to the U.D.C. Mr. Joseph Walshaw, Clerk, Halifax.

FEBRUARY 4.—**Hendon.**—MATERIALS.—Supply of road materials, iron castings, &c., to the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon.

FEBRUARY 4.—**Little Hulton.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. James H. Heyes, Clerk, Council Offices, Little Hulton, near Bolton.

FEBRUARY 4.—**Renfrew.**—ROAD MATERIALS.—Supplying with metal sections of roads in the First or Upper District of the County of Renfrew for one year, also for borders, setts, and chips, for the Renfrew C.C. Mr. Robert Drummond, Road Surveyor, 18, Forbes-place, Paisley.

FEBRUARY 4.—**Sunbury-on-Thames.**—TAR.—Supply of 12,000 gallons of refined coal tar to the U.D.C. Mr. Harold F. Coales, Surveyor, Council Offices, Sunbury-on-Thames.

FEBRUARY 4.—**Swindon.**—MATERIALS.—Supply of materials for one year to the T.C. Mr. S. C. Baggott, Borough Surveyor, 34, Regent-circus, Swindon.

FEBRUARY 4.—**Warrington.**—MATERIALS.—For supply of materials to the Paving and Sewerage Committee for one year, for T.C. Mr. A. M. Kerr, Borough Surveyor, Town Hall, Warrington.

FEBRUARY 5.—**Chingford.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. L. C. Bowen, Clerk, 34, Station-road, Chingford.

✱FEBRUARY 5.—**London, N.W.3.**—MATERIALS OR SERVICES.—Tenders for various works, materials or services, for one year, from April 1 next, for the Hampstead B.C. Mr. Arthur P. Johnson, Town Clerk, Town Hall, Haverstock-hill, N.W.3.

FEBRUARY 5.—**Whitchurch.**—GRANITE.—Supply of 2½-in. granite to the R.D.C. Mr. W. J. Hiscox, Surveyor, Winchester-street, Whitchurch, Hants.

FEBRUARY 6.—**Bury St. Edmunds.**—MATERIALS.—Supply of road and other materials to the West Suffolk C.C. Mr. E. H. Bond, County Surveyor, Shire Hall, Bury St. Edmunds.

FEBRUARY 6.—**Buxton.**—MATERIALS.—For supply of road and other materials for nine months, for T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton.

FEBRUARY 7.—**Alton.**—MATERIALS.—Supply of broken granite and limestone to the R.D.C. Mr. A. O. Crew, Rodney House, Alton.

FEBRUARY 7.—**Wisbech.**—ROAD MATERIALS.—Supply of broken granite, slag and tar macadam to the Isle of Ely C.C. Mr. H. Farr Simpson, County Surveyor, Wisbech.

FEBRUARY 8.—**Gillingham.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. J. L. Redfern, Borough Engineer, Gillingham, Kent.

FEBRUARY 9.—**Thirsk.**—MATERIALS.—Supply of road materials, pipes, tools, &c., to the R.D.C. Mr. J. W. Lupton, Surveyor, Thirsk.

FEBRUARY 9.—**Trowbridge.**—MATERIALS.—Supply of 350 tons ¼ or ⅜ in. granite or limestone chippings to the U.D.C. Mr. Geo. W. J. Clark, Surveyor, Town Hall, Trowbridge.

FEBRUARY 12.—**Tadcaster.**—MATERIALS.—For road material, stores, &c., for the R.D.C. Mr. Geo. A. Bromet, Clerk, Kirkgate, Tadcaster.

✱FEBRUARY 13.—**London, E.C.1.**—STORES, &C.—Supply of the undermentioned stores, &c., for the periods of six or twelve months, commencing April 1, 1924, as the Metropolitan Water Board may decide. Chief Engineer, Metropolitan Water Board, New River Head, 173, Rosebery-avenue, E.C.1, by personal application (Room 155) or upon forwarding a stamped addressed brief envelope.

FEBRUARY 13.—**Middlesex.**—ROAD MATERIALS.—Supply of granite, tarred slag and granite chippings to the Middlesex C.C. Mr. A. Dryland, County Engineer, Middlesex Guildhall, Westminster, S.W.1.

FEBRUARY 14.—**Liverpool.**—MATERIALS.—Supply of glass for street lamps, lamp standards, &c., to the T.C. City Lighting Engineer, 15, Highfield-street, Liverpool.

✱FEBRUARY 14.—**London, S.W.**—VARIOUS MATERIALS.—Supply of various materials and services for various periods, for the Lambeth B.C. Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (chartered civil engineer), Borough Engineer, Town Hall, Brixton-hill, S.W.2.

FEBRUARY 29.—**Canterbury.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. P. H. Warwick, City Surveyor, Canterbury.

FEBRUARY 29.—**Ossett.**—MATERIALS.—For supply of materials, stores, workmen's tools, &c., for one year, for T.C. Borough Surveyor, Town Hall, Ossett.

NO DATE.—**Carlisle.**—MATERIALS.—For supplying materials for use at Garlands Mental Hospital, in connection with further Fire Protection Works. Mr. H. E. Ayris, Architect to the Committee, Carlisle.

NO DATE. — **Manchester.** — BRICKS. — Supply of 4,000,000 good common bricks, to be supplied at the rate of 70,000 per week. Mr. P. Cummings, A.R.I.B.A., 51, King-street, Manchester.

ENGINEERING, IRON AND STEEL.

JANUARY 28.—**Dublin.**—BITUMEN BOILER.—For supply of 1,000-gallon bitumen boiler, for the T.C. City Engineer, Glasgow.

JANUARY 28.—**London.**—BRIDGES.—Supply to the Bengal-Nagpur Railway Company of nine spans, deck span girder bridges, 60 ft. spans; six spans, deck span girder bridges, 40 ft. spans. Offices, 132, Gresham House, Old Broad-street, E.C.2. Charge £1.

JANUARY 28. — **London.** — IRON FENCING.—Supply and erection of wrought iron unclimbable fencing at parks under the control of the L.C.C. Chief Officer, Parks Department, The County Hall, Westminster Bridge, S.E.1.

JANUARY 28.—**Manchester.**—GRIDS, &C.—Supply of ventilating grids and other castings, for 12 months. Mr. J. Irvine, Manager of the Drainage Branch, Public Health Dept., Civic Buildings, 1, Mount street, Manchester.

JANUARY 28.—**Shrewsbury.**—BRIDGE.—For widening of the Greyfriars footbridge across the River Severn, for the T.C. Mr. A. W. Ward, Borough Engineer, Guildhall, Shrewsbury.

JANUARY 29. — **London.** — GIRDERS. — Supply to Director-General, India Store Department, of girders. Branch 15, Belvedere-road, S.E.

JANUARY 30.—**Girvan.**—PIPES.—Supply of 520 tons of cast-iron pipes and special castings of 8 in., 7 in. and 3 in. dia., to the T.C. Messrs. Warren & Stuart, 94, Hope-street, Glasgow. Deposit £2 2s.

JANUARY 30.—**London.**—VARIOUS WORKS.—(*a*) Installation of a 144-tube economiser, (*b*) installation of a new continuous drying machine, (*c*) engineering work for new central boiler house, (*d*) revising the laundry engineering arrangements, (*e*) installing electric light and power wiring in boiler house and laundry, (*f*) covering of boilers, steam feed and suction, mains, &c., with non-conducting composition, at the South-Western Fever Hospital, Landor-road, Stockwell, S.W.9, for the Metropolitan Asylums Board. Offices of the Board, Victoria Embankment, E.C.4. Deposit £1 each contract.

JANUARY 30.—**London and Carshalton.**—BOILER WORK, &C.—(*a*) Installation of a two-roller ironing machine at Goldie Leigh Homes, Abbey Wood; (*b*) conversion of two steam boilers from mechanical stoking to hand firing at Queen Mary's Hospital for Children, Carshalton, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 each contract.

JANUARY 30.—**Middleton.**—PIPES.—Supply of cast-iron pipes to the T.C. Gas Manager, Gas Works, Townley-street, Middleton.

JANUARY 30.—**Wembley.**—BRIDGE WIDENING.—For widening of the L. & N.E. Railway bridge in Wembley Hill-road. Mr. W. H. Lewis, Acting Surveyor, Council Offices, Wembley, Middlesex. Deposit £2 2s.

JANUARY 31.—**Alnwick.**—WEIGHBRIDGE.—For installing a weighbridge to weigh up to 3 tons, for the U.D.C. Mr. J. Temple Robson, Surveyor, Council Offices, Alnwick.

JANUARY 31.—**Littlehampton.**—BOILER.—Supply of horizontal boiler with "Galloway" tubes at Warningcamp Waterworks, for the U.D.C. Mr. L. G. Dashper, Surveyor, Town Offices, Littlehampton.

JANUARY 31.—**North Shields.**—STAITH.—Extension of No. 3A coal shipping staith, Whitehill Point, North Shields, for the Tyne Improvement Commissioners. Mr. Albert Blacklock, Secretary, Bewick-street, Newcastle-upon-Tyne. Deposit £2 2s.

JANUARY 31.—**Poole.**—TRAINING BANK.—For construction of a training bank on South Haven side of entrance to Poole Harbour, for Poole Harbour Commissioners. Mr. H. Kendall, Surveyor, Poole, Dorset. Deposit £3 3s.

JANUARY 31.—**Skegness.**—HEATING.—For heating Council offices by low-pressure hot-water system, for the U.D.C. Mr. R. H. Jenkins, Surveyor, Council Offices, Skegness. Deposit £1 1s.

FEBRUARY 1.—**London.**—STEELWORK, &C.—Supply to Director-General, India Store Dept., of (1) overhead electric travelling crane, to lift 15 tons; (2) structural steelwork, &c., for shed. Branch 12, Belvedere-road, S.E.

FEBRUARY 2.—**Harrow.**—ROLLER.—Supply of 8-ton or 10-ton compound steam-roller with scarifier to the U.D.C. Mr. J. P. Bennetts, Surveyor, Council Offices, Harrow.

FEBRUARY 2.—**Todmorden.**—BRIDGE.—Reconstruction in ferro-concrete of Lincholme Bridge, for the West Riding C.C. West Riding Surveyor, County Hall Wakefield. Deposit £1.

FEBRUARY 4.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland of steelwork for canal footbridge, Maynooth. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

FEBRUARY 4.—**Manchester.**—CRANE.—For one locomotive jib crane and grab. Mr. S. L. Pearce, Electrical Engineer, Dickinson-street, Manchester. Deposit £1 1s.

FEBRUARY 4.—**Salford.**—COOKING EQUIPMENT.—For a complete cooking and kitchen equipment at Ladywell Sanatorium, for the T.C. Medical Officer of Health, 143, Regent-road, Salford.

FEBRUARY 5.—**Egypt.**—PUMPING PLANT.—For supply and erection of a pumping plant to replace an existing steam plant at Qussassin. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, S.W.1. Charge 10s.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.—Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 5.—**Richmond (Surrey).**—PIPES.—Supply of 80 tons of 9 in. and 7 in. dia. cast-iron pipes and special castings to the T.C. Mr. H. Will. Apted, Water Engineer, Waterworks, Richmond.

FEBRUARY 8.—**Tiverton.**—POWER STATION.—For buildings and plant in connection with the installation of an electric supply in Tiverton. Mr. T. E. Corrigan, Gas Office, Blundells-road, Tiverton. Deposit £2 2s.

FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.—For engine and pumping plant, for the U.D.C. Mr. S. W. Parker, Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.

FEBRUARY 11. — **Windsor.** — RECONSTRUCTION OF ENGINEERING SERVICES.—Reconstruction of the engineering services at the Poor Law Institution, Old Windsor, Berks, for the Guardians of the Windsor Union. Constructors must tender for the whole of the work. Mr. Walter W. Nobbs, M.I.Mech.E. (the Consulting Engineer in charge of the works), of 50, Fairhazel-gardens, N.W. 6. Deposit £5 5s.

FEBRUARY 12.—**Durham.**—BRIDGES.—Construction of new bridges and the widening of existing bridges, for the Durham C.C., viz.: (1) New Derwent Bridge, near Swalwell (three spans and raised approaches); (2) new Lambton Bridge, near Chester-le-Street (three spans and improvement of approaches); (3) new bridge at Croxdale (four spans and new approaches); (4) widening of Browney Bridge near Croxdale; (5) Haughton-le-Skerne new bridge, near Darlington (one span and diverting approaches); (6) Gaunless Bridge, at Bishop Auckland (two reinforced concrete culverts and embankments); (7) widening of St. Helen's Auckland Bridge; (8) Great Burdon Bridge, near Darlington (underpinning foundations and strengthening existing approaches); (9) Whitton, near Stockton (new bridge and approaches); (10) Langley Bridge, near Durham (widening existing structure); (11) Whitehill Gate Bridge, near Chester-le-Street (rebuilding and widening); (12) Ryhope Dene Bridge, near Ryhope (reinforced concrete culverts and embankments). Mr. A. E. Brookes, County Engineer, Shire Hall, Durham. Deposit £2 2s.

FEBRUARY 12.—**Truro.**—FLOATING BRIDGE.—Construction of a large steam chain floating bridge for use on its ferry service between Devonport and Torpoint, for the Cornwall C.C. Mr. W. L. Platts, Clerk, County Hall, Truro. Deposit £2 2s.

FEBRUARY 14.—**Argentine.**—POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.

FEBRUARY 18.—**Bristol.**—ELEVATOR.—For the construction of a floating pneumatic grain elevator, to handle 150 tons per hour, at the Avonmouth Docks, for the Docks Committee. Mr. T. A. Peace, Engineer, Port of Bristol. Deposit £5.

FEBRUARY 18.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland Company of steelwork, for Bridge No. 206. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

FEBRUARY 27.—**Madras.**—PIPES.—Supply of cast-iron pipes, special castings, &c., to the T.C. Messrs. J. Mansergh & Sons, agents to the Corporation, 5, Victoria-street, S.W.

MARCH 1.—**Jamaica.**—DAM.—For the construction of a cyclopean masonry dam and contingent works required in connection with the extension of the Kingston and St. Andrews Water Works. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.

MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £10 10s.

MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

MAY 1. — China. — BRIDGE. — The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference 11647/F.E./E.C./2.

MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.

ROAD, SANITARY, AND WATER WORKS.

JANUARY 26.—**London.**—DRAINAGE, &C.—For drainage work and earthwork bridges in connection with construction of new arterial roads, viz.: Orpington by-pass, Bexley Heath by-pass, West Wickham and Farnborough by-passes, for Ministry of Transport. Chief Engineer, Arterial Roads' Department, Ministry of Transport, 7, Whitehall-gardens, S.W. 1. Deposit £25.

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JANUARY 26.—**Morley.**—ROADS.—For the surfacing of verges with red shale, planting of privets, and other incidental work on Victoria-road housing site, for the T.C. Mr. F. Turner, Borough Engineer, Town Hall, Morley.

JANUARY 26.—**Penarth.**—ROAD WORKS.—For scarifying, hauling and spreading, metalling, and gravelling and rolling with 10-ton steam-roller portions of the Penarth-Cardiff-road, for the road proprietors. Mr. E. W. M. Corbett, 3, Castle-street, Cardiff.

JANUARY 28.—**Alnwick.**—WATER MAINS.—For providing and laying 3,675 yds. of 4 in. cast-iron socket pipes along the road from Hawkhill to Alnmouth, for the R.D.C. Clerk, 24, Fonkle-street, Alnwick.

JANUARY 28.—**Amsterdam.**—PAVING.—For carrying out of about 150,000 super meters of asphaltic or other noiseless paving on foundation. Chief Engineer of Public Works, Paving Department, Town Hall, Amsterdam. Deposit £2 2s.

JANUARY 28.—**Kirkintilloch.**—WATER WORKS.—For forming roads, &c., and laying pipes in connection with the installation of a pumping plant at Antermony Loch, for the T.C. Messrs. W. R. Copland & Sons, Civil Engineers, 146, West Regent-street, Glasgow. Deposit £2 2s.

JANUARY 28.—**London, S.E.1.**—ROADS.—Completion of the carriageways and footways of certain roads on the Rochampton Housing Estate, Putney, in the Metropolitan Borough of Wandsworth, comprising surfacing carriageways with tarred slag macadam, paving footways with artificial stone and other work. Administrator of Housing Development Schemes Old County Hall, Spring-gardens, S.W.1. Deposit £2'

JANUARY 28.—**Loughborough.**—SEWER.—For construction of sanitary pipe sewers in Forest-road, for the R.D.C. Messrs. A. E. King & Co., architects, 19, Baxter Gate, Loughborough. Deposit £3 3s.

JANUARY 28.—**Oswestry.**—WATER MAINS.—Provision and laying of 1,774 yds. of 4 in. and 2,556 yds. of 3 in. diameter cast-iron water mains at Daywell and Hengoed, for the R.D.C. Messrs. Berrington, Son & Watney, Prudential Chambers, Lichfield-street, Wolverhampton. Deposit £5 5s.

JANUARY 28.—**Sheffield.**—SEWER.—Construction of 970 yds. of brick and concrete storm sewer in the Upperthorpe District, for the T.C. Mr. W. J. Hadfield, City Surveyor, Town Hall, Sheffield. Deposit £2 2s.

JANUARY 28.—**Weardale.**—ROADS.—For road diversion on Wolsingham to Tow Law-road, including construction of reinforced culvert, for the R.D.C. Mr. G. W. Egglestone, Stanhope, co. Durham.

JANUARY 29.—**Amble.**—WATER MAINS, &C.—For laying 420 yds. of cast-iron water main and 320 yds. of earthenware sewer, for the U.D.C. Mr. W. Burton, Surveyor, Amble.

JANUARY 29.—**Consett.**—ROADS, &C.—For 300 yards lin., and sewers, and 230 yards lin., with tarpaving and other general works, for the U.D.C. Mr. Frank A. Coyle, Architect, 29, Newmarket-street, Consett. Deposit £2 2s.

JANUARY 29.—**Leyton.**—ROADS.—For making up of Essex and other roads, for the U.D.C. Mr. E. H. Essex, Surveyor, Town Hall, Leyton. Deposit £10.

JANUARY 29.—**London.**—SEWER.—Construction of an 8 ft. internal diameter sewer in brick and iron of a total length of about 2¼ miles, Woolwich and Greenwich, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £10.

JANUARY 29.—**Rogerstone.** — EARTHWORKS. — For earthworks at Rogerstone, near Newport, Mon, for the G.W.R. Co. Engineer, High-street Station, Newport.

JANUARY 30.—**Girvan.**—WATERWORKS.—Supplying and laying six miles of cast-iron pipes, together with the construction of two break pressure tanks, &c., for the T.C. Messrs. Warren & Stuart, 94, Hope-street, Glasgow. Deposit £2 2s.

JANUARY 30.—**Hemel Hempstead.**—ROADS, &C.—Construction of tar macadam surfaced road about 175 yards in length, for the T.C. Mr. W. R. Locke. Borough Engineer, Hemel Hempstead. Deposit £1 1s.

JANUARY 30.—**Wallsend.**—SANITARY.—For the conversion of cell privies into water closets, for the T.C. Borough Surveyor, Town Hall, Wallsend.

JANUARY 30.—**Wembley.**—ROADS.—Execution of road works in Wembley Hill-road contingent upon the widening of the bridge over the L. & N.E. Railway (Great Central Service), for the U.D.C. Mr. Walter H. Lewis, Surveyor, Council Offices, Wembley. Deposit £2 2s.

JANUARY 31.—**Bilston.**—SEWAGE DISPOSAL WORKS, —Construction of storm-water tanks, screening bay, detritus tanks, diversion of outfall sewer, cast-iron and stoneware pipes, &c., for the U.D.C. Messrs. Dodd Dodd & Watson, County Chambers, Corporation street, Birmingham. Deposit £5.

JANUARY 31.—**Newport (Mon).**—SEWERAGE WORKS. —For carrying out additional sewerage works on the St. Julian Estate, for the Newport B.C. Trade union wages and hours observance conditions in contract. Borough Engineer, Town Hall, Newport. Deposit £2 2s.

JANUARY 31.—**Southend.**—ROADS.—For making-up of Acacia-drive and Station-road (Section 1), Northumberland-avenue (Section 1), and Brook-road, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Southend-on-Sea. Deposit £2.

JANUARY 31.—**Strood (Kent).**—ROADS.—For widening Gravesend-road, at Singlewell, for the R.D.C. Mr. L. Randerson, surveyor, Meopham, Gravesend.

FEBRUARY 1.—**Merton.**—ROADS.—For widening 110 yds. of Kingston-road, for the U.D.C. Mr. G. Jerram, Surveyor, Council Offices, Merton, S.W.

FEBRUARY 1.—**Newport (Mon).**—RESURFACING. — For resurfacing of the roadway over the Relief Bridge crossing the River Usk with asphaltic pavement or other approved durable material, for the Newport B.C. Trade union wages and hours rates clauses in contract. Borough Engineer, Town Hall, Newport (Mon). Deposit £2 2s.

FEBRUARY 1.—**Stafford.**—ROADS.—For laying surface water sewers and making-up carriageway, &c., at Doxey, for the T.C. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford. Deposit £1 1s.

FEBRUARY 1.—**Wallington.** — TARSPRAYING. — For work of tarspraying roads within the district for the year, for U.D.C. Mr. S. F. R. Carter, Surveyor, Council Offices, Wallington.

FEBRUARY 2.—**Durham.**—ROADS, &C.—Construction of roads and sewers in connection with their housing scheme at Bearpark, for the R.D.C. Mr. Geo. Gregson, Surveyor, 38, Saddler-Street, Durham.

FEBRUARY 2.—**Harrow.**—ROADS.—For making-up Rosebank-avenue and Fernbank-avenue, for the U.D.C. Mr. J. Percy Bennetts, Surveyor, Council Offices, Harrow.

FEBRUARY 2.—**Hythe.**—ROADS, &C.—Construction of roads and laying of sewers and water mains in various parts of the Borough, for the T.C. Mr. Walter F. Bickford, Borough Surveyor, 114, High-street, Hythe. Deposit £3 3s.

FEBRUARY 2.—**Nuneaton.**—SEWER.—For construction of 400 yds. of 9 in. earthenware pipe sewer, for the T.C. Mr. R. C. Moor, Borough Engineer, Municipal Offices, Nuneaton. Deposit £2 2s.

FEBRUARY 4.—**Loughborough.**—ROADS.—Making-up Knightthorpe-road, for the T.C. Mr. A. H. Walker, Borough Surveyor, Town Hall, Loughborough. Deposit £3 3s.

FEBRUARY 4.—**Southborough.**—HEADINGS.—For driving 100 yds. of headings at the Waterworks at Upper Haysden, for the U.D.C. Messrs. G. & F. W. Hodson, Loughborough. Deposit £5 5s.

FEBRUARY 5.—**Cheriton.**—ROADS.—For private street improvement works in Marler-road and Kent-road, for the U.D.C. Mr. A. S. Lilley, Surveyor, Public Offices, Cheriton.

FEBRUARY 5.—**Easington.**—ROADS.—For making up a number of streets, for the R.D.C. Mr. R. Urwin Harper, Highway Surveyor, Castle Eden, co. Durham.

★FEBRUARY 5.—**London, N.W.3.**—HOUSE REFUSE. —Daily removal and disposal of pulverised house refuse from the Dust Disposal Dept., adjoining the Metropolitan Railway, West Hampstead Station, N.W.6, for the Hampstead B.C. Mr. Arthur P. Johnson, Town Clerk, Town Hall, Haverstock-hill, N.W.3.

FEBRUARY 5.—**Sedbergh.**—WATER SUPPLY.—For laying about 2,200 lin. yds. of 5 in., 4 in., and 3 in. cast-iron pipes, construction on an intake tank, mechanical filters, concrete service tank (95,000 galls.), &c., for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5.

FEBRUARY 5.—**Swansea.**—ROADS.—Supplying and laying asphalt paving, for the T.C. Mr. J. R. Heath, Borough Surveyor, Guildhall, Swansea.

FEBRUARY 5.—**Whitchurch.**—ROLLING.—For steam rolling in their district for one year, for the R.D.C. Mr. John T. P. Clarke, Clerk, Whitchurch, Hants.

FEBRUARY 6.—**Birmingham.**—SEWAGE DISPOSAL.— For the reconstruction of the sewage disposal plant and drains at Wassell-grove Convalescent Home, near Stourbridge, for the Board of Guardians. Mr. James Curtis, Clerk, Union Offices, Edmund-street, Birmingham. Deposit £1 1s.

FEBRUARY 6.—**Rhoose (Glam).**—WATER MAINS.— For providing and laying of about 700 lineal yds. of 4-in. cast-iron water main, with all necessary valves, fittings, &c., at Fontigary-road, Rhoose (near Barry), for the Cardiff R.D.C. Mr. William Farrow, surveyor, 20, Park-place, Cardiff.

FEBRUARY 6.—**Watford.**—ROADS.—For construction of new estate roads and sewers, &c., at Wiggenhall, for T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.

FEBRUARY 6.—**Whitchurch (Glam).**—ROAD WIDENING, &C.—For (*a*) road widening and culverting at Beulah Cross Roads, and (*b*) widening of Old Church-road, at Whitchurch, for the Cardiff R.D.C. Separate tenders required. Mr. William Farrow, surveyor, 20, Park-place, Cardiff.

FEBRUARY 7.—**Swansea.**—SEWERS.—For construction of stoneware and cast-iron sewers at Llansamlet, totalling 9,943 lineal yds., for the T.C. Mr. J. R. Heath, Engineer, Main Drainage Dept., Guildhall, Swansea. Deposit £5 5s.

FEBRUARY 9.—**East Lothian.**—EXTENSION OF MAINS. —For construction of pipe lines between Humble Station and Fountain Hall, for the East Lothian Western District Water Board. Water Superintendent, Bank of Scotland Buildings, Haddington. Deposit £2 2s.

FEBRUARY 9.—**Lancashire.**—ROADS.—Construction of a new road and the widening and reconstruction of part of the existing main road between the "Rose and Crown Inn," Much Hoole, and Sollom, for the Lancashire C.C. County Surveyor, County Offices, Preston.

FEBRUARY 11.—**Bedwellty.**—STREET WORKS.—For carrying out for the Bedwellty U.D.C. the following street works: Sewering, levelling, metalling, flagging, channelling and making good (*a*) Pentwyn-street, Blackwood, (*b*) South View-road, Blackwood, (*c*) Pentwyn-avenue, Blackwood. Mr. Dan. H. Price, Surveyor, Council Offices, Aberbargoed.

FEBRUARY 11.—**Coseley.**—SEWERS.—Construction of stoneware and cast-iron sewers, from 6 in. to 24 in. diameter, &c., for the U.D.C. Messrs. Berrington, Son & Watney, Prudential Chambers, Lichfield-street, Wolverhampton. Deposit £5 5s.

FEBRUARY 11.—**Eccles.**—SEWAGE WORKS.— For additions and alterations to the sewage works of the T.C. Mr. Thomas S. Picton, Borough Engineer, Town Hall, Eccles. Deposit £3 3s.

FEBRUARY 11.—**Huddersfield.**—SEWERS.—Construction of 1,388 lineal yards of earthenware pipe and cast-iron pipe sewers, of internal diameters varying from 5 in. to 12 in., in two sections, for the T.C. Borough Engineer, 1, Peel-street, Huddersfield.

★FEBRUARY 13.—**London, E.C.1.**—REMOVAL OF FURNACE REFUSE, &C.—Removal of furnace refuse, &c., from the various stations in the Metropolitan Water Board's area, for the periods of 6 and 12 months as from April 1, 1924. Chief Engineer, Metropolitan Water Board, New River Head, 173, Rosebery-avenue, E.C.1, by personal application (Room 155), or upon forwarding a stamped addressed brief envelope.

FEBRUARY 16.—**Greenock.**—ROADS, &C.—Construction of streets and sewers in connection with the Cowdenknowes housing scheme, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

FEBRUARY 16.—**Seisdon.**—SEWAGE WORKS.— Construction of sewerage and sewage disposal works at Codsall, for the R.D.C. Mr. W. Cannan, engineer, Wombourn, Wolverhampton. Deposit £5 5s.

FEBRUARY 18.—**Hertford.**—SEWAGE WORKS.— Construction of activated sludge treatment works for the T.C. Messrs. J. Taylor & Sons, 36, Victoria-street, S.W. Deposit £5.

FEBRUARY 18.—**Wimbledon.**—ROADS.—For the making-up of Laurel-road, Melbury-gardens (Section 1), Melbury-gardens (Section 2), for the B.C. Borough Engineer, Town Hall, Wimbledon.

FEBRUARY 19.—**Batley.**—EMBANKMENT.—For the construction of an embankment, &c., for the formation of a reservoir, with ancillary works, in the Valley of the River Holme, a few miles from Holmfirth, for the T.C. Messrs. G. H. Hill & Sons, civil engineers, 40, Kennedy-street, Manchester. Deposit £5 5s.

MARCH 1.—**Montgomeryshire.**—STORAGE RESERVOIR AND WATER MAINS.—Construction of a small storage reservoir, and the laying of a main in connection with an additional water supply, for the T.C. of Llanidloes. Mr. James Grant, Surveyor, Llanidloes, Montgomeryshire.

NO DATE.—**Leeds.**—ROADS.—For road forming between kerbs, 3,460 super. yds., off Roundhay-road. Messrs. Martin & Fenwick, civil engineers, 26, Park-row, Leeds.

Competitions.

(*See Competition News, page* 138).

Auction Sales, Tenders, etc.

★FEBRUARY 7.—**London, E.9.**—Mr. F. H. Clark will sell, without reserve, final clearance auction sale of all remaining timber and builders' material resultant of the demolition of the National Projectile Factory, Hackney Marshes, E.9. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

FEBRUARY 7.—**London, W.1.** — Messrs. Knight, Frank & Rutley, in conjunction with Messrs. Oakden & Co., will sell, by direction of the Eastbourne Waterworks Company, the freehold commercial site of about 4¼ acres, including detached double-fronted residence, factory and warehouse buildings. Auctioneers, 20, Hanover-square, London, W.1.

★FEBRUARY 12.—**Bloomsbury.**—Messrs. J. W. Coade, Son, & Budgen will sell, by order of the National Council of Y.M.C.A.s, valuable building materials forming the standing structures known as the Shakespeare Hut, Gower-street, Bloomsbury, W.C.1. It will be offered for sale in one lot on the premises. Auctioneers, 118, Southampton-row, W.C.1.

★FEBRUARY 21.—**Orpington, Kent.**—Messrs. W. Levens & Son, F.A.I., will sell by auction (unless previously disposed of by private treaty), by order of the executrix of the late Mr. H. M. Glassup, Orpington, Kent, on the premises, freehold business premises known as "Mayfield Cottage," High-street, together with the goodwill and stock-in-trade of a sanitary engineer and decorator. Auctioneers, Station-approach, Orpington.

MAY 6.—**London, W.1.**—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

★JANUARY 28.—**London, N.W.6.**—Clerk of Works required in connection with the extension of the Nurses' Home and Administrative Block at Park Royal Hospital, Acton-lane, Willesden, for the Guardians of the Parish of Willesden. Mr. J. Hutton Haylor, Clerk to the Guardians, Guardians' Offices, 359, High-road, Brondesbury, N.W.9

JANUARY 28.—**Stoke-on-Trent.** — Competent temporary Assistant Quantity Surveyor required by the County Borough of Stoke-on-Trent. Mr. A. Burton, M.Inst.C.E., F.S.I., Borough Surveyor, Town Hall, Stoke-on-Trent, together with copies of three testimonials.

★JANUARY 29.—**Carlisle.**—Architectural Assistant required in the City Engineer's Dept. by the Corporation of the City of Carlisle. Only those who have had actual experience of steel buildings should apply. The appointment is a temporary one. Mr. Henry C. Marks, M.Inst.C.E., City Engineer and Surveyor, 18, Fisher-street, Carlisle.

★FEBRUARY 1. — **London, E.2.** — Architectural Draughtsman required in the Borough Engineer and Surveyor's Dept. on the weekly staff. Duration of appointment about six months, by the Borough Council of Bethnal Green. Mr. A. E. Darby, A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Bethnal Green, E.2.

FEBRUARY 1. — **Swansea.** — **Architectural Draughtsman required in the Borough Architect's Department by the County Borough of Swansea. Borough Architect, Guildhall, Swansea, endorsed "Draughtsman."**

★NO DATE.—**London.**—Assistant Surveyors are required for temporary service under the Air Ministry (Works and Buildings Directorate) in and outside London. Candidates must be ex-Service men, who have been trained in a quantity surveyor's office, preferably in London. The Secretary (S.1.), Air Ministry, Astral House, Kingsway, W.C.2.

★NO DATE. — **London, S.W.1.** — Architectural, Draughtsman required for the Government Departments. Candidates should have served in H.M. Forces during the War, be fully capable of preparing working drawings and specifications for general civil engineering or architectural work. Employment will be for varying periods, and must not be regarded as permanent. Joint Substitution Board (Treasury and Ministry of Labour), Montagu House, Whitehall, S.W.1

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C for Borough Council; and P.C. for Parish Council.

ADWICK (YORKS).—At the last meeting of the U.D.C. it was stated that an agreement had been reached for the erection of about 1,000 houses by the Industrial Housing Association. The work is to be commenced at once, and the houses are to be divided between the districts of Adwick, Woodlands and Highfields.

ANNFIELD PLAIN.—The U.D.C. have received intimation that the M.H. approve the Council's proposal to afford financial assistance to private enterprise in the erection of 50 houses to the extent of £75 per house likely to be commenced before March 31, and have also sanctioned the borrowing of £3,800 for these grants.

BINGLEY.—The Committee of the Bingley Cottage Hospital have under consideration a scheme for extensions to the present premises, which are inadequate for present-day requirements. Plans are being prepared, and it is hoped to make an early start. Sir James Roberts has made a grant of £3,000 conditionally upon the work being commenced before the end of 1924.

BRADFORD.—The City Architect has been instructed to inspect the Low Moor district with a view to a suitable site being acquired upon which to erect a new elementary school for the district.——Plans have been prepared and tenders are to be invited for the erection of a new spinning shed for Messrs. E. Sykes & Co., Ltd., of Willowfield-street. Mr. W. E. Bickers, of Bradford, is the architect.

BRANCEPETH.—At a special meeting of Brancepeth and Oakenshaw Aged Miners' Homes Association, plans were approved for the building of nine cottages and a reading room for aged single miners, as a war memorial. Messrs. John Plummer and W. Cummings offered their services (which were accepted) as honorary architects for the new cottages.

BRECONSHIRE.—A joint meeting of the Radnorshire and Brecon County Main Roads Committee has agreed that the widening of Builth bridge and improvement of approach roads be proceeded with at an estimated cost of £7,000; the counties to share cost remaining above M.T. grant. The Breconshire Main Roads Committee has resolved upon road resurfacing and improvement works at an estimated cost of £20,000, and, subject to grant being made, will proceed at once with outstanding works, estimated to cost £3,000.

BRIDLINGTON.—Mr. A. E. Goddard, an inspector of the M.H., has held an inquiry into the application of the Corporation to borrow £50,000 for defraying the cost of the acquisition of premises for the extension of the Royal Prince's parade and other improvements. The specific purposes of the application included the construction of suitable means of communication, underground or otherwise, between the Royal Prince's parade and the proposed extension of the parade, and the erection of buildings, shops, and places of entertainment and recreation, refreshment rooms, and places for games, &c.

BRIGHTON.—If the T.C. approves the decision arrived at by the General Purposes Committee, Brighton Aquarium will soon be a thing of the past. The report which the committee has approved proposes the clearance of the site and its conversion into public gardens with a restaurant, café, public hall, and other features. Expert advice is to be obtained to enable the scheme to be carried out.

BRIGHTON.—Plans passed by T.C.: Out-patients' Department, Sussex Throat and Ear Hospital, Church-street, T. Garrett & Son, for the Committee of Management; alterations, 101 and 102, Trafalgar-street, W. H. Overton, for Freeman, Hardy & Willis; stage platform, King's Cliff Cinema, Sudeley-place, W. H. Overton, for W. Easter; two houses, Hollingdean-terrace, W. J. Burstow, for J. Morley; conversion into two maisonnettes, 3, Buckingham-road, W. H. Overton, for Miss Lynn.

CARMARTHENSHIRE.—The County E.C. has moved to compulsorily acquire land on which to erect a new central school at Berry Port. The surveyor to the Llanelly B.C. is to report on possibilities of proceeding with Gwendraeth water scheme and to submit estimates of cost of constructing a third reservoir at Cwm Lliedi. The house of the Deputy Chief Constable of Cardiganshire at Lampeter is to be repaired and altered by the Cardiganshire Standing Joint Committee.

CHARLESWORTH.—The Charlesworth parish, situate in the Glossop-dale R.D.C.'s area, is showing signs of great activity in the building trade. A lay-out plan for 400 houses has been approved, and an immediate start is to be made with 100 of these. When the scheme is further developed the L.N.E.R. propose to erect a new railway station.

CHEADLE.—Plans passed by R.D.C.: House, Cheddleton, for Mr. A. Gilbert; house and shop, Weston Coyney, for Mr. A. Williams; two pairs of houses, Cheddleton, for Messrs. Lawton, Leese, Ward & Evans; addition to bungalow, Wetley Moor, for Mr. Mellor; addition to house, Threpwood, for Mr. J. Cornes; two hutment bungalows, Caverswall, for Mr. Lovatt; hutment bungalow, Cheddleton, for Mr. Goldstraw.

CHESTER.—Plans passed by T.C.: Conversion of 11, Stanley-place into flats, for Brown & Co. (Chester), Ltd.

DURHAM.—The Durham County E.C. propose to erect a number of new secondary schools in the county, and the Teesdale District Education Authority is strongly pressing the need for one of the new schools for the Teesdale neighbourhood.

CORNWALL.—The Highways Committee has adopted a roads and bridges improvement scheme which involves an expenditure of over £150,000. The largest items on the schedule are the construction of a new by-pass road at St. Austell, at a cost of £30,000, which it is stated will entirely alter the character of the town and add greatly to the rateable value, and the building of a new bridge and approach works at Trevemper, at a cost of £9,000.

DARLINGTON.—The T.C. have approved the following plans: Mr. A. Chilton, bungalow and shop, Coniscliffe-road; Mr. F. Jackson, house, Linden-avenue; Messrs. Bussey & Armstrong, eight houses, Haughton-road.

DENBY AND CUMBERWORTH.—Plans passed by U.D.C.: Houses for Messrs. John Dransfield (Denby Dale); Charles E. Firth, Denby Dale; Arthur Turton, Upper Denby; and William A. Heap, Denby Dale.

DERBY.—The Housing Committee of the T.C. has decided to invite tenders for a further 128 houses—46 parlour type and 82 non-parlour type.

DROITWICH.—House in Lyttleton-road, for Mr. Everton; 12 houses on the Woodfields site, for the Council; and new chapel and Sunday schools in Tagwell-road.

DRONFIELD.—Plans have been approved by the U.D.C. for a pair of semi-detached villas in Green-lane, for Mr. C. I. Margerison, and a house for Mr. J. H. Platts, in Princess-street.

EAST HAM.—Plans passed by B.C.: Alterations, United Methodist Church, Manor Park, for J. Slater & Keith; extension, rear of Latimer Hall, Boleyn-road, for G. W. Goodall.——The engineering inspector of the M.H. has advised the Council to accept the report of Mr. Kiermen, consulting engineer, on the heating and hot water supply, &c., at the Isolation Hospital.

EDINBURGH.—Plans are being prepared for the erection on a site west of the village of Dean of a large garage and workshop by the Wolseley Motors, Ltd., the proprietors, for Messrs. Vickers. Mr. John Jerdan, F.R.I.B.A., Edinburgh, is the architect. The building will be one of the largest and most up-to-date of its kind in Scotland, the estimated cost being between £60,000 and £70,000.——Warrants granted by Dean of Guild Court: J. Easton, convert self-contained house, 8, Bellevue-crescent, into three separate houses; Thomas Ferguson, seven villas, Colinton-road; London & North Eastern Railway Co., smithy and machine shop, Baileyfield-road, Portobello, and new roof, North Leith passenger station; A. A. Morris & W. B. Wyllie, double villa, Jeffrey-avenue, Blackhall; J. W. Wallace, villa and two cottages, Meadowplace-road, Corstorphine; Office of Works, telephone exchange, Russell-road.

EPSOM.—Plans passed by R.D.C.: Three houses, Ashtead, one in Links-road, for Mr. E. B. Ecaile, one in Harriott's-lane, for Mr. C. J. Barlow; and one in Harriott's-lane, for Mr. R. A. Tait; bungalow, The Park, Great Bookham, for Mr. Meaburn; house, Guildford-road, for Mr. T. M. Proctor; house, The Park, for Mr. H. W. Gardener; bungalow, Fetcham, for Miss C. Finch.

ERPINGHAM.—The R.D.C. has decided to erect six houses at Knapton, six at Northrapps, four at Gimingham, and two each at Trimingham and Runton.

EXMOUTH.—The Southern Railway has decided to put in hand at once the construction of extensive new engine and repair sheds at Exmouth Junction, and has accepted the tender of A. Jackaman & Sons, Ltd., of Slough, for the first section of the work.

FALKIRK.—Plans were passed at the Dean of Guild Court, on the application of Falkirk Iron Co., Ltd., for the erection of a block of four flatted houses, at Bankside, at an estimated cost of £1,800; and warrant was also granted to Stirlingshire and Falkirk Water Board to make alterations on Belmont House, and reconstruct outhouses, estimated to cost £1,800.

FELSTED.—A M.H. inquiry has been held by Mr. T. R. Grigson in regard to an application by the Dunmow R.D.C. for permission to borrow £1,200 for a sewerage scheme and sewage disposal works for the parish of Felsted.

FOLESHILL.—Plans passed by R.D.C.: Three houses, Lythall's-lane, Foleshill, for Mr. A. Day.

GLAMORGAN.—The Mid-Glamorgan Water Board, Bridgend, has notified Maesteg U.D.C. that as soon as plans have been completed a new high level reservoir for supply to Maesteg district will be constructed by the Board. The Maesteg U.D.C. has passed plans for buildings to be erected by Mr. W. T. Lewis on site between the "King Alfred" and "Sawyers Arms." The Council has approved the plans of surveyor for an approach road and entrance to the park, and has sanctioned the demolition of certain unsightly buildings in the vicinity. Plans have been prepared by Mr. J. Simon Davies, the architect to the Penybont R.D.C., on behalf of 40 applicants for grants, under Small Dwellings Acquisition Act, from Council. The applicants intend to build at Heolycyw site. The Pontardawe U.D.C. has decided to carry out Garnsyllt water supply scheme at an estimated cost of £2,325. Details of the projected construction of a main road to connect the heads of all the mining valleys of North and Mid-Glamorgan have now been submitted to the U.D.C.s concerned. The scheme is estimated, tentatively, to cost £366,411, of which one-half has been provisionally promised by M.T. The main connecting road, as planned, will be 17 miles long with six spur roads from main artery into the several valleys of lengths varying from one to four miles. The allocation of costs between the various councils is now being proceeded with. It is hoped that the work will be well advanced by the summer. The approximate costs are as follows:—Main route and three spur roads, £225,000; Blaen Rhondda-Rhigos spur, £51,880; Pont-Neath-Fechan, Banwen, Seven Sisters and Rhos Common spurs, £89,561; total £366,411. The Barry U.D.C. has approached G.W.R. directorate with request that proposed work of constructing new dock be put in hand at once to give partial relief to local unemployment situation. The Penarth U.D.C. has decided to put in hand work of constructing war memorial obelisk, of design by Sir John Goscombe John, and to become responsible for cost, estimated to amount to £2,000.

HALSTEAD.—Plans passed: Eight houses, Factory-lane, for Messrs. Courtaulds, Ltd.

HARTLEPOOL.—The War Memorial Homes and Crosby Homes Committee have decided to erect eight more houses, at an estimated cost of £3,936.

HAZEL GROVE.—Plans passed by U.D.C.: Bungalow, Mill-lane, for Mr. J. Allen; four houses, Tenement-lane, for Mr. W. Stainsby; four houses, Victoria-avenue, for Mr. W. Turner; four houses, Chester-road, for Messrs. C. F. Lloyd, J. Royds, and Messrs. Bancroft & Pixton; four houses, Commercial-road, for Messrs. Bancroft & Pixton; house, Douglas-road, for Mr. H. G. Hall; two houses, Dean-lane, for Mr. G. Griffin; 12 houses, Bramhall Moor-lane, for Messrs. Unsworth & Wilson; two houses, Bean Leach-road, for Messrs. Bowden & Fidler; two houses, Offerton-lane, for Mr. W. Bramwell; new road, Grassmere-crescent, Bramhall, for Sir Thomas Rowbotham and others; new road, St. Michael's-avenue, Bramhall, for Sir Thomas Rowbotham and others; new road, Pownall-avenue, and part of Ladythorn-grove, for Messrs. Brocklehurst.

HESTON AND ISLEWORTH.—Plans passed by U.D.C.: Messrs. Cory Bros. & Co., Ltd. cottage and petrol filling station Bath-road; Mr. J. W. Westlake, for two houses Bristow-road; Messrs. Roper, Son & Chapman, for seven bungalows, Sutton-lane; and five bungalows, St. Mary's-crescent; Mr. T. A. Chapman, bungalow, Harte-road; Mr. J. Chandler, bungalow, New Heston-road; Hounslow Sand and Gravel Co., bungalow, Sutton-lane; Mr. W. J. Harris, bungalow, Station-road; Building Enterprises, Ltd., two houses, New Heston-road; Mr. A. W. Gibson, two cottages, Wellington-road North; Mr. H. Langford Moyle, house, Grove-road; Messrs. P. Chase Gardener & Co., two houses, Staines-road; house, Loring-road; house, Hounslow-gardens; four houses, Spring Grove-road; and house, Thornbury-avenue; Mr. H. B. Phillips, two houses, Hounslow-avenue.

HOLLINGBOURNE.—Plans passed by R.D.C.: Three cottages, Sutton Valence, for Mr. A. J. Ellis; two cottages, Lidsing, for Mr. Pye; bungalow, Broomfield, for Mr. M. E. Read; bungalow, Broomfield, for Mr. P. Collison.

HORBURY.—Plans passed: House off Regent-street, for Mr. T. H. Holland, and an electricity sub-station at Horbury Bridge, for Clement Smith.

HUNSWORTH.—Plans passed by U.D.C.: Bungalow, top of Hunsworth-lane, for Mr. Albert Ingham.

ISLE OF MAN.—In the Tynwald Court £7,000 was voted for the erection of a shelter on the Victoria Pier at the south side.

JARROW.—It is proposed to erect a new R.C. church, the T.C. having decided to sell a portion of their housing land for £2,000.

KEIGHLEY.—Private builders are erecting about 60 houses. Sixteen houses are to be erected in eight pairs in Fell-lane, a new road being constructed in connection with the latter scheme. Plans passed by R.D.C.: Two houses, for Mrs. Harrison, at Barney Castle.

KENILWORTH.—Plans passed by U.D.C.: House, Clinton-lane, for Mr. S. T. Thornett; house, Whitemoor, for Mr. J. W. Golby.

KIRKCUDBRIGHT.—Mr. Hall Blyth, of Edinburgh, has designed a ferro-concrete bridge for the T.C.'s new bridge scheme. The estimated cost is approximately £20,000, of which the M.T. will grant 63 per cent. The bridge will consist of five spans, with a roadway 24 ft. wide from kerb to kerb.

LLANDILO.—The R.D.C. has passed plan for a new memorial, public hall and library. The estimated cost is £10,000, and the architect is Sir Charles Ruthen, Swansea. The work of erecting hall is to be put in hand in February.

LARGS.—It has been remitted to a Committee of the T.C. to consider the question of a town hall.

LETCHWORTH.—The U.D.C. has been informed that the M.H. are prepared to approve a new sewerage scheme for the town, subject to modifications which will increase the cost of the works by £2,445.

LONDON.—The L.C.C. Asylums Committee is recommending that a capital expenditure of £33,000 for the completion of West Park Mental Hospital be approved.

LONDON.—The Mental Hospitals Committee of the Metropolitan Asylums Board proposes the installation of a central forced circulation hot-water supply system in the schools section at Darenth Training Colony, at an estimated cost of £1,950.

LONDON (BERMONDSEY).—The L.C.C. has sanctioned the B.C. borrowing £10,883 for paving works.

LONDON (HACKNEY).—Plans passed by B.C.: Shops and dwellings, High-street, Homerton, for H. J. Ramus; extension of Willey & Co.'s premises, Hertford-road, for J. Jarvis & Sons; two houses, Grove-lane, for J. Garey & Son.

LONDON (PADDINGTON).—Sanction has been given by the L.C.C. to the B.C. borrowing £23,722 for paving works.

LONDON (STOKE NEWINGTON).—The Minister of Health has decided to hold an inquiry into the proposal of the Stoke Newington Council to build new public baths.——Factory, Eade-road, for Stone & Drew.

LONDON (ST. MARYLEBONE).—The Works Committee of the B.C. recommends that for the next financial year tenders be invited from contractors for all new carriage-way reconstruction works on Class 1 and 2 roads.——It is proposed to construct an underground lavatory in Salisbury-street, at a cost of £2,350.

* See also our List of Contracts, Competitions, etc.

LOOE (CORNWALL).—The U.C. authorised the quisition of the properties in Fore-street necessary order to carry out a proposed street improvement, ans of which are to be submitted to the M.H. for pproval. The offer of Colonel Tremayne to sell the eehold of certain land required for the proposed water xtension scheme for £835 was accepted, and the rveyor was instructed to prepare a plan showing the roposed works.

MANSFIELD.—Plans passed by T.C.: A. J. Copeake, conversion of house into business premises, eeming-street; F. Johnson, extensions to factory, eed Mill, Bleakhills-lane; Intake Freehold Land ociety, three new streets; H. Baggaley, four houses, ottle-lane; —. Griffiths, house, Nottingham-road; . Booker, two houses, Southwell-road; E. M. Webster, ur houses, Sandy-lane and Gladstone-street; H. ames, house, Atkin-lane; H. James, house, Bottleane.

MERTHYR TYDFIL.—The T.C. is shortly to call for nders for erection of 100 concrete houses at Treharris nd 50 concrete houses at Gellifaelog. The houses will e erected on one of the following systems, "Duoslab," Hollocrete," or "Tidler." The Council will later ecide upon a Housing Committee recommendation hat 80 houses be erected in brickwork, 30 at Aberfan nd 50 at Pant, in addition to concrete houses deinitely decided upon.

MIDDLESBROUGH.—At a meeting of the Public ibrary and Museum Committee it was stated that in he near future three branch libraries would be necesary, and a sub-committee was instructed to consider scheme for the provision of a branch library at North Ormsby. It is proposed to carry out extensions o the West-lane Hospital.

MIRFIELD.—Plans passed: Electricity sub-station t Newgate, for the Yorkshire Electric Power Co., td., and dwelling house and shop at Nettleton-road, or Mr. Schofield.

MONMOUTHSHIRE.—The Mynyddislwyn U.D.C. has assed plans submitted by the Tredegar Iron & Coal Co., td., for an accommodation road to be constructed by he company near its new Wylie Colliery. The County Main Roads Committee has decided to widen the main oad between Factory Trip and "Swan Inn," Abercarn, t an estimated cost of £10,000, subject to fifty per cent. rant being received from Ministry of Transport. The committee has also resolved on widening the Usk-Pontypool-Crumlin road, at an estimated cost of £5,100. The County Surveyor has received instruction to plan new road commencing in line with River bridge, Caerleon, and ending near the Drill Hall, on the Common. The C.C. has decided to spend £250 on provision of better laboratory accommodation at County Hall. The Abercarn U.D.C. having received £850 grant from the Newport-Abercarn Coal Co., toward cost of repair of Alcenyn-road, will now put work in hand. It is estimated to cost £1,750. The Usk U.D.C. has passed plans for houses which Messrs. Sweet & Sons propose to erect in Abergavenny-road.

NEWCASTLE.—A strong effort is to be made by the Corporation Housing Committee to complete the Walker Estate, and in furtherance of this project the housing architect has been instructed to prepare plans for the two remaining sections, with provision for about 150 houses.——An immediate commencement is to be made upon a scheme for the development of the Woodlands Park Estate, near Gosforth Park, Newcastle, for building purposes, where it is proposed to lay out 30 acres of land, and to erect bungalows of the semi-detached type, 12 to the acre. Plots of land will adjoin each house, and purchasers will be asked to incorporate their own ideas in the construction of the houses, which will be of six and seven rooms each. The architects for the scheme are Messrs. Marshall & Tweedy, of 54, Grey-street, Newcastle, who are at present laying out a site on the opposite side of the main road, at the same spot, several houses having already been completed.

NEWPORT (MON.).—The Poldi Steel Co. (England), Ltd., is in communication with the Newport Development Association for the acquisition of site near River Usk, on which the company proposes, tentatively, to erect new works. The site has been inspected and reported on by the company's representatives. A permanent stone church is to be erected to replace the old iron structure at St. Julian's, Newport. The "King's Head Hotel" has been purchased by Messrs. Griffiths & Sons, clothiers, for the purpose, it is reported, of conversion to shop premises. The B.C. has approved design of architect, Mr. Basil Mott, London, for new Usk bridge to be erected at an estimated cost of £165,000, of which 65 per cent. is promised by M.T. It was stated at a meeting of the Council that preliminaries to putting work in hand are well advanced. The Council now contemplate construction of an additional 40 ft. wide approach road at western end of bridge.

PEMBROKESHIRE.—The Goodwick U.D.C. has been informed that scheme for erection of houses by G.W.R. workmen has advanced to extent of purchase of site. The Pembrokeshire Territorial Association is to invite tenders for alterations necessary at Bush Camp, Pembroke Dock. The Standing Joint Committee will alter and repair police buildings at Milford Haven at an estimated cost of £300. The C.C. is negotiating with view to adaptation of one of the disused forts as a smallpox and isolation hospital. The Main Roads Committee will shortly invite tenders for considerable tar surfacing of main roads. The repair and widening of St. Clears-Narberth and Narberth-Cardigan roads is to be undertaken at an estimated cost of £20,470 in so far as they lie in the Whitland and Norbeth Councils' areas, the estimated cost of the Cardigan road improvement in the area of the St. Dogmael's Council is £30,000. When work has been completed the C.C. is to take the road over. The Whitland U.D.C. is advised by its surveyor to ask for tenders for supply of road materials sufficient for the year.

PLYMOUTH.—An important improvement scheme which embraces the widening of Coburg-street, an important thoroughfare, the re-erection of the education offices and the building of a clinic, costing in all over £60,000, has been decided upon by the Corporation.

POULTON.—Plans passed by U.D.C.: Mr. R. E. Porter, Four Lane-ends, Carleton, detached houses, Blackpool-Garstang-road; Mr. Gerland Emery, Chapel-street, detached houses, Lower Green; Mr. E. Armitage, Sheaf-street; Mr. H. B. Bryan, Hardhorn-road, four semi-detached houses, Blackpool-Garstang-road.

RICHMOND (SURREY).—Plans passed by T.C.: Mr. B. J. Mitchell, six houses, 2–12, Defoe-avenue; Mr. E. J. Partridge, alterations and additions, 45–49, The Quadrant.

RICHMOND.—A proposal is on foot to erect a new cinema, skating rink, and "palais de danse" at Richmond (Yorks), at a total cost of about £10,000. The venture has been initiated by Mr. T. Pinder, and plans have already been prepared by Messrs. Wetherell & Son, architects. The building will be 110 ft. by 50 ft., and will provide seating capacity for 800 people, and it will be situated in Station-road. It is hoped that the building will be completed by September.

SEDGEFIELD.—The R.D.C. have approved of the following plans: Four houses in Church-lane, Ferryhill, for Mr. W. Dunn; 24 houses at Chilton, for the Chilton Building Estate; and the conversion of the old schools at Sedgefield into cottages, for the Sedgefield Education Foundation.

SOUTH CROSLAND.—Plans passed by U.D.C.: Eight cottages, Banksfoot-lane, for Mr. T. Brooke.

STAFFORD.—Plans passed by R.D.C.: House, Billington House Farm, Bradley, for T. Williams; two bungalows, White Cross, Haughton, for Mr. R. Fowell.

STANSTEAD.—Plans passed by R.D.C.: Cottage, for Mr. A. E. Watson, Stansted; bungalow, Henham, for Mr. Collett; pair of cottages, Stansted, for Mr. W. R. Brown.

STOCKTON-ON-TEES.—Plans passed by T.C.: Bungalows, Darlington-lane, for A. E. Snowdon and C. Bradley.

SWANAGE.—Plans passed by U.D.C.: Flat, &c., Station-road, for G. Edgar; shop and stores, Station-road, for H. & F. Smith.

TAMWORTH.—Mr. R. C. Cox, an inspector of the M.H., has held an inquiry in relation to the application of the T.C. and R.D.C. to borrow £4,200 and £8,800 respectively, for works of water supply.

THAXTED.—A M.H. inquiry has been held by Mr. T. R. Grigson in regard to an application from the Dunmow R.D.C. for sanction to a loan of £6,800 for a sewage scheme and disposal works for Thaxted and of £4,400 for a new water supply.

THORNABY.—The Corporation have decided to proceed with a scheme for the erection of 100 houses, 50 of which will be built by the authority, and 50 by private enterprise.

THURNSCOE.—The U.D.C. are having 600 houses erected, and are also considering the question of enlarging their sewerage and sewage disposal works. W. H. Radford & Son, Nottingham, have been asked to report on the matter.

WALLSEND.—The T.C. have resolved to erect an additional 36 houses by direct labour.

WILLESDEN.—Plans passed by U.D.C.: Five houses, 38, 40, 42, 44, 46, Holland-road, Harlesden, and two garages, by Messrs. Done, Hunter & Co., for Mr. R. Curner; four houses with garages, 96, 98, 100, 102, Chatsworth-road, Cricklewood, for Mr. C. W. B. Simmonds; 11 houses and six garages on the west side of Heber-road, Cricklewood, by Mr. George Coles, for Mr. M. Cohen.

WINLATON.—Terms have been arranged for the purchase, by the Blaydon U.D.C., of the Bleach Green Estate, Winlaton. Within the next twelve months it is hoped that the authority will be able to erect at least 600 houses in all, 400 being in the Blaydon and Winlaton district, 100 at Chopwell, and the remainder being spread over the rest of the district. Sanction was given at the meeting for the carrying out of a sewage scheme at Park Head.

FIRES.

FALKIRK.—Much damage has been done by a fire which occurred in the administrative block of the Stirling Eastern District Committee's infectious diseases hospital at Camelon.

TRADE NEWS.

We have received from Messrs. Wm. T. Nicholls a small booklet illustrating a number of their artistic wood mantels.

Messrs. J. Starkie Gardner, Ltd., metal workers, has been registered as a private company. Premises have been secured at Merivale-road, Putney.

We are informed by Vigilant Sprinklers, Ltd., of Stuart House, 1, Tudor-street, E.C.4, that their automatic sprinkler system has been installed at the new preimses, 45–47, Gresham-street, and 22, Wood-street, E.C., illustrated in our last week's issue. Vigilant automatic sprinklers have also been installed at the new "Fortune" Theatre, Russell-street, W.C. The firm have also supplied the sprinkler protection for the stage, dressing-rooms, &c., as also the system of drenchers for the fireproof curtain, as well as the complete system of fire hydrants for the protection of the front of the house.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.
* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*

ABERDOVERY.—For erection of house, for Mr. C. A. Arthur. Mr. F. Howarth, architect and surveyor, Towyn:—
*J. P. Lewis & Griffiths..... £1,040

ALDERSHOT.—For demolition of building and erection of shop, Union-street, for Mr. H. Uglow. Messrs. Friend & Lloyd, architects, Aldershot:—

Mardon & Ball, Farnham, Surrey	£2,975
Goddard & Sons, Farnham	2,950
J. Harvey, Farnborough	2,900
Caesar Bros., Aldershot	2,899
Kemp, Stroud & Co., Aldershot	2,739
F. C. Bath, Camberley	2,748
*Poole & Sons, Fleet	2,677

BARNSLEY.—For conversion of 84 privies into w.c.'s, at Klondyke, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley:—
*E. R. Fletcher & Sons, Barnsley £1,047 5 3

BIRMINGHAM.—For steelwork at new stores, for Messrs. Lewis. Messrs. G. de C. Fraser & Ainley, architects and surveyors, 27, Dale-street, Liverpool:—

Robinson & Kershaw	£27,500
Bannister Walton	26,750
Redpath Brown	26,260
Keay	25,883
McIntyre	25,092
Dorman Long	24,760
Ed. Wood	23,100
Braithwaite	22,950
*Parkes	21,990

BOURNE.—For erection of 4 houses, for the R.D.C.:—
*Messrs. Harwood & Son, Bourne.... £1,524

BRIERLEY HILL.—For erection of 20 houses, together with roads and sewers, on Mill-street Estate. Mr. J. Yorke, Surveyor, Town Hall, Brierley Hill, Staffs:—

*Cartwright, Jordan & Underwood, Brierley Hill—	
8 Type "A1"	£2,720
12 Type "A2"	3,960
Streets and sewers	800
Total	7,480

BRIGHTON.—For carrying out repairs, &c., to fence on King's-road, for the T.C.:—

Adams Bros.	£485 0
Edward Hotton	475 0
*W. Saunders & Son, Kemp Town, Brighton	445 15

CANNOCK.—For the erection of 50 houses at Huntington, for the R.D.C.:—
*Lea & Siddalls, Hednesford .. £720 per pair

CHEADLE.—For sewage disposal scheme at Cheddleton, for the R.D.C.:—
*Taylor & Sons, Basford..... £632

CHESTER.—For street works, for the T.C.:—

*Penmaenmawr & Lake Trinidad Asphalte Co., Ltd., reconstruction of Delamere-street, City Walls-road, Stocks-lane	£5,434 18
*W. Turner (Ardwick), Ltd., Manchester, for the reconstruction and sett paving of Canal-street	1,326 0

CHESTER.—For supplying grates, &c., and sanitary fittings required for the houses being erected upon the Heath-lane site, for the T.C.:—

Grates, &c.—	
*J. E. Brassey & Son, Ltd., Chester	£560 4 8
Sanitary fittings—	
*Richard Costain & Sons, Ltd., Blundellsands	720 18 3

CHRISTCHURCH.—For additional lavatory accommodation at Institution, for the Board of Guardians:—
*W. F. Drew, Chalford..... £740

CHRISTCHURCH.—For additions to women's quarters at Institution, for the Board of Guardians:—
*W. F. Drew £1,390

CLECKHEATON.—Erection of 68 houses, for the Spenborough U.D.C.:—
Masons' work—
*James Horkin, Liversedge, 28 houses.
*Robinson & Crowther, Cleckheaton, 20 houses.
*Allan Drake & Son, Cleckheaton, 20 houses.

CLECKHEATON.—For asphalters' work in connection with new extensions at Messrs. Anderton's Victoria Mills:—
*Messrs. Tunstall's Seyssel and Limmer Rock Asphalte Co., Ltd., Leeds.

DOVER.—For erection of garage:—

Edwards Construction Co., Ltd., Eltham	£8,917
E. W. Martin, Ramsgate	8,590
C. J. Epps, Ashford	8,540
G. E. Wallis & Sons, Ltd., Maidstone	8,496
T. T. Denne, Walmer	8,420
Cox Bros., Maidstone	8,416
G. H. Denne & Son, Deal	8,400
Rice & Son, Margate	8,396
J. G. Parsons & Son, Folkestone	8,095
G. Lewis & Sons (Dover), Ltd., Dover	8,085
Hayward & Paramor, Dover	7,994
R. J. Barwick, Dover	7,950
G. Browning, Canterbury	7,900
W. H. Grigg, Dover	7,375

(*Continued on* p. 167.)

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick:—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6 51/– alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ „ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/–
Random blocks from 10 ft. and over „	17/–
Sawn two sides „	27/–
Sawn three or four sides „	32/–
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/–	1¼	33/6
⅞	23/–	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
¼	17/6
¾	22/–
1	26/–

BATTENS

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

Per bundle	0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¼ in. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 6

METALS.

	£ s. d.
JOISTS, GIRDERS, &C., TO LONDON STATION PER TON—	
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ „ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ⅞ in.	13 10 0
⅜ in.	14 10 0	1 in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „ „	3 6½	2 5½	3 3½
3 in. „ „	4 2½	2 8	4 0½
3½ in. „ „	4 7	3 3½	4 8½
4 in. „ „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0
Hoop iron, basis price	16 10 0	..	17 10
„ Galvanised	31 0 0	..	32 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16 0
„ „ „ 24 g.	16 0 0	..	17 0
„ „ „ 26 g.	18 0 0	..	19 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/ to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	42 10
Pipe in coils	43 0
Soil Pipe	46 0
Compo pipe	48 10

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 1 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	27 0 0	.. —
Do., ex country, carriage forward per ton	28 0 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/–	45/–	76/–	153/–	246/–	510/– per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/–	92/–	174/–	300/–	588/– per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULE.

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/–	23/–	30/–	42/– per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/–	29/–	36/–	63/– per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/–	56/–	98/–	162/–	228/– per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/–	41/–	56/–	101/– per doz.
8 lbs. S. traps	35/–	45/–	66/–	126/– „

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin „ „	0 2 4	.. —
Copper nails „	0 2 3	.. —
Copper wire „	0 2 4	.. —
TIN—English Ingots „	0 2 6	.. —
SOLDER—Plumbers' „	0 1 1	.. —
Tinmen's „	0 1 3	.. —
Blowpipe „	0 1 5	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 1
„ „ „ in barrels „	0 4
„ „ „ in drums „	0 4
Boiled „ „ in barrels „	0 4
„ „ „ in drums „	0 4
Turpentine in barrels „	0 6
„ in drums (10 gall.) „	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms" "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots per ton delivered	81
Red Lead, Dry (packages extra) per ton	43 0
Best Linseed Oil Putty per cwt.	0 16
Filocol per cwt.	0 15
Size. XD Quality fkn.	0 3

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
5 oz. fourths	3½d.	32 oz. fourths	8½d.
5 ,, thirds	4½d.	32 ,, thirds	10½d.
1 ,, fourths	5d.	Obscured Sheet, 15 oz.	4d.
1 ,, thirds	6½d.	,, ,, 21 ,,	5½d.
6 ,, fourths	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
6 ,, thirds	7½d.	En'lled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 6
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

JANUARY 18.—**Burntisland.**—HOUSES.—Plumber and gasfitter works of five blocks of houses (10 houses in all) to be erected on Haugh site. Mr. J. A. Waddell, Burgh Surveyor, Burntisland. Mr, G. C. Campbell, architect, Methil. Messrs. Peter Lawrence & Co., surveyors, 50A, Frederick-street. Edinburgh.

THE SCOTTISH BUILDER

Highland Road Reconstruction.

A reconstruction scheme was recently brought forward by the Upper Banffshire District Committee of Banff County Council for opening up communication in the upper part of Aberdeen, Banff and Moray.

If the proposal is given effect one of the most famous roads in the Highlands, known as "The Lecht"—driven through the mountain by General Wade in 1754—will cease to be the trouble it now is to motorists. "The Lecht," which stretches between Tomintoul in Banffshire and Cockbridge in Aberdeenshire, connects the valleys of the Spey, the Don, and the Dee. It is dangerously narrow, and contains gradients of 1 in 5. The Board approved of the proposals, and decided to apply for a Government grant.

Tidying-Up Scotland.

The directors of the Edinburgh Chamber of Commerce recently held their usual monthly meeting. Sir James H. Warrack, K.B.E., presided.

The President said that the Smoke Abatement (Scotland) Bill, introduced by Viscount Novar on behalf of the Scottish Board of Health, amended several existing Acts and extended their powers. It proposed substantially to increase the penalties which might be imposed on manufacturers responsible for the emission of black smoke. Section (1) rendered any person who allowed smoke to issue from any furnace or fire (except a household fire) liable to a penalty of from £5 to £50 unless he could prove that he had adopted the best practicable means for preventing smoke, having regard to the cost. Section (3) gave the Scottish Board of Health power to make orders extending the provisions of the Alkali, &c., Works Regulation Act, 1906, to any noxious or offensive gas, and extending the list of works mentioned in that Act. Section (4) gave powers to town councils and local authorities to make by-laws requiring new buildings, other than private houses, to make arrangements for heating calculated to prevent or reduce the emission of smoke. The Bill also extended the penalties for smoke emission to steamships, although it was exceedingly difficult for steamships entering or leaving harbour to avoid the emission of black smoke.

On December 27 a deputation representative of the coal-mining, shale, steel, and iron industries, including representatives from the Glasgow and Edinburgh Chambers of Commerce, met the Scottish Board of Health, and discussed the clauses of the Bill. The deputation asked for certain amendments, which the Board promised to consider. The future would show, therefore, whether the Bill would be so amended as to remove the anxieties of manufacturers.

It was agreed to remit the subject to the Parliamentary Bills Committee, with powers to take such steps as might be necessary in the interests of industries in Edinburgh which might be unduly hampered by the extended proposals of the new Bill.

NEW BUILDINGS IN SCOTLAND.

Kilsyth.—HALL.—Efforts are being made in order to provide a new recreation hall for the congregation of St. Patrick's Roman Catholic Church.

Johnstone.—CLUB HOUSE.—The Dean of Guild Court have passed plans for a bowling club house in Brewery-street, for Finlayson, Bousfield & Co.; a house in Quarrelton-road, for Mr. P. Jaffrey; and a house in Thomson-street, for Mr. J. Jack.—The T.C. has decided to purchase vacant land in MacDowall-street and a portion of land between Cartside Cottage, in Laighcartside-street and Fyfe-place, in Rassell-street, for a new housing scheme.

Ayr.—VARIOUS.—The following plans have been passed:—W. C. Gray & Sons, Newton Carpet Works, buildings in McCall's-avenue; W. G. Walker & Sons, Hawkhill Chemical Works, workshops in Somerset-road; Mr. F. H. McPherson, a double cottage in St. Leonard's-road; and Mr. H. Findlay, New-road, Ayr, house in Craigie-road.

Aberdeen.—VILLAS.—The Aberdeen District Board of Control has agreed to the erection of additional villas at the Kingseat Asylum, and the extension of the nurses' home, at an estimated cost of £43,000.

Hawick.—POST OFFICE.—The T.C. has decided to petition the Postmaster-General to establish a fully equipped branch post office for the west end of the town.

Campbeltown.—CHURCH.—The sum of £1,010 has been raised for renovating the interior of Highland Parish Church.

Helensburgh.—SITE.—A site at the corner of West Clyde-street and the east side of Colquhoun-street has been purchased by the National Bank of Scotland.

Glasgow.—PAVILION.—The T.C. has decided to erect two small pavilions at the tramway employees' recreation ground at Parkhead, at a cost of £3,500.

Callander.—ALTERATIONS.—The West Perthshire Licensing Court has passed plans for alterations to the Dreadnought Hotel, Callander.

Portree.—HOUSES.—The Skye District Committee of the Invernesshire C.C. has issued instructions to the architect to prepare plans for building two houses at Portree and two at Kylcakin.

Bridge Contracts.

Messrs. John Butler & Co., Ltd., of the Stanningley Ironworks, Leeds, have been awarded bridge contracts for the Manchester, Salford and Preston Corporations, and for fourteen 60 ft. spans to form three new bridges required by the Indian State Railways.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick- layers' Labourers.	Masons' Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½		1/-
Ardrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5		1/1
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/1 to 1/2
Bairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½		—
Blairness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2
Boatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5		1/1 to 1/2
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½		1/2½
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½		1/1½
Glashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½		1/1
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½		1/1 to 1/2½
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½		1/1½
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½		10d. to 1/2
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4		1/-
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½		1/2½
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½
Tillicoultry	1/7	1/7	1/7	1/8	1/7	1/7	1/6½		1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 157.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1¼"	1¾"	2"
Two-panel square framed	per ft sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/10
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS—*(Continued from page 163.)*

E.—For (1) Reservoir improvements, &c., for Andrew's District Committee of the Fife C.C.; inwater covered storage tank, for Fife and ss Joint Sanatorium Board. Messrs. Bruce & foot, engineers, 63, Nicol-street, Kirkcaldy :—
) John Miller & Co., Inverkeithing £1,786 3 0
) James Ramsay, Leslie 1,237 19 1

RROGATE.—Erection of a private residence in ey-road, for Mr, W. H. Porter. :—
ohn Ferguson & Sons, Ltd., Leeds.

H WYCOMBE.—For the erection of 20 houses riers, for the T.C. :—
. H. Gibson & Son..... £8,026

H WYCOMBE.—For street works in Tower- for the T.C. :—
. E. Lee..... £398 16

L.—For 4,000 tons of cast-iron water pipes, e T.C. :—
aveley Iron Co..... £35,000

NSWORTH.—For kerbing and channelling in rd-road, Birkenshaw End, for the U.D.C. :—
Naylor & Sons, Girlington, near Bradford £1,000

GHLEY.—For erection of overhead transmission m Marley, extending to Bingley Gas Works, in- g 36 ft. poles and working pressure of 40,000 for Electricity Department of the T.C. :—
he Skipton & District Private Telephone & Electric Co., Ltd..... £1,307

GHLEY.—For erection of 30 scullery-type s on Broomhill Estate, for the T.C. :—
's work—
. Turner, Ltd., 13 blocks of 2 houses, at £490 per block, extra for wall facings, at £39 2s. per block.
s' work—
illiam Dewhirst, 4 blocks of 2 houses, at £236 per block.
s' work—
eson Taylor, 9 blocks of 2 houses, at £236 4s. 9d. per block.
ers' work—
eorge Holmes, 13 blocks of 2 houses, at £113 8s. 4d. per block.
s' work—
. H. & E. Walton, 13 blocks of 2 houses, at £60 per block.
n additional block of 4 houses also let to above tractors at the scheduled prices applicable to ve contracts.

RESLEY.—For erection of stores, for the urst-lane, Foleshill, Co-operative Society, Ltd. S. J. Oldham, architect, Masonic Buildings, try :—
. Coleman, Coventry £1,636 10
. V. Jones, Ltd., Longford 1,605 0
. Clarke & Sons, Coventry 1,585 0
earson & Burden, Foleshill 1,554 13
hilton & Co., Ltd., Foleshill 1,521 0

CESTER.—For work in regard to Hanbury's y, for Church Langton Educational Institute. rnest G. Fowler, architect and surveyor, Grey , Leicester :—
hitham & Co., Ltd., Leicester £5,226 0
. V. Batchelor, Fleckney 5,107 0
. Hickman & Sons, Market Harborough 5,036 0
. Rourke, Lutterworth 4,970 0
aycock Bros., Great Glen 4,939 9
arlick & Gamble, Kibworth 4,874 0

NDON.—For structural alterations at Newington ution, for the Southwark Board of Guardians :—
rollope & Colls, Ltd. £43,900
ove Bros., Ltd. 43,870
atman & Fotheringham 43,334
iggs & Hill, Ltd., Lambeth 42,880
. J. Truscott, Forest Gate 42,805
ohn Marsland & Sons, Ltd. 42,765
V. H. Gaze & Sons, Ltd., Kingston-on-Thames 41,881
& C. Bowyer, Ltd., Upper Norwood 40,794
Vebster & Cannon, Aylesbury 40,198
Valker & Slater, Ltd., Derby..... 39,940
restage & Co. 38,773
astle Bros., Ltd., Borough 38,021

TDON.—The following tenders have been ed by the Education Committee of the L.C.C.:—

HEATING WORKS.

ion of heating apparatus.
nbe & Son, Ltd.—Bellingham (Southern te), new infants' school (Lewisham, E.).. £919
Cash & Co., Ltd.—The Chaucer (South- ark, C.) 634
per & Co., Ltd.—Bloomfield-road (Wool- ich, E.) 690
ood & Bryett—Burghley-road (Central nd Elementary) (St. Pancras, N.)..... 863
n of boiler flues.
ys, Ltd.—Catherine-street (Shoreditch).. 290
Bowyer, Ltd.—Cranbrook-road (Bethnal reen, N.E.) 416
& Co.—Shillington-street (Battersea, N.) 574
Dixon & Son—Goodrich-road (Dulwich).. 666
& Co.—Surrey-lane (Battersea, N.)..... 664
ements to heating apparatus.
Cannon & Sons, Ltd.—The "Charles ickens" (Southwark, N)..... 495
, Lambert & Co., Ltd.—Plassy-road ewisham, E.) 474

Installation of heating apparatus in connection with rebuilding of school.
Dallow, Lambert & Co., Ltd.—London Fields (Hackney, S.) 1,777

MINOR IMPROVEMENTS.

Provision of assistant teacher's room.
F. Cottrell, Ltd.—High-street, Stoke Newington (Hackney, N.)..... £349 10

Formation of head teachers' rooms.
J. & C. Bowyer, Ltd.—Rochelle-street (Bethnal Green, S.W.)..... 194 0
F. Cottrell, Ltd.—Duncombe-road (Islington, N.) 396 0

Removal of stepping, etc.
J. & C. Bowyer, Ltd.—Gill-street (Limehouse) 117 10

Formation of head teacher's and staff rooms.
W. J. Dixon & Son—The "Millbank" (Abbey, Westminster) 270 0

Formation of head teachers' rooms.
H. S. Lee, Ltd.—Ethelburga-street (Battersea, N.) 133 0
John C. Mather—Thornhill-road (Islington, S.) 361 0
J. & C. Bowyer, Ltd.—Canal-road (Shoreditch) 220 0

Removal of stepping.
Townsend & Pearson, Ltd.—The "Hugh Myddelton" (Finsbury)..... 137 0

LONDON.—For erection of cottage in Church-street, for the Stoke Newington B.C. :—
*Stapleton & Sons £739

LONDON.—For erection of ladies' retiring room, &c., at Town Hall, for the Stoke Newington B.C. :—
*W. H. T. Kelland & Son..... £299

LONDON.—For rebuilding walls and providing rails and gates in Green-lanes, in connection with road widening, for the Stoke Newington B.C. :—
*Stapleton & Sons £435

LONDON.—For paving Argyll-place, for the Westminster C.C. :—

	Wood.	*Asphalte.*
Acme Flooring and Paving Co. (1904), Ltd.	£4,436 10 10 ..	—
Alexander Thomson & Co. (London), Ltd.	5,604 7 6 ..	5,057 10 0
G. J. Anderson	4,215 17 6 ..	*3,625 5 0
French Asphalte Co., Ltd.	— ..	5,172 11 0
W. Griffiths & Co., Ltd.	4,792 8 4 ..	—
Improved Wood Pavement Co., Ltd.	4,616 17 6 ..	—
London Asphalte Co., Ltd.	— ..	4,880 15 5
Limmer and Trinidad Lake Asphalte Co., Ltd.	— ..	4,901 11 3
John Mowlem & Co., Ltd.	4,391 10 10 ..	4,318 12 6
Val de Travers Asphalte Paving Co., Ltd.	— ..	4,793 5 5

LONDON.—For the supply of piping, valves, feed and other pumps, &c., required in connection with the new machinery and boilers at Abbey Mills pumping station, for the L.C.C. :—
The Sheepbridge Coal & Iron Co., Ltd. £7,970 0
The Brightside Foundry & Engineering Co., Ltd. 7,749 0
Babcock & Wilcox, Ltd..... 6,650 0
John Spencer, Ltd..... 6,500 0
Aiton & Co. (alternative tender) .. 6,462 10
Aiton & Co. 6,057 10
*Dilworth & Carr, Ltd., Preston.... 5,926 0

LONDON.—For electric light installation at Millbank School, for the L.C.C. :—
*H. J. Cash & Co..... £385

LONDON.—For the supply of two 30-in. centrifugal pumps required for the Isle of Dogs pumping station, for the L.C.C. :—
Drysdale & Co., Ltd..... £4,632
Gwynne's Engineering Co., Ltd..... 4,500
Gwynne's Engineering Co., Ltd. (alternative tender) 4,350
The Rees Roturbo Manufacturing Co., Ltd. 4,210
Vickers, Ltd..... 4,130
W. H. Allen, Sons & Co., Ltd..... 4,100
John Cochrane (Barrhead), Ltd..... 3,200
*Lilleshall Co., Ltd., Oakengates, Salop 3,118
Mirrlees Watson Co., Ltd., Glasgow (tender incomplete) 3,048

LONDON.—For construction of Lewisham Branch sewer, for the L.C.C. :—
S. Pearson & Son (Contracting Dept.), Ltd. £343,473 17 5
Charles Brand & Son..... 312,070 18 10
James Byrom, Ltd. 273,062 13 10
Metropolitan Tunnel & Public Works Co., Ltd. 269,714 17 4
Kinnear, Moodie & Co. 268,569 3 9
Mitchell Bros., Sons & Co., Ltd. 265,146 8 4
William Muirhead, Macdonald, Wilson & Co., Ltd. 262,045 9 0
*Walter Scott & Middleton, Ltd., Victoria-street, S.W. 241,644 19 8

LONDON.—For the construction of Streatham-hill sewer, for the L.C.C. :—
Kinnear, Moodie & Co..... £76,251 10 0
Mitchell Bros., Sons & Co., Ltd. 58,855 18 0
William Muirhead, Macdonald, Wilson & Co., Ltd. 52,427 7 0
Thomas Muirhead & Co., Ltd 49,946 6 0
Daniel T. Jackson 46,928 8 5
*James Byrom, Ltd., Bury, Lancs 46,428 7 6

LONDON.—For work in connection with the extension of the Dalston-lane sub-station, for the Hackney B.C. :—
*L. H. & R. Roberts..... £4,139

LOOE.—For erection of farmhouse at Tencreek, Mr. G. H. Ivory, Engineer, Guildhall, Looe :—
*Evill Bros., West-lane, and *T. Bowden, West-lane (combining to carry out work) ..£1,305 9 3

LOUGHBOROUGH.—For providing and laying about 215 yds. of 15 in., 240 yds. of 12 in., and 230 yds. of 9 in. sanitary pipe sewers in Beacon-road, for the T.C. Mr. A. H. Walker, Borough Surveyor, Town Hall, Loughborough :—
T. Barker & Sons, Loughborough .. £1,395
*W. Moss & Sons, Ltd., Loughborough 1,248

MARKHAM.—For construction of (1) electricity transformer station; (2) 9 in. diameter sewer, 330 yds. long, with manholes, &c., in the County-road. Mr. D. H. Price, surveyor, Fire Station Offices, Abergavenny :—

I.

John Charles & Son, Newport.. £700 0 0
G. A. Brown, Ebbw Vale..... 655 5 7
H. Smith, Newport..... 650 0 0
Batten & Jones, Ebbw Vale.... 560 0 0
R. V. Evans, Pengam..... 533 0 0
T. Jones, Cefn fforest 520 10 0
J. E. Jones, Pontllanfraith.... 514 17 8
*Payne, Jones & Pope, Cefn fforest 471 4 0

II.

The Standard Contracting Co., Cardiff 540 0 0
Wm. Lewis, Brithdir 515 0 0
R. P. Evans, Pengam..... 482 0 0
T. Jones, Cefn fforest..... 473 0 0
Geo. A. Brown, Ebbw Vale.... 440 0 1
Batten & Jones, Ebbw Vale.... 400 0 0
J. Charles & Son, Newport.... 375 0 0
J. E. Jones, Pontllanfraith.... 374 5 0
W. Webb, Hengoed 355 0 0
*H. Smith, Newport..... 316 2 0

METROPOLITAN ASYLUMS BOARD.—The following tenders have been received by the Board for various works :—

Eastern Hospital—Repairs and painting to laundry—
Kind & Co., Leytonstone..... £470 0 0
Wm. Simms, E..... 455 10 0
A. H. Inns, Ltd., E.C. 397 0 0
J. Hocking & Co., Charlton..... 393 0 0
H. A. Thomas & Son, East Dulwich-grove 377 3 0
L. Kazak, Hampstead..... 360 0 0
Barnes & Co., Lewisham..... 305 0 0
*J. E. Ree, Leyton..... 275 16 0

South-Western Ambulance Station—Cleaning, painting and repairs—
H. A. Thomas & Son, S.E..... £164 16 0
D. C. Bowyer, Belvedere..... 148 12 6
Barnes & Co., Lewisham..... 148 0 0
W. H. Cooper & Son, Hammersmith-road, W. 147 0 0
C. H. Boyd & Son, Ltd., Craven-terrace, W. 147 0 0
A. H. Inns, Ltd., Devonshire-square, E.C. 139 0 0
*J. Hocking & Co., Charlton.... 130 0 0

Mead Works—Cleaning, painting and repairs—
Myall Bros., Ilford..... £289 0 0
W. H. Cooper & Son, Hammersmith-road, W. 245 0 0
C. H. Boyd & Son, Ltd., Craven-terrace, W..... 232 0 0
D. C. Bowyer, Heron Works, Belvedere 226 12 6
A. H. Inns, Ltd., Devonshire-square, E.C. 197 0 0
H. A. Thomas & Son, East Dulwich-grove, S.E. 190 15 0
Barnes & Co., Lewisham..... 179 0 0
J. Hocking & Co., Charlton..... 173 0 0
*J. S. Fenn, Woolwich 170 0 0

Mead Works—Formation of dust-proof cubicles in the paintshop, &c.—
Worman & Hussey, Holland Park, W. £410 0 0
C. H. Boyd & Son, Ltd., Craven-terrace, W. 363 0 0
J. Darch, Ltd., Whitefriars-street, E.C. 340 0 0
Barnes & Co., Lewisham..... 330 0 0
A. H. Inns, Ltd., Devonshire-square, E.C. 323 0 0
A. H. Inns, Devonshire-square, *W. Walkerdine, Ltd., Kensington 259 0 0

Queen Mary's Hospital for Children—Forming foundation for new weighbridge—
R. Mansell, Croydon..... 464 0 0
A. A. Secrett, Ltd., Wallington.. 440 10 0
Barnes & Co., Lewisham..... 420 0 0
F. Potter, Sutton, Surrey..... 370 0 0
*Burnand & Pickett, Ltd., Wallington 344 0 0

OSSETT.—For excavators', concretors' and bricklayers' work in connection with the erection of 47 houses, for the T.C. :—

*A. Lockwood & Sons..... £7,950

OSSETT.—For plumbers' work in connection with the erection of 47 houses, for the T.C. :—

*T. W. Clarke, Horbury..... £2,090 17

PORTH.—For erection of library and institute, for the Committee of the Institute of Lewis-Merthyr Colliery workmen. Mr. A. E. Trotman, architect, South Lea, Mount Pleasant, Porth, Rhondda :—

E. R. Evans & Bros., Ltd., Cardiff	£7,649	0	0
T. F. Howells, Caerphilly	7,500	0	0
Knox & Wells, Ltd., Cardiff	7,437	0	0
T. Broad & Co., Ltd., Great Malvern	6,419	0	0
*T. R. Jones, Abertridwr	6,292	11	2

PORTSMOUTH.—For alterations at 2B, Fratton-road, Portsmouth. Mr. S. E. White, architect and surveyor, 22, Bristol-road, Southsea :—

Howe & Bishop	£314	0	0
M. Coghlan	292	5	1
G. Harmer	275	0	0
†John Lay & Co.	258	0	0

PORTSMOUTH.—For erection of shops, &c., at Grove-road. Mr. G. C. Vernon-Inkpen, architect and surveyor, 40, Commercial-road, Portsmouth. Quantities by architect :—

G. J. Davis & Son	£2,996
S. Salter	2,965
J. Croad	2,920
J. Crockerell	2,708
John Lay & Co.	2,669
F. Corke & Co.	2,599
*F. J. Privett	2,327

POULTON.—For making-up Fylde-road, for the U.D.C. :—

E. Taylor, Blackpool	£805	4	5
H. & J. Seed, Blackpool	704	14	0
*J. Farrell, Blackpool	650	5	1

REDCAR.—For erection of pavilion on foreshore, to seat 1,000 persons, for the T.C. Borough Engineer, Redcar :—

†W. Richardson & Co., Ltd., Darlington.

ST. FAITH'S.—For erection of eight houses at Salhouse, for the R.D.C. :—

*Stringer, Wroxham..... £2,795 14

SLEAFORD.—For water supply extensions in the parishes of Billinghay, Dogdyke, Walcot, Thorpe Tilney, Timberland, and Martin, for the R.D.C. :—

*J. T. Barnes & Son, Sleaford £1,558 15 5

SOYLAND.—For laying of main sewer from Kebroyd Bridge to the outfall works, for the Soyland U.D.C. :—

*Messrs. J. & R. A. Crawshaw..... £1,530

STANNINGLEY.—For erection of new steel bridges, for the Corporations of Manchester, Salford and Preston; of three new steel bridges in 14 spans of 60 ft. each, for the Indian State Railways :—

*Messrs. John Butler & Co., Ltd., Stanningley, near Leeds.

STOCKTON-ON-TEES.—Erection of shelter in Ropner Park, for the T.C. :—

*R. Johnson & Sons, Stockton.... £316 10

WAKEFIELD.—For erection of motor garages and super showrooms in Wood-street, for Messrs. Hylands, Ltd. Mr. W. Harold Watson, architect, Wakefield :—

Main contract—

*A. C. Green, Wakefield.

Steelwork—

*S. Raynes, Wakefield.

WALSALL.—For erection of slipper baths and caretaker's house, at Bloxwich, for the T.C. :—

*Messrs. Letts & Airston, Walsall.... £1,850

WOOD GREEN.—For erection of house and shop. Mr. E. Meredith, architect, 7, Goodmayes-road, Goodmayes, Essex :—

Romain & Sons, Chadwell Heath	£1,265
T. L. Hughes, Ilford	1,190
*F. & F. K. Dainton, London	1,165

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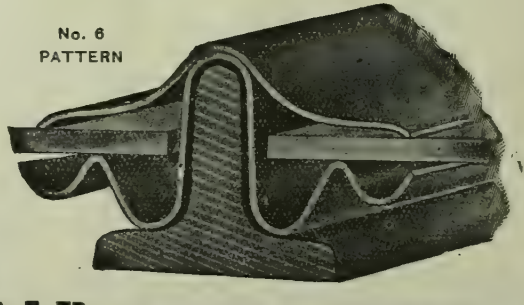
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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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LONDON AND CHANCE.

WHEN will London seriously take in hand the transport question? We do not mean the piecemeal consideration of it, but the whole broad aspect of it. It is utterly wrong to consider Lambeth dge, Charing Cross Bridge, Waterloo Bridge, or the jected St. Paul's Bridge without a wide and extended w of the traffic with which they are concerned. As a tter of fact, no great scheme of bridge-building, or embankıt improvement, or better town-planning, along the north l south banks of the Thames, ought to be taken in hand il the railway problem is solved. If we go on as we are ng now the time will come when the railway problem will peratively demand a solution, when we may have been mmitted to schemes which make it ten times more difficult. The fact is that, notwithstanding our wonderful progress many things, and our splendid service in the government of ndon, both official and voluntary, we are only muddling ng in what seems to be our inevitable British fashion. When ll we realise the vast importance of carefully-studied foreht as to city development? The right development of ndon is doubtless no easy matter to achieve, but we venture think it would be infinitely less arduous if we would take study of it in proper sequence and in the order of importance. The decision to proceed with St. Paul's Bridge appears to us be a tragic mistake, at all events until its bearing on the ffic problem and future possibilities is far more carefully nsidered. Is there no power which can evoke some commonse method of procedure in handling this great problem of ndon's growth? We have counsellors enough, and brains ough, and yet we are trying to do the right thing in the ong way.

The other day the President of the Royal Academy aroused ne real interest at the Royal Institution when he pointed t the present disgraces and the future possibilities of London. ıt our complicated system of government, and our lack of high controlling authority, with power to insist on the wider sion and to dictate the direction that improvements should ke, bar the way to right and efficient action. It is surely a atter for wonder that, amongst the numerous able Chairmen the London County Council, which have included statesmen the first rank, this initial lack of London has apparently not en realised. Why should this vast congregation of millions the victims of such mischance and haphazard? We have a ght to ask this, and it is the duty of those who wish to work r the public good and are able to do it to help us to reach me order out of the present chaos. The London Society was unded in order that those who have the welfare of London heart might bind themselves together to promote a sounder d wider vision, not as to mere abstract beauty, but as to the neral amenity of London and the well-being of its citizens. o subject which affects such matters is beyond its aims, and it includes a large number of its ablest citizens and has no rty aims, no troublesome politics, no awkward shibboleth; there is no reason why it could not produce and offer the best counsel and the most unbiassed judgment. The time has surely come when this influential body should bestir itself and make the citizens of London realise where they stand in regard to the future of their city. The Society does not exist to pick quarrels with any other body, or to find fault with the many able officials to whom London owes so much. But in this great wide city of London, which contains so much of the finest brain power in the world, we are lacking a right hand to put to profitable use our wonderful powers and opportunities. There is no need to squander millions on doubtful projects, but we can safely affirm that no intelligent man of business is so seriously wanting in forethought of his future and its chances as is the collective body of the citizens of London. We do not permit anyone to run a fried-fish shop in Regent-street, and we have at last given up making pickles and beer in Holborn. Let us, then, avoid pouring a fresh heavy traffic from north to south over such congested areas as the east end of St. Paul's Cathedral.

A correspondent writes:—"Why are the public kept in the dark with regard to matters like the St. Paul's Bridge? We have long been told that this bridge has been proposed, and now we learn that no approach roads have been decided upon. Without approach roads it would be just as useless as Southwark Bridge. Probably when too late the London Society, or some other body, will find that the proposal is one which should be opposed, but with which we are helpless in view of the difficulties thus imposed by officials. If the bridge is to be a success, millions of people will pour across it from north and south. What, then, will happen to the traffic from east and west at the crossings of Cannon-street and Cheapside? It would appear that such a bridge, if successful, would make confusion worse confounded. The whole thing is typical of British officialism—we are kept in the dark until too late for effective opposition. It must now be realised that there is an intelligent public, who are interested in, and capable of understanding, such things, and that they should be taken into confidence in the early stages of the proceedings in view of the growing interest in citizenship."

There is a practical possibility in front of all this. We want, at once, a general controlling body for the whole of London which shall be able to unify all our disjointed and piecemeal effort into one carefully considered. We want all the good counsel we can get, but lectures and exhortations, articles and letters go but a little way. Is it possible that the London Society can be a sort of Baron Haussman, not only to direct a few fine thoroughfares, but to start us off in the right way to have a plan for London which shall forecast something like a right future for our railways, our roads, our bridges, and the thousand other things that make a city both convenient and beautiful?

We cannot believe that the vision of a noble and beautiful city is really a matter of indifference, but every one of us is guilty of some measure of apathy and ignorance.

NOTES.

Fine Arts Commission. The appointment of a Fine Arts Commission might be a very good thing, but on the other hand it may not be an unmitigated blessing. There are evils in all control, and we cannot forget the possibility of having to cry to be saved from our saviours. One of the first things the Fine Arts Commission might usefully do is to clear away some of our statues, says Mr. Ralph Knott, who objects, amongst other things, to the Lincoln memorial with its "stupid, ugly chair." The general public who pays any regard to the discussion by artists on such matters must be a little mystified as to whether there is any safe criterion for the assessment of artistic values. Sometimes it is not the statue itself which is so much at fault as its location. One of the most inept choices of site appears to many to be that of the Washington statue dotted down at the corner of the National Gallery. That an accomplished piece of work like this, representing one of the finest characters in recent history, should look so little and undistinguished is a striking object lesson on how not to do it.

Civic Art. Distinguished amongst all recent efforts for town improvement is the work of the Birmingham Civic Society, but we imagine one reason of its success is the sympathetic support it receives for its suggestions from the city authorities. This body has now taken up the question of the design of telephone boxes (*see pp.* 186-7), and has suggested an improvement on the design accepted by the authorities, and which could be built at less cost. Opinion will, of course, be divided as to the comparative merits of the designs, but it appears obvious enough that a concrete box of good design might be both better and cheaper than the design accepted. It is said that the cost involved by these boxes may run to half a million pounds.

Culture and City Churches. What is culture? It may be held that one may be cultured in one particularly exclusive way, but the nobler view of culture is that of a wider vision which takes account of all the civilising influences of a general amenity. Can anyone be truly cultured who limits the value of City churches to their money values and overlooks their historic, artistic and sentimental values? Th fight for the City churches would not h so hard if culture were more widespread

Traffic Difficulties. The folly of pouring o big stream of north-to-sou traffic over another eas and-west (as is proposed pa the east end of St. Paul's) if it can b avoided, is pointed out by Mr. W. J. L Leverton. This cross stream difficulty avoided by the Farringdon-street traf passing under the Holborn traffic whi crosses it by a viaduct. This, of cours is seldom possible, but it has been su gested that a viaduct might be form from the west front of St. Paul's to som point westward, possibly in an axial li between St. Paul's and the Law Court This would be a tremendous relief to t congestion of cross traffic at the foot Ludgate Hill, but it would break throu a lot of valuable property. Years ag however, this might have been foresee as a splendid and not impossible poss bility.

Pictures in Stations. It has been suggested the League of Arts that might have pictures exhi ted in the waiting rooms our railway stations—surely not a b idea. But with the evolution of t poster we may find that the best poste might of themselves form attractive a excellent decorations for our statio There are some modern posters th should appeal strongly to everyone a especially to artists.

Discoveries at Windsor Castle So much attention is stowed nowadays on t search for ancient rema and anything on which ti has set its halo, that it not surprising that Mr. R. B. Roberts Chapter Surveyor at Windsor Cast had some interesting information to gi of such discoveries on the occasion of lecture, entitled "Odd Bits of Winds Castle," which was addressed to t members of the Windsor and Et Scientific and Archæological Socie Various finds to which he referred cluded particulars of an ancient doorw and door found in the old masonry of t great hall of Henry III. At the sa time, whilst roof repairs were be made, an old chimney shaft was brou to light constructed of limestone. Pa culars such as the discovery of the E sally port and other details were gi which, though small in themselves, ha interest archæologically, and may l to further elucidation of the plan of earlier thirteenth-century building.

Chelsea Old Church. An exhibition, small full of interest, of ei teenth and nineteenth c tury water-colour drawi and prints of Chelsea Old Church, w curiosities connected therewith, was h last week in Petyt House, Chelsea. Th



Coatbridge War Memorial Competition. Design Placed First: By Mrs. E. B. Hughes

bjects, with others which it is hoped ıay be given later, are to be housed in room in the tower of the church, which to be used as a little museum. The ictures show the church as it was at ifferent times, and illustrate the beautiful ıonuments it still contains and for which is deservedly famous. They include ıat of Sir Thomas More, the great hancellor, who rebuilt the existing south hapel, and the splendid Dacre monuıent, 1595, one of the finest specimens f the work of the period. The delightful ld church is indeed a treasure house of ıe monuments of four centuries, memoals of great beauty or historic interest. helsea Old Church dates back certainly the beginning of the fourteenth century nd perhaps even to an earlier date, for arts of the chancel are believed to belong the thirteenth century, some of this ork still remaining. The nave and wer, however, were built about 1675 he interior is exceedingly picturesque, nd is a bit of Stuart and Georgian ondon lovingly preserved.

Art and the Public.

The address on "Art and the Man in the Street," given by Mr. F. Richards at the Conference of Educaonal Associations, dealt with the abuse f advertisement in a fresh and convincing ıanner. Speaking of this abuse, he ated, "the serpent is raising its head, ven in Parliament-street. Look from ıe Houses of Parliament towards the enotaph and you have as a background f the Cenotaph an advertisement for ındles!" The River Thames is another ıstance of the abuse of advertisement. Vhen we think of the vision which it resents, its natural beauty and imressiveness seen dimly through the arkness of the night, in contrast to the lare of the streets and the violation to ny enjoyment of this through the preence of huge illuminated signs so disguring to its character, one wonders ıat it should have been tolerated so ong. We trust that the companies ıterested in these signs will take note of ıe growing hostility of the public to ıis usurpation of their rights, and that, llowing the good example shown in egard to field signs, they will be removed. moke-writing Mr. Richards characterised s a most undignified thing, which offends ı its disregard for the beauty of atmophere and sky and its irreverence to hat is so dear to others—the unolated tranquillity of the heavens. 'e think, however, the designation of the ublic hoarding as the "poor man's icture gallery" is rather misleading.

"That Messuage."

Other people's terminology is unfailingly tedious, and that of the lawyer, archaic and self-satisfied, peculiarly so. The description "that messuage" is irritating, almost unseemly.



Memorial to the Civil Service Rifles. Sir Edwin Lutyens, R.A., Architect.

[This memorial, erected in the Square of Somerset House, was unveiled last week by H.R.H. the Prince of Wales.]

At the same time, it is well for an architect to realise that the careful elevations and plans which he submits to a client are normally accepted as equally strange and bewildering. To the layman there is an unfamiliarity about greasy tracing paper, and the little curves where doors open—the sectional details—bear slight relationship to the home foreshadowed. Some architects have attempted to meet this difficulty by submitting sketches, or, more lately, by expensive little models, with a painful resemblance to Swiss chalet toys. Our experience is that an imaginary sketch, however artistic, does not bring conviction; while the lack of scale of a miniature model deprives it of all reality. It is better to rely on the working drawing and to explain it in simple language. In the long run, clients prefer what is authoritative, even if it be a little aloofly professional. "That messuage," however quaint the word, implies a qualified lawyer, and has a more reassuring sound to the owner than the "desirable residence" of the house agent's tag. We may be forgiven our technicalities if we do not allow them to become a fetish.

Repairs to Ancient Buildings.

One aspect of the preservation of ancient buildings that is very frequently ignored is the commercial value of these architectural activities to the community. An innkeeper in the neighbourhood of an English ruin will deplore the money spent by the Government upon its upkeep even while he earns his living catering for visitors attracted to the spot for no other purpose than to inspect the monument. It may not be desirable that England should live by her ancient works of art and exalt them into the prominent place such things occupy in some Continental cities, but it should be possible to recognise their monetary value to the community for what it is; a minor and secondary reason for their preservation, but still a valid one. This view seems to be accepted in Scotland, where very general interest and appreciation of the work done by Government on historic buildings has been aroused. To craftsmen the interest of repairs to ancient monuments is largely technical. Construction and appearance have so often been divorced in modern architecture that it is a very great pleasure to see that they are now being reunited in this particular branch.

GENERAL NEWS.

Belgium : Large Building Scheme.

The Commercial Secretary at Brussels (Mr. J. Picton Bagge) informs the Department of Overseas Trade that a large block of flats and offices, with an area of 7,000 sq. yds., are to be erected at a cost approximating 25,000,000 francs.

The plans will not be completed for some six months. In the meantime, United Kingdom firms desiring to offer fittings, furnishings, &c., may obtain the name and address of the company concerned, on application to the Department of Overseas Trade, 35, Old Queen-street, London, S.W. 1. Reference 21611/F.W./G.P. should be quoted.

The Avonmouth Extension.

The contract for the Avonmouth Dock extension at Bristol has been secured by Sir William Arrol & Co., engineers and contractors, of Glasgow and Westminster. The contract is valued at £554,000, and the work will give employment to thousands of men.

Blinded Soldiers as Telephone Operators.

We have pleasure in giving the following communication from St. Dunstan's :—

"It may not be generally known that telephone-operating has been most successfully taught to the blinded ex-Service men at St. Dunstan's. A number of these men have found employment with important business firms and organisations in London and the Provinces, and not a few employers testify to the superiority in many respects of the work of these men to that of a sighted operator hitherto employed. This may be because the efficient management of a busy switchboard demands full concentration and freedom from outward distractions, and here the handicap of blindness becomes a help rather than a hindrance. St. Dunstan's has several fully-trained men ready for vacancies. Perhaps some reader, opening up in new fields, or faced with a necessary change in present arrangements, might like to give a blinded soldier-operator a trial. If so, the authorities of St. Dunstan's headquarters, Regent's Park, London, N.W.1, will be glad to supply full particulars."

St. Dunstan's think, and we quite agree, that it is a case where the building trade may be able to give a helping hand.

"Harlequinade" Pantomime Souvenir Number.

The pantomime souvenir number of *Harlequinade* is full of good things. Those who did not see the recent show should get a copy, they cannot fail to find amusement therein; and at the same time learn what they missed by not attending the performance. Amongst the numerous articles is one entitled "The History of the A.A. Pantomime," an interesting account of its preparation and the difficulties which had to be overcome before its presentation. Included in the number is a double-page plate of original costume design for the production, in the manner, shall we say, of the late Lovat Fraser. Other articles are "Pantomime" verses "Peeps at an A.A. Diary," and the contribution from the Bristol School.

British Industries Fair.

At the forthcoming British Industries Fair, engineering appliances and building material will be shown at the Castle Bromwich Aerodrome, Birmingham, from May 12 to 23.

By a special arrangement between the railway groups and the Department of Overseas Trade, the organisers of the Fair, visitors will be able to make the return journey from anywhere in Great Britain to either Birmingham or London, at a cost of one-and-a-third of the ordinary single fare.

Full particulars and forms of application for space can be obtained from the Secretary, British Industries Fair, Department of Overseas Trade, Old Queen Street, Westminster, S.W. 1.

£1,000,000 Lithuanian Contracts.

According to the diplomatic representative of Lithuania in London, who has just presented his credentials, important openings for British trade may be expected shortly. They purport building a new railway from the port of Memel to Shavli, which will link up with the rail routes to all parts of Russia. Negotiations, we understand, are now in progress with British firms for the construction of this and other lines.

The new line will probably involve orders in Britain for 140 bridges, forty locomotives, 12,000 tons of rails and 800 wagons. It is expected that over £1,000,000 will be spent in this country on employment as a consequence.

COMPETITION NEWS

Hospital in America.

Fifty-one designs were submitted in the recent competition inaugurated by the *Modern Hospital* for a general hospital containing 30 or 40 beds, and the following awards have been made :—

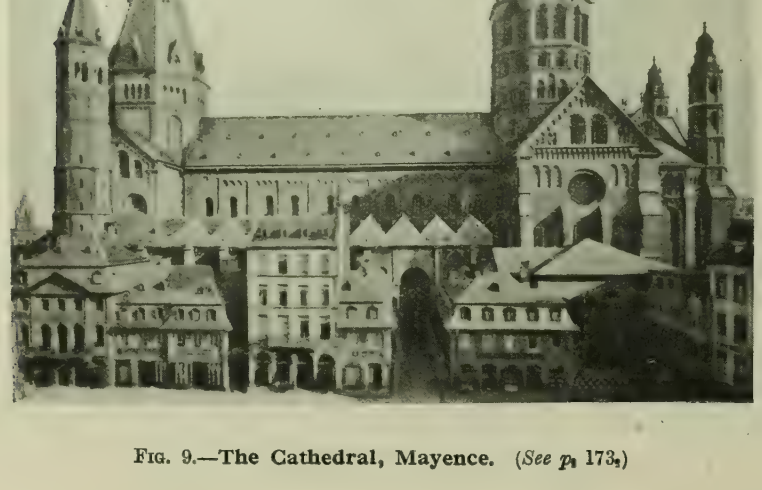


Fig. 9.—**The Cathedral, Mayence.** (*See p.* 173.)



Fig. 8.—**The Church of The Apostles, Cologne.** (*See p.* 173.)

First Premium : Messrs. Butler & Rodman, New York; second premium : Mr. John J. Roth, Los Angeles; third premium : Mr. Ernest Hoedtke, Cambridge, Mass.; first honourable mention : Messrs. Cervin & Horn, Rock Island, Ill.; second honourable mention : Mr. L. C. Dillenback, Urbana, Ill.

Ross-Smith Memorial Design.

Designs are invited (they may be submitted up to September 30) for a statue in bronze, and pedestal, in honour of Sir Ross Smith, the Australian airman who, in 1919, with his brother Sir Keith Smith, and two Australian mechanics made an aeroplane flight from England to Australia. The cost of the statue, delivered F.O.B. nearest port of embarkation, must not exceed £3,500, and the pedestal, to be executed in Adelaide, is not to exceed £600. First premium, £200; second, £100. Conditions can be seen at *The Builder* offices.

Proposed Municipal Offices, Kent.

The President of the Royal Institute of British Architects has nominated Mr. H. V. Lanchester, F.R.I.B.A., as assessor in this competition.

Newcastle Fire and Police Station.

Newcastle City Council has decided to hold a public competition amongst architects for plans for the proposed new police and fire brigade station on the Marlborough-crescent Market site. Buildings are to cover 2,465 yds. leaving the remainder for an open court yard. Three premiums, amounting in all to £900 will be offered for designs, and an assessor nominated by the President of the Royal Institute of British Architects and approved by the authority, will be appointed at a fee of £281 10s to adjudicate. Sending-in day, March 27. In our last issue it was stated that the cost of this work was estimated at £12,500; we believe the cost is likely to be about £125,000.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending in date, and second the issue of *The Builder* in which full particulars were given) :—Essay on Heating and Ventilating (Mar. 31 Nov. 9, 1923). Holmside Hospital (Feb. 14 Dec. 14, 1923). Industrial Designs (June Dec. 21, 1923). National Theatre (April 26) Monument to Sir Wilfrid Laurier (April 3 Dec. 14, 1923). Belfast Union Lighting (March Nov. 9, 1923). Dunfermline War Memorial (March 8; Dec. 28, 1923). Newcastle Concert Hall (March 1; Oct. 26, 1923).

TOWERS AND SPIRES.

By SYDNEY TOY, F.S.A., A.R.I.B.A.

IV.—CHURCH OF THE APOSTLES, COLOGNE.

In the districts of Germany bordering on the Rhine Romanesque architecture during the eleventh, twelfth, and thirteenth centuries developed in a special and particular manner; and this is observable as much in respect to the treatment of the towers over the crossings as in the general arrangement of the plan and disposition of the parts of the church itself. In the opulent and rapidly growing cities of the Rhine, such as Cologne, Worms, and Mayence, the churches were built on a magnificent scale during this period and usually consisted of a nave with its north and south aisles, a transept at either end of the nave, and a choir beyond both the east and west transepts. There was therefore a crossing at the west as well as at the east end of the nave and a tower was built over each of them. These were often flanked by two smaller towers, placed in line with them at the ends of the transepts or somewhat in advance, and the church was thus dignified by a group of six towers, prominence being given to either one or the other of those over the crossings (Fig. 9).

It is now somewhat difficult to ascertain the precise origin of the plan adopted in these churches, but among the archives of the ancient monastery of St. Gall in Switzerland there still exists a plan for a monastery, drawn about A.D. 820, the church of which shows a similar disposition of parts to that developed here. In respect, however, to the methods pursued in the treatment of the crossing and of the tower above it there can be little doubt but that they are based on types existing in Lombardy and in the north of Italy generally. With these types the Germans during the Middle Ages must have been thoroughly well acquainted, thanks to their commercial intercourse with Italy and the numerous military operations they conducted in that country. Doubtless, also, the traditions established by the Cathedral at Aix-la-Chapelle, built by Charlemagne in the eighth century and modelled probably on the Byzantine church of St. Vitale at Ravenna, had their influence on the open development of the crossing and its covering.

Many of the great Rhenish churches have suffered severely in the course of ages from fire and other destroying causes, and much of the work seen to-day is the result of comparatively modern restoration, but the church of the Holy Apostles at Cologne is a typical example of a Rhenish church of the Romanesque period. This church was built during the first half of the thirteenth century and has east and west transepts with a tower over each crossing as described above. The eastern end, in common with the churches of St. Maria in Capitolio and Great St. Martin, both also at Cologne, is triapsal or has an apse at each end of the transept as well as at the east of the choir. The tower stands upon the four great transverse arches of the crossing and is abutted at its base on all sides by barrel vaults, the barrel vaults being interposed between the arches and the semi-domes on the east, north, and south, and between the western arch and the nave vault on the west (Fig. 7). Immediately above the crowns of the transverse arches the tower is brought to octagonal form by means of trumpet-shaped squinch arches, and from this level it is continued upward through one low stage and terminated by an octagonal dome with a small lantern above. The tower therefore for its full height is open to the interior of the church and forms a great lantern over the crossing. Windows are pierced through the walls on the exposed sides between the roofs of the choir, nave, and transept, and corresponding recesses are formed on those sides covered by the roofs, a communicating gallery being continued all round by means of narrow openings between the windows and recesses. Generally the tower over a crossing in a Rhenish church during the Romanesque period appears to have been low and to have been carried above the roof line of the church only sufficiently to allow of a low external gallery with open arcade between that line and the roof of the tower itself; as in this example (Fig. 8) and as seen in the restored eastern tower at Mayence (Fig. 9).

The design of the eastern tower of the church of the Apostles, above noted, deserves especial attention from a constructive point of view. It will be observed, Fig. 7, that the system of abutment surrounding the great arches upon which the tower stands is remarkably powerful, and, if well built, would be of sufficient strength to support a superstructure of very much greater height. And, again, that the supports are so skilfully disposed that the open effect, which it is so desirable the crossing beneath should possess, is in no way impaired. Immediately above the great arches of the crossing the angles are relieved of all pressure, and the weight of all sides of the tower is thrown directly upon the arches themselves, as well as the weight of those sides at the angles, which is received by the squinches and deflected on both sides, as of the other four. The lateral thrusts exerted on the great arches are then received and neutralised by the four barrel vaults behind them, and which abut directly against and form a continuous support to them through the whole of their course from one springing point to the other. These are again retained at the further ends by the semi-domes of the apses and on the west by the vault of the nave. The vertical pressures are transmitted to the four great piers of the crossing.

The tower over the western crossing of this church is square, and is carried up to a considerable height, Fig. 8. At the summit it is finished by four steeply pointed gables, and crowned by a pyramidal spire set diagonally on the apses of the gables and having its sides continued down the junctions at their feet. Spires of this kind were common in Germany at this period, and are seen on the western towers of the cathedral at Andernach, on the tower over the western crossing at Laach, and elsewhere. They are constructed of timber and covered with slate. An example in this country exists on the tower of the church at Sompting in Sussex. The cathedral of Mayence, Fig. 9, dates substantially from the twelfth century, but it had suffered so much from fire and siege in the succeeding ages that considerable restoration became necessary, and was carried out during various periods in the nineteenth century. The tower over the eastern crossing was rebuilt about 1878. But the lower part of the tall tower over the western crossing, seen to the right in Fig. 9, probably represents the early work, though the upper part was restored after a fire in 1767. This work is doubtless of later character than the main body of the building, and is probably contemporary with the nave vault, about 1200. The construction, to the first stage above the roof line of the church, bears a resemblance to that of the tower of the church of the Apostles, but the internal width of this tower is about 10 ft. greater than that at Cologne, the lantern itself higher and the whole design on a more elaborate scale. The squinch arches immediately above the crossing are stilted and are not trumpet-shaped but of several orders, while corresponding blind arches are recessed in the adjacent walls to preserve the continuity of an arcade. The stage above is delicately treated with arches and detached shafts, and the covering over all is a true Gothic vault of eight compartments with ribs springing from shafts in the angles of the tower. This method of vaulting permits of an additional clerestory with windows on all sides, and it is this clerestory which is seen immediately above the roof line of the church in Fig. 9.

R.I.B.A. Prizes and Studentships, 1924.

The exhibition of drawings submitted in competition for the R.I.B.A. prizes and studentships, 1924, will be held in Gallery No. VI, at the Royal Academy, and will be open to the public until February 4, 1924, between the hours of 10 a.m. and 6 p.m. Students at the schools of architecture are cordially invited to visit the exhibition.

The prizes will be presented at the general meeting of the R.I.B.A. on Monday, February 4, 1924, at 8.30 p.m., at the Royal Society, Burlington House, W.1. Students are cordially invited to be present at this meeting, at which a criticism of the drawings submitted will be delivered by Mr. Henry M. Fletcher, F.R.I.B.A. No special invitation cards are required.

Manchester Grammar School.

The Governors have decided not to have a competition with regard to plans for the new school buildings to be erected shortly. They have appointed Dr. Percy S. Worthington, F.R.I.B.A., and Mr. Francis Jones, F.R.I.B.A., as their architects for the work.

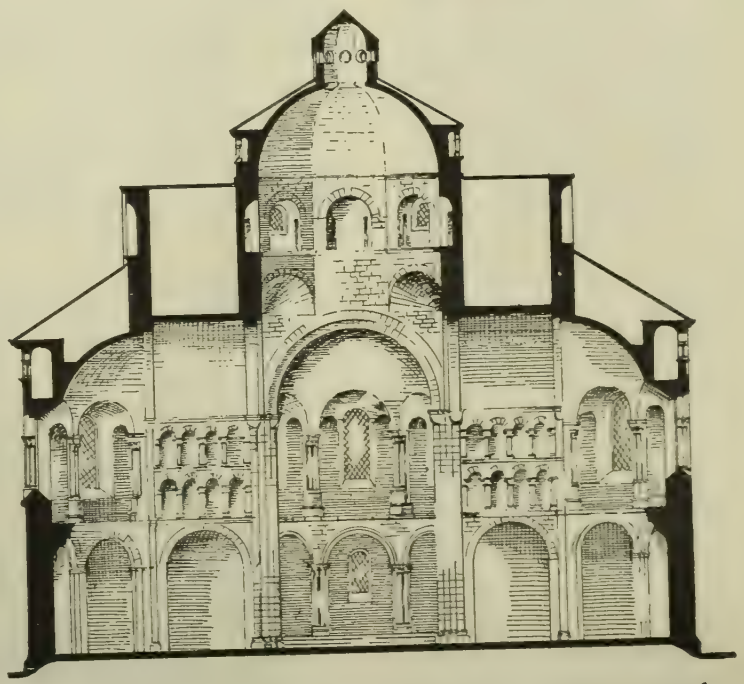


Fig. 7.—The Church of The Apostles, Cologne. Section through the eastern transept and tower.

CORRESPONDENCE.

A Commission of Fine Arts.

Sir,—I rubbed my eyes on opening my paper this morning to be sure I read aright. Was there then really yet another Committee of Taste already formed, and this time under Government auspices, and with grant of public money? And was it the last act of a moribund government to rush this thing through for fear of the views of the new, with its tendency to exchange panaceas for realities? I can only hope that with its greater respect for human liberties it will close down this Fine Arts Commission forthwith. Even in the account which fathers the announcement in a contemporary it is found desirable to adopt a very apologetic tone, as though somewhat ashamed of their own child. We are told that "The Constitution of the Fine Arts Commission saves it from any taint of bureaucracy" (from which it appears that the nature of bureaucracy is not understood) and that the "mature students or practitioners in the arts" are going to set up a standard of Taste. I seem to know the phrase, its iteration is so interminable. The whole trouble is well expressed by G. K. Chesterton when he tells us that "the cultured person does not seem to believe that the ordinary person is fit to be trusted outside a lunatic asylum." In order that this new Commission shall be quite secure, we are told it will itself "suggest the names of those whom it proposes for election or re-election."

But what of the arts themselves? To meet such a danger a "Liberty of the Arts League" seems the thing most needed, and I recall the announcement at the time when the Germans threatened Paris, "Citoyens votre patrie est en danger." If indignation is said to make poets it ought certainly to make artists, for the unconscious assurance of this Commission for the further capture of the freedom of the arts should bring every one of them to their defence. As a distinguished artist, expressing his view to me about it, stated, "the danger of eccentricity and extravagance in modern treatment amidst its new creative developments is nothing to compare with the sterilising influence of this reactionary proposal. We do not want this, no doubt well-intentioned, meddling of men, however distinguished, who are too much out of touch with present feeling and outlook to interpret for us what we need in art, and are too much identified with the old exclusive interpretations and official eminence at such a discount now."

The public and local bodies free to select their own advisers, responsible for their own advisers are much better guides. The recent case of Leeds will be recalled, where a timorous Town Council called in all the directors of all the National Galleries and others, creating out of them a really super-Committee of Taste, with the result that the particular scheme was turned down, and we may trust the Town Council learnt wisdom through the experience. A well-known writer on art pointed out some time ago that these sort of committees are perhaps the least likely to reach a wise decision. There will be found, no doubt, a certain number of accommodating persons to support this Commission, but artists should not, for the bottom is out of such remedies for the lack of art—if there is the lack. The unfortunate younger artists who are doing much of the best work, but too far off such official detachment, too undistinguished in themselves to be formidable, will perhaps fare badly unless adopting a correct and safe attitude. But they may feel reassured, as the public will, I believe, pay very little attention to a Commission which desires to guide its choice at the present time, and it is a thousand times better that they should not. Those who are going to protect the public from themselves in this way do not recognise that there is a new orientation in the arts, a new springtime of belief about them, and that all this outworn machinery of administering art by those who distrust it is being disintegrated every hour by public opinion.

And what justification is there for the supposition that this Commission will secure for us something better than that which the free exercise of public opinion and choice can secure for us already. Will this Commission manufacture better artists for us, or discover the best ones who resist this patronage and direction by those who do not believe in art enough to trust it? The matter is one much more difficult than any such Commission will resolve, and to suppose that the arts have only to be touched by the magic wand of this body to arrive at better things is to ignore the problems and changes concerned with real improvements. There can never at any time be much done to foster art, which is the flowering of life at its best, and like all the best things, it happens—but not by machinery. Such Commissions begin at the wrong end. Something more than this is required to interpret the spirit of this hour, which is reaching out to better beliefs and means to fly on its own wings, not under the tutelage of a Commission, which will fail, as it deserves and must fail, because it is not related to reality, and to the facts of life.

When the public and artists demand the best out of life, and trust the inspiration of their hearts to realise the kingdom that is within them, art will appear very nigh unto us, as the natural endowment of life directed to the best things. Why cannot we accept life a little more—which we should if we understood it better—and give up these everlasting appeals to machinery for a time. It would liberate us so much more than all this physic—physic, alas! while the physician himself is sick. If only our self-knowledge were greater we should be humbler, and it is through this humbler spirit that the arts will reach their new springtime and not through the coercion which the hard-mouthed would impose.

Isis.

Prizes and Studentships, R.I.B.A., 1924.

Sir,—May I be permitted to point out several rather misleading statements in the criticism of the designs sent in for the Soane Medallion which appeared in your issue for January 25.

With reference to those drawings signed "Phœnix," each dimension mentioned should be doubled as the drawings are to 1/16 in. scale and not to ⅛ in., as your critic seems to have thought, and only at the sides of the central tower is there a double row of flying buttresses. The same error in dimensions applies, I think, to the winning design also.

Phœnix.

Menai Suspension Bridge.

Sir,—In the letter on the proposal to build a reinforced concrete bridge across the Menai Straits, which he apparently broadcasts to a large proportion of the professional and general Press, Mr. Stott only demurred to the scheme on æsthetic grounds. In your issue for January 18 you published photographs of two, in my opinion, graceful reinforced concrete bridges, and as in his letter last week Mr. Stott did not again refer to the question of appearances, I presume I am justified in believing that these illustrations convinced him that it is possible to build "graceful" bridges in this material. He now changes his argument and states that at all events owing to the width and height required (500 ft. by 100 ft.) a ferro-concrete arch is "impracticable." If a ferro-concrete arch were impracticable there would obviously be no need for Mr. Stott or anyone else to worry about one being built, but I have taken the trouble to search the engineering Press and find references to and illustrations of the following reinforced concrete bridges which have actually been built:—New York, 720 ft. clear span, stated to be the largest reinforced concrete arch in the world; Minneapolis, 400 ft. clear span by 98 ft. high; St. Pierre, Rouen, 437 ft. clear span; La Balme, France, 320 ft. clear span. There is now being built at Bernard Loire a reinforced concrete bridge with a clear span of 570 ft., and no doubt there are many other bridges built of this material with a larger span and greater height than are required at the Menai Straits.

Mr. Stott quotes Professor Lethaby to the effect that the subject is too important to be decided by "the poverty of one mind." I quite agree—it is just that feeling which prompts me to reply to Mr. Stott's letters. The progress of science and construction will not be held back by what seems to be nothing but prejudice.

H. C.

London.

Filter Illumination.

Sir,—In regard to the photographs of filter illumination published in your issue of January 4, there is an error which I am sure you and your readers would wish corrected, viz., in place of "Paris Café," p. 4, read "Salon du Goût Français," Champs Elysées, Paris; and on p. 5 the installation illustrated is the Chinese Room, "Ritz-Carlton Hotel," Atlantic City, U.S.A.

At the moment in London there are permanent exhibits of filter illumination at Magnet House, Kingsway, also at Claude Harriss Galleries, 27, Old Bond-street, to which you and your readers are cordially invited.

Beatrice Irwin.

Gift for Science.

Cambridge University Senate accepted recently the offer of the trustees of the Rockefeller Foundation of New York, who have offered to furnish £100,000 for the building and general maintenance of the School of Pathology at Cambridge, and to contribute £33,000 toward the endowment of the school, provided the University can secure the remaining £33,000 necessary for the completion of their endowment.



From a photograph by Mr. E. J. Strange, F.I.O.B.

The Home of General Washington, Washington, U.S.A.

THE ARCHITECTURAL ASSOCIATION.

Mr. Gilbert H. Jenkins occupied the chair at a general meeting of the Architectural Association, held at No. 35, Bedford-square, W.C.2, on Monday last.

New Members.

After the minutes of the previous meeting had been approved, it was announced that there were seven new nominations for membership, and the following were unanimously elected members:—

G. I. C. Highet	M. J. Evans
G. H. Brown	C. H. Roberts
A. R. F. Anderson	F. B. Armstrong
F. G. J. Place	

PRESERVATION OF OLD BUILDINGS.

Mr. Basil Oliver, F.R.I.B.A., then gave an address on "The Case for the Preservation of Old Buildings," which he illustrated with a large selection of lantern slides, divided into three categories: (1) Work destroyed; (2) imitative and conjectural restorations, and (3) buildings saved by careful restoration.

In the course of his remarks, he said preservation meant more than saving from demolition; it meant also saving from spoliation by a too drastic and often unsympathetic restoration after old buildings had been made secure from the clutches of the housebreaker. He thought an architect called in to advise about an old building should approach the problem in an entirely different state of mind from that in which he created designs for new buildings. Self-expression was not wanted in dealing with old buildings; highbrows did not always make good repairers, and indeed it sometimes happened that a really good builder, who knew his job and did it without any self-consciousness, did more good for the health of an old building than an architect with an overpowering desire to display his knowledge of styles and dates. It was often obvious what a building used to be like, but that was under no circumstances ever any justification at all for embarking on a scheme of completion. A mere fragment of genuine work gave him more pleasure, as being what it purported to be, than a conjectural restoration which was nothing more nor less than fraudulent misrepresentation.

Too much money was another fruitful source of harm. How little need be done to make the building safe, watertight, and usable (if not a ruin) should be the architect's ideal, not how big a job could one make of this or that restoration. Whoever had the privilege of such work should be conservative, have a "flair" for history, a love of and reverence for old things, but he should beware of too great an antiquarian knowledge. Too knowing and too ardent antiquaries had often been the most mischievous restorers.

In the repair of old buildings he did not think one's own preferences should be considered. Fashions in styles changed; what was considered good to-day might be the reverse to-morrow, and *vice-versa*. For instance, they could tolerate Jacobean work now, but just think of what a number of good Jacobean pulpits and other fittings were swept away and lost for ever during the fanatical period of the Gothic Revival! The misguided restorers of those days were goaded to action by the wave of Romanticism which the writings of Sir Walter Scott engendered.

On the whole he was an optimist about this question. The faithful and continuous work for close on half a century of the Society for the Protection of Ancient Buildings had done more than anything else for the cause of their heritage of old buildings. No less remarkable was the work of the more recent Ancient Monuments Board of H.M. Office of Works, with Mr. C. R. Peers as Chief Inspector and Sir Frank Baines as Director of Works. He knew it was the fashion to criticise Government departments, but he knew nothing but good of the one to which he had referred. In fact, when he heard that an ancient monument had been taken over in perpetuity by the Office of Works he heaved a sigh of relief and knew all was well.

In showing a slide of Kirby Muxloe Castle, where the work of preserving the walls of the gate house had been recently completed, he said careful examination of the walls showed that while the core was generally sound the greater part of the face work was in an advanced state of decay. One of the most serious defects encountered arose from the fact that the entire face of many of the bricks had, by the action of frost, been split from the body of the brick and had fallen away, and that many of the bricks that appeared sound were found, when tested, to be affected also and that the loose portions would fall off when tapped. It was evident that if all the loose faces were removed and the sound parts of the bricks were left in position the appearance of the walls would be ruined, while on the other hand to cut out the whole of the affected bricks and make good with new would mean refacing practically half of the area to be treated.

It was decided, therefore, that an endeavour should be made to retain the loose portions by means of a cementing composition, and the following procedure was adopted. The loose faces were very carefully removed and the fractured surfaces were thoroughly cleaned. The loose portions were then refixed in their original positions by means of a glue cement composed of 4 parts glue, 1 part boiled oil by weight, and 1 part oxide of iron. The adhesive was found to answer its purpose admirably and the result was in every way satisfactory. The presence of the new pointing undoubtedly would assist in the retention in position of the loose portions. The old bricks were very susceptible to the attack of rain and frost. Those lying on flat unprotected positions slipped and cracked into small fragments. No attempt was made to replace those portions of the bricks which had fallen away entirely.

Discussion.

In proposing a vote of thanks to the lecturer, Mr. F. Green (President of the Society for the Protection of Ancient Buildings) said during the last century there were very few cathedral churches which did not fall into the hands of Sir Gilbert Scott and other people who restored them by the use of faked work. The Society had done a great deal in educating in the right methods of preservation those responsible for ancient buildings, and that its existence was appreciated was demonstrated by the fact that the clergy were continually applying to it for advice. In its early days it experienced great opposition from the clergy and from architects; but now, he was glad to say, the majority of the members of the Committee of the Society were architects. Very few architects to-day carried on the abominable methods of faking old buildings which was at one time thought to be the proper method of preserving them, as though a modern mason working from drawings could do the same sort of work as the mediæval mason who was carrying out a labour of love into which he put his own individuality and his own ideas, and took a delight in his work.

In seconding the vote of thanks, Mr. A. R. Powys (Secretary of the Society for the Protection of Ancient Buildings said there were a great many different opinions as to the right method of repairing ancient buildings, and undoubtedly a very good argument could be put up for each of them, but it was necessary to consider all the different ideas in an endeavour to find the best treatment for each individual case.

Mr. Powell said the ancient buildings of England were an outward sign of the undercurrent which had kept the workers in touch with nature, and examination of them was more and more revealing how ample a scope that offered for personal experience and invention in work. If it were granted that such inventive handwork was indeed the foundation of any noble national life then the case for preserving every sign of it was proved. Not a thousandth part of the fuss made about modern art was made about the old—to the old artists it was work, and there was nothing to disturb its entirely natural flow. It was abundant everywhere; the people knew the work and no architect's drawings came to confuse and debase their nature-born instincts. He was quite certain that no one who was otherwise educated and intelligent but who had not worked with his hands at building could understand fully why an ancient building was precious. It was astonishing that architects were so seldom put through the workshops of their profession as well as through the offices.

Mr. H. B. Creswell said within the past five years he had had an actual example of what was going on. In a certain village the spire of the 14th-century church had suddenly taken on an entirely new form. Formerly it was close-jointed ashlar, but he found it was now dark-coloured rubble with very small stones and very large white joints—there were a great deal more joints than stones! The history of the change was that someone called at the rectory and pointed out that the iron lightning conductor was splitting the stone finial, and said that in a short time the stone would break and fall through the roof. The result was that he got the job of renewing the stone. He took it down and took it to a monumental mason, who very industriously copied it in a white sandstone. But before the new stone went up the journeyman mason told the rector that the whole spire needed repairing, and he was entrusted with the work. With no other advice the rector put the work in hand. Of course the very worst methods were adopted—the soft sandstone was scraped wherever it was beginning to rot and decay. One of the most interesting facts of the case was that the rector was a rural dean specially appointed to look after Church property, and the archdeacon to whom he (the speaker) wrote on the subject, replied that he was sure the rector would do nothing improper and took no further action. In some further remarks, the speaker urged architects and other professional men to take care that they did not become absorbed by commercialism. He expressed the opinion that in a very few years, if precautions were not taken, there would be very few architects in private practice, as the bulk of the profession might be employed by large commercial firms to turn out designs. He also urged architects to employ individual craftsmen on all their work.

Mr. R. H. Moberley and the Chairman also spoke.

Congestion of Traffic at Victoria Station.

Several letters have recently appeared in *The Times* drawing attention to the congestion of cab and other traffic at Victoria Station. Mr. W. T. H. Leverton, in a letter published on the 12th ult., makes the practical suggestion that the exits of the Brighton Section on to the Ebury Bridge should also be used as entrances, which could be done by constructing booking offices on the Bridge, thus making the station double-ended. Traffic from the south-west of the station would use the new entrances instead of proceeding up the Buckingham Palace-road to the existing ones, and traffic from the south-east would approach by way of Belgrave-road and avoid the congested Wilton-road. When the platforms of the S.E. and C.R. Section are lengthened, as proposed, they might be approached in a similar manner. Probably a third of the traffic, he considers, would be diverted from the existing entrances.

THE NORTHERN ARCHITECTURAL ASSOCIATION.

ANNUAL DINNER

THE annual dinner of the Northern Architectural Association was held at Newcastle on January 23. The president, Mr. W. T. Jones, occupied the chair. There was a large and representative attendance, but owing to transit difficulties the following were unable to be present and forwarded expressions of regret: Mr. J. A. Gotch, President of the Royal Institute of British Architects; Mr. F. Jones, President of the Manchester Society of Architects; Mr. E. J. Partridge, President of the Society of Architects; Mr. C. McArthur Butler, Secretary of the Society of Architects; Mr. Glen Dobin, President, Liverpool Architectural Association; the Earl of Durham, Lord Mayor of Newcastle; Councillor Stephen Easten, O.B.E.; Mr. A. Keen, hon. secretary, Royal Institute of British Architects; Mr. Ian McAlister, secretary, Royal Institute of British Architects; Alderman A. B. Plummer, J.P.; past President of the Association, and others. Those present included: The Deputy Lord Mayor of Newcastle, Dr. W. Simpson; the Sheriff, Councillor A. W. Lambert; the Mayor of Durham, Councillor E. Laidler; the Mayor of Sunderland, Councillor G. S. Lawson; Sir Theodore Morison, Principal of Armstrong College, Newcastle; Mr. J. S. G. Pemberton, President of the Council of Durham College; Mr. J. W. Alder, President, National Federation of Master Painters and Decorators; Mr. J. P. Allen, F.S.I., President of the Northern Quantity Surveyors' Association; Mr. Thomas Bertram, J.P., President, Newcastle and Tyne District Building Trades Employers' Federation; Mr. A. E. Brookes, O.B.E., M.I.C.E., M.Inst.T., President, County Surveyors' Association; Mr. J. T. Cackett, J.P., hon. treasurer and past President of the Association; Councillor J. Carse, M.B.E., President of the Northern Counties Federation of Building Trades Employers; Mr. J. F. H. Checkley, assistant hon. secretary; Mr. Percy Corder, D.C.L.; Mr. R. Burns Dick, past President; Mr. C. S. Errington, past President; Mr. G. H. Gray, hon. secretary; Mr. W. H. Hope, secretary, Northern Counties Federation of Building Trades Employers; Dr. Harold Kerr, O.B.E., M.A., M.D.; Mr. J. A. E. Lofthouse, chairman of the Tees-side Branch of the Association; Mr. T. R. Millburn, past President; Lieut.-Colonel G. Reavell, O.B.E., Vice-President; Mr. A. Robinson, M.A., D.C.L., Vice-Chancellor of the University of Durham; Mr. W. E. Stairmand, past President of the Northern Counties Federation of Building Trades Employers; Mr. F. N. Weightman, M.A., hon. librarian; Mr. J. B. Wilkinson, immediate past President of the Worshipful Company of Plumbers; Mr. Stephen Wilkinson, A.F.C., President, York and East Yorkshire Architectural Society.

LIEUT.-COLONEL REAVELL, proposing the guests, extended a cordial welcome to the visitors. The world to the architect, he said, was divided into three classes, the client, the architect, and the builder, and they were very glad that all three could meet on a common platform of friendship. It had been said others could beat them for civic architecture, and that the Americans could beat them for commercial architecture, but the domestic architecture of this country was acknowledged as being the finest in the world. He deplored the passing of the time when every well-educated Englishman considered it part of his education to be able to speak learnedly on the style of architecture of his day, and expressed the hope that that time would return.

MR. ROBINSON and COUNCILLOR CARSE responded, following which SIR THEODORE MORISON gave the toast of "The Deputy Lord Mayor of Newcastle, and the Mayors and Corporations of the Province." He said the people of Edinburgh preserved with pride their traces of local history, and it was scandalous to find structures of interest and worth in Newcastle allowed to become begrimed, and being degraded into slums. In regard to the question of the beautification of industrial townships, raised locally by a recent address by Colonel Mitchell, who had proposed the erection of municipal and other buildings on the Town Moor, he hoped the suggestion, if tackled, would have the enthusiastic co-operation of the Northern Architectural Association, and all engaged in town planning.

Responding, DR. SIMPSON referred to the proposed construction of a great new thoroughfare from Low Fell, Gateshead, to Gosforth, through Newcastle, and said local architects could assist in making it a credit to the North. They also hoped to establish Newcastle as the metropolis of the North, and to erect buildings of architectural beauty. The MAYORS of DURHAM and SUNDERLAND also replied.

DR. PERCY CORDER proposed "Architecture," and said by the traditions of English education, the practical teaching of fine art was usually carried on at institutions having no university connection, and, as a result, both schools of art and the universities lost something by the dissociation. By amalgamating with the North of England Society for the Promotion of the Fine Arts 36 years ago, Armstrong College had broken away from that tradition and had established a Department of Fine Art, and had for a considerable period been unique in the country in this respect. Painting, sculpture, crafts, engraving, printing, and architecture were taught there, and he mentioned it was now possible to take architecture as a subject for the Durham University Degree of B.A., by means of a three years' course, or a diploma course of similar duration. The machinery was, therefore, in existence, but for some reason or other no student had yet found it possible to enter for either course. It might be that principals found it difficult to exempt youths from attendance at their offices, but he thought the architectural profession should visualise a succession of young men leaving the University at the age of 20 or 21, having completed the first half of their training, or just past the inter. R.I.B.A. stage, and coming to the architects for two years' part time study, at the end of which the young men would hold either the degree of B.A. with honours, or the diploma of the University in Architecture, whilst at the same time satisfying the requirements of the Royal Institute, and becoming Associates of the Institute. These were the recruits of the profession, and such recruits as a learned profession would have every reason to be proud, and the North-East Coast might very easily, after a few years, find its junior ranks filled with men both with B.A. and R.I.B.A. after their names.

He recognised the self-denying ordinance to which the profession must submit itself, by ceasing to recruit at an early age and, instead, advising entrants to take the course, which had been approved by the R.I.B.A. and rendered possible by the assistance of the Northern Architectural Association and their co-operation with Armstrong College. The period would soon pass, and the profession would find itself with a dignity which was its right. There was never a time when the well-educated, all-round man was more needed in the professions, and he was glad to be able to say as regards the College classes in architecture, that there were now as many men as ever attending the day classes for days per week, whilst the college was taxed to capacity in the evening classes.

So far as the city and neighbourhood were concerned, the accomplishments of local architects gave no fear of adverse comparison with the men of the past, and he instanced several buildings now in course of erection at Armstrong as forming a very noteworthy group.

Dr. Corder, whilst deploring unreasonable multiplication of societies, expressed the need, in a city like Newcastle, for some competent body to serve in an advisory and consultative capacity to the Corporation in the consideration of important public buildings before designs received final approval. He predicted a busy and useful future for their ancient profession in the North of England, and coupled with the toast the names of Mr. Gotch, the first man from the provinces to be elected President of the Royal Institute of British Architects; all allied Societies, and workers for the advancement of art.

THE PRESIDENT, who replied, assured Sir Theodore Morison of the sympathy and assistance of the Northern Architectural Association in the event of the utilisation of the Town Moor for the purpose suggested by Colonel Mitchell, and said he was very strongly in favour of advisory committees to Corporations, and mentioned that the Institute was giving the matter consideration. It seemed very helpful and desirable to have some such body to which a Corporation could refer their architectural questions. He did not suggest that they should, of course, dictate, but merely advise, and at Birmingham such a committee was in operation and rendering excellent work. The whole body of architects was very much interested in education at the present time, and it was generally agreed that it was most necessary for architects to have higher education in the future than in the past. Personally he did not think principals tried to stop pupils attending courses, but rather that the question was one of money, and he thought these students should be encouraged.

Until the man in the street, and the general public, were able to distinguish between good and bad architecture, the profession would never attain to its correct status, but he did not blame the architect for bad architecture, for he had to work to the orders of his clients, and until the latter class was capable of differentiating between the good and the bad, and of choosing the man capable of doing good work, the profession could not soar to its greatest heights. Architecture, probably the oldest of the arts, was the least noticed and appreciated.

THE R.I.B.A. AND THE SOCIETY OF ARCHITECTS.

RECENT reports in the daily press intimate that there may shortly be a closer union between the Society of Architects and the Royal Institute of British Architects. We understand that for some months past negotiations have been proceeding between the Councils of the two bodies, although, it is stated, even if the presiding authorities arrive at some arrangement it will probably be some weeks before anything definite is settled. Before any agreement which might be arrived at by the Councils of the two bodies is put in operation, it would, of course, have to be approved by general meetings of the members.

Certain members, it is stated, have strong objections against the proposal. We understand that the terms proposed are similar to those brought forward in 1919. If fusion does take place, a Bill for the registration of members of the profession would, no doubt, be promoted.

The scheme for fusion was first proposed in 1911, but was rejected by members. From 1919 to 1922 discussions arose, and much electioneering and organising work was done by those who favoured the project.

Books Received.

THE SMALLER HOUSE. (London: The Architectural Press.) Price 25s. net.

ELEMENTARY PRINCIPLES OF REINFORCED CONCRETE CONSTRUCTION. By Ewart S. Andrews (London: Scott, Greenwood & Son.) Price, 7s. 6d. net.

Ciborium Altar War Memorial, St. John the Evangelist, Balham.

Mr. A. E. Henderson, F.S.A., Architect. (See p. 179.)

ITALIAN TRAVEL NOTES.

II.—MILAN AND DISTRICT, WITH BRESCIA.

By THEODORE FYFE.

Milan is a wonderful place. A cultivated Italian once said to me, "There is nothing at Milan except the Cathedral." This is an extraordinary statement. Rome, Florence, and Venice are unapproachable; but Genoa, Turin or Naples—all first-class towns in point of size—cannot equal Milan in general interest; though there is an atmosphere of eighteenth-century completeness about Turin which some sympathetic student of to-day or to-morrow might do well to cultivate thoroughly.

Apart from its intrinsic value, Milan as a centre is almost unsurpassed in Italy. Rail and tram routes radiate from it to Saronno (Como), Monza (Bergamo), Lodi, Pavia, Abbiategrasso, Novara, and Busto Arsizio, working clock-wise from the north, and omitting the main line, east, to Brescia and beyond. All of these places are well worth visiting.

Let us now examine Milan itself. As all trams radiate from it, we may mention first the Duomo—a gorgeous and remarkably interesting edifice—but there are many other things. The mediæval Castello is a good example of its class. The Great Hospital has one of the finest courtyards in Europe; Santa Maria delle Grazie, besides being a very beautiful church, contains in its refectory the "Last Supper" of Leonardo da Vinci; the Church of San Maurizio (Monastero Maggiore) contains whole walls of frescoes by Luini; San Satiro has the famous octagonal sacristy of Bramante; San Eustorgio, the nobly placed tomb of St. Peter Martyr; and Sant' Ambrogio is a Romanesque basilica of first-class importance complete with its atrium. There are many other churches of interest—the domed Church of Sant' Alessandro*; Santa Maria della Passione, with its octagonal cupola; San Nazaro; and others.

The student will find a great deal in these buildings that he can sketch and measure. He will do well also to study such things as the setting of the "Cenacolo" of da Vinci, which is not only worth going many miles to see in itself, but is part of a great scheme of decoration in a remarkably fine room. He will also do well to visit the Brera, the Biblioteca Ambrosiana, and the Museo Poldi Pezzoli. The Brera is one of the great picture galleries of Europe, with many unforgettable paintings, including perhaps the most beautiful early Raphael in existence.

Coming now to the neighbourhood of Milan, we can get to Como by the line going almost direct north, but first we must stop at Saronno. The village is primitive, but has (or had) a possible inn. The Church of the Santuario della Vergine contains some of the freshest and most delightful early Renaissance work in North Italy. Its truly beautiful dome is a joy. Externally it is polygonal, in delicate coloured marble with a flat-pitched tiled roof and lantern; internally it is circular with arches, spandrels and drum decorated with fifteenth-century arabesques largely on a black ground; frescoes by Luini and Lanini; and above, one of the famous dome paintings of Italy—the heavenly host by Gaudenzio Ferrari. The architectural setting of all this is extremely delicate and pure, while, in the paint work, the gracious influence of Luini seems to permeate the place and culminates in his beautiful fresco, the "Marriage of the Virgin," in the passage leading to the choir.

Como, besides its wonderful cathedral, has the interesting two-domed Church of San Fedele† and the stately Romanesque Sant' Abbondio, with its twin towers and shafted semicircular apse. Unless the student desires to work in Como, the whole of the town can be seen in a day, but it certainly must not be missed.

Monza, a town of great historic interest, contains the famous iron crown of Lombardy, a relic of the twelfth century. The Cathedral is mostly fourteenth-century Gothic, in black and white banded marble, five-aisled, and containing some excellent ironwork. When I visited it, the exterior was undergoing extensive repair and was covered with scaffolding. There is a good Broletto at Monza, as at Como. There is a sketch of the latter in that admirable work, Street's "Brick and Marble in the Middle Ages," which every student should pick up if he can.

More important as a whole than any of these places is Pavia, which certainly demands a stay of several days, as from it the Certosa can be visited. But Pavia is a pleasant town to stay in, with a wide blue river spanned by a splendid mediæval bridge. It has fine subjects for water-colour work. From the other side of the river the roofs and towers of the mediæval buildings rise picturesquely, dominated by the imposing Torre del' Cittá. In fine weather Pavia is a place to revel in, full of sunny streets and mellow brickwork. In it we get right into the atmosphere of Lombard brickwork. The most important building at Pavia is the remarkably fine cruciform church of San Michele, with its octagonal dome at the crossing set on squinch arches, crowned externally with the flat pitched roof of Lombardy. The mellow stonework of the eastern apse gives one of the most perfect pictures of texture in architecture that I can remember. The Carmine is another fine church at Pavia, in red brick and terra cotta with pointed arches. The cool effect of the plastered vaults of these churches contrasting with the warm red brick, as well as the methods of lighting, are well worth study. The Duomo is good in its massing and has for a campanile the noble "city tower" referred to above.

It is not easy to write about the Certosa, but it is a wonderful place to visit. One cannot help feeling glad that such work as the delicate marble panelling of the west front has been done, and the colour effects are lovely. Internally, the inlaid marble work of the chapels and the great bronze screens are miracles of finish. The cloisters, in brick and terra cotta, are very beautiful. The setting of the Certosa, its gardens and such-like, all heighten its effect. In its way—a very graceful early Renaissance way, mixed up with Gothic elements—it is unique in Italy, and its craftsmanship in many fine materials is superb.

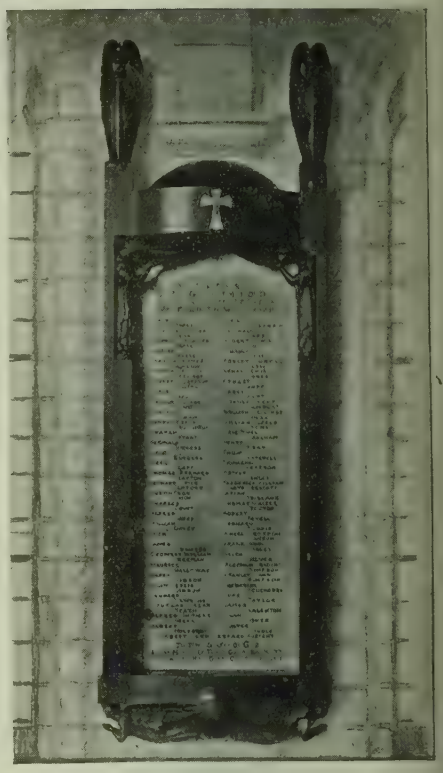
On the way back from Pavia to Milan, the student ought to stop at Chiaravalle, to see the remarkable early thirteenth-century church there, mentioned and illustrated by Fergusson in relation to Arnolfo's dome at Florence. Here is a true octagonal Gothic dome, a pyramidal composition outside, finishing with a Lombard spire like that of San Gottardo at Milan. It rises finely out of a lovely country, something like Ely, with which it has affinities. One can clamber up staircases, more or less perilous, right up into the spire, and get wide views. When I first went to Italy I was reminded of the importance of this church. It merits careful investigation, and would amply repay a student who had time to spend on it. It is probable that lodging on the spot is primitive, but as it is only 5½ miles from Milan it could easily be reached by bicycle. Besides its unique dome, the church has splendid mid-fifteenth-century woodwork.

Busto Arsizio and Abbiategrasso have churches with some resemblances to that at Saronno, ascribed, as usual, to Bramante; and the former has frescoes by Gaudenzio Ferrari. The Renaissance Church of the Incoronata at Lodi is also well worth seeing. Bergamo should certainly not be missed. It is only some 15 miles beyond Monza, but I have never been able to fit it in. Its Colleoni Chapel in the Church of Sta. Maria Maggiore is celebrated for its beautiful tombs. Several details of the church are illustrated in Oakeshotts' book of drawings.

We will now suppose that the student is leaving the Milan district and proceeding slowly towards Venice. The first town of importance on the route is Brescia, and a very fine town it is. The Municipio ("La Loggia") has a richly ornamented façade of the full Renaissance with noble great features in it, facing the great square of the town. There are several interesting churches, and the picture lover will be rewarded by seeing Moretto and Romanino at their very best. Altogether, Brescia is delightful and picturesque, and one can stay many days in it with enjoyment. The rising ground above the town is finely laid out as a public garden, from whence sweeping views of Lake Garda and the country near it can be obtained. The Broletto is one of the best in North Italy, and the museum likewise. This is partly contained in the remains of a Roman temple and is celebrated for its classical antiquities, including a famous bronze "Victory."

A third article in this series will deal with Verona, Vicenza, Padua and Venice.

* See Mr. A. T. Bolton's "The Dome as the basis of an Architectural System."
† Ibid. (Bolton.)



Memorial Tablet, St. John the Evangelist, Balham.

Mr. A. E. Henderson, F.S.A., Architect.
(*See p.* 179.)

MEETINGS.

Monday, *February* 4.

Royal Institute of British Architects.—President's Address to Students. At Burlington House, Piccadilly, W. 1. 8.30 p.m.

Tuesday, *February* 5.

Liverpool Architectural Society.—Professor T. H. Hughes on "The Monumental Architecture of France." At 13, Harrington-street.

Royal Archæological Institute.—Ordinary Meeting. At Burlington House, W. 1. 5 p.m.

Wednesday, *February* 6.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Thermæ in Rome and the Provinces." 6 p.m.

Royal Society of Arts.—Mr. Iyemasa Tokugawa on "Earthquake and the Work of Reconstruction in Japan." 8 p.m.

Thursday, *February* 7.

Master Carvers' Association.—Annual Dinner. At Connaught Rooms, W.C. 2. 7 p.m.

Incorporated Institute of British Decorators.—Mr. H. G. Dowling on "Modern Considerations attaching to Wall Paper Decoration." At Painters' Hall, E.C. 4. 7.30 p.m.

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ILLUSTRATIONS.

Plaza Constitution, Buenos Aires.

This station is the terminus at Buenos Aires of the Buenos Aires Great Southern Railway, and the scheme illustrated was for entire rebuilding. The scheme is to be carried out in a modified form entirely by the Railway Company's own staff. The materials employed are granite for the ground floor, with a brick and plaster super-structure. The climate permits complete freedom in the treatment of this material, with great advantage from an economical point of view. Mr. Arnold Mitchell is the architect.

Memorial to the Missing, Port Thewfik.

Other illustrations of this memorial were given in our issue for January 11. Sir John Burnet, A.R.A., is the principal architect.

Swansea Masonic Temple.

The design for a Masonic Temple at Swansea, by Mr. A. F. Webb, M.S.A., was placed second in the recent competition. The first premiated design in this competition, by Messrs. Willmott & Smith, was given in our issue for December 21, 1923.

Ciborium Altar War Memorial, St. John the Evangelist, Balham.

The arrangement of the walls and doors at the east end of the aisles of the church precluded the ordinary altar and reredos. During the war a small temporary altar was placed and used in the north aisle, and it was decided to erect a permanent one in the same position as the parish war memorial. This was designed and supervised by Mr. A. E. Henderson, F.S.A., and executed by Messrs. John Garlick (1910), Ltd.

It is of rather unique character, and yet sufficiently historical in style to be in keeping with the Gothic design of the church. It is a wood design throughout; no imitation archings are used, but only uprights and beams. The three angels at the top of each post support the superstructure, and the doves carry the cornice. The roof is octagonal and carries a cross of Byzantine design. A complete chapel has been arranged under one roof in a small square of only 8 ft., the whole making a complete Ciborium.

The photographs were taken shortly before the altar decorations were fitted and the dedication. Mr. Henderson has also designed the roll of honour, painted on marble, in a carved mahogany frame. affixed to the pier between the aisle windows.

THE LAW RELATING TO BUILDING.

By W. T. CRESWELL, Lic.R.I.B.A., F.R.S.I. (Barrister-at-Law).

IV.—The Scope and Extent of the Architect's or Surveyor's Authority.

The lack of personal skill which usually induces the ordinary prospective building owner to employ an architect to prepare designs, plans, &c., also suggests to him his own incompetence to supervise, to successful completion, the work undertaken by the builder. Hence, under ordinary circumstances, the employer relegates to the architect who makes designs, &c., for building works, the supervision of the builder's work.

In this country the custom is for the building owner to employ, severally, an architect to design and supervise, and a builder to provide materials and labour for erection and completion of proposed buildings.

Hence, there comes to an architect or surveyor the position of agent of the employer in relation to the builder; his legal description being "general agent"—see Kimberley *v.* Dick (1871), L.R. 13 Eq. I. As a result of this relationship, questions frequently arise as to the employer's liability for the acts, or orders, of the architect or surveyor, towards, or given to, the builder. Decision regarding such questions depends on whether such acts or orders fall within the limits of the usual authority of an architect or surveyor, or of any special authority given him by the employer.

In general, if an agent falsely represents that he has an authority which he has not, and thereby induces another person to act on the faith of his misrepresentation, there is a fraud; in respect of which, if the person so induced to act is thereby injured, he can recover damages. So then, when an architect or surveyor exceeds his authority without the knowledge of the builder, and causes the builder to provide labour or materials, or to make alterations, without the authority of the employer, the architect is liable, in the event of any objection raised by the employer, to an action for breach of warranty of authority—see Randell *v.* Trimen (1856), 18 C.B. 786. He is also liable to a charge of neglect if he does not show the same degree of skill in supervision to completion of the works as he showed in the preparation of designs, plans, &c.

Questions most frequently arise in the following categories:—

(*a*) Variations from plans. (*b*) Omissions from, and additions to, the contract. (*c*) Employment of a quantity surveyor. (*d*) Certificates granted by the architect.

In a carefully prepared contract, there would be provisions to meet all these eventualities, and any dispute taken before the Court would be settled by a construction of such provisions according to the ordinary rules of construction and applicable in such cases. Any alteration, variation, omission or addition in relation to plans, which during construction appears desirable in the view of the architect or surveyor, should not be carried out until he has sought and obtained ratification and written instructions from the employer; failing which, he may be held liable.

In the case of Sharpe *v.* The San Paulo Railway Co. (1873) 8 Chancery App. 597, where the plaintiffs were constructing a railway for the defendants, and the contract provided that the engineer's certificates should be in writing, it was held that the plaintiffs could not maintain a claim against the defendants merely on verbal promises given by the engineer. Lord Romilly M.R. said "it was quite clear that the engineer had no power to vary the contract, he had power to give directions . . . within the limits of the contract, and if the contractors thought that things were not within the contract they were not bound to do them."

In general, therefore, the architect or surveyor is the agent of the employer for all purposes in connection with the work to be done and within the limitations of the contract. If his authority be further limited by the employer, then the contractor must be informed regarding such limitations; see Kimberley *v.* Dick (1871) L.R. 13 Eq. 1. Also see Betts *v.* Pickford (1906) 75 L.J. Ch. 483, where an architect, who was supervising the erection of a warehouse, permitted roof timbers and stanchions, from an adjacent building also in course of erection, to be inserted into the said warehouse building; it was held that he had exceeded his authority, Kekewick, J., remarking "What is within the scope of an architect's authority I am not called upon to say, but I will say this much, that I apprehend his authority is strictly limited by the nature of his employment; that is to say, as defined by any letters or agreement constituting his employment."

Any person asking for tenders from contractors does not imply that the proposed work can be successfully executed in absolute accordance with the plans, specifications, &c., provided; nor, in fact, has the architect or surveyor any authority to warrant to the contractor the sufficiency of his plans, or that the work can be executed from them or that the bills of quantities are correct. Also, when a clause is inserted in a contract whereby the employer disclaims responsibility for the accuracy of statements and information which he or his architect or surveyor supplies to the contractor, and as to which the contractor is to satisfy himself, such a provision will not exempt the employer from liability in respect of statements or information recklessly or fraudulently made or given by himself, his architect or surveyor, to the contractor. Of course, where the architect or surveyor is at fault, the employer has a remedy against him if the contractor has been able to maintain an action against the employer; see Pearson *v.* Dublin Corporation (1907) A.C. 351.

Omissions from and Additions to the Contract.

Where omissions have been made in the contract documents, it is the duty of the architect or surveyor first to bring these to the notice of the employer, then obtain his written authority to order such omissions as extras on the contract, if they are works reasonably necessary to carry out the contract as signed; see Sharpe *v.* San Paulo Railway Co. (1873) 8 Ch. App. 597.

Impracticable Plans.

If the architect's plans prove to be impracticable, he must obtain the authority of the employer empowering him to order such supplementary or extra work as shall render them practicable see; Tharis Sulphur & Copper Co. *v.* McElroy (1878) 3 App. Cases 1040.

Extra Plans, Working Drawings, &c.

An architect has usually, under the contract authority to furnish further plans, working drawings, and other detailed information, during, and to aid, the progress of the work; but this does not entitle him to vary the work as originally set out in the contract, unless by express authority of the employer in reference to any item varied; see Rex *v.* Peto (1826) and Cooper *v.* Langdon (1841) 9 M. & W. 60.

Substituted Work by the Contractor.

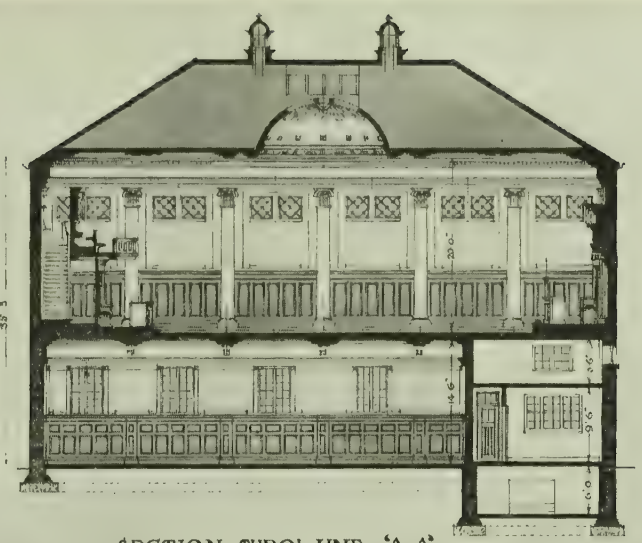
If a contract gives certain powers, they must be strictly exercised. So, if the contractor substitute any work for that stipulated in the contract, he cannot claim for the work so substituted; but the architect for the employer is entitled to demand the removal of such substituted work and the installation of the work stipulated in the contract. This holds even though the substituted work is better than that stipulated; see Forman *v.* The Ship "Liddesdale" (1900) A.C. 190.

There is usually, in building contracts, a provision for all variations and orders given by the architect to be in writing; but all such written orders must be within the limits of his authority as architect; see Steel *v.* Young (1907) S.C. 360. For example, the architect cannot give an order that brickwork shall be in lime mortar when the contract specifies cement mortar, saving only under the consent of the employer; and, in all cases, such consent of the employer should be obtained in writing.

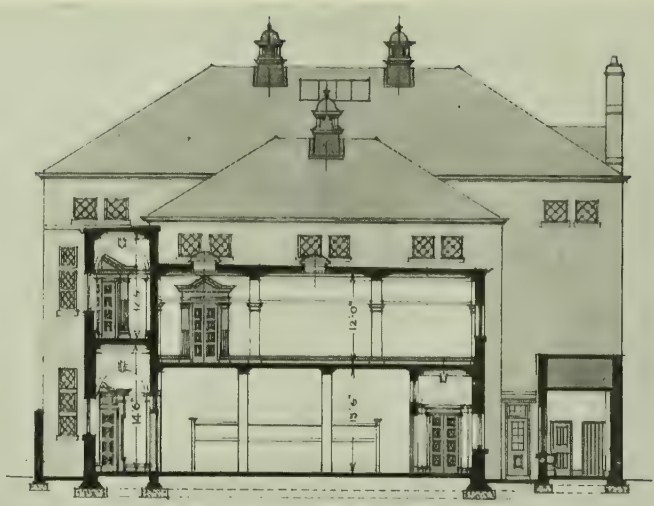


Ciborium Altar War Memorial, St. John the Evangelist, Balham.

Mr. A. E. Henderson, F.S.A., Architect. (*See p.* 179.)



SECTION THRO' LINE 'A A'



SECTION THRO' LINE 'B B'



SECTION THRO' LINE 'C C'



FRONT ELEVATION

SCALE

Swansea Masonic Temple Competition. Design Placed Second: By MR. A. F. WEBB, M.S.A.

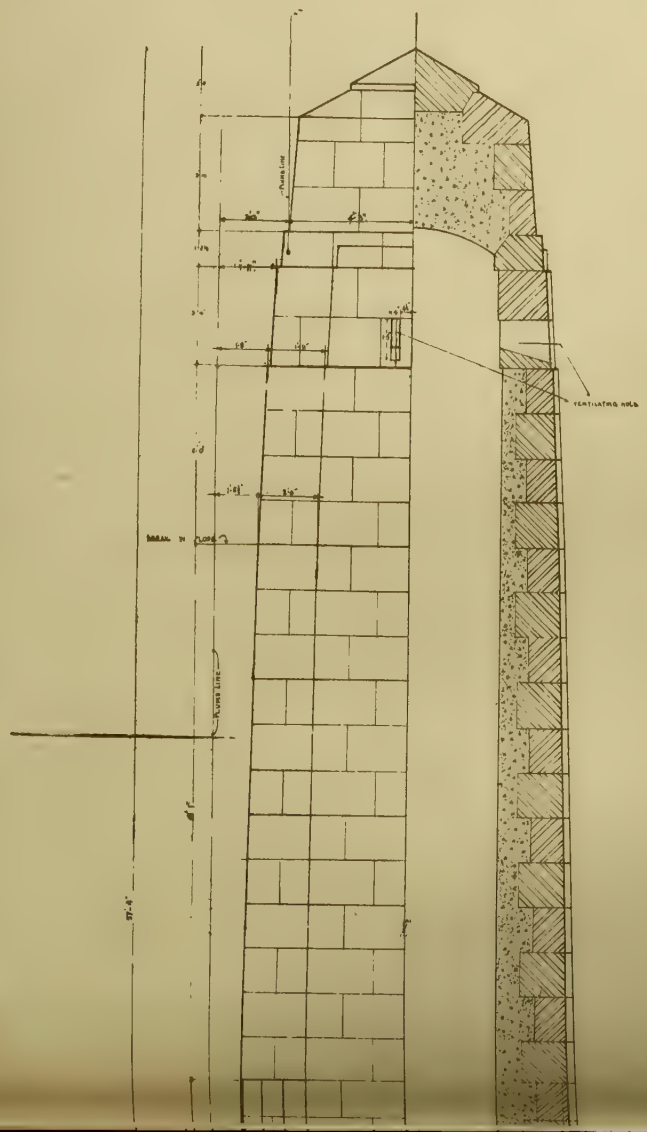


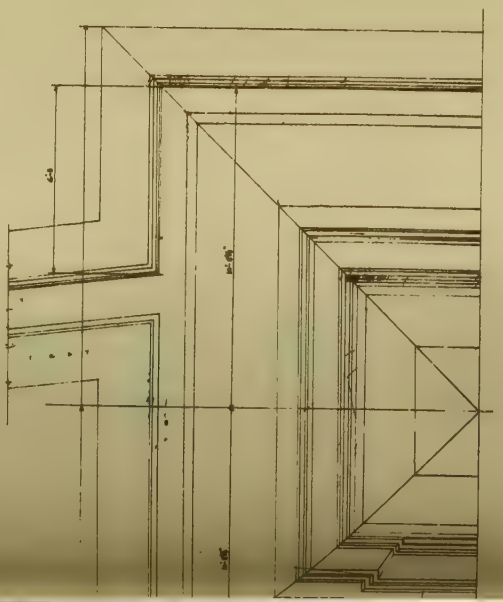
R.A. EXHIBITION.

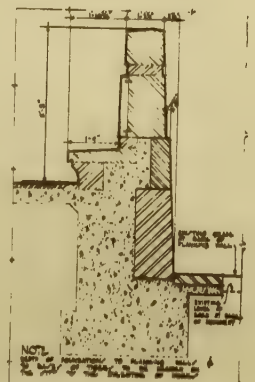
PLAZA CONSTITUTION, BUENOS A



LD MITCHELL, ARCHITECT.

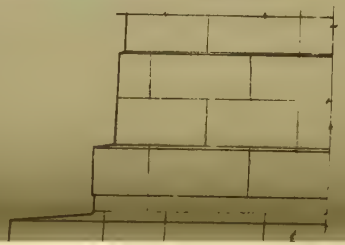




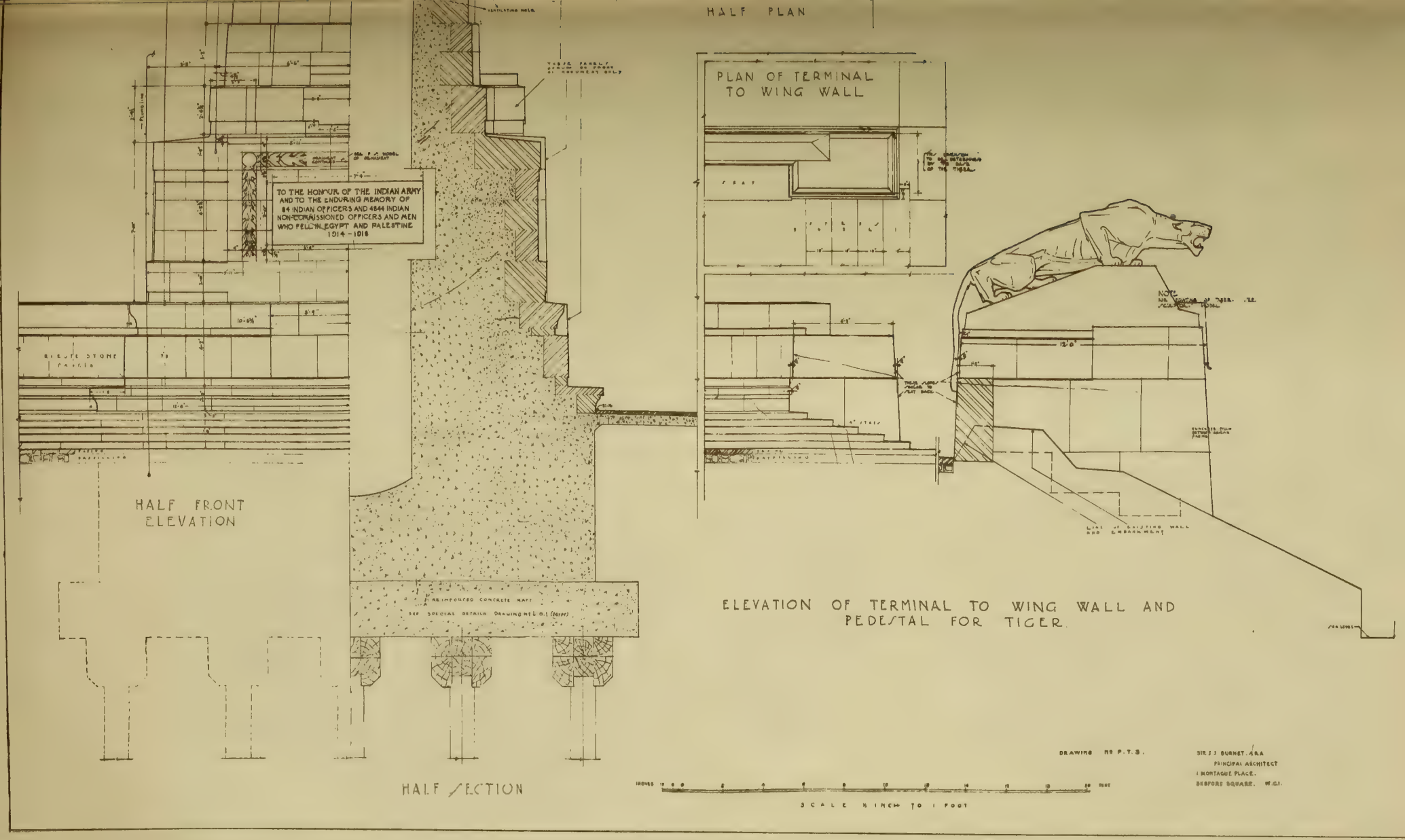


SECTION THROUGH SIDE WALLS

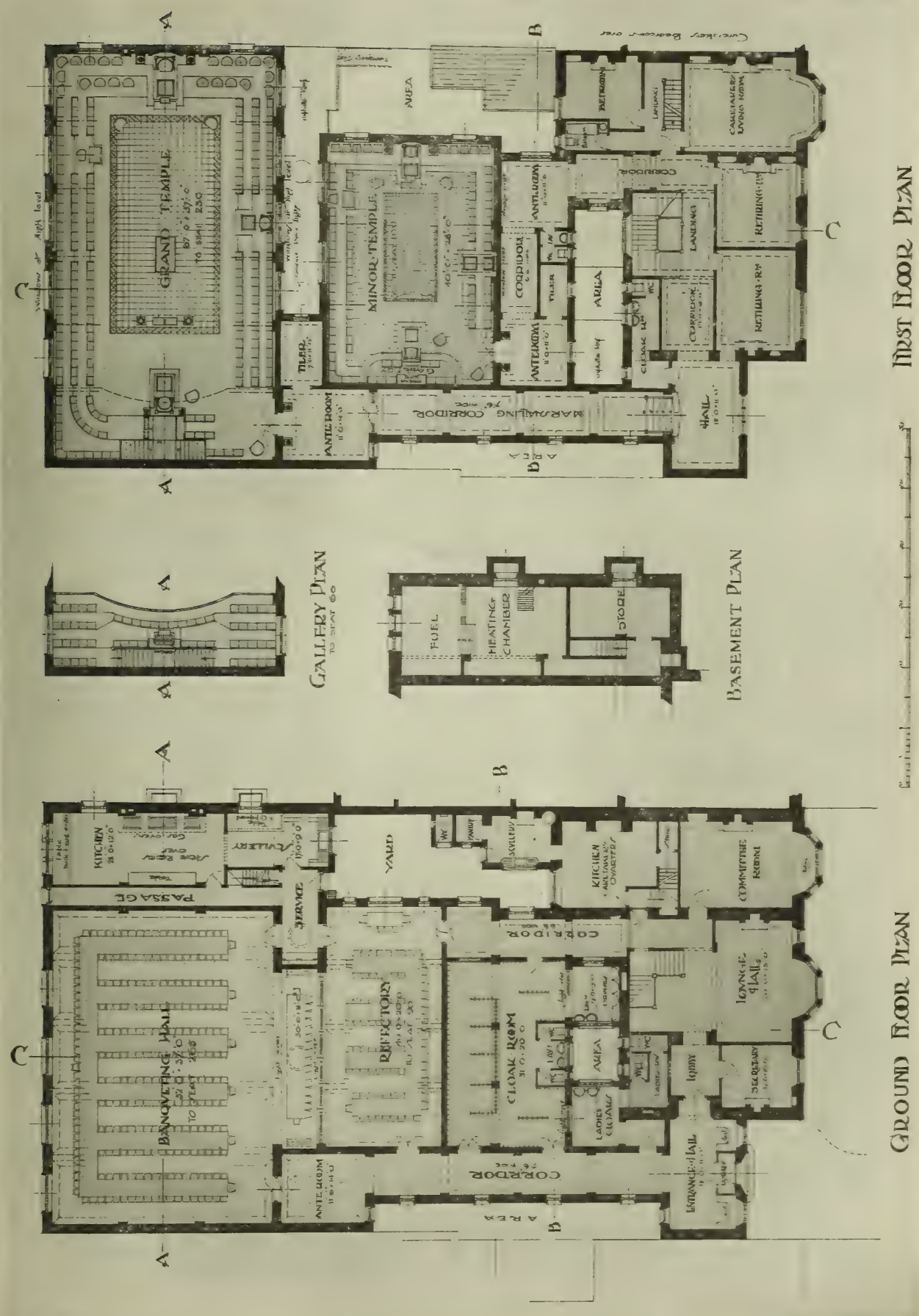
HALF ELEVATION OF THE INSCRIPTION PANELS ON THE NORTH, EAST AND WEST.



THE



WAR MEMORIAL, THEWFIK, EGYPT. SIR JOHN BURNET, A.R.A., ARCHITECT.



Swansea Masonic Temple Competition. Design Placed Second: By Mr. A. F. Webb, M.S.A.



D. I. C. House, Manchester, Competition.

Highly-Commended Design: Submitted jointly by Mr. G. H. Willoughby and Messrs. Rees & Holt.

A COMMISSION OF FINE ARTS

The following Commission, consisting of nine members, has been appointed by the King on the recommendation of the late Prime Minister—the last public act of his Government. It will be on the lines of the American Fine Arts Commission, which has been in existence since 1910. The Earl of Crawford and Balcarres (chairman), The Marquis Curzon of Kedleston, Sir Aston Webb, P.R.A. (architect), Sir Reginald Blomfield, R.A. (architect), Sir Edwin Lutyens, R.A. (architect), Mr. Alfred J. Gotch, P.R.I.B.A. (architect), Sir George Frampton, R.A. (sculptor), Mr. D. Y. Cameron, R.A. (painter), Mr. T. H. Mawson (President, Town-Planning Institute).

According to statements in the Daily Press the status of the Commission is consultative, with no power of veto, and with no statutory powers in the first instance. Its advice may be sought by the Government or any authority of standing on the location of statues, fountains, and monuments in public squares, streets, and parks, both in London and the provinces, and upon the selection of designs for statues, fountains and monuments, or on any artistic question in the open air, such as elevations of buildings, town planning, and landscape gardening in public parks, and the internal decoration of public buildings.

The Commission will have the power to co-opt members or appoint a special committee, if thought advisable, for the study of any special problem. After the first three years from the establishment of the commission two members will retire in turn each year, but will be eligible for re-appointment, if thought desirable. The services of the members of the commission will be honorary; office, secretarial, and travelling expenses alone being allowed.

Possibly the most urgent work of the Committee will be in connection with architecture. There have been many occasions during the last few years when a Fine Arts Committee, if it had been in existence, could have used its influence to prevent many distressing mistakes in the building, and rebuilding, of London.

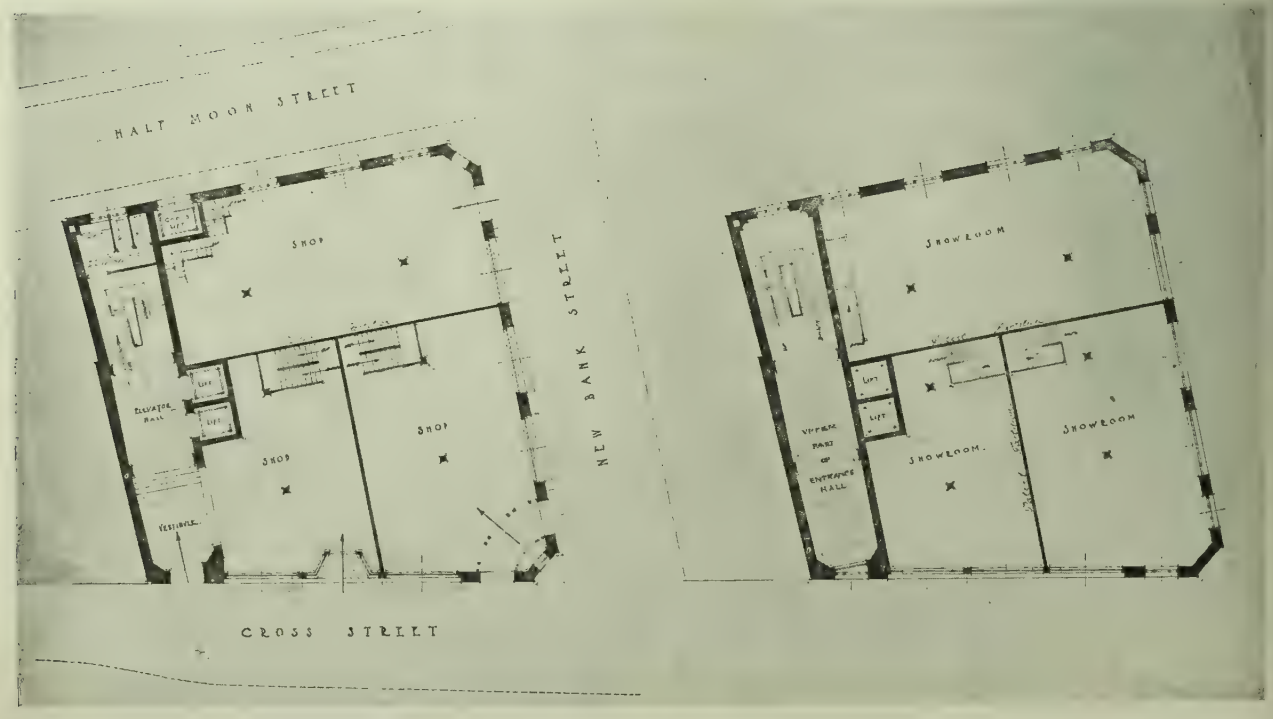
It is doubtful whether the Commission, although only acting in an advisory capacity, will be able to cope with the mass of work which will fall upon it. Perhaps it may be decided t form local Commissions, of a similar calibre t the parent Commission.

It will certainly go a very long way toward the very necessary work of tidying-up London—from, on the one hand, the prevention of archi tectural atrocities, to, on the other, the small but significant, matter of the correct naming c streets. It is to be hoped that they will be abl to persuade local authorities to follow th example of a certain south-west London area which, in quite a small compass, can boast c such names for its streets as Elfindale, Deepden Sunset, and Afterglow. It is in a neighbourhoo closely connected with the "Great and Goo John Ruskin." There is little excuse, in civilised country, for such names as Crab an Bottle-streets.

The London County Council has recently bee urging the Borough Councils to make use of th Advertisements Regulation Act to regulate th hoarding nuisance. Strengthened by the Fi Arts Commission, it should surely now b possible to control the many glaring poste which spoil some of London's most beautif buildings—North, East, South and West.



Typical Floor. Top Floor.



Ground Floor. First Floor.

D. I. C. House Competition. Highly Recommended Design: Submitted by Mr. G. H. Willoughby and Messrs. Rees & Holt.

THE FUTURE DEVELOPMENT OF LONDON.

SIR ASTON WEBB, the President of the Royal Academy, in giving the Friday Discourse at the Royal Institution on this subject said, in the course of his remarks, that taking into account that some thirty of the forty million inhabitants of England and Wales lived in cities, the development of towns was, obviously, a matter that must affect for good or ill the health and prosperity of the people. The regional planning, or zoning, necessary for organising town development in connection with the adjoining country, and neighbouring towns and villages, was not a new idea imported from America, but had been practised by the Romans, who had formed six main arterial roads out of London. The London Society, however, during the war had prepared a plan of arterial roads in and out of London which had since been found useful.

He mentioned the railway companies, with their separate stations, as showing the casual way in which London had grown; and remarked that at Victoria two stations had been built side by side divided by a wall, and it had only just occurred to the companies to get rid of the obstruction. The West-end of Edinburgh, and parts of Bath and Buxton, were excellent examples of what forethought and design could do. Several Royal Commissions had recommended uniform and concerted action, and the preparation of a comprehensive plan, yet nothing had been done. The Metropolitan Board of Works had been founded, under the chairmanship of Sir J. McGarel-Hogg, in 1870 and they had been responsible, he considered, for spoiling Piccadilly Circus and forming the very inadequate Shaftesbury-avenue. However, they had created the Thames Embankment, perhaps the finest improvement ever carried out in London. The London County Council, which succeeded the Metropolitan Board of Works, had done good work, but their activities were lessened by the limited area and the powers of veto given to the Borough Councils in their areas. Under Mr. John Burns's Town-Planning Act of 1909, plans for the development of unbuilt areas in Greater London for not fewer than 20,000 inhabitants were being prepared independently of any general scheme, and this might lead to even a worse muddle.

Sir Aston Webb then dealt with the work done by the London Society, the London County Council, and the Royal Institute of British Architects, and said he maintained that the first essential requirement was a complete survey of present conditions, showing in diverse colours public buildings, churches, schools, dwelling houses, commercial buildings, markets, railway stations, parks, playgrounds, &c., and then, after a careful consideration of future needs, the final preparation of a comprehensive scheme. It was gratifying, he continued, to know that there was reason to believe that this project would have the sympathy of the Ministry of Health, who had on their staff many well-known and expert town-planners. Birmingham, Manchester, and other cities were showing the way, and London, if they were not careful, would be left behind.

He made an appeal for the linking up of the southern and northern termini, the passage of goods traffic across London underground, the construction of good arterial roads—a few even 150 ft. wide—arranged for two rows of trees to enclose them, and on the outside two roads for slow traffic. London bridges also required comprehensive consideration and treatment. The congestion of traffic round the docks and Covent Garden was a typical instance of abuse, and the railway congestion was even worse than the road congestion. It was desirable that suitable classes of buildings should be erected on certain sites as occasion offered. Factories in the majority of cases could usually be removed outwards, with advantage to themselves and the community, for it was an anomaly for drain-pipes to be burnt immediately opposite the Houses of Parliament, or next door to Lambeth Palace, or that military barracks should occupy some of the best sites overlooking the Royal Parks.

In reference to the smoke question, Sir Aston Webb said London would never be the city that it deserved to be until the smoke difficulty was got rid of. He recommended the encouragement of the manufacture of smokeless fuel until this was cheaper than soft bituminous coal, and forbidding the use of the latter in large cities, where it had been shown that three-fourths of the smoke arose from the domestic hearth. He did not agree with the suggestion that fresh space should be provided through the erection of higher buildings, because horizontal travelling with sufficient access was preferable to vertical travelling with restricted access.

Finally, he suggested the L.C.C. could possibly obtain statutory powers in one of their omnibus Bills to plan a greater London. It would take time, and the preliminary work might be done, as in America, by expert advisory committees, supported by the general interest and enthusiasm of the public.

ST. PAUL'S CATHEDRAL.

PROBLEMS OF REPAIR.

WE have received from Mr. A. Henthorn Stott the following letter :—

"Your interesting article in the current issue suggests the following :

"First.—Take down the dome and its supports.

"Second.—Impound the whole site with a reinforced concrete wall of sufficient depth, and oval on plan.

"Third.—Rebuild the dome with supports and foundations relatively equal to the surrounding work.

"Fourth.—Rebuild the aisle parapets with cavity walls, the inner being thick and the outer cut a shell."

Mr. Stott's suggestions would certainly meet some of the structural difficulties of the case, and his second proposal to "impound the whole site with a reinforced concrete wall of sufficient depth, and oval on plan" deserves to be taken into serious consideration.

Should the slight general sliding on the foundation be found, on investigation, to be continued, or threaten to become a menace to the stability of the building, this device would be admirable in that it would leave the Cathedral itself free from disturbance, provided that the work was designed for execution in suitable stages. The excavation to "sufficient depth" would need, of course, all the precautions proper to a work of underpinning if the existing shallow foundations were to be kept intact. The proposals to pull down and rebuild important parts of the Cathedral are by no means acceptable, however, and should not be entertained for a moment. All lovers of Sir Christopher Wren's work will wish to maintain the veritable structure he has left to us, and they would rightly insist that the upper parts of the building, as pointed out in our article, are just those portions in which the characteristic inventive genius of the great master is most vigorously expressed.

The inner and outer domes, the ingenious brick cone with its historical use of reinforcing metal, and the external stone lantern, are features which embody Wren's mental outlook upon constructive architecture, and must be retained in position at all costs. They are not themselves so seriously decayed as the lower parts of the building, and their repair is largely a matter of detailed treatment. Even if sentiment and historical interest were to be altogether laid on one side the cost of demolition and rebuilding would be enormous and unnecessary.

The problems of repairing the building as it stands are certainly difficult, and involved in mutually contradictory conditions, but they are not insuperable and can be solved by the application of scientific principles of construction.

An article upon the repair of Jedburgh Abbey published in our issues of December 14 and 21, 1923, shows that a comparatively small quantity of well chosen new material, if judiciously and inconspicuously applied, can develop and bring into play a great deal of the strength of an old building.

Masses of masonry which were lying inert, unused and even dangerous, were harnessed together by suitable tensile reinforcement in such a manner as would at least render them less dangerous, and had even in some parts transformed a point of weakness into a source of strength.

Design of such inconspicuous methods of repair is costly in preliminary investigation, and makes great demands upon the mental efforts and the courage of those who undertake the work, which is obviously of a special character, and can only be carried out successfully by craftsmen experienced in this branch of building construction.

But by means of such up-to-date methods of repair as were practised by H.M. Office of Works at Jedburgh Abbey the main bulk of the old structure is left undisturbed, and whereas several thousand tons of material would have to be handled, and lowered, and lifted in the processes of demolition and rebuilding the dome of St. Paul's and its supports, only a few hundred tons might be needed in repairing the building on modern lines.

In regard to the aisle walls, the suggestion to rebuild the aisle parapets as hollow walls with the heaviest side placed where it would be most useful in restraining the arch thrusts, the element of demolition is again to the fore. The suggestion is structurally sound, but ignores sentiment and history.

As suggested in our article, suitable reinforcement adequately protected in the heart of the existing parapets; and anchored back around and across the building, would meet the case with a minimum of alteration to the existing structure and also with a minimum of expense.

HOUSING COMMITTEE REPORT.

The Housing Committee of the London County Council is to submit shortly a report dealing with a representation made by the Medical Officer of Health of Poplar with reference to the number of small unhealthy areas in the borough.

The Committee has come to the following conclusion: The conditions existing in the greater part of the Baker's-alley, Birchfield-street, and Bromley-place areas are such that the evils can only be effectively remedied by means of an improvement scheme under the Housing Act of 1890, and that such a scheme ought to be undertaken forthwith. As regards the Baker's-alley area, they propose to deal in the first instance with only the worst part, which lies at the rear of houses in Bow-road, nearly opposite Bow Church, and to this they consider should be added a number of houses on the northern and eastern side of Walter's-court, which should be demolished. The area is roughly 1¼ acres in extent, and comprises about 51 houses, occupied by 416 persons in all. The Birchfield-street area, three-quarters-of-an-acre in extent, comprising 27 houses, with a population of 97 persons; the Bromley-place area is also about three-quarters-of-an-acre in extent, with 35 houses, which are at present occupied by 227 persons of the working classes. The cost of acquisition and clearance of the three areas is estimated at about £12,000, apart from the cost of erecting new dwellings to provide for the rehousing of those displaced.

Owing to the shortage of housing accommodation the question of rehousing was one which presented very great difficulty, and they had had under consideration proposals of the Education Committee with regard to a site known as the Back-alley site, which has been acquired or scheduled for acquisition for the erection of a school. Powers have now been obtained over property in Back-alley for the provision of this alternative accommodation, and the greater portion of the scheduled property has already been purchased.

HELLENISTIC ART IN ANCIENT AMERICA.

BY W. R. LETHABY.

IN the portico of the British Museum has, not long since, been erected a cast from a big square sculptured pier from Central America. It is described thus: "Guatemala, Pillar from the ancient Maya site of Quregua, A.D. 242." This great cast is part of the Maudslay collection of Maya sculptures from Central America, consisting of many remarkable originals as well as of casts. The originals have for a long time been exhibited on the landing of the N.E. staircase, but the casts have only recently been arranged in a special gallery, and an excellent guide to the collection giving an account of ancient American art has also been published.

Often I have thought of the strange Chinese look of many of these things and had decided for myself that ancient American art must in some way have been an offshoot of Asiatic art.

Again, about a month ago a lecture was given before the Chinese Society in London on the ancient sculpture of China, and the lecturer pointed out how curiously one of the earliest known examples resembled the antique American carvings. Even more recently there have been notices in the Press of an expedition of exploration to Easter Island, where large rude figure sculptures are known to exist (two are in the portico of the British Museum), and the problem of their origin seems to be part of a general question of the transmission of the arts across the seas which divide Asia from America.

A new book which I have found very interesting has now been sent to me for review, and, although I ought to be doing other things, I cannot help expressing the pleasure I have had in reading it. This is "Myths of Pre-Columbian America," by Mr. Donald A. Mackensie,* one of a series on Myth and Legend in Literature and Art, of which half a dozen volumes are by the same author. The meaning of myths is a very large and very cloudy subject-matter to attempt to explain, but the present volume seems to me restrained and suggestive. I cannot pretend to judge these scholarly matters outside the field of art, but I believe that almost any reader is likely to find the book generally convincing on its special thesis. The subject is not so much the interpretation of myths, as a comparison between ideas revealed in the culture of ancient America and that of Asia; leading to the conclusion that there are so many correspondences that there must have been some close relation between the arts of the two continents, although they were sundered by a wide sea.

"The question is faced whether these manifestations of ancient culture were of independent origin or had been imported from the Old World. The view has been favoured by some writers that America remained isolated until it was discovered by Columbus and that we should account for the existence there of habits of life, thought, &c., similar to those found elsewhere by accepting them as proofs of the psychic unity of mankind—as natural products of the human mind. Similar needs, we are informed, produce similar results. . . . Throughout this volume it is shown that there are ample data which point to fusions of myths and beliefs. Anthropologists who favour the idea that pre-Columbian American civilisations were of independent origin have to explain why the myths and practices of the New World assumed at the beginning those complex features which, in the Old World, resulted from the fusions and movements of many peoples of different racial types, after a lapse of time much greater than that covered by New World civilisation. . . . When questions like this are asked, it becomes difficult to reject the view that the sudden growth of civilisation in America resulted from the intrusion of minorities from centres of Old World culture. When, further, it is found that so many beliefs, &c., common to the Old World are found in the New, the contention seems sound that the onus of proof for their faith must be laid on those who favour the theory of independent origin."

* The Gresham Publishing Company, Ltd., 66, Chandos-street, Covent Garden. 12s. 6d.

The argument is wrought out in chapters entitled: The Glamour of Gold, The Elephant in American Art, Symbols with a History, The Winged Disc, American-Asiatic Relations, Ancient Pacific Mariners, Burial Customs, Tlaloc and the Dragon, Motives for Migration, &c.

The author is mainly concerned with beliefs and customs, and although there are some photographs of monuments there is little which deals with the artistic analogies between the monuments of America and Asia. Indeed, most of the plates seem hardly to be referred to in the text. In the index I do not find the words: Architecture, buildings, masonry, sculpture, decoration, orientation, inscriptions. If, however, the student of Art history will examine the collection at the British Museum for himself, while having the question of relation to Chinese

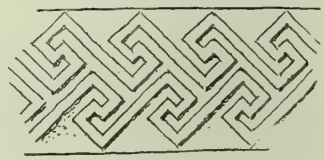


FIG. 1.

art in his mind, he will be likely to be convinced by the direct evidence. Taking only the cast in the portico, it must be admitted that the whole thing looks Chinese—the attitude, face, dress of the figure, the fretted ornamentation and square "scrolls," and even the regular chess-board disposition of the inscription characters; above all a Dragon's head terminating a sort of sceptre carried by the figure is so perfectly Chinese that it is difficult to think that it could have been carved by any other than an artist from the "Middle Kingdom" itself.

Examination of this monument and of the Maudslay collection as a whole will also suggest that behind the more immediate Chinese influence we may perceive Hellenistic sources, and to this further question I will now turn. Works of precision in masonry, figure sculpture, and architectural ornament were all so far as we know of Egyptian origin, and were passed on to Mesopotamia and Greece, and from those to China. The general facts of Hellenistic influence in India and China, have recently been clearly set out by scholars, and they have been

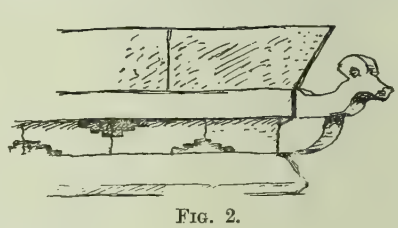


FIG. 2.

fortified by Sir Aurel Steins' explorations along the trade route.

Dr. Giles, in "China and the Chinese (1902)," has a long chapter comparing "China and Ancient Greece," which begins by drawing out general correspondences between the culture and customs of the two peoples, thus: "The water-clock has been known to the Chinese for centuries. Where did it come from? Is it a mere coincidence that the ancient Greeks used water-clocks? Is it a coincidence that the Greeks used an abacus or counting board? Is it a mere coincidence that the olive should be associated in China, as in Greece, with propitiation? A Chinaman who wishes to make up a quarrel will send a piece of red paper containing an olive, in token of friendly feeling. The extraordinary similarities between the Chinese and Pythagorean systems of music place it beyond a doubt that one must have derived from the other. There are also equally extraordinary similarities between the Chinese and Greek Calendars. In 104 B.C. the Chinese adopted a cycle of nineteen years, a period which was found to bring together the solar and the lunar years. But this is precisely the cycle said to have been introduced by Meton in the fifth century B.C., and adopted at Athens about 330 B.C. . . . . We know from Chinese history that, so far back as the second century B.C., Chinese generals succeeded in annexing such distant regions as Kokand and the Pamirs. About 138 B.C. a statesman was sent on a mission to Bactria. Now Bactria was then a Greek Kingdom which had been founded by Diodorus in 256 B.C.; and it would appear to have had commercial relations with China. Chang reported that he had seen Chinese merchandise there in the markets. Chang brought back the walnut and the grape, previously unknown in China. . . . About one hundred years B.C., a new kind of mirror comes into vogue, called by a new name. These new mirrors were discs of metal polished on one side and decorated on the other—a description which tallies with that of the ancient Greek mirror. Illustrations of them are given in the great Encyclopædia, and the fifth of these, second century B.C., is remarkable as being ornamented with the well known 'key,' or Greek pattern, so common in Chinese decoration. Afterwards we come to a mirror decorated with grapes and vine leaves Interspersed are animals, among others the lion, which is unknown in China. . . . Besides, there is a horse with wings. On comparing the latter, with Pegasus it is quite impossible to doubt that the Chinese is a copy of the Greek."

Much more is given by Dr. Giles which results in a convincing proof that in the late Hellenistic and Early-Christian epochs there must have been a very large penetration of Hellenistic culture in Eastern Asia. In the arts, the mirrors with Greek fret and vine decoration, the lion and winged horse are only examples. The roof of corrugated tiles, the arch, the lattice, were all probably borrowings from the West. The model of a high-class Chinese house in the British Museum, with its entrance doors, open court and central reception chamber is remarkably like a Greek house and a Roman villa.

In the volume before me I find other pronouncements to the same effect as those just quoted. Professor Tylor, the late distinguished Oxford authority on Ethnographical lore, after comparing some Mexican and Buddhist pictures, argued that "the appearance of analogies so close and complex of Buddhist ideas in Mexico, constituted a correspondence of so high an order as to preclude any explanation except direct transmission from one religion to another." Again, Dr. Laufer, an American scholar, has more recently said: "In opposition to the prevalent opinion, it cannot be emphasised enough that Chinese civilisation is not the exclusive production of the Chinese but an amalgamation of ideas accumulated from manifold quarters" (1912). Again, in "A Study in Chinese and Hellenistic Folklore" (1915), he points out that "certain fundamental religious ideas reached China from *Fu-lin* (Syria and Byzantium)." Still later, Professor Elliot Smith sees that America is "a rich storehouse of historical date . . . a museum of the cultural history of the Old World. . . . When venturesome sailors began to navigate the open seas and exploit Polynesia, for centuries there was more or less constant influx of customs and beliefs, which were drawn from Egypt and Babylonia, from the Mediterranean and East Africa, from India, China and Japan . . . From this jumble of confusion the local priesthood of Central America built up a system which is distinctively American, though most of the ingredients was borrowed from the Old World" ("The Evolution of the Dragon"). Compare also the work of Mr. W. J. Perry on the distribution of ancient megaliths.

When I selected my title I had no thought that any writer had suggested the possibility of any large transfusion of ideas from the classical world to America, and I am yet ignorant whether detailed parallels have been drawn in the field of art; but that the material exists for such comparison even the few photographic

plates in the volume before us demonstrate. I will comment on them in their order, numbering them according to the pages they face.

8. A long terrace, with massive façade wall of fine big, ashlar masonry, consisting of plinths, table courses and panels, the last containing adaptations of Greek fret and running-scroll patterns, also of an all-over lozenge diaper. The running-scroll pattern was a typical Hellenistic motive. The diagonal fret is probably the most popular of all Chinese patterns even to this day. It is found on Coptic stuffs of about the fifth century and reached Britain by the seventh. At this time it was probably known all round the world including America. (Fig. 1).

16. A stone building having coarsed rubble walls to the height of the door-lintel and wrought masonry above. The front is divided into storys by projecting table mouldings and ornamental bands, making-up what might properly be called entablatures. The "cornice" here and elsewhere is a plain but effective splay. (Fig. 2).

84. Sculptured figures in profile, very well drawn, with some classical grace showing through the hieratic treatment. (This is from "A Glimpse of Guatemala," by Maudslay, which is evidently a book to consult).

104. Photograph of another figure sculpture. A robe is covered with a continuous lozenge diaper of quite a civilised kind; it might appear unchanged on a Roman mosaic floor, a Romanesque wall-painting, or an Eastern carpet. (The original sculpture is in the British Museum). Compare Fig. 5 (*b*).

120. A megalithic gateway of wrought stone, with what looks like a sun symbol sculptured in the middle. A band of ornament is made up of a fret pattern with panels inserted at intervals—ingenious and quite civilised; the principle is found in Roman mosaics, but this is a playful variation and looks very Chinese. (Fig. 3.)



FIG. 3

160. Remarkable square temple on a tall stepped-pyramid, which was very like the diminishing terraces of the Chinese temple of heaven; the temple is divided into two storys by projecting courses with others above forming an upper cornice—in a way refined and classic.

292. A large monolithic "drum" surrounded by sculptured reliefs with top and bottom borders. At first the "Mexican" look of the pairs of fighting figures make it seem "barbaric," but it is a serious work of skilful art, and the way in which a series of circular shields link the several groups together is masterly. The borders are simple, orderly and civilised; in the top one are units which look as if they might be derivations from Ionic capitals and the bottom border is quite romantic and "Byzantine." (Fig. 4). It might be in Sta. Sophia.



FIG. 4.

312. This is a wonderfully fine piece of polygonal masonry beautifully wrought with rounded edges at the joints. Roughly polygonal masonry is a common thing in Japan, but the indented joints and fairness of this work have a Hellenistic look. As remarked in Daremberg & Saglio's great "Dictionary of Antiquities," it is a mistake to think of polygonal masonry in Greece as necessarily primitive—it persisted in city walls and such like till a late date.

I add a few sketches, made in the British Museum, of details which have a close resemblance to those of late Greek art.

Fig. 5 (*a*) shows a general type of doorway: that of the megalithic monument mentioned above, of which there is a small model in the Museum, is like this, and there are at least two

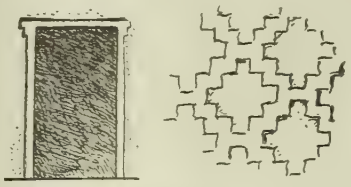


FIG. 5.

others shown in small wooden models; over one of the latter is a small window opening with a round head, which must be a derivative of a true arch. The recessed margins of the doorways is manifestly very like the classical shouldered architrave. Fig. 5 (*b*) is from a pottery vessel, a favourite form of all-over pattern. A similar pattern of large scale occurs on the terrace front described above. Fig. 6 (*a*) is a guilloche pattern from one of the plaster



FIG. 6.

casts; (*b*) is a wave-scroll from a pot; (*c*) is another; (*d*) from an original sculptured panel, appears to be a version of the same scroll which has been squared for weaving. On this panel and two others draperies have all-over patterns something like 5 (*b*), which is evidently well suited for textiles.

Fig. 7 is a carved roll moulding from the angles of the monument in the Museum portico, and this is strikingly Hellenistic. One of the plaster casts has a cable moulding, and doubtless



FIG. 7.

other classical likenesses could be found in the ornamental details.

Much of the sculpture is repulsively "savage," but examples can be picked out of a sweeter temper and high competence in workmanship. One little head of green jadite in the Ethnological Gallery is really beautiful, and so Chinese that it might almost be an importation. A second larger head in white stone (Maundslay Coll.) is also an able piece of work. In the cast gallery there is a panel in flat relief of a nude figure squatting on a throne which has grace and charm. The execution of some of the original panels at the Museum is exceptionally delicate, and yet masterly.

If our ordinary reasoning on artistic origins and affinities are generally true, then it may be asserted with confidence that the art of Central America was closely related to that of China, and like it had Hellenistic elements. If the Hellenistic elements are admitted, then I would suggest we have a further criterion for dating the ancient American monuments. By the chronology of the British Museum Guide (which, by the way, does not mention China nor Greece) the cast in the portico is dated about A.D. 240, but it is noted that, "Recently Professor Morley has worked out another correction . . . his dating is consistently 270 years later than that first suggested by Bowditch. Those who are convinced have merely to add 270 years to the dates as they appear on this Guide." On my line of approach I am drawn to the later dating, which would make A.D. 500 a central date in the art of ancient America, and thus allow more time for the expansion of late Hellenistic art in China (Buddhist?) and the passing of it on to America.

TOWN PLANNING.

DR. I. G. GIBBON, Assistant Secretary of the Ministry of Health, delivered a lecture on "Town Planning" at the London School of Economics recently. Sir Aston Webb, who presided, said it was a matter which should interest everyone. It was a great mistake that streets and cities were planned by nobody.

In the course of his remarks the lecturer said it was time that the architect, the engineer, and the surveyor took adequate measures to learn the business of town planning. In their English fashion of putting the cart before the horse they had done very little indeed in the way of such study. They were too complacent in this country, too content with makeshifts, but they paid very heavily indeed for their ways.

Dealing with the financial aspect of the subject, he said that the future of town planning depended on to what extent business men took hold of the problem. Economic production depended on the grouping of businesses. Generally that could only be obtained where there was intelligent town planning.

He considered the traffic problem could not be solved by traffic facilities. It could only be cured by reducing the traffic, and that could only be done by the proper location of places for various uses. It was a question whether they were not to-day pursuing a wasteful path by using their roads for so much heavy motor lorry traffic. The hindrance to the use of the railways was loading and unloading. If they had railways from works to warehouses and factories to docks, where loading and unloading unnecessarily was avoided, there would be enormous gain.

The time was ripe for the preparation of a plan for London. Improvements and developments ought to proceed on a plan after inquiry, and that applied to St. Paul's Bridge, Charing Cross Bridge, and Lambeth Bridge. At the moment it seemed it was no one's business. He would like to see for London the appointment of a general committee representing all the various interests. Under that committee should be a small executive, on which business should be strongly represented, to supervise and direct the work necessary for a plan. A great deal of money would not be required to begin with. Money would not be difficult if a few big business men were convinced of the vital urgency of the problem for the industrial and commercial well-being of London.

THE RENAISSANCE OF BIRMINGHAM.

Mr. Rupert Savage, F.R.I.B.A., recently gave his presidential address to the Birmingham Architectural Association. In the course of his address he said the term Renaissance was usually employed to describe the revival in scholarship and art which occurred during the fifteenth and sixteenth centuries, but he used it more particularly in reference to architecture.

The Renaissance of Birmingham was a movement which had scarcely begun, but of which they saw some premonitory symptoms; for, when they compared the city with other great cities at home and abroad, they would come to the conclusion that the Renaissance was not only inevitable but was very much overdue.

There were few who would deny that Birmingham—the greatest city in England (excluding London)—presented an outward aspect unworthy of its commercial greatness. It claimed the title of the Capital of the Midlands, and was not only a great centre of commerce and industry but also of music, painting, the drama, and all the arts, architecture excepted. The present state of their city might be summarised as a huge agglomeration of human beings, crowded into a formless mass of mean streets and shabby buildings. It had never been planned—it had simply grown in a shapeless form, dictated by the apparent needs of the moment. Considering its size, Birmingham was singularly lacking in fine, main thoroughfares, and there were few streets having any pretensions to size and dignity. The main roads leading out of the town were ill-defined, narrow, and tortuous. There were few open spaces, and such as existed were irregular in plan and devoid of buildings of a monumental character.

The shopping area in the centre of the town was small and inadequate, while in the suburbs they found miles of miserable shops whose very existence seemed superfluous. Their public buildings were few and scattered, and whatever merit they possessed was discounted by an absence of logical grouping.

Whatever might be thought of this description of the city as it was to-day, there was at least sufficient truth in it to demonstrate the need for an early improvement. If the movement for the betterment of the town were to prosper and fructify, it was at first necessary to enlist the interest and sympathy of the whole body of citizens, and to awaken them to a consciousness of their present shortcomings, and to instil a spirit of civic patriotism. An aptitude for buying in the cheapest market and selling in the dearest might lead to an acquisition of wealth, but it certainly was not conducive to an appreciation of the higher aspects of life, and it was this commercial spirit which was to-day the great bar to all advancement in the purely cultural and æsthetic movements. Among the ranks of the City Council there were a number of capable and energetic workers in the cause of betterment, but their energies were directed to strictly utilitarian projects, and there were few indeed who had any lively conception of the great moral value of abstract beauty.

Destructive criticism was an easy task, but had limited value; it was necessary, then, to offer some concrete suggestions as to the direction the proposed movement should take and the means by which it might be accomplished. These suggestions must necessarily be limited to those which more closely concerned the Architectural profession, viz., the improvement in town planning and street architecture.

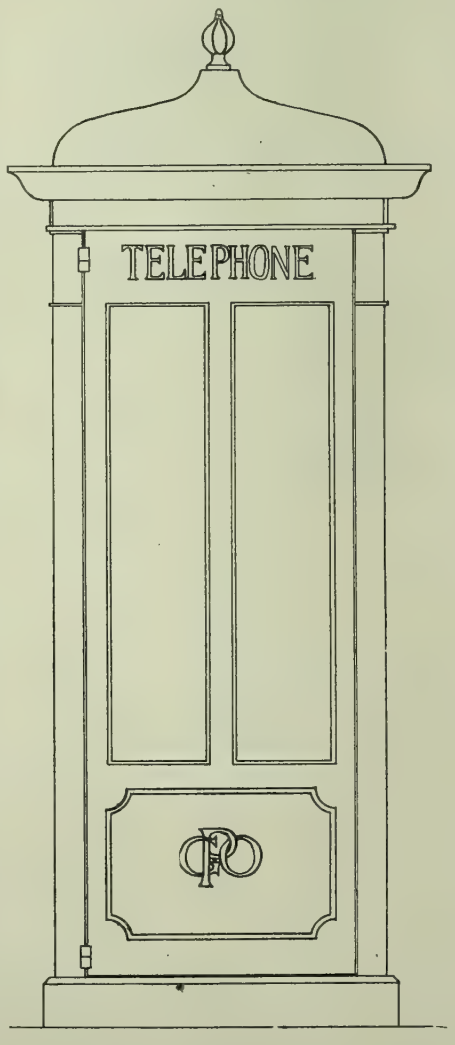
The first step to be taken, as previously stated, was to arouse the interest and enlist the support of the man in the street. The second step was to make a general survey of future developments. The third, and perhaps the most important, was to ascertain what could be commenced and accomplished during the present generation.

There already existed a number of agencies for arousing the interest of the public and promoting civic patriotism. Notable among them was the Civic Society, which existed for the purpose of assisting the movement now advocated, while the University was becoming increasingly active in proclaiming the cultural value of non-commercial subjects. The Municipal School of Art was inculcating an appreciation of æsthetic values over a wide area, and with its assistance their School of Architecture was doing valuable work in imparting a sound technical training to the rising generation of Birmingham architects, and last, but not least, was the Birmingham Architectural Association, which was endeavouring to improve the standard of current architecture and the status of the profession. It was to be hoped that the united efforts of those bodies, aided by a sympathetic attitude on the part of their civic rulers, might ultimately elicit some response from their rather unresponsive citizens.

When they came to survey the programme of future development, they quickly came up against the fact that they were dealing with a fully developed town. Some town-planning enthusiasts were apt to forget this and seemed to think that they were planning a new city on an open plain; for, in the centre of the town in particular, it was impossible to demolish whole streets and extinguish old-established interests.

The City Council had been engaged for some years on the task of town planning Birmingham, and much useful work had been done. While they recognised the effort that had been made, they, as architects, were inclined to feel that the work had been influenced solely by technical considerations and the æsthetic aspect had been insufficiently recognised.

In many towns the work had been placed in the hands of experienced architects, but it would appear that road-making, sewage, and traffic control were the sole considerations. In most European countries and America, where the architect was an important factor in all civic developments, they saw, as a result, a remarkable difference between their own towns and those they visited in their foreign travels.



G.P.O. Public Telephone Call Office.

In most Continental towns the railway station was a building of some architectural pretensions and was approached by a public square, and thus formed a dignified entrance to the town. The Prefecture, the Town Hall, and Art Galleries were fine buildings well displayed in open spaces. The large Opera House was a source of pride to the Municipality, who usually contributed to its upkeep.

In England, however, they did things differently. The railway stations were erected by private enterprise and the planning of their approach was a matter of hazard. Their theatres were run for private gain and received no support from the Municipality. The same tale of non-interference might be told of many of their semi-public buildings, largely due, no doubt, to the pronounced individualism so characteristic of their race.

What they might hope for in the future development of their city was a complete and comprehensive town plan of the city and its suburbs, with due regard to the architectural and artistic aspects of the subject, the reconstruction of their railway stations and the construction of new arterial roads. They also hoped to see the erection of a public hall adequate to the needs of the city, and a really fine exhibition hall to replace the obsolete Bingley Hall; their really fine Market Hall might be renovated, and their wholesale markets re-grouped on a coherent plan. The question of slum clearance and provision of new homes for workers was too big a subject for treatment there, but was a matter of urgent necessity. These were a few suggestions for a far-reaching scheme which might easily take a century to develop. What could they do now, or in the immediate future, as the contribution of their generation to the general scheme?

The most pressing need was for the completion and publication of town plans for inner Birmingham, for the present uncertainty as to street widening and frontage was a serious hindrance to freeholders and building owners alike. The planning of the new public square at the bottom of Broad-street might be proceeded with, and the rebuilding of the street itself on more generous lines might be encouraged. The scheme for a new thoroughfare across New-street Station was a project of the first magnitude, and it was to be hoped that it would be considered in relation to the remodelling of the station itself, which was at present not only an obstruction but an eyesore.

In the matter of housing, the City Council could materially aid the orderly development of new districts by inaugurating a building policy having some regard to lay-out and architectural composition; for the present type of house might be economically sound but it left much to be desired in the way of design.

The freeholders could help to improve the standard of building by relaxing their rigid attitude and by selling freely to those who wished to build. The present leasehold system was the worst cause of poor building in Birmingham.

The building owners could do much for the future of the city by taking a wider and more generous view of expenditure on building. The great manufacturing and trading companies in the city might assist the movement by building central offices worthy of their commercial importance.

The architects might help in the Renaissance of Birmingham by placing at the disposal of their clients sound advice and efficient professional service. There could be no question that the improvement in architectural education in recent years was already bearing fruit in a higher standard of work, a process which would become increasingly evident as the present generation grew up.

They all realised that the progress of improvement must be gradual and spontaneous. Let them hope, however, that the voice of their protests and aspirations might have some small influence in hastening the commencement of the Renaissance of Birmingham.

ARCHITECTS' AND SURVEYORS' ASSISTANTS' PROFESSIONAL UNION.

ANNUAL GENERAL MEETING OF THE METROPOLITAN BRANCH.

Mr. J. W. Dennington (Chairman), who is now President of the Union, presided at the annual general meeting of the Metropolitan Branch of the Architects' and Surveyors' Assistants' Professional Union, at Caxton Hall, Westminster, S.W. 1, on Thursday last week.

After the minutes of the last meeting had been approved and signed, Mr. J. A. Gould (Honorary Secretary) gave a report of the activities of the Branch during the past year. The Branch was, he said, always endeavouring to raise the status of its members, both collectively and individually. The Union was in a rather unique position. It was a body of workers in the architectural, surveying, and building professions; it was non-political; and it had never been subsidised by anyone. It was an entirely self-supporting body, and in consequence it was in a position to discuss matters from the assistants' point of view without anyone being able to tie its hands. The Union did nothing outrageous, nor asked for anything outrageous; but, nevertheless, it insisted on its rightful claims for the assistant. The Union worked for the benefit of the professions which its membership represented, and it had gained the respect of the learned societies throughout the country within the short period of four years during which it had been in existence. During its year of office, the retiring committee had worked enthusiastically and unceasingly in the interests of the members. The first thing it tackled was the question of unemployment, and it had taken steps which had resulted in the provision of employment for many of the members. The question of a benefit fund had also been taken up, and a scheme was prepared and submitted to the Executive Council of the Union. It was proposed to call the fund the "Benevolent Fund of the Architects' and Surveyors' Assistants' Professional Union." The objects of the fund would be to provide benefits for members of the Union who needed assistance, to care for the widows and orphans of deceased members, to make loans to the younger members to help them in following up their profession, to endow rest homes for the members, and otherwise. The scheme was received very favourably by the Executive Council, and several of the provincial branches had already stated that they were in favour of it. A proposal that the title of the Union should be altered, so that it might become known as a learned society, had also been considered, but they were all agreed that the Union should remain a union. Another point which had been brought to the notice of the Executive Council was the question of the payment of unemployed benefit to professional workers; it seemed very unfair that the professional worker should be denied the unemployment benefit received by the manual worker, and it was suggested that the matter be put before the National Federation of Non-Manual Workers. A scheme for obtaining trade discounts for members of the Union was also under discussion. The social side had not been overlooked, and a great many events had been arranged.

In conclusion, Mr. Gould said he wished to relinquish the Honorary Secretaryship in order to be able to give all his spare time to a scheme he had in hand for the provision of a hostel in London for the use of the members of the Union. The sort of thing he had in mind was a hostel, centrally situated, for the accommodation of members visiting or taking appointments in London, and also to be used for the offices of the Union, of the Metropolitan Branch, and for social purposes. It would comprise a hall, offices, bedrooms, bathrooms, a lounge, reference library, a professional bureau, restaurant, games rooms, and arrangements for outdoor sports. He had had several offers of help, financially and otherwise, from influential members of the professions concerned, and it was anticipated that the total cost would be covered by increasing the subscription of members by 10s. a year, because a great deal of expenditure now incurred for office accommodation and the hire of halls for meetings, lectures, and social events, would be saved, and the money received for the use of the hostel would be a continual source of revenue to the Union. The existing professional bodies had no facilities of the kind which would be provided by the proposed hostel, and it was anticipated that this added advantage accompanying membership of the Union would result in a considerable increase in membership.

The report and the Treasurer's report, which showed a satisfactory balance, were adopted.

The following officers were elected for the ensuing year:—

Chairman: Mr. L. E. Wheble.
Vice-Chairman: Mr. J. A. Hatfield.
Hon. Treasurer: Mr. R. G. Forbes, M.S.A.
Auditors: Messrs. Rattenbury & Wright.

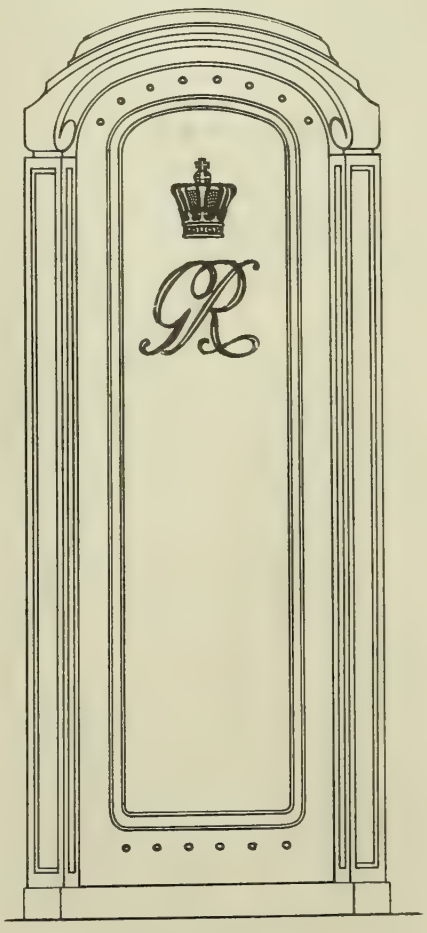
Mr. Gould's intimation that he wished to retire from the Honorary Secretaryship was received with general regret, and on the unanimous request of the meeting he consented to serve until a successor was appointed.

The new Committee was appointed as follows: Messrs. J. G. Batley; A. F. Lodge; A. A. Beckham, P.A.S.I.; A. S. Reeves; F. C. Burton, M.S.A.; L. E. Wheble, A.R.S.I.; H. J. Mark, Lic.R.I.B.A.; C. R. Cathrow; J. A. Hatfield; N. H. Cooper; J. A. Gould; E. H. Worley; J. O. H. Hughes, M.S.A., M.I.S.E.; H. R. Sayer, F.S.I., A.R.I.B.A.; R. S. Forbes, M.S.A.; A. P. Knight; J. H. Metcalf; W. S. Dalton; H. Hyams, F.R.I.B.A.; and P. Manger, A.R.I.B.A.

After the formal business of the meeting, Mr. John Mitchell (General Secretary of the Union) made a short speech on the objects and aims of the Union. After an appreciation of the services of Mr. J. A. Gould, who was, he said, one of the most enthusiastic members of the Union, he reminded them that on March 4 this year the London Area would celebrate its fifth birthday. Since then wonderful progress had been made. The Union had brought to light the fact that there were assistants in the architectural and surveying professions working for salaries and under conditions which were a disgrace to those professions, and since its inception it had done much to improve the status and working conditions of its membership. A minimum salary had been set up, and none of the large number of situations which the Union had found for its members had been at less than the minimum rate. The Union was now in negotiation with the Royal Institute of British Architects on the question of the direct representation of the Union on the R.I.B.A. Council. The question of minimum salaries was also now under discussion between the two bodies, and a joint conference on the subject of overcrowding in the profession was being arranged. He felt that one of the chief causes of the present low salaries in the architectural and surveying professions was the large number of inefficient men. There were three methods of entry into the professions, namely, (1) from the schools, (2) pupilage, and (3) entering an office as a youth with no proper pupilage and picking up the profession at the office and at an evening school. The schools were more or less business concerns, and did not place any bounds on the number of assistants the profession could absorb; the pupilage system was one which allowed of grave abuses; and the other means of entering the profession was no system at all. A committee had been appointed by the Union to go into the whole question of education and overcrowding in both professions, and also as it affected technical assistants in the building industry. From a census which had been taken it was found that about 20 per cent. of the assistants in the two professions had not come from day courses at recognised schools nor had they had any definite pupilage—they simply entered an architect's or surveyor's office as office boys or typists and learned what they could. That resulted in a low standard of achievement, and the Union was putting forward proposals which would result in raising the general level of achievement. It was also proposed to look after the interest of technical assistants in the building industry, for they were often people who had left architects' offices and gone into a builder's office because of the better salary and conditions which the latter offered. The benevolent fund scheme was being taken up by the branches with great enthusiasm, as it was realised that such a scheme would be invaluable in widening the scope of the Union. A National Convention had been arranged to be held this year at Olympia during the Building Trades Exhibition. A series of lectures would be given by well-known men, and parties had already been formed in Devon, Southampton, Leicester, Northamptonshire, Birmingham, Scotland, and other places to attend. It was hoped to hold a dinner at Olympia after the Conference, and also to organise visits to the British Empire Exhibition and other places of interest to the members. He was much interested in the scheme for the provision of a hostel, and hoped the members would give it their hearty support.

In conclusion, he said it was very gratifying to see the way in which the membership of the Union had increased during the past year. Some of the branches, such as Manchester, had actually doubled their membership, and many had recorded increases of 50 per cent. and over; in London alone the membership increased by 103 last year, and it would certainly not be long before every assistant in the architectural and surveying professions was a member.

After some further discussion, the meeting terminated with a hearty vote of thanks to the Chairman for presiding.



BACK

Design for a Public Telephone Call Office.

(Suggested by the Birmingham Civic Society. See "Notes" pages.)

THE ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

Band Re-Sawing Machine.

Sir,—I should be glad to have full particulars of this machine suitable for a builder, and in particular would like to know :—

1. Machine suitable for cutting deals, maximum cut say 18 in. deep. Is the machine suitable and economical for shallow cutting, say down to 2 in. ? What kind of foundation and depth below the floor is needed ?

2. What accessories are necessary in addition to the machine itself to keep it and saws in order ?

3. Approximate output and suitable equipment for handling timber—feeding and taking away, and space required.

4. Approximate cost of the whole outfit, and actual experience of the use of the machine.

5. Best makers. "Sawyer."

[Reply.]

"Sawyer."—(1) You can rip deals to the maximum depth of the machine on virtually any properly constructed band-saw. The maximum depth of any particular machine is determined by the height above the table to which the top guide can be lifted. The process will, however, be slow and inefficient unless you use a properly constructed "band re-saw" with pulleys of from 4 ft. to 5 ft. diameter, with blades of from 4 in. to 6 in. in width, and fitted with a powerful feed.

As a rule these high-speed re-saws are not adapted for flatting, as it is assumed that they will be used continually on deep cutting, and flatting can be done on a less powerful machine. At least two of the British makers, however, construct a high-speed re-saw with provision for flatting as well, with a horizontal roller feed and return motion specially for this purpose in addition to the vertical feed for deeping. Such machines are equally efficient for either purpose.

The best foundation is a plain concrete slab and deep excavation is unnecessary, as no part of the machine need be below the floor except the lower portion of the saw pulley and possibly a small portion of the driving pulley.

(2) You will require sharpening, setting, swaging and side-dressing appliances ; anvil, hammers and rolls for tensioning ; brazing and patching outfit, and certain appliances for facilitating the manipulation of these long blades.

(3) The output depends (a) on the make of the machine and (b) on the diameters of saw pulleys and the blades used.

The largest of these machines are sometimes speeded up to 200 lineal feet per minute. We have known a higher feed than this with a powerful machine when working on comparatively shallow material, say a 7 in. deal.

The actual space occupied by the machine should be approximately 9 or 10 ft. by 6 or 7 ft. That required for the feeding-in and taking-away appliances depends entirely on your conditions, with which we are unacquainted. For anything over 100 ft. per minute automatic gear for these purposes is certainly desirable.

(4) We cannot advise you on this point because the prices of different makers vary considerably, as also do the machines they recommend. Much depends also on the outputs you wish to attain. Here we can only say in the abstract that it is useless to go in for band re-sawing unless it is done very thoroughly. When this is done it has proved itself to be the most rapid and efficient of re-sawing methods. We would recommend you to obtain expert advice as to points 3 and 4, as a comparison between what you are doing and what you require to do, and your facilities for doing it, can only be ascertained by a knowledge of the actual conditions, and detailed advice cannot be given without this.

Damp on Ceilings.

Sir,—One can appreciate Mr. Matthews' surprise at finding the discoloration in only two of his rooms, and the fact that he lives in a district within the influence of the sea air might have accounted for this, as sea sand might have been used in part of the plaster work. But as he says that he lives where there has been no rain for several days, one must look for some other reason as a solution to his problem. He does not say what is the material covering his roof, but from my knowledge of the district I should believe it to be tiles. He is further perplexed by the fact that though the rooms, in which the discoloration showed, face in different directions, the effect was the same in both of them, yet not in any of the other rooms. The point is a good one, and one which, if the solution I have in mind be the correct one, can only be overcome in one way. I do not know the plan of the house, but I think it is possible that, though the rooms face at right angles, yet the roof covering these two rooms may be in one slope, and that of course facing in only one direction. If this is so my solution may prove to be the correct one.

Though there was no rain in the district it is highly probable there was snow. If this should prove to be the case, and as in most other parts of England this was accompanied by a gale from the east, a gale of such force that it blew the snow through door and window rebates, then it is quite possible that the snow, whilst in such a gale it would not be allowed to settle on the roof anywhere where it could be seen, yet it could and most likely would be blown underneath the laps of the tiles, and if there were no building paper under the tiles the snow would accumulate over the ceilings of any rooms under that slope of roof facing the gale, no matter how the rooms themselves faced. Probably the slope of the roof over these two rooms is all one, and that there is no waterproof building paper under the tiles, if tiles they be. J. C.

Sir,—Mr. Ernest Matthews' letter breathes so much the spirit of Mark Tapley, "coming out at his strongest" in adversity, that one feels one must do something for him.

The ceilings of his north and east rooms are perhaps under portions of the roof which are sheltered from the mid-day sun, while the remainder of his house probably gets its full share. After a cold spell of weather these ceilings therefore get thoroughly chilled and remain so for a time even after a change to milder and more humid weather. The air, saturated with water-vapour is quick to yield up its moisture in the form of condensation upon any cold surface into which it comes in contact, as the lowering in temperature renders it incapable of holding its full quota. Hence the damp ceilings. The walls, on the other hand, are kept warmer by the warm air of the house, and being nearer the temperature of the mild air there is therefore no condensation, or no more porous plaster can cope with by absorption.

Probably Mr. Matthews has noticed his perplexing phenomenon during some such weather conditions as indicated above, when condensation is inevitable unless specially guarded against.

Further, if his windows are opened daily the prevailing south-west winds will help to dry out the rooms that face south and west.

There may, of course, be other influences at work at which it would be impossible to guess without more information, but I think I have probably touched the key to the mystery.

If the trouble is very serious a little heat in the affected rooms is all that is required, such as a small ruby-glow oil lamp, unless it is felt that the adoption of central heating is not prohibitive, which is the sure cure for such worries as these. "Sympathiser."

Solid and Hollow Floors.

Sir,—I have followed with keen interest the correspondence in your columns on solid and hollow ground floors. My experience concerning the types of floors under discussion may be of interest. I have just finished a big housing scheme in which both types of floors were laid, and I would recommend most emphatically the use of hollow ground floors in preference to solid.

The question of cost is in favour of solid floors, but the cost is more than counterbalanced by the quicker method of constructing hollow floors. I have found that in most cases the tendency in solid floors is to dampness, even with a coating of tar and pitch over the breeze.

Southport. H. V. B. Thorington.

Sir,—Two of your correspondents who reply to this inquiry lean to the view that if both are properly constructed the advantage in cost is with the solid floor. Except in cases where the floor level is several feet above solid subsoil the hollow floor involves the entirely extra cost of the excavation, the brickwork in sleeper walls, floor joists and wall plates. The site concrete is equally necessary whether it serves as a foundation for the sleeper walls or directly to receive the floor boards or other surface finish. In King's Lynn, mostly built upon reclaimed ground, the subsoil is waterlogged at the depth of a few feet. Many of the roads are made up above the original ground level, and in the houses put up by some of the speculative builders the sleeper walls are built directly upon the earth surface and, despite local by-laws, the surface or "site" concrete has been entirely omitted. As a consequence, nearly every house so constructed requires within a few years the entire renewal of the timber portions of the ground floor construction. When the boards are taken up, it is not unusual to find a pool of water that has drained in from the higher soil banked against the outside walls. In such cases it would obviously be better to fill in the space under the floor and cover the site with a layer of impervious concrete upon which the material forming the floor surface is laid. The level of the subsoil water, or "water table" as it is sometimes called, fluctuates with rainfall, and when this ground water rises it forces out of the earth the noxious gases which are the product of decaying vegetable matter. The exclusion of these gases from the buildings we occupy is a very important function of site concrete, and because of this poor concrete does not safeguard the health of the occupants.

King's Lynn. L. E. W.

Trade Union.

Sir,—Would you kindly let me know what would be the correct or a suitable trade union for an assistant to clerk of works on a building job to belong to ? E. A. Youngash.

[Reply.]

An assistant clerk of works should possess the certificate of the Carpenters' Company for sanitary building construction. With this, other things being equal, he would be elected to Associate membership of the Incorporated Clerks of Works' Association.

Building Apprentices.

Sir,—We are considering taking apprentices for the bricklaying trade, but have no acquaintance with the procedure, nor with the form of agreement needed.

London. Garsubil, Ltd.

[Reply.]

The question of apprenticeships is left in the hands of the local bodies of the Federation of Building Trades' Employers of Great Britain and Ireland. We would, therefore, refer you to the London Master Builders' Association, 48, Bedford-square, London.

Building Costs.

Sir,—I should be glad if you could let me know which would work out cheaper, a four-story factory or the same amount of accommodation spread over one floor only. The premises would be required for a large printing works, and the question as to the cost of land does not come in, as the land is already available.

"Essex."

PRACTICAL DESIGN FOR BUILDING CONSTRUCTION—IV.

AN ELEMENTARY EXPLANATION OF THE APPLICATION OF THE THEORY OF CONSTRUCTION TO PRACTICAL DESIGN.

By EWART S. ANDREWS, B.Sc., M.I.Struct.E., A.M.Inst.C.E.

SECTION I. WALLS AND FOUNDATIONS.

(*Continued.*)

Examples of Foundation Calculations: (1) *For Steel Stanchion.*—As an example of a calculation of the simplest type, we will take the case of a concrete base required for a steel stanchion carrying a load of 100 tons upon a site where the soil pressure is not to exceed 1 ton per sq. ft.

In the first place, we have to find the necessary size of the base plate of the stanchion; this is determined by the allowable stress upon the concrete. The L.C.C. Steel Frame Act states that "the pressure on concrete foundations shall not exceed 12 tons per sq. ft." This limitation of the stress on the concrete may have been justified in the early days of concrete, and may be justified to-day if care is not taken that the concrete be properly proportioned—in other words, that only the material optimistically called "builders' concrete" will be used.

For well-graded Portland cement concrete of the 1 : 3 : 6 mix a conservative figure for the allowable compressive stress or pressure on the concrete is 18 tons per sq. ft., and for the 1 : 2 : 4 mix 25 tons per sq. ft. may safely be taken.

In our case we will assume a pressure of 18 tons per sq. ft.; we shall, therefore, require $\frac{100}{18} = 5.6$ sq. ft. approximately for the bearing area of the base plate; a base plate 2 ft. 6 in. square gives an area of 6.2 sq. ft., and will be regarded as satisfactory.

We next come to the calculation of the size of the concrete base; this depends upon the permissible pressure on the soil. In our case the resistance of the soil is poor, and must not exceed 1 ton per sq. ft. The spread will, therefore, have to be considerable, and the weight of the concrete block itself will be at least 20 per cent. of the load carried (*i.e.*, 20 tons in our case).

In making our calculation for the pressure in the soil we have to allow for the weight of the foundation itself in addition to the weight transmitted by the stanchion, so that we have to provide for a load of 100 + 20 = 120 tons.

Allowing for 1 ton per sq. ft., we shall require a base 120 sq. ft. in area—base 11 ft. sq., as shown in Fig. 6 will just do this.

Adopting the rule that the angle of dispersion for good concrete may be taken as 45 degrees, we see that the depth of the concrete must be equal to the projection of the concrete over the base plate—*i.e.*, 4 ft. 3 in.

This comes a deep base, and we must now check the weight of it. Taking the weight of concrete as 140 lbs. per cub. ft., we shall have—

Weight of base in tons—

$$= \frac{11 \times 11 \times 4.25 \times 140}{2240}$$

$$= 32 \text{ (roughly)}$$

Our total weight therefore is 100 + 32 = 132 tons, and to keep the soil pressure quite within the limit of one ton per square foot the footing would have to be extended to 11 ft. 6 in. square and the depth increased by a further 3 in.

This is a case in which a reinforced concrete base would be much more economical, the depth of the base could be reduced to 18 in. and the combined load and weight of base would then be so much reduced that the spread could be slightly reduced below 11 ft. square instead of having to be increased. In addition to the saving in the cost of the concrete—against which has to be placed the cost of the reinforcement; although this will be less than the saving in the concrete—we have the saving in the cost of the additional excavation.

Reinforced concrete bases are in general less costly than steel beam grillages and quite as efficient; we hope to be able to deal later in this series of articles with calculations for reinforced concrete.

(2) *Calculations of Pressure below Footing for Cavity Wall.*—We will now investigate the maximum pressure on the soil beneath a concrete footing for a cavity wall for a small house. In this case it was desirable to avoid if possible extending the footing beyond the line of the wall and the arrangement shown in Fig. 7 was proposed.

Considering a foot length of the wall and footing, the load W1 coming down the centre of the outer skin of the wall was 840 pounds, and

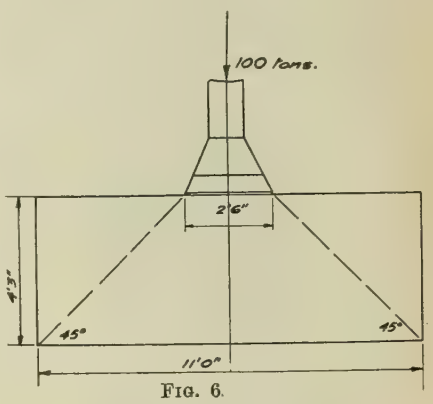


FIG. 6.

that W_2, coming down the inner skin, was 1,450 pounds.

The weight W of the concrete slab footing was 3 × 140 = 420 pounds.

Our first problem is to find the line of action of the resultant pressure P and the load point L.

We do this by the *Principle of Moments*, which states "that the moment about any point of the resultant of a number of forces is equal to the sum of the moments of the separate forces about the same point."

We choose the point X as a suitable point about which to take moments and proceed as follows:—

Total pressure P = 840 + 1450 + 420
= 2710 lbs.

Moments about X.

W_1 = 840 × 2.25 = 1890
W_2 = 1450 × 8.75 = 12690
W_3 = 420 × 18 = 7560

Sum of Moments 22140 pound inches.

Now the moment about X of the pressure P.

= P × LX = 2710 × LX

∴ 2710 × LX = 22140

i.e. $LX = \frac{22140}{2710}$

= 8.16 inches.

This is a case in which the pressure is eccentric but outside the "middle third," so that the distribution of pressure is given by a triangle as indicated in Fig. 5.

The base of this triangle will be equal to 3 times PX = 24.5 inches, or 2.04 feet.

To find the maximum intensity of pressure, we multiply the total pressure by 2 and divide by the base of the pressure triangle.

This gives:—

Maximum pressure on soil—

$$= \frac{2 \times 2710}{2.04}$$

= 2650 pounds per square foot.

This is more than could be allowed on the particular site namely, one ton per square foot.

Very little advantage would be obtained by extending the footing further inwards because although this would increase the moment of the forces about the point X and tend to move the point L further away from the point X, it would increase at the same time the total pressure. As it is, the footing has already been extended inwards to an extent which is probably greater than economy would justify. If, for instance, we reduced the concrete to 2 ft. wide the soil pressure would only come very slightly in excess of that previously obtained. The only practical course to follow is to extend the footing slightly beyond the edge of the outer skin of the wall; this will increase considerably the base of the pressure triangle and thus reduce the maximum pressure, since the area of the pressure triangle, which represents the resultant pressure on the soil, will remain the same in the two cases.

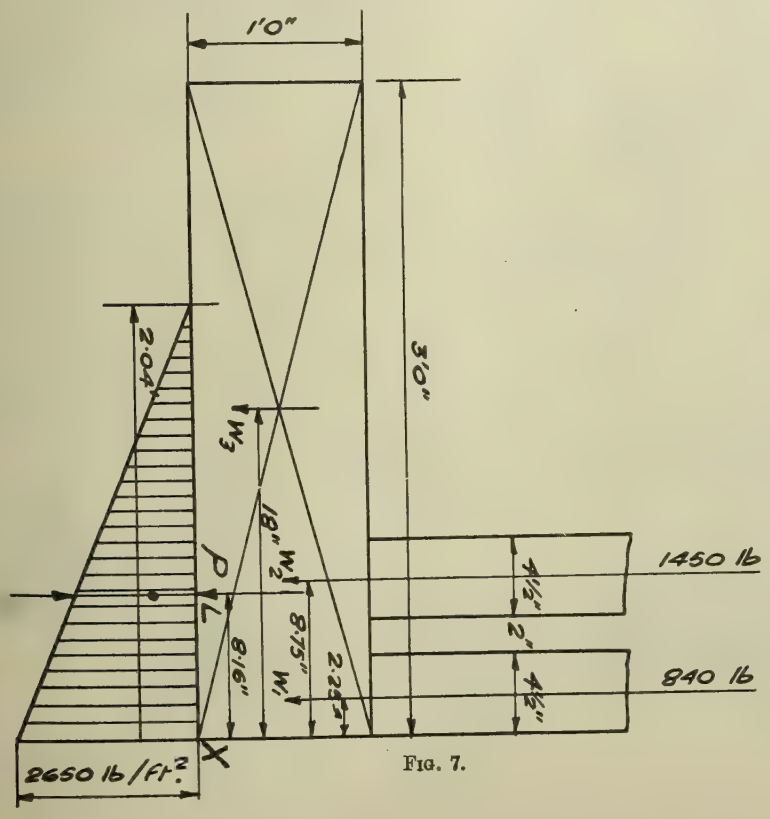


FIG. 7.

THE BUILDING TRADE.

THE COST OF BUILDING.

By T. P. BENNETT, F.R.I.B.A., Hon. F.I.O.B.

Comment was made in a former article upon the variation in the value of p.c. items disclosed by *The Builder* competition. In some cases these differences may be accounted for by variations in design or quality, as in the case of kitchen ranges. In others the possibility of variation is much less marked and in the design of baths and closet pans, there would seem to be ample data for the production of standard patterns of specified quality which would be obtainable at the low price which mass production brings. It is evident that standardisation in connection with house building may be applied broadly in two ways :—

(a) In connection with the design.

(b) In connection with certain mechanical and other fittings which involve little or no design.

All architects and most other people condemn standardisation which comes under the first heading. The imagination is rightly appalled at the contemplation of any possibility of a return to the rows of " brick boxes with slate lids " of thirty or forty years ago. It is true that standard steel sashes have been produced which have been used very widely without any suggestion of sameness of design and certainly with large saving in cost. It will probably be accepted that this employment of standardised units has reduced the cost of building without any great detriment to design and only slight damage to the temper of the architect. Upon the other hand, the standard sash has not affected the manufacture of special steel sashes of a great variety of shapes and patterns which are automatically used in better-class work and work where the cost may legitimately give way to an element of distinction.

The standardisation of the steel sash has had its counterpart in a parochial way in the standardisation of wood sashes for use in individual housing schemes where a designer has voluntarily provided himself with sashes which he designates " A," " B " and " C," and has used these sashes in many variations in design.

There are many other units of building which might be standardised with great advantage, the principal being :—R.W. gutters ; R.W. pipes ; W.W.P.s ; Baths ; Lavatory basins ; Water-closet basins ; Manholes ; Water and gas pipes ;

None of these items involves the question of sameness or monotony because even with the enormous variations in detail which at present exists, the general aspect of one R.W. gutter is very similar to that of another, and even baths have no very great individuality.

To standardise and lower the cost of these items, several things are necessary :—

1. A sound, reasonable specification.
2. A sound, but economical, design.
3. General acceptance of the standard.
4. The use of the standard article must be as wide and complete as possible.

By referring to the list of articles given above, it will be seen that these four points are quite within the reach of a very ordinary article and that there would be no apparent difference whatever in the appearance of the fittings used in a cottage of the kind most urgently needed to-day, whether the articles were standardised or not. While, however, the result is the same in each case, the effect upon the manufacturer is vastly different. At present every manufacturer tries to be different from his neighbour, so that his articles, and his alone, shall be used. He probably makes several kinds of baths and w.c. pans at a similar price so that he can offer his patrons a selection, and by this means has to manufacture and maintain a number of patterns and to carry a large stock and is prevented from launching out into an attempt at low production costs by working on a large scale because there is no certainty of a large demand for any one specified article. The Engineering Standards Committee state that recent makers' lists of manhole covers indicate the manufacture of 38 different sizes and 84 weights. The variations in baths, W.W.Ps. and other items must be almost as great.

If, therefore, the Ministry of Health, the local authorities, the railway companies, the architectural profession, and other interested bodies were to create a standard specification for all articles in common use and invariably specify the standard article for suitable work the demand for a few recognised articles would in a short time, reduce the cost substantially and at the same time increase the quality. One maker stated that if he were assured of a demand for a standard article of the kind referred to he could produce it 20 per cent. below the price and 30 per cent. above the quality of any similar article in the market to-day. With the use of several types, kitchen ranges could be standardised in a similar manner without reducing the choice of the prospective occupier of the house below that now available.

It is common knowledge that the production of low-priced commodities in every walk of life has only been possible because of the introduction of a system of mass production in the factories, and one of the means which has yet to be fully employed for providing low-priced houses is the use of mass production for many of the parts of the structure.

The Ministry of Health must, perhaps, be the pivot upon which the movement must revolve, but co-operation is required from professional bodies, manufacturers and merchants, and large users such as the Local Councils. The Engineering Standards Committee are investigating the standardisation of gutters and have already formulated the basis upon which standardisation could proceed for the other articles mentioned. Their efforts, however, will fail in the important matter of cheapness of production if the standard is insufficiently rigid and if architects and others, who are primarily responsible for the use of the article, do not universally adopt the standard arrived at.

When goods have no mark our Trade Mark laws provide for nothing to distinguish British made from foreign, but if they have any mark at all they must be stamped with the name of their country of origin. If, therefore, " British Standard " or " B.S.S." is universally stamped upon fittings, foreign copies will be known and many patriotic users will insist upon the supply of British fittings which have been made in Britain. In Canada and America there is a standard tube for gas, water or steam, and if this standard were forcibly adopted here it would automatically force some English makers to open up their overseas trade.

In preparing this article much assistance has been received from the articles of the Engineering Standards Committee, and from Mr. Percy G. Donald, whose wide experience and knowledge in the matter give weight to the energy and enthusiasm with which he has advocated its adoption. A paraphrase of his words summarises the most important aspects :

(1) Standardisation of fittings does not interfere with the man who can afford to pay for an article of special character or with matters of design where cost is a secondary consideration.

(2) A standardised article is a security inasmuch as it has been designed by experts to secure its soundness of type, weight, efficiency and low cost of manufacture.

(3) It gives the best possible article for the lowest possible cost.

COMPARISON OF PRICES OF BUILDING MATERIALS, &c.

We publish a table giving the prices of the principal building materials on February 1, as compared with the price for January 1, 1924.

Material.	Jan. 1, 1924. £ s. d.	Feb. 1, 1924. £ s. d.	Fall. %	Rise. %
Bricks—				
Best Stocks	3 19 0	3 19 0	—	—
Flettons	2 13 3	2 13 3	—	—
Glazed	22 0 0	22 0 0	—	—
Thames Ballast	0 10 6	0 10 6	—	—
Thames Sand	0 15 6	0 15 6	—	—
Shingle (¾ in.)	0 14 0	0 14 0	—	—
Portland Cement	2 18 0	2 18 0	—	—
Ground Blue Lias Lime	2 13 6	2 13 6	—	—
Grey Stone Lime	2 10 9	2 10 9	—	—
Bath Stone	0 2 9½	0 2 9½	—	—
Portland Stone	0 4 4	0 4 4	—	—
Good Sound Building Timber—				
4 in. × 11 in.	34 0 0	34 0 0	—	—
3 in. × 7 in.	26 0 0	26 0 0	—	—
3 in. × 11 in.	34 0 0	34 0 0	—	—
2 in. × 11 in.	34 0 0	34 0 0	—	—
2 in. × 7 in.	26 0 0	26 0 0	—	—
3 in. × 4 in.	24 0 0	24 0 0	—	—
Slates—				
24 in. × 12 in.	37 12 6	37 12 6	—	—
22 in. × 12 in.	34 0 0	34 0 0	—	—
R.S. Joists	13 10 0	13 10 0	—	—
Iron—				
Common Bars	13 10 0	13 10 0	—	—
Mild Steel Bars	12 10 0	12 10 0	—	—
Steel Bars	13 0 0	13 0 0	—	—
Cut Nails	20 10 0	20 10 0	—	—
Sheet Lead	41 10 0	42 10 0	—	2.41
Glass—				
15 oz. Sheet	0 0 3⅜	0 0 3⅜	—	—
21 oz. Sheet	0 0 5	0 0 5	—	—
26 oz. Sheet	0 0 6	0 0 6	—	—
Raw Linseed Oil	0 4 0	0 4 2	—	4.17
Turpentine	0 6 6	0 6 11	—	6.41
Ground English White Lead	56 5 0	57 0 0	—	1.33
White Lead Paint	79 10 0	81 0 0	—	1.88
Red Lead	43 0 0	43 0 0	—	—

BUILDING THROUGHOUT THE AGES.

A course of lectures on "The Romance of Building Throughout the Ages," delivered by Mr. George W. Thompson to the junior members of the Amalgamated Society of Woodworkers, during last session, at Liverpool, aroused a considerable amount of interest in the building industry in that city. The lectures were accompanied by lantern slides, the number of slides employed being about 350, and sheets of descriptive notes and sketches served to provide the members of the course with a permanent record of the content and sequence of the lectures.



FIG. 1.

The first of the series dealt with the Prehistoric and Egyptian (fiftieth century to first century, B.C.) period, and from this lecture and the sketches which accompanied it we take the following :—

The Tree of Architecture showed that the art of building had been influenced at all times by (*a*) geography, (*b*) geology, (*c*) climate, (*d*) religion, and (*e*) history.

Prehistoric man imitated nests of birds and lairs of beasts. He built nooks formed of twigs and covered with mud, then huts of branches covered with turf. Later, hunters and fisherfolk dwelt in caves. Those living a settled life constructed crude huts. Tribes living a pastoral or nomadic life learned to use tents. Associated with this early art were monoliths, dolmens, cromlechs, beehive huts, and lake dwellings.

Egyptian architecture belonged to a period when civilisation had reached a comparatively high state. The stages of evolution between prehistoric and Egyptian were lost in the mists of antiquity. Sphinx, pyramid, palace, temple and tomb with their hieroglyphics (picture stories) had survived through three to six thousand years, and revealed the story of war and peace, love and hate, and work and play

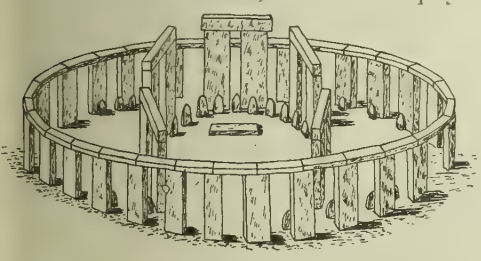


FIG. 2.

that slowly arose in the region through which flows the sacred Nile: "Flowing through Egypt like some grave, mighty thought."

Of the pyramids, erected from 3998 to 3721 B.C., Cheop's great pyramid rose 480 ft., covered 13 acres, and, it was thought, took 100,000 slaves 30 years to build. The despotism that massed men like ants had happily passed away, and to-day the power of 1,000 men might be found in a single machine. Pyramids might have possessed astronomical value. It was known they were used as tombs by the Pharaohs, who looked upon a dwelling-house as a temporary lodging, the tomb being the permanent abode. The architects and artificers of those wonderful structures were all forgotten, but their works would stand for ever as the most colossal art wonders of the world.

In the museums were Egyptian exhibits



FIG. 3.



FIG. 4.



FIG. 5.



FIG. 6.

consisting of mummies, sarcophagi, sculpture, amulets, dolls, musical instruments, games, jewellery, seals, weapons, tools, toilet utensils, and pottery, and it should be observed that Nature suggested ideas for ornamentation, *e.g.*, ibis, vulture, scarab, lotus, papyrus, palm and feathers.

The accompanying illustrations are from the sheets of sketches shown at the lecture.



FIG. 7.



FIG. 8.

Figs. 1 to 4 are examples of prehistoric architecture.

Fig. 1 is a monolith, or menhir, one of which, at Carnac, Brittany, is 63 ft. high and weighs 260 tons.

Fig. 2 is a reconstruction of Stonehenge, in Wiltshire. The history of this group is unknown, and among the different theories as to its origin are that it is the burial place of Boadicea, and that it was a druid temple. It is also uncertain as to who built it, some authorities attributing it to the Romans, and others to the Danes. The diameter of the circle is 333 ft., and two of the uprights are over 22 ft. in height. It is most generally considered that Stonehenge dates from 1680 B.C. Constructions such as this are known as cromlechs.

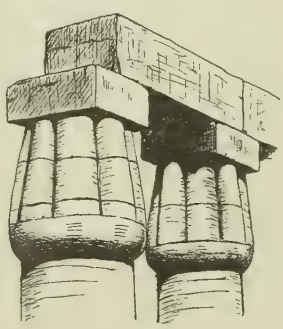


FIG. 9.



FIG. 10.

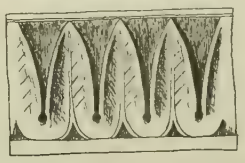


FIG. 11.

Fig. 3 shows a beehive hut in the Isle of Lewis, and is the type of building which formed the dwellings of the Early Britons.

Fig. 4, a tent, was used by shepherds and those leading a pastoral life, these were formed of branches and bark of trees obtained probably from the birch tree.

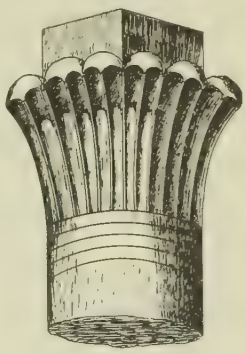


FIG. 12.

Some examples of Egyptian ornament and structures are depicted in Figs. 5 to 13.

The pyramids, which were erected over the tombs of Egyptian kings, are shown in Fig. 5.

Fig. 6 shows the Great Sphinx, which is in the form of a monolith with an animal's body and a human head. It is 142 ft. long and 65 ft. high.

Fig. 7 is the type of pylon situated at the entrance to Egyptian temples.

An obelisk is depicted in Fig. 8. An obelisk may be seen in London (Cleopatra's Needle), and there is a similar structure in Central Park, New York.

Fig. 9 is a capital of an Egyptian column based on the lotus bud.

A column capital based on the lotus flower is shown in Fig. 10, and a laurel leaf ornament in Fig. 11.



FIG. 13.

Fig. 12 illustrates a column capital based on the palm leaf.

Fig. 13 is a vulture with outspread wings, a symbol of protection.

The Egyptians employed as ornament natural objects such as the lotus plant, the symbol of fertility and abundance produced by the Nile when in flood, the palm and the papyrus. These are instructive as well as decorative, and much of Egyptian history may be learned from them.

Westminster Bank.

The annual ordinary general meeting of the shareholders of the Westminster Bank was held at the head office on January 24. Mr. Walter Leaf (the chairman) presided. The chairman, after a review of general conditions during the year under review, as revealed by import and export figures, observed that though the effect of a revival of trade had shown itself rather tardily, yet the evidence of the last quarter of the year was fairly unanimous in speaking of better conditions and hopeful prospects. Commenting upon the political situation, he said it was piquant and interesting; but for the business man not wholly unsatisfactory. Business wanted to be left alone; they had had enough of Government interference during the war, and had no desire to be made the subjects of rash experiments in economics, whether they took the form of deliberate inflation, protection, or capital levy. The Report was unanimously adopted.

BUILDING TIMBERS.

On January 22, Mr. Alexander Howard lectured on this subject at the School of Building, Brixton. Mr. H. D. Searles-Wood, F.R.I.B.A., presided.

The lecturer said perhaps the most ancient use of timber was for building houses. This use was so old that, strictly speaking, it was unnecessary to speak of building timber, since the very word timber implied building. In Sanskrit, Greek, Latin, Gothic, and their own English the words timber and building came from the same root, and timber was originally simply material to be used for building purposes. In the past men built of timber the lake dwellings of which traces existed in England, in Switzerland, New Guinea, Cochin China and America. It was said that the South American Republic of Venezuela owed its name to the fact that the Spaniards on their arrival in a new world found on a lagoon a kind of village entirely built on wooden piles, which they called Venezuela, which meant a little wooden Venice.

Without for one moment forgetting the great national importance of supporting the best schemes for conservation and afforestation, so as to increase the Empire's timber resources, he wished to explain to those who were less informed, that at present, at least, there were ample supplies available for building timbers without any material changes. He believed there existed in the minds of many architects, engineers, and others, a general impression that the scope from which supplies could be obtained must be widely broadened. When they heard of developments from India, Burma, Borneo, Philippines, Malay, &c., they had not yet realised that there was no prospect whatever of any fresh supplies of softwoods for building to be obtained from these sources. A great new supply of hardwoods had already been opened up, and those who were clever enough, and who did not allow themselves to be influenced by trade interests and other arguments, and would accept without prejudice the new timber solely upon its merits, would find a great field open.

The lecturer then made a few comments on the following extracts from specifications which he had recently received:

1. "The whole of the timber deals and battens, &c., to be perfectly sound and well-seasoned, of the best quality obtainable and of approved brands, free from all sap, shakes, large, loose, or dead knots, and other defects, and sawn die square."

If timber of this description were really supplied the cost would be much too great, and would be moreover quite unnecessary. The architect probably received fourth quality, or, indeed, it might even have been fifth quality; but in none of the qualities would it have been free from sap-wood or other defects.

2. "The oak to be of the best approved description, of good figure, carefully selected, free from all imperfections, and to have been felled for at least three years."

They would notice particularly the last clause; as a rule the architect got absolutely fresh-cut timber from freshly cut trees, not carefully selected.

This specification should read: "Reasonably free from injurious defects. The scantlings to be cut from freshly-felled timber, and thoroughly seasoned after cutting before use in the building."

The practice of continually asking for a quality or for a timber which could not be obtained, and consequently was not supplied, had the effect of making the conditions named useless, and so they were entirely ignored. How much better would it be to describe correctly what was required in a reasonable manner, and have it adhered to; this was what the American did.

Spruce.—The lecturer then spoke of the actual timbers which were employed in building construction, of which the most important were the soft woods—that was, the pines and the firs. The lowest in order used was spruce, or white, brought from Canada, America, Norway, Sweden and Southern Europe. Strangely enough, the use of spruce was common, and allowed by experts in Liverpool and on the north-west coast and in Scotland, but not allowed in London or the East Coast of England, and the South of England generally. Spruce was undoubtedly the least durable and the weakest wood commonly made use of for timbering.

Yellow.—The timber which was most used was what was known as Yellow, or Red, or Yellow Deal; or, in larger timbering sizes, Fir. It was, however, a pine which was commonly known by the name of Scots Pine. It was brought from Sweden, Russia, and, to a small extent, from Norway. It was impossible to over-rate the importance of getting this timber into the building in good, bright, dry condition. If this were accomplished, and the woodwork was well ventilated, it was difficult to say how long it would last.

Pitch Pine.—This timber came from the Southern States of North America. There was a great variety of quality, ranging from very bad to very high class. The best was a very fine building timber, while the lower qualities produced a bad timber.

Oregon Pine.—Another timber, known as Oregon Pine (which name, however, it was now desired should be abandoned in favour of the name Columbian Pine—Oregon being in America, and this wood coming from a British Dominion), also known as Douglas Fir, had come very prominently before the building world of late years. The trees grew to an immense height and girth, and, consequently, provided very long and large sizes, and on this account alone occupied a very important position in their list. The wood was also unusually free from large knots and other defects.

Larch.—Larch was a very reliable timber, quite insufficiently appreciated, and especially durable. The supply had always been small and intermittent, and it was probably on this account that it was little used or appreciated.

The lecturer then considered some of those hardwoods which were used for constructional work. Unfortunately, the list was too long to enable them to do more than touch the fringe of the subject. Among those which it had been possible to obtain in the past, that which had been most used was, of course, oak. He would probably give rather a shock to many when he said that under modern conditions he had come to the conclusion that oak was not a good wood to use now for constructional work.

First, for what reason had it been used? The answer was, for its greater strength and durability. One could hear the owner proudly boasting that his roof was constructed entirely of solid oak. But what did they find? In transverse strength it was little better than Scot's Pine; while its undoubtedly greater tensile strength was not required in such works of construction. Regarding the durability of oak, they might ask, where did they find Scot's Pine eaten up by the death watch beetle, as they were told the Westminster Hall roof timbers were eaten? They must not forget that he was speaking of modern conditions. Perhaps, 600 years ago the architect was more practical than he was to-day; perhaps, only more fortunate. It was certain that his roof was open tiled and the wind blew through it. That, he thought, was the reason why the Westminster Hall roof lasted so long, and the attack of the beetle had been the result of stopping practically all ventilation during some minor repairs some time ago.

Pyinkado.—This timber came from Burma where it was known as Ironwood. Its weight —60–90 lb.—made it difficult to transport, because it would not float. These difficulties, however, had been largely overcome, and the timber was now obtainable, in large sizes and good lengths, in immense quantity at a very moderate cost. It was one of the most durable, if not *the* most durable wood in the world. When comparatively fresh it could be sawn and worked easily with tools, but it became so hard with age that it turned the edges of all tools.

African Oak.—This was a dense, very hard, and very durable timber. Unfortunately, the supplies were very scarce, and the timber which was now often called African oak was not of the right species. In the late eighteenth century and the beginning of the nineteenth it was very highly thought of. Amongst the works in which it was used was Nelson's battleship the *Foudroyant*, which was captured from the French; the staircase and other constructional work in the old Post Office at St. Martin's le Grand, and in some old wooden cranes on the Thames bank dating back to Nelson's time.

Greenheart.—This wood came from British and Dutch Guiana. It had a strong, firm, hard grain. For some purposes he thought Pyinkado or African oak would take precedence of this wood; of course, they were all exceptionally strong timbers. Greenheart also took first place as a teredo-resisting wood, though jarrah probably ran it close.

Jarrah.—This wonderful Western Australian timber ranked very high as a strong and most durable timber for piers, bridge work, wharf and piling fronts, staging, and all other works of construction where strength, hardness, and durability were required.

Blue Gum.—This timber came from Australia and Tasmania. It had also been planted in India, Africa, and South America, in which countries it grew amazingly quickly. It was very strong and hard and exceedingly durable under many varying conditions.

Wana.—This timber had, as yet, only been received from Dutch Guiana, though as the forest trees were very much of the same species he expected they could get this from British Guiana also. It was very strong and, he believed, exceedingly durable.

Teak.—There was probably hardly any wood so well known and appreciated as teak, which in many respects occupied a unique place in the timber world. It was very durable, and for many purposes, notably for decks and ship-building generally, and for out-of-door work, its value exceeded that of any other.

It must be noted that he was not speaking of timbers which, although they might be said in some respects to be used in a constructional manner, were also required for decorative work, for window frames and joinery, for instance. For this dual use teak easily came first.

Cypress.—This was the Louisianan cypress, which greatly excelled in durability. It was a coniferous wood, and consequently some might classify it with the softwoods. In density and hardness it was perhaps midway between a hardwood and a softwood. In practical usage, however, for building purposes, it could only be considered a hardwood, for while it was not so strong as the other hardwoods, it possessed with a fair amount of strength a most remarkable durability.

British Oak.—So long as no sapwood was included and the woodwork was thoroughly ventilated this would be found a fairly good constructional hardwood. In his opinion, however, there were to-day many better hardwoods obtainable which, considering the high cost of construction and the comparative cost of material, put oak into rather a back place, especially since there appeared to be such an epidemic of the death watch beetle.

Karri.—This very fine Western Australian wood was exceptionally strong and, under some conditions, very durable. It must be used with care, however, and it had its limitations.

Sweet Chestnut.—This was a wonderfully durable timber with quite fair strength for constructional work. It was, however, rather difficult to get regular and sufficient supplies of sound timber, the prevailing fault being that the trees developed very bad splits.

Gurjun.—This splendid timber from India, besides being strong and durable, was obtainable in very long lengths and in very large sizes free from defect. It had been found to be stronger than British Oak, and when used in shell-filling factories during the war, was considered by experts to be the hardest and best timber which had been submitted for this use. Very large quantities had been absorbed for heavy constructional work of all kinds during the last three years.

In conclusion, the lecturer said the subject was full of interest and attraction, and the more they studied it the greater would be found the field for observation, and if he had stimulated their interest to even only a small degree, he was well repaid.

THE HOUSING ACTS: RECOVERY OF EXPENSES

We may note a further case, Adams *v.* Tuer (*Weekly Notes*, October 27), which turns on the provisions of the Housing Acts, where the local authority consider a house unfit for human habitation, and after notice to and default by the owner, do the work themselves. The Auckland Rural District Council, acting under section 28 of the Housing Town-Planning Act, 1919, on September 11, 1920, had served notices on the owner of certain houses in the district requiring her within twenty-eight days to execute certain specified work to render the houses fit for human habitation, and the notice not having been complied with, the Council, through a firm of builders, did the work themselves, and subsequently served a demand upon the owner for the sum of £342 0s. 9½d. in respect of the repairs executed and, payment not being made, proceedings were taken against the owner under section 28 subsection (3) to recover the same.

In the proceedings before the court of summary jurisdiction it was contended that the sum had not been properly incurred under section 28. It was said the amount charged for labour was excessive, that all the work charged for had not been done, and that work was done which was not necessary to render the house reasonably fit for human habitation. Evidence was given before the justices, and they found as facts that the amount charged for labour was excessive, that all the work charged for was not done, and that the Council did not incur the full sum of £342 0s. 9½d. in making the houses in all respects fit for human habitation, and that part of the work was unnecessary for that purpose, and they fixed the amount at £250 10s.

The Council, on appeal to a Divisional Court, contended that the magistrates were compelled to make an order for the payment of the full sum, and had no power to decide whether the work was, in fact, necessary, the owner's only remedy being by way of appeal to the Minister of Health under section 15 subsection (6) of the Housing Town-Planning Act, 1909.

It has to be borne in mind that in *ex parte* Rush (1922 2 K.B. 28; *The Builder*, July 21, 1922) it was held that the appeal to the Minister of Health contained in section 15 of the Act of 1909 was incorporated in section 28 of the Act of 1919, and that, after that decision, the Minister of Health gave notice that pending the amendment of the Housing Acts, all notices served by a Council under section 28 of the Act of 1919, requiring the execution of works and any demand for the payment of expenses, should contain a note that an owner has an appeal to the Minister of Health.

The Divisional Court held that the right to recover expenses under section 28 was a right to recover only such expenses as were incurred under and in pursuance of the section, that is, the expenses of work necessary to make the houses reasonably fit for human habitation, and the justices had not misdirected themselves in point of law, and the Council's appeal must be dismissed.

We dealt with this question in a note on the case Ryall *v.* Hart (*The Builder*, May 18, 1923) where, under section 28, the same point was raised, but in connection with the reasonableness of the time allowed by the notice in which the work had to be performed, and the Court held that, although under section 15 subsection (6) of the Housing Act, 1909, the owner could appeal to the Minister of Health against a notice requiring the work to be done, or against a demand for expenses incurred in doing the work, that subsection did not make the decision of the Minister final, or prescribe that, if an owner did not appeal to the Minister, the claim for expenses could not afterwards be questioned.

This legislation has caused considerable difficulty, for it will be remembered that in Ryall *v.* Cubitt Heath (1922 1 K.B. 275; *The Builder*, February 24, 1922) a different point was raised. There the proceedings were also being taken under section 28 of the Housing Act, 1919, and the work having been done by the local authority, proceedings were taken under subsection (3) to recover them. The defence was that the time specified in the notice was not reasonable, and this was upheld by the magistrate, but on appeal it was contended that the magistrate had no power to consider this question, and he should have made the order for the expenses, and then there was an appeal to Quarter Sessions under section 35 of the Housing Act of 1890, but a Divisional Court held that that section did not apply, as a "notice" under section 28 of the Act of 1919 was not the same as an "order" under section 35.

Sections 14 and 15 of the Housing Act, 1909, had to be read as one with section 28 of the Housing Act, 1919, and, as we showed in the case of Arlidge *v.* Tottenham Urban District Council (1922 2 K.B. 719; *The Builder*, February 28, 1923) and *ex parte* Rush (1922, 2 K.B. 28; *The Builder*, July 21, 1922) the Courts have experienced difficulty in thus interpreting them. Section 14 and 15 of the Act of 1909 apply to contracts of letting, for habitation of a house or part of a house, and the word "landlord" is used in those sections, and there is a limit of rental value. Section 28 of the Act of 1919 applies to "any house suitable for occupation by the working classes" and the word owner is used. In Arlidge's case it was pointed out that, reading the two Acts together, there was risk of overlapping, but since the earlier decisions we have referred to the Housing Act has been passed, and it may be useful to again consider how that Act affects the points raised in the former cases. When the Bill was before Parliament we drew attention to this question in an article in our issue for April 27, 1923.

The new Act is dated July 31, 1923, and section 10 relates to sections 14 and 15 of the Housing Act, 1909. Subsection (1) provides "Sections 14 and 15 of the Housing Town-Planning, &c., Act, 1909, shall have effect as respects letting for habitation after the passing of this Act as though (*a*) paragraph (*b*) of the said section 14 had been omitted, and (*b*), in paragraph (*c*) of the said section 14 for the word "Sixteen" there had been substituted the word "twenty-six." These amendments make section 14 read: "In any contract made after the passing of this Act for letting for habitation a house or part of a house at a rent not exceeding (*a*) in the case of a house situate in the administrative County of London £40 (*c*) in the case of a house situate elsewhere £26, there shall be implied a condition that the house is at the commencement of the holding in all respects reasonably fit for human habitation, but the condition aforesaid shall not be implied when a house or part of a house is let for a term of not less than three years upon the terms that it be put by the lessee into a condition reasonably fit for occupation, and the lease is not determinable at the option of either party before the expiration of that term."

Section 15 of the Act of 1909 contains the provisions for enforcing the observance of section 14. Subsection (1) provides that the last foregoing section shall take effect as if the condition implied by that section included an undertaking that the house shall, during the holding, be kept by the landlord in all respects reasonably fit for human habitation. Subsection (2) empowers the landlord or the local authority under certain conditions to enter the house for the purpose of viewing the state and condition of the house. Subsections (3) to (5) apply the general machinery for requiring the work to be done which is necessary to render the house reasonably fit for habitation and in default enabling the local authority to do the work and claim the expenses, and subsection (6) contains the right to appeal to the Minister of Health.

The whole of these subsections (3) to (6) are repealed by section 10 subsection (2) of the Housing Act, 1923. This subsection provides "Subsections (3) to (6) of section 15 of the Housing, &c., Act, 1909 (being provisions which are virtually superseded by section 28 of the Housing, &c., Act, 1919), are hereby repealed and the said section 28 shall have effect subject to the following modifications:—

Then it provides that (*a*) a notice given by a local authority under that section shall specify what works are to be deemed necessary, and in addition to serving the notice on the owner the local authority may serve copies on any persons "having an estate or interest in the premises superior to that of the owner."

Paragraph (*b*) gives the appeal to the Minister in much the same terms as subsection 15 of the Act of 1909, except that the time within which the appeal can be made can be lengthened by the Minister and there is a new proviso which is very important, viz., "Provided that no appeal against such a demand or order shall lie" (that is the demand or order in respect of expenses incurred) "if and so far as the appeal raises any question which might have been raised on an appeal against the notice itself, and subject to such appeal the notice demand or order shall be binding and conclusive as to any matters which could be raised on such appeal." This paragraph clears away the doubt which existed and which was the subject of decision in *Ex parte* Rush and Ryall *v.* Hart that there is an appeal to the Minister under section 28 of the Act of 1919, for it gives this appeal, but the proviso may raise a question whether that appeal is not to be the only means of obtaining redress, thus overruling the decisions in Ryall *v.* Hart and Adams *v.* Tuer that a remedy remains in the Courts although that appeal to the Minister has not been resorted to.

We imagine that the intention of the proviso was not to alter the law as laid down in those decisions, but simply to provide that every question which could be raised before the Minister on appeal as to the "notice," as for instance the reasonableness of the time allowed, should be raised then and not subsequently on the demand or order for expenses incurred, but the discretion given to the Minister as to the time in the notice, and the wording of the proviso "no appeal shall lie" and "subject to such appeal the notice demand or order shall be binding and conclusive as to any matters which could be raised on such appeal" will seem to make it arguable that the appeal to the Minister is now the only remedy.

It may be noticed that in section 15 of the Act of 1909 the word "landlord" is used whereas in this new subsection conferring an appeal the word "owner" is inserted. All the Acts have to be read as one, and no doubt the word "owner" will include the "landlord," but this is a piece of legislation by reference giving practitioners unnecessary trouble. In the decision in Arlidge's case the Court attached a good deal of significance to the distinction between "landlord" and "owner" in the two Acts of 1909 and 1919 in connection with the interpretation of the sections.

In several of the cases we have referred to the Judges have commented severely on the confused nature of this legislation relating to Housing, and in Arlidge's case Mr. Justice Lush was reported as saying that probably no Acts were more difficult to interpret except perhaps the Rent Restriction Acts, and from the points we have considered above it will be seen the new Housing Act has certainly not smoothed away difficulties but may even have increased them by throwing doubt again on some points which had been cleared up by the decisions delivered in the Courts.

Town Planning.

The Minister of Health will shortly issue a supplement to the Model Clauses published for use in the preparation of Town-Planning Schemes. Provisions are included for enabling the regulation of streets in a town-planning area to be dealt with wholly in a scheme, instead of partially in a scheme and partially in by-laws, thus, it is hoped, avoiding a dual system of control and introducing a desirable simplification. To be obtained direct from H.M.S.O., Kingsway.

MODERN BUILDERS' MACHINERY.

By STAFFORD RANSOME.

No. IV. ELECTRICAL AND STEAM POWER.—Part I.

Before considering the wood-converting tools themselves it is necessary to clear the ground by dealing with the subject of driving them. This question has so direct and vital a bearing on the eventual working policy that, unless the relative virtues of the various prime movers are grasped at the outset the purchaser may easily make a big blunder in equipping himself and in arranging his factory. The advent, and particularly the rapid developments of the electrical drive during recent years have greatly widened the field of wood conversion, both by making it possible to work existing machines under conditions and in localities where they could not be driven by any other form of power and by permitting the designing and production of certain tools of a portable or other special character which but for electricity could not be worked at all.

For the medium and small builder the choice is virtually narrowed down to a question between steam and electricity. Gas power, which was popular even a few years ago, has receded with the advance of the electrical drive. If it is a question of procuring one's gas from a town supply it is usually far more expensive, for a given result, than electrical current from a similar source, and if the purchaser is to make his own gas by means of a suction or other producing plant he has to face, not only the first cost of that plant, but its fuel, upkeep, and maintenance. Then again, driving by gas power, however the gas may be produced, does not simplify the lay-out of the machines or reduce the intermediate transmissions any more than does the steam drive, and in this respect electricity has a great advantage over both.

Gas, Wind, and Water.

Comparing gas with steam, the former plant has the advantage of occupying less space and costing somewhat less for labour. Steam, on the other hand, is far more elastic as a power distributor, and thereby is better suited in some respects to the peculiar requirements of wood-converting tools where the load, *i.e.*, the power demanded by the machines, varies constantly and abruptly and very considerably. Steam has the further advantage over other forms of power in a wood-working shop of being able to use as a fuel the whole of the wood refuse made by the machines. For, although gas may be produced from wood, and there are sawmills which are driven by gas produced from that material, it is not as a rule found to be as convenient as steam for small mills, and it is beaten in price for both large and small mills by electricity.

Water power is, of course, worth consideration when available under suitable conditions and in sufficient volume, but this is so seldom the case that we need not deal with it here. Curiously enough, wind, which to the modern saw-miller appears preposterous as a motive power for his machinery, is still very largely used for primitive sawmills in Holland and elsewhere. But, although builders' mills are sometimes run on primitive lines, the one thing a builder must not risk is being held up in his work. Consequently he cannot rely upon the conditions of the weather for driving his machines. Thus we may rule out water and wind, and, in ordinary circumstances, we must regard gas as an occasional substitute for steam. The choice therefore lies usually between the electrical motor on the one hand, and the engine, whether steam or gas, on the other. For the large builder, or for anyone who possesses a large sawmill, this question does not arise, as the advantages of driving most, if not all, of his machines by electricity are unquestionable. Even if he is fully equipped with a steam drive, it is usually a sound policy to use that power for the generation of electrical current, and to distribute the power through motors to the individual machines or groups of machines.

In the first place he will be able to dispense with most, if not all, of his network of shafting, gearing, and belting, saving thereby the first cost, the power used in driving them, the inconvenience, and the running expenses in connection with upkeep, besides lubricants and lubricators. This point is made abundantly clear by the alternative schemes which will be shown in Part II of this article. The second great advantage to him is that he may readjust his entire lay-out of the machines so that the work can be carried on to the best advantage. He is untrammelled as to the positions of his machines as he no longer has to locate them to suit his line shafting. By such a readjustment he can often effect a very substantial and permanent saving in his working expenses and an immense saving in space. This is a point too often lost sight of by users who go on working year after year in a shop which, as time goes on, gets progressively congested. The result is that accidents increase, stoppages are more frequent, the labour bill is far in excess of what it need be, and the output far below what it should be.

Abolition of the Belt.

There is another very important factor which tells in favour of the electrical drive, and that is, that in doing away with belts, the quality of the work will be greatly improved. It seems like heresy to say that a belt drive is an abomination in a world which has been built up on the products of belt-driven machines in every imaginable industry. And yet, speaking theoretically, it is so, for the action of the belt is continually to tug at one end of the spindle, tending all the time to strain it and wear the bearings unequally, and, when forced beyond certain well-defined limits, either as to its speed or load, to lose its transmitting efficiency very rapidly. The belt owes its position as the most popular form of driving agent to the fact that until the direct-coupled motor came into being as a commercial proposition, it was infinitely preferable to any other known method, at all events for transmitting high speeds. Thus we may take it that as a general principle it is always policy, where practicable, to run a machine by means of a motor coupled direct to its spindle or to each of its spindles rather than by a belt or a series of belts.

From the above it would seem that with all these advantages it would be hardly necessary to consider seriously the question of adopting any but the electrical drive. There is, however, another side to the question, and it is one which affects very materially the smaller builder who is studying the relative merits of electricity and steam or gas for his own purposes.

The Merits of Steam.

In favour of the steam engine we have in the first instance the powerful factor that it had been firmly established for well over a century before the advent of electricity as a practical means of driving machinery as the staple and for a long time the only prime mover, with the exception of water and wind. The user all the world over knows what steam power is and how to apply it, what it involves, and, in a general way, what it will do. He also knows how to keep it in repair.

The limitations which its use imposes on the arrangement of the machines, inconvenient as they may be, are known and accepted by long practice, and factories have always been designed to meet the case by generations of engineers. Then again, steam power is self-contained, *i.e.*, it is not dependent on any outside assistance except for its fuel supply, which can be brought to it, and, as explained, when used for driving wood-working plant, is partially or entirely supplied with fuel automatically on the spot in the form of wood refuse from the machines. The steam boiler, too, is omnivorous in its tastes. It can be constructed to consume coal, coke, peat, straw, wood, oil, or any other combustible material that may be to hand, and, by automatically disposing of the wood refuse, it obviates that trouble and expense in getting rid of it which is incurred with other forms of power.

The unique quality of the steam engine, however, is its elasticity, already referred to. This permits of its being forced by overloading to a far greater extent than any other power. This is a valuable feature where wood-working machines are concerned, because of the great and sudden changes in the load which are characteristic of the sawmill. This virtue of elasticity, however, cuts both ways, and may become a vice, as it often encourages thoughtless and haphazard users to overtax their engines by running constantly with an overload. This is neither scientific nor sound practice, as will be shown later, but we cannot get away from the fact that the builder in times of rush has often found the elasticity of the steam engine a very great convenience.

Summarised briefly, we may put this point as follows:—With an electrical drive you *must* put a sufficiency of power behind your machines or you cannot get them to work at all. With steam power you may knock along inefficiently with considerably less power than you ought properly to provide.

The Individual Drive.

Leaving the question of steam for the moment, we have, if we decide to adopt an electrical drive, two methods to choose from, viz., the "individual" and the "group" drives. The former is theoretically the ideal method, for, if carried out to its logical extreme, each spindle of every machine would have coupled to it its own independent motor, and thereby all shafting and other transmissions would be abolished. Further, it permits you to arrange your machines in your factory in any positions which may suit you with no more restriction than in arranging the furniture in a room. Another advantage in this drive is that when a machine is stopped, all power connected with it stops automatically too, as there are no shafting and belting to go on revolving and absorbing power to no purpose until it is time to start the machine again. Every ounce of power, too, which is given off by the motor is devoted to the spindle it is driving and to nothing else.

There are, however, two flies in the ointment in connection with the individual drive. The first is, that it is essential that each spindle must have a motor which is capable of driving it when working at its full capacity. With some builders' tools, particularly the saws, the difference between average requirements and full capacity may be very great. For instance, an ordinary circular saw of 36 in. diameter may well require 20 h.p. when cutting hard wood to its full depth at its highest speed, while during nine-tenths of the time it may be employed on flatting shallow stuff requiring perhaps 3 or 4 h.p.

The other weak point about the individual drive is that the speeds of the spindles of some builders' machines do not lend themselves to direct coupling to a motor. Thus the crank shaft of a log frame runs too slow and the planing spindle too fast for the generality of currents and motors for driving that are available in this country. When it is found impossible to synchronise the speeds of spindles with those of the motors, the difficulty is overcome by driving the spindle from a motor-driven countershaft by means of a belt, or else by reduction or accelerating gearing, as the case may be. Both these methods, however, absorb a considerable amount of the power before it is transmitted to the machine. In such a case we still have the individual drive, but it is not a direct drive, and its efficiency is not greater than that of the group drive. Thus, as a rule, all the spindles of a four-side planing machine are driven by the one countershaft to which a single motor is coupled.

There is a growing tendency, however, with panel and other planers which have only one spindle, to use a direct coupled motor. This is

done by reducing the speed of the planing spindle so that it will synchronise with that of the motor. Roughly speaking, the normal speeds of planing machines range from 3,000 to 4,000 revolutions per minute. These speeds are higher than are desirable for a direct current motor, because when driven beyond a certain speed there is apt to be trouble with it on account of centrifugal influence and balancing difficulties. On the other hand, in the case of an alternating current, the speed of the motor depends on the nature of the current, and it is seldom found with the currents that are usually available that the motors can be conveniently speeded to more than between 2,000 and 2,700 revolutions. If, therefore, we desire a direct drive on a planing machine we must reduce the speed of the planing spindle to that extent. Then, by using three or four cutters instead of two on the block, a very fair rate of feed may be obtained with an excellent quality of work, as a spindle running at 2,000 revs. with four cutters will produce work of an equal quality at the same rate of feed as a spindle running at 4,000 revs. with only two cutters. In fact, the work of the former should actually be better as the lower speed lessens the vibration and the spindle runs more steadily.

Another method of overcoming the difficulty is to speed up the motor by using a transformer, which will so modify the nature of the current as to permit of the motor attaining the higher speed. This last, however, introduces an element which, as a rule, it is well to avoid, at all events in factories which are dependent on outside help if anything goes wrong with the electrical portion of the plant. With a steam plant, if any hitch occurs, the small user knows what to do and how to do it. When he puts down an electrical drive, however, he generally considers that he has fulfilled his part of the bargain when he has paid for the motor and the current. He wishes to confine himself merely to "pushing the button and seeing the wheels go round" as far as his motive power is concerned. It is the simplicity of the electrical drive which has appealed to him.

OBITUARY.

Mr. W. H. Turner, J.P., of "Min-yr-Avon," Taff-embankment, Cardiff, a director of Messrs. E. Turner & Sons, building contractors, Cardiff, died recently after a brief illness. Mr. Turner was probably best known as one of the partners in the firm of contractors who erected the Cardiff City Hall and many other local buildings. Included amongst these were the Law Courts, the University College, the County Hall, the General Post Office, the Central Library, the Capitol Cinema, the Empire, the Medical College, and numerous churches and chapels.

The death took place recently of Mr. John Hall, of Wolverhampton, a well-known builder and contractor, at the age of 71 years.

Mr. Charles Llewelyn, a very prominent North Wales builder and contractor, passed away recently at the age of 39 years.

Alderman Arthur H. Constance, builders' merchant, of Worcester, passed away recently at Thorneloe, at the age of 53 years.

Messrs. Lewis's, Ltd., New Premises.

In our issue for Jan. 11 our correspondent inadvertently gave the wrong general contractors for this work. The general contractors for the work shown in our illustration are, of course, the well-known Liverpool firm of contractors, Messrs. E. Burns & Sons.

National Federation of Building Trades Employers.

In consequence of the railway strike it has been decided to postpone the annual dinner of the Federation from January 29 until February 19, at the Hotel Victoria, at 7.15 p.m.

The tender of Mr. P. Rourke, of Lutterworth, for the Church Langton Educational Institute, Leicester, should read £4,790, and not £4,970.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	C'p'ters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/6	1/5	1/0½
Cheltenham	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall.)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/2½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Swindon	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/3½	1/0
Taunton	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/1½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
York	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½

(For rates of wages in the Building Trade in Scotland, see page 202).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

✱FEBRUARY 1.—**Romford, Essex.**—NURSES' HOME, &c.—Erection of nurses' home, erection of new wards, 2 blocks, erection of extension to laundry, erection of Medical Officer's residence, to be carried out at the Romford Union, for the Guardians. Messrs. Harrington & Evans, Guardians' Architects, 45, Bedford-row, London, W.C. 1. Deposit £5 5s.

FEBRUARY 2.—**Glyn Neath (Glam).**—HOUSES.—For erection at Maesmarchog Site, Glyn Neath, for the Neath R.D.C., 16 type "B," parlour, houses, in semi-detached blocks of two, in brickwork. Lump sum tender, for labour and materials complete, required. Mr. D. M. Davies, Architect, Council Offices, Orchard-street, Neath. Deposit £2 2s.

FEBRUARY 4.—**Aberkenfig (Glam).**—ERECTION OF HOUSES, &c.—For carrying out the following works for the Aberkenfig Building Club: Contract 1, Erecting 30 houses, parlour type, in pairs, complete with boundary walls and drains. Contract 2, Short extension of road, with surface water drainage, &c., planting of trees. Mr. Frank H. Heaven, architect, 39, Coronation-street, Aberkenfig. Deposit, Contract 1, £3 3s.; Contract 2, £2 2s.

FEBRUARY 4.—**Aldershot.**—REPAIRS.—For repair work at 78, Ash-road, for the T.C. Borough Sanitary Inspector, Municipal Buildings, Aldershot.

FEBRUARY 4.—**Barnsley.**—HOUSES.—For the erection of 10 houses, Blenheim-road, Barnsley. Mr. W. J. Deighton, "Park View," Park-road, Barnsley.

FEBRUARY 4.—**Bradford.**—HOUSES.—Erection of 10 houses on Swain House Estate, for the T.C. City Architect, Town Hall, Bradford.

FEBRUARY 4.—**Brentford.**—COTTAGE AND COACH-HOUSE.—Erection of a caretaker's cottage and coach-house at the Isolation Hospital, Clayponds-lane, Brentford, for the Brentford Urban District Council. Mr. W. J. W. Westlake, F.S.I., Engineer and Surveyor to the Council, Clifden House, Brentford.

FEBRUARY 4.—**Bristol.**—EXTENSION.—For extending and altering the offices at Queen-square, Bristol, of the Docks Committee. Messrs. W. S. Skinner & Sons, Architects, 27, Orchard-street, Bristol. Deposit £3 3s.

FEBRUARY 4.—**Chippenham.**—HOUSES.—For the erection of 20 houses, for the T.C. Mr. A. E. Adams, Borough Surveyor, Chippenham. Deposit £1 1s.

FEBRUARY 4.—**Greenock.**—HOUSES.—Erection of 150 houses of different types, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

FEBRUARY 4.—**Halifax.**—HOUSES.—Erection of 30 houses on Quarry House Estate, for T.C. Borough Engineer, Crossley-street, Halifax. Deposit £2 2s.

FEBRUARY 4.—**Huddersfield.**—HOUSE, &c.—Alterations to premises; also new caretaker's house, for the Lockwood Conservative Club. Mr. Joe Ainley, architect, 3, Chapel Hill, Huddersfield.

FEBRUARY 4.—**Morecambe.**—BUILDING.—Erection of building of oil gas plant, &c., gas works, for the T.C. Mr. P. Holt, Borough Engineer, Morecambe. Deposit £1 1s.

FEBRUARY 4.—**Rotherham.**—HOUSES.—Erection of 100 houses and roads and drains thereto, at Thurcroft, for Rothervale Collieries Branch of the United Steel Co.'s, Ltd. Mr. J. E. Knight, architect, Regent House, 48, Moorgate, Rotherham. Deposit £2 2s.

FEBRUARY 4.—**Scarborough.**—HOUSES.—(*a*) Erection of 50 houses on the Edgehill Park Estate; (*b*) one block of eight houses, Potter-lane, Scarborough; (*c*) one block of nine flats, Longwestgate, Scarborough, for the Council of the Borough of Scarborough. Mr. Harry W. Smith, A.M.I.C.E., Borough Engineer and Surveyor, Town Hall, Scarborough. Deposit £1 1s.

FEBRUARY 4.—**Stirling.**—HOUSES.—Erection of the following houses:—Brightons, Polmont, 42 houses; Redding (Cross-roads), 12 houses; Glen Village, eight houses, for the Eastern District Committee of the Stirling C.C. Mr. T. M. Copland, architect, 76, High-street, Falkirk, for the Brightons scheme, and Messrs. A. & W. Black, architects, 76, High-street, Falkirk, for the Redding (Crossroads) and Glen Village schemes. Deposit £1 1s.

FEBRUARY 4.—**Sunbury-on-Thames.**—HOUSES.—Erection of 20 houses in or near Manor-lane, Sunbury, for the Sunbury-on-Thames U.D.C. Mr. Harold F. Coales, A.M.I.C.E., Council Offices, Green-street, Sunbury.

FEBRUARY 4.—**Wallsend.**—HOUSES.—Erection of sample houses at High Farm Housing Estate, viz.: One block semi-detached parlour type houses, two blocks of semi-detached bungalows, for the T.C. Borough Surveyor, Town Hall, Wallsend. Deposit £2 2s.

FEBRUARY 5.—**Bradford.**—CONVENIENCES.—For remodelling conveniences at the Market Tavern, Godwin-street, for Markets and Fairs Committee. City Architect, Town Hall, Bradford.

FEBRUARY 5.—**Builth Wells.**—FOUNDATION.—For laying the foundations for new war memorial at Gro Green, Builth Wells. Cement concrete foundation with dressed Llanelwydd stone steps. Mr. Telfer Smith, architect, Market Hall, Builth Wells. Deposit 10s.

FEBRUARY 5.—**Cardiff.**—HOUSES.—For the erection (in lots) of 250 houses at Ely, for the T.C. Architect, City Hall, Cardiff. Deposit £2 2s.

FEBRUARY 5.—**Limerick.**—RACE-COURSE STAND, &c.—For erecting (1) reinforced concrete stand, and (2) 50 stables, for the Limerick Race Co. Mr. J. O'Malley, Glentworth-street, Limerick.

FEBRUARY 5.—**Sheffield.**—SUB-STATIONS.—(*a*) Erection of transformer sub-station in Upperthorpe; (*b*) alterations and additions to transformer sub-station in Newhall-road, for the T.C. Mr. S. E. Fedden, General Manager, Commercial-street, Sheffield. Deposit £1 1s. each contract.

FEBRUARY 5.—**Teignmouth.**—CONVENIENCES.—Erection of public conveniences in The Triangle, for the U.D.C. Mr. F. W. Knight, Surveyor, Town Hall, Teignmouth.

FEBRUARY 5.—**Ventnor.**—CONVENIENCES.—For altering existing premises and constructing new conveniences at Marlborough-road, for the U.D.C. Mr. D. V. Howard, Surveyor, Town Hall, Ventnor.

FEBRUARY 5.—**Widnes.**—POST OFFICE.—Erection of a new post office at Widnes, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

FEBRUARY 5.—**Wombwell.**—FLOORS.—For erection of moveable floors over the swimming ponds at the Public Baths, Hough-lane, for U.D.C. Surveyor, Town Hall, Wombwell. Deposit £1 1s.

FEBRUARY 6.—**Ashton-under-Lyne.**—HOUSES.—Erection and completion of 58 houses (34 Class "A" and 24 Class "B") in pairs, to be erected on the Heys Estate, Montague-road, Ashton-under-Lyne, for the Housing Committee of the Borough of Ashton-under-Lyne. Messrs. W. H. George & Son, architects, 7, Warrington-street, Ashton-under-Lyne. Deposit £1 1s.

FEBRUARY 6.—**Dover Tower Hamlets Site.**—LEVELLING.—For certain works of levelling for the Kent Education Committee. Mr. W. H. Robinson, F.S.Arc., Sessions House, Maidstone.

FEBRUARY 6.—**Hawick.**—HOUSES.—Erection of three blocks of four two-roomed houses at Mansfield-road, for the T.C. Messrs. J. P. Alison & Hobkirk, architects, 45, Bridge-street, Hawick.

FEBRUARY 6.—**Leadgate.**—SCHOOLS.—Erection of R.C. Schools, Leadgate. Mr. Frank A. Coyle, architect, 29, Newmarket-street, Consett. Deposit £2 2s.

FEBRUARY 6.—**Newcastle-on-Tyne.**—GATES.—For providing and fixing 20 garden gates to allotments in the Stubbsfield. Mr. George Hollins, architect, Lloyds Bank Chambers, Newcastle.

FEBRUARY 6.—**Sheffield.**—HOUSES.—Erection of 47 houses on the Wincobank Hall site and 54 houses on the Woodhouse Estate, for T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £2.

FEBRUARY 7.—**Acton.**—PAINTING, &c.—For (1) painting and decorations, East Acton Housing Estate; (2) painting railings, &c., N. Acton public playing fields; (3) provision and fixing of iron fence, Crown-street, and the Woodlands, for the B.C. Borough Surveyor, Municipal Offices, Acton, W.3.

✱FEBRUARY 7.—**Chiswick, W.4.**—WORK AND STORES.—The execution of work and supply of stores (separately) for twelve months, commencing April 1, 1924, for the U.D.C. of Chiswick. Mr. Edward Willis, M.I.C.E., Engineer and Surveyor, Town Hall, Chiswick, W. 4 (stamped addressed foolscap envelope enclosed).

FEBRUARY 7.—**Douglas.**—LYCH-GATE.—For erection of a lych-gate in St. George's Churchyard. Mr. F. C. H. Cowin, Kenwood, Brunswick-road, Douglas, I.O.M.

FEBRUARY 7.—**Erdington Hall.**—BRIDGE.—Rebuilding of Erdington Hall Bridge over the Birmingham and Fazeley Canal, for the Birmingham Tame and Rea District Drainage Board. Mr. A. E. Harris, Clerk, 117, Colmore-row, Birmingham.

FEBRUARY 7.—**Gateshead.**—HOUSES.—Erection of 100 houses of various types and designs on the Carr-hill Building Estate, for the T.C. Borough Engineer, Town Hall, Gateshead. Deposit £5.

FEBRUARY 8.—**Carlisle.**—ALTERATIONS.—For alterations and extensions to Maternity Hospital, George-street, for Health Committee. Mr. H. C. Marks, City Engineer, 18, Fisher-street, Carlisle. Deposit £1 1s.

FEBRUARY 8.—**Carlisle.**—TRANSFORMER STATIONS.—Erection of transformer stations, at Stanwix, Fuse Hill-street, and Tarraby, for Electricity Committee. Mr. H. C. Marks, City Engineer, 18, Fisher-street, Carlisle. Deposit £1 1s.

FEBRUARY 8.—**Doncaster.**—HOUSES.—Erection of 46 houses of various types on Norton Housing Estate, for the R.D.C. Mr. T. H. Johnson, architect, 20, Priory-place, Doncaster. Deposit £2 2s.

FEBRUARY 8.—**Tiverton.**—POWER HOUSE.—For building a power-house in connection with the installation of an electric supply, for the T.C. Mr. T. E. Corrigan, Gas Office, Blundell's-road, Tiverton. Deposit £2 2s.

FEBRUARY 8.—**Warrington.**—PAINTING, &c.—For painting and decorating the Gardener's Lodge, at the Cemetery, for T.C. Borough Surveyor, Town Hall, Warrington.

FEBRUARY 9.—**Ashford.**—SHEDDING, &c.—For erecting shedding, offices, stands, and other works for the Agricultural Show to be held at Ashford on July 10, 11 and 12, for the Kent County Agricultural Society. Major R. J. Bacon, secretary, Otham, Maidstone.

FEBRUARY 9.—**Blackpool.**—DEMOLITION.—For demolition and removal of Hoo Hill Villa, Bispham-road, for T. C. Mr. F. Wood, Borough Surveyor, Municipal Offices, Blackpool.

FEBRUARY 9.—**Dewsbury.**—HOUSES.—Erection of 56 houses, for the T.C. Borough Surveyor, Town Hall, Dewsbury. Deposit £1 1s.

FEBRUARY 9.—**Formby.**—HOUSES.—Erection of 26 houses, for the U.D.C. Mr. Ernest H. Bond, Clerk, Council Offices, Formby. Deposit £1 1s.

FEBRUARY 9.—**Onllwyn, near Neath.**—HOUSES.—Erection of 50 parlour type houses of two classes at Maesmarchog, Onllwyn, near Neath, with necessary roads and sewers in connection therewith, for Messrs. Evans & Bevan, colliery proprietors, Neath. Mr. J. Cook Rees, F.S., architect, Parade Chambers, Neath.

FEBRUARY 9.—**Radcliffe.**—HOUSES.—Erection of 56 workmen's dwellings, near St. Andrew's Church, for U.D.C. Mr. W. L. Rothwell, Surveyor, Council Offices, Radcliffe. Deposit £2 2s.

✱FEBRUARY 9.—**Sutton, Surrey.**—BANDSTAND.—Supply and erection of a bandstand in the Manor Park, Sutton, for the Sutton (Surrey) U.D.C. Surveyor to the Council, Municipal Offices, Sutton. Deposit £1 1s.

FEBRUARY 11.—**Bishop's Stortford.**—SWIMMING BATH.—Construction of open-air swimming bath in reinforced concrete, for the U.D.C. Mr. Robert S. Scott, Surveyor, Council Offices, Bishop's Stortford. Deposit £2 2s.

FEBRUARY 11.—**Dunstable.**—OFFICES, &c.—For erection of additional offices, &c., at the Town Hall, for T.C. Mr. W. F. Wilkins, Borough Surveyor, Town Hall, Dunstable.

FEBRUARY 11.—**Durham.**—ADDITIONS.—For alterations and extensions to board room at the Poor Law Institution, for the Board of Guardians. Messrs. *W.* & T. R. Milburn, FF.R.I.B.A., 19, Fawcett-street, Sunderland.

FEBRUARY 11.—**Durham.**—FIRE ESCAPE STAIRCASES.—Fire escape staircases at the Poor Law Institution, for the Board of Guardians. Messrs. W. & T. R. Milburn, FF.R.I.B.A., 19, Fawcett-street, Sunderland.

FEBRUARY 11.—**Ixworth.**—BRIDGE.—For the reconstruction of Potter's Bridge, Ixworth, in reinforced concrete, for the West Suffolk C.C. Mr. E. H. Bond, County Surveyor, Shire Hall, Bury St. Edmunds.

FEBRUARY 11.—**Kingston-upon-Thames.**—HOUSES.—Erection of 10 pairs of houses on the Housing Estate, for the Corporation of the Borough of Kingston-upon-Thames. Borough Surveyor, Town Hall, Kingston-upon-Thames. Deposit £1 1s.

FEBRUARY 11.—**London, S.W.19.**—HOUSES.—Erection of 5-roomed houses, 12, 24, or 87 in number, on the Council's Housing Estate, Toynbee-road, Burstow-road, and Dennis Park-crescent, within the Borough, for the Corporation of Wimbledon. Borough Engineer and Surveyor, Town Hall, Wimbledon. Deposit £2 2s.

FEBRUARY 11.—**Mitcham.**—PUBLIC CONVENIENCES.—Erection of public conveniences on the Upper or Fair Green, Mitcham, for the U.D.C. The Surveyor, Broadway House, Mitcham. Deposit 10s. 6d.

FEBRUARY 11.—**Newcastle-on-Tyne.**—EXTENSION.—Erection of a bathroom and scullery at the entrance lodge, banqueting hall, Jesmond Dene, for the T.C. City Engineer, Town Hall, Newcastle-upon-Tyne.

FEBRUARY 11.—**Walsall.**—HOUSES.—Erection of 71 houses of various types, for the T.C. Mr. J. Taylor, Borough Surveyor, Council House, Walsall. Deposit £1.

FEBRUARY 11.—**Paisley.**—OFFICES.—Erection of new administrative offices, for the Renfrewshire Education Authority. Mr. J. Hamilton Pullar, Executive Officer, County Education Offices, 28, High-street, Paisley. Deposit 10s.

FEBRUARY 11.—**Windsor.**—BOILER HOUSE, FIRE-BRICK LINED CHIMNEY, &c.—Construction of boiler house, foundations and setting of Cornish boiler, fire-brick lined chimney, and sundry builders' work in attendance on Engineers, for the Guardians of the Windsor Union. Mr. Walter W. Nobbs, M.I.Mech.E. (the Consulting Engineer in charge of the works), of 50, Fairhazel-gardens, N.W. 6.

FEBRUARY 12.—**Edmonton.**—PAINTING.—For painting works on various buildings of the Council, also the work of flooring over swimming bath, for U.D.C. Mr. C. Brown, Engineer of the Council, Town Hall, Edmonton.

✱FEBRUARY 12.—**Erith.**—SCHOOL.—For the reinstatement and erection of additions at Crescent-road, for the U.D.C. Mr. Harold Hind, Architect, Council Offices, Erith. Deposit £1.

FEBRUARY 12.—**Filey.**—SHELTER AND WALL.—For construction of a shelter and cafe, Crescent-gardens, and retaining wall and steps, Foreshore-road, for U.D.C. Mr. B. H. Noble, Surveyor, Council Offices, Filey. Deposit £2 2s.

✱FEBRUARY 12.—**Horsham.**—HOUSES.—Erection of eight houses in two blocks of four each in Ifield-road, Crawley, for the Horsham R.D.C. Mr. W. R. Guildford, Surveyor to the Council, Albion-terrace, Horsham, Deposit £1 1s.

FEBRUARY 12.—**Pontardawe (Glam).**—TWENTY HOUSES.—For erecting for U.D.C. twenty houses at Clydach Site, Pontardawe. Mr. E. D. Jones, Architect, Council Offices, Pontardawe. Deposit £3.

FEBRUARY 12.—**Reigate.**—PUBLIC CONVENIENCES.—For various works required in the construction of public conveniences in the Market-square, Reigate, for the T.C. of the Borough of Reigate. Borough Surveyor, Municipal Buildings, Reigate.

FEBRUARY 12.—**Rutland.**—REPAIRS, &c.—For repairs to Essendine School, near Stamford, for the Education Committee. Mr. F. W. Nichols, surveyor, Market-place, Oakham.

FEBRUARY 12.—**Uppingham.**—REPAIRS, &c.—For repairs to Caldecott School, near Uppingham, for the Education Committee. Mr. F. W. Nichols, surveyor, Market-place, Oakham.

FEBRUARY 12.—**Wallingford.**—REPAIRS.—For repairs to Casual Ward buildings, for the Board of Guardians. Mr. F. G. Sainsbury, architect, Reading.

FEBRUARY 13.—**Littlehampton.**—ALTERATIONS.—For alterations and additions to the Town Offices. Surveyor, Town Offices, Littlehampton.

✱FEBRUARY 13.—**Newbury.**—HOUSES.—Alternative tenders for (a) 12 houses, or (b) a pair of houses for the Corporation on a site at Essex-street. The Borough Surveyor's Office, Municipal Buildings, Newbury.

FEBRUARY 13.—**Oakham.**—COTTAGES.—Erection of three bungalow cottages in Station-road. Mr. F. W. Nichols, Market-place, Oakham. Deposit £1 1s.

FEBRUARY 13.—**Pershore.**—BRIDGE.—Construction of a new bridge over the River Avon, to be carried out in ferro-concrete, for the Worcestershire C.C. Mr. C. F. Gettings, County Surveyor, 30, Foregate-street, Worcester. Deposit £5.

FEBRUARY 13.—**Shrewsbury.**—HOUSES.—Erection of 20 houses in Sultan-road, for T.C. Mr. A. W. Ward, Borough Surveyor, Guildhall, Shrewsbury.

FEBRUARY 14.—**Manchester.**—EXTENSIONS.—For extensions to maids' bedrooms at Baguley Sanitorium, for Public Health Committee. City Architect, Town Hall, Manchester. Deposit £1 1s.

FEBRUARY 14.—**Salisbury.**—HOUSES.—Erection of 50 houses on the Wain-a-long Road Housing Site, for the T.C. Mr. W. J. Goodwin, Surveyor, Municipal Offices, Salisbury. Deposit £2 2s.

FEBRUARY 14.—**Sligo.**—CUSTOM HOUSE.—For reconstruction of Sligo Custom House, for Commissioners of Public Works. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin. Deposit £1.

FEBRUARY 15.—**Leyton.**—PLAYSHEDS.—Erection of two playsheds at Cannhall-road School, for U.D.C. Mr. J. H. Jacques, 61, West Ham-lane, Stratford, E. 15. Deposit £1.

FEBRUARY 15.—**Portadown.**—CHAPEL.—Erection of a new chapel adjoining the Convent of the Presentation Order, Portadown. Mr. Albert E. Brooks, quantity surveyor, 17, Chichester-street, Belfast.

✱FEBRUARY 16.—**Bexhill.**—HOUSES.—Erection of 35 houses upon the London-road site, for the Corporation of Bexhill housing scheme. Mr. George Ball, A.M.I.C.E., Borough Engineer and Surveyor, Town Hall, Bexhill. Deposit £1 1s.

FEBRUARY 16.—**Bridlington.**—SHELTERS.—For erection of shelters on the Beaconsfield Sea Wall, for T.C. Borough Surveyor, 1, The Crescent, Bridlington. Deposit £1 1s.

✱FEBRUARY 18.—**Harrow-on-the-Hill.**—HOUSES.—For the erection of 18 parlour type houses on the Honeybun Estate, for the U.D.C. Mr. J. Percy Bennetts, Engineer and Surveyor, Council Offices, Harrow. Deposit £1.

✱FEBRUARY 18.— **Hertfordshire.**— SCHOOL.— Erection and completion of a new County Council school to accommodate 144 scholars at Walkern, near Stevenage, for the Hertfordshire County Council. County Surveyor's Office, Hatfield. Deposit £1 1s.

✱FEBRUARY 18.—**Ilford.**—SCHOOL BUILDINGS.—Erection and completion under one contract of the following buildings at Steven's-road, Becontree, for the Ilford U.D.C.: (*a*) Upper school; (*b*) Middle and lower schools: (*c*) Medical inspection block,with covered ways hereto from each school. Mr. H. Shaw, M.Inst.C.E., Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit £5 5s.

FEBRUARY 18.—**Penparcau (Aberystwyth).**—MEMORIAL HALL.—For erecting, for the Penparcau and District War Memorial Committee, a public memorial hall. Mr. T. Llew. Thomas, Hon. Sec., "Pretoria," Rhydyfelin, Aberstwyth.

FEBRUARY 18.—**Wakefield.**—ALTERATIONS.—For alterations to 4, Bond-street, for West Riding General Purposes Committee. West Riding Architect, County Hall, Wakefield.

✱FEBRUARY 18.—**Welwyn, Herts.**—COTTAGES.—Erection of 100 cottages in the parish of Welwyn Garden City, in the County of Hertford, for the R.D.C. Mr. Louis de Soissons, Architect, Estate Office, Welwyn Garden City, Herts. Deposit £2 2s.

FEBRUARY 19.—**Warrington.**—HOUSES.—Erection of 54 houses on the Reynolds-street site, for T.C. Mr. W. T. Davenport, Queens' Chambers, Sankey-street, Warrington. Deposit £2 2s.

FEBRUARY 20.—**Crook.**—COTTAGES.—Erection of the following houses for the Aged Miners' Homes: Four houses, situated at Hill Top, Stanley, near Crook; two houses, situated at Sunniside, near Crook, Co. Durham. Mr. Thos. J. Shepherd, Secretary, 17, Double-row, Sunniside, Tow Law, Co. Durham.

FEBRUARY 20.—**Stornoway.**—COTTAGES.—Erection of cottages at Stornoway, for the T.C. Messrs. Alexander Ross & Son, architects, Inverness.

✱FEBRUARY 25.—**Worthing.**—SHELTERS.—Erection of four glazed shelters on the Marine-parade, Worthing, for the B.C. Borough Surveyor, Municipal Offices, Worthing. Deposit £1 1s.

FEBRUARY 26.—**London, E.3.**—BUILDING ADDITIONS, &c.—Building of a nurses' dining-room, alterations and additions, and redecorations at St. Andrew's Hospital, Devon's-road, Bow, E.3, for the Managers of the Poplar and Stepney Sick Asylum District, St. Andrew's Hospital. Messrs. Andrews & Peascod, architects, 135, Bow-road, E.3. Deposit £3.

✱FEBRUARY 26.—**London, N.W.6.**—DECORATION, STEAM HEATING AND LIGHTING.—Decoration of certain buildings at the Municipal Hospital, Brentfield-road, Neasden, for the Willesden U.D.C. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W. 6.

✱FEBRUARY 28.—**Greenwich.**—HOUSES.—Erection and completion of 48 houses in two sections on the Charlton Housing Estate, completion of Site No. 3, under the supervision of the Council's Architect. Town Clerk's Department, Town Hall, Greenwich. Deposit £2 2s.

FEBRUARY 28.—**Wakefield.**—WORKSHOPS.—Supply of 17 sectional wood workshops, for the West Riding C.C. Health Committee. West Riding Architect, County Hall, Wakefield.

NO DATE.—**Burley-in-Wharfedale.**—HOUSE.—Erection of a detached house, including heating and electric lighting. Messrs. A. Marshall & Sons, architects, Otley.

NO DATE.—**Carlton.**—BUNGALOW.—Erection of a bungalow at Carlton, near Wakefield. Mr. W. F. Hirst, surveyor, Rothwell, Leeds.

NO DATE.—**Consett.**—BUNGALOWS.—The Consett Iron Co., Ltd., invite tenders for the erection of 51 bungalows at Crookhall, near Consett.

NO DATE.—**Glossop.**—HOUSES.—Erection of 50 houses at Charlesworth, for the Horgate Building Co. Secretary, 100, King-street, Manchester. Deposit £2 2s.

NO DATE.—**Harrogate.**—CHURCH AND SCHOOL.—Erection of a church and school at Bilton. Mr. W. H. H. Marten, 50, Cookridge-street, Leeds.

NO DATE.—**Hull.**—HOUSES.—The Corporation invite tenders for the erection of 200 houses on the Hessle-road Estate. City Architect's Office.

✱NO DATE.—**Lydney, Gloucester.**—COTTAGES.—Erection of twenty cottages upon the Tutnalls site at Lydney, Glos., in accordance with the plans and specification prepared by the architect. Mr. John Harold Kennard, F.R.I.B.A., 12, Gray's Inn-square, London, W.C.1; Mr. Harold W. Berthon, Clerk to the Council, Lydney, Glos.

NO DATE.—**Newport.**—WAREHOUSES.—For completing warehouses and other works at Newport. Mr. J. H. Davies, architect, Pontypridd. Deposit £1 1s.

NO DATE.—**Pennard (Glam).**—COTTAGE.—For erection of a cottage at Pennard. Mr. Glendinning Moxham, architect, 18, Castle-street, Swansea.

NO DATE.—**Plymouth.**—The Council are prepared to receive tenders for the erection of 120 houses (the whole or a portion of the number) on four sites at North Prospect (Section No. 2). Mr. J. Wibberley, Borough Engineer and Surveyor, Municipal Offices, Plymouth. Deposit £2 2s.

NO DATE.—**Shrewsbury.**—HOUSES.—Erection of 30 houses on Coton-hill Housing Estate, for T.C. Mr. A. W. Ward, Borough Surveyor, Guildhall, Shrewsbury.

✱NO DATE.—**Sutton, Surrey.**—ALTERATIONS.—For alterations and additions to 8, Manor-parade, High-street, for Messrs. Timothy White Co., Ltd. (Construction Dept.), 30, Chandos-street, Portsmouth.

NO DATE.—**Wallsend.**—HOUSES.—The T.C. is desirous of receiving tenders for erection of the following sample houses at their High Farm Housing Estate: One block semi-detached parlour type houses and two blocks of semi-detached bungalows.

FURNITURE, MATERIALS, etc.

FEBRUARY 3.—**Rishworth.**—MATERIALS.—Supply of road stone and tar to the U.D.C. Mr. Joseph Walshaw, Clerk, Halifax.

FEBRUARY 4.—**Hendon.**—MATERIALS.—Supply of road materials, iron castings, &c., to the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon.

FEBRUARY 4.—**Kettering.**—STORES, &C.—For supply of road and other materials, for one year, for the U.D.C. Mr. T. R. Smith, surveyor, Market-place, Kettering.

FEBRUARY 4.—**Little Hulton.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. James H. Heyes, Clerk, Council Offices, Little Hulton, near Bolton.

FEBRUARY 4.—**Renfrew.**—ROAD MATERIALS.—Supplying with metal sections of roads in the First or Upper District of the County of Renfrew for one year, also for borders, setts, and chips, for the Renfrew C.C. Mr. Robert Drummond, Road Surveyor, 18, Forbes-place, Paisley.

FEBRUARY 4.—**Sunbury-on-Thames.**—TAR.—Supply of 12,000 gallons of refined coal tar to the U.D.C. Mr. Harold F. Coales, Surveyor, Council Offices, Sunbury-on-Thames.

FEBRUARY 4.—**Swindon.**—MATERIALS.—Supply of materials for one year to the T.C. Mr. S. C. Baggott, Borough Surveyor, 34, Regent-circus, Swindon.

FEBRUARY 4.—**Warrington.**—MATERIALS.—For supply of materials to the Paving and Sewerage Committee for one year, for T.C. Mr. A. M. Kerr, Borough Surveyor, Town Hall, Warrington.

FEBRUARY 5.—**Cheshunt.**—ROAD MATERIALS, &C.—For supply of road and other materials, for one year, for U.D.C. Mr. J. E. Sharpe, Surveyor, Manor House, Cheshunt, Herts.

FEBRUARY 5.—**Chingford.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. L. C. Bowen, Clerk, 34, Station-road, Chingford.

FEBRUARY 5.—**London, N.W.3.**—MATERIALS OR SERVICES.—Tenders for various works, materials or services, for one year, from April 1 next, for the Hampstead B.C. Mr. Arthur P. Johnson, Town Clerk, Town Hall, Haverstock-hill, N.W.3.

FEBRUARY 5.—**New Malden.**—MATERIALS.—For supply of road and other materials, for one year, for the U.D.C. Surveyor, Council Offices, New Malden.

FEBRUARY 5.—**Whitchurch.**—GRANITE.—Supply of 2½-in. granite to the R.D.C. Mr. W. J. Hiscox, Surveyor, Winchester-street, Whitchurch, Hants.

FEBRUARY 6.—**Bury St. Edmunds.**—MATERIALS.—Supply of road and other materials to the West Suffolk C.C. Mr. E. H. Bond, County Surveyor, Shire Hall, Bury St. Edmunds.

FEBRUARY 6.—**Buxton.**—MATERIALS.—For supply of road and other materials for nine months, for T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton.

FEBRUARY 7.—**Alton.**—MATERIALS.—Supply of broken granite and limestone to the R.D.C. Mr. A. O. Crew, Rodney House, Alton.

FEBRUARY 7.—**Kensington.**—MATERIALS.—For supply of various materials for the public services of the B.C. Mr. H. Rapson, Town Clerk, Kensington, W.

FEBRUARY 7.—**Stockport.**—MATERIALS.—For supply of road and other material, for one year, for Highways and Sewers Committee of T.C. Mr. H. Hamer, Borough Surveyor, Town Hall, Stockport.

FEBRUARY 7.—**Wisbech.**—ROAD MATERIALS.—Supply of broken granite, slag and tar macadam to the Isle of Ely C.C. Mr. H. Farr Simpson, County Surveyor, Wisbech.

FEBRUARY 7.—**Wood Green.**—MATERIALS.—Supply of broken granite, flints, hoggin and sand, stoneware pipes, Portland cement, masons' and paviors' works, asphalt works for footways, tar-paving works, &c., for the U.D.C. Surveyor, Town Hall, Wood Green. Deposit £1 1s. each form.

FEBRUARY 8.—**Belfast.**—MATERIALS.—Supply of stores to the London, Midland and Scottish Railway Co. Northern Counties Committee (Ireland). Mr. F. J. Martin, Stores Superintendent, York-road Station, Belfast.

FEBRUARY 8.—**Gillingham.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. J. L. Redfern, Borough Engineer, Gillingham, Kent.

FEBRUARY 9.—**Darlington.**—MATERIALS.—Supply of goods and materials to the R.D.C. Surveyor, Union Offices, Darlington.

FEBRUARY 9.—**Newark.**—MATERIAL.—For supply of macadam, granite and slag to R.D.C. Mr. R. Oakden, Surveyor, 29, Winchelsea-avenue, Newark.

FEBRUARY 9.—**Newmarket.**—MATERIALS.—Supply of granite and chippings to the U.D.C. Mr. W. H. Eley, Surveyor, Newmarket.

FEBRUARY 9.—**Thirsk.**—MATERIALS.—Supply of road materials, pipes, tools, &c., to the R.D.C. Mr. J. W. Lupton, Surveyor, Thirsk.

FEBRUARY 9.—**Trowbridge.**—MATERIALS.—Supply of 350 tons ¼ or ⅜ in. granite or limestone chippings to the U.D.C. Mr. Geo. W. J. Clark, Surveyor, Town Hall, Trowbridge.

FEBRUARY 10.—**Port Talbot.**—MATERIALS.—Supply of ironmongery, castings, limestone, tarmac, &c., to T.C. Borough Engineer, Port Talbot.

FEBRUARY 11.—**Eccles.**—DUST CARTS.—For two carts for use in the Scavenging Department. Mr. C. W. Laskey, Public Health Offices, Eccles.

FEBRUARY 11.—**Hull.**—MATERIALS.—For stores for the Tramways Department. Mr. E. S. Rayner, Tramways Engineer, Hull.

FEBRUARY 11.—**Mitcham.**—MATERIALS.—For road and other materials, for one year, for the U.D.C. Surveyor, Broadway House, Lower Mitcham.

FEBRUARY 12.—**Deptford.**—MATERIALS.—For supply of road and other materials, for one year, for B.C. Mr. A. Purkis, Town Clerk, Town Hall, New Cross-road, S.E. 14.

FEBRUARY 12.—**Tadcaster.**—MATERIALS.—For road material, stores, &c., for the R.D.C. Mr. Geo. A. Bromet, Clerk, Kirkgate, Tadcaster.

FEBRUARY 13.—**Belfast.**—MATERIALS.—Supply to the Belfast and County Down Railway Co. of stores. Mr. H. E. Mellor, Secretary, Queen's Quay Terminus, Belfast.

FEBRUARY 13.—**London, E.C.1.**—STORES, &C.—Supply of the undermentioned stores, &c., for the periods of six or twelve months, commencing April 1, 1924, as the Metropolitan Water Board may decide. Chief Engineer, Metropolitan Water Board, New River Head, 173, Rosebery-avenue, E.C.1, by personal application (Room 155) or upon forwarding a stamped addressed brief envelope.

FEBRUARY 13.—**Louth.**—MATERIALS.—Supply of granite and slag to the R.D.C. Mr. F. J. M. Ingoldby, Clerk, Council House, Louth.

FEBRUARY 13.—**Middlesex.**—ROAD MATERIALS.—Supply of granite, tarred slag and granite chippings to the Middlesex C.C. Mr. A. Dryland, County Engineer, Middlesex Guildhall, Westminster, S.W.1.

FEBRUARY 14.—**Liverpool.**—MATERIALS.—Supply of glass for street lamps, lamp standards, &c., to the T.C. City Lighting Engineer, 15, Highfield-street, Liverpool.

FEBRUARY 14.—**London, S.W.**—VARIOUS MATERIALS.—Supply of various materials and services for various periods, for the Lambeth B.C. Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (chartered civil engineer), Borough Engineer, Town Hall, Brixton-hill, S.W.2.

FEBRUARY 14.—**Wallington.**—MATERIALS.—For supply of road and other materials, for one year, for U.D.C. Mr. S. F. R. Carter, Surveyor, Council Offices, Wallington, Surrey.

FEBRUARY 16.—**Bedford.**—MATERIALS.—For supply of road materials and for cartage of road materials, for C.C. County Surveyor, Shire Hall, Bedford.

FEBRUARY 16.—**Stafford.**—MATERIALS.—Supply of stores and materials to the T.C. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford.

FEBRUARY 18.—**Long Sutton.**—ROAD MATERIALS.—For supply of road material to the U.D.C. Surveyor, Long Sutton, Lincs.

FEBRUARY 18.—**Southport.**—MATERIALS.—Supply of various materials to the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport.

FEBRUARY 20.—**Hammersmith.**—MATERIALS.—Supply of stores and materials for the various departments of the B.C. Borough Engineer, Town Hall, Hammersmith, W.

FEBRUARY 21.—**Frome.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. L. Slaughter, Public Offices, Frome.

FEBRUARY 21.—**Greenwich.**—MATERIALS.—For supply of road and other material, for one year, for B.C. Borough Engineer, Town Hall, Greenwich-road, S.E. 10.

FEBRUARY 25.—**St. Marylebone.**—MATERIALS.—Supply of tools and ironmongery, &c., to Highway Dept. of B.C. Mr. J. Gair, Engineer, Town Hall, Marylebone-road, N.W.

FEBRUARY 29.—**Canterbury.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. P. H. Warwick, City Surveyor, Canterbury.

FEBRUARY 29.—**Ossett.**—MATERIALS.—For supply of materials, stores, workmen's tools, &c., for one year, for T.C. Borough Surveyor, Town Hall, Ossett.

FEBRUARY 29.—**Upholland.**—MATERIALS.—For road and other materials, for one year, for U.D.C Mr. A. Hunt, Clerk, Upholland, Lancs.

✱NO DATE.—**Chartham, near Chatham.**—KITCHEN EQUIPMENT.—Supply of kitchen equipment, for the Committee of the Kent County Mental Hospital, Chartham, near Canterbury. Clerk and Steward, as above.

ENGINEERING, IRON AND STEEL.

FEBRUARY 4.—**Cardonald, &c.**—BRIDGE STRENGTHENING.—For strengthening of overbridges at Cardonald and footbridge at Hamilton, for the London, Midland and Scottish Railway Co. (Northern Division). Divisional Engineer, Buchanan-street Station, Glasgow. Deposit £2 2s.

✱FEBRUARY 4.—**Douglas.**—HEATING AND LIGHTING.—For either the scheme for heating or the scheme for lighting the Secondary School for Boys now in the course of erection. Mr. T. R. Lewin, Clerk of the Isle of Man Education Authority, Regent-street, Douglas, Isle of Man. Deposit £1 1s.

FEBRUARY 4.—**Dublin.**—STEELWORK.—**Supply to the Midland Great Western Railway of Ireland of steelwork for canal footbridge, Maynooth. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.**

★FEBRUARY 4.—**Epsom, Surrey.**—WROUGHT IRON FENCING.—Supply, delivery and fixing at West Park Mental Hospital, Epsom, Surrey, of about 1,750 yards lineal, more or less, of unclimbable wrought iron fencing 6 ft. high above ground and 20 gates, for the London County Council. Mental Hospitals Engineer, Room 669, The County Hall, Westminster Bridge, S.E.1.

FEBRUARY 4. — **Holytown.** — FOOTBRIDGE. — Providing and erecting of the footbridge required at the level crossing at Holytown Junction, for the London, Midland and Scottish Railway Co. (Northern Division). Divisional Engineer, Buchanan-street Station, Glasgow. Deposit £2 2s.

FEBRUARY 4.—**Manchester.**—CRANE.—For one locomotive jib crane and grab. Mr. S. L. Pearce, Electrical Engineer, Dickinson-street, Manchester. Deposit £1 1s.

FEBRUARY 4.—**Salford.**—COOKING EQUIPMENT.—For a complete cooking and kitchen equipment at Ladywell Sanatorium, for the T.C. Medical Officer of Health, 143, Regent-road, Salford.

FEBRUARY 4.—**Stoke-on-Trent.**—ELECTRIC LIGHT.—For the installation of electric light in three pairs of new cottages at the Penkhull Children's Homes, for the Board of Guardians. Mr. T. Wood, Clerk, Union Offices, Stoke-on-Trent.

FEBRUARY 5.—**Broadstairs.**—WATER TOWER.—For construction of a reinforced concrete reservoir tower and tank at Rumfields Pumping Station, for U.D.C. Messrs. H. Rolfe & Son, 208, Abbey House, Victoria-street, Westminster, S.W.1. Deposit £2 2s.

FEBRUARY 5.—**Colwyn Bay.**—ROLLER.—Supply of 10-ton compound roller to the U.D.C. Mr. W. J. Dunning, Surveyor, Council Offices, Colwyn Bay.

FEBRUARY 5.—**Egypt.**—PUMPING PLANT.—For supply and erection of a pumping plant to replace an existing steam plant at Qussassin. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, S.W.1. Charge 10s.

FEBRUARY 5.—**New Zealand.**—GIRDER SPANS.—Supply of plate girder spans to the Public Works Tender Board, New Zealand, for the Stratford Main Trunk Railway. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 12569/ED/EC.

FEBRUARY 5.—**Richmond (Surrey).**—PIPES.—Supply of 80 tons of 9 in. and 7 in. dia. cast-iron pipes and special castings to the T.C. Mr. H. Will. Apted, Water Engineer, Waterworks, Richmond.

FEBRUARY 5.—**Sheffield.**—RIVER WALLS, &C.—For construction of mass concrete river walls and blue brick invert to River Sheaf at Broadfield-road, for the T.C. Improvement Surveyor, Town Hall, Sheffield. Deposit £5.

FEBRUARY 6.—**Rawtenstall.**—ELECTRIC LIGHT.—For carrying out electric light installation at extension of Central Market, for T.C. Borough Electrical Engineer, Tramways and Electricity Offices, Bacup-road, Rawtenstall. Deposit 10s. 6d.

FEBRUARY 8.—**Portsmouth.**—ELECTRIC LIGHT.—For carrying out electric light installation at the Grammar School. Clerk to the Governors, Grammar School, Portsmouth.

FEBRUARY 8.—**Tiverton.**—POWER STATION.—For buildings and plant in connection with the installation of an electric supply in Tiverton. Mr. T. E. Corrigan, Gas Office, Blundells-road, Tiverton. Deposit £2 2s.

FEBRUARY 9.—**Bingley.**—ROLLER.—Supply of 10-ton nominal compound steam road roller, also independent scarifier, for the U.D.C. Mr. H. Bottomley, Surveyor, Town Hall, Bingley.

FEBRUARY 9.—**St. Ives.**—WATER-SOFTENING PLANT.—Supply of a water-softening apparatus at alternative prices, for dealing with 100, 150, and 200 gallons an hour, to the Board of Guardians. Mr. G. D. Day, Clerk, The Broadway, St. Ives, Hunts.

FEBRUARY 9.—**Tadcaster.**—ELECTRIC LIGHTING.—For electric lighting, Infectious Diseases Hospital, Garforth, for the R.D.C. Mr. Geo. A. Bromet, Clerk, Tadcaster.

FEBRUARY 11.—**Dunstable.**—HEATING.—For heating offices with hot-water radiators and boiler, for T.C. Mr. W. F. Wilkins, Borough Surveyor, Town Hall, Dunstable.

FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.—For engine and pumping plant, for the U.D.C. Mr. S. W. Parker, Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.

FEBRUARY 11.—**Sheerness.**—CAST-IRON PIPES.—For supply of 25 tons of 3 in. cast-iron pipes and specials, for U.D.C. Surveyor, Council Offices, Sheerness.

FEBRUARY 11. — **Windsor.**— RECONSTRUCTION OF ENGINEERING SERVICES.—Reconstruction of the engineering services at the Poor Law Institution, Old Windsor, Berks, for the Guardians of the Windsor Union. Constructors must tender for the whole of the work. Mr. Walter W. Nobbs, M.I.Mech.E. (the Consulting Engineer in charge of the works), of 50, Fairhazel-gardens, N.W. 6. Deposit £5 5s.

FEBRUARY 12.—**Carlisle.**—BRIDGES.—For designs and tenders for erection of steel superstructures for two bridges on new loop road, Whitehaven, for the Cumberland C.C. Mr. G. O. Lockwood, County Surveyor, Carlisle. Deposit £2.

FEBRUARY 12.—**Durham.**—BRIDGES.—Construction of new bridges and the widening of existing bridges, for the Durham C.C., viz.: (1) New Derwent Bridge, near Swalwell (three spans and raised approaches); (2) new Lambton Bridge, near Chester-le-Street (three spans and improvement of approaches); (3) new bridge at Croxdale (four spans and new approaches); (4) widening of Browney Bridge near Croxdale; (5) Haughton-le-Skerne new bridge, near Darlington (one span and diverting approaches); (6) Gaunless Bridge, at Bishop Auckland (two reinforced concrete culverts and embankments); (7) widening of St. Helen's Auckland Bridge; (8) Great Burdon Bridge, near Darlington (underpinning foundations and strengthening existing approaches); (9) Whitton, near Stockton (new bridge and approaches); (10) Langley Bridge, near Durham (widening existing structure); (11) Whitehill Gate Bridge, near Chester-le-Street (rebuilding and widening); (12) Ryhope Dene Bridge, near Ryhope (reinforced concrete culverts and embankments). Mr. A. E. Brookes, County Engineer, Shire Hall, Durham. Deposit £2 2s.

FEBRUARY 12. — **Manchester.** — TRACK WORK.— Supply of permanent way special track work to the T.C. Mr. H. Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester. Deposit £1 1s.

FEBRUARY 12. — **Norwich.** — STEELWORKS.— For the steel constructional work for the new generating station at Thorpe Marshes, for the T.C. Mr. A. E. Collins, City Engineer, Guildhall, Norwich. Deposit £10.

FEBRUARY 12.—**Truro.**—FLOATING BRIDGE.—Construction of a large steam chain floating bridge for use on its ferry service between Devonport and Torpoint, for the Cornwall C.C. Mr. W. L. Platts, Clerk, County Hall, Truro. Deposit £2 2s.

FEBRUARY 13.—**Caistor.**—ELECTRICAL INSTALLATION.—Provision and fitting of a complete electric lighting installation at the Institution of the Board of Guardians. Mr. A. A. Padley, Clerk, Union Offices, Caistor.

FEBRUARY 13.—**Stoke-on-Trent.**—STEELWORK.—For steelwork for foundation to central power house, &c. Borough Electrical Engineer, Stoke.

FEBRUARY 14.—**Argentine.**—POWER STATION.—**For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.**

FEBRUARY 14.—**Portland.**—ROOF.—Taking down of existing roof and constructing reinforced concrete roof for Yeates Reservoir, for U.D.C. Mr. R. Davison, Surveyor, Council Offices, Portland.

FEBRUARY 15.—**London.**—WIRE.—Supply of electric light wire and cable to H.M. Commissioners of Works. Controller of Supplies, H.M. Office of Works, King Charles-street, S.W.

FEBRUARY 16.—**Cromer.**—PUMPING PLANT.—Erection and setting to work of pumping machinery and boiler at the pumping station, Metton, for the U.D.C. Messrs. J. C. Melliss & Co., 156, Gresham House, Old Broad-street, E.C.2. Deposit £5.

FEBRUARY 18.—**Bristol.**—ELEVATOR.—For the construction of a floating pneumatic grain elevator, to handle 150 tons per hour, at the Avonmouth Docks, for the Docks Committee. Mr. T. A. Peace, Engineer, Port of Bristol. Deposit £5.

FEBRUARY 18.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland Company of steelwork, for Bridge No. 206. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

FEBRUARY 25.—**Edinburgh.**—WASHHOUSE EQUIPMENT.—For the engineering equipment of a new public washhouse to be erected at Abbeymount (including new steam boiler and other relative plant), for the T.C. Mr. James A. Williamson, City Architect, Public Works Office, Edinburgh.

FEBRUARY 27.—**Madras.**—PIPES.—Supply of cast-iron pipes, special castings, &c., to the T.C. Messrs. J. Mansergh & Sons, agents to the Corporation, 5, Victoria-street, S.W.

MARCH 1.—**Jamaica.**—DAM.—For the construction of a cyclopean masonry dam and contingent works required in connection with the extension of the Kingston and St. Andrews Water Works. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.

MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £10 10s.

MARCH 12.—**Madras.**—PUMPING PLANT.—Supply of sewage pumping machinery to the T.C. Messrs. J. Mansergh & Sons, agents, 5, Victoria-street, S.W. Deposit 10s. each of two contracts.

MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

MAY 1. — **China.** — BRIDGE. — **The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.**

MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.

NO DATE.—**Birtley.**—ELECTRICAL INSTALLATION.—For supplying and erecting poles and fittings in streets (Council), for the Parish Council. Mr. R. Hobson, Clerk, 6, Gladstone-terrace, Birtley.

NO DATE.—**Bradford.**—ELECTRIC LIGHT INSTALLATION.—For the installation of electric light at the Daisy Hill Institution and at the Stores of the Bowling Park Institution, for the B.G. Mr. Fred Holland, architect, 22, Manor-row, Bradford. Deposit £1 1s.

ROAD, SANITARY, AND WATER WORKS.

FEBRUARY 4.—**Arbroath.**—ROADS.—For the relaying with granolithic of about 7,000 yds. of footways, for the T.C. Mr. D. H. Shaw, Burgh Engineer, Arbroath.

FEBRUARY 4.—**Loughborough.**—ROADS.—Making-up Knightthorpe-road, for the T.C. Mr. A. H. Walker, Borough Surveyor, Town Hall, Loughborough. Deposit £3 3s.

FEBRUARY 4.—**Southborough.**—HEADINGS.—For driving 100 yds. of headings at the Waterworks at Upper Haysden, for the U.D.C. Messrs. G. & F. W. Hodson, Loughborough. Deposit £5 5s.

FEBRUARY 4.—**Sutherland.**—WATER MAIN.—For extending the main supply pipe from Londornach to Loch Laoigh, for the Sutherland C.C. Messrs. Geo. Gordon & Co., civil engineers, Inverness.

FEBRUARY 4.—**Waterloo-with-Seaforth.**—SEWERS.—For construction of main sewer on the foreshore between Holden-street and Brooke-road, Waterloo, for U.D.C. Mr. J. R. Fothergill, Surveyor, Town Hall, Waterloo.

FEBRUARY 5.—**Bedlingtonshire.**—ROADS, &C.—For the making-up of Catholic-row, Bedlington, and construction of a sewer near Bridge-terrace, for the U.D.C. Mr. J. W. Pooley, Surveyor, Bedlington.

FEBRUARY 5.—**Cheriton.**—ROADS.—**For private street improvement works in Marler-road and Kent-road, for the U.D.C. Mr. A. S. Lilley, Surveyor, Public Offices, Cheriton.**

FEBRUARY 5.—**Easington.**—ROADS.—For making-up a number of streets, for the R.D.C. Mr. R. Urwin Harper, Highway Surveyor, Castle Eden, co. Durham.

FEBRUARY 5.—**Enfield.**—SEWER.—Construction of 700 yds. of 9 in. stoneware surface water sewer and laying of 680 yds. of granite kerb, for U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield. Deposit £2 2s.

FEBRUARY 5.—**London, N.W.3.**—HOUSE REFUSE.—Daily removal and disposal of pulverised house refuse from the Dust Disposal Dept., adjoining the Metropolitan Railway, West Hampstead Station, N.W.6, for the Hampstead B.C. Mr. Arthur P. Johnson, Town Clerk, Town Hall, Haverstock-hill, N.W.3.

FEBRUARY 5.—**Sedbergh.**—WATER SUPPLY.—**For laying about 2,200 lin. yds. of 5 in., 4 in., and 3 in. cast-iron pipes, construction on an intake tank, mechanical filters, concrete service tank (95,000 galls.), &c., for the R.D.C.** Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5.

FEBRUARY 5.—**Swansea.**—ROADS.—Supplying and laying asphalt paving, for the T.C. Mr. J. R. Heath, Borough Surveyor, Guildhall, Swansea.

FEBRUARY 5.—**Whitchurch.**—ROLLING.—For steam rolling in their district for one year, for the R.D.C. Mr. John T. P. Clarke, Clerk, Whitchurch, Hants.

FEBRUARY 6.—**Birmingham.**—SEWAGE DISPOSAL.—For the reconstruction of the sewage disposal plant and drains at Wassell-grove Convalescent Home, near Stourbridge, for the Board of Guardians. Mr. James Curtis, Clerk, Union Offices, Edmund-street, Birmingham. Deposit £1 1s.

FEBRUARY 6.—**Birmingham.**—SEWERS.—Construction of 140 yds. brick and concrete sewers, 51 in. and 42 in. in dia., and 3,810 yds. stoneware pipe sewers, 24 in. to 9 in. in dia., in the Billesley Farm Triangle Housing Estate, Billesley, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

FEBRUARY 6.—**Cardiff.**—ROADS.—(a) Road widening and culverting at Beulah Cross-roads, and (b) widening Old Church-road, for the R.D.C. Mr. William Farrow, Surveyor, Park House, 20, Park-place, Cardiff.

FEBRUARY 6.—**Rhoose (Glam.).**—WATER MAINS.—For providing and laying of about 700 lineal yds. of 4-in. cast-iron water main, with all necessary valves, fittings, &c., at Fontigary-road, Rhoose (near Barry), for the Cardiff R.D.C. Mr. William Farrow, surveyor, 20, Park-place, Cardiff.

FEBRUARY 6.—**Stockton-on-Tees.**—SEWERS.—For the construction of 465 lin. yds. of 9 in. pipe sewers in Bishopton-road, &c., for the T.C. Mr. J. P. Wakeford, Borough Engineer, Victoria Buildings, Stockton-on-Tees.

FEBRUARY 6.—**Watford.**—ROADS.—**For construction of new estate roads and sewers, &c., at Wiggenhall, for T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.**

FEBRUARY 6.—**Whitchurch (Glam.).**—ROAD WIDENING, &C.—For (*a*) road widening and culverting at Beulah Cross Roads, and (*b*) widening of Old Church-road, at Whitchurch, for the Cardiff R.D.C. Separate tenders required. Mr. William Farrow, Surveyor, 20, Park-place, Cardiff.

FEBRUARY 7.—**Acton.**—ROADS.—For (1) extension of Noel-road, including construction of main sewers; (2) resurfacing with granite setts part of dust destructor road, for B.C. Borough Surveyor, Municipal Offices, Acton, W.3.

FEBRUARY 7.—**Kendal.**—ROADS.—For widening and improving the Kendal–Grayhill–Tebay road, for the South Westmorland R.D.C. Mr. J. W. Nelson, Surveyor, 17, Lowther-street, Kendal. Deposit £1 1s.

FEBRUARY 7.—**Londonderry.**—ROADS.—For reconstruction of about 50 miles of roads, for the C.C. Mr. T. B. Adams, Secretary, County Courthouse, Londonderry.

FEBRUARY 7.—**Stockport.**—MANUAL AND TEAM LABOUR.—For (1) manual and team labour for paving and repairing carriageways; (2) manual and team labour for masons' work on footpaths, &c., for T.C. Mr. H. Hamer, Borough Surveyor, Town Hall, Stockport.

FEBRUARY 7.—**Swansea.**—SEWERS.—For construction of stoneware and cast-iron sewers at Llansamlet, totalling 9,943 lineal yds., for the T.C. Mr. J. R. Heath, Engineer, Main Drainage Dept., Guildhall, Swansea. Deposit £5 5s.

FEBRUARY 8.—**Aberystwyth.**—SEWER WORKS.—For carrying out for B.C. the construction of sewers, with manholes and storm overflows. Messrs. James Diggle & Son, engineers, 14, Brown-street, Manchester. Deposit £3 3s.

FEBRUARY 9.—**East Lothian.**—EXTENSION OF MAINS.—For construction of pipe lines between Humble Station and Fountain Hall, for the East Lothian Western District Water Board. Water Superintendent, Bank of Scotland Buildings, Haddington. Deposit £2 2s.

FEBRUARY 9.—**Lancashire.**—ROADS.—Construction of a new road and the widening and reconstruction of part of the existing main road between the "Rose and Crown Inn," Much Hoole, and Sollom, for the Lancashire C.C. County Surveyor, County Offices, Preston.

FEBRUARY 9.—**Penistone.**—SEWAGE EXTENSIONS.—Laying about 350 lin. yards of surface water drains, together with extensions and alterations to the sewage disposal works, for the U.D.C. Mr. F. J. Rodwell, 37 and 38, Prudential Assurance Buildings, Park-row, Leeds. Deposit £2 2s.

FEBRUARY 11.—**Bedwellty.**—STREET WORKS.—For carrying out, for the Bedwellty U.D.C., the following street works: Sewering, levelling, metalling, flagging, channelling and making good (*a*) Pentwyn-street, Blackwood, (*b*) South View-road, Blackwood, (*c*) Pentwyn-avenue, Blackwood. Mr. Dan. H. Price, Surveyor, Council Offices, Aberbargoed.

FEBRUARY 11.—**Coseley.**—SEWERS.—Construction of stoneware and cast-iron sewers, from 6 in. to 24 in. diameter, &c., for the U.D.C. Messrs. Berrington, Son & Watney, Prudential Chambers, Lichfield-street, Wolverhampton. Deposit £5 5s.

FEBRUARY 11. — **Eccles.** — SEWAGE WORKS.—For additions and alterations to the sewage works of the T.C. Mr. Thomas S. Picton, Borough Engineer, Town Hall, Eccles. Deposit £3 3s.

FEBRUARY 11.—**Huddersfield.**—SEWERS.—Construction of 1,388 lineal yards of earthenware pipe and cast-iron pipe sewers, of internal diameters varying from 5 in. to 12 in., in two sections, for the T.C. Borough Engineer, 1, Peel-street, Huddersfield.

FEBRUARY 11.—**Manchester.**—ROADS.—(1) Construction of carriageway and footway, Princess-road; (2) construction of carriageway and footway, Kingsway-road; (3) construction of second carriageway and footway, Royton to Failsworth-road, for the T.C. City Engineer, Town Hall, Manchester. Deposit £2 2s.

FEBRUARY 11.—**Repton.**—SEWERS.—For laying 700 yds. of 9 in. stoneware pipe sewers, &c., at Linton, for R.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £5 5s.

FEBRUARY 12.—**Birkenhead.**—SEWER.—For the construction of 421 yds. of brick and reinforced concrete sewer, and 580 yds. of reinforced concrete sewer, for the T.C. Mr. C. Brownridge, Borough Engineer, Town Hall, Birkenhead. Deposit £3 3s.

FEBRUARY 12.—**Southgate.**—ROADS.—(1) Widening and making-up part of Bourne Hill; (2) widening and making-up Wolves-lane; (3) sewers in Winchmore Hill-road; (4) sewer in Eversley Park-road, for the U.D.C. Mr. R. Phillips, Surveyor, Town Hall, Palmers' Green, N.

FEBRUARY 12.—**Worsborough.**—SANITARY.—For the conversion of trough closets into pedestal latrines, pointing to walls, &c., at Worsborough Blacker Council School, for the West Riding E.C. Education Department, County Hall, Wakefield.

FEBRUARY 13.—**Eccles.**—ROADS.—For making-up Cavendish-street, Vaughan-street (part of), back Catherine-street South, No. 1, back Catherine-street South, No. 2, and various passages, for the T.C. Mr. Thomas S. Picton, Surveyor, Town Hall, Eccles. Deposit £1 1s.

FEBRUARY 13.—**Edmonton.**—TENNIS COURTS.—For laying of twelve hard tennis courts at Recreation Ground, Church-street, for the U.D.C. Mr. Cuthbert Brown, Surveyor, Town Hall, Edmonton, N.9.

FEBRUARY 13.—**Fulham.**—ROADS.—For making-up Sulivan-road, for B.C. Mr. A. F. Holden, Borough Surveyor, Town Hall, Fulham, S.W.6.

FEBRUARY 13.—**London.**—REFUSE REMOVAL.—For removal of furnace refuse, &c., for periods of six and twelve months, for Metropolitan Water Board. Chief Engineer, Metropolitan Water Board, New River Head, 173, Rosebery-avenue, E.C.1.

FEBRUARY 13.—**Middleton.**—ROADS.—For making-up Cowper-street, Laurel-street, and Saville-street, Middleton Junction, and for partial making-up Mary-street, Glebe-street, and Mitchell-street, Middleton, for T.C. Borough Engineer, Town Hall, Middleton, Lancs.

FEBRUARY 13.—**Rothesay.**—SEWERAGE.—For reconstruction of certain sewers within the town, together with an intercepting outfall sewer, 2,610 yds. long, for T.C. Mr. J. B. Brodie, engineer, 141, West George-street, Glasgow. Deposit £5.

★FEBRUARY 13.—**Wembley.** — PUBLIC CONVENIENCE. — Construction of a public convenience at Wembley Green, within the Wembley Urban District. Mr. Walter H. Lewis, acting Engineer and Surveyor, Council Offices, Wembley, Middlesex. Deposit £2 2s.

FEBRUARY 14.—**Lambeth.**—ROADS.—For tar-spraying of roads for one year, for the B.C. Mr. B. Cattlin, Borough Engineer, Town Hall, Brixton-hill, S.W.

FEBRUARY 16.—**Greenock.**—ROADS, &c.—Construction of streets and sewers in connection with the Cowdenknowes housing scheme, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

FEBRUARY 16.—**Seisdon.**—SEWAGE WORKS.—Construction of sewerage and sewage disposal works at Codsall, for the R.D.C. Mr. W. Cannan, engineer, Wombourn, Wolverhampton. Deposit £5 5s.

FEBRUARY 18.—**Hertford.**—SEWAGE WORKS.—Construction of activated sludge treatment works, for the T.C. Messrs. J. Taylor & Sons, 36, Victoria-street, S.W. Deposit £5.

FEBRUARY 18.—**Wigan.**—RECONSTRUCTION.—For reconstruction of the Hoscar and Pemberton sewage disposal works, for T.C. Mr. R. B. Donald, Borough Engineer, Municipal Buildings, Wigan. Deposit £3 3s

FEBRUARY 18.—**Wimbledon.**—ROADS.—For the making-up of Laurel-road, Melbury-gardens (Section 1), Melbury-gardens (Section 2), for the B.C. Borough Engineer, Town Hall, Wimbledon.

FEBRUARY 19.—**Batley.**—EMBANKMENT.—For the construction of an embankment, &c., for the formation of a reservoir, with ancillary works, in the Valley of the River Holme, a few miles from Holmfirth, for the T.C. Messrs. G. H. Hill & Sons, civil engineers, 40, Kennedy-street, Manchester. Deposit £5 5s.

FEBRUARY 22.—**Adwick-le-Street.**—SEWAGE DISPOSAL WORKS.—Extensions to the sewage works, for the U.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street. Deposit £3.

MARCH 1.—**Montgomeryshire.**—STORAGE RESERVOIR AND WATER MAINS.—Construction of a small storage reservoir, and the laying of a main in connection with an additional water supply, for the T.C. of Llanidloes. Mr. James Grant, Surveyor, Llanidloes, Montgomeryshire.

NO DATE.—**Boroughbridge.**—BOWLING GREEN.—For the laying of a bowling green at Boroughbridge. Secretary, Cricket Club, Boroughbridge.

Competitions.

(*See Competition News, page* 172

Auction Sales, Tenders, etc.

★FEBRUARY 5 AND THE FOLLOWING DAYS.—**Renfrewshire.**—Messrs. James Laird & Son will sell by direction of the Messrs. George Cohen & Armstrong Disposal Corporation, at C.S. Depot No. 83, Georgetown, Renfrewshire, contractors' and miscellaneous stores, office furniture, &c. Auctioneers, 70, Bath-street, Glasgow.

★FEBRUARY 6.—**Aldershot.**—Messrs. Hewett & Lee will sell, by direction of the George Cohen & Armstrong Disposal Corporation, at R.E. Stores, Stanhope, Marlborough and Wellington Lines, a large assortment of surplus stores, building, ironmongery accessories, &c. Auctioneers, 144, High-street, Guildford, and South-street, Farnham.

FEBRUARY 7.—**London, E.9.**—Mr. F. H. Clark will sell, without reserve, final clearance auction sale of all remaining timber and builders' material resultant of the demolition of the National Projectile Factory, Hackney Marshes, E.9. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

FEBRUARY 7.—**London, W.1.**—Messrs. Knight, Frank & Rutley, in conjunction with Messrs. Oakden & Co., will sell, by direction of the Eastbourne Waterworks Company, the freehold commercial site of about 4¼ acres, including detached double-fronted residence, factory and warehouse buildings. Auctioneers, 20, Hanover-square, London, W.1.

FEBRUARY 12. — **Bloomsbury.**— Messrs. J. W. Coade, Son, & Budgen will sell, by order of the National Council of Y.M.C.A.s, valuable building materials forming the standing structures known as the Shakespeare Hut, Gower-street, Bloomsbury, W.C.1. It will be offered for sale in one lot on the premises. Auctioneers, 118, Southampton-row, W.C.1.

★FEBRUARY 12.—**London, E.C.4.**—Messrs. Henry Butcher & Co. will sell, at the London Auction Mart, 155, Queen Victoria-street, E.C.4, the freehold showrooms, warehouse, or workshops, Nos. 61, 63 and 65, Loanpit Vale, Lewisham, S.E.13. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

★FEBRUARY 12.—**Oxted, Surrey.**—Mr. C. E. Clark will sell, without reserve, at Master Park, Oxted, Surrey, timbers and building effects, 300 squares, weather boards, 300 deal four-panel doors, &c. Auctioneer, Beddington House, Beddington, near Croydon.

★FEBRUARY 21.—**London, N.**—Messrs. Veryard & Yates will sell, without reserve, at 109, Stoke Newington-road, N., a large stock of building materials of various varieties. Auctioneers, 365, Norwood-road, S.E.27.

FEBRUARY 21.—**Orpington, Kent.**—Messrs. W. Levens & Son, F.A.I., will sell by auction (unless previously disposed of by private treaty), by order of the executrix of the late Mr. H. M. Glassup, Orpington, Kent, on the premises, freehold business premises known as "Mayfield Cottage," High-street, together with the goodwill and stock-in-trade of a sanitary engineer and decorator. Auctioneers, Station-approach, Orpington.

MAY 6.—**London, W.1.**—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

★FEBRUARY 6.—**Manchester.**—Clerk of Works required by the Education Committee to supervise erection of new schools, &c. Chairman of the Education Committee, Education Offices, Deansgate, Manchester.

★FEBRUARY 11.—**Romford, Essex.**—Clerk of Works required in connection with the extension of the Hospital, &c., at the Institution, Romford Union. Mr. Raymond H. Mason, Clerk to the Guardians, Union Offices, The Institution, Romford.

★FEBRUARY 13.—**Harrow-on-the-Hill.**—Town Planning Assistant required in the Surveyor's Department. The appointment will be a temporary one, preference being given to those who hold the Certificate of the Town-Planning Institute. Mr. John Strachan, Clerk to the Council, Council Offices, Harrow.

★FEBRUARY 16.—**London, E.**—Works Manager required in the Borough Engineer's Department by the Council of the County Borough of West Ham. Town Clerk, Town Hall, West Ham, E.15, together with not less than three recent testimonials.

★NO DATE.—**Woolwich, S.E.**—Required at once, for temporary service under the Commanding Royal Engineer, Woolwich, (a) Clerk of Works, (b) Surveyor's Clerk. C.R.E., R.E. Office, New-road, Woolwich.

Builder's Estate.

Mr. Henry Herbert Ellis, of Moorfield-road, Pendleton, Lancs, builders' merchant, Salford, left £20,201, with net personalty £20,163.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council: B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—Plans passed by T.C.: House, Bon-Accord-street, for Mr. Robert M. Ross, per Mr. G. Bennett Mitchell, architect; bungalow, Anderson-drive, for Mr. John Milne, wholesale merchant, per Mr. George Watt, architect; bungalow, Hilton-street, for Mr. Hugh M'Kay, grocer, per Messrs. Williamson & Bell, architects; alterations at Union Works, Guild street, for Pirie, Appleton & Co., Ltd., per Messrs. Jenkins & Marr, architects; reconstruction of roof at No. 41, Regent-quay, for Messrs. George Garrod & Sons, coopers, per Mr. George Watt, architect; alterations at the Royal Infirmary (Surgical Block), for the Directors, per Messrs. Kelly & Nicol, architects; six houses, Broomhill-road, for the Broomhill Home Building Syndicate, per Messrs. M'Andrew & Sutherland, architects; extension of premises, Berryden-road, for the Northern Co-operative Society, Ltd., per Messrs. Wilson & Walker, architects; hall and priest's house, Water-lane, for the Trustees of St. Clement's Episcopal Church, per Messrs. Kelly & Nicol, architects; two houses, Hammerfield avenue, for Mr. William Murray, builder; bungalow, Hilton-street, for Mr. Thomas T. Dobbie, manager, per Mr. William E. Gauld, architect; two houses, Ashley-road and north side of Ashley-gardens, for Mr. John Rodger, commercial traveller, and Mr. James Philip, manager, per Messrs. D. & J. R. M'Millan, architects; bungalow, Deemount-road, for Mr. William Thomson, retired teacher, per Messrs. D. & J. R. M'Millan, architects; three houses, Froghall-terrace, for Mr. Alexander Leask, carpenter, per Mr. George Watt, architect: two bungalows, Gray street, for Mr. Alexander Ritchie, fruiterer, and Mr. Alexander Forrest, ship steward, per Messrs. Sutherland & George, architects; bungalow, Deemount road, for Mr. James Moir, Culduthil, Inverness, per Messrs. D. & J. R. M'Millan, architects; two houses, Ashley-gardens, for Messrs. D. & J. R. M'Millan, architects; two houses, Brighton-place, for Messrs. D. & J. R. M'Millan, architects; bungalow, Broomhill-road, for Mr. John M. Frost, spirit merchant, per Mr. William E. Gauld, architect.

ABRAM.—Plans of a house in Leigh-road, for Mr. F. Bowdell, have been passed by the U.D.C.

ACCRINGTON.—A shelter for children attending Spring Hill Council School is under consideration.

ADLINGTON.—To consider the question of a war memorial for the district, a public meeting was held in the Congregational Church School. After discussion it was resolved to request the D.C. to proceed with the acquisition of the Grove Field as a recreation ground and playing field to serve the purpose of a war memorial, the estimated cost, £1,500, to be raised by public subscription or by other voluntary efforts.

AMPTHILL.—Plan passed by U.D.C.: House, Chandos-road, for Mr. G. Botsford.

ANNFIELD PLAIN.—The U.D.C. have received intimation that the South Derwent Colliery Company, Ltd., contemplates building 80 houses at West Kyo, near the Council's housing site.

BEDFORD.—Plans passed by T.C.: Mr. E. H. C. Inskip, for Miss D. Dugmore, bungalow, London-road; Mr. G. P. Allen, for the Governors of the Harpur-Trust, lavatories, "East Lodge," Cardington-road; Mr. I. Daughtry, for Mr. F. Redman, alterations 62, St. Loyes-street.

BELFAST.—Plans passed: Four villas, off Irwin-avenue, for Mr. James H. Barton; villa in Marlborough Park, for Miss A. Matier (architect, Mr. J. Hosie); clubhouse, near Downview-avenue, for the Council of the Fortwilliam Golf Club (architect, Mr. J. C. Stevenson); lecture hall, on Donegall-road, for the committee of the Sandy-row Methodist Church (architect, Mr. F. D. Brown); villa, in Blodon-drive, for Mr. T. R. Malcolmson (architect, Mr. James Hunter); stores, in Ravensdale-street, for Mr. George McCall (architect, Mr. R. Lynn); additions to shops and warehouses, in King-street and Mill-street, for Mr. John Adams (architects, Messrs. Hobart & Heron); additions to match factory, on Donegall-road, for Messrs. Maguire & Patterson (architect, Mr. S. Stevenson); 12 villas, in Sagimor-gardens, for Mr. Hugh Mills (architect and builder, Mr. R. Barton); 38 terrace houses, in Connsbrook-street, for the East Belfast Building Society; villa, in College Park, for and to the plans of Mr. D. B. Marr.

BILLINGE.—The D.C. have decided to include in the estimates for next year a sum towards the cost of the proposed widening of Gantley-road and Rainford-road, in the first case to 50 ft., and the second to 33 ft. That the cost of land, estimated at £101 for Gantley-road, be met during the next financial year, and the narrowest part of Rainford-road be widened to begin with.

BIRKENSHAW.—Plans passed: Lay-out of estate in Station-road by Messrs. Jowett & Grayshon, and garage at "The Bungalow," in Bradford-road, for Mr. Swetenham. The U.D.C. has accepted a tender amounting to £1,811 for laying a concrete causeway from the Half Way House to the boundary at Driglington. A start will be made with the work immediately the sanction of the West Riding C.C. is forthcoming.

* See also our List of Contracts, Competitions, etc.

Blackburn.—The B.G. have approved the principle of erecting a Children's Hospital and Maternity Ward apart from the present Queen's Park Hospital.

Bromley.—Plans passed by T.C.: Two houses, Woodside-road, Mr. L. Jefford; house, Bromley Common, Mr. F. G. Crickett; two bungalows, Sunningdale-road, Messrs. Ecott, Widgery & Ecott; shop, High-street, Messrs. Lyons & Co., Ltd.; two houses, Avondale-road, Mr. A. Frampton.

Bury.—Plans have been approved for a pair of bungalows and 10 houses in different parts of the town. The Plans and Streets Improvements Sub-committee have considered the carrying out of street improvements in Roch-street, Stanley-street, Clough-street and bottom of Walmersley-road. Plans were presented of the proposed new bridge over the River Irwell at Warth Fold, in connection with the new road. The Borough Engineer was instructed to carry out such repairs as were necessary at the north end of Harwood-road. The Walshaw Mission Sunday School and Chapel require tenders for painting the outside and varnishing the inside of the premises. Mr. J. Heys, 35, Church-street, Walshaw, is the secretary.——The Corporation have instructed their Engineer to enquire with respect to land required for the widening of the bridge over the Goyt in Ainsworth-road. The Bury Cinematograph Co., Ltd., have purchased the Castle Cinema, Bolton-street. Alterations and improvements will be carried out.

Carshalton.—Plans passed by U.D.C.: House, the Crossways, for Mrs. Mair; bungalow, Downsroad, for Mr. Jago; rebuilding Lower Mill, Butterhill, for Mr. C. R. Leech; five shops, High-street, for Mr. Newman; house, Upland-roads, for Mr. A. R. Wordsworth; two pairs of houses, Harrow-road, for Mr. Hutcheson; four pairs of houses, Carshalton-road, for Mr. W. J. Wyatt; ten houses, Upper Vernon-road and twelve houses, Bramley road, by Messrs. Edser & Brown; pair of houses, Windborough road, for Mr. J. W. Harrison; house, Upland road, for Mr. J. Chapman; pair of houses, Carshalton-grove, for Mr. C. T. Lawrence; 28 cottages and eight flats, for the Carshalton U.D.C.

Castleford.—Plans passed: Three houses in Charles-street, for Mr. Sainter; and one house in Pretoria-street, for Mr. Sainter.—The Surveyor has been instructed to make a 15 ft. roadway at the Markets in tar macadam.

Cheadle.—Application has been made to the D.C. for subsidy grant for houses proposed to be erected by Mr. Murphy for 12 houses on land co-extensive with Church-road; Mr. W. Whitehead for two pairs semi-detached houses in Warren-avenue; Messrs. W. H. Hammond & Co. for one pair semi-detached in Swan-lane, Cheadle Hulme. The D.C. instructed their Surveyor to prepare plans and estimates for a sewer to be provided from Wiggin's-hill to the corner of Finney-lane.

Chester-le-Street.—The R.D.C. have approved plans submitted by the Lambton and Hetton Collieries, Ltd., for the erection of six houses at Fence Houses. The Council also decided to build 20 at Lumley by direct labour. The M.H. are to be asked to sanction the granting of the subsidy for 100 houses for the three months ending March 27, 1924.

Chorley.—The T.C. have approved the following recommendations of the Unemployment Sub-Committee relating to schemes to relieve unemployment: (1) A scheme for widening, where practicable, Southport-road to 60 ft.; (2) the widening of Buxton-lane where the road bends sharply; (3) laying out and draining of the Dissenters Ground at the Cemetery. The Town Clerk has been directed to acquaint the Corporation's technical advisers, Messrs. Dodd, Dodd & Watson, with the diversion of the river Chor into the sewers to the main sewage works, for the engineering firm's consideration, the Sanitary Committee having made alternative suggestions for the treatment of the river water, which would involve no change in the amount of loan applied for.

Clitheroe.—The Surveyor has been instructed to prepare a scheme for the widening of the road on both sides near the park gates at Brungerley Bridge.

Cranbrook.—Plans passed by R.D.C.: House at Hartley, for Mr. Middleton; house at Hawkhurst, for Major Townsend.

Darwen.—The Co-operative Society have decided to make a start with the house building experiment on the Two Gates site. It is also intended to provide a reading-room at Hollins-grove on premises recently acquired.——Schemes for work for the unemployed by the D.C. include widening and improving Bog Height-road, and widening and improving footpath opposite Astley Bank.

Dublin.—Plan passed: Two shops and dwellings in Dolphin's Barn-street, for Mr. F. J. Poole.—Plans have been prepared by Mr. F. J. McAuley, architect, 24, Nassau-street, for the building of two shops and house over Dolphin's at Barn-street, for Mr. F. J. Poole

Dunbar.—The Board of Health have sanctioned the erection of four additional houses under the housing scheme, thus bringing the number up to sixteen.

Dundee.—Plans and sections of proposed new buildings, &c., in Dundee have been lodged at the office of the City Engineer: Bingham-terrace, house and garage, for Wm. Gavine; Blackness-road, house, for David McCall; Gardner-street, &c., tenements, for Dundee T.C.; Seagate, alterations for the Loyal Order of Ancient Shepherds; Shepherd's Loan, house, for Agnes H. Shand; Strathern-road, garage for Bruce, Son, & Norton.

Eastry.—Plans approved by R.D.C.: Four bungalows, Eythorne, for Mr. R. Terry; bungalow, Preston Hill, Wingham, for Mr. F. A. Pilcher.

Edinburgh.—Warrants granted by Dean of Guild Court: Messrs. M'Kendrick & Co., six houses at Saughton Hall-drive; Mr. Thomas Robertson, cottage at Saughton-road, Corstorphine.

Egremont.—Plans have been submitted to the Cumberland E.C. for the erection of a new elementary school at Thorn Hill, at an estimated cost of £16,000.

Frinton.—The U.D.C. having applied for sanction to borrow £10,000 for cliff protection and sea defence, Mr. A. W. Brightmore, of the M.H., has held an inquiry, when the surveyor (Mr. Smith) stated that it was to be a plain sea-wall of concrete, faced with granolithic blocks to form the steps. It would act also as a retaining wall.

Glamorgan.—The County E.C. proposes to acquire Gnoll House, Neath, for purpose of converting same into a school.—The Penybont R.D.C. has received a report indicating that 75 houses are contemplated by applicants for subsidy assistance, and that a further 150 houses to be erected by private enterprise are likely to be commenced upon in the course of three months. The Council has received plans of proposed new mixed explosives magazine for Messrs. Nobels Explosives Co., Ltd., at Tondu. In accordance with the Council's instruction the surveyor has prepared plans for proposed additional Council houses at Pencoed and Llangynwyd. The Aberkenfig Building Club has notified the Council of its intention to erect a further 30 houses in the Penybont area. The Council proposes to erect new gas works buildings at Aberavon. The B.C. has applied to M.H. for sanction to erect an additional 100 houses. Formal notice has been given by Mr. Aaron John Legg, of Breen Reed Hotel, Aberavon, that he proposes to build a hotel at Clyne Farm, Clyne, Neath.—The M.H. is to hold a public inquiry into application of Caerphilly U.D.C. to acquire lands for the purpose of erecting Council offices and public lavatories.—Sanction has been received by the Penarth U.D.C. to its proposal to subsidise house building. In all subsidies are approved for 52 working-class houses, 40 of which are to be built by the Penarth Mutual Building Society.

Great Yarmouth.—The T.C. has passed plans prepared by the Borough Engineer for works at the East Quay and North Pier, estimated to cost £7,500.

Hailsham.—Plans passed by R.D.C.: House, London-road, Hailsham, for Mr. M. L. Lambert, of Eastbourne; house in Station-road, Hailsham, for Mr. A. E. Mason, of Hailsham; bungalow, Newick-road, Heathfield, for Mr. W. N. C. De Mattos, of Eastbourne; bungalow in Bexhill-road, Ninfield, for Mr. A. D. Kiernander, of Bexhill; detached house in Bexhill-road, Ninfield, for Mrs. Beaumont, of Ninfield.

Hemel Hempstead.—Plans passed by R.D.C.: Bungalow for Mr. H. Harris, Frenches Farm Estate, Chipperfield; also the following plans for which a subsidy grant was requested: Pair of houses, Frenches Farm Estate, for Mr. R. Marton; two bungalows, Shantock Farm-road, for Mr. G. Steer.

Hurst.—The Housing and Town Planning Committee resolved that subsidies be granted in the following cases:—E. Marchall & Sons, four houses in Higher King-street; W. Adams, four houses in Smallshaw-lane; H. Bracegirdle, one bungalow, in Higher King-street; S. Dyson, one bungalow in Higher King-street; and Messrs. Watson Bros. & Allen, two houses in Gorsey-lane.

Ilford.—Plans passed by U.D.C.: L.C.C., three lock-up shops and dwellings, Bennetts Castle-lane (corner of Linkway); J. G. P. Meaden, alterations to cottages, Dr. Barnardo's Homes, Barkingside; T. S. Lello, bungalow, Barley-lane; P. E. Brand, Ltd., 24 houses, 3 to 26, Kingsfield-gardens, Eastern-avenue; P. E. Brand, Ltd., shop, Eastern-avenue; E. A. Russell, 7 houses, 26–38, St. Luke's-avenue; A. G. Manning, 16 houses, 29–59, St. Luke's-avenue

Jersey.—Miss E. A. Barreau has offered £8,000 for the erection and endowment of an art gallery in Jersey.

Keresley.—To meet the needs of the district where the Warwickshire Colliery Co. are building 1,000 houses, the Warwickshire C.C. intend to erect a school.

Kilkeel.—Sanction has been given to the proposal of the Council to borrow £8,000 for the purpose of a new hospital; the balance of £3,000 will be a grant from the Ministry of Labour.

Lancaster.—The Lancaster T.C. announced that the Government had approved the scheme for widening the road from Owen-road to Scale Hall corner, thereby completing the new road to Morecambe. In addition, approval has been given for the extension of the electricity mains and for the laying of a new water main to augment the Morecambe and Heysham supplies. The West Lancashire Territorial Association has purchased land at Carnforth and Prescot on which will be erected new headquarters for the local companies. The Carnforth Co., which is attached to the 5th King's Own Royal Reg., will have up-to-date headquarters, consisting of clubrooms for officers, N.C.O.'s and men, a drill hall, and a miniature rifle range. It is hoped to have the plans completed very shortly. The Prescot Company is attached to that important branch, the Divisional Signals, and it is hoped to obtain sanction to proceed with the building in the immediate future. At Horwich, too, the headquarters of the Signals are to be extended.

Leeds.—The Tramways Committee propose to carry out the work of providing new covered shelters at the tram barriers in Briggate. The plans are in course of preparation. Messrs. Reynolds & Branson, Ltd., manufacturing chemists, have acquired the shop property adjoining their own premises in Lower Briggate. These premises are to be reconstructed, and tenders for the work are to be invited by the architect, Mr. W. F. Dawson, Albion-street, Leeds.

Limehurst.—The Manchester District Regional Committee had several tentative proposals before them for new roads through the Limehurst area. These include a road from Failsworth through Woodhouses to Ashton, with a branch off to Droylsden, and another from Hurst along Lees New-road through Springhead, to join Huddersfield-road beyond Oldham. The surveyor said it was also suggested that one new road should run from Richmond-street, Ashton, across the railway to Newmarket-road, towards the north-east side of Daisy Nook and past the Crime Lake to Failsworth.

Llandudno.—The U.D.C. has decided to apply to the M.H. for sanction to borrow £5,870 to defray the cost of the erection of a golf house on the magnificent municipal links at Maesdu.

London (Hammersmith).—The L.C.C. has sanctioned the B.C. borrowing £21,938 for housing purposes.

London (Lewisham).—Plans passed by B.C.: Two houses, Stanstead-road, for P. Smith; two houses, Marvels-lane, for G. W. Crosby; 40 houses, Ewhurst-road, for A. J. Glock; four flats, Sydenham Park, for Griggs & Son; house, Chinbrook-road, for Banks-Martin, Hammond & Co.

London (Paddington).—The Baths and Wash-houses Committee is recommending that it be referred to them to prepare a detailed scheme and estimate for developing the Porchester-road frontage of "The Lodge" site by erecting thereon a public hall, shops, offices, and if practicable, a lending library.

London (St. Pancras).—Vicarage, adjoining St. Mark's Church, Regent's Park-road.

Maldon.—The T.C. has a scheme for the widening and extension of the Marine Parade at a cost of £7,878, subject to a loan being allowed and a grant being made by the Unemployment Grants Committee.

Manchester.—The Manchester Housing Committee approved a report which had been prepared in favour of acquiring 41½ acres of land lying between Old Hall-lane, Yew Tree-road and Town Planning-road No. 22 in the district of Withington. On this land it is proposed to erect 484 houses and to reserve certain sites for shops. The Governors of the Grammar School have appointed Messrs. P. S. Worthington and F. Jones, F.R.I.B.A., of 178, Oxford-street, to collaborate plans for the proposed new Grammar School to be erected on a site at Fallowfield.

Middlesbrough.—The Corporation Plans Committee have approved two sets of plans with respect to houses.

Morecambe.—Plans passed by T.C.: Mr. J. R. Richardson, eight houses in Balmoral-road; Mr. A. Rycroft, motor-house, &c., West End-road; Mrs. Nuttal, motor-house, Balmoral-road; Morecambe Corporation, engine house and laboratory at Gas Works; Atkinson & Halliday, pair of semi-detached houses in Bare-lane.

Oldbury.—The E.C has again informed the Worcester C.C. Education Authorities of the urgent necessity for the provision of a new secondary school. The present accommodation is totally inadequate for present-day requirements.

Penistone.—The U.D.C. has decided to adopt a building scheme comprising 16 houses to the acre, with a minimum ground space of 300 yards per constructed house, with a stipulated period of twelve months for the completion thereof, the Council's subsidy to be £100 per house.

Preston.—Plans passed by T.C.: W. Smirk & Sons, 10 houses, Powis-road; R. Hothersall, 10 houses, Miller-road; J. Nightingale for Miss Hollyoak, house, Addison-road; J. Nightingale for Mr. Marks, house, Addison-road; G. Moorcroft, bungalow, Ribbleton-avenue; A. C. M. Lillie for A. Topping, bungalow Mayfield-road; G. Westcott for Messrs. Boddingtons' Brewery, alterations, Long-lane; F. Howorth for W. Beetham, house, Garstang-road; F. Howorth for Messrs. Miller & Wilkinson, two houses, Woodlands-avenue; J. J. Cox, dairy, 134, Adelphi-street; A. J. T. Ellison for T. Walmsley, additions, 76, Ripon-street; W. Mather, four houses, Winckley-road; A. J. T. Ellison for T. Sumner, house, Long-lane; J. C. Muir for A. Fiddler house, Holmrook-road; M. Wade, warehouse, Tenterfield-street; E. J. Andrew for T. Southworth, house, Holme Slack-lane.——The Housing Committee recommend the Council to prepare a town-planning scheme for the whole of the land within the Borough lying at the south of Broadgate, Fishergate-hill, Fishergate, Church-street and Newhall-street. The Ribble Committee ask for authority to construct a road on the north side of the dock from the timber pond entrance to the west end of the basin, at an estimated cost of £3,908. Application is to be made to the Unemployment Grants Committee for a grant in aid of the works. The Street and Buildings Committee recommend that Addison-road from Plungington-road to Brook-street, be sett paved, and from Brook-street to the canal bridge be paved with macadam and tar slag, at an estimated cost of £8,500. They recommend that the M.T. be applied to for a grant. With regard to the arterial road, the Finance Committee have approved the amended plan showing the improvement at Deepdale-road, involving the removal of the Isolation Hospital Lodge, at a cost of £4,200, including £560 for the provision of attendants' room, waiting room, &c., at the proposed new entrance to the hospital. A Committee has been formed to consider the provision of a town's war memorial of a monumental character, and as to the site upon which it is to be erected.

Rothwell.—Plans passed by U.D.C.:—Two houses at Denby Dale-road, Durkar, for Messrs. Wilson Bros.; bungalow, Durkar Low-lane, for Mr. S. Exley; house and shop, Pontefract-road, Sharlston, for Mr. H. Taylor.

Saddleworth.—The D.C. has decided to apply for sanction to proceed with the erection of 50 houses under the subsidy scheme.

Scarborough.—Improvements at the Spa, estimated to cost between £12,000 and £14,000, were indicated at the annual meeting of the Scarborough Spa Co.

Seaton.—The application of the U.D.C. to borrow £4,250 for the construction of the eastern promenade, supported by a sea-wall to run from the existing promenade to the Chine, has been the subject of an inquiry by Mr. F. O. Stanford, M.H. Inspector.

Slough.—Plans passed by U.D.C.: Mr. E. Stues, house in Langley-lane; Miss Peacock, house in Queen's-road; Mr. J. H. Smith, house, Queen's-road.

Stratford-on-Avon.—To find work for the unemployed and accommodate increased traffic, the T.C. proposes to widen the ancient Clopton Bridge, at a cost of over £20,000.

Teignmouth.—Plans for a new hospital have been placed before the committee by Mr. Leslie Moore, F.R.I.B.A. The building suggested would include

(*Continued on p.* 204.)

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick :—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
Headers	21 10 0	One Side and two Ends	31 10 0
Quoins, Bullnose and 4½ in. Flats	28 10 0	Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
⅜ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „ „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6

51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 6
„ Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. 2, d. 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube — 2 11½

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube — 4 4

Do. do. delivered on road wagons at above stations, per ft. cube — 4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London. s. d.

6 in. sawn two sides landings to sizes (under 30 ft. super.)	Per Ft. Super	5 3
6 in. rubbed two sides, ditto	„	5 9
3 in. sawn two sides slabs (random sizes)	„	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes)	„	1 5½
1½ in. to 2 in. ditto, ditto	„	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks	Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.)	Per Ft. Super	5 4½
6 in. rubbed two sides ditto	„	6 0½
4 in. sawn two sides slabs (random sizes)	„	2 10
3 in. ditto. ditto	„	2 5
2 in. self-faced random flags	Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¼ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage raid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or	5 5 7 6
Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	0 9 6
Hip and valley tiles (per dozen) Hand made	0 9 0
Machine made	

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work „	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ¼ in.	13 10 0
⅜ in.	14 10 0	½ in. to 2¾ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31¼%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¼	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 0 0	..	16 0 0
„ „ „ 24 g.	16 0 0	..	17 0 0
„ „ „ 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)

	£ s. d.
LEAD—Sheet. English, 4 lb. and up	42 10 0
Pipe in coils	43 0 0
Soil Pipe	46 0 0
Compo pipe	48 10 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

	£ s. d.	
Old lead, ex London area, at Mills per ton	27 0 0	—
Do., ex country, carriage forward per ton	28 0 0	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	4 in.
7/6	10/-	14/-	23/-	30/- 42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

¼ in.	½ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin „ „	0 2 4	.. —
Copper nails „	0 2 3	.. —
Copper wire „	0 2 4	.. —
TIN—English Ingots „	0 2 6	.. —
SOLDER—Plumbers' „	0 1 1	.. —
Tinmen's „	0 1 3	.. —
Blowpipe „	0 1 5	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 4 0
„ „ „ in barrels „	0 4 2
„ „ „ in drums „	0 4 5
Boiled „ „ in barrels „	0 4 6
„ „ „ in drums „	0 4 9
Turpentine in barrels „	0 6 11
„ in drums (10 gall.) „	0 7 2
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 0 0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms" "Park." "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots

per ton delivered	81	0	0
Red Lead, Dry (packages extra) per ton	43	0	0
Best Linseed Oil Putty per cwt.	0	16	0
Filocol per cwt.	0	15	0
Size. XD Quality fkn	0	3	6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.	
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 6
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

FEBRUARY 11.—**Bathgate.**—HOUSES.—Erection of two groups of new houses (32 three-apartment houses and 20 two-apartment houses) for the Town Council. Contractors can tender for the group of 32 or the group of 20, or for both groups. All applications to be made to Mr. W. Allan, Town Clerk, Bathgate.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND.

Cardonald.—NEW CHURCH.—At the last meeting of the Glasgow United Free Presbytery the Rev. James Muir submitted a report for the Church Extension Committee. He said that plans had been prepared for the new church at Cardonald, which provided seating accommodation for 600, and would cost £8,200.

Dumbarton.—NEW GASWORKS.—The T.C. has resolved to borrow £17,000 towards the cost of the new gasworks and the alterations at Garshake House, the total cost of which will be £133,267. The burgh engineer has received instructions to submit an offer for carrying out the work of altering Garshake House for the use of the Gas Committee and the Public Health Committee.

Kirkconnel. — SCHOOL. — The Dumfriesshire Education Authority proposes to erect a school at Kirkconnel.

Ballachulish.—HOUSES.—The Lorn District Committee of the Argyll C.C. has received a notification from the County Clerk stating that the Standing Joint Committee has given its approval to the District Committee's scheme for the erection of twelve houses at Ballachulish. They also approved of the County Council's proposal to borrow £6,800 towards the cost.

Montrose. — ACADEMY. — The Forfarshire Education Authority has decided to proceed with the erection of a new primary department in connection with Montrose Academy.

Invertiel.—NEW STATION.—It is probable that the L. & N.E. Railway will commence immediately with the erection of a new station at Invertiel, Kirkcaldy. A branch line is also to be laid from Invertiel to the Fife Coal Co.'s new pit at Seafield. It is also stated that the present passenger station at Kirkcaldy is to be brought up to the requirements of the increasing needs of the town.

Hawick.—DOUBLE COTTAGE.—The T.C. has passed plans for a double cottage at Douglas-road East, for Miss Kate Davidson.

Airdrie.—NEW SHOPS.—The Dean of Guild Court granted permission to Mr. Paul Sidonia to erect new shops and saloons at the corner of Graham and Broomknoll-streets.

Housing in Dundee.

Mr. Robert Mitchell, chief sanitary inspector, Dundee, in his annual report on the housing of the working classes, insanitary buildings, &c., states that the net increase of houses during the past year is only seven. The Corporation schemes provided 16 additional houses and private enterprise 56 separate houses, as against 25 last year. Emigration might ease the situation somewhat this summer, but he would not like it to be the excuse for a pause in building operations.

Housing Progress in Scotland.

THE following figures show the progress that has been made in State-aided housing schemes in Scotland to December 31, 1923:—

Permanent houses completed	20,320
Temporary houses completed	665
Reconstructed houses completed	101
Houses completed under the Private Subsidy Scheme	2,319
	23,405

There are 2,884 houses at present under construction in connection with housing schemes carried out by Local Authorities and Public Utility Societies.

The total amount paid by the Scottish Board of Health in respect of the 2,319 houses completed under the private subsidy schemes is £549,666 13s. 4d.

Building Trade.

A meeting of representatives of building trade employers' organisations from all the districts in Scotland was held recently in the Shipbuilders' Institute, Glasgow. Mr. James A. Baxter, Glasgow, presided, and the meeting was addressed by Mr. W. H. Nichols, President of the National Federation of Great Britain and Ireland; Mr. Forsdike, ex-President; and Mr. Cox, ex-President of the Institute of Plumbers. The following resolution was unanimously adopted: "This meeting of building trade employers of Scotland having had placed before them the advantages of co-ordination and co-operation for working conditions of national importance agrees to ally themselves through the Scottish Allied Building Trade Committee with the National Allied Building Trade Employers; it requests this committee to proceed with the examination of Scottish working conditions and to report thereon as soon as possible; in addition, it instructs its representatives to oppose strenuously the operatives' present demands for increased wages and alterations in working conditions."

New Lanarkshire School.

The Stane Primary School, Shotts, which was built at an approximate cost of £9,000, was opened recently by Dr. George Macdonald, Secretary of the Scottish Education Department.

Dr. Macdonald, in declaring the school open, said it was not entirely a novelty, but it was sufficiently so to make it worth while drawing attention to its leading features. It belonged to what was technically known as the "pavilion cross-ventilation" variety. Windows on two opposite sides of the class-rooms provided a simple and effective method of securing a free current of air. Its advantages were obvious and were becoming more and more widely recognised. The school was so laid out that a sunny exposure for every classroom was secured, a matter of first-rate importance alike for the mental and the physical health of the pupils and teachers. The structure was semi-permanent only. It was not built to last for all time, as too many of the older schools were apparently designed to do, and one result of that was that it had been comparatively inexpensive.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7	1/8	1/7	1/8	1/7	1/7	1/4½	1/-		
Airdrie	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Alexandria	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2		
Arbroath	1/7	1/6	1/6	1/7	1/6	1/6	1/5	1/1		
Ayr	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Bathgate	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/1 to 1/2		
Blairgowrie	1/7	—	1/7	1/7	1/7	1/7	1/6½	—		
Bo'ness	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2		
Coatbridge	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Dumbarton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2		
Dumfries	1/5	1/5	1/5	1/6	1/5	1/6	1/5	1/1 to 1/3		
Dundee	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Dunfermline	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Edinburgh	1/7	1/7	1/7	1/8	1/8	1/7	1/6½	1/2½		
Falkirk	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Fort William	1/7	1/6	1/6	1/7	1/6	1/6	1/6½	1/1½		
Galashiels	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1		
Glasgow	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Greenock	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/1 to 1/2½		
Hamilton	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Hawick	1/5	1/5	1/5	1/6	1/5	1/5	1/5½	1/1½		
Helensburgh	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Inverness	1/3½	—	1/3	1/4	1/4½	1/4	1/3½	10d. to 1/2		
Kilmarnock	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Kirkcaldy	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Kirkwall	1/7	1/5	1/3	1/4	1/4	1/4	1/4	1/-		
Lanark	1/7	1/7	1/7	1/8	1/7	1/7	1/5½	1/2½		
Leith	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Motherwell	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Perth	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Stirling	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Stirlingshire (Eastern District)	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		
Wishaw	1/7	1/7	1/7	1/8	1/7	1/7	1/6½	1/2½		

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 195.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—

		s.	d.
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone tomplates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in inner and outer linings, 1½ in. pulley stile tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1¼"	1¾"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/10
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PROPOSED NEW BUILDINGS.

(*Continued from* p. 200.)

adequate public and private wards, an operating theatre, X-ray department, and all that goes to equip such an institution upon the most modern lines. The cost of the scheme is £13,000, towards which £4,500 has been raised, whilst a suitable site two acres in extent has been secured.

THORNHILL.—The Cumberland County architect has submitted to a sub-committee preliminary plans for the provision of a new school at Thornhill at an estimated cost of £16,000.

TORQUAY.—At a meeting of the parishioners of St. Marychurch, plans were accepted for a parish hall to be erected at an estimated cost of £4,000.

TURTON.—The plans were approved for 16 houses in Turton-road, for Mr. Edward Lomax.

TYNEMOUTH.—Plans passed by T.C.: Open-air school, Lovaine House; five houses, Bamborough-terrace and Blanchland-terrace, by Messrs. F. R. N. Haswell & Son, for Messrs. Brannen Bros.; semi-detached houses, Kingsway, Kenners Dene, by Mr. A. K. Tasker, for Mr. H. D. Burton.

UNSWORTH.—It was decided to write to the Bury R.D.C. asking for the erection of three public conveniences.

UFFINGTON.—The surveyor to the Uffington R.D.C. has been instructed to prepare plans and obtain estimates for the construction of a new bridge at Wilsthorpe, in the meantime the surveyor is to take steps to ensure the safety of the existing bridge.

WALTHAMSTOW.—Plans passed by U.D.C.:—Shop and house, 190, Wood-street, E.J. Good; pumice store, British Xylonite Works, A. G. Barton; two houses, 23 and 25, Bromley-road, West Bros. & Pettit; dairy and covered yard, St. Mary's-road, A. G. Barton.

WANDSWORTH.—Plans passed by B.C.: Mr. F. G. Minter, gantry and store at Ferry Works, Lacy-road, Putney; Messrs. Geo. Slade & Co., Ltd., two houses, Mount Nod-road, Streatham; Mr. W. E. Silk, house, Chartfield-avenue, Putney; Messrs. W. H. Lorden & Son, Ltd., additions to warehouses and drains at the Columbia Graphaphone Co.'s premises, Bendon Valley, Springfield; Messrs. H. Somerford & Son, additions to the Westminster Bank, Ltd., 432, Streatham High-road; Messrs. G. Giles & Co., additions to Messrs. Ault & Wiborg's premises, Standen-road, Southfield; Mr. F. Waterman, for conversion into shops of 176, Upper Richmond-road, Putney; Messrs. Belfrage, Saville & Hooper, 12 houses, Sutherland-grove, Southfield; Messrs. Chapple & Fulford, eight houses in Woodfield-avenue and one in Woodfield-grove, Streatham; Mr. G. L. Elkington, 52 houses on Southfields Housing Estate, Southfield; Mr. W. F. Goodchild, six houses, Beechcroft-road, Balham; Messrs. Peacock Bros., sports pavilion, 79, West Hill; Messrs. H. Dakin & Co., Ltd., house, Genoa-avenue, Putney; Mr. G. S. Greasby, addition, 211, Longley-road, Tooting; Messrs. Wm. Akers & Co., Ltd., addition at school building at Huntingfield-road Council school, Putney; Messrs. J. Bell, Gripper and E. H. Wilkins, eight houses in Gateside-road, Balham; The Phœnix Construction Co., house, Keswick-road, Southfied; Mr. E. J. Logan, four shops in Wimbledon Park-road, Southfield; Messrs. H. Dakin & Co., Ltd., addition to the Putney High School for Girls, 35, Putney hill; Messrs. Holloway Bros. (London), Ltd., four houses, Herondale-avenue, Springfield; Messrs. Limpus & Son, house and garage, Howard's-lane; Messrs. Bridge & Co., house, Melrose-road; Messrs. Holloway Bros. (London), Ltd., Institute for Deaf and Dumb, Clapham-road, Clapham North; Messrs. F. & H. F. Higgs, Ltd., class-rooms at Down Lodge Hall, West Hill, Southfield; Messrs. Earle & Co., additions to Scio House, Old Portsmouth-road; Mr. Wm. Hussey, alterations to laundry at Grove Hospital, Grove-road, Tooting; Messrs. Croggon & Co., Ltd., store at premises of Messrs. J. Thorley, Ltd., Point Pleasant; Mr. G. Barker, rebuilding of "Coach and Horses" beerhouse, 173–175, Clapham Park-road; Wandsworth B.C., public library, Magdalen-road, Springfield.

WEST HAM.—The proposed provision of a new sanitary underground convenience for Forest Gate, by the B.C., at a cost of over £6,000, has been the subject of a local inquiry by the M.H.

WEST LANCASHIRE.—Plans passed by R.D.C.: Brick bungalow, Liverpool-road, Rufford; pair of villas, Segras-lane, Halsall; house, Aughton; pair of bunalows,' Heathey-lane; and two pairs of detached villgas in Brookfield-lane, Aughton.

WHITEFIELD.—The Council are proposing to erect tram shelters, waiting rooms, &c., at the terminus near "Derby Arms."

WHITLEY AND MONKSEATON.—Mr. F. Gregson Williams, A.M.Inst.C.E., on behalf of the M.H., has held an inquiry respecting the application of the U.D.C. for sanction to borrow £6,300 for private street improvements.

WIGAN.—Mr. T. Broxton, builder, is proposing to erect six houses in Broxton-avenue.

WORKSOP.—Plans for 28 houses for the Shirebrook Colliery Co., and 16 houses in Gateford-road, Worksop, for Messrs. Roper & Sons, of Sheffield, have been approved by the U.D.C.

Fires.

ABERDEEN.—Damage estimated to amount to about £10,000 was caused by a fire which completely destroyed the mill in Cotton-street, Aberdeen, belonging to Messrs. Gorrod, Davie, Kemp, Walker & Co., grain merchants.

BURTON-ON-TRENT.—A large amount of damage has been caused by fire to the Black Cat Billiard Hall and warehouses belonging to Messrs. Bridges and Messrs. Johnson Bros.

ROCHDALE.—Damage to the extent of £40,000 was caused by a fire at the Co-operative Wholesale Society's paint, varnish, and colour works, in Weir-street, Rochdale. The main building, holding big stocks of paints, oil and varnish, was gutted. Other departments were saved.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERDEEN.—For construction of sewer on North Esplanade, for the T.C. Mr. J. Gordon, Borough Surveyor, Town Hall, Aberdeen:—

*Wm. Tawse, Torry	£11,899 10

ABERDEEN.—For erection of 4 blocks of dwellings, each containing 48 tenements, granite construction, for the T.C. Mr. J. Coutts, architect, Town House, Aberdeen. Messrs. James Barr & Son, quantity surveyors, 221, West George-street, Glasgow:—

Mason work—	
*Joseph Shirras & Son, Aberdeen	£9,358 2 7
Carpenter work—	
*John Bisset & Sons, Ltd., Aberdeen	4,987 0 0
Slater work—	
*James Harper & Son, Aberdeen	1,000 18 6
Plumber work—	
*J. J. Johnstone, Aberdeen	2,005 0 0
Plaster work—	
*Robert Moir, Aberdeen	1,498 0 0
Electric work—	
*Andrew McRobb, Aberdeen	260 0 0
Painter work—	
*James S. McLaren, Aberdeen	670 0 0

BRADFORD.—For erection of new garages and showrooms at Keighley-road, Frizinghall, near Bradford, for Mr. Holroyd, of the Alfresco Autodrome. Messrs. Wm. Illingworth & Son, Architects, Bradford:—

Main Contract—
Michael Booth & Sons, Bradford.

Plasterer and Concretor—
M. W. Howroyd & Co., Bradford.

BRISTOL.—For Avonmouth Dock extension, for the Docks Committee:—

*Sir William Arrol & Co	£554,000

BURY ST. EDMUNDS.—For erection of 4 houses in Muslow-street, for the T.C. Mr. R. H. Beaumont, Borough Surveyor, Town Hall, Bury St. Edmunds:—

Hinnels & Son, Ltd., Bury St. Edmunds	£2,220
S. Haylock, Bury St. Edmunds	1,756
A. R. Plummer, Bury St. Edmunds	1,716
*H. F. Sewell, Bury St. Edmunds	1,700

CARSHALTON.—For erection of 28 cottages in 12 blocks, and 8 flats in 2 blocks, for the U.D.C. Mr. W. W. Gale, Architect, Council Offices, Carshalton:—

E. G. Bean, Wallington (for two blocks, flats and 14 cottages)	£8,987 2
Perry Bros., Ealing	17,627 0
Cropley Bros., Epsom	15,732 0
G. Greenwood & Sons, London	15,413 0
Turnbull & Son, London	15,000 0
Burnand & Pickett, Wallington	14,879 0
*Smith & Moreton, Norwood	14,357 1

DOVER. — For Brookfield-avenue improvement works, for the T.C.:—

Chittenden & Simmons, Maidstone	£1,315 13 10
Gunn MacNeill, Ltd., London	1,198 10 0
*G. Lewis & Sons (Dover), Ltd.	1,139 0 0

EAST ELLOE.—For erection of 5 pairs of cottages in Whaplode Village; 2 pairs in Gedney Fen; 2 pairs in Sutton St. James, for the R.D.C. The Surveyor, Council Offices, West End, Holbeach:—

Sutton St. James (2 *pairs*)—	
Mr. J. W. Davis, Tydd St. Mary	£1,650
Gedney Fen (2 *pairs*)—	
Mr. C. H. Cruise, Holbeach	1,608
Whaplode Village (5 *pairs*)—	
Mr. C. H. Cruise, Holbeach	3,730

ENFIELD.—For construction of 148 yds. of granite concrete tube sewer, Church-street, for U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield:—

*Wheeler & Co., London.	

ENFIELD.—For construction of 1,500 yds. run of stoneware pipe sewer, &c., at Botany Bay, for the U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield:—

T. W. Pedrette, Bush Hill Park.

ENFIELD.—For construction of 9 in. stoneware pipe surface water drain, Mandeville-road, for the U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield:—

W. & C. French, Buckhurst Hill.

FALMOUTH.—For laying 4,340 ft. of 21 in. concrete tubes, &c., construction of tank, &c., and cast-iron sea outfall, for the T.C. Mr. G. Midgley Taylor, 36, Victoria-street, S.W. 1:—

An. Coles & Sons, Ltd., Plymouth	£49,909
Nott Brodie & Co., Ltd., Bristol	37,400
W. E. Bennett, Bodmin	36,049
Fothergill Bros., Ltd., Exeter	30,676
Carkeek & Sons, Redruth	28,966
D. T. Jackson, Barking	26,359
E. Thomas, Falmouth	25,432
John Cochrane & Sons, Westminster	23,167
British Construction Co., Westminster	22,212
*G. Shellabear & Son, Plymouth	21,723

GLASGOW.—For the electric lighting installation to 52 houses at Kelvindale, for the T.C.:—

*R. J. Sinclair	£272 9 4

GLASGOW.—For construction of roads and sewers at Merryflats Housing Scheme, for the T.C.:—

*Crowley, Russell & Co	£7,578 9 3

GLASGOW.—Supply of 80 tons of 3 in. to 4 in. cast-iron pipes to Water Committee of the T.C.:—

*Macfarlane, Strang & Co	£900 1

GLASGOW.—For carrying out additions at Phoenix Park Kindergarten, for the T.C.:—

*J. Morrison & Sons	£194 10

GLASGOW.—For the erection of 204 houses at Scotstoun, for the T.C.:—

*Elphinstone Forrest, *mason and brick work*	£32,559 16 0
*George Brown, *carpenter work*	19,220 5 2
*Thomas Porter & Son, *plumber work*	13,027 17 8
*William Reid & Sons, *slater work*	3,585 0 6
*H. S. Bathgate, *plaster work*	4,862 8 6
*John Wilson, *glazier work*	489 15 0
*Peter M'Kerracher & Sons, *painter work*	1,599 16 8

GLASGOW.—For erection of new buildings at corner of Trongate and High-street, for the T.C.:—

*John Baxter & Sons, *wright, &c., work*	£4,830 7 1
*H. Twaddle & Sons, *plumber and gasfitter work*	1,055 10 0
*Limmer & Trinidad Co., *asphalt work*	251 12 1
*G. & R. Wemyss, *plaster work*	926 17 9
*John Youden & Sons, Ltd., *tile work*	242 2 10
*George G. Kirk, Ltd., *glazier work*	494 0 0
*Frederick Braby & Co., Ltd., *steel windows*	1,094 9 6
*H. L. Anderson & Co., *painter work*	629 0 0
*James Combe & Co., Ltd., heating installation	1,287 6 0
*Johnston, Park & Co., *electric light and bells installation*	892 9 3

HALIFAX.—For erection of bungalow at Rothwell Mount. Messrs. C. F. L. Horsfall & Son, architects, Lord-street Chambers, Halifax. Quantities by architects:—

Mason—Thos. Pickles, Halifax.
Joiner—J. Turner & Sons, Halifax.
Plumber—J. Boocock & Sons, Halifax.
Plasterer and Slater—Rushworth & Firth, Halifax.
Asphalters—Turnstalls & Co., Leeds.

HARROGATE.—For supply of fencing, for Central Depot, to the T.C.:—

*W. Gratrix & Sons, Walkden	£289 10

HAVERFORDWEST.—For erection of residence at Portfield, for Mr. W. H. George. Messrs. Sir Hugh Thomas & Ingleton, architects and surveyors, 11, Victoria-place, Haverfordwest:—

James John, Haverfordwest	£1,714 6 0
Thomas Bros., Templeton	1,590 0 0
T. Harris & Son, Nayland	1,550 0 0
J. Davies & Son, Haverfordwest	1,479 0 0
W. H. Fortune, Haverfordwest	1,465 14 6
James Lee & Sons, Nolton Haven	1,450 0 0
John Jones, Haverfordwest	1,385 0 0
John James, Haverfordwest	1,372 0 0
(*a*)Absalom & Davies, Haverfordwest	1,340 0 0
*W. Austin Elkington, Ltd., Haverfordwest	1,129 15 0

(*a*) Excluding carriage drive.

HERTFORD.—For laying about 1,100 lineal yds. of sewers, for the T.C. Mr. S. M. Senior, Borough Surveyor and Engineer, the Corporation of Hereford:—

Thos. Muirhead & Co., Ltd., Westminster	£5,393 10 4
Percy Trentham, Ltd., London	3,650 0 0
Chas. Ball, Letchworth	3,382 12 3
Gunn Macneill, Ltd., Westminster	3,337 14 10
W. & C. French, Buckhurst Hill	3,275 8 10
London & County Public Works, Ltd., London	3,265 14 9
George Bell & Sons, Ltd., Tottenham	3,189 11 0
*A. E. Farr, London	2,718 12 0

HULL.—For erection of 50 blocks of parlour-three-bedroom type houses in blocks of two, four and six, for the T.C.:—

*I. H. Wilburn, Ltd.	

H.M. OFFICE OF WORLS.—(Accepted during December): *Building Works*: Aberdare P.O., &c.—Erection: Dawkins, Harris & Weaver, Ltd., Chepstow. Aldeburgh, Repeater Station—Erection: F. R. Hipperson, Norwich. Bishopsgate Telephone Exchange—Erection: Chessums, Ltd., London, N. Granite Work: Brookes, Ltd., London, S.W. Steelwork: Archibald D. Dawnay & Sons, Ltd., London, S.W. Buckingham Palace—Reconditioning forecourt and quadrangle: John Mowlem & Co., Ltd., London, S.W. Coventry Head P.O.—Alterations, &c.: E. Crowder, Birmingham. Didsbury Telephone Exchange—Precast Concrete Work: The Christie Patent Stone Co., Ltd., Manchester. Dollis Hill P.O. Research Station—Erection of garage, &c.: Winter & Ward, Harpenden. Edgware-road Employment Exchange—Asphalter: Engert & Rolfe, Ltd., London, E. Steelwork: Measures Bros., Ltd., London, S.E. Gosforth Telephone Exchange—Erection: Stephen Buy, Newcastle-on-Tyne. Hackney, Mare-street Employment Exchange—Erection: Winter & Ward, Harpenden. Hammersmith Sorting Office—Joinery: B. W. Blundell & Co., London, N. Headingley P.O., &c.—Erection: Wm.

Irwin & Co., Ltd., Leeds. Higher Broughton Telephone Exchange—Sundry Works: John Bland & Son, Ltd., Salford. Plasterer: J. Broomhead & Sons, Ltd., Manchester. Plumber: J. Ballantyne & Co., Manchester. Liverpool Anthrax Disinfecting Station—Fixing Corrugated Iron: George Lowe & Sons, Liverpool. Maintenance Work—Bexhill District: James Bodle, Ltd., Bexhill. Carmarthen District: E. A. Rogers, Carmarthen. Chesterfield District: P. & W. Anderson, Ltd., Chesterfield. Colchester District: T. J. Ward, Colchester. Crewe District: J. Williams & Sons, Crewe. Douglas (I. of M.) District: James K. Brearley, Douglas. Dudley and Tipton District: J. Edwards & Sons, Dudley. Edinburgh District—Carpenter, Excavator, &c.: Colin Macandrew, Ltd., Edinburgh. Glazier and Slater: Robert Graham, Edinburgh. Ironfounder, &c.: P. Bell & Son, Edinburgh. Painter, &c.: W. A. Campbell & Sons, Edinburgh. Plasterer: John Ross, Edinburgh. Plumber, &c.: W. Barton & Sons, Edinburgh. Glasgow District—Carpenter, &c.: W. McCall & Sons, Glasgow. Excavator, &c.: Wm. Shaw & Son, Ltd., Glasgow. Glazier: Wm. Purdon & Son, Glasgow. Ironfounder, &c.: James McDougall & Sons, Glasgow. Painter, &c.: Logan & Gray, Glasgow. Plasterer and Slater: J. Smith & Son, Glasgow. Plumber, &c.: H. Twaddle & Co., Glasgow. Grimsby District: Joseph Borrell, Grimsby. Guildford District: T. Swayne & Son, Guildford. Hereford District: Wilks, Son & Peake, Hereford. Leamington District: The Exors. of the late R. Bowen, Leamington. Lydney District: F. N. Wright, Lydney. Maidstone District: Barden & Head, Maidstone. North Shields District: Gilbert Park & Son, Ltd., North Shields. Rochdale District: W. H. Ashworth & Son, Rochdale. Warwick District: J. Dean & Son, Warwick. Wigan District—Painting: John Lea & Son, Wigan. North Telephone Exchange—Steelwork: Drew-Bear, Perks & Co., Ltd., London, S.W. Oxford Head P.O., &c.—Asphalter: Engert & Rolfe, Ltd., London, E. Radcliffe Telephone Exchange—Alteration, &c.: Fearnley & Sons, Ltd., Salford. Rugby P.O. Wireless Station—Erection: Chessums, Ltd., London, N. Shrewsbury Telephone Exchange—Alterations, &c.: Wm. Bowers & Co., Hereford. Swansea Head P.O.—Extension of Public Office: Dawkins, Harris & Weaver, Ltd., Chepstow. Steelwork: Archibald D. Dawnay & Sons, Ltd., London, S.W. Threadneedle-street Branch P.O.—Granite Work: Fenning & Co., Ltd., London, W. Tilbury Telephone Exchange—Erection: William F. Blay, Ltd., Dartford. Asphalter: The Ragusa Asphalte Paving Co., Ltd., London, W. Steelwork. J. Westwood & Co., Ltd., London, E. Stonework: The Metropolitan Stone Co., Ltd., London, S.W. Warlingham Telephone Exchange—Erection: J. A. Pettit & Co., Warlingham. Whitley Bay P.O.—Concrete Steps, &c.: J. T. Dove, Ltd., Newcastle-on-Tyne.

HOLYHEAD.—For erection of ministers' residence, Porthyfelin-road, for the Trustees of Hyfrydle C.M. Chapel. Mr. T. E. Thomas, architect, Central Chambers, Holyhead:—

Pritchard & Williams, Holyhead	£2,018
D. J. Jones, Holyhead	1,842
O. R. Jones, Holyhead	1,828
*John Hughes, Holyhead	1,684

HULL.—For the erection of 50 blocks of houses, for the T.C.:—

*T. H. Wilburn, Ltd.—For eleven blocks at an average price of £404 6s. 8d. per house.

*City Engineer—For 39 blocks at an average price of £434 per house.

KNOTTINGLEY.—For repairs to Holes School House, for the Education Authority:—
Messrs. Bramham & Sons, Brotherton.

LEEDS.—For the internal reconstruction of Messrs Marshall's Successors, Ltd., Bond-street, Basinghall-street, and Park-row, Leeds:—

Brickwork—*Wm. Gott & Sons, Leeds.
Steelwork—*Samuel Butler & Co., Ltd., Stanningley, near Leeds.
Asphalter—*Tunstall's Rock Asphalte Co., Ltd., Leeds.

LITTLEHAMPTON.—For erection of fire station in Maltravers-road, for the U.D.C. Mr. L. G. Dashper, Surveyor, Town Offices, Littlehampton:—

W. White & Sons, Littlehampton	£1,320
Linfield & Sons, Littlehampton	1,157
†Percival Coope, Midhurst	958

LONDON.—For repairs to hutments for the Hammersmith B.C.:—

*G. F. Rice	£122 10

LONDON.—For carrying out 4½ in. asphaltic macadam works in part of Blythe-road, for the Hammersmith B.C.:—

*Limmer and Trinidad Lake Asphalt Co., Ltd.	£3,635 3 2

LONDON.—For re-surfacing with 4 in. tarred slag macadam, Olaf-street, Boxmoor-street, Hammersmith-terrace, Maclise-road, Hazlitt-road, Chapel-street and Marryat-street, for the Hammersmith B.C.:—

*Tarmac, Ltd.	£4,500 13 6

LONDON.—Provision of lengths of 9 in., 16 in., 20 in., 24 in. and 30 in. steel tubes and breeches pieces required in connection with the alterations at the Oxford-circus tube station, for the Metropolitan Water Board:—

*Thomas Piggott & Co., Ltd.	£1,510

LONDON.—For supply of materials to the St. Pancras B.C.:—

York Paving and Artificial Paving Slabs.

*Brooks & Brooks Quarries, Ltd.:—
For 2½ in. York paving, at 17s. 3d. per square yard.
For 2½ in. York paving to any given dimensions, not exceeding 30 in. by 48 in., at 17s. 3d. per square yard.

*The Patent Victoria Stone Co., Ltd.:—
For 2 in. new artificial paving slabs (indurated), at 6s. 3d. per square yard.

Granite Kerbs, Broken Granite, &c.

John Mowlem & Co., Ltd.:—
For 6 in. by 12 in. Guernsey straight-edged kerb, at 3s. 6d. per lineal foot.
For 6 in. by 12 in. Guernsey circular-edged kerb, at 4s. 3d. per lineal foot.
For 12 in. by 8 in. Guernsey flat circular kerb, at 4s. 8d. per lineal foot.
For 6 in. by 12 in. Norwegian granite straight-edged kerb, at 2s. 9d. per lineal foot.
For 6 in. by 12 in. Norwegian granite circular-edged kerb, at 3s. 6d. per lineal foot.
For Guernsey granite angle blocks, 24 in. radius, at 25s. each.
For broken Guernsey granite, 2 in. ring, at 28s. 6d. per cubic yard.
For broken Guernsey granite, 1 in. ring, at 27s. 6d. per cubic yard.
For Guernsey granite siftings, ¾ in. mesh, at 23s. 6d. per cubic yard.
For Guernsey granite siftings, ⅜ in. mesh, at 23s. 6d. per cubic yard.

Gravel and Roadway Materials.

D. Mylon & Co.:—
For loam or hoggin, at 12s. 6d. cubic yard.
For clean rough gravel, at 10s. cubic yard.
For river sand, at 12s. 9d. cubic yard.
For sifted pit sand, at 11s. 3d. cubic yard.
For sifted pit sand specially selected and washed, at 12s. 3d. cubic yard.
For fine river ballast, ¾ in. mesh, at 11s. 4d. cubic yard.
For fine river ballast, ½ in. mesh, at 12s. cubic yard.
For pit flints, at 10s. 9d. cubic yard.
For clean hard sifted shingle, ½ in. mesh, at 13s. cubic yard.
For clean hard sifted shingle, ¼ in. mesh, at 13s. 6d. cubic yard.

Lime and Cement.

Lawford & Sons, Ltd.:—
For blue lias lime (ground), at 39s. 3d. per ton.
For blue lias lime (lump), at 39s. 3d. per ton.

Young & Son, Ltd.:—
For grey stone lime (lump), at 46s. 6d. per ton.

John Knowles & Co., Ltd.:—
For Stourbridge fire clay (ground), at 32s. 9d. per ton.

Young & Son, Ltd.:—
For Portland cement, at 49s. 8d. per ton in barge loads at Blackfriars Wharf, and will unload and cart to any part of the Borough for 3s. 3d. per ton.

LONDON.—For carrying out 1½ in. compressed asphalte works in Waterloo-street, for the Hammersmith B.C.:—

*French Asphalte Co., Ltd.	£1,388

LONDON.—The Education Committee of the L.C.C. has accepted the following tenders for cleaning and/or painting of schools:—

Contractor, school and electoral division.

T. W. Heath, Ltd.—Beaufort House, (Fulham, E.)	£960 0 0
H. Groves & Son—Bostall-lane (Woolwich, E.)	1,164 15 0
J. Scott Fenn—Choumert-road (Peckham)	1,153 10 0
W. J. Dixon & Son—Clyde-street (Deptford)	1,990 0 0
J. Scott Fenn—Comber-grove (Camberwell, N.W.)	924 16 0
G. Butters—Culloden-street (Poplar, S.)	1,281 0 0
Douglass, Halse & Co., Ltd.—Deansfield-road Elementary and Eltham County Secondary (Woolwich, W.)	1,563 0 0
F. Cottrell, Ltd.—Eleanor-road (Hackney, C.)	1,188 0 0
G. Hill & Son, Ltd.—Ensham, The (Balham and Tooting)	1,261 0 0
F. Foxley & Co., Ltd.—Essendine-road (Paddington, N.)	1,804 0 0
Sims & Russell—Exmouth-street (St. Pancras, S.W.)	1,110 0 0
A. Logan—Faunce-street (Southwark, C.)	723 11 10
Douglass, Halse & Co., Ltd.—Gordon, The (Woolwich, W.)	2,181 0 0
J. Scott Fenn—Grove-vale (Dulwich)	967 15 0
R. S. Ronald—Honeywell-road (Battersea S.)	1,675 0 0
Castle Bros., Ltd.—John Ruskin, The (Southwark, C.)	1,125 0 0
Hooper & Hooper—Gifford-street (Islington, W.)	1,407 0 0
W. Bailey—Kilmorie-road (Lewisham W.)	1,267 0 0
A. & F. Polden—Lancaster-road (Kensington, N.)	1,188 0 0
J. C. Mather—Laycock-street (Islington, S.)	1,000 0 0
J. Garrett & Son—New Park-road (Clapham)	1,321 0 0
J. Garrett & Son—Plough-road (Battersea S.)	1,264 0 0
W. M. Brand—Princess May-road (Stoke Newington)	1,514 0 0
E. A. Roome & Co., Ltd.—Queen's-road (Hackney, C.)	1,507 0 0
T. Brown & Son—Rosendale-road Elementary, and Turney-road PD. (Norwood)	1,099 0 0
Bridge & Co.—Sussex-road (Norwood)	1,564 0 0
Stevens & Sons—Upper Hornsey-road, (Islington, N.)	1,969 0 0
Stevens & Sons—Vernon-square (Finsbury)	1,582 0 0
R. Woollaston & Co.—Russia-lane Cleansing Station (Bethnal Green, N.E.)	75 14 0
R. Woollaston & Co.—Glengall-road (Poplar, S.)	330 4 0
W. J. Clemens—L.C.C. Shoreditch Technical Institute (Shoreditch)	152 18 6
J. C. Mather—Pentonville-road place of detention (Finsbury)	£174 0 0
A. H. Inns, Ltd.—Chisenhale-road (Bethnal Green, N.E.), exterior painting	297 0 0
J. Scott Fenn—Chisenhale-road (Bethnal Green, N.E.), interior cleaning	394 18 0
F. Cousins—Grafton-road (Islington, N.), exterior painting	191 12 6
F. Cousins—Grafton-road (Islington, N.), interior cleaning	464 1 6
G. Hill & Son, Ltd.—Merton-road (Putney), exterior painting	661 0 0
Triggs & Co.—Merton-road (Putney), interior cleaning	645 0 0
W. T. Lawrence—Princess-road (St. Pancras, S.W.), exterior painting	638 17 6
Bovis, Ltd.—Princess-road (St. Pancras, S.W.), interior cleaning	801 0 0
White & Johnson—Ranelagh-road (St. George's, Westminster), exterior painting	265 0 0
Triggs & Co.—Ranelagh-road (St. George's, Westminster), interior cleaning	425 0 0
A. Black & Son—The Redriff (Rotherhithe)	331 0 0
Edwards Construction Co., Ltd.—Royal Hill (Greenwich)	359 7 6
E. C. Sames & Co.—Scawfell-street (Shoreditch)	420 12 0
J. C. Mather—Sebbon-street (Islington, S.)	313 0 0
C. P. Kitchen & Co.—Virginia-road (Bethnal Green, S.W.)	233 13 0
W. J. Clemens—Wolverley-street (Bethnal Green, S.W.)	325 10 0
W. Bailey—The Redriff (Rotherhithe)	276 0 0
J. H. Sutch & Sons—The Royal Hill (Greenwich)	378 0 0
Lister & Co. (Builders), Ltd.—Scawfell-street (Shoreditch)	851 12 0
John C. Mather—Sebbon-street (Islington, S.)	724 0 0
R. Woollaston & Co.—Virginia-road (Bethnal Green, S.W.)	314 0 0
Stoneley & Co.—Wolverley-street (Bethnal Green, S.W.)	651 5 0
Wm. Simms—Bromley Hall-road, P.D. (Poplar, S.)	110 7 8
Hensun & Co.—Barnsbury Central (Islington, S.)	305 0 0
C. Berger—Bell-street (St. Marylebone)	567 7 0
W. J. Dixon & Son—Beresford-street (Southwark, C.)	592 0 0
A. G. Barton—Berger-road (Hackney, S.)	521 0 0
A. & F. Polden—Broomsleigh-street (Hampstead)	735 0 0
J. H. Sutch & Sons—Calvert-road (Greenwich)	380 19 0
E. C. Sames & Co.—The Chaucer (Southwark, C.)	817 18 6
Bridge & Co.—Church-street (Kennington)	340 0 0
J. P. Williams, Ltd.—Cromer-street (St. Pancras, S.E.)	310 0 0
G. Hill & Son, Ltd.—Denmark-hill (Camberwell, N.W.)	628 0 0
A. Black & Son—Dulwich Hamlet (Dulwich)	456 0 0
W. J. Dixon & Son—East-lane (Rotherhithe)	597 0 0
S. N. Soole & Son, Ltd.—Garratt-lane (Wandsworth, C.)	655 0 0
S. N. Soole & Son, Ltd.—Gideon-road (Battersea, S.)	524 0 0
F. Cousins—Gillespie-road (Islington, E.)	435 10 0
Falkus Bros.—Hague-street (Bethnal Green, S.W.)	442 10 0
T. Carr—The Hermitage (Whitechapel and St. George's)	199 18 10
A. Black & Son—Hither-green (Lewisham, E.)	806 0 0
J. Hocking & Co.—Hughes-fields (Greenwich)	407 0 0
F. Cottrell, Ltd.—Hugh Myddelton (J.M.) (Finsbury)	382 0 0
A. & F. Polden—King-street (St. Pancras, S.E.)	875 0 0
T. Brown & Son—Lomond-grove (Camberwell, N.W.)	740 0 0
W. M. Brand—Northey-street (Limehouse)	450 10 0
F. Stevens—Rosebery-avenue (Holborn)	478 16 0
J. Garrett & Son—St. Andrew's-street, (Clapham)	903 0 0
A. G. Barton—The Shacklewell (Hackney, N.)	511 0 0
S. Blow, Ltd.—Swan-street (City of London)	300 0 0
Ward, Saul & Co.—Weston-street (Southwark, C.)	580 0 0

LUTON.—For supply of 442 yards of 18 in. reinforced concrete pipes, to the T.C.:—

*Stanton Iron Co.	£291 15 6

MARKINCH.—For erection of six houses, for the Burgh. Mr. A. D. Haxton, architect, Leven:—
P. M. Henderson, Markinch—*Builder.*
R. Wood, Thornton—*Joiner.*
D. Ritchie, Markinch—*Plumber.*
A. Mitchell, Markinch—*Plasterer.*
A. Mitchell, Markinch—*Slater.*
J. Haxton & Co., Kirkcaldy—*Glaziers.*
J. C. Rolland & Son, Markinch—*Painters.*
R. Wood, Thornton—*Fencer.*
J. & R. Lister, Leven—*Nurserymen.*

PORTSMOUTH.—For rebuilding of "King George V" B.H., for Portsmouth United Breweries, Ltd. Messrs. A. E. Cogswell & Sons, architects, Prudential Buildings, Portsmouth:—

L. Hoad	£2,659
John Lay & Co.	2,549
S. Salter	2,497
*Corke & Co.	2,383

STAINFORTH.—For erection of an elementary school, for the Educational Authority of the West Riding C.C.:—
Mason work and Concretor—
*T. Jenkinson & Sons, Doncaster.
Joiner and Carpenter—
A. Gregory & Sons, Ltd., Castleford.

STOCKPORT.—For steelwork and roof trusses, for Messrs. Henry Simons' new works:—
*Lambourne & Co., Openshaw..... £30,000

SWINTON.—For construction of earthenware pipe sewer and surface water drain, and works at housing site, for the U.D.C. Mr. H. Birks, Engineer and Surveyor, Council Offices, Swinton:—

Tugby & Sons, Swinton.....	£1,479	0	0
Pennington & Co., Bowdon....	991	9	6
Smith & Hunter, Scunthorpe..	816	0	0
G. H. Smith & Sons, Mexborough	766	14	4
Lockwood & Worrall, Swinton..	754	13	0
Swift Bros. & Haslam, Doncaster	733	4	0
*G. W. Meanley & Sons, Mexborough	692	18	2
A. Storey, Hexthorpe	666	0	0
Dole & Lund, Highgate.....	540	9	10

TIPTON.—For erection of boundary wall, fencing and forming paths, &c., at land adjoining cemetery, for the U.D.C. Mr. W. H. Jukes, Surveyor, Public Offices, Tipton:—

*A. J. Crump, Dudley	£330
Surveyor's estimate	400

TIPTON.—For sewerage, road widenings and improvements, new roads, sewers and other work, for the U.D.C. Mr. W. H. Jukes, Surveyor, Public Offices, Tipton:—

C. Jackson, Tipton	£8,524 17 1
Surveyor's estimate	9,202 4 7

TONG.—For extensions to the Tong and Dudley Hill W.M.C. at Shirley-road. Mr. A. T. Verity, Architect, Birkenshaw:—
Mason—C. Ward & Son.
Joiner—H. Waterhouse & Sons.
Plasterer—F. Robinson.
Plumber—D. Wiggins.
Slater—F. Thompson.
Electrical Installation—The Enterprise Electric Co.

WALTHAMSTOW.—For laying asphalte macadam in Queen Elizabeth-road, Tavistock-avenue, and Pembar-avenue, for the U.D.C.:—
*H. V. Smith & Co.—At 8s. 4d. per yard super.

WHITWOOD (YORKS).—For making a new cemetery and lodge, for the U.D.C. Mr. R. A. Easedale, Architect, Castleford:—
Excavator, Bricklayer and Masons—
Wynne & Smith.
Carpenter and Joiner—
G. E. Greaves & Son.
Slater—
W. P. Allison.
Plumber, Glazier and Electrician—
A. Clarkson.
Plasterer—
G. E. Bateson.
Painters—
E. Foster & Sons.
Entrance Walls—
J. A. Rodgers & Sons.
(All of Castleford and Normanton.)
(Accepted subject to Ministry of Health.)

WITHAM.—For erection of 12 semi-detached houses on the Cocks Farm site, for the U.D.C. Mr. W. P. Perkins, surveyor, Collingwood-road, Witham:—

Blade Wenden, Witham	£520
J. D. Dean, Witham	520
*M. Richards & Son, Witham.....	420

YEADON.—For erection of a new picture house in Town-street, for the Newtown Pictures, Ltd.:—
*Mitchell Yeadon & Sons, Whack House-lane, Yeadon, near Leeds.

YORK.—For erection of one block of three houses at Newton-upon-Ouse, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York:—
*W. Fairweather & Son, York..... £1,710


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THE LABOUR GOVERNMENT AND HOUSING.

THE entry of Labour into office has provided the most striking political event of our time, and among the changes which we may consider probable not a few seem likely to affect the building industry and those to whom this industry looks for finances for building projects, and direction in design. Labour has had many sarcastic words for Whitehall in the past, and it will be interesting to see whether the administrative machine will work with greater individual initiative and elasticity under Ministers less imbued with traditions of officialism than their predecessors. While we shall welcome such changes based on sound common sense, we imagine that the new heads of departments will find that changes are not simple matters, but involve a great number of considerations and points of contact with other departments of which they have yet to learn a good deal from their permanent officials. At the same time, we hope that these officials will assist that spirit of progress and economy in organisation which is just now so essential for the re-establishment of our trade, upon which the material prosperity of the country depends. After trade depression, building revival must always wait upon some accumulation of bank balances; hence, at best, prosperity in this trade is not certain to be immediate.

The new Minister of Health (Mr. Wheatley) has lost no time in displaying his interest in one of the chief Government "planks," namely, housing, and his experience and relations with labour should make him well fitted to tackle his difficult problem; further, his method of assault should be essentially different from that of his forerunners. We want no repetition of the programme initiated by the Government after the war. We were consistently against that scheme of State building with its cumbrous officialism by persons devoid of any knowledge of trade methods, and its disastrous attempt to make a corner in building materials for public benefit under the D.B.M.S. is too recent to require review. The policy of private enterprise is considered by many students of the subject to be the only one which can ever succeed in a matter of this magnitude; but success even in this direction would depend upon many factors. Mr. Wheatley, speaking last week at Glasgow, had some very plain things to say about housing conditions at the present time which we entirely endorse; nothing, anyhow in adolescence, can tend to foster crime, immorality, poor physique, and discontent, as much as insufficient and insanitary housing, and the advent of labour to power gives this matter greatly increased importance, for we may in our slums be warping the judgment and enfeebling the health of those who will, later on, guide the destinies of the nation. The Minister recognised the difficulties, which he classed under finance, labour, and materials. At the present time it is hardly possible to obtain a small house except by purchase, apart from the few opportunities which occur to those on the waiting lists of the promoters of housing schemes. The present building subsidy offers some assistance, but we think that simplified borrowing facilities for individual prospective occupiers on the security of their houses might prove a better means of financing schemes than grants in other directions. These facilities, as a matter of business, should be based partly on the construction of the house, which could be reported upon by an architect or surveyor. This would do much to check the poor construction of many new dwellings into which people often put their life's savings, only to find that the cost of repairs becomes in a few years prohibitive. Nothing is likely to uplift the masses as much as individual ownership, and should it be possible to bring this about on a large scale it is worth a campaign carefully arranged to be within the understanding of the most ignorant.

As to labour, we give the most hearty welcome to its decision, quoted in the Press last week, to co-operate with Mr. Wheatley on the subject of increasing the number of operatives. With this attitude on the subject of dilution of labour before us we are anxious to avoid any suggestion of reproaching labour for its past attitude, but it has been undoubtedly the case that the shortage in certain trades has resulted in payment beyond the standard rates, which has caused grave loss to contractors and must reflect on building prices, with the inevitable result of taking us back to the *impasse* which occurred in the Government housing scheme under Dr. Addison. Any repetition of this state of things, though it might for a time bring increased pay to a few, would finally result in stagnation and unemployment owing to high prices. What we have often said before we repeat—there is work for years awaiting the trade, and if the operatives open their doors they will not only be helping their fellows and the public, but in the end themselves. One point we should like to refer to, namely, the request by the operatives for some assurance as to continuity of work. While we feel a good deal of sympathy with those engaged in an occupation which is more or less seasonal, and hope that some steps will be taken to meet this request, we would ask the operatives not to press this matter too much. Few of us have any real guarantee of permanency in our occupations; certainly the professional man, the trader, and their dependents have, as a rule, none. Such guarantees carried out to any extent would much tend to stifle initiative, by which alone we rise and succeed, and none of us wishes to carry on his shoulders the burden of the idle and inefficient, who would be encouraged by too generous a form of guaranteed employment. Pensions and assistance for those willing but unable to carry on life's duties come in another category.

Now that dilution is definitely to be considered, we would remind those who are likely to benefit by inclusion in such a scheme of the facilities which exist for obtaining some knowledge of the various building trades in our many technical schools and institutions, and we suggest that skilled operatives should be appointed in various centres to give these men some preliminary "field" knowledge and acquaint them with the customs which will enable them to work happily with those who have served the recognised apprenticeship. That this new attitude on the part of the operatives will be acclaimed by everyone we have no doubt, and we regard it as one of the most encouraging events in connection with housing which has yet occurred. Finally, materials will call for Mr. Wheatley's consideration. There will no doubt be a strong upward tendency in prices when any large scheme of house building develops, and the Government has already made its voice heard on this subject. The best way to prevent increased costs is to stimulate production, in which matter those responsible for transport can assist very greatly. For a long time rail costs for heavy goods have been a menace to trade revival, and we hope that the new Minister, to whom we wish every success in his great undertaking, will confer with his colleague, the Minister of Transport, on this method of stimulating production.

NOTES.

A Bargain. Will architects view with pleasure the arrangements now made by a certain Town Council for the purchase of standard cottage designs from their surveyor at five guineas per set and the sale of copies at two guineas a set to prospective builders? If they are very good designs it will be quite cheap art. Architects will hardly be eager to enter into competition with this kind of enterprise, but it does look like a quite profitable affair for the Council.

The Fine Arts Commission. As one might have expected, the appointment of a Fine Arts Commission has led to much criticism, a good deal of which may be discounted. And, considering the results of the Fine Arts Commission in New York, it is hardly wise to condemn quickly and hotly the establishment of such a body. Naturally the composition of the Commission will not please everybody, and it is just as unfair to focus criticism too violently on the attainments of its members as it is to allow no preacher to preach because he does not in himself sum up all the virtues. There is, however, something to the point in the letter we publish to-day from the British Confederation of Arts. We have too many loose ends in our activities for reform, and a closer union of all those bodies which are working for the better understanding and use of art is much to be desired. There are infinite degrees of beauty and refinement amongst all workers in the arts, and most folk are unfortunately content with a low standard of quality in our coinage, our street lamps, our railway stations, our tea cups, our processional displays, our river banks, our telephone kiosks, our beer mugs, our commercial buildings, and all the things we have to use and look at every day. No commission can insist on the betterment of all these things, and perhaps it is as well it should not have the power to do so, but the mere fact of a Fine Arts Commission being appointed should count for good. It certainly should be composed of the soundest intelligence, the broadest sympathy, the keenest vision, and the loftiest ideality we can command. If it is not representative of the best we have amongst us it is handicapped from the beginning.

Density in Glasgow. Mr. James Stewart, Under Secretary of Health for Scotland, is reported to have informed the Glasgow authorities that they would not be allowed to build houses in excess of 24 to the acre. It appears that the authorities, in clearing slum areas, proposed building at 48 to the acre. This exactly illustrates what we have constantly urged—that the refusal of the late Government to limit the number of houses to the acre was disastrous folly. If the report is correct and Glasgow really intended to build 48 *houses* to the acre we can only stand amazed, but if the intention was to build 48 *tenements* to the acre we would refer the authorities to the findings of the Royal Commission on the Housing of the Industrial Population of Scotland, Rural and Urban (1911), in which it is emphasised that not more than 32 tenements, to be of three stories, should be built to the acre and that this recommendation should be embodied without delay in an Act of Parliament. What a farce it is! Royal Commissions sit and collect evidence for months. For months the best brains available sift the evidence and produce a comprehensive scheme for future guidance. The Government of the day then acts as if the Commission had never existed. That is the usual procedure, and we hope that the new Government will break the tradition.

Cross Traffic Improvements. We have heard it said that the average successful grocer manages his affairs with more foresight than does a great community of citizens. But London is so vast a congregation of humanity, with interests so varied and often conflicting, that no dominant controlling force has been found yet to work for the common good. We find this difficulty put forward on Tuesday by a writer in the *Morning Post*, who says our difficulty is that where other nations bite we only nibble, or else we might create underground subways to provide for great streams of cross traffic. He instances the terrible aggregate of wasted time at such a point as Oxford-circus, which would be obviated by a "dive" which could be made at a comparatively small cost and without affecting superficial conditions. Abolish horses and improve cross traffic, says the writer. "If we go on for another fifty years without doing either, it will be because what we call the London traffic problem represents the thwarted ideal of the hustler rather than the crying need of the public as a whole."

Town Planning. How many educated men, if they were asked in a general knowledge paper to define "Town Planning," could do so even in the vaguest manner? Nine out of ten would say it meant putting up some kind of building or erecting garden suburbs; one might go



British Empire Exhibition: Newfoundland Building.

Messrs. J. W. Simpson & Maxwell Ayrton, FF.R.I.B.A., Architects.

further and say that a large percentage of those in office on local authorities, builders, and even architects, would be found wanting in an elementary understanding of what is to become one of our greatest practical sciences of the future. The Ministry of Health, having suffered much from the ignorance of earnest inquirers, has issued a pamphlet on this subject, and we recommend those of our readers who would fail in the general knowledge question to study this explanatory pamphlet.

The Subject and the Method. There is a significance not to be missed in the appearance of a work on "Britain Beautiful." We welcome all such publications and we imagine the appeal will prove irresistible to thousands. Though much might be offered in criticism as to the mechanical methods employed, everyone may be something the richer and better informed from acquaintance with a publication which illustrates so many of the treasures of our wonderful little island, which are practically inexhaustible. Architecture and landscape appear to come in for a fairly equal share of attention; but what a series of books illustrative of the best aspects of our land and its building might be published! The cost would be prodigious and the public might not value it at its true worth, but it requires little imagination to visualise the charm of a publication on such a subject if dealt with sympathetically by the scores of able artists in the world to-day who are now only half employed. It would, perhaps, need the enterprise and vision of an American business man to tackle such a vast and wonderful subject.

Classic Tradition. "Despite our temporary infidelities, we are still men of the Renaissance," says a writer in *House and Garden*. Well, our lives are certainly pretty well salted with infidelities to-day, but the main concern of those who want beautiful building should be to find a something which is not necessarily bound up with a style or a tradition, or to seek a feeling for fine proportion and distinction of line, mass, and detail as our main concern, and then the battle of styles will be a matter of secondary importance. We may note, by the way, that those who call most loudly for a free hand as regards all styles and traditions give us little or nothing themselves to justify that freedom.

A Unique Church Window. Few parish churches in England have escaped the pious memorials of the Victorian era, and since the principle of safety-first rightly conserves the bad with the good, we must accept the continued prospect of acres of crude magenta, bog green, Reckit's blue, and gamboge illustrating scenes from the Old Testament in ill-leaded stained glass, until time, extending beyond our generation, may lend a mellowing influence. Mercifully only a small proportion of such artistic outrages are to be found in English churches, but in Ireland, where practically all ecclesiastical architecture is nineteenth-century work, these witnesses to devout grandeur persist. And yet it is in an Irish church overlooking Glengariff Bay that a notable exception may be seen. One of the Ladies Bantry inserted there a clear plate-glass window, at a date when magenta was reserved for churches, and plate glass for noblemen's mansions. Under this window, from whence the blue bay and purple hills can be seen receding into the distance, are engraved the words: "*The Hea ens declare the Glory of God and the Firmament showeth His Handiwork.*" As a lasting tribute to good taste this memorial is probably unique.



How Buildings are Spoiled: Bush House, from the Refuge in Kingsway.

The Roubiliac Models. The three models by Roubiliac, an eighteenth-century sculptor, found in the Triforium at Westminster Abbey have the interest which attaches to the character of such a find—which is not great. This is one of those cases in which the old is not necessarily good, and these models, so florid, pompous and artificial in their character, have but little interest artistically. In fact, it would not be too much to say that both in design and character they represent everything that is most artificial, and, therefore, undesirable in the art of the sculptor. We may feel sorry for the troubles which surrounded Roubiliac, but he was the sycophant of a court, waiting on greatness and lending his genius to the soul of fashionable tableau art, which appealed by its pseudo-magnificence to the courtesan and the courtier, but was offensive to anything better. And the discovery of these models, though interesting as a record of the time, have little other interest to recommend them.

Individualism in Church Monuments. There has been a great improvement in the private memorials we see erected in our parish churches and elsewhere, but it would be an admirable practice for the Church Council or authorities to keep a list, prepared by the architect, of accessories still required in a church or chapel, and which a giver could consult without further responsibility in the choice of design. This plan has been admirably executed in the Sandhurst College Memorial Chapel, and in connection with it one can only pass a single comment—that it might have been better if the names of individual donors and of those whom they wish to remember had been inscribed in a special book of commemoration instead of being lettered on some adjacent column, apparently promiscuously, but intended to imply that a lamp, lectern, or crucifix near by had been presented in special memory. The beautiful lettered panels of the various regiments are a sufficient roll of honour, without these extra individual intrusions, however well executed, and they somewhat lessen the poignancy of the memorial as a corporate witness.

GENERAL NEWS.

Management of Landed Estates.

Mr. A. J. Burrows, F.S.I., F.A.I., gave the first of a series of two lectures on the subject of the "Management of Landed Estates" at the College of Estate Management on Friday last week. At the commencement of his lecture Mr. Burrows dealt with the necessary qualifications of a land agent, and then passed on to describe a typical estate and the work to be done thereon, such as the letting and the management of farms, small holdings and allotments. The lecturer also dealt with repairs and discussed the best system of carrying these out. He also went very fully into the question of the various kinds of improvements to be done to an estate such as the provision of new buildings, drainage and fruit planting. In conclusion the lecturer dealt with outgoings, and the rates and taxes with which it would be the duty of the land agent to deal.

Architect's Estate.

William Hawley Lloyd, of Leamington Priors, formerly of Birmingham, architect, who made contingent bequests to the Church Missionary Society for Africa, the Royal Midland Counties Home for Incurables and the Church Pastoral Aid Society, left estate value £32,912.

R.I.B.A. Visiting Board.

The Council of the R.I.B.A. on the recommendation of the Board of Architectural Education have approved the creation of a Visiting Board to visit and report upon all Schools of Architecture applying for or enjoying exemption from the Royal Institute Examinations. The following have been appointed to constitute the Visiting Board:—

Mr. Paul Waterhouse, Mr. W. Curtis Green (Chairman of the Board of Architectural Education), Mr. Maurice E. Webb (Vice-Chairman of the Board of Architectural Education), Professor C. H. Reilly, O.B.E. (Roscoe Professor of Architecture, University of Liverpool). H.M. Inspector, Mr. M. S. Briggs, will accompany the Visiting Board upon their visits to those Schools of Architecture which have official relations with H.M. Board of Education.

Town-Planning Regulations.

A Supplement embodying amendments of, and additions to, the Model Clauses for use in the Preparation of Town-Planning Schemes has been issued by the Ministry of Health. (London: H.M. Stationery Office; price 9d. net). The Supplement relates to the regulation of streets under town-planning schemes and by-laws; revision of standard specifications for street works; approval of orders by the Minister of Health; power to reserve land for streets not shown on the map; leave of Minister to be obtained before appealing; and minor amendments.

Obituary.

Mr. C. W. Reeves, A.R.I.B.A., died at Charing Cross Hospital on January 15, 1924, aged 70 years. On the previous Saturday he was knocked down by a taxicab when crossing Wellington-street, Strand, and received such severe injuries that from the first there was no prospect of his recovery.

The son of the Surveyor to the Metropolitan Police, he was articled to the late Mr. H. O. Chislett, of Wimborne, and then came to London where, for a few years, he was an assistant in the office of Messrs. E. Habershon & Brock, whom he left to commence practice upon his own account. For a short time he was at 102, Guildford-street, and at 25, Bedford-row, and in 1884 he removed to 3, Gray's Inn-square, where he had practised ever since.

Mr. Reeves was surveyor to the Masters of the Bench of the Honourable Society of Gray's Inn, architect to the Managers and Governors of the St. Clement Danes Holborn Estate Charity, surveyor to the Rhodes Trust, and surveyor to several building societies.

He was well known as a capable and practical surveyor in party wall matters, ancient light cases, dilapidations and all matters appertaining to a surveyor's practice.

Mr. Reeves carried out a fair amount of architectural work, amongst which may be mentioned the following:—

Considerable alterations and additions to the War Memorial Hospital, Enfield; large bottling stores and warehouses for Messrs. Robert Porter & Co., in London and Liverpool; London Central Cold Storage; new Common Room and Class Rooms, Gray's Inn; new premises for Messrs. Ridgway's, Ltd., at 40–42, King William-street, E.C. (both the foregoing were exhibited at the Royal Academy); nurses' hostel in Francis-street, W.; parish room, Lady Chapel and memorial screen at St. Mary Magdalene, Enfield; St. Clement Danes Schools, Drury-lane; and numerous private houses at Enfield, Sunningdale, Waltham St. Lawrence and Purley.

In 1914 Mr. Reeves took his son, Mr. Charles W. Reeves, into partnership, and in 1921 Mr. Alfred R. Rason, who had been with him for nearly forty years, the firm being known as Reeves, Son & Rason.

Mr. Reeves was elected Associate in 1880.



Church of St. Julien, Brioude. (*See p.* 211.)

COMPETITION NEWS

Masonic Peace Memorial.

The following report of the Special Committee has been approved by Grand Lodge:—

"It is proposed to issue an invitation to architects to submit designs and plans for the new building in competition. This competition is to be open to all architects, and to be conducted in two stages; a first or sketch competition, and a second or final competition. Not fewer than ten designs will be selected from those submitted in the first competition, and of these a further selection will be made of six designs, the authors of which will be invited to submit detailed plans and designs in the second or final competition. Each of the six architects submitting a *bona-fide* design in the final competition will receive an honorarium of 300 guineas. Three assessors will be appointed: an architect, to be nominated by the President of the Royal Institute of British Architects; an architect who is a Freemason, to be nominated by the Special Committee; and the Grand Superintendent of Works for the time being. The conditions governing both competitions will be in accordance with the Regulations of the Royal Institute of British Architects for Architectural Competitions.

"It is proposed to treat the whole of the property of Grand Lodge, being the area bounded by Middle-yard, Great Queen-street, Wild-street, and Wild-court, including the sites of Mark Masons' Hall, the Connaught Rooms, Freemasons' Hall, and the properties between Freemasons' Hall and Wild-street as a cleared site. The designs to be submitted in competition will provide for a building to cover eventually the whole of this land.

"It is intended first to provide and complete on the site between Wild-street and Freemasons' Hall the new Temple and such accommodation as will replace as far as possible that existing in the present Freemasons' Hall, thus limiting to a minimum the disturbance of the executive and other work now carried on in that building.

"The new building will contain:—(1) A large temple with seating capacity for 2,000 persons, with separate cloak rooms and lavatory accommodation, registration hall, and vestibules and scrutineers' room; (2) administrative offices adequate to the growing needs of the craft, including a suite of rooms for the Grand Secretary and Assistant Grand Secretary, with rooms for personal clerks, and waiting rooms, a general staff clerks' office, register room, muniment rooms, and board and committee rooms, with all necessary conveniences; (3) the needed increased accommodation for the Grand Master, Grand Officers, and Past Grand Officers; (4) a suite of large rooms for the use of London, provincial, district and other visitors, to include a reading and writing room, smoking room, three conference rooms, a locker room, lavatories with dressing rooms, bathrooms, and the like; (5) a library and a museum, with librarian's rooms and strong room; (6) not fewer than fifteen Lodge and Chapter rooms, varying in size from a room to hold 600 for meetings of Grand Chapter, and the Great Masonic Assemblies, and rooms for large Lodges with attendances of from 150 to 400, to small rooms suitable for attendances of 30 to 50; all these will have ante-rooms with separate candidates' rooms; (7) store-rooms adjacent to each Lodge room, where books, records and other Lodge property may be kept for the convenience of Lodges.

"That part of the building containing the Lodge rooms and store-rooms is to be so designed structurally as to allow of the addition of further floors of Lodge rooms in the future as occasion may require."

Royal Masonic Institution for Boys: Junior School, Bushey, Herts.

The drawings submitted by architects in the limited competition for a Junior School for Boys at Bushey, Herts, will be on exhibition in the board-room at the offices of the Institution, 26, Great Queen-street, W.C.2, between the hours of 10 o'clock and 5 o'clock from February 18 to 22. Members of the profession will be admitted on presentation of their cards.

Port Talbot.

The premium of £20 offered by the Borough of Port Talbot for the best design for entrance gates for the Talbot Memorial Park has been awarded to Mrs. Morris Gray, of Penrith.

Edmonton War Memorial.

The Council has accepted the design of Messrs. William Griffiths & Co., Ltd., London, for this competition.

Ashton-under-Lyne.

The design and tender of Messrs. Johnson's Reinforced Concrete Engineering Co., of Manchester, has been provisionally accepted for the bridge over the River Medlock.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Essays on Heating and Ventilating (Mar. 31; Nov. 9, 1923). Holmside Hospital (Feb. 14; Dec. 14, 1923). Industrial Designs (June; Dec. 21, 1923). National Theatre (April 26). Monument to Sir Wilfrid Laurier (April 3; Dec. 14, 1923). Belfast Union Lighting (March; Nov. 9, 1923). Dunfermline War Memorial (March 8; Dec. 28, 1923). Newcastle Concert Hall (March 1; Oct. 26, 1923). Ross-Smith Memorial (Sept. 30; Feb. 1). Newcastle Fire Station (March 27; Feb. 1).

TOWERS AND SPIRES.

By SIDNEY TOY, F.S.A., A.R.I.B.A.

V.—CHURCH OF ST. PAUL, ISSOIRE.

A skilful method of treatment of the crossing and the tower over it was developed during the eleventh and twelfth centuries in the French province of Auvergne. Conspicuous examples of the principles adopted are afforded by the churches of Issoire, situated in the centre of the province, of St. Nectaire, St. Saturnin, Notre Dame du Port Clermont, and of Brioude. In many cases, as at St. Nectaire, Notre Dame du Port Clermont, and Brioude, the tower has been rebuilt in modern times, and probably the only church of this group which remains intact is that of St. Saturnin. This church dates from the end of the eleventh or beginning of the twelfth century. It is one of the smaller examples, but possesses the general characteristics of the type and preserves its original tower with stone spire.

The church of St. Paul at Issoire, built in the twelfth century, is the largest of this class and is typical of the work of the school, both in respect to the general plan and in the disposition of the crossing and tower. Although in the course of ages the tower has undergone minor alterations, and perhaps additions, its lower part appears to be substantially original.* At the crossing the plan of the church (Fig. 10) is disposed in a normal manner and differs little from that prevailing elsewhere at the period, but as the walls rise towards the vaults the distinctive character of the design becomes more pronounced (Fig. 11). The four arches of the crossing are carried to a considerable height and the crossing itself is covered by a dome raised sufficiently above the arches to allow space for windows below it and over the chancel roof. At the angles the dome is supported on well-designed squinch arches, and in order to restrict their span, and consequently their thrust on the walls, the dome is somewhat distorted in shape, as indicated on the plan (Fig. 10). The vaults of the north and south transepts are not continued to the walls of the tower as are those of the choir and nave, and as was usual elsewhere, but are stopped by transverse arches, thrown across between the portions A and B (Fig. 10). By means of these arches the bays of the transepts A.A., adjacent to the tower, are carried up a stage higher than the bays B.B. They are lighted by an additional clerestory and are covered by half-barrel vaults which abut against the dome over the crossing.

The advantages of this arrangement from a purely constructive point of view will be apparent on an examination of Fig. 11. The lateral pressures are received well up in the height of the tower by the half-barrel vaults of the transepts and are spread over the full extent of the building north and south. The vault of the nave is carried up to a greater height than that of the choir and abuts against the squinch arches, so that practically the whole of the pressure of the tower is converted into a dead-weight, which is in itself sufficient to neutralise the lower thrusts of the dome, and is carried by the four great pillars of the crossing. Æsthetically, also, the improvement is very considerable. By means of the windows in the additional clerestory of the transept, and of those immediately below the dome, the crossing of an otherwise sombre church is flooded by an agreeable light. In order that the walls above the great arches should not impede the circulation of light they are pierced with arcades, as seen in Fig. 11.

The external effect of this method of construction is well seen in Fig. 12, a photograph from the south-east of the church. By this manner of piling up the central portion of the structure tier on tier in diminishing stages and culminating in the tower the building acquires a dignity and repose which are most striking. The break between the upper clerestory and the tower is a little abrupt, due doubtless to alterations, and the present low timber spire somewhat detracts from the effect. But the original design, if one may infer from the analogy of the early work at St. Saturnin, and if carried out, would have produced a most inspiring structure. The stone spire of the church of St. Saturnin springs directly from the top of the walls of the tower.

* M. Viollet-le-Duc, in his "Histoire de l'architecture," Vol. IX, p. 220, says that the upper part of this tower has been disfigured and deprived of much of its primitive grace. But the drawing he gives, *op. cit.* p. 219, presumably embodying his conception of the original or intended condition of the structure, is widely conjectural and not very convincing.

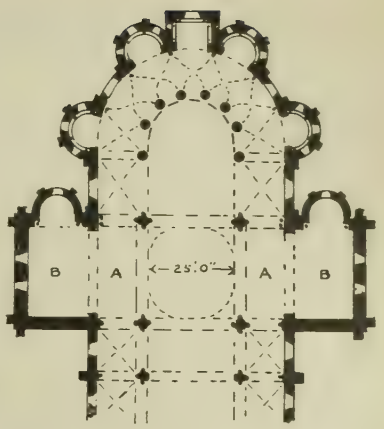


Fig. 10.—Plan of St. Paul's, Issoire.

Building Costs in London.

Answering a question at the London County Council as to the cost of the smallest type of house now being built by the Council, Lieut.-Colonel Levita said that the cost of a three-roomed house, including roads and sewers, on the Council's estate, was £510, and the lowest remunerative weekly rent was 13s. 6d. per week, exclusive of rates. The actual rent charged was 9s. 6d. a week, exclusive of rates.

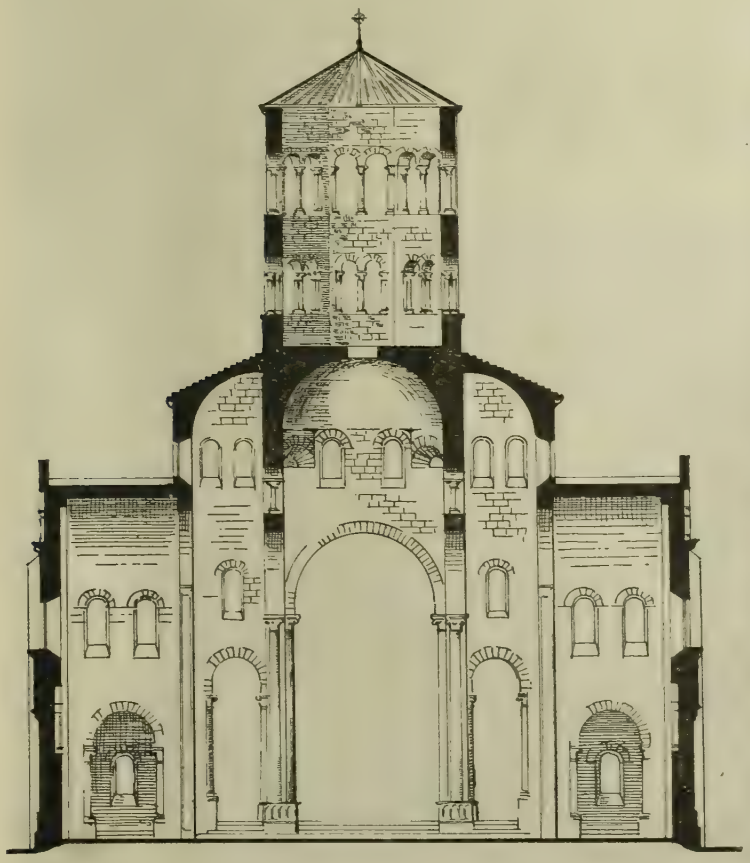


Fig. 11.—Church of St. Paul, Issoire: Section through Transept.



Fig. 12.—Church of St. Paul, Issoire.

CORRESPONDENCE.

Posters and Advertising.

Sir,—I have noted in the Press of late that an important conference of advertisers is soon to be held in London, the American organisers of which state "that advertising in this country is still in its infancy"; in consequence of which a huge advertising campaign is to be launched throughout the country.

I am strongly of opinion that should this be successful it will be at the expense of our few treasured possessions in the way of landscape, architecture, &c. I, for one, certainly think that already we have far too many posters, and that the ever-increasing electric sky signs of the West-end are "vulgar and inartistic" at night, whilst their appearance during the day, "sprawling right across architectural refinements" which are the product of years of study, is greatly to be deplored.

If, on the other hand, the advertisers really wish to improve English advertising, why not encourage really artistic posters, and in lieu of our present garish night signs "flood light" the buildings as a few West-end firms have done?

I feel sure that if the conference follows something on these lines it will achieve success, produce a "Brighter London," and at the same time encourage an appreciation of architecture, which appears to be sadly lacking in this country at the present moment.

Sidney H. Loweth, A.R.I.B.A.

London.

Estimating.

Sir,—Being interested in the subject of estimating, I read Mr. Sumner Smith's paper on the "Principles and Practice of Estimating," published in your issue of the 18th ult. I regret that his remarks did not add to my knowledge.

I quite agree that, as far as possible, estimating should be done on scientific lines. The cost of a yard cube of concrete, however, may be obtained with accuracy without entering into elaborate calculations as to voids. Writing as one with practical experience in the matter, I do not hesitate to say that the only safe method of obtaining the exact amount of material in concrete to a definite specification is by an actual test. The method which I use is as follows:—

I obtain samples of the materials proposed to be used and weigh measured quantities of each, thus obtaining their respective weights per yard cube. This information is most essential as one usually buys by the ton and uses by the yard cube. Supposing that the specification is four parts broken granite, two parts sand, one part cement. I then take four cube ft. of the granite, two cube ft. of sand and one cube ft. of cement, mix them in the usual manner, dry and wet, exactly as they would be done on the job. I then carefully take the measurement of the mixed concrete, after thoroughly ramming into a suitable gauge box. The volume of concrete produced is found to be about 4⅝ cube ft. This will vary with the different material used. This information is all we require to price out our concrete.

We will suppose that the broken granite costs 20s. per yard cube delivered on the site, the sand 10s., and the cement 80s. The price per yard cube would be obtained from the price per ton by the ascertained weights.

Now, 4 yds. cube	granite	at 20s.	= 80s.
2 „ „	sand	„ 10s.	= 20s.
1 „ „	cement	„ 80s.	= 80s.
7 „ „	mixture		= 180s.

This makes 4⅝ yards cube concrete. Thus the concrete material costs 38s. 7d. per yard cube, to which we add the labour. If one is continually using the same class of material to the same specification, it is convenient to evolve a formula in cwts. of the materials to the yard cube, and keep for reference.

With regard to water for the concrete, in this part of the country it is usual to pay for the water on a contract, at a rate fixed by the amount of the contract and not by the gallon.

W. S.

Burton-on-Trent.

Towers and Spires: An Appreciation.

Sir,—In the first of the above series, published on Jan. 11, the centering shown in the cross section of Salisbury spire is the first I have seen in print during the fifty-two years I have been reading *The Builder*. I have looked through Wicke's, Fletcher's, and Gwilt's works on Architecture, and find it is not mentioned. In Francis Bond's book it is mentioned but not shown, but he states the thickness of stone in the spire is 9 in. at the base and 7 in. near the capstone. Perhaps Mr. Toy would oblige by stating which is the correct thickness.

Edward Vale.

Weston-super-Mare.

Menai Bridge.

Sir,—Your correspondent, "H. C.," appears to be in error with respect to arched bridges carried out in reinforced concrete. The largest reinforced concrete arch known to me is the Sergolomento Bridge, of 328 ft., at Rome. There are also many steel truss girder bridges in one span up to the 720 ft. span of the Metropolis Bridge in the United States, but these cases are hardly relevant to the matter.

I do not, however, doubt the practicability of building a 500 ft. concrete arch at Menai.

W. H. T.

London.

Sir,—Will you permit me to close this correspondence by saying that in the reference to "Telford's graceful structure" ought not to be read a denial of a like attraction in one of ferro concrete, and to point out that "H. C." has not answered my first letter?

A. Henthorn Stott.

British Confederation of Arts.

Sir,—As an organising council which aims at confederating the associations and societies of workers in the arts, we note the official setting up of a Fine Arts Commission to advise the Government and other public bodies and to "form the taste of the nation."

While agreeing that such a Commission may do valuable work, we believe that as various bodies representing the different points of view of workers in the arts in this country are in existence such bodies—through their accredited representatives—should be brought into consultation and facilities should be afforded for a more representative Commission.

We would point out that many arts are untouched by the present proposals, such as the art of the theatre, which so largely influences public tastes; the industrial arts which go to every home and without which advice cannot be adequately given with regard to interior decoration of public buildings; and arts in their educational aspect, as from schools and training colleges, which all have a most obvious influence on national tastes.

A. Sedgwick, *Hon. Sec.*

British Confederation of Arts.



British Empire Exhibition: East Africa Building.

Messrs. J. W. Simpson & Maxwell Ayrton, FF.R.I.B.A., Architects.

Mr. J. Alfred Gotch, President of the Royal Institute of British Architects, delivered the Annual Address to architectural students on February 4.

In the course of his address he said there were few things by which youth was more readily annoyed than by advice from its elders, those persons who had acquired so much wisdom as to have lost their enthusiasms, who were full of tediousness, and yet, like Dogberry, could find it in their heart, were they as tedious as a king, to bestow it all upon their juniors. But he would beg them, for that night at least, not to look upon him as a tedious elder, but as a student, as one student speaking to another, for he protested that he was still a student of architecture, and hoped to remain one to the end of his days.

He would like to remind them of what, no doubt, they were already fully convinced in their own hearts, that the future of English architecture lay with them. It was their duty, or shortly would be, to guide public taste into the right channels; to apply the logic of design to new methods of construction; to solve their problems with unstinted ingenuity; to maintain a high standard of conduct in the pursuit of their calling.

That reflection, divested of the delightful vain-glory proper to youth, was sufficiently sobering; but sobering though it was, it need not be paralysing. On the contrary, the thought was in the highest degree inspiring, and there was no more powerful aid to the doing of great things than inspiration. But inspiration, if it were to be fruitful, must descend upon congenial and receptive minds, and having entered it must discover, not an empty chamber, but one well equipped. It was to gain the necessary equipment that they had become students of architecture under the auspices of the Royal Institute.

When he contrasted the methods of initiation into the mysteries of their craft, which it was given to them to employ, with those vouchsafed to their forerunners, he was filled with envy and admiration. They had the help of experienced teachers; they had excellent appliances, and an inspiriting *esprit de corps*; they were able, with a sense of leisure, to devote their days through a series of years to the study of their art. But how was it in the old times? There were then no schools save that of the Royal Academy, unless they took into account a number of schools of art in which, however, architecture was not fully understood. The young architect then learnt his art in an office, supplementing it in some cases by attending classes in the evening where they were available, or snatching reluctant leave from his daily duties to attend lectures in the daytime, if they were within his reach. But these supplementary opportunities for acquiring theoretical knowledge were confined to a few very large towns, and among such opportunities stood out most conspicuously the Architectural Association. This was not the occasion to dwell on the admirable work of that institution; what was germane to the subject was that its work was done in the evening after office work was over.

It was true that among the young architects struggling to teach themselves there were a few fortunate and gifted individuals who entered the Academy School or even travelled as far as the Ecole des Beaux Arts at Paris.

The old haphazard way of learning to be an architect had been replaced by a regular course of study, but its effect on the public mind appeared not yet to have passed away; for too often they found that members of the public, and, in particular, public bodies, were under the impression that no great amount of training was necessary for an architect, that anyone whose training was remotely allied to architecture, or, for the matter of that, who had had hardly any training at all, was competent to carry out architectural work. They did not realise that in the old days the study was as severe, although not so well regulated, as it was at present.

But that there was a great deal more which went to the making of an architect than that which appeared upon the surface was sufficiently proved by the number and variety of the prizes and studentships which were offered for competition by the Institute. He was sorry to see that full advantage had not been taken of the opportunities so offered. The number of competitors had been small, and some of the work submitted had not been of merit enough to justify the award. The Essay Prize had not been awarded, nor the Pugin Studentship, nor the Grissell Medal. These prizes were for work which affected education in different directions. The essay tested the writer's knowledge of his subject and his ability to convey that knowledge in an agreeable manner; in other words, it tested his literary skill. It was a pity that some of the younger architects did not cultivate a literary style, for so few of them seemed able to rise above the level of the graces of the specification that the road to distinction in this direction was but little obstructed and seemed to invite more traffic.

The decline of the Pugin Studentship was to be deplored, for the work submitted in competition need not be specially prepared, but might be the student's own sketches made on his holidays and the outcome of his recreations.

What were the reasons for the falling-off in candidates this year? One was said to be the fact that students were so fully occupied in the work of the schools as to have no leisure for competing for the admirable prizes of the Institute. But he had heard there might be another reason: that students were impatient at the long course of study necessary to master the art of architecture as now conceived; that they had visions of a new style free from the shackles and conventions of the past; that they thought they could strike out a new line of their own.

Imagination, continued the President, was one of the most enviable possessions of the artist, who might also conceivably be an architect; imagination could lift him from earth to heaven. But for heaven's sake, and for earth's sake too, he asked them not to imagine that a new style of architecture could be invented even by the most gifted student in the full flush of his intuitive perceptions. They were all prone to wish that it could be so, and some, maybe, thought it actually possible; but all history taught the contrary. Wherever they looked they found that changes had been gradual, whether they examined architecture, or mankind, or the universe itself. Violent upheavals there had been in the framework of the earth, but their range had been limited and they had not changed the essential development of the great globe. Violent upheavals had occurred among mankind, but they had not permanently affected the orderly processes which controlled its fate.

In architecture no violent upheaval had occurred. The most distinct change to which it had been subjected was that which they called the Renaissance, when Gothic architecture was superseded by the revived classic. But even that change was not entirely abrupt. To take their own case in England, where there was no other tradition than the Gothic: more than a hundred years elapsed between the invasion of the new classic detail, in the shape of Torrigiano's tomb for Henry VII in Westminster Abbey, and the erection of the first building absolutely free from all trace of Gothic ancestry, in the shape of Inigo Jones's Banqueting House at Whitehall. But these very examples were subject to reservations. For the recumbent figures of Torrigiano's Italian tomb were still those of the Gothic tradition. Foreigner though he was, and imbued with foreign ideas, he was unable to free himself wholly from the influence of his new surroundings. Inigo Jones himself, in his early work, made use of traditional methods of design, and although he ignored them in later years, his contemporaries were unable to do so, but still succumbed to the spell of the past. What the giants of old could not do, the giants of to-day, even the youngest, could hardly hope to achieve: the inevitable conditions of architectural design were too stubborn.

He was convinced that they would better advance their art by pushing forward in the same direction as their predecessors, and towards which they had turned their faces, than by making excursions into the uncharted wilderness on either hand. But he spoke from beneath a certain weight of years: they had all the resilience of youth. Long might they retain it! And when the exuberance of youth should have passed, and they began to look back upon the past, rather than forward to the future, might they be conscious that they had always striven after those qualities of fine architecture which shone through all the incrustations of changing styles—proportion, gracefulness, and masterly ease.

After the conclusion of Mr. Gotch's address followed the presentation of prizes and studentships for the year; and a criticism of the work of the students by Mr. Henry M. Fletcher, F.R.I.B.A.

At the close of the proceedings, a vote of thanks to the President was moved by Mr. E. J. Partridge (President of the Society of Architects), and seconded by Brig.-General G. H. Gater, C.M.G. (Education Officer of the London County Council).

THE ROMANCE OF THE ROMAN FORUM.

Sir Banister Fletcher lectured recently on "Ancient Architecture" at the Central School of Arts and Crafts. It was the second of the term's lectures, and he described the plan of ancient Rome on her seven hills, with the great Forum Romanum in the central valley. The Capitoline Hill dominated this public-meeting place on one side and the Palatine Hill, with its imperial palaces, on the other. The Forum Romanum was the heart of Roman civic life, and held much the same position as the Acropolis of ancient Athens, only that, for the practical Roman, it included the commerce of the city and was flanked by temples of the gods and courts of justice. Here political demonstrations were held, as they were now held in Trafalgar-square, and from the rostrum orators addressed the populace on matters of stage, and demagogues harangued the "plebs" and instilled the spirit of discontent. Stately colonnades, spacious basilicas, and the majestic temples of a state religion all made a fitting setting for the activities of Roman citizens. Here the old Romans walked and talked, bargained, intrigued and worshipped. But the city grew with its growing empire, and successive emperors, eager to ingratiate themselves with the people, built other forums for the people which rivalled in size, but never in importance, the old Forum Romanum of the citizens. All these Forums were monuments to their Imperial founders and ornaments to the city. Once hives of human activity, they were now dead sites—broken records of a greatness that had passed.

Sir Banister's third lecture at the Central School of Arts and Crafts, was delivered on January 30, and dealt with the circular temples and basilicas, or courts of justice, of the Romans.

LEEDS ARCHITECTURAL SOCIETY.

The annual dinner of the Leeds and West Yorkshire Architectural Society was held at the Great Northern Hotel, Leeds, on Thursday, January 24, and took the form of a Literary Dinner. The President of the Society (Mr. Eric Morley) presided, and amongst others present were the Lord Mayor of Leeds (Sir Edwin Airey), Mr. J. Alfred Gotch (President of the R.I.B.A.), Mr. Lascelles Abercrombie, M.A. (Professor of English Language and Literature at Leeds University), Mr. A. Hamilton Thompson, M.A., D.Litt., F.S.A. (Reader in Mediæval History at the Leeds University), Mr. C. H. Reilly, M.A. (Professor of Architecture at Liverpool University), Mr. H. S. Chorley, M.A., F.R.I.B.A., Mr. W. Alban Jones and Mr. T. H. Foggitt (Vice-Presidents of the Leeds and West Yorks' Architectural Society), Mr. W. Whitehead (Treasurer), Mr. F. L. Charlton (Secretary), Mr. J. C. Procter, Mr. T. Butler Wilson, and Mr. W. J. Turnbull.

Mr. H. S. Chorley, in proposing the toast of "The City of Leeds," said Leeds was at the present time, with the one exception of Liverpool, the best of any city as regards housing schemes. Leeds was also a pioneer in the matter of arterial roads and the development of suburbs, and also had one of the largest schemes in existence for the wiping out of slums. This progress was mainly due to the fact that there were in the city a large number of public men who were prepared to give up their time to the city's welfare.

The Lord Mayor, in responding, said architects were very great idealists, and like most idealists they were very expensive luxuries. They outlined for the ordinary layman the beauties of buildings, which, if they were erected, would be an unceasing joy. These, however, could not be obtained; first, because of the great cost of building; second, because of the lack of support from the would-be owners; and, third, because of the great demand for utility rather than for beauty. The general public needed educating to the value of architecture and its services. They were living in times of great publicity, and it would be to the advantage of the community in general if architects undertook some form of publicity in the shape, for example, of lectures. He would like to remind them that many of their ideals would not be possible but for the builder—the hewers of wood and the drawers of water. Slum property was still wrongly looked upon as a necessity in industrial centres. Mean streets and mean houses meant men, women and children were neglected. If they could only do something to improve the industrial centres it would have the effect of allowing people to live better and purer lives. He wished that the architectural profession might prosper as it so thoroughly deserved.

Mr. Lascelles Abercrombie, in proposing the toast, "The Literature of Architecture," said that he felt that literature had a certain unfair advantage in all such topics as these, for the people who practised the other arts, when they desired to explain themselves, or to draw attention to themselves, could do nothing else but call in the art of literature. Yet the art of literature had been less than fair to the art of architecture. There was a tendency among novelists to make the architect slide almost imperceptibly into the villain. That was probably an attempt on the part of the public to get back at the architect for some of the things from which they had suffered, and for which they quite ignorantly blamed the architect. It was undoubtedly less than grateful on the part of literature not to take that high view of the art of architecture. Literature, of all the arts, was the one which must always realise the value of civilisation, the one thing which perhaps made life worth living. Civilisation could not exist without town life, which was the instrument of civilisation, and it was architects who provided town life with its embodiment. And there was another reason. As a provincial he, of course, looked upon London as a place where provincials went to spend their money, but that was not the way in which London regarded the provinces. There was no reason why London should be regarded exclusively as the cultural capital. If we looked back in history, we found that towns half the size of Leeds, towns such as Athens and Florence, had been centres and capitals of culture, because they were entirely self-sufficient and self-reliant. That was what our English provincial towns should be. What was required was confidence in their powers of culture and of civilisation. Architects had long ago realised that their interests lay in the home town, and that they did not need to rely on the culture of the capital. It would be a good thing for the life of England when the members of the other arts imitated the architects in forming such cultural centres as that which he saw before him.

Mr. Gotch, in reply, having referred to the growing influence of the provinces in the affairs of the Institute, said that of all the great arts literature and architecture seemed to him to be the most widely divorced. The fact was that the great writers who had obtained the ear of the world had had little or no acquaintance with architecture. They had no other knowledge of it than enabled them to touch upon its fringes and outskirts. No one who had not been trained in the mysteries and detail of architecture could ever hope to deal with it in literature with success. Architecture hardly ever appeared in the poets, or, if it did, it was in but a fleeting manner. Chaucer, Spenser, Shakespeare, Milton and Gray all referred to architecture, but their descriptions were not written from the architectural point of view. In the writings of Ruskin there was a very intimate connection with architecture, but what architect who knew his Ruskin would describe him as a guide to the profession? He appealed to the emotions, and he had stirred in the public mind feelings which would be of benefit in that they would have opened the eyes of the public to the beauty that laid in architecture. But he was an unsafe guide because he had had no architectural training. To write a poem on architecture it was necessary to be fully versed in the history of its nature and in the logic of its construction. Perhaps some genius might still arise who, proved as an architect, might in the intervals give to the world glowing pictures of architecture full of colour and movement and full of truth.

Professor Reilly, in proposing the toast, "Architecture Pure and Undefiled," said that he had the greatest faith in the future of the profession because the education of architects was now being taken seriously. This would make a new post-war architecture which would be secured by the straight-forward answering of problems which would be in a sense undefiled, because it would be carried out in a spirit which was pure and undefiled. He thought that they should make their own centres independent of London. In towns like Leeds they could do extraordinary things in architecture, as they could in other arts.

Mr. Foggitt, in responding, said that he thought the ideal of architecture pure and undefiled was being realised bit by bit. Social progress during the past two or three years had been great, and at the same time the progress of architecture had been great also. With regard to housing schemes, he thought that there was a tendency to try and do something better than had been done before. The ideals with which the proposals for the housing schemes had been begun were great ideals, and the programme was a great programme. The attainment of some of those ideals had been found impossible, but the fact remained that there had been an effort made for better things, and that was a great step forward. Before we had had indifference and now we had a recognition that better things were desirable and some steps had been taken to gain those better things. In London there was now a realisation on the part of the public, more particularly among the great commercial and business houses, that architecture was, after all, something to be desired, and week by week buildings were being erected which had that qualification, and which were steps forward.

Professor Thompson, in proposing the toast of "The Architectural Profession," said that architects owed far more to the mediæval spirit than they were perhaps induced to realise. They had seen how possible it was to beautify the streets and squares of our modern towns and to take advantage of modern schemes in town planning in a spirit which turned upon tradition and at the same time was purely modern. He saw in architecture at the present time a really true and sincere carrying out of the spirit of the past, and architecture of to-day had a tremendous future before it.

Mr. Eric Morley, responding, said that the profession had been through some very hard times. The artificial spirit of the day had very nearly engulfed them in its inexorable tide of progress. The future held bright hope and there were two things on which they could count. The first was that the public was beginning to show a definite interest in their work, and the second was the progress that was being made in architectural education. These two facts meant that in the future an architect was not only going to have the pleasure of working for a discriminating public, but that he was going to be trained for his job.

Responding to the toast of "The Guests," which was proposed by Mr. T. Butler Wilson, Mr. W. J. Turnbull said he would like to draw the attention of architects to the great strides which had been made in the housing of the people under the direction of the Leeds architects. In the matter of lay-out, the excellence of the houses to-day was due largely to the efforts which architects had put forth.



British Empire Exhibition: West Africa Compound. West Africa Building.

THE LAW RELATING TO BUILDING.

By W. T. CRESWELL, Lic.R.I.B.A., F.R.S.I. (*Barrister-at-Law*).

V.—POSITION OF ARCHITECT UNDER THE CONTRACT AND TOWARDS THE CONTRACTOR.

After his plans have been approved by the employer the architect has no authority to invite tenders until he has the instructions of the employer to do so. Up to this stage he is merely a "skilled draughtsman." It follows that he can only claim remuneration as such until he has been instructed to superintend the works as agent of the employer. Further, even after the instructions of the employer to obtain tenders, and the receipt of any tender at or near the estimated price agreeable to the employer, the architect has no authority to enter into any contract for the work (see Hamer *v.* Sharp (1874), L.R. 19 Eq. 108).

After a contract has been duly entered into, the contractor is entitled to recover for all work done under the architect's or surveyor's orders, though such work may exceed the employer's limit; unless the contractor has been definitely informed of the employer's limit; if he has not, after payment has been made to the contractor, the employer may recover any loss from the architect or surveyor due to his having allowed the contractor to exceed the limit previously given him by the employer.

When once the architect or surveyor has taken over the superintendence on the employer's behalf, the contractor must obey all instructions of the architect or surveyor, even if he considers them unreasonable; there is no implied contract or warranty on the part of the employer that the architect or surveyor will only give such instructions as are reasonable (see Jones *v.* St. John's College, Oxford (1870), L.R. 6, Q.B. 115).

Nor can the architect or surveyor dismiss the contractor unless specially empowered by the contract to do so. Since the employer cannot be bound by orders or representations on the part of the architect or surveyor varying the contract, it is useless for the contractor when called into question to plead in reference to variations or alterations that the architect or surveyor represented to him that the contract must be varied either as to design or materials used, or that certain terms of the contract would be waived. In general, the limit of the powers and authority of the architect and surveyor should be such as is clearly defined in the written contract.

Architect's authority to employ a Quantity Surveyor.

Usually an architect employs a quantity surveyor to prepare bills of quantities for proposed works, if they are, in his opinion, of sufficient dimensions to render it obviously necessary that the builders in tendering should have this aid to giving a satisfactory estimate of cost. This authority, therefore, becomes an implied authority, in the case of larger undertakings, when he has been instructed to obtain tenders—but in general he should see to it that he has express authority—and more especially for smaller buildings—before calling in a quantity surveyor. The custom of architects employing quantity surveyors has been recognised in the English Courts, but does not appear to have been so recognised in the Irish or Scottish Courts.

It follows that an architect has no authority to prepare bills of quantities himself unless by the instructions of the employer; although it has been held (see Lansdowne *v.* Somerville (1862) 3 F. & F. 236) that where the architect and the employer are both familiar with the custom where it exists, then the architect has an authority. In the above case the judge left the following questions to the jury:—"Was there such a custom, and was it known to the parties, and did they contract on the footing of the custom?" The jury found affirmatively in each question, and judgment was as above. But in Antisell *v.* Doyle (1899) 2 I.R. 275 (where the quantity surveyor who had been instructed by the architect sued the employer for payment of his fees) the jury found that the employment was neither within the scope of the architect's authority nor sanctioned by the defendant, and that no custom exists sanctioning the architect's action; the majority of the judges stating that the alleged custom could not be relied upon as generally practised.

It follows also that if the lowest tender received by the architect exceeds the employer's limit, he has no authority, without the consent of the employer, to employ the quantity surveyor to adjust his bills of quantities to tally with any alterations or variations of plans, designs, etc., which have been made with the consent of the employer in order to bring the cost down to his limit. Especially as, knowing the employer's limit, the architect himself is responsible for not keeping his design within that limit. Further, the architect must have the employer's instructions before employing a quantity surveyor to measure up deviations in the works; especially if he himself is designated in the contract as the person to settle the accounts at conclusion—but, again, custom has been successfully pleaded where large and extensive measurements were involved.

If the employer should question any certificate granted by the architect, the latter may suggest that a quantity surveyor be employed to measure up the work; and, if the employer agrees, he is, of course, to be charged with the surveyor's fees. However, if the architect calls in the quantity surveyor without first obtaining the consent of the employer, then he is himself chargeable. In all cases, however, where the employer is informed that quantities have been prepared, and he ratifies the employment by acquiescence, he cannot maintain an objection to pay the fees of the quantity surveyor on the plea that the architect had no authority to employ him.



From a photograph by M. E. J. Strange F.I.O.B.

Amphitheatre (in marble) of the Arlington National Cemetery, Washington, U.S.A.

R.I.B.A. MINUTES.

We take the following notes from the Minutes of the Council Meeting, held on January 21:—

The Royal Scottish Academy.—The congratulations of the Council were conveyed to Mr. George Washington Browne on his election as President of the Royal Scottish Academy.

Smoke Abatement.—It was decided to make representations to the London County Council on the subject of smoke abatement in London.

Royal Sanitary Institute.—Mr. H. D. Searles-Wood, F.R.I.B.A., was appointed to represent the R.I.B.A. at the Annual Congress of the Royal Sanitary Institute, to be held at Liverpool in July.

Shortage of Skilled Labour in the Building Industry.—Professor S. D. Adshead and Mr. W. Alexander Harvey were appointed as additional representatives of the R.I.B.A. on the Conference which has been arranged to consider this question.

The Letting of Office and other Accommodation.—The following resolution was passed and ordered to be published in the R.I.B.A. *Journal*:—

"The Council view with disapproval the exhibition by architects of boards upon which are displayed notices that offices or like accommodation are to be let and that applications to the architects are invited. This resolution does not preclude the architect of a building, at the request of his client, from exhibiting a board inviting prospective tenants to inspect the plans at his offices, provided that the architect receives no commission for lettings resulting, nor does it apply to the letting or selling of land."

R.I.B.A. Scale of Charges: Clause 5.—It was decided to publish a note in several successive numbers of the *Journal* warning Members and Licentiates that they should, with reference to the above clause, protect themselves against the contingency of the work being subsequently proceeded with.

Sessional Papers.—Mr. Hope Bagenal, having found it necessary to postpone the delivery of his lecture on "Planning for Musical Requirements," on March 17, Major Harry Barnes was invited by the Council to deliver a lecture on "National Housing" on that date.

MEETINGS.

Friday, *February* 8.

Town-Planning Institute. — Discussion on "Streets." At 92, Victoria-street, S.W.1. 6 p.m.

London Society.—Mr. C. B. Levita on "Slum Areas in London." At John-street, W.C.2. 5 p.m.

Royal Institution.—Sir Arthur Evans on "Recent Lights on the Minoan Art of Crete." At 21, Albemarle-street, W.1. 9 p.m.

Monday, *February* 11.

Surveyors' Institution.—Mr. J. J. Dove on "Approximate Estimates for the Development of Building Land"; Mr. A. Paull on "Approximate Estimates." At 12, Great George-street, S.W.1. 8 p.m.

Wednesday, *February* 13.

Royal Society of Arts.—Mr. H. Maxwell-Lefroy on "The Preservation of Timber Roofs from the Death-Watch Beetle." At John-street, W.C.2. 8 p.m.

L.C.C Central School of Arts and Crafts.—Sir Banister Fletcher on "Ancient Architecture: Theatres, Amphitheatres and Circuses." At Southampton-row, W.C.2. 6 p.m.

Thursday, *February* 14.

Society of Antiquaries.—Mr. C. R. Peers on "Sculptured and Inscribed Stones from Lindisfarne." At Burlington House, W.1.

Edinburgh Architectural Association.—Mr. L. M. Tye on "Illuminating Engineering." At 15, Rutland-square. 8 p.m.

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ILLUSTRATIONS.

The British Empire Exhibition.

In this issue we give a number of illustrations of the reinforced concrete buildings now completed or nearing completion at Wembley, from the designs of Messrs. J. W. Simpson and Maxwell Ayrton, FF.R.I.B.A.

The combination of social jollity with personal improvement such as Chaucer has depicted for us in his immortal Canterbury Tales, where the dual aspects of the pilgrimage are set forth with the holiday spirit in greatest prominence, applies also to the exhibitions of these modern times.

Instruction is joined to relaxation rather than to the coercive discipline of school or office routine. The visitor is invited to enjoy himself and look about him in surroundings that present sufficient of the elements of both novelty and order to awaken thought and stimulate a flow of ideas.

It is in this fashion that the British Empire Exhibition at Wembley has been designed. Fun and frolic, scenic railways, and the rest are proper accompaniments to the more serious exhibits, and provide a common meeting place for persons whose normal tastes and activities lie miles apart from one another.

The facilities for enjoyment, for obtaining food and drink, and for reposeful methods of locomotion are all being provided on an ample scale, and figure prominently in the handbook issued by the Executive Council of the Exhibition.

A great Exhibition, attracting pilgrims from all parts of the Dominions, also serves a serious purpose, but that purpose would fail of fulfilment in the absence of good will and an amiable temper in all concerned. If this sunny outlook can be maintained, the wonders displayed in the several gigantic buildings will be inspected to the best advantage, and certainly some very interesting features will be present.

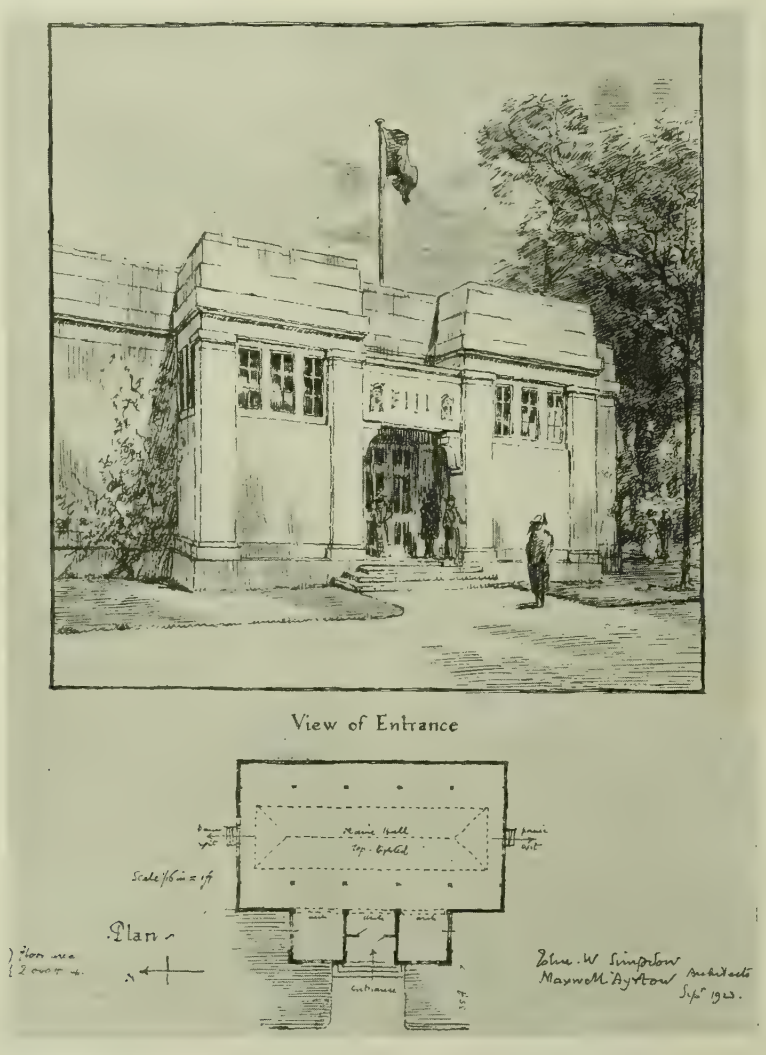
The enormous size of some of the buildings will undoubtedly receive attention. "The Australian Pavilion is as big as the whole of Olympia," the Australian contribution to the Exhibition being valued at £200,000, and the space covered 5¾ acres.

"These exhibits" (to quote the handbook) "taken in their entirety, will bring home to the visitor the enormous wealth of the Empire, the immense strides being made overseas in the development of both agriculture and manufactures, the ever-increasing facilities and attractions offered to the intending migrant, and the important part each State plays in making the Empire a rich, powerful, and indivisible whole."

The Palace of Engineering and the Palace of Industry each cover very much greater space than the Australian exhibit, and their contents will be housed in the finest and largest buildings ever erected for the purposes of a self-contained exhibition. It will be instructive to ascertain, when the Exhibition is open and thronged with visitors, whether the effect of great dimensions produces the effect of great scale, or whether, as in so many gigantic buildings, mere size counts for little after it has exceeded a certain maximum.

The great space is, however, divided among exhibitors who require in some cases as much as 4,000 to 8,000 square feet for their stands, so that it may be taken that the great size of the building is founded upon practical requirements. Small things, as well as great, will be on show, and it is proposed to set up the Queen's Dolls' House, to which so many notable artists and craftsmen have contributed of their best.

The antiquarian flavour of British art today will find its echo in the series of rooms decorated and furnished in the styles characteristic of the years 1750, 1815, 1852, and 1888. The two last of these coming in the hitherto despised Victorian period, it may be questioned whether any revulsion of feeling in its favour will be established. The arts of the period found substantial approval and support in their own day, and it would be a whimsical overthrow of a deep-rooted prejudice were the Victorian style to return to favour now.



Entrance to British Empire Exhibition.
Messrs. J. W. Simpson & Maxwell Ayrton, FF.R.I.B.A., Architects.

"Natsopa House."

This building, at the corner of Blackfriars-road and Meymott-street, London, S.E. 1, is designed as an office building for the London Branch of the National Society of Operative Printers and Assistants, and is, as the drawing suggests, to show hand-made bricks and stone facings over the steel framework.

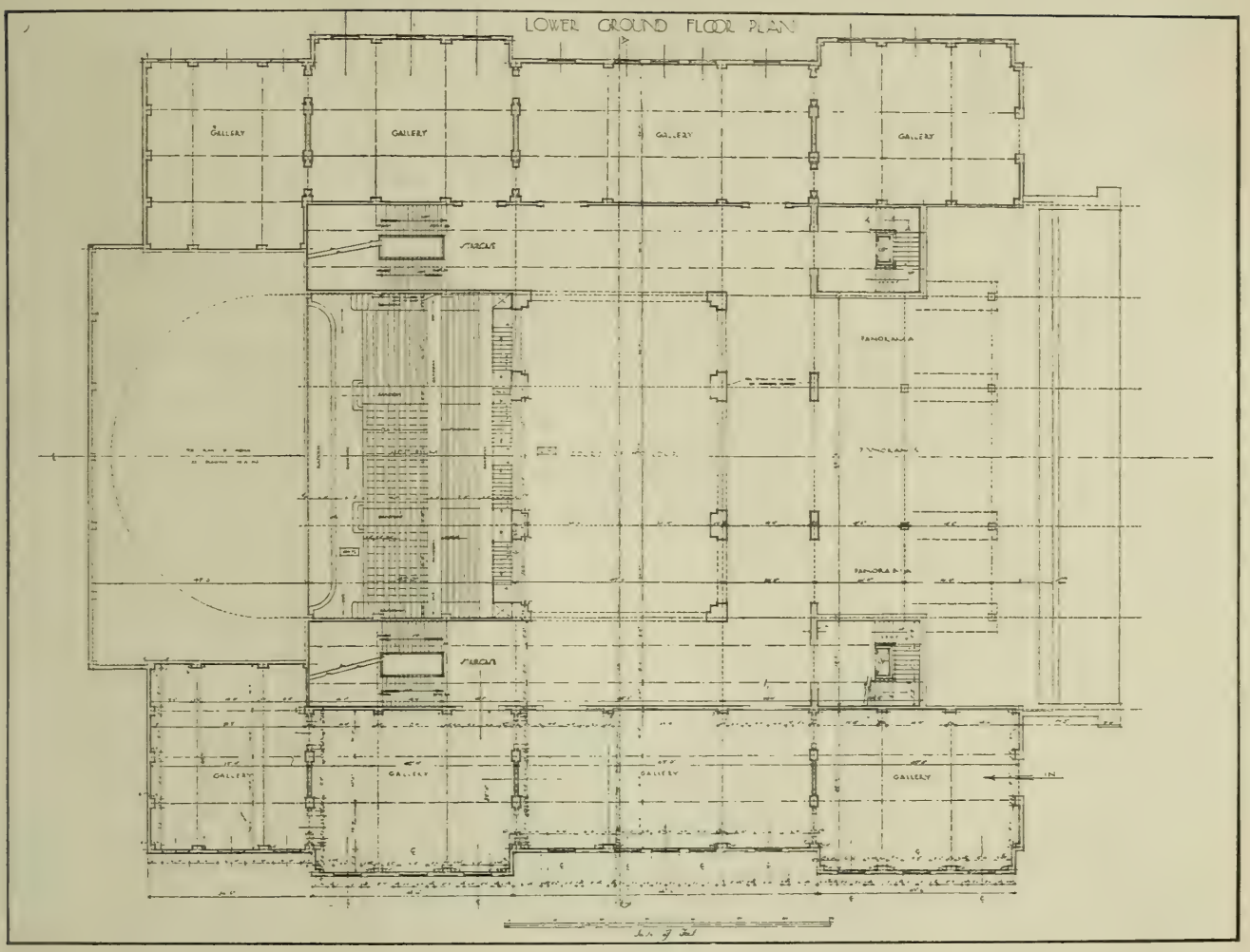
Messrs. Harding & Williams, of Leicester, are the architects, and the contractors are Messrs. Arthur Vigor, Ltd., 20, Knightsbridge, S.W. 1. The sub-contractors include: Williams, Gamon & Co., steel casements; Porcelain Tile Co., tile work; Carter & Co., terazzo work; Engert & Rolfe, Ltd., asphalting; John Ellis & Sons, Ltd., stone work and staircases; Haywards, Ltd., patent area and lantern lights; Archibald D. Dawnay & Sons, Ltd., steelwork; Hollis Bros. & Co., Ltd., wood block floors; Siegwart Fireproof Floor Co., Ltd., patent floors; Doulton & Co., Ltd., sanitary fittings; Mr. C. H. Kenney is the clerk of works.

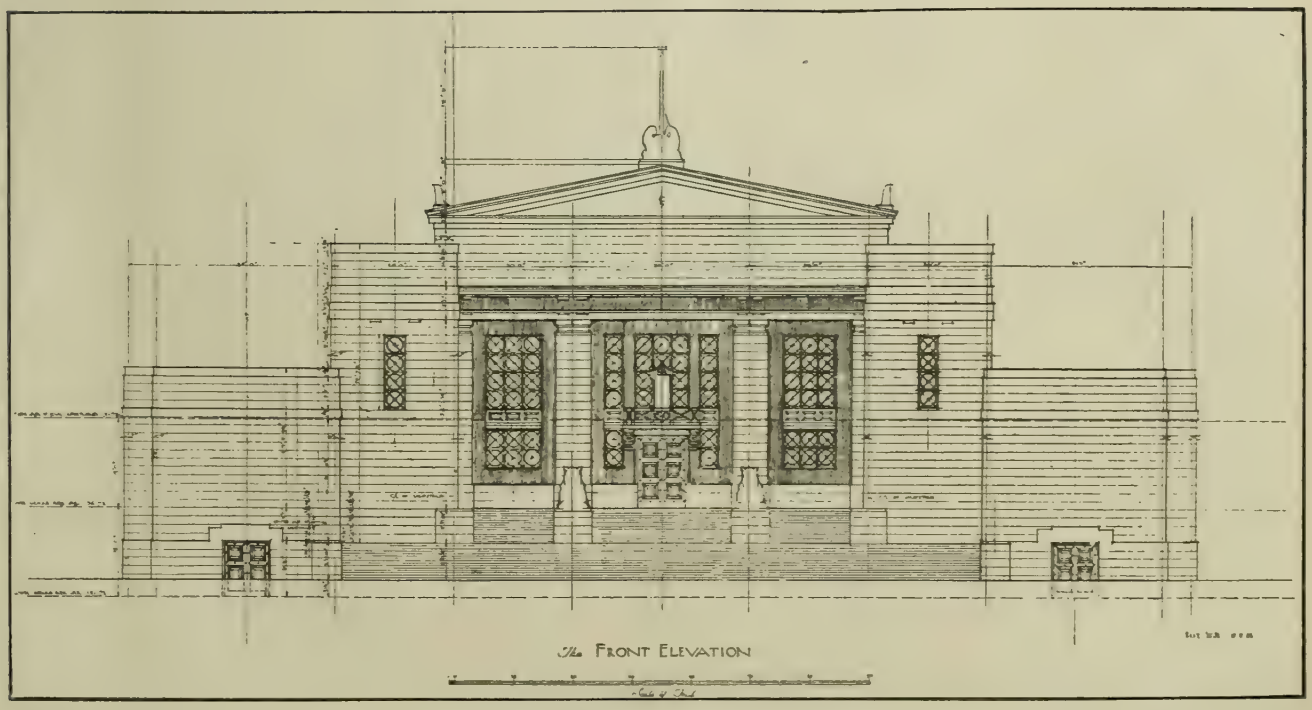
Housing Scheme at Purley.

We illustrate on p. 223 a housing scheme, to be carried out by private enterprise, on the Roke Farm Estate, Purley. The scheme, which comprises 63 houses in all, has been approved by the local authorities and also by the Ministry of Health, and complies with the "private enterprise" provisions of the Housing, &c., Act, 1923 (which was fully reviewed in our issue for August 24, 1923).

Subject to certain conditions the houses will be eligible for a subsidy of £75 each. The superficial area of each cottage is limited to 800 ft. The accommodation comprises a living room, scullery (or working kitchen) on ground floor; three bedrooms, bathroom, and separate w.c. on first floor. The cottages are to be built in groups of two, three, four and five; and the exterior design will be varied to avoid monotony. The lay-out of the site provides for access to the gardens from passageways at the back.

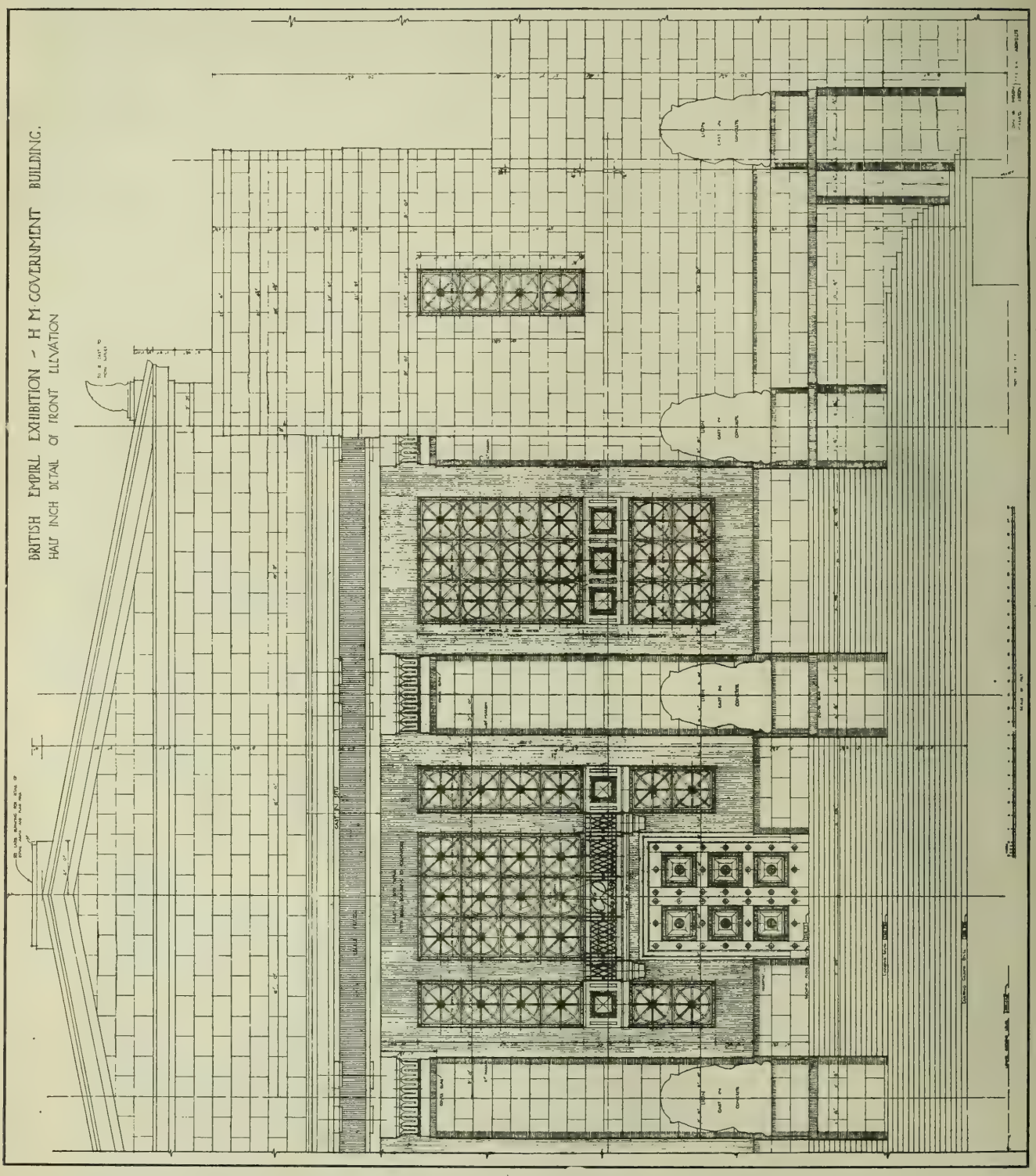
The architect is Mr. Chas. E. Hanscomb, F.R.I.B.A., of Station-approach, Sanderstead. The builder is Mr. J. P. Oldaker, of Purley.



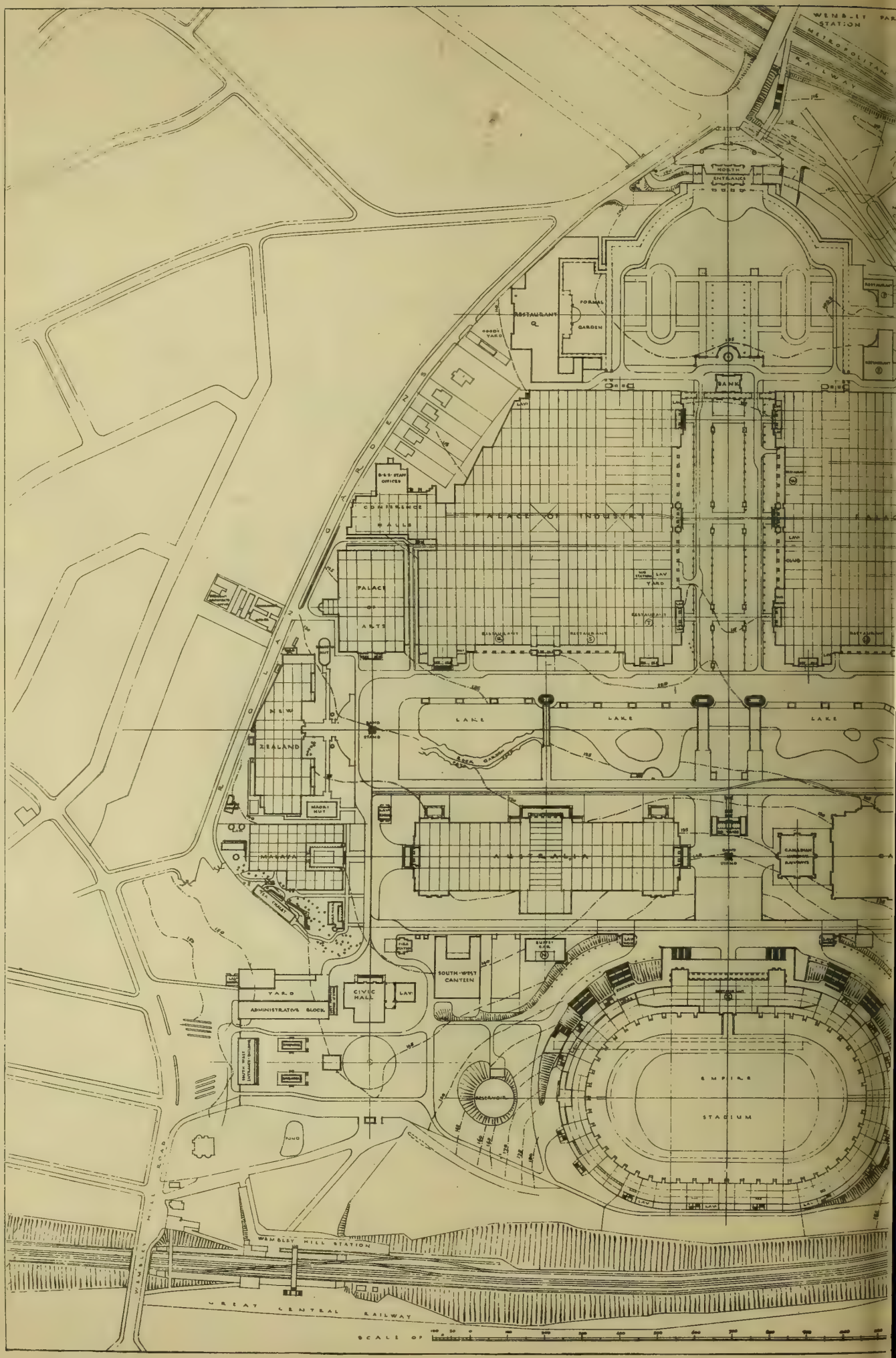


British Empire Exhibition: British Government Building.

MESSRS. J. W. SIMPSON & MAXWELL AYRTON, FF.R.I.B.A., Architects.

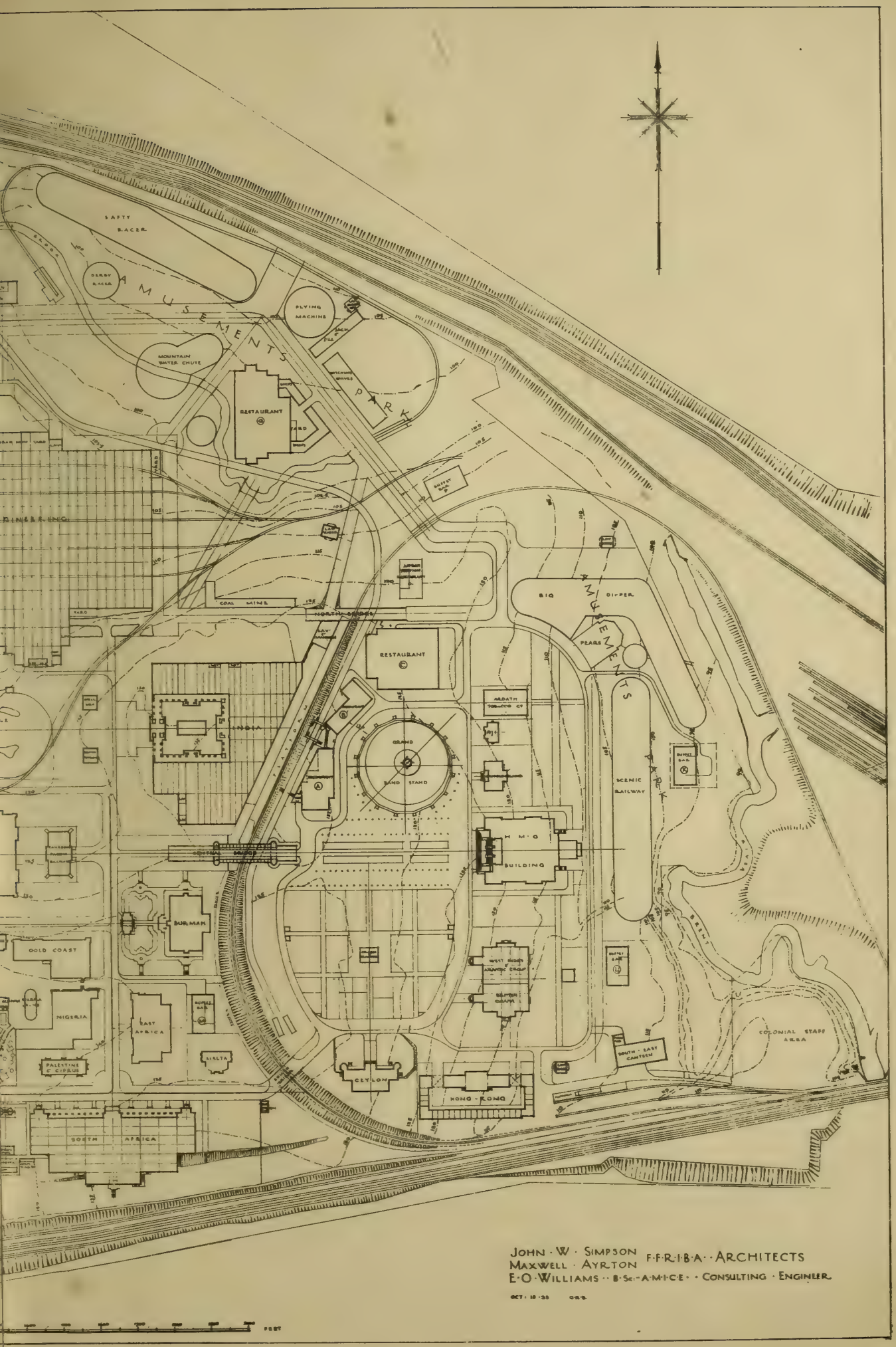


British Empire Exhibition. Messrs. J. W. Simpson & Maxwell Ayrton, FF.R.I.B.A., Architects.



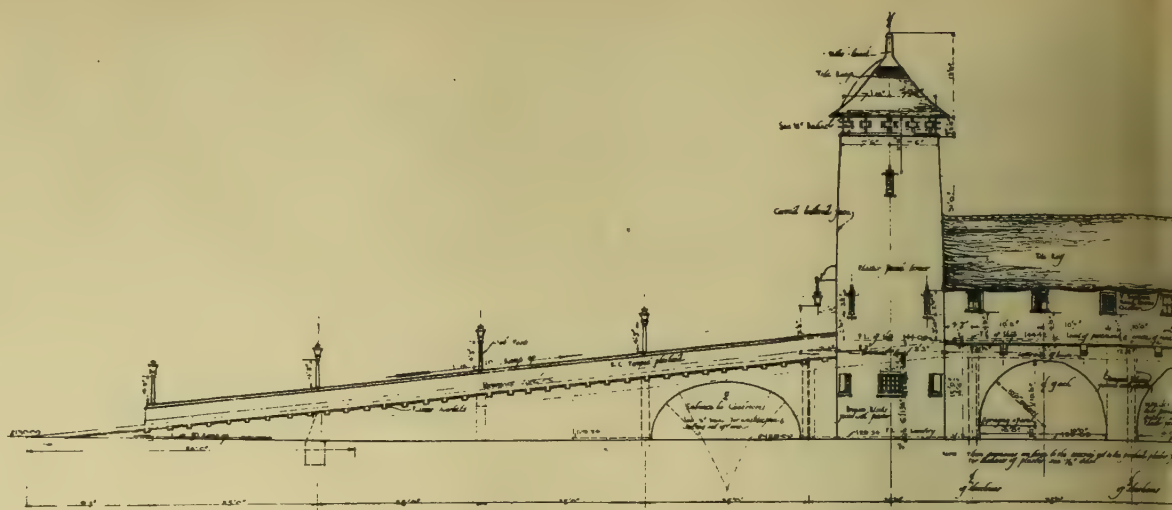
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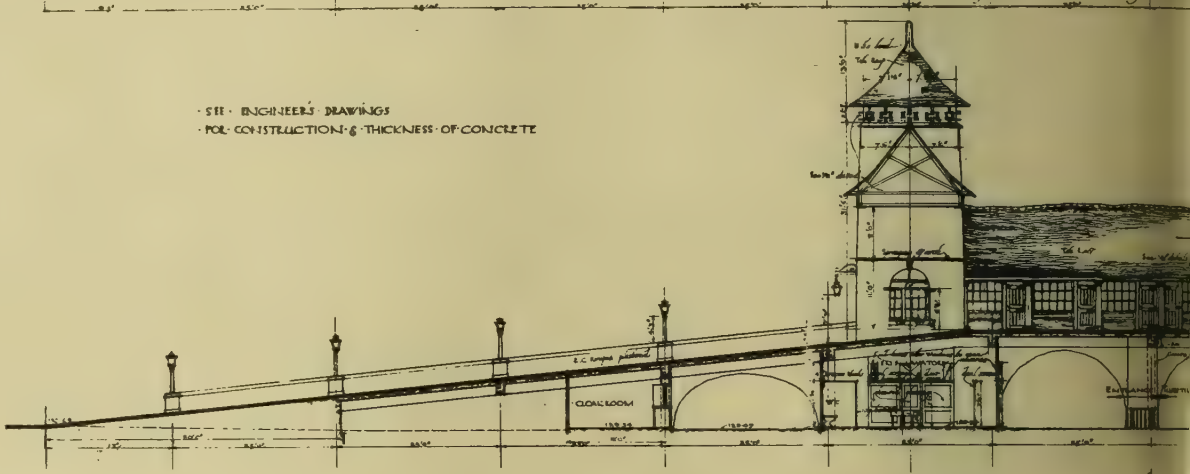
MESSRS. JOHN W. SIMPSON

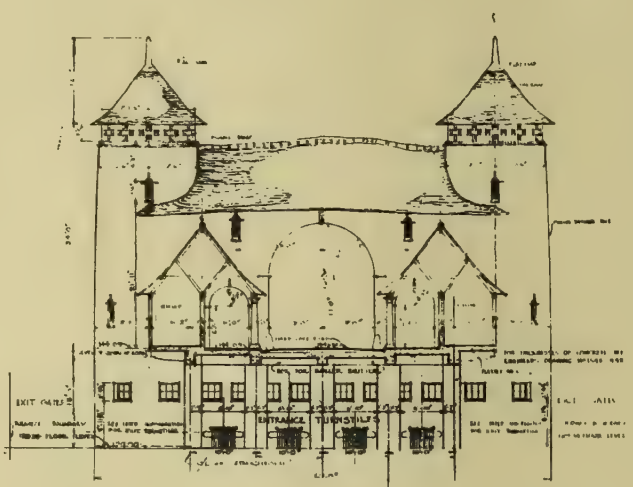


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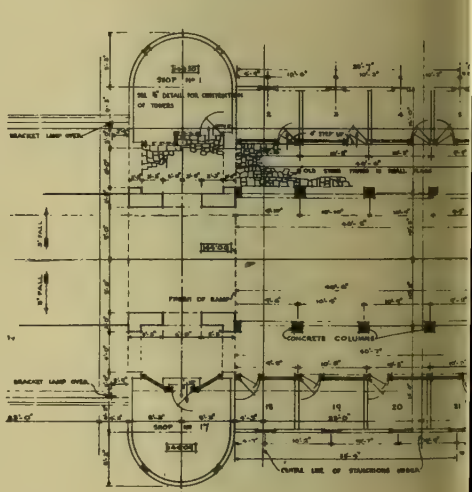
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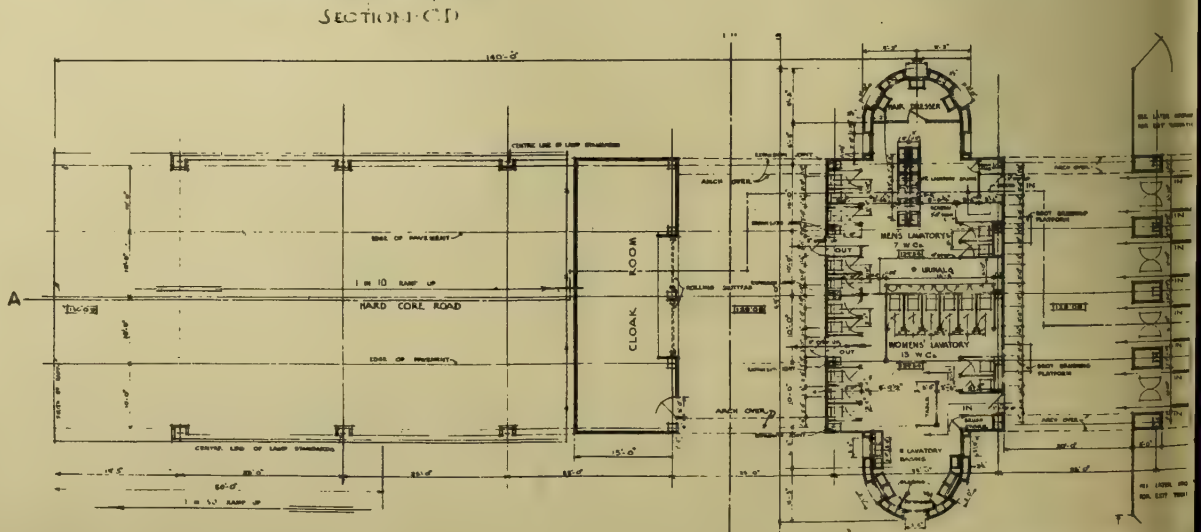






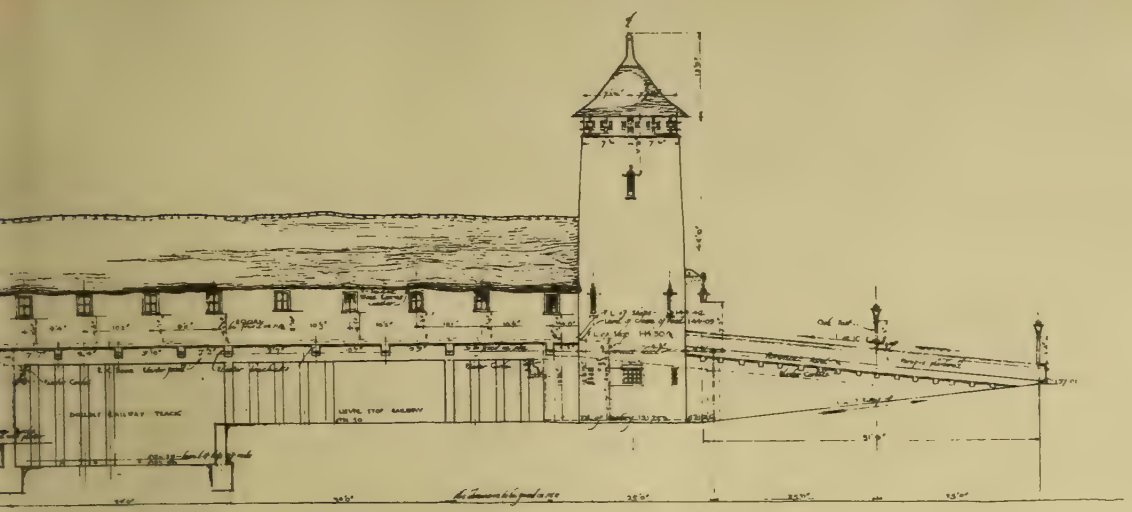
SECTION C.D



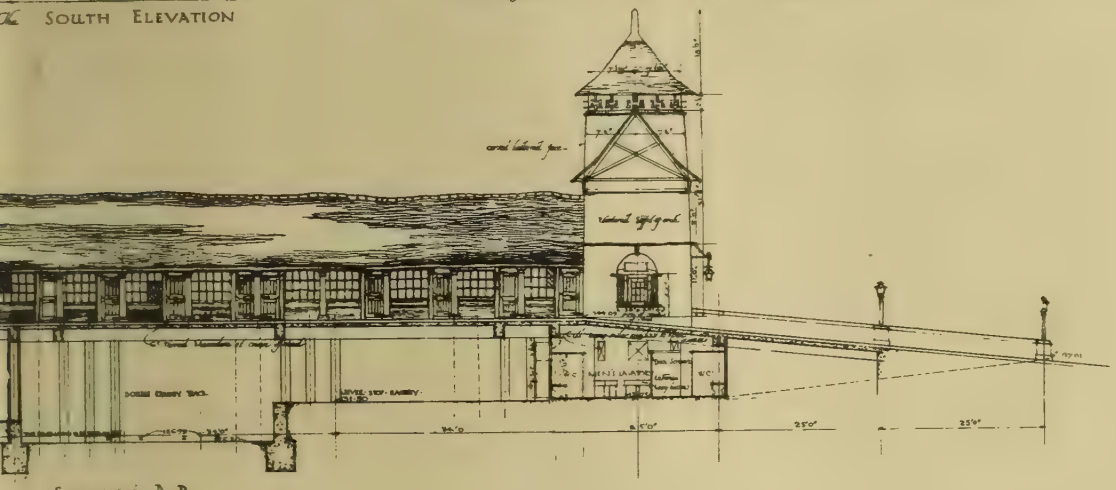


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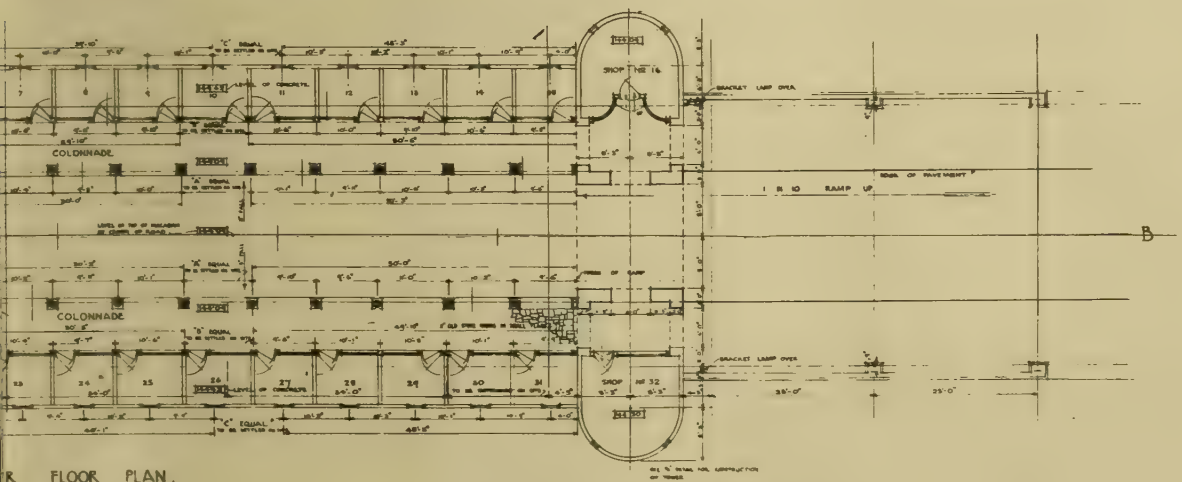
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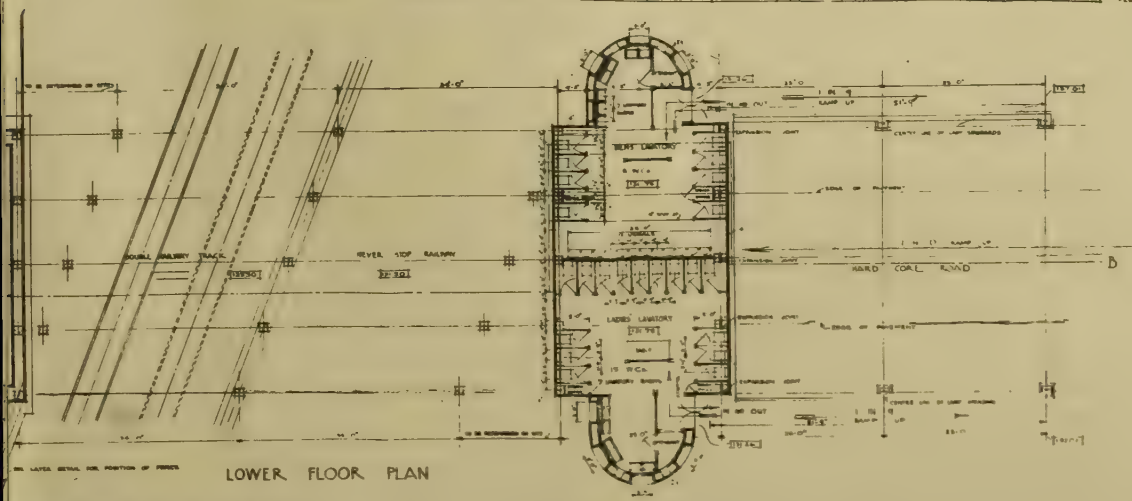
SOUTH ELEVATION



SECTION A.B.



FLOOR PLAN.



LOWER FLOOR PLAN

AND SHOPS OVER RAILWAY.

FF.R.I.B.A., ARCHITECTS.

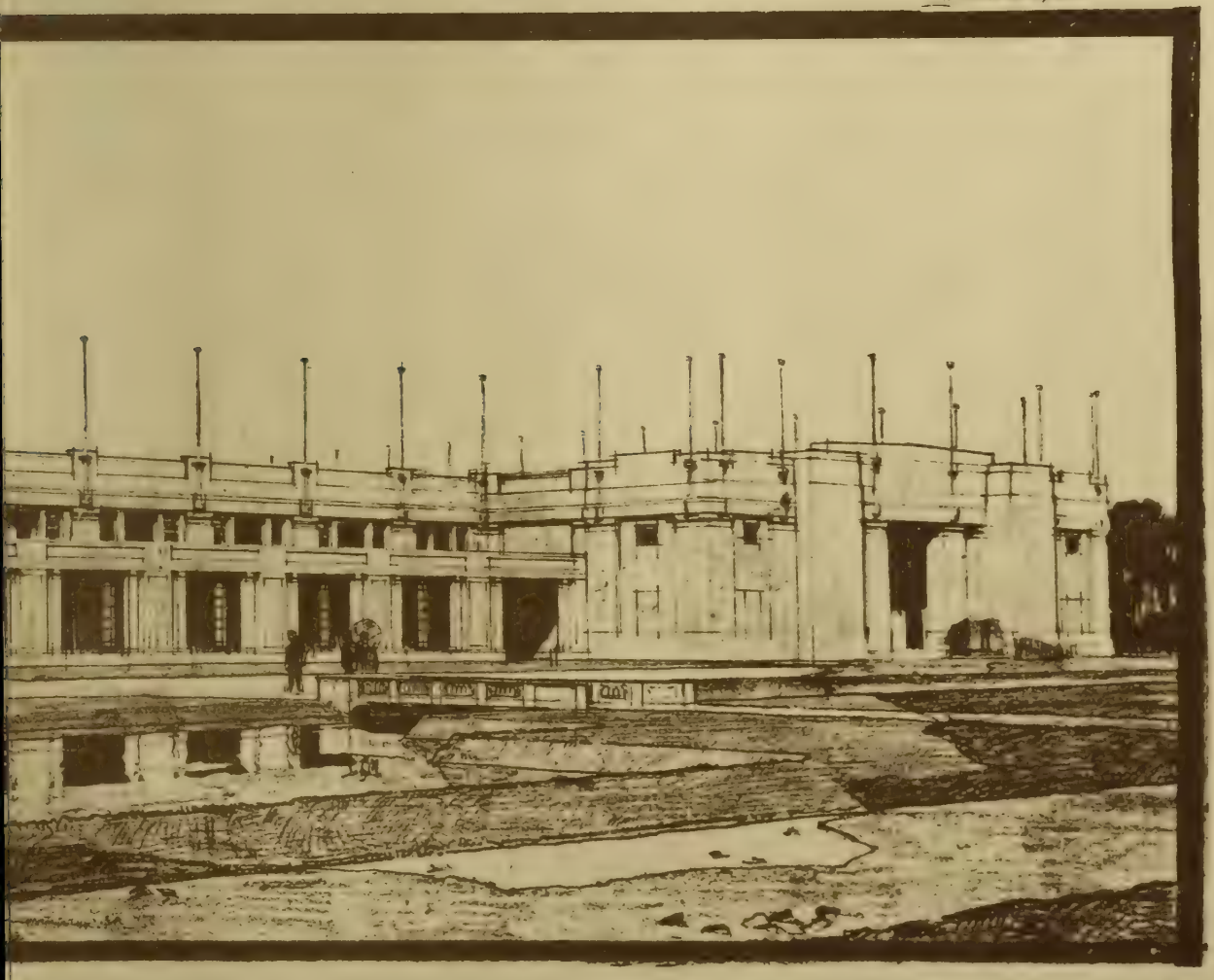


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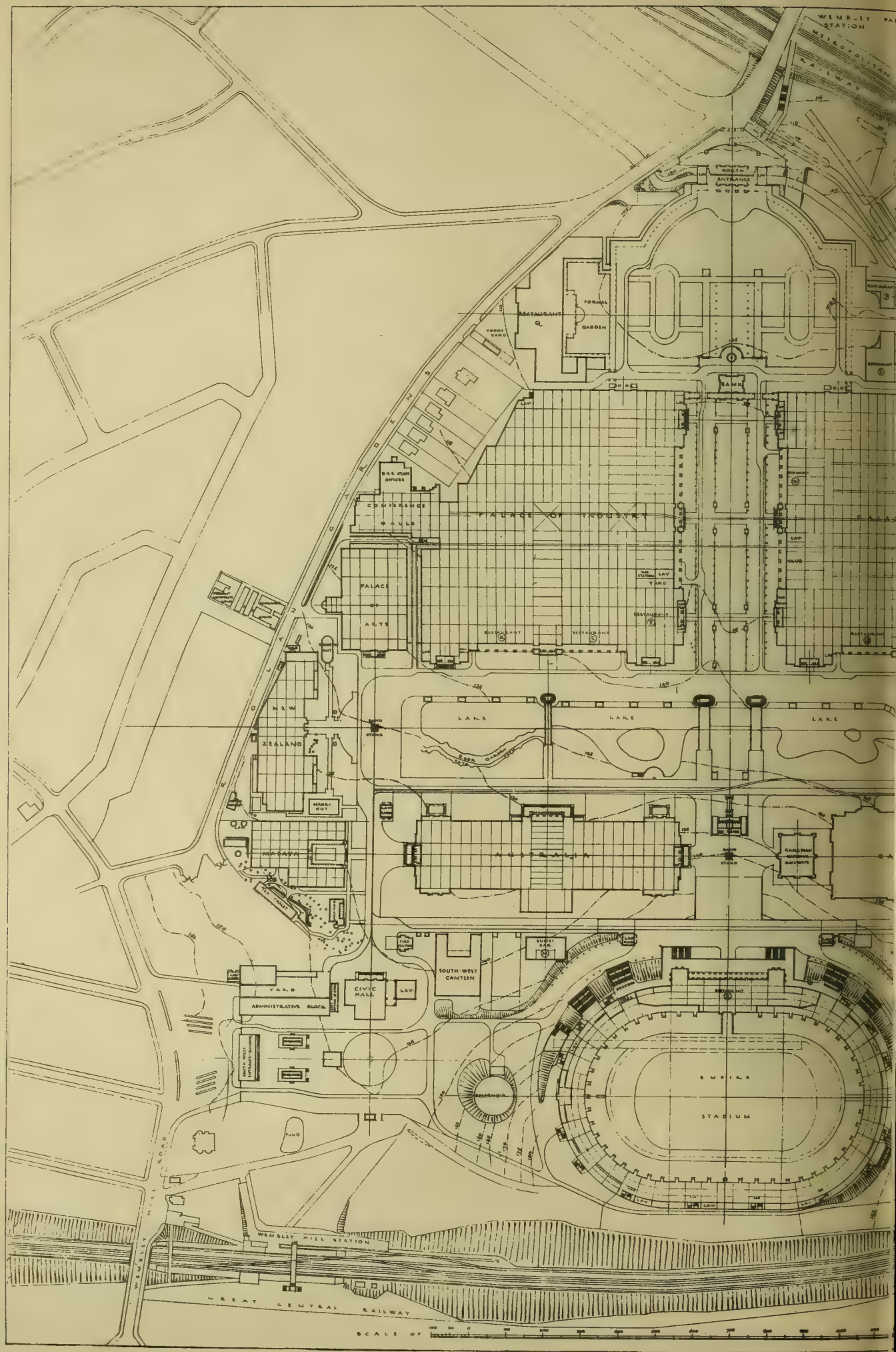
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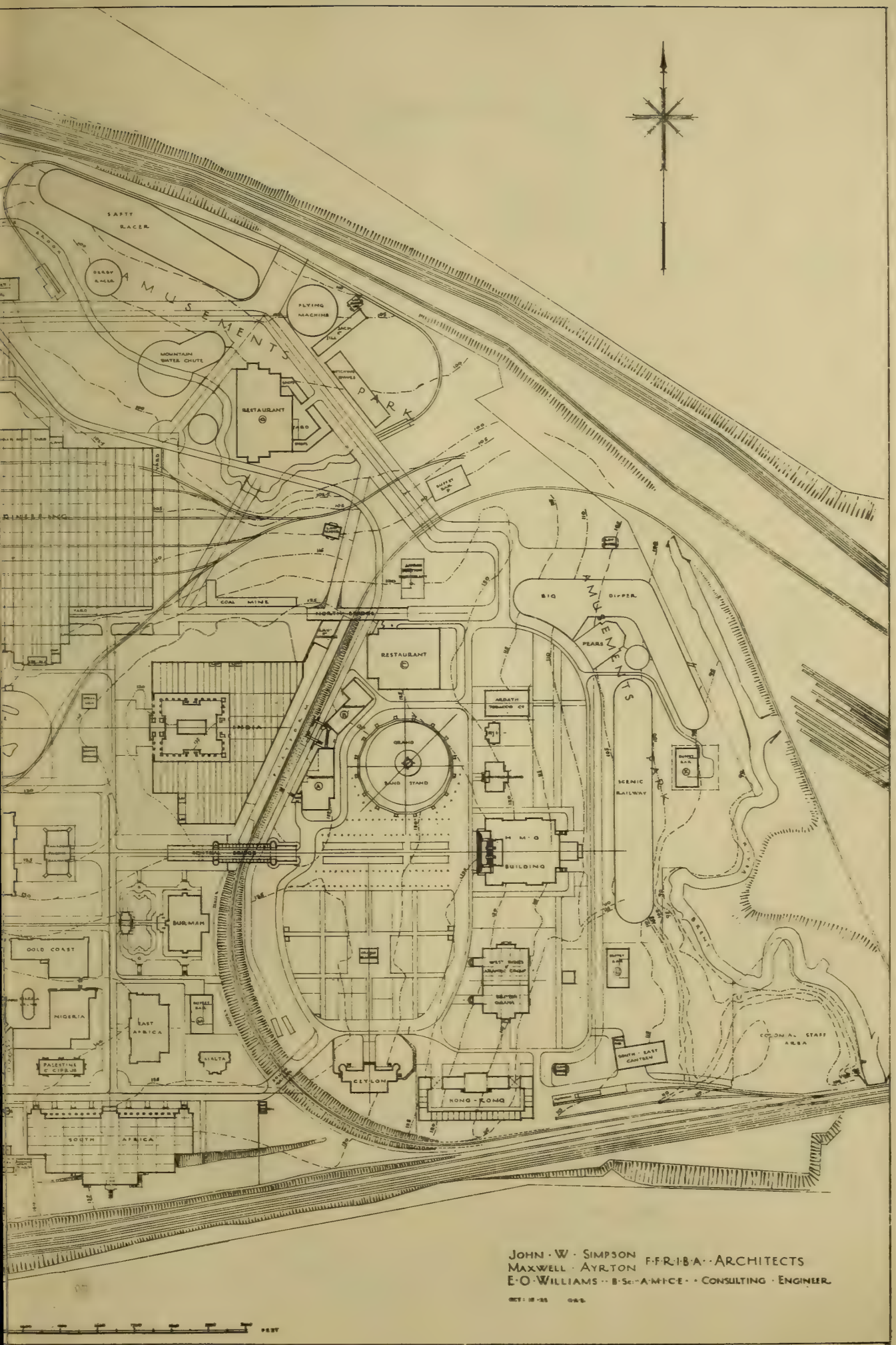
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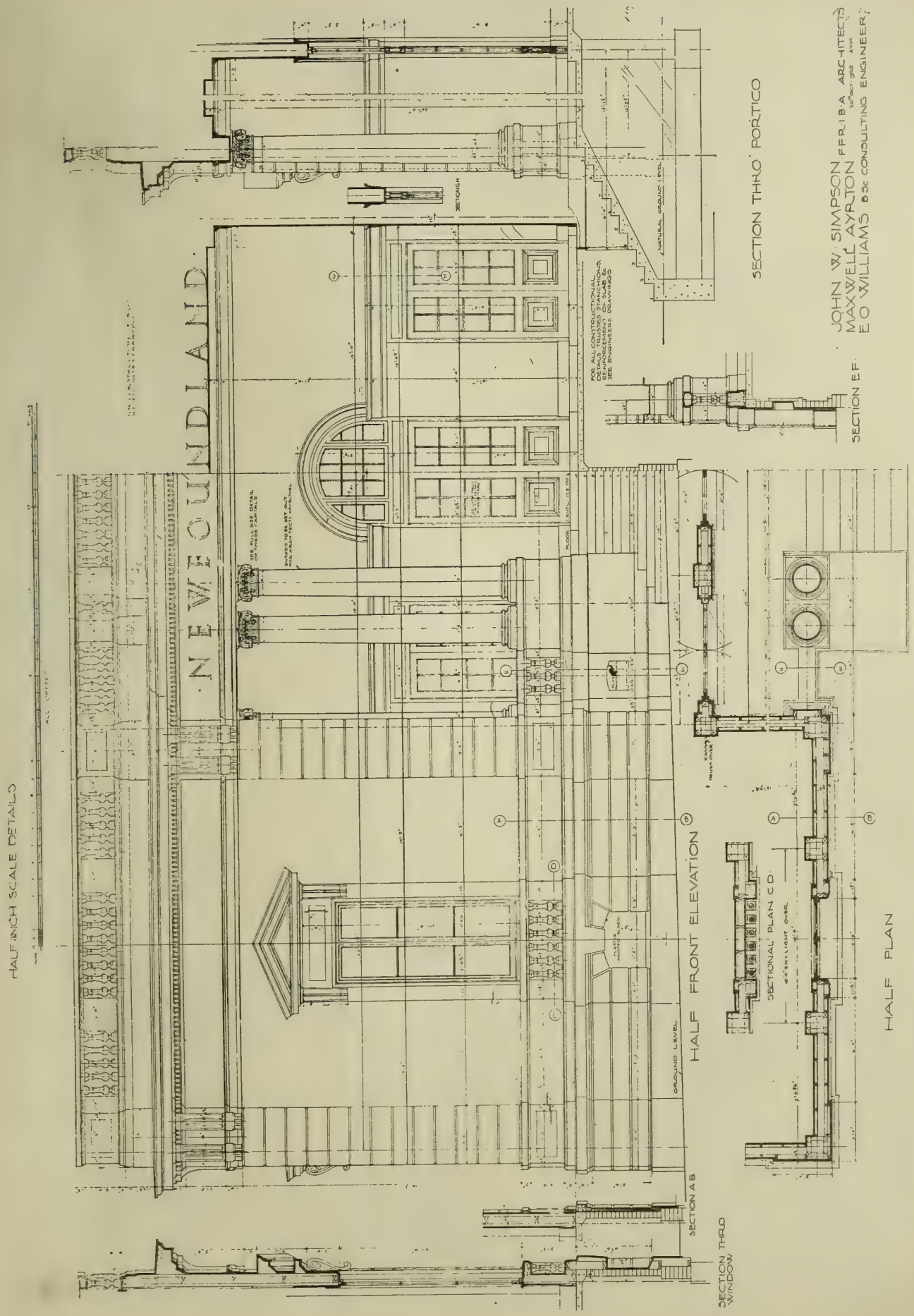
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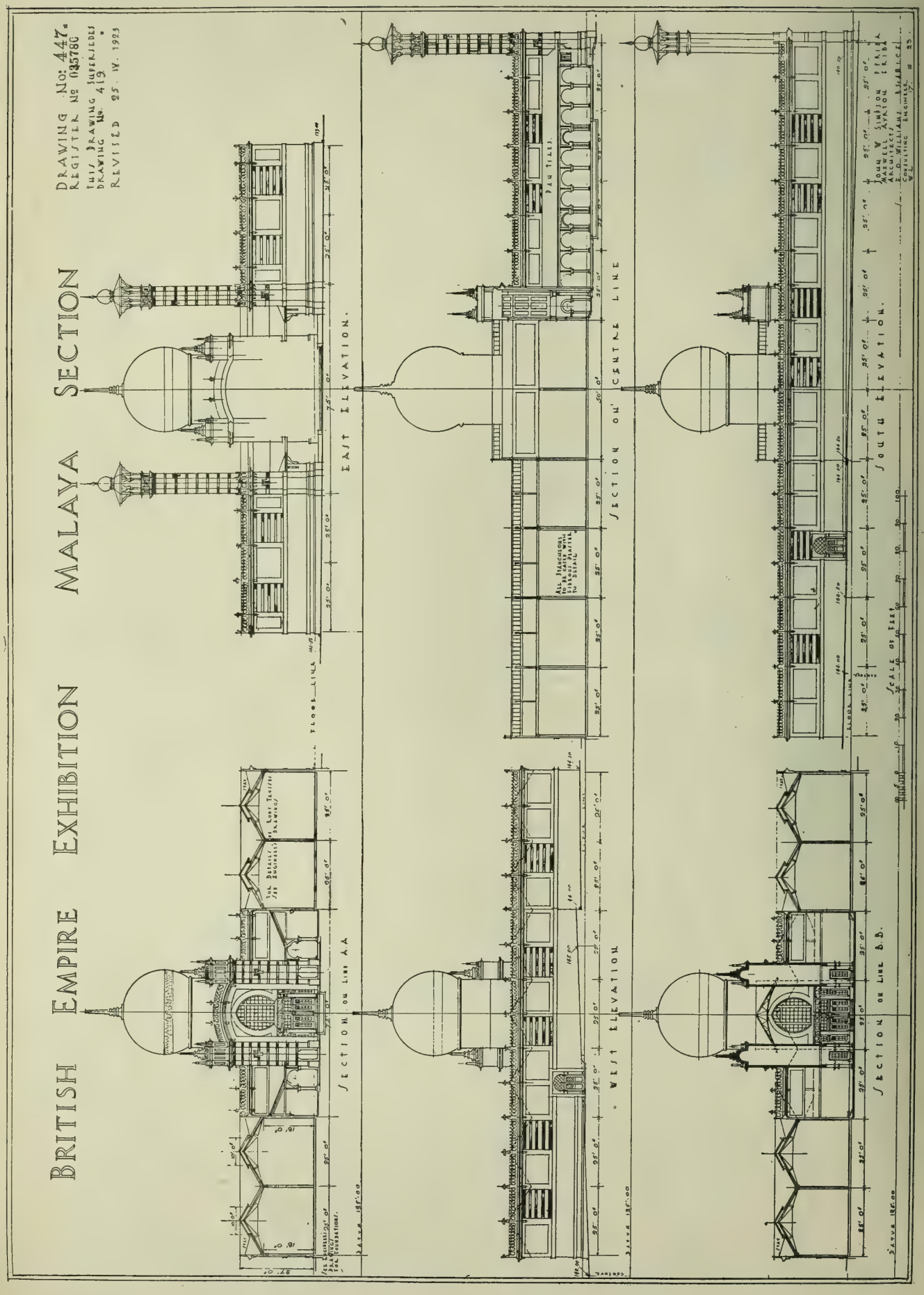


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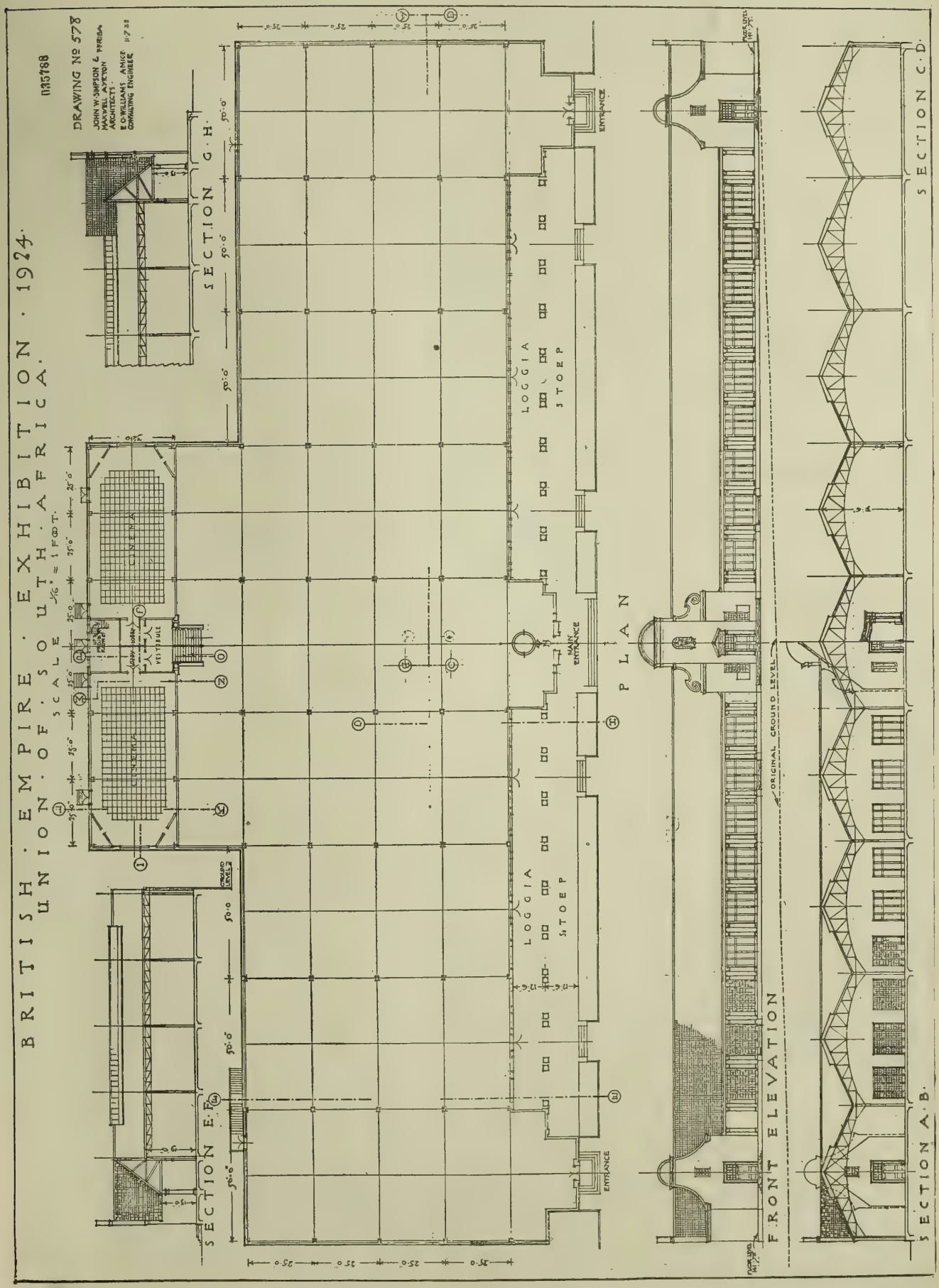
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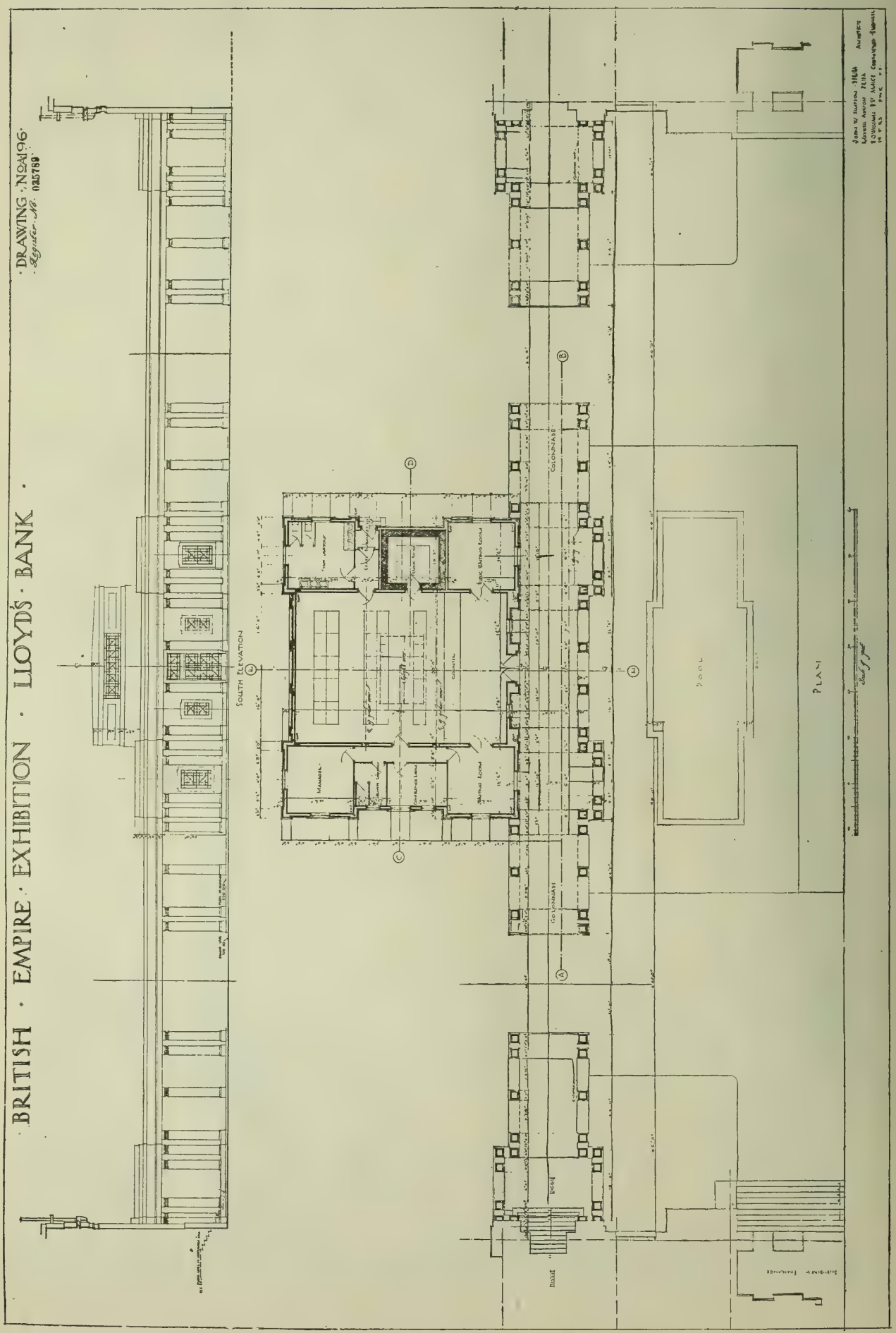
British Empire Exhibition: Newfoundland Building. Messrs. J. W. Simpson & Maxwell Ayrton, FF.R.I.B.A., Architects.



Messrs. J. W. Simpson & Maxwell Ayrton, FF.R.I.B.A., Architects.



MESSRS. J. W. SIMPSON & MAXWELL AYRTON, FF.R.I.B.A., Architects.



MESSRS. J. W. SIMPSON & MAXWELL AYRTON, FF.R.I.B.A., Architects.



Housing Scheme at Purley. Mr. Chas. E. Hanscomb, F.R.I.B.A. Architect. (*See p.* 216



"Natsopa" House, London, S.E.1. Messrs. Harding & Williams, Architects. (*See p.* 216.)

ECONOMY IN BUILDING CONSTRUCTION.-I.

HINTS FROM AMERICAN METHODS.

By "THE JOURNEYMAN ARCHITECT."

IN the issue of *The Builder* of January 4th there appeared a letter from Mr. A. C. Shayler, of Ontario, Canada, that was very much to the point. Mr. Shayler hopes that "in time it will be discovered that there are methods of building comfortable and permanent houses other than all brick," and thinks "that those who are in authority and have to do with unemployment and housing shortage would do well to realise it."

It is an excellent letter, and by no means the least impressive feature of it is that it is not meant to be sarcastic. It is full of sound common sense advice, evidently gained first hand, and quite as evidently offered by one somewhat removed from our more conservative home atmosphere. In Canada and the United States, to advance an idea that is evidently practical and common sense is quite sufficient reason to gain a hearing. But with us there are many forms to be observed before this happy consummation is reached.

Here it may not be out of place to make reference also to the source of much that today passes for knowledge of America and things American. To have spent a month or so in being fêted in the main cities of the Eastern States and to have viewed the intervening countryside from the windows of a Pullman car seems to be accepted as quite sufficient justification for lecturing with authority upon the entire American continent, nationality, and customs. Nothing could be more erroneous, nor better devised to give the wrong impression. For whilst nothing pleases the American more than to fête the foreigner, especially if he comes to them as an accepted "big gun"—and in so far as the practice gives vent for the American love of excess it may be taken as indicative of American character—yet it is a vastly different thing to work by the side of the American and in competition with him. Only this way can one learn and appreciate the American. To travel from the Atlantic to the Pacific, working one's way from city to city with no more capital than a kindly Nature may have furnished and the drawing instruments customary to the class, is to be at once the journeyman architect, and to gain a knowledge of American methods that is real. To one who has worked in such a manner may be accorded the right to speak from first-hand knowledge.

The suggestion contained in the letter quoted—that timber construction should be introduced into England—is an excellent one; though perhaps to speak of the method as a revival would be the more correct definition, for timber construction is no new thing in England; nor, to be accurate, is the suggestion new. It is sometimes said that timber cannot be obtained at a price to render timber-built houses an economic possibility. This, in so far as timber from our main pre-war source—the Baltic—is concerned, is no doubt true for the time being. It is also true that the Canadians were accustomed to export their first quality brands. But what of the timber which they kept to use themselves in their cheaper class building—their third and fourth qualities? It has been said that the timber period is passed; that the supply is exhausted. Let me make the following imaginary comparison:—England and Scotland together could be comfortably dropped in the Canadian lakes and lost sight of. The Provinces of Quebec, Ontario, British Columbia, and part of Alberta, are each over three times the size of the Canadian lakes. Comprehensive surveys have been completed only for the Provinces of Nova Scotia and British Columbia—an inventory of the forest resources of Ontario is being completed, and extensive areas of forest land have been examined in the three prairie Provinces; but the information is still incomplete as to the total resources of these Provinces. For several years a thorough survey of the Crown lands of New Brunswick has been in process, and about 60 per cent. of these lands have been covered. As yet, only a relatively small portion of the forest area of Quebec has been reported on. Approximately one quarter of the land area of Canada is forest land, being 950,000 square miles, less than half of this carrying timber of merchantable size at the present time, and about one quarter carrying timber of 10 in. in diameter.

The table from the Forestry Report of the Department of the Interior of Canada given below shows the estimated stand of timber of merchantable size in Canada by regions:—



FIG. 1.—HOUSE IN BRITISH COLUMBIA.

Of the more Northern Provinces, perhaps no man knows the timber resources exactly, and certainly few can realise the immensity thereof. Perhaps the nearest that can be got to it is to think of all the thousands of acres one's mind is capable of picturing, and then write down a few more thousand on a piece of paper, for Canada's forests are estimated to contain eight hundred billion feet of commercial timber and one billion cords of pulp wood. And all that is required is sufficient timber to build a few thousand houses on a very small portion of a country that could be dropped out of sight in the Canadian lakes! Clearly there will be no shortage of timber until long after our needs are satisfied. It is not suggested that the adoption of timber construction should be anything more than a temporary measure to meet the need of the time though, indeed, to one who has lived in a timber-framed house, there will be evident many advantages. What is maintained is the proposition that if this form of construction be revived in England, and the framework and fittings be put together in the manner prevalent in the erection of the cheaper class of house in Canada and the States, then it will be found that the resultant house is an economic possibility, and one that will certainly endure for a time sufficiently long to see us past our period of need.

Region.	Saw-material.		Pulpwood, Cordwood, Posts, &c.	
SOFTWOOD.	1,000 ft. B.M.	1,000 c. ft.	1,000 cords.	1,000 c. ft.
Eastern Provinces	76,101,000	16,666,115	552,210	64,700,590
Prairie Provinces	17,985,000	3,938,715	272,010	31,825,170
British Columbia	345,762,000	75,721,878	47,500	5,557,500
Total	439,848,000	96,326,708	871,720	102,083,260
HARDWOOD.				
Eastern Provinces	32,134,500	7,037,430	209,815	20,342,417
Prairie Provinces	9,305,000	2,037,795	196,010	18,620,950
British Columbia	788,000	172,572	2,160	205,200
Total	42,227,500	9,247,797	407,985	39,168,567
Grand Total	482,075,500	105,574,505	1,279,705	141,251,827



FIG. 2.—SQUARE COTTAGE ON A RAISED BASEMENT.

It is possible that the details of construction may be looked upon as somewhat elementary—so they are. Elementary, rough and ready, even retrogressive; but does it matter so long as we get out houses? The type of construction referred to is that seen in the cheaper houses of the Western States, and it is possible that for overcoming a temporary difficulty and supplying a temporary need, a good deal may be learned by studying the methods of those who regard their residences much in the light of a temporary resting place than as a permanent abode. Also, when consideration is given to this it may appear that our domestic condition is becoming in some ways more like that of the American than it used to be. For instance, there is the domestic servant problem, or rather there is no longer any problem for some of us for there are no domestics. In this we are on all fours with the American. The middle-class Americans in the West do their own domestic work. It is only the rich have "help," and that Chinese,

who do not live in the house. The effect that this must have and does have upon the plan will be readily agreed; and to learn of the most suitably designed house for the saving of domestic work it would be difficult to find a better subject for study than the houses of those who do their own.

This is the pith of the whole matter, and the reason for the raised ground floor and semi-basement; and not, as is sometimes stated, the climate. For in many parts of the Eastern and Southern States, the older houses built when slave labour was obtainable have no basements. The origin of the basement is the saving of domestic work. The central hot-air furnace or boiler therein renders possible the doing without fireplaces; and everyone who has ever had anything to do with house-work knows for how much of it fires are responsible. By the introduction of a central furnace or boiler the housewife is saved from all connection with any fire except the kitchen range, and that not the tremendous affair we are cursed with in England. The man of the house attends, and only twice daily, to the furnace. That the central furnace is responsible for a considerable amount of dust is acknowledged; but this need not be so. With the system in vogue of open gratings to admit the heated air direct into the rooms, and with these gratings placed in the floors, also with the cold air intake from the outside on the ground level, a certain amount of dust is unavoidable. But it would be no difficult matter to place the gratings above the floor level, and to filter both the cold air at its intake and also the hot air at its exit in such a manner as would prevent most if not all dust. The dust, too, from a furnace mostly gathers in light fluffy balls which may be easily swept up, and is not like the dust from coal-ash, which settles well into and upon everything inside the room.

Hot-air furnaces, it is true, have been in this country made somewhat upon the lines of those in use in Canada and the States; but they were not readily taken up, though how far prejudice and how far the unadaptability of brick and stone walls to the housing of air-ducts entered into this failure it would be difficult to say. But as in the present instance the innovation is suggested only for temporary wooden houses, the latter objection does not apply. Another item which would militate against the use of the hot-air furnace in small quantities would be the initial cost of their manufacture; but were these to be manufactured in sufficient numbers to supply the houses required, that feature would disappear. In a later article it is proposed to detail the system of heating by hot-air furnace, and to supply estimated figures of cost, as the method is an important point in the consideration of the production of an economic house, which does not mean only a house that can be built at an economic cost, but also one that can be lived in at an economic rate both of money and domestic labour; the last two matters being points often overlooked.

But its inclusion materially affects both plan and elevation; and here at the very outset is a point of contention. We have grown used to our comfortable-looking cottages which nestle upon the ground, and we will have nothing to do with those perched-up affairs mounted upon a semi-basement half in and half out of the ground. The point is recognised and must be

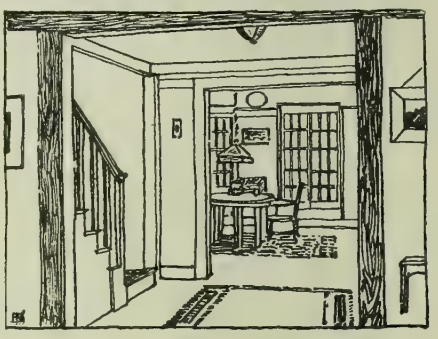


Fig. 4.—Effect Gained by Sliding Doors.

acknowledged to be a very decided detriment, architecturally, in the majority of American houses. The illustrations of a house in Victoria, B.C., and the small bungalow (Figs. 1 and 2) show this, like everything else in design, is a matter of proportion, and the basement need not of necessity be the cause of lack of proportion. A sloping site may be turned to advantage in the matter of the basement, and the square bungalow shows a type of the most economical of plans suited to the flattest of sites.

In the disposition of the rooms it is again the domestic service matter which controls the situation. The American desires to have things handy—a very natural desire when one has to fetch things for oneself. The kitchen must be handy to the dining-room if it be not the same, and the living-room may well be the hall. The effect of this is at once seen in the elevation in a compactness due to lack of disconnecting passages, and the result is a saving on the total cost, for the square plan is generally the most inexpensive to build, and the type adopted utilises space often wasted in hall and passages, as may be seen from the accompanying plan (fig. 3). Another feature having an effect both upon plan and cost is the sliding door between living-room, dining-room, and hall, where there is one (fig. 4). By this means is achieved economically a floor space, which space upon occasion may be quite large, but which may be subdivided into separate rooms, small but sufficiently spacious for the needs.

The added convenience of the service pantry interposed between the kitchen and dining-room is easily seen from fig. 5, and the saving of plumbing work is a matter of measurement. From this figure also may be gathered how, with knowledge, the American type of plan and construction may be made to suit our needs most advantageously.

Hofburg Extensions.

We understand that the scheme to place shop windows in the tunnel passage under the more ancient portion of the Hofburg is to be supplemented by a proposal to lease the entire ground floor, completed though unfurnished, of the new wing of the Palace (built as a residence for the Archduke Rudolf), as a restaurant with cafes and patisseries. While other portions of the wing are to house paintings and natural history objects which cannot find room elsewhere, the reception galleries of the upper stories are to be thrown open as reading halls and, in part, as extensions of the National Library.

The Roll of the R.A.M.C.

At the Victoria and Albert Museum (Room 72) may be seen the memorial roll of the four thousand odd officers and men of the Royal Army Medical Corps who gave their lives in the Great War. These 270 pages of lambskin contain in alphabetical order the names of them all, with rank, honours, and date of death; and they will be bound and deposited in the Chapter House of Westminster Abbey. Already there is a tablet to these men of the R.A.M.C. in the Abbey.

The roll was designed by Mr. Graily Hewitt, and was carried out by him and six assistants. Mr. Horace Higgins did practically all of the writing of the names, in black, with their honours in gold and the dates in red, the script being based by Mr. Hewitt on Italian fifteenth century, the main source of our modern printing types. At the head of each division by letter comes a sentence from the parable of the Good Samaritan, into the initial of which Mr. Reco Capey has painted a scene from the story. Opposite the title-page is painted a larger scene from the same parable, and below it is a figure of St. Luke, the beloved physician and artist, with his symbol, the ox. Next to the preface is a painted bust of Æsculapius, copied from the bust in the British Museum, set amid a vine.

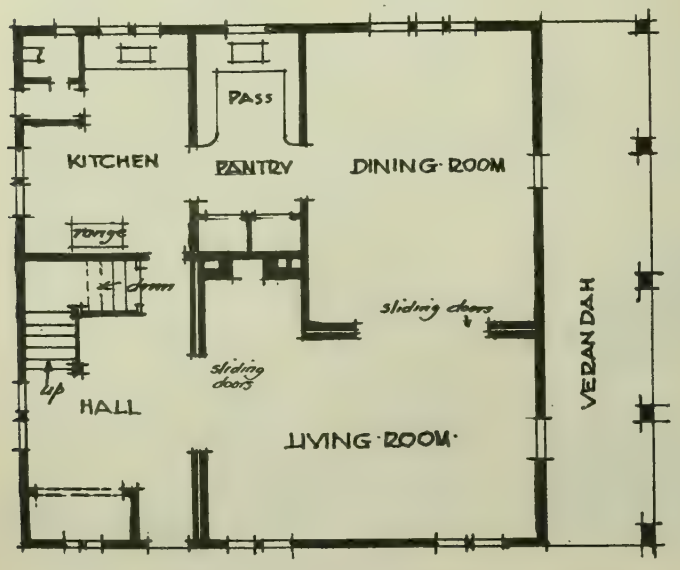


Fig. 3.—Square Plan: No Space Wasted in Passages.

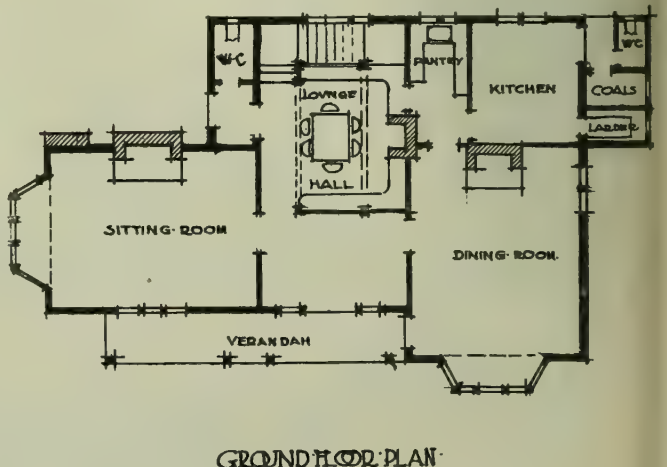


Fig. 5.—American Type of Plan Adapted to English Needs: All in Framework except Chimney Stacks.

THE ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

Hot-Water Circulation Pipes.

SIR,—Your correspondent, "Student," should have no difficulty at all with his cylinder in the bathroom provided he runs his pipes on the correct modern method and puts his cylinder at a level higher than the door in question. It would not be worth while putting the cylinder on the floor of the bathroom owing to the difficulty of venting the pipes and the tremendous loss of heat. Why not put the cylinder in the kitchen in the ordinary way, enclosing and lagging it, and saving large expense? And why does he not buy Mr. Dye's excellent little book on "Domestic Hot Water"?

JOHN HIPKIN.

Poplar.

SIR,—"Student" must know that the whole principle of hot-water circulation is bound up in the rules of convection.

A body of water, if heated at the bottom, is set into circulation throughout its whole bulk owing to the rarified hot-water being replaced by the gravity of the denser cold water, and in turn as it cools to be replaced by other heated water. The hot water rises to the highest point it can reach uninterruptedly, and no further, falling again as it cools.

It is, therefore, necessary in any heating system or hot-water supply to allow for a continual unchecked rise to the highest point of the system and a further unchecked fall back to the source of heat. If this rule is transgressed without calling in the expensive aid of a force pump, the result is stagnation and failure as a system.

"Student's" door should not, however, prove an insuperable obstacle, even in a bungalow, though it is difficult to say definitely without seeing the plan and hearing all the facts of the case.

Surely the cylinder can be raised up sufficiently high to allow the adequate rise and fall between boiler and cylinder *over* the door. The rise and fall of the circulating pipes can then be arranged in the roof space, the pipes being well insulated and the supply points being served with as short "dead legs" as possible.

It is difficult to believe that the case in point cannot be designed to work admirably in some such fashion as this, unless I have entirely misunderstood "Student's" difficulty.

"READER."

Treatment of Oak.

SIR,—We shall be glad to know what is the best treatment for oak used externally in order to obtain the silver-grey effect common to old, weathered oak.

"ARCHITECTS."

Heating and Hot Water Supply.

SIR,—I am erecting a bungalow heated entirely by radiators, and am anxious to adopt a satisfactory system by which one small furnace and boiler will serve the heating system and hot water supply. I am aware of the objections to continual change of water in a heating system leading to the furring up of the pipes in time, and have examined several boilers in which a double jacket separates the water for the two purposes, but they are all too costly for my purpose.

Can any of your readers advise me of a method of treating the pipes in an inexpensive manner to solve the problem?

"LABOUR SAVER."

Smuts from Chimneys.

SIR,—The occupants of a two-story house (standing in its own grounds) erected 18 months ago, have been continuously inconvenienced by smuts descending externally from the chimneys and settling on window curtains and on all objects in the garden. The chimneys have 9 in. by 9 in. flues, and are carried up in roughcasted brickwork 2 ft. above the ridge of a fairly steeply pitched roof and have in addition 2 ft. pots. Good quality coal is burnt in the fireplaces and coke in the independent boiler. There are no hills or high trees anywhere near the building. Any suggestion as to the possible cause of the trouble or of a remedy would be very welcome.

"ARCHITECT."

Solid or Hollow Ground Floors.

SIR,—In your inquiry column of the 25th ult. the writer of the letter signed "N. B. H." says nine inches of concrete should be placed under ground floors; this is quite unusual and, I venture to say, unnecessary. I have put solid floors in cottages and have never heard any complaint about them and in all cases only 6 in. of cement concrete, including the top screed of coke breeze, was used.

Two points are of great importance: First, the damp course in the walls must be at least 3 in. below the floor level, or vertical damp-proofing will be required; second, the boards must be laid in a thick layer of tar, which must extend under the whole floor and must not be put down until the concrete is thoroughly dry.

I would like to draw special attention of those interested in this subject to the very dirty condition in which invariably the space under the joist floor on sleeper walls will be found to be.

D. A. FORSTER.

Weybridge.

Cost of Walls.

SIR,—In answer to "H. M. S.;" 2½ in. and 3 in. terra-cotta partition slabs cost about 3s. and 3s. 1d. per yard super respectively, and can be erected at a cost of about 6s. to 6s. 6d. per yard super at the present time according to the quotations of reputable contractors.

Brickwork at £30 per rod reduced works out at about 6s. 7½d. per yard of 4½ in. work, so that it would appear that there is little difference in cost in ordinary cases.

Where, however, such division walls do not occur directly over solid bearings terra-cotta, in common with other lighter materials, has its advantage over brickwork and without the faults of coke breeze or cement concrete, like undue expansion and contraction or a hard surface conducive to condensation.

A 4½ in. brick wall, 8 ft. high, brings a load of 8 cwts. per foot super upon its base, while a terra-cotta partition of the same height imposes only 5 cwts. per ft. super in spite of its narrower width.

Where such partitions occur near the bearing of a floor it is quite safe to erect them off a plate direct on the wood joists of an ordinary floor, and in floors designed to take a live load of 2½ cwts. per ft. they could be erected in any position without additional support.

To sum up, for ordinary work on solid supports there is not much cheaper material of a fire-resisting nature than 4½ in. brickwork for partition work, and it is not worth while disturbing the even flow of bricklaying by the introduction of another material.

For work not having solid supports, terra-cotta has a distinct advantage over brickwork in the saving to be effected in steelwork, either by its elimination or reduced weight.

I trust this will satisfactorily answer "H. M. S.'s" query. "SURVEYOR."

Building Costs.

A factory of four stories would cost about half of the same floor area in a one-story building. I could give proof. HENRY LOVEGROVE.

SIR,—A friend of mine who read the letter by "Essex," in last week's number of *The Builder*, remarked to me that this was the old controversy of bungalow *versus* two-storied house cropping up again. I had to disagree with him in that; while a firm advocate of the two-storied house on the score of economy, I am equally convinced that in factory work it is far wiser to spread out on one floor with the same end in view.

Cost of land or the lay-out of shafting may determine otherwise; but it is an undoubted fact that the expense of heavy suspended floors is out of all proportion to that of a light roof covering over a similar area. The great strains induced by vibration are also reduced to a minimum where the machinery has a solid bed on the ground, and I have little doubt that, given cheap land, the one-storied factory is the thing.

"GROUND FLOOR."

A Slating Problem.

SIR,—What is the best method of laying slates on a boarded and felted roof for a windy site; pitch of roof 30 deg.? Being boarded it is, of course, not possible to point from below with lime and hair mortar after laying. I do not want the slates to rattle and perhaps therefore work loose, but to be firm, and also well supported besides at the top and bottom edges. Owing to inevitable irregularities slates not pointed are often only leaning on diagonal corners. Some specify that the slates be bedded in lime and hair mortar as laid. I dislike this as I find it keeps the roof almost permanently damp, the mortar retaining the moisture so long. I have been thinking of specifying that two small dabs of oil putty be put below the nail holes as laid (centre nailed) and the slate pressed down on same. Oil putty being slow setting should find its exact bearing and make a secure job. Would there be any objection in practice to this? Is there, for instance, any question of expansion and contraction to be considered to any appreciable degree with regard to slating?

I do not think this extra cost of puttying should exceed 6d. per yard.

I consider putty should be better than Portland cement, for being slow to set it would adapt itself to the exact size required to fill up the space; it would not crumble or powder, and, finally, would not hold moisture. I should be very pleased to have other readers' opinions and also any practical slaters'. If the problem has been treated differently and successfully from this manner I should also be interested to learn how.

"MANCUNIAN."

Manchester.

Carpenters' Company Certificates.

SIR,—I am desirous of sitting for the certificate of the Carpenters' Company for building construction.

Would you kindly let me know when and where I can apply for particulars with regard to the above? F. G.

REPLY.

Examination in Carpentry and Joinery held in November, and Building Construction and Sanitation in November. Last year's syllabus is available, and answers to questions are issued for the use of candidates. You are advised to apply for further particulars to the Clerk of the Carpenters' Company, Carpenters' Hall, London Wall, E.C.

Books Received.

MYTHS OF PRE-COLUMBIAN AMERICA. By Donald A. Mackenzie. (The Gresham Publishing Company, Ltd.). Price 12s. 6d. net.

MYTHS OF CHINA AND JAPAN. By Donald A. Mackenzie. (London: The Gresham Publishing Company, Ltd.). Price 12s. 6d. net.

THE EIGHTEENTH-CENTURY ARCHITECTURE OF BRISTOL. By C. F. W. Dening. (Bristol: J. W. Arrowsmith, Ltd.) Price £2 12s. 6d.

PRACTICAL DESIGN FOR BUILDING CONSTRUCTION—V.

AN ELEMENTARY EXPLANATION OF THE APPLICATION OF THE THEORY OF CONSTRUCTION TO PRACTICAL DESIGN.

By EWART S. ANDREWS, B.Sc., M.I.Struct.E., A.M.Inst.C.E.

SECTION I.—WALLS AND FOUNDATIONS (Continued).

Pressure on Base of a Reinforced Concrete Retaining Wall.

As a final numerical example upon the calculation of pressures on foundations, and one involving rather more complicated calculations than those which we have previously considered, we will take the case of a reinforced concrete retaining wall. This wall is illustrated in Fig. 8, and for the purposes of the calculation we may regard it as composed of the wall portion, A B C D, and the base portion, E F G H. The force tending to overturn the wall about the point H is the earth pressure P =9900 pounds, which acts horizontally in the line indicated. The forces tending to resist overturning are the following weights:—

(1) The weight of the wall portion, A B C D, acting through the centroid *a*, and equal to $17.75 \times 1.3 \times 144 = 3320$ pounds. (Reinforced concrete is taken as weighing 144 pounds per cubic foot.)

(2) The weight of the base portion, E F G H, acting through the centroid *b*, and equal to $10.5 \times 2.0 \times 144 = 3000$ pounds.

(3) The weight of earth, B C F J, taken at 110 pounds per cubic foot, acting through the centroid *c*, and equal to $18.3 \times 6.25 \times 110 = 12800$ pounds.

(4) The weight of the superload, B M J K, equivalent to 3.75 feet of earth, acting through the centroid and equal to $6.0 \times 3.75 \times 110 = 2480$.

Therefore the total stabilising weight *W* is equal to the sum of the above four weights, viz.:—

3320
3000
12800
2480

Total weight = *W* = 21600 pounds.

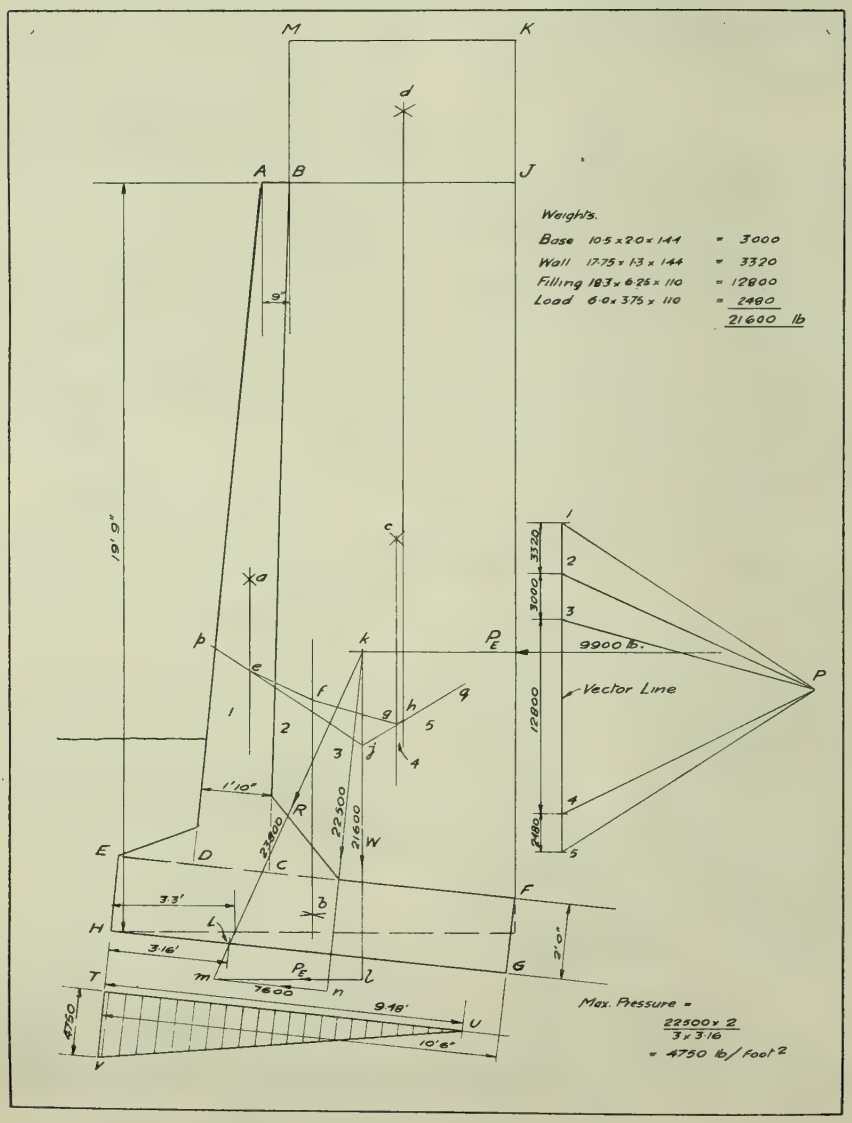


FIG. 8.

Graphical Construction for Position Line of Action of Total Weight.

We can find the position of the line of action of this total weight *W* by means of a graphical construction known as the link and vector polygon construction; this construction is the basis of the subject of graphic statics and will be employed in various forms in several of the problems yet to be considered.

We start by drawing verticals through the various centroids *a*, *b*, *c*, *d*, this giving the force lines, and we number the spaces between the force lines 1, 2, 3, 4, 5. This is often known as Bow's notation, and by means of it we designate a force line by the numbers of the spaces between which it comes; thus the first force line, the vertical through the point *a*, is called the line 1, 2; the next one through the point *b* being called 2, 3, and so on.

At some convenient point at the side of our diagram we draw a vector line parallel to the forces (vertical in our case), and to a convenient scale we set out lengths, 1, 2; 2, 3; 3, 4; 4, 5, to represent to scale the weight of the wall portion, A B C D, *i.e.*, 3320 pounds, and so on, as indicated on the figure. At some convenient place on one side of the vector line we then choose a "pole," *P*, and we join this pole to each of the points, 1, 2, 3, 4, 5 on the vector line. This pole can be chosen anywhere on either side of the vector line, and although the position of the pole affects the shape of the remainder of the diagram, it does not affect the result of the construction. The figure thus obtained by joining *P* to each of the points on the vector line is called the Vector Figure.

We now proceed to draw the link polygon, and start by drawing in space 1 a line *p e* parallel to P1, intersecting the first force line in the point *e*; we then draw a line *e f* across space 2 parallel to P 2, intersecting the second force line in *f*; then *f g*, across space 3 parallel to P 3. This construction is continued for every space, the line across the space being parallel to the line joining *P* to the point on the vector line bearing the same number as that of the space in question; these lines, *p e*, *e f*, etc., are called *links*, and the last link *h p* is parallel to the last "ray," P 5, of the vector figure.

In order to find a point on the face line of the resultant of all the weights we produce the first and last links, *p e*, *p h*, backwards until they intersect at the point *j*; we then know that the resultant load *W* passes through the point *j*. If we had taken our pole *P* at some other point our resulting link polygon would have been slightly different in shape, but the intersection of the first and last links would have come upon the same vertical line; if we had started our link polygon at some other point, the first link having been drawn anywhere across the first force line, the effect would have been to have shifted the whole link polygon vertically, but the result would have been the same.

We have now reduced the forces acting on the wall to two, viz., the resultant weight *W* and the horizontal earth pressure *P*E. To do this we first find the point *k* at which these two forces intersect, and we then set down to a convenient force scale a vertical line *k l* to represent *W* = 21600 pounds; we then draw *l m* horizontally to represent to the same scale *P*E = 9900 pounds, and by joining *k m* we find the resultant force *R* and the intersection of its line of action with the base *H G* gives us the load point *L*.

As the base *H G* is inclined to the horizontal we next have to find the components of the resultant *R* parallel to and at right angles or normal to the base. This is done by drawing *m n* parallel to the base, and *k n* at right angles to the base. On measuring *k n* to scale we find that it represents a normal pressure of 22500 pounds.

We are now in a position to calculate the maximum pressure on the soil and to draw the diagram of pressure on the soil. On scaling the length *H L* we find that it is 3.16 feet; this is less than one-third, and the load point, therefore, falls outside the middle

third, so that we have

Maximum pressure per square foot on soil

$$= \frac{2 \times \text{normal pressure}}{3\ H\ L}$$

$$= \frac{2 \times 22500}{3 \times 3.16}$$

$$= 4750 \text{ pounds per square foot.}$$

We then draw the pressure diagram as indicated by making the base of the triangle equal to three times $H\ L$.

In this example we have chosen the graphical method of solution because it is quite appropriate, and because it gave us an opportunity of introducing the link and vector polygon construction. We could have proceeded as in the last example by calculating moments about a suitable point and dividing by the total weight to obtain the distance of the line of action of the total weight from that point, and we should have obtained the same result.

Slide Resistance.

In the case of a structure which is subjected to horizontal as well as vertical forces such as the present we have to consider the resistance of the structure as a whole to sliding, as well as the intensity of pressure on the soil.

The component of the resultant pressure on the base, which tends to cause sliding, is represented by the length $n\ m$, which scales 7,600 lbs. This is resisted by two forces, (*a*) the pressure of the soil on the front of the wall from the top of the soil to the bottom of the base, (*b*) the natural friction between the base of the wall and the soil. This natural friction varies with the soil, and for concrete or clay is usually taken at from 0.4 to 0.8 of the normal pressure, according to the wetness of the soil. The total resistance from these two causes should not be less than about twice the sliding component of the pressure; it is usual to assume, as we have done, that the earth pressure acts horizontally, but experiments show that it acts at an inclination to the horizontal which will reduce the slide component so that the usual assumption errs in practice on the safe side.

ACOUSTIC DEMANDS IN AUDITORIUM DESIGN.

On Tuesday last week, at University College, London, Mr. G. A. Sutherland delivered an address on "Acoustic Demands in Auditorium Design." Mr. J. A. Gotch, P.R.I.B.A., presided.

The lecturer said there was in some quarters a feeling of resentment that anyone claiming to understand the application of the principles of acoustics to architecture should not be able to take an existing example of a recognised architectural design, and by the alteration of a few unimportant details make it a pleasant place in which to hear and speak. But it was no more possible to adapt the laws of sound than it was to alter those of mechanics—acoustic considerations must influence the whole of a design from the outset. The conditions of good hearing in an auditorium were first, uniform and adequate loudness; second, distinctness or freedom from undue overlapping of successive sounds; and third, accurate rendering, or the preservation of their proper relative proportions in the simultaneous components of a complex sound. Uniform loudness was associated in practice with the absence of curved walls—all whispering galleries owed their peculiar properties of concentrating sound in one or more places to the presence of curved walls, and the concentrations were most marked if the surfaces were curved in two directions at once. Special concentrations of sound in some places implied corresponding deficiencies elsewhere; thus we had non-uniform distribution of intensity. Concentrations existed with sustained tones even in rooms with flat walls, but were unimportant unless the room had a large number of walls. The conventional rectangular pattern might always be safely adopted for all but the largest halls. There was no standard of loudness, but as a practical guide in designing a hall or chamber it might be taken that provision should be made that every auditor should receive in the first fifteenth of a second after the direct sound reached him, not less sound than he would receive directly if he were situated 50 ft. from the speaker. There was no scientific basis for the choice of a distance of 50 ft., but the reason why one-fifteenth of a second was chosen was that sounds which struck the ear at intervals of time less than that were not distinguished as separate, but might be considered as adding up to form the initial sound, whereas sounds arriving later had the nature either of an echo or a diffuse prolongation of the original sound.

Sound was a form of energy, and when sound waves were started they continued to be audible until converted into another form of energy. A mere breaking up of sound waves by irregularities in the walls of a room was of no service in this respect, but their entanglement in porous materials of every kind produced so much air friction that the sound was soon converted into heat. In the case of a speaker standing on a level plane the sound waves spread out from him roughly in ever-widening hemispheres, and the lower portion of these waves served anyone who might be on the plane. If that plane were covered with people standing, the sound was absorbed by the first few rows, and those at the back heard nothing. Placing the people on seats in tiers, and putting the speaker on a platform, made a larger portion of the wave serviceable, and matters were still further improved by placing a wall behind the speaker to reflect forward the back portion of the wave. This gave roughly the form of the classic theatre. If we added side walls, back wall, and ceiling we had the general form of the modern auditorium. But by these additions we completely altered the character of the problem. In the classic theatre there might, in certain parts, be insufficient loudness, for the wall behind the speaker was the only reflector helping to reinforce the direct sound; but there was no lack of distinctness due to overlapping of successive sounds, for the sound of each syllable, having passed over the audience, was lost at once. But in a modern auditorium sound might be buffeted from surface to surface for some time before it disappeared, causing a slow decay or reverberation instead of an immediate disappearance of the sound of each syllable. This was bound to involve indistinctness. Reverberation was the commonest defect in the audience hall of to-day. In designing such a hall distinctness was more important than loudness, but in the case of music some blending and overlapping of successive notes was desirable. Ideally, separate halls should be used for speech and music, and even for different classes of music, since the desirable reverberation periods differed in the different cases; but where a hall was to be used for all purposes a compromise must be made. In practice, it was found that a hall primarily adapted for speaking might be used with success for music, if there were a good deal of wood panelling in the neighbourhood of the orchestra.

The lecturer showed by diagrams how rooms of different shapes and sizes produced echoes and reverberations, and explained how it was that these were not so bad in the case of slow speakers as in the case of rapid ones. Echoes and reverberations, he said, could be reduced by the use of sound-absorbing materials in the building itself, or in its furnishing; and he gave a table showing the effect of different substances. The best absorbent was an open window, for through an open window sound entirely escaped; but a full audience was almost equally effective, and it was a matter of common experience that it was generally easier to hear in a room when full than in the same room when empty. The smallness of an audience could be in some degree made up for by having upholstered seats.

The table of sound absorption efficiency showed, among other things, that, taking the open window as 1.000, an audience as ordinarily seated was 0.960. Jute felt 6.6 cm. (about 2½ in.) thick was 0.770. A tile specially manufactured for lining auditoria was 0.382. Brick, plaster, and glass were examples of substances that reflected sound; in the case of a brick wall 18 in. thick, set in cement, and painted with two coats of oil, the sound absorption efficiency was only 0.017.

The lecturer acknowledged his indebtedness to W. C. Sabine and to Jaeger, and told how the former's first experiments had consisted in finding out how the reverberation period of a given room had been lessened by the introduction of a particular type of cushion; the absorption power of that cushion was determined by finding what area of it was required to produce the same effect on reverberation in the room as was produced by one square foot of open window. Once this particular type of cushion had been standardised, the absorption power of other materials was found by comparison with it, and a table drafted which enabled calculation to be made in advance of construction. This table also made it possible to specify the remedy for an unsatisfactory room already built, assuming excessive reverberation was the fault. The general principle to be followed was to have hard, sound-reflecting substances near the speaker, and sound-absorbing material in the neighbourhood of the audience; the reflecting surfaces being arranged to throw the sound to the absorbent ones in as short a time as possible. If any wall was curved that was an obvious place for absorbent material.

Of echoes, the lecturer said that besides reverberation and the unevenness of distribution produced by curved surfaces, echo was the commonest fault in large halls. If the difference in path between the sound arriving directly and that reflected from a hard surface was greater than 70 ft., the reflected sound arrived more than one-fifteenth of a second after the direct sound, and unless greatly enfeebled by absorption was heard as a distinct separate sound, *i.e.*, an echo. Long reflections of this sort usually included the back wall, which was, therefore, a suitable place for absorbent material.

The lecturer concluded with a reference to council chambers. In the case of these he said it was necessary to aim at exceptional loudness and distinctness. First, the hall should be so arranged that a speaker, by merely turning in his place could have an uninterrupted view of the ears of every member of his audience, including the visitors and press men. This ruled out the possibility of overhanging galleries with potential speakers far underneath them. Second, surfaces should be so arranged that for every member of the audience there was some early reflected beam of sound to supplement the direct sound. The ceiling was the natural place to use for this purpose; but if this was to be a reflector its height must not be more than thirty-five feet. Otherwise it would produce reverberation or echo. The upper parts of walls, including the back walls of galleries, should be of sound-absorbing material. This would leave the ceiling free to act as a reflector for direct sound, but there would be no sound thrown from wall to wall and coming back from the ceiling after a long interval. In the ideal council chamber the whole floor should be carpeted, and gangways covered with specially heavy carpets laid on under-mats. The seats should be made of the most absorbent type of upholstery. Galleries should also have upholstered seats, and when not in use might be cut off by heavy curtains. Seats should preferably be arranged in some sort of hollow square formation, and should be raised slightly as they proceeded towards the walls.

THE BUILDING TRADE.

INDUSTRIAL STATISTICS, 1923.

At the commencement of a new year we have usually considered the industrial statistics of the year that has passed, as they provide, when tabulated, a useful indication of economic conditions which have prevailed, and they contain some lessons which should be of future use.

Unemployment.

Unfortunately, perhaps the most dominant feature of 1923 was unemployment, and although the statistics show some decline, unemployment is like disease, the longer it continues the more serious it is for the patient, and no effort can be spared to combat it successfully. There is, however, nothing to be gained by ignoring any hopeful symptoms and in depressing the patient and, therefore, it is satisfactory to note that there is some reduction in unemployment as compared with twelve months ago.

It may be well in this connection to take the figures for two years, given in the *Labour Gazette* in respect of three classes, which we will table as under with the percentages of unemployed :—

	Insured workpeople.	Trade Unionists.	Workpeople registered at Exchanges.
December, 1921	16.2 ..	16.5 ..	1,886,000
December, 1922	12.6 ..	14.0 ..	1,408,000
December, 1923	10.7 ..	9.7 ..	1,174,000

Thus, in the two years, it will be seen that there has been a decline in the percentage of Insured workpeople unemployed of 5.5; of trade unionists, 6.6; and in the number of workpeople on the registers of the employment exchanges of 712,000, and thus matters are not at their worst, but as long as so large a number of workpeople are unemployed the problem of unemployment must continue to receive the most serious attention.

Trade Disputes.

In the two years mentioned above the difficulties attending employment were seriously increased by trade disputes, but in 1923 a marked improvement was shown in this respect, and we append a table for the three years 1921–3 :—

	Disputes.	Workpeople.	Working days lost.
1921	.. 763 ..	1,801,000..	85,872,000
1922	.. 576 ..	552,000..	19,850,000
1923	.. 611 ..	397,000..	10,642,000

It is earnestly to be hoped that when trade shows some revival it will not at once be checked in its progress by industrial disputes. In bad times the number of disputes is usually less, but immediately there are signs of revival, and before the effect is felt, industrial unrest revives also, at a time when strikes injure the workpeople and the community perhaps more than at any other period, for, as trade revives, contracts are placed here from abroad and those contracts can only be tendered for on the basis of existing conditions. If those conditions are changed by industrial disputes either the tender, if made, results in a loss, or contracts are cancelled under a strike clause, and as time is the essence of most contracts, contracts are placed in countries where industrial conditions are less disturbed, and the boom is lost and unemployment is increased. It has to be recognised that strikes and lockouts are like war, and should be the last thing resorted to and only in cases of dire necessity.

At no time can a lockout or strike be resorted to without a general set back in industry. The great coal strike came at the end of a period of better trade, and not at the beginning of a period of revival, but its effects were to precipitate the bad period and they may even still be felt. Conciliation in industrial disputes is the only way to prosperity, and a loyal observance of awards made with the concurrence of all parties concerned, or their representatives, must be inculcated.

A loss of even ten and a half million working days represents at the present rate of wages an immense sum in wages, somewhere about £6,000,000 at the least, and the purchasing power of those wages is lost, and indirectly affects the prosperity of the community. In the three years under review the loss in working days totals 116,364,000 working days, or between £58,000,000 and £60,000,000 in wages at a moderate estimate, and that at a time when foreign trade was practically non-existent and unemployment rife.

Wages and Cost of Living.

The three years under review were times of falling wages; the war had entirely upset the wages market, and the years 1919 and 1920 were years of increased rates of wages. The net result of changes in rates of wages is given in the *Labour Gazette* thus :—1919, increase £2,432,000; 1920, increase £4,797,000; 1921, decrease £6,026,500; 1922, decrease £4,211,000; 1923, decrease £309,400. The restoration of more normal conditions in the labour market is shown in connection with these figures, for in the years 1919 and 1920 the changes in rates of wages were all increases, no workpeople sustained a decrease. In 1921 some 80,000 workpeople experienced increased rates, but some 7,175,000 decreases. In 1922, 75,000 persons increases, but 7,633,000 decreases; but in 1923, 1,198,000 workpeople were affected by increases and 3,027,000 by decreases.

The cost of living figures for these years were as under, taking one month (December) in each year :—

1919	.. 125	per cent. above pre-war level.
1920	.. 169	„ „ „ „
1921	.. 99	„ „ „ „
1922	.. 80	„ „ „ „
1923	.. 77	„ „ „ „

Making allowance for the importance of the different industries, the *Labour Gazette* places the net reduction in ratio of wages in 1923 at about 3 per cent. of the ratios prevailing at the beginning of the year, and states that at the end of the year weekly full time ratio of wages averaged 65 to 70 per cent. above pre-war level.

It has to be remembered that the cost of living figures are based upon the actual standard prevailing in working-class families before the war: those were the days when fur coats and silk stockings were not included in the family budget, and we find a note in the *Labour Gazette* to the effect that, whereas in some families economies have been effected to meet the increase in prices, expecially where incomes have not been proportionately increased; on the other hand it is probable that in some families the standard of living has been raised where wages have been increased in greater proportion than prices. There can be little doubt that the whole nation, with the exception of those on very small fixed incomes, has so far failed to grasp the fact that, until trade is restored all the world over, there must be economy at home. Too much is being spent on luxuries and pleasure, and until international trade is revived the nations are really living on taking in their own washing, and unless more restraint is shown evil must result. The most urgent need of every nation is to restore its depleted capital, and until capital is restored and credit firmly established economy should be the watchword of the day. The money spent should be expended on reproductive work, or on works which will give some return by alleviating the burden of unemployment. Those bent on pleasure and luxury are fiddling while Rome is burning.

It may be noted that the average level of rents (including rates) of working-class dwellings is stated to have been about 50 per cent. above pre-war level at the beginning of the year, but to have fallen to about 47 per cent. by the close of the year owing to a decrease in rates.

Hours of Labour.

It is estimated that 334,000 workpeople had their normal working-hours increased in 1923 by an average of about one-third of an hour per week, whilst 9,500 had them reduced by an average of about 1½ hours per week.

The Building Trade.

In the Building Trade, 434,000 men were affected by alterations in rates of wages, the net result being a reduction of £67,900. In 1922, the figures were 518,000 workpeople and a net reduction of £392,000.

As regards hours of labour the effect of the arbitrator's award fixing hours in the summer season at 46½ and 44 hours at other seasons, unless the operatives agreed to work 44 hours all the year round, resulted in an increase of hours in December, as previously the hours generally worked in January and December in most districts had been 41½.

The year was marked by less disputes than the previous year, 54 as compared with 62, but more workpeople were affected—20,000 as against 8,000—with a loss of more working days, 384,000 as against 169,000.

LIVERPOOL HOUSING SCHEME.

Government Inquiry.

In his first report Mr. J. Orchard (Government Inspector of Audits) on the Garston Housing scheme of the Liverpool Corporation, stated that the Economic Building Corporation, which contracted to build 2,000 houses on the site but did not complete the contract, has received £330,000 in excess of what they were entitled to for the work they had done.

A second report has now been issued by Mr. Orchard, in which it is stated that the Company had less than £40,000 capital for carrying out the contract. Arrangements were made for payment of the contractors on an outlay basis, 90 per cent. on wages and materials, and 50 per cent. on plant, and the evidence went to show, states the report, that the City Council were greatly and continuously overcharged under both these heads, and that the contractors' claims were inefficiently checked and examined by the City Corporation officials. The evidence, it is stated, went to show that the contractor's managing director was guilty of extravagance and that he drew personally large sums of money from the amounts received from the City Council for financing the contract.

In his formal findings the Inspector states :—

"(1) The certificates presented to the City Council contain items the price or quantity of which was overstated, and having regard to the size and number of the discrepancies it is difficult to take the view that this was the result of accident.

"(2) The Council officials did not examine these details with reasonable care.

"(3) That the Housing Director and Architect, Mr. F. W. Badger, was not only negligent but grossly negligent in his examination of the statements put forward.

"(4) That Councillor H. A. Booth received moneys from the Economic Corporation."

The Special Committee of the City Council appointed to deal with the matter has also issued a report, in which it states it is satisfied that mistakes have been made, and that the circumstances disclosed a lack of capacity on the part of the Director of Housing to direct the administration of so large a contract, the magnitude of the work being too great to be efficiently performed by the staff. The Committee recommends that the Housing staff be transferred to the City Engineer's Department, and that the title of the Director of Housing be changed to that of Housing Officer, with a reduction in salary from £1,500 to £1,200 per annum.

MODERN BUILDERS' MACHINERY.

By STAFFORD RANSOME.

No. IV. ELECTRICAL AND STEAM POWER.—Part 2. (*Cont.*)

The Group Drive.

In spite of the many advantages of the individual drive, and because of its limitations which I have already outlined, the "group" drive (or more usually a combination of the group and the individual drives) is more popular in builders' mills. The group drive, as its name suggests, is the driving of two or more machines from a motor-driven countershaft which is common to them all. This method, although it does not eliminate all shafting and belting, reduces them to a comparatively small matter, and it has the advantage of reducing the "collective" amount of horse-power in the mill. This, of course, is on the assumption that the whole of the machines will not be used at their full capacity simultaneously. It is, therefore, eminently suitable for a builder's mill when the work of the individual machine is usually intermittent. Thus by grouping three or four machines under one fairly large motor, and arranging so that they are not all worked simultaneously, the horse-power of the motor may be considerably below the collective power of the motors which would be necessary if the same machines were driven separately.

A Comparison of Powers.

For instance, by grouping, say, a saw-bench, which would require individually as a maximum 15 h.p.; a hand-feed planer, 4 h.p.; a mortiser, 4 h.p.; and a tenoner, 8 h.p.—total 31 h.p.—they could be driven quite well by a single motor of, say, 25 h.p., provided that not more than two or three of them were to be worked simultaneously, as their average demand for power at any one time, plus the necessary shafting, would not exceed the capacity of the motor. In times of great pressure of work, however, when it may be desirable to work every machine at full capacity, the group drive may have a retarding effect on output unless each group has been somewhat overpowered for the normal requirements. The paramount advantage of the group drive lies in the fact that the countershaft may always be speeded to suit the motor, irrespective of the nature of the current, as the speeds of the spindles are regulated by the diameters of the pulleys on the countershaft and the machine. There is a further advantage in the group drive, and that is, that the relative efficiency of the larger motors is far higher than that of the smaller ones. Consequently, the single large motor used for a group is more efficient than a number of smaller ones. This last, though a point to be borne in mind, does not affect the user of wood-converting machines as much as it does those in some other industries where the requirements for power of the individual spindles are far lower than those of these tools.

In weighing the relative advantages of steam and electricity, we must not fail to grasp the fact that to attain the best work from wood-working machines the most perfect cyclic conditions are essential. "Cyclic regularity" is the constant running at a regular and even speed, without acceleration or retardation, of a shaft or spindle. In this respect the electrical drive is far ahead of the steam engine, and the nearest approach to the ideal in this connection is attained by an individual motor coupled to a spindle and impelled by an alternating current.

Cyclic Regularity.

Without going deeply into the theory of the question I can perhaps convey my meaning in popular form by saying that, in the first place, a reciprocating steam engine, which is propelled by the letting in of steam first at one end of the cylinder and then at the other, *i.e.*, by a series of shocks, can never give a perfect cyclic regularity. The evil is reduced by the fly-wheel, which absorbs those shocks to a certain extent, but in their reduced form they are imparted to the shafting, and are always there. The cyclic irregularity thus occasioned is increased by the torsional effect of driving on the shafting, and the longer the shaft the greater will be the cyclic irregularity. All cyclic irregularity in the main shaft is imparted faithfully through the belts to the countershafts, and from them to the spindles of the machines, increasing progressively and accentuated by the slipping or "ballooning" of the belts.

With an internal combustion engine, such as a gas engine, the evil is worse because it is driven by an explosion at only one end of the cylinder, and it "free-wheels" during the return portion of its stroke when it is impelled merely by the momentum of the fly-wheel. The electrical drive avoids the greater portion of these irregularities, first, because there is no reciprocating movement to be overcome or neutralised; and, second, because it eliminates most, or, in the case of the individual drive, all of the shafting and belting. Again, I would emphasise the fact that a plant driven by electricity cannot be worked if it is underpowered. Thus, if the motors are not sufficiently powerful, they have to be replaced, and, if you add more machines you have to provide more or larger motors to drive them. Thus the motive power increases proportionately and automatically with the increase in the plant.

Under-Powered Factories.

Such is not the case with a steam-driven plant, which, owing to the great capacity of the good old steam engine for negotiating overloads long beyond its proper economic limits, will go on turning the machines round somehow long after it has been grossly overtaxed. Builders' shops, which usually grow progressively from small beginnings, are often underpowered by the steady increase in the plant without increasing the steam power behind it. Many times I have been called in to find the causes of certain troubles in such factories where there was nothing wrong but an insufficiency of power. Such a condition may well be a cause of serious loss in efficiency long before it becomes very palpable to the superficial observer in a shop where it has come about gradually. But it should reveal itself in the quality of the work, due to excessive cyclic irregularity, and in the abnormal increase in the fuel consumption, due to the engine being taxed beyond its economical point. By the time that the evil begins to show itself in the slowing and racing of the engine, which is obvious to everybody, it has probably long been in a bad way.

Alternative Plans.

For the purpose of contrasting the collective and the individual drives I show, by the courtesy of a well-known firm of wood-working engineers of Halifax,* alternative sketches demonstrating two of their lay-outs of a small builder's plant. Scheme "A" shows a plant driven collectively by a gas engine, through shafting and belting, and Scheme "B" shows each machine, with the exception of the two small sharpening machines which have one motor between them, driven by its own separate motor, and all shafting dispensed with. The machines in each case are the same, and consist of:—(1) a 32 in. circular saw bench with rising and falling table, for ripping and cross-cutting; (2) a 15-in. hand-feed planer; (3) a 24-in. panel planer; (4) a chain and hollow chisel mortiser; (5) a tenoning machine; (6) a vertical spindle irregular moulding machine; (7) a 30-in. plain band-saw; (8) a saw-sharpening machine; (9) a straight and moulding iron grinder. Both installations are shown in a building of the same size, except that in Scheme "A" the engine has to be housed in an annexe to the machine-shop, and, for convenience sake, the sharpening machines are also placed in the annexe. A glance at the two shows at once the great saving of space by the adoption of the individual drive in plan "B," as not only are the countershafts and the belts (which are above the floor in plan "A") eliminated, but all excavation to accommodate the main and other shafts below the floor and their belting are avoided. The plant "A" could equally well be driven by a steam engine, but in that case an extension of the building to accommodate the steam boiler and fuel store would be necessary.

If an electrical motor were used to drive the whole of the machinery by shafting as in Scheme "A," the annexe would be avoided as the motor could be placed below the floor in the main building. Whether the motive power used for Scheme "A" is a steam or gas engine or a single large motor, 30 b.h.p. would be amply sufficient for the requirements of the plant working under normal conditions, because all the machines would not be demanding their full power requirements at the same moment. If, however, a larger or smaller motor is desired, it is a comparatively easy matter to change it without loss of time. Such would not be the case with either steam or gas power. We must bear in mind, however, that, whatever the class of motive power may be used for plant "A," it has to deal with a constant load equal to about 5 or 6 b.h.p. for driving the shafting and belting, without reckoning the power absorbed by the actual machines. This is saved altogether by the individual drive in plant "B." In plan "B" there are eight motors with a collective capacity of rather over 40 b.h.p. Each machine has its own motor except the two sharpening machines, which share one between them, *i.e.*, they are "grouped" for driving.

In the case of the circular saw, the hand-feed planer, the panel planer, and the vertical moulder, the motors are coupled direct to the spindles, thus avoiding all shafting and belting except that the feed of the panel planer is driven by a small belt from the spindle. The band-saw spindle is not coupled direct, because its speed is too slow for the motor, so the motor drives it through reduction gearing. Similarly the mortising and boring and the tenoning machines, each of which has more than one spindle, are driven each by a motor coupled to its countershaft which drives the various spindles by belting. In both cases, however, these machines are self-contained, and their countershafts form a part of the machines.

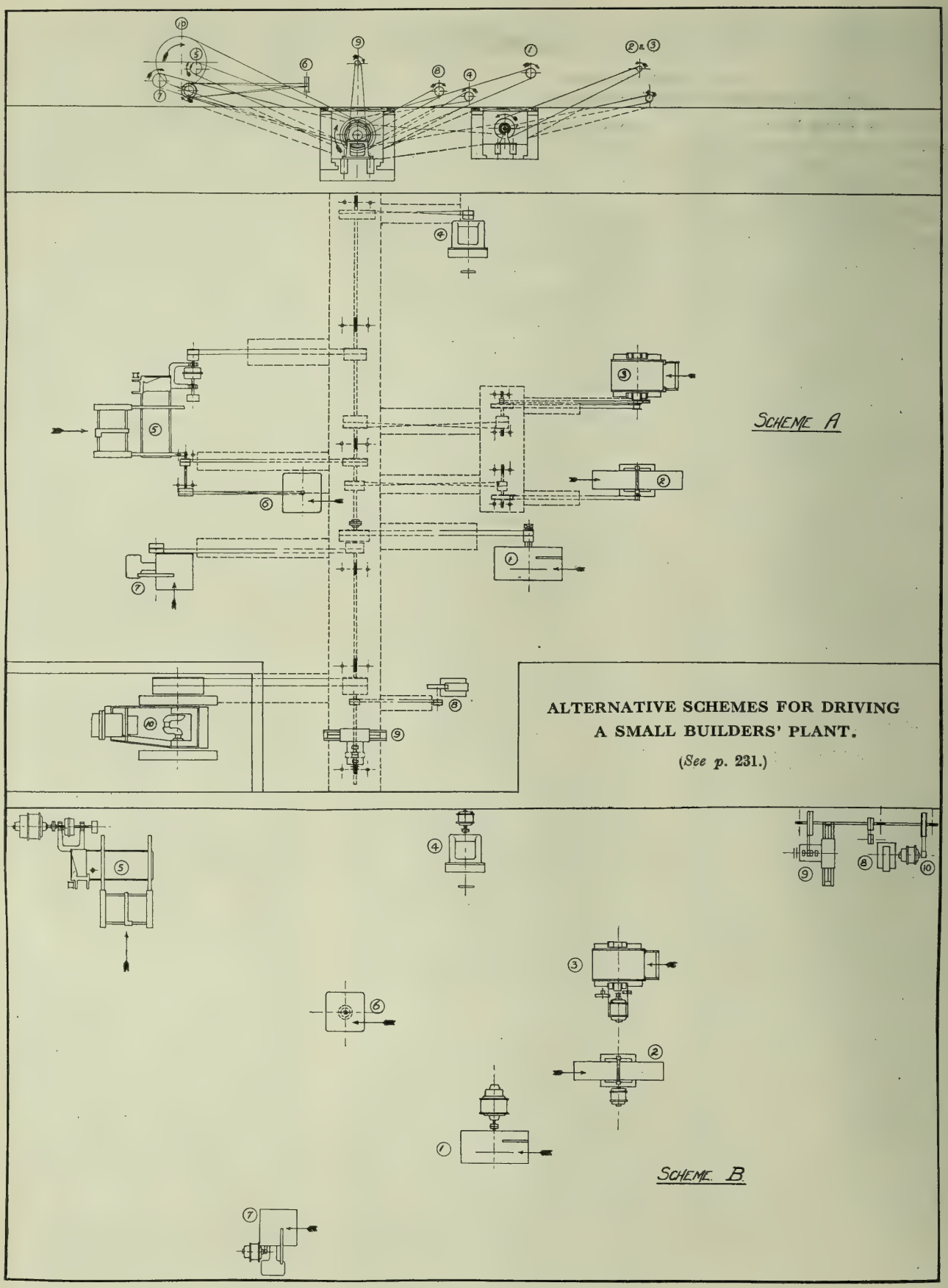
While the collective power required for plant "B" is considerably higher than that of plant "A," because each motor must be capable of driving its spindle to its full capacity for power consumption, the power absorbed by plant "B" for the amount of work done will, if anything, be less than that of plant "A." This is because, with the individual drive, the power is only used as and when required, and ceases entirely when a machine is out of work, whereas in plant "A" the main shafting and belts must go on absorbing power as long as any one of the machines is being used.

Except when the circular saw is being used for very deep cutting, it will seldom be found that the machines in plant "B" will be requiring more than 15 to 20 b.h.p. at any given moment.

There are also several minor but valuable advantages in the arrangement of the machines permitted by the individual drive, of which one may be mentioned. This is that in the general lay-out of a factory certain of the machines ought to work in parallel and others at right angles to each other to avoid turning the material.

Thus the ripping saws and the cross-cutting saws should be at right angles to each other, while all ripping saws should be parallel with each other. When driven from one shaft you cannot get a circular ripping saw and a circular cross-cut to work at right angles without the introduction of angle gearing, or an awkward arrangement of twist belting, both of

* Messrs. J. Sagar & Co., Ltd.



ALTERNATIVE SCHEMES FOR DRIVING A SMALL BUILDERS' PLANT.

(*See p.* 231.)

Key to the Machinery in Schemes "A" and "B."

SCHEME "A"—COLLECTIVE DRIVE, THROUGH TRANSMISSIONS.

1. Rising and Falling Table Saw Bench.
2. Hand Feed Planer.
3. Panel Planer and Thicknesser.
4. Chain and Hollow Chisel Mortiser.
5. Tenoning Machine.
6. Vertical Spindle Irregular Moulder.
7. Plain Band Saw.
8. Saw Sharpening Machine.
9. Planing and Moulding Iron Grinder.
10. 30 H.P. Gas Engine.

SCHEME "B"—INDIVIDUAL ELECTRICAL DRIVE.

1. As in Scheme "A," with 12 H.P. Direct-coupled Motor.
2. ,, ,, ,, with 3 H.P. Direct-coupled Motor.
3. ,, ,, ,, with 6 H.P. Direct-coupled Motor.
4. ,, ,, ,, with 3 H.P. Motor coupled to counter-shaft.
5. ,, ,, ,, with 7½ H.P. Motor coupled to counter-shaft.
6. ,, ,, ,, with 3 H.P. Direct-coupled Motor.
7. ,, ,, ,, with 3 H.P. Motor geared to saw pulley.
8. ,, ,, ,,
9. ,, ,, ,,
10. 3 H.P. Motor driving Items 8 and 9.

which are bad. A similar method must be employed if it is desired to get a circular and band-saw to work in parallel. With the individual drive, however, the proper relative positions may be attained without any complication. It will be seen that in Scheme "A" both the band-saw and the tenoning machine are fed at right angles to the rest of the plant. This necessitates the turning of the material. In Scheme "B," however, these two machines are turned so as to work in parallel with the others. Thus in Scheme "B," except that the ripping and cross-cutting happen to be done on the one saw-bench, the material throughout construction is never turned.

A Compromise.

In plans "A" and "B" I have shown the two extremes between the collective and individual drives. Between them, however, there is a compromise method which, up to the present, has been more usual than that shown by plan "B." This consists in grouping certain of the machines and driving others individually. A very ordinary method with the builders' plant illustrated would be to split up the driving of the machines as follows:—

Saw Bench	Separate Motor
Band Saw	Separate Motor
Hand Planer, Panel Planer, Moulding Machine	One Motor
Mortising Machine, Tenoning Machine	One Motor
Two Sharpening Machines	One Motor

This method naturally necessitates a certain amount of shafting, but it is still a great saving on that required by plant "A."

In the abstract one may say, "When available, use electricity from the point of view of good work, good conditions, simplicity, saving of space and labour, and usually of economy." Further, it is desirable to get as near to the individual drive as circumstances will permit.

When we come down to a concrete proposition, however, this view may be modified, and each case must be treated on its merits. The electrical current may be unsuitable or its price prohibitive; the builder may have premises fitted with steam or gas power which are already available; or it may be policy to use up his refuse for fuel; or, in the case of a temporary job, he may have a portable or some other engine which comes in conveniently for the purpose. And, of course, over and over again there will be no electrical power supply at hand. Then he must fall back on steam or gas, but at the present day he must first regard the electrical drive as the thing to adopt either for a single machine or a large factory, unless there is some valid reason against it.

Perhaps the most popular factor in favour of electricity from a power supply source, from the point of view of the small man, is that, by obviating the cost of a motive power installation, he is able to use more of his capital on the actual productive machinery. In any case it permits him to make a start as a user of machinery to the extent of a motor and a saw-bench, on a capital expenditure of £100 or even less, whereas with steam or gas he would have had to spend several times that amount on the motive power and accessories alone.

Carmarthen Bridge.

The Ministry of Transport has condemned Carmarthen bridge as unsafe. It is a massive stone structure with seven arches. They recommend the construction of a new one. The bridge was originally built by the Romans, and is of considerable historical interest. In 1233 Henry de Turberville broke down the bridge when he relieved the town, which was being besieged by Richard Marshall, Earl of Pembroke. In 1250 it was broken by pressure of ice, the river being frozen in spite of the tide. In 1326 a toll was raised for the renovation of Carmarthen bridge. It was twice widened before the seventeenth century.

HOUSING, &c., ACT, 1923.

WE take the following extracts from a circular issued by the Ministry of Health. (It can be obtained from H.M.S.O., price 1d. net.)

I am desired by H.M. Government to refer to the previous circulars issued in connection with the Housing Act, 1923, and to invite the special attention of the Council to the wide powers conferred upon local authorities of assisting persons to become the owners of their houses and builders to undertake the erection of houses by the grant of loans or by giving guarantees to building societies.

I observe with satisfaction that local authorities generally have been active in setting on foot under the recent Act schemes for the production of small houses by private enterprise with the help of subsidies. I am convinced that the work done in this direction, by assuring the revival of private enterprise in house building, will have far-reaching effect in re-establishing the supply of housing accommodation.

The Government, however, feel that up to the present full advantage has not been taken by local authorities of their powers of assisting the provision of houses by making advances to intending owner-occupiers or builders or by entering into arrangements for guaranteeing part of the advances of building societies. Although the total amount of loans sanctioned by me for the purpose of such advances is already considerably in excess of the total of all loans sanctioned under the Small Dwellings Acquisition Act, 1899, prior to the Act of 1923, the local authorities who have availed themselves of their powers in this respect are relatively few in number and many local authorities have limited themselves to the adoption of a scheme for the grant of subsidy.

May I urge upon all local authorities the importance of making the fullest possible use of these powers? There is, I am convinced, a desire on the part of many members of the working class to become the owners of their own houses, and as the facilities are in existence I should like to see them utilised to the utmost. The experience of those local authorities who have in the past made use of the powers of the Small Dwellings Acquisition Act has been uniformly satisfactory.

The adoption of simple and easily understood arrangements for the grant of loans to builders will also be of the greatest value in facilitating the rapid development of house production.

THE MANAGEMENT OF TOWN PROPERTY.

A LECTURE on "The Management of Town Property" was given at the College of Estate Management by Mr. Sydney A. Smith, F.S.I., F.A.I., recently.

The lecturer considered the position of an agent to whom the management of a large town estate was entrusted and said the agent must first make himself quite familiar with the extent of his authority, which ought to be clearly set out in the instrument creating the agency. He must then inspect the estate and get to know its details, checking the properties from the rent roll.

The lecturer detailed some of the points which would require attention and examination, such as rents receivable, assessments, tithe rent charge, land tax, betterment rate. Some provision in regard to rising rents and terminable outgoings must be made well ahead by means of card index, or other such system, otherwise changes of this nature were apt to be overlooked. Subsequently the agent would have to keep in touch with local affairs if the estate were away from his district.

The necessity of looking around and seeing what the neighbours were doing was important so that future developments might be foreseen, and in some cases leases granted only for such times as would not prevent alteration in the nature of the property when ripe for it.

The need for firmness in enforcing covenants, especially in regard to outside painting, of being acquainted with local by-laws and the building Acts, and of a definite policy in regard to licences authorising changes in the use of the property was also emphasised. It was also important in letting properties to get a reasonable form of lease, and when this was done not to vary it in any way.

THE COST OF BUILDING.

MR. H. J. TURNER, of Birmingham, writes as follows in connection with the article on "The Cost of Building," by Mr. T. P. Bennett, F.R.I.B.A., in our issue for January 11:—

"SIR,—In connection with *The Builder* Cost of Building Competition specific queries were sent to 30 builders, the first of which was: 'Did the issue of bills of quantities cause an increase in the tenders?' Six builders replied in the affirmative. In considering the important points which issue from such an interesting competition as this has been, one cannot help but pause at Clause 18 in the summary, where it is stated that bills of quantities tend to increase the tender of the small house. Perhaps some of the builders who replied to this effect would give us their reasons for so doing. In my opinion a bill of quantities should tend to decrease the cost of any buildings providing a specification is prepared to meet the circumstances of the situation, which, in this particular case, may have been cut down a little and made somewhat leaner. The architects, in compiling the specification, specified materials which were perhaps too high a standard, and which would involve too high a standard of workmanship for a dwelling of which a thrifty working man could be the happy possessor, and thus help to solve one of the nation's problems. I have followed the articles, and have gleaned much helpful information, but there seems much more yet to be done towards solving the economical use of materials and methods of construction. Had several of the important suggestions been made prior to the issue of the bill of quantities the tenders would have been lower and the quantities would, as they were intended, have proved a great asset to the competing builders."

Mr. Bennett replies as follows:—

"In my opinion quantities increase cost of the work in small contracts for housing, particularly in country districts, because:—

"(*a*) Labour and other items are so small that they are, in many cases, almost unpriceable if separately enumerated.

"(*b*) Small builders are not accustomed to quantities and are in the habit of pricing the larger items to include the smaller.

"(*c*) The issue of quantities suggests that great care and elaboration have been expended in preparing the work and that a corresponding high standard of finish will be demanded.

"(*d*) Quantities leave no latitude to the builder to use a method of finish or detail which may be familiar to him or which for other reasons is cheap to construct.

"(*e*) Very small working builders who are not familiar with quantities are nervous of them.

"The following is an extract from a letter from a London firm in answer to my query as to whether quantities tend to increase cost of building: 'Yes, chiefly because the quantities were taken out in a fully descriptive manner, all labours being taken out separately. This always adds considerably to the price per house, and in this instance, where the conditions of the competition stated that the prize would be awarded for the most properly-priced bill, the price came out at a much higher figure than I would have contracted for to build the house, also because labour-only items are usually covered by the builder when pricing houses in his bulk items, such as on the price per rod of brickwork, per foot cube for timber, &c.' Other builders stated that quantities tended to increase the cost, but gave no reasons."

LONDON DECORATORS AND PAINTERS.

THE London Branch of the National Federation of Master Decorators and the London Branch of National Painters' Society, as represented by the Local Joint Education Committee, held a special meeting at the Y.M.C.A., Tottenham Court-road on the 24th ult. The object of the meeting was to entertain the successful candidates in the 1923 National Competition, organised by the National Joint Education Committee. About sixty students from the various Technical Institutes were present, all of whom had been successful in winning prizes, diplomas, or certificates in the competition.

Those present included Mr. J. P. Williams (President of the London Association), Mr. T. S. Rowden (Vice-President), Messrs. Lott, B. Morris, F. Fry, H. G. White, and E. Deacon (the Treasurer); Messrs. F. A. Colborne, A. Alright, W. Barrett, P. Phillip (National Painters' Society, London Branch); Messrs. T. P. Bennett, C. H. Eaton, J. Dawson (Northern Polytechnic); and Messrs. A. Everitt, L. Drinkwater and Jorden (School of Building).

Mr. Williams pointed out that there was much talk of the craft of the painter having fallen into decay, and that there was an excellent field and opportunity for all those who really studied their craft to do all that they could by improving their standard of craftsmanship to raise the status of the craft, and thus make it one of which that those engaged in it would really be proud. He deplored the absence of a very active member of the operative panel on the Local Joint Education Committee, Mr. J. Joyce, the operatives' organiser for the London district, and spoke of his enthusiasm and energy in regard to the question of technical education.

Mr. F. A. Cobborne spoke on the improved opportunity in the craft to-day, as compared with years ago, reminding the boys there was then no organisation for the education of the painter, whereas now they had a good organisation financed equally by operatives and employers alike. There was, he said, no excuse for any person in the craft being inexperienced, because throughout the country they had technical schools with staffs of expert teachers whose duties were to impart the hitherto hidden secrets to those who wished to know them.

Mr. Everitt said Principal Sage, of the School of Building, much regretted not being able to be present. The work of the Joint Education Committee was very much appreciated in the schools. He thanked the Federation for providing such a valuable incentive for the students in their work in the numerous money prizes, diplomas and certificates, and urged the students to continue their studies year by year, and by so doing raise the standard of craftsmanship, that the deplorable shortage of skilled craftsmen might be made good.

Mr. T. P. Bennett (Head of the Architecture, Surveying and Building Department, Northern Polytechnic) likened the progress of the student to a man on a journey; there were many hills to be climbed, but from time to time there was much to encourage in the excellent scenery in the hills and valleys. The students had hills to climb, and to-night was one of the periods when they obtained a view of the excellent scenery, but they must not delude themselves and think that it was the end of the journey, but be refreshed and encouraged thereby, gaining strength that they might continue to the end and produce the perfect craftsman of which to-day there was such a serious shortage.

Mr. Cecil Campbell urged the students to continue. The trade, through inefficiency, had fallen into a serious rut, but he had every confidence in the ability of the British craftsman to get out of it. This could be done by carefully regulated and systematic study. He was pleased to see so many young people were studying their calling, and had no doubt that before long things, by their influence, would be greatly improved, and that the master decorator would have no need to wonder whence he could obtain suitably skilled workers when suggesting schemes of decoration which were something more than washes of plain colour and white enamel.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	C'p'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/6	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 243).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

FEBRUARY 9.—**Ashford.**—SHEDDING, &C.—For erecting shedding, offices, stands, and other works for the Agricultural Show to be held at Ashford on July 10, 11 and 12, for the Kent County Agricultural Society. Major R. J. Bacon, secretary, Otham, Maidstone.

FEBRUARY 9.—**Blackpool.**—DEMOLITION.—For demolition and removal of Hoo Hill Villa, Bispham-road, for T.C. Mr. F. Wood, Borough Surveyor, Municipal Offices, Blackpool.

FEBRUARY 9.—**Dewsbury.**—HOUSES.—Erection of 56 houses, for the T.C. Borough Surveyor, Town Hall, Dewsbury. Deposit £1 1s.

FEBRUARY 9.—**Formby.**—HOUSES.—Erection of 26 houses, for the U.D.C. Mr. Ernest H. Bond, Clerk, Council Offices, Formby. Deposit £1 1s.

*FEBRUARY 9.—**Glyncorrwg.**—HALL AND INSTITUTE.—For erecting for the Hall Committee the proposed Workmen's Hall and Institute at Glyncorrwg. Mr. S. J. Morgan, Danyderi, Glyncorrwg, near Port Talbot. (* N.B.—February 9 is date by which names of builders wishing to tender should be submitted, *not* last date of tender.)

FEBRUARY 9.—**Onllwyn, near Neath.**—HOUSES.—Erection of 50 parlour type houses of two classes at Maesmarchog, Onllwyn, near Neath, with necessary roads and sewers in connection therewith, for Messrs. Evans & Bevan, colliery proprietors, Neath. Mr. J. Cook Rees, F.S., architect, Parade Chambers, Neath.

FEBRUARY 9.—**Radcliffe.**—HOUSES.—Erection of 56 workmen's dwellings, near St. Andrew's Church, for U.D.C. Mr. W. L. Rothwell, Surveyor, Council Offices, Radcliffe. Deposit £2 2s.

FEBRUARY 9.—**Sutton, Surrey.**—BANDSTAND.—Supply and erection of a bandstand in the Manor Park, Sutton, for the Sutton (Surrey) U.D.C. Surveyor to the Council, Municipal Offices, Sutton. Deposit £1 1s.

FEBRUARY 11.—**Barnes.**—CONVENIENCE.—For construction of underground sanitary convenience, for the U.D.C. Mr. G. Bruce Tomes, Surveyor, Council House, Mortlake, S.W. Deposit £1 1s.

FEBRUARY 11.—**Bishop's Stortford.**—SWIMMING BATH.—Construction of open-air swimming bath in reinforced concrete, for the U.D.C. Mr. Robert S. Scott, Surveyor, Council Offices, Bishop's Stortford. Deposit £2 2s.

FEBRUARY 11.—**Dunstable.**—OFFICES, &C.—For erection of additional offices, &c., at the Town Hall, for T.C. Mr. W. F. Wilkins, Borough Surveyor, Town Hall, Dunstable.

FEBRUARY 11.—**Durham.**—ADDITIONS.—For alterations and extensions to board room at the Poor Law Institution, for the Board of Guardians. Messrs. W. & T. R. Milburn, FF.R.I.B.A., 19, Fawcett-street, Sunderland.

FEBRUARY 11.—**Durham.**—FIRE ESCAPE STAIRCASES.—Fire escape staircases at the Poor Law Institution, for the Board of Guardians. Messrs. W. & T. R. Milburn, FF.R.I.B.A., 19, Fawcett-street, Sunderland.

FEBRUARY 11.—**East Preston.**—CONVERSION.—For the conversion of an existing building into a cottage at the Workhouse, East Preston, near Littlehampton, for the Board of Guardians. Particulars at Workhouse.

FEBRUARY 11.—**Glasgow.**—PAINTING.—For painting work at Queen Margaret Bridge, over the River Kelvin, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street.

FEBRUARY 11.—**Greenock.**—HOUSES.—For electric lighting, painting, and the laying of gas mains at the Cowdenknowes Housing Scheme, for the T.C. Mr. Andrew Nimmo, Town Clerk, Municipal Buildings, Greenock.

FEBRUARY 11.—**Ixworth.**—BRIDGE.—For the reconstruction of Potter's Bridge, Ixworth, in reinforced concrete, for the West Suffolk C.C. Mr. E. H. Bond, County Surveyor, Shire Hall, Bury St. Edmunds.

FEBRUARY 11.—**Kingston-upon-Thames.**—HOUSES.—Erection of 10 pairs of houses on the Housing Estate, for the Corporation of the Borough of Kingston-upon-Thames. Borough Surveyor, Town Hall, Kingston-upon-Thames. Deposit £1 1s.

*FEBRUARY 11.—**Leek.**—HOUSES.—Erection of twenty-two parlour and twenty-two non-parlour houses on land in Junction-road, for the Leek U.D.C. Mr. A. E. Beacham, Surveyor to the Council, Town Hall, Leek.

FEBRUARY 11.—**Liskeard.**—REPAIRS, &C.—For the adaptation and repair of farm buildings and cottages at Trenant Farm, near Liskeard, for the Cornwall C.C. County Land Agent, Truro. Deposit £1 1s.

FEBRUARY 11.—**London, S.W.19.**—HOUSES.—Erection of 5-roomed houses, 12, 24, or 87 in number, on the Council's Housing Estate, Toynbee-road, Burstow-road, and Dennis Park-crescent, within the Borough, for the Corporation of Wimbledon. Borough Engineer and Surveyor, Town Hall, Wimbledon. Deposit £2 2s.

FEBRUARY 11.—**Manchester.**—PAINTING.—For painting the interior of the Crumpsall Branch Library, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

FEBRUARY 11.—**Mexborough.**—HOUSES.—Erection of 32 houses in Adwick-road, for U.D.C. Mr. G. F. Carter, Surveyor, Council Offices, Mexborough. Deposit £1 1s.

FEBRUARY 11.—**Mitcham.**—PUBLIC CONVENIENCES.—Erection of public conveniences on the Upper or Fair Green, Mitcham, for the U.D.C. The Surveyor, Broadway House, Mitcham. Deposit 10s. 6d.

FEBRUARY 11.—**Mountain Ash.**—WALL.—For the erection of a boundary wall at Miskin Recreation Ground, for the U.D.C. Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash.

FEBRUARY 11.—**Newcastle-on-Tyne.**—EXTENSION.—Erection of a bathroom and scullery at the entrance lodge, banqueting hall, Jesmond Dene, for the T.C. City Engineer, Town Hall, Newcastle-upon-Tyne.

FEBRUARY 11.—**Paisley.**—OFFICES.—Erection of new administrative offices, for the Renfrewshire Education Authority. Mr. J. Hamilton Pullar, Executive Officer, County Education Offices, 28, High-street, Paisley. Deposit 10s.

FEBRUARY 11.—**St. Cleer.**—HOUSE.—Erection of house at Treworrick, St. Cleer, for Mr. E. Hoskin. Mr. E. C. Higman, architect, Liskeard.

FEBRUARY 11.—**Selby.**—HOUSES.—Erection of parlour and scullery houses in Haig-street. Messrs. Blenkinsopp & Scatchard, architects, Park-street, Selby.

FEBRUARY 11.—**Sheffield.**—HALL, &C.—Erection of assembly hall and class-rooms at De la Salle College, Scott-road. Mr. J. E. Whitehead, architect, 34, Goddard Hall-road, Sheffield.

FEBRUARY 11.—**Walsall.**—HOUSES.—Erection of 71 houses of various types, for the T.C. Mr. J. Taylor, Borough Surveyor, Council House, Walsall. Deposit £1.

FEBRUARY 11.—**Windsor.**—BOILER HOUSE, FIRE-BRICK LINED CHIMNEY, &C.—Construction of boiler house, foundations and setting of Cornish boiler, fire-brick lined chimney, and sundry builders' work in attendance on Engineers, for the Guardians of the Windsor Union. Mr. Walter W. Nobbs, M.I.Mech.E. (the Consulting Engineer in charge of the works), of 50, Fairhazel-gardens, N.W. 6.

FEBRUARY 12.—**Edmonton.**—PAINTING.—For painting works on various buildings of the Council, also the work of flooring over swimming bath, for U.D.C. Mr. C. Brown, Engineer of the Council, Town Hall, Edmonton.

FEBRUARY 12.—**Erith.**—SCHOOL.—For the re-instatement and erection of additions at Crescent-road, for the U.D.C. Mr. Harold Hind, Architect, Council Offices, Erith. Deposit £1.

FEBRUARY 12.—**Filey.**—SHELTER AND WALL.—For construction of a shelter and cafe, Crescent-gardens, and retaining wall and steps, Foreshore-road, for U.D.C. Mr. B. H. Noble, Surveyor, Council Offices, Filey. Deposit £2 2s.

FEBRUARY 12.—**Horsham.**—HOUSES.—Erection of eight houses in two blocks of four each in Ifield-road, Crawley, for the Horsham R.D.C. Mr. W. R. Guildford, Surveyor to the Council, Albion-terrace, Horsham. Deposit £1 1s.

FEBRUARY 12.—**Pontardawe (Glam).**—TWENTY HOUSES.—For erecting for U.D.C. twenty houses at Clydach Site, Pontardawe. Mr. E. D. Jones, Architect, Council Offices, Pontardawe. Deposit £3.

FEBRUARY 12.—**Reigate.**—PUBLIC CONVENIENCES.—For various works required in the construction of public conveniences in the Market-square, Reigate, for the T.C. of the Borough of Reigate. Borough Surveyor, Municipal Buildings, Reigate.

FEBRUARY 12.—**Rutland.**—REPAIRS, &C.—For repairs to Essendine School, near Stamford, for the Education Committee. Mr. F. W. Nichols, Surveyor, Market-place, Oakham.

FEBRUARY 12.—**Sunderland.**—CONVENIENCES, &C.—Construction of (a) underground conveniences Burdon-road, (b) convenience and shelter Kayll-road, (c) conveniences Burn Park, and (d) conveniences Fish Quay, for the T.C. Borough Engineer, Town Hall, Sunderland. Deposit £2 2s.

FEBRUARY 12.—**Uppingham.**—REPAIRS, &C.—For repairs to Caldecott School, near Uppingham, for the Education Committee. Mr. F. W. Nichols, surveyor, Market-place, Oakham.

FEBRUARY 12.—**Wallingford.**—REPAIRS.—For repairs to Casual Ward buildings, for the Board of Guardians. Mr. F. G. Sainsbury, architect, Reading.

FEBRUARY 13.—**Littlehampton.**—ALTERATIONS.—For alterations and additions to the Town Offices. Surveyor, Town Offices, Littlehampton.

FEBRUARY 13.—**Newbury.**—HOUSES.—Alternative tenders for (a) 12 houses, or (b) a pair of houses for the Corporation on a site at Essex-street. The Borough Surveyor's Office, Municipal Buildings, Newbury.

FEBRUARY 13.—**Newton Abbot.**—SHEDS.—Erection of coal and van sheds, &c., for the Newton Abbot Co-operative Society. Offices, Newton Abbot. Deposit £1 1s.

FEBRUARY 13.—**Nottingham.**—ALTERATIONS.—For alterations in the Police Department at the Guildhall, for the T.C. City Engineer, Guildhall, Nottingham. Deposit £1.

FEBRUARY 13.—**Oakham.**—COTTAGES.—Erection of three bungalow cottages in Station-road. Mr. F. W. Nichols, Market-place, Oakham. Deposit £1 1s.

FEBRUARY 13.—**Pershore.**—BRIDGE.—Construction of a new bridge over the River Avon, to be carried out in ferro-concrete, for the Worcestershire C.C. Mr. C. F. Gettings, County Surveyor, 30, Foregate-street, Worcester. Deposit £5.

FEBRUARY 13.—**Pontardawe.**—VARIOUS WORKS.—For supply to the Pontardawe R.D.C. of: (*a*) Road metalling in such quantities as Council shall desire in period ending March 31, 1925. Quotations wanted for delivery to railway stations at seven points in the area; (*b*) ironmongery and building materials to be delivered to various specified localities; and for (2) haulage of materials, mud and dust, &c., with separate tenders for each district; (3) removal of house refuse, &c., separate tenders for each district required. For *a* and *b*, Mr. B. I. Phillips, Surveyor, Council Offices, Pontardawe, and 2 and 3, Mr. A. E. Edmunds, Sanitary Inspector, Pontardawe.

FEBRUARY 13.—**Shrewsbury.**—HOUSES.—Erection of 20 houses in Sultan-road, for T.C. Mr. A. W. Ward, Borough Surveyor, Guildhall, Shrewsbury.

FEBRUARY 13.—**Slaithwaite.**—HOUSES.—Erection of two semi-detached houses in Longlands-road. Mr. A. Shaw, architect, Golcar.

FEBRUARY 13.—**Torquay.**—HOUSES.—For the erection of 25 houses on the Stentiford Hill Quarry site, for the T.C. Borough Surveyor, Town Hall, Torquay. Deposit £2 2s.

FEBRUARY 13.—**Wembley.**—CONVENIENCE.—For the construction of a public convenience at Wembley Green, for the U.D.C. Mr. Walter H. Lewis, Acting Engineer, Council Offices, Wembley. Deposit £2 2s.

*FEBRUARY 14.—**Chingford, E.4.**—DWELLING HOUSES AND SHOP.—For work, labour and material necessary for erection and completion of five brick dwelling houses and a shop. Mrs. Hackshall, 9, Salisbury-gardens, Chingford, E. 4.

FEBRUARY 14.—**Dewsbury.**—ENGINE HOUSE.—For masons' and plasterers' work required in the construction of an engine house and engine bed at Batley Carr Mills. Messrs. Kirk, Sons & Ridgway, architects, Market-place, Dewsbury.

FEBRUARY 14.—**Golcar.**—HOUSE.—Erection of a dwelling-house in Leymoor-road, Golcar. Mr. A. Shaw, architect, Golcar.

FEBRUARY 14.—**Liverpool.**—TRANSFORMER STATION.—For the erection of a transformer station, St. Anthony's-road, Blundellsands, for the T.C. Land Steward and Surveyor (Architectural Department), Municipal Buildings, Liverpool. Deposit £2 2s.

FEBRUARY 14.—**Lower Cwmtwrch (Pontardawe).**—HOUSE.—Erection of a house at Lower Cwmtwrch. Mr. James Martin, "Crofton," Lower Cwmtwrch, near Pontardawe (Glam).

FEBRUARY 14.—**Manchester.**—EXTENSIONS.—For extensions to maids' bedrooms at Baguley Sanitorium, for Public Health Committee. City Architect, Town Hall, Manchester. Deposit £1 1s.

FEBRUARY 14.—**Meltham.**—HOUSE.—Erection of a dwelling-house in the grounds of Colne and Holme Joint Hospital, for the Committee. Messrs. J. Berry & Sons, Market-place, Huddersfield.

FEBRUARY 14.—**Near Bridgend.**—HOUSES, &C.—For carrying out for the Penybont R.D.C. the following works:—(1) Erection of 12 parlour type houses at Pencoed; (2) construction of a road and sewer at Pencoed; (3) erection of 8 non-parlour type houses at Pencoed; (4) erection of 12 parlour type houses at Llangynwyd; (5) erection of 8 non-parlour type houses at Llangynwyd; (6) construction of two roads at Llangynwyd. Engineer to the Penybont R.D.C., 8, Wyndham-street, Bridgend. Deposit £2 2s.

FEBRUARY 14.—**Salisbury.**—HOUSES.—Erection of 50 houses on the Wain-a-long Road Housing Site, for the T.C. Mr. W. J. Goodwin, Surveyor, Municipal Offices, Salisbury. Deposit £2 2s.

FEBRUARY 14.—**Sligo.**—CUSTOM HOUSE.—For reconstruction of Sligo Custom House, for Commissioners of Public Works. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin. Deposit £1.

FEBRUARY 15.—**Carlisle.**—WALL, &C.—For construction of a retaining wall and certain works in connection with railway siding, for the T.C. Mr. H. C. Marks, City Surveyor, 18, Fisher-street, Carlisle. Deposit £1 1s.

FEBRUARY 15.—**Doncaster.**—HOUSES.—For the erection of 46 houses of various types on Norton Housing Estate, for the R.D.C. Mr. T. H. Johnson, Architect, 20, Priory-place, Doncaster. Deposit £2 2s.

*FEBRUARY 15.—**Dorset.**—HOUSES.—Erection of police houses at Chattistock, Corscombe and Bishop's Caundle, for the Dorset County Council. County Architect, County Offices, Dorchester.

FEBRUARY 15.—**Honley.**—HOUSE.—Erection of a detached residence at Ryecroft, Honley. Mr. J. Ainley, architect, 3, Chapel-hill, Huddersfield.

FEBRUARY 15.—**Leyton.**—PLAYSHEDS.—Erection of two playsheds at Cannhall-road School, for U.D.C. Mr. J. H. Jacques, 61, West Ham-lane, Stratford, E. 15. Deposit £1.

FEBRUARY 15.—**Moldgreen.**—HOUSE AND SHOP.—For erection of a house and shop at Moldgreen. Mr. E. Sharp, architect, Standiforth Farm, Dalton.

FEBRUARY 15.—**Portadown.**—CHAPEL.—Erection of a new chapel adjoining the Convent of the Presentation Order, Portadown. Mr. Albert E. Brooks, quantity surveyor, 17, Chichester-street, Belfast.

FEBRUARY 16.—**Alderley Edge.**—HOUSES.—Erection of eight cottages at Heyes-lane, for the U.D.C. Mr. H. Sheldon, Architect, Council Offices, Alderley Edge. Deposit £2 2s.

FEBRUARY 16.—**Altofts.**—HOUSES.—Erection of four scullery houses, for the U.D.C. Mr. T. H. Hailstone, Surveyor, Council Offices, Altofts, near Normanton. Deposit £1.

FEBRUARY 16.—**Bexhill.**—HOUSES.—Erection of 35 houses upon the London-road site, for the Corporation of Bexhill housing scheme. Mr. George Ball, A.M.I.C.E., Borough Engineer and Surveyor, Town Hall, Bexhill. Deposit £1 1s.

FEBRUARY 16.—**Bridlington.**—SHELTERS.—For erection of shelters on the Beaconsfield Sea Wall, for T.C. Borough Surveyor, 1, The Crescent, Bridlington. Deposit £1 1s.

FEBRUARY 16.—**Sheffield.**—PAINTING.—For painting works at (1) Town Hall, part interior; (2) Attercliffe Library, exterior; (3) Brightside Library, exterior; (4) 178-186, Mushroom-lane (five houses), exterior, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

FEBRUARY 18.—**Clydebank.**—PAINTING.—For the painter work in connection with the 22 houses comprised in the first development at Whitecrook site, for the T.C. Town Clerk, Municipal Buildings, Clydebank. Deposit £1 1s.

FEBRUARY 18.—**Cupar.**—RECONSTRUCTION.—For the reconstruction of the Tontine Hotel, Cupar, for the purpose of extending the County Buildings and Sheriff Court Offices, Cupar, for the Fife C.C. Mr. C. R. Douglas, surveyor, Prudential Chambers, 15, East Port, Dunfermline. Deposit £2.

FEBRUARY 18.—**Harrow-on-the-Hill.**—HOUSES.—For the erection of 18 parlour type houses on the Honeybun Estate, for the U.D.C. Mr. J. Percy Bennetts, Engineer and Surveyor, Council Offices, Harrow. Deposit £1.

FEBRUARY 18.—**Hertfordshire.**—SCHOOL.—Erection and completion of a new County Council school to accommodate 144 scholars at Walkern, near Stevenage, for the Hertfordshire County Council. County Surveyor's Office, Hatfield. Deposit £1 1s.

FEBRUARY 18.—**Huddersfield.**—HOUSES.—Erection of 14 houses in Almondbury Bank, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield.

FEBRUARY 18.—**Ilford.**—SCHOOL BUILDINGS.—Erection and completion under one contract of the following buildings at Steven's-road, Becontree, for the Ilford U.D.C.: (*a*) Upper school; (*b*) Middle and lower schools; (*c*) Medical inspection block, with covered ways thereto from each school. Mr. H. Shaw, M.Inst.C.E., Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit £5 5s.

FEBRUARY 18.—**Penparcau (Aberystwyth).**—MEMORIAL HALL.—For erecting, for the Penparcau and District War Memorial Committee, a public memorial hall. Mr. T. Llew. Thomas, Hon. Sec., "Pretoria," Rhydyfelin, Aberystwyth.

FEBRUARY 18.—**South Queensferry.**—HOUSES.—Erection of 20 houses at Hopetoun-road, for the T.C. Mr. W. M. Scott, architect, Linlithgow.

FEBRUARY 18.—**Stirling.**—HOUSES.—Erection of four five-apartment houses for Larbert Housing extension scheme. For Eastern District Committee of the Stirling C.C. Messrs. A. & W. Black, architects, 5, King's-court, Falkirk. Deposit £1 1s.

FEBRUARY 18.—**Wakefield.**—ALTERATIONS.—For alterations to 4, Bond-street, for West Riding General Purposes Committee. West Riding Architect, County Hall, Wakefield.

FEBRUARY 18.—**Welwyn, Herts.**—COTTAGES.—Erection of 100 cottages in the parish of Welwyn Garden City, in the County of Hertford, for the R.D.C. Mr. Louis de Soissons, Architect, Estate Office, Welwyn Garden City, Herts. Deposit £2 2s.

FEBRUARY 19.—**Eglwysilan (near Pontypridd).**—EXTENSIONS.—For carrying out, for the Pontypridd and Caerphilly U.D. Councils extensions and alterations to the Small Pox Hospital, Mynydd Mayo, Eglwysilan (near Pontypridd). Mr. W. E. Lowe, Surveyor, Municipal Buildings, Pontypridd.

✱FEBRUARY 19.—**Islington, N. 1.**—REPAIRING AND RE-POINTING.—Repairing and re-pointing the retaining wall to the footway on the south-west side of Highgate-hill, for the Metropolitan Borough of Islington Borough Engineer, Municipal Offices, Tyndale-place, N. 1.

FEBRUARY 19.—**Virginia Water.**—BRIDGE.—For strengthening and improvement of Ruins Bridge on Virginia Water, for the Surrey C.C. Mr. W. P. Robinson, County Surveyor, County Hall, Kingston-on-Thames. Deposit £2 2s.

FEBRUARY 19.—**Warrington.**—HOUSES.—Erection of 54 houses on the Reynolds-street site, for T.C. Mr. W. T. Davenport, Queens' Chambers, Sankey-street, Warrington. Deposit £2 2s.

FEBRUARY 20.—**Crook.**—COTTAGES.—Erection of the following houses for the Aged Miners' Homes: Four houses, situated at Hill Top, Stanley, near Crook; two houses, situated at Sunniside, near Crook, Co. Durham. Mr. Thos. J. Shepherd, Secretary, 17, Double-row, Sunniside, Tow Law, Co. Durham.

FEBRUARY 20.—**Kilmallock.**—HALL.—Erection of a new hall at Kilmallock. Mr. Patrick J. Ryan, C.E., Kilmallock. Deposit £1 1s.

FEBRUARY 20.—**Reading.**—COMPRESSING STATION.—Erection of a compressing station, including compressor house, concrete foundations for machinery, workshop, messroom and subsidiary buildings, for the T.C. Mr. G. Midgley Taylor, 36–38, Victoria-street, Westminster, S.W. 1. Deposit £5.

FEBRUARY 20.—**Stornoway.**—COTTAGES.—Erection of cottages at Stornoway, for the T.C. Messrs. Alexander Ross & Son, architects, Inverness.

✱FEBRUARY 21.—**Ealing, W.5.**—NEW SCHOOL.—Erection of a new school at South Ealing, for the E.C. of the Borough of Ealing. Mr. W. R. Hicks, M.Inst. C.E., Borough Engineer, Town Hall, Ealing, W.5. Deposit £5 5s.

✱FEBRUARY 21.—**Guildford.**—HOUSES.—Erection of 30 pairs of three-bedroom, non-parlour houses, on the Guildford Park Housing Estate, for the Borough of Guildford. Borough Surveyor, Tun's-gate, Guildford. Deposit £2 2s.

FEBRUARY 21.—**Lichfield.**—IMPROVEMENTS.—For alterations and improvements to the Guildhall and Municipal Offices, for the T.C. Mr. P. A. Benn, City Surveyor, Lichfield. Deposit £2 2s.

✱FEBRUARY 21.—**London, W.6.**—HOUSEBREAKING.—Pulling down their disused casual wards and taking away the materials arising therefrom, with the exception of those specified for the Guardians of the Parish of Fulham. Mr. E. J. Mott, Clerk to the Guardians, 129, Fulham Palace-road, London, W.6.

FEBRUARY 21.—**St. Austell.**—ADDITIONS.—For erection of casual wards and disinfecting station at Sedgmoor Priory, for the St. Austell Board of Guardians. Mr. J. W. Simcox, surveyor, St. Austell.

FEBRUARY 21.—**Worthing.**—PAINTING.—For internal painting, &c., at the Corporation Baths, Heene-road. Borough Surveyor, Municipal Offices, Worthing.

FEBRUARY 22.—**Welburn.**—HOUSE.—Erection of residence at Welburn, near Kirbymoorside, for Captain J. E. D. Shaw. Messrs. Garside & Pennington, architects, Ropergate, Pontefract.

FEBRUARY 23.—**Doncaster.**—LOOSE BOXES.—For the erection of 32 loose boxes, &c., on land adjoining Belle Vue, for the T.C. Mr. R. E. Ford, Race Department, 3, Priory-place, Doncaster. Deposit £1 1s.

FEBRUARY 25.—**Heswall.**—EXTENSIONS.—For extensions to the Sanatorium, Heswall, for the West Derby Board of Guardians. Mr. Ernest B. Bailey, F.S.I., 9, Cook-street, Liverpool. Deposit £2 2s.

✱FEBRUARY 25.—**London.**—GENERAL WORKS AND REPAIRS.—Execution of general works and repairs (including jobbing works), exclusive of works of a mechanical character, to sewers, engine houses, buildings, bridges, subways, tunnels, &c., under the supervision of the Chief Engineer of the London County Council, on a schedule of prices for a contract for 12 months commencing April 1, 1924 Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

✱FEBRUARY 25.—**London, W.**—NURSES' HOME EXTENSIONS.—Extension of the Nurses' Home at the St. Marylebone Hospital, Rackham-street, W.10, for the B.G. of St. Marylebone. Messrs. Constantine & Vernon, architects, 82, Mortimer-street, W., where conditions, &c., may be seen between the hours of 10 a.m. and 5 p.m. on the 18th, 19th and 20th. Deposit two £1 Treasury Notes.

FEBRUARY 25.—**Worthing.**—SHELTERS.—Erection of four glazed shelters on the Marine-parade, Worthing, for the B.C. Borough Surveyor, Municipal Offices, Worthing. Deposit £1 1s.

✱FEBRUARY 26.—**Belvedere.**—POST OFFICE.—Erection of a branch Post Office at Belvedere, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

FEBRUARY 26.—**London, E.3.**—BUILDING ADDITIONS, &c.—Building of a nurses' dining-room, alterations and additions, and redecorations at St. Andrew's Hospital, Devon's-road, Bow, E.3, for the Managers of the Poplar and Stepney Sick Asylum District, St. Andrew's Hospital. Messrs. Andrews & Peascod, architects, 135, Bow-road, E.3. Deposit £3.

FEBRUARY 26.—**London, N.W.6.**—DECORATION' STEAM HEATING AND LIGHTING.—Decoration of certain buildings at the Municipal Hospital, Brentfield-road, Neasden, for the Willesden U.D.C. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W. 6.

FEBRUARY 28.—**Greenwich.**—HOUSES.—Erection and completion of 48 houses in two sections on the Charlton Housing Estate, completion of Site No. 3, under the supervision of the Council's Architect. Town Clerk's Department, Town Hall, Greenwich. Deposit £2 2s.

✱FEBRUARY 28.—**Hereford.**—STATION SORTING OFFICE.—Erection of a station sorting office, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

FEBRUARY 28.—**Wakefield.**—WORKSHOPS.—Supply of 17 sectional wood workshops, for the West Riding C.C. Health Committee. West Riding Architect, County Hall, Wakefield.

✱FEBRUARY 29.—**Ely.**—HOUSES.—Erection of 20 houses on "The Mews" Housing Site, for the Ely U.D.C. Contractors are invited to tender for the whole or part of the above, including drains, paths and fences. Mr. W. McKelvie, Architect and Surveyor, City Surveyors' Office, Ely. Deposit £1 1s.

✱MARCH 4.—**Aldershot.**—HOUSES.—Erection of eight blocks of four houses, thirty-two in all, at Aldershot Park Housing Scheme No. 2, for the Borough of Aldershot. Borough Surveyor's Office, Municipal Buildings, Aldershot. Deposit £5.

✱MARCH 4.—**Barking.**—HOUSES.—Erection of about 59 houses on the Eastbury Estate, Ripple-road, Barking, for the Barking U.D.C. Council's Architect, Mr. C. J. Dawson, F.R.I.B.A., Clock House Chambers, East-street, Barking. Deposit £5.

MARCH 5.—**Salford.**—BUILDING.—Erection of old people's homes, at Hope, Pendleton, near Manchester, for the Salford Board of Guardians. Mr. E. H. Inchley, Clerk to the Guardians, Poor Law Offices, Eccles New-road, Salford. Deposit £2 2s.

NO DATE.—**Barnsley.**—HOUSES.—Erection of four houses in Barnsley. Mr. N. A. Whittam, *Chronicle* Buildings, Barnsley.

NO DATE.—**Barnsley.**—HOUSES.—Erection of various houses in Huddersfield-road, also house at Monk Bretton. Mr. P. A. Hinchliffe, 14, Regent-street, Barnsley.

NO DATE.—**Coalburn.**—HOUSES.—Erection of 32 houses at Coalburn, for the Lanark C.C. Mr. William B. Dow, measurer, 212, St. Vincent-street, Glasgow.

NO DATE.—**Darvell.**—HOUSES.—Erection of houses, for T.C. Mr. J. E. Gibson, Town Clerk, Darvell.

NO DATE.—**Datchet.**—SCHOOLROOM.—For temporary schoolroom (timber-built). Mr. Edward T. Bowyer, Surveyor to the Managers, High-street, Slough.

✱NO DATE.—**London.**—BUILDING WORKS, &C.—The L.C.C. invites applications from persons and firms for places on the Council's approved lists of persons and firms to be invited to tender for various works in connection with the Council's educational institutions: (1) New buildings, &c., (2) structural alterations, (3) cleaning and painting, including minor repairs, (4) heating. Architect, County Hall (Room 3), Westminster Bridge, S.E.1.

✱NO DATE.—**Wallasey.**—BUILDING EXTENSIONS.—Building of extensions to boiler house and a new switchgear house, for the County Borough of Wallasey (Electricity Dept.). Borough Electrical Engineer and Manager, Mr. B. T. Hawkins, Sea View-road, Wallasey.

FURNITURE, MATERIALS, etc.

FEBRUARY 9.—**Darlington.**—MATERIALS.—Supply of goods and materials to the R.D.C. Surveyor, Union Offices, Darlington.

FEBRUARY 9.—**Newark.**—MATERIAL.—For supply of macadam, granite and slag to R.D.C. Mr. R. Oakden, Surveyor, 29, Winchelsea-avenue, Newark.

FEBRUARY 9.—**Newmarket.**—MATERIALS.—Supply of granite and chippings to the U.D.C. Mr. W. H. Eley, Surveyor, Newmarket.

FEBRUARY 9.—**Thirsk.**—MATERIALS.—Supply of road materials, pipes, tools, &c., to the R.D.C. Mr. J. W. Lupton, Surveyor, Thirsk.

FEBRUARY 9.—**Trowbridge.**—MATERIALS.—Supply of 350 tons ¾ or ¾ in. granite or limestone chippings to the U.D.C. Mr. Geo. W. J. Clark, Surveyor, Town Hall, Trowbridge.

FEBRUARY 10.—**Port Talbot.**—MATERIALS.—Supply of ironmongery, castings, limestone, tarmac, &c., to T.C. Borough Engineer, Port Talbot.

FEBRUARY 11.—**Bristol.**—MATERIALS.—Supply to the Port of Bristol Authority of rubble stone, broken stone and topping, canvas hose, bricks, slates, drain pipes, &c. Mr. T. A. Peace, Engineer, Avonmouth Dock.

FEBRUARY 11.—**Eccles.**—DUST CARTS.—For two carts for use in the Scavenging Department. Mr. C. W. Laskey, Public Health Offices, Eccles.

FEBRUARY 11.—**Hull.**—MATERIALS.—For stores for the Tramways Department. Mr. E. S. Rayner, Tramways Engineer, Hull.

FEBRUARY 11.—**Kettering.**—DUST VANS.—Supply of four house refuse collecting vans, to the U.D.C. Mr. T. Reader Smith, Surveyor, Market-place, Kettering.

FEBRUARY 11.—**Mitcham.**—MATERIALS.—For road and other materials, for one year, for the U.D.C. Surveyor, Broadway House, Lower Mitcham.

FEBRUARY 12.—**Cardiff.**—FURNITURE.—For officers' furniture at Cardiff Workhouse, for the B.G. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

FEBRUARY 12.—**Deptford.**—MATERIALS.—For supply of road and other materials, for one year, for B.C. Mr. A. Purkis, Town Clerk, Town Hall, New Cross-road, S.E. 14.

FEBRUARY 12.—**Ramsgate.**—LAMP PILLARS, &C.—Supply of 300 cast-iron lamp columns, and 300 square copper gas lanterns, to the T.C. Mr. R. Hy. Ruthven, Gas and Water Offices, Boundary-road, Ramsgate.

FEBRUARY 12.—**Rugby.**—MATERIALS.—Supply of granite and dry slag, to the R.D.C. Mr. J. W. Pendred, Clerk, Rugby.

FEBRUARY 12.—**Tadcaster.**—MATERIALS.—For road material, stores, &c., for the R.D.C. Mr. Geo. A. Bromet, Clerk, Kirkgate, Tadcaster.

FEBRUARY 13.—**Belfast.**—MATERIALS.—Supply to the Belfast and County Down Railway Co. of stores. Mr. H. E. Mellor, Secretary, Queen's Quay Terminus, Belfast.

FEBRUARY 13.—**London, E.C.1.**—STORES, &C.—Supply of the undermentioned stores, &c., for the periods of six or twelve months, commencing April 1, 1924, as the Metropolitan Water Board may decide. Chief Engineer, Metropolitan Water Board, New River Head, 173, Rosebery-avenue, E.C.1, by personal application (Room 155) or upon forwarding a stamped addressed brief envelope.

FEBRUARY 13.—**Louth.**—MATERIALS.—Supply of granite and slag to the R.D.C. Mr. F. J. M. Ingoldby, Clerk, Council House, Louth.

FEBRUARY 13.—**Middlesex.**—ROAD MATERIALS.—Supply of granite, tarred slag and granite chippings to the Middlesex C.C. Mr. A. Dryland, County Engineer, Middlesex Guildhall, Westminster, S.W.1.

FEBRUARY 14.—**Burnley.**—MATERIALS.—Supply of general stores for the year, to the Tramways Dept. General Manager, Queensgate Depot, Burnley.

FEBRUARY 14.—**Escrick.**—MATERIALS.—Supply of whinstone, limestone, slag, and tar to the R.D.C. Mr. J. R. Hudson, Highway Surveyor, 4, Heslington-road, York.

FEBRUARY 14.—**Leeds.**—MATERIALS.—Supply of sewer ironwork and galvanised dirt boxes, for one year. Mr. W. T. Lancashire, City Engineer, Municipal Buildings, Leeds.

FEBRUARY 14.—**Liverpool.**—MATERIALS.—Supply of glass for street lamps, lamp standards, &c., to the T.C. City Lighting Engineer, 15, Highfield-street, Liverpool.

FEBRUARY 14.—**London, S.W.**—VARIOUS MATERIALS.—Supply of various materials and services for various periods, for the Lambeth B.C. Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (chartered civil engineer), Borough Engineer, Town Hall, Brixton-hill, S.W.2.

FEBRUARY 14.—**Wallington.**—MATERIALS.—For supply of road and other materials, for one year, for U.D.C. Mr. S. F. R. Carter, Surveyor, Council Offices, Wallington, Surrey.

FEBRUARY 14.—**Wells.**—MATERIALS.—Supply of tar, macadam and limestone to the R.D.C. Mr. O. W. Berry, Surveyor, Poor Law Offices, Wells.

FEBRUARY 15.—**Acton.**—MATERIALS.—Supply of granite, artificial stone paving, tar, &c., to the B.C. Mr. Wm. Hodson, Town Clerk, Municipal Offices, Acton, W.3.

FEBRUARY 15.—**Islington.**—MATERIALS.—Supply of highway materials to the B.C. Mr. C. Fletcher, Town Clerk, Municipal Offices, Islington, N

FEBRUARY 15.—**London.**—CEMENT.—Supply of Portland cement to the South Indian Railway Co. Offices, 91, Petty France, S.W. Charge 5s.

FEBRUARY 15.—**Ruislip-Northwood.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. H. R. Metcalfe, Surveyor, Council Offices, Northwood.

FEBRUARY 16.—**Bedford.**—MATERIALS.—For supply of road materials and for cartage of road materials, for C.C. County Surveyor, Shire Hall, Bedford.

FEBRUARY 16.—**Boston.**—MATERIALS, &C.—Supply of broken and unbroken road materials and surface tarring, for the Holland C.C. Mr. Wm. A. Rogerso n County Surveyor, Sessions House, Boston.

FEBRUARY 16.—**Cardiff.**—MATERIALS.—Supply of engineers', builders' and other stores, to the Water Dept. Mr. C. H. Priestley, Waterworks Engineer, City Hall, Cardiff.

FEBRUARY 16.—**Chislehurst.**—MATERIALS.—Supply of materials for one year, to the U.D.C. Mr. J. J. Brown, Clerk, Council Offices, Chislehurst.

FEBRUARY 16.—**Hayes.**—TAR.—Supply of 12,000 gallons of refined tar, to the U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes.

FEBRUARY 16.—**Hursley.**—TAR.—Supply of tar to the R.D.C. Mr. J. P. Game, Surveyor, Hursley, near Winchester.

FEBRUARY 16.—**Stafford.**—MATERIALS.—Supply of stores and materials to the T.C. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford.

FEBRUARY 18.—**Isle of Wight.**—MATERIALS.—Supply of granite, chippings, tar, &c., to the R.D.C. Mr. E. B. Wray, surveyor, 30, Pyle-street, Newport, Isle of Wight.

★FEBRUARY 18.—**London, E.5.**—IRON FENCING.—Supply and erection of wrought iron unclimbable iron fencing at Millfields, Clapton, E.5, for the London County Council. The Chief Officer, Parks Department, The County Hall, Westminster Bridge, S.E.1.

FEBRUARY 18.—**Long Sutton.**—ROAD MATERIALS.—For supply of road material to the U.D.C. Surveyor, Long Sutton, Lincs.

FEBRUARY 18.—**Richmond.**—MATERIALS.—Supply of road and other materials, to the T.C. Mr. J. H. Brierley, Borough Surveyor, Town Hall, Richmond, Surrey.

FEBRUARY 18.—**Southport.**—MATERIALS.—Supply of various materials to the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport.

FEBRUARY 18.—**Wakefield.**—MATERIALS.—Supply to the West Riding County Council of road materials and stores. West Riding Surveyor, County Hall, Wakefield.

FEBRUARY 18.—**Waltham.**—MATERIALS.—Supply of granite, flints, gravel, hoggin, ballast and sand, and tar-macadam, &c., to the U.D.C. Mr. W. C. Holloway, Surveyor, Town Hall, Waltham Abbey.

FEBRUARY 18.—**Warrington.**—SANITARY CART.—For one tumbler cart with a capacity of 260 gallons, for the T.C. Mr. A. M. Ker, Borough Engineer, Warrington.

FEBRUARY 19.—**Birkenhead.**—STORES.—Supply of stores to Tramways' Department for one year. Tramways' Manager, Birkenhead.

FEBRUARY 19.—**Manchester.**—STORES.—For supply of stores to the tramways department. Mr. H. Mattinson, general manager, 55, Piccadilly, Manchester.

FEBRUARY 20.—**Chester.**—MATERIALS.—Supply of granite macadam and chippings, tarred material, tar compounds, and tarspraying, to the Cheshire C.C. Mr. W. Holland, County Surveyor, The Castle, Chester.

FEBRUARY 20.—**Hammersmith.**—STORES.—For supply of stores for one year to the Electricity Dept. of the B.C. Mr. G. G. Bell, Borough Electrical Engineer, Hammersmith, W.

FEBRUARY 20.—**London.**—LOCKS.—For the supply of locks to H.M. Commissioners of Works. Controller of Supplies, H.M. Office of Works, King Charles-street, S.W.

FEBRUARY 20.—**Rawtenstall.**—MATERIALS.—Supply of highways material to the T.C. Borough Surveyor, Town Hall, Rawtenstall.

FEBRUARY 21.—**Frome.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. L. Slaughter, Public Offices, Frome.

FEBRUARY 21. — **Greenwich.** — MATERIALS. — For supply of road and other material, for one year, for B.C. Borough Engineer, Town Hall, Greenwich-road, S.E. 10.

FEBRUARY 21.—**Romney.**—MATERIALS.—Supply of tar, or tar substitute, rock, rock chippings, gravel, beach and grit, to the R.D.C. Mr. H. J. Smith, New Romney, Kent.

FEBRUARY 22.—**Finchley.**—MATERIALS.—Supply of tar and road materials to the U.D.C. Surveyor, 9, The Hawthorns, Finchley, N.3.

FEBRUARY 22.—**Wetherby.**—MATERIALS.—Supply of slag, granite, tar, &c. Mr. A. Suttel, surveyor, Council Offices, Wetherby.

FEBRUARY 23.—**Earby.**—MATERIALS.—Supply of granite, limestone, tarred slag, refined tar or other spraying compounds to the U.D.C. Mr. Jas. E. Aldersley, Surveyor, Council Offices, Earby.

FEBRUARY 25.—**Hertford.**—MATERIALS.—Supply of broken granite, slag, limestone, gravel, sand, lime, tar, &c., to the T.C. Borough Surveyor, The Castle, Hertford.

FEBRUARY 25.—**St. Marylebone.**—MATERIALS.—Supply of tools and ironmongery, &c., to Highway Dept. of B.C. Mr. J. Gair, Engineer, Town Hall, Marylebone-road, N.W.

FEBRUARY 26. — **Hailsham.** — MATERIALS. — For supply of granite, limestone and flints to the R.D.C. Mr. G. B. Fairchild, surveyor, Hailsham.

FEBRUARY 28.—**Hoylake.**—MATERIALS.—Supply of road materials, cast-iron pipes, reinforced concrete pipes, &c., to the U.D.C. Surveyor, Town Hall, Hoylake.

FEBRUARY 29.—**Canterbury.**—MATERIALS.—**Supply of road and other materials to the T.C. Mr. P. H. Warwick, City Surveyor, Canterbury.**

FEBRUARY 29.—**Ossett.**—MATERIALS.—For supply of materials, stores, workmen's tools, &c., for one year, for T.C. Borough Surveyor, Town Hall, Ossett.

FEBRUARY 29. — **Upholland.** — MATERIALS. — For road and other materials, for one year, for U.D.C. Mr. A. Hunt, Clerk, Upholland, Lancs.

FEBRUARY.— **Westminster.**— MATERIALS, &C.— For works and supplies, for the Westminster C.C. Mr. John Hunt, Town Clerk, City Hall, Charing Cross-road, W.C.2.

MARCH 3.—**Middlesbrough.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. S. E. Burgess, Borough Engineer, Middlesbrough.

MARCH 5.—**Battersea.**—PAINTS, &C.—Supply of (1) Paints, &c., (2) special paints, enamels, &c., (3) painters' sundries, (4) varnish, &c., (5) bricks, cement, lime, &c., for 12 months, to the B.C. Town Hall, Lavender-hill, S.W.11.

ENGINEERING, IRON AND STEEL.

FEBRUARY 9.—**Bingley.**—ROLLER.—Supply of 10-ton nominal compound steam road roller, also independent scarifier, for the U.D.C. Mr. H. Bottomley, Surveyor, Town Hall, Bingley.

FEBRUARY 9.—**St. Ives.**—WATER-SOFTENING PLANT.—Supply of a water-softening apparatus at alternative prices, for dealing with 100, 150, and 200 gallons an hour, to the Board of Guardians. Mr. G. D. Day, Clerk, The Broadway, St. Ives, Hunts.

FEBRUARY 9.—**Tadcaster.**—ELECTRIC LIGHTING.—For electric lighting, Infectious Diseases Hospital, Garforth, for the R.D.C. Mr. Geo. A. Bromet, Clerk, Tadcaster.

FEBRUARY 11.—**Dunstable.**—HEATING.—For heating offices with hot-water radiators and boiler, for T.C. Mr. W. F. Wilkins, Borough Surveyor, Town Hall, Dunstable.

FEBRUARY 11.—**Gainsborough.**—PUMPING PLANT.—For engine and pumping plant, for the U.D.C. Mr. S. W. Parker, Waterworks Engineer, Council Offices, Gainsborough. Deposit £2 2s.

FEBRUARY 11.—**Kettering.**—**Weighbridge.**—Supply and erection of a 15-ton weighbridge, for the U.D.C. Mr. T. Reader Smith, surveyor, Market-place, Kettering

FEBRUARY 11.—**Sheerness.**—CAST-IRON PIPES.—For supply of 25 tons of 3 in. cast-iron pipes and specials, for U.D.C. Surveyor, Council Offices, Sheerness.

FEBRUARY 11. — **Windsor.**— RECONSTRUCTION OF ENGINEERING SERVICES.—Reconstruction of the engineering services at the Poor Law Institution, Old Windsor, Berks, for the Guardians of the Windsor Union. Constructors must tender for the whole of the work. Mr. Walter W. Nobbs, M.I.Mech.E. (the Consulting Engineer in charge of the works), of 50, Fairhazel-gardens, N.W. 6. Deposit £5 5s.

FEBRUARY 12.—**Carlisle.**—BRIDGES.—For designs and tenders for erection of steel superstructures for two bridges on new loop road, Whitehaven, for the Cumberland C.C. Mr. G. O. Lockwood, County Surveyor, Carlisle. Deposit £2.

FEBRUARY 12.—**Durham.**—BRIDGES.—Construction of new bridges and the widening of existing bridges, for the Durham C.C., viz.: (1) New Derwent Bridge, near Swalwell (three spans and raised approaches); (2) new Lambton Bridge, near Chester-le-Street (three spans and improvement of approaches); (3) new bridge at Croxdale (four spans and new approaches); (4) widening of Browney Bridge near Croxdale; (5) Haughton-le-Skerne new bridge, near Darlington (one span and diverting approaches); (6) Gaunless Bridge, at Bishop Auckland (two reinforced concrete culverts and embankments); (7) widening of St. Helen's Auckland Bridge; (8) Great Burdon Bridge, near Darlington (underpinning foundations and strengthening existing approaches); (9) Whitton, near Stockton (new bridge and approaches); (10) Langley Bridge, near Durham (widening existing structure); (11) Whitehill Gate Bridge, near Chester-le-Street (rebuilding and widening); (12) Ryhope Dene Bridge, near Ryhope (reinforced concrete culverts and embankments). Mr. A. E. Brookes, County Engineer, Shire Hall, Durham. Deposit £2 2s.

FEBRUARY 12.—**London.**—ROOFWORK, &C.—Supply to the Great Indian Peninsula Railway Co., of (1) roofwork; (2) cast-iron chairs; (3) steel spikes. Offices, 48, Copthall-avenue, E.C. Charges 10s. for 1 and 2, and 5s. for 3.

FEBRUARY 12. — **Manchester.**— REFRIGERATING ROOMS.—Supply and erection of refrigerating rooms and plant at the Withington Institution, for the Board of Guardians. Mr. Hargreaves, Superintendent of Works, Union Offices, All Saints', Manchester.

FEBRUARY 12. — **Manchester.** — TRACK WORK.—Supply of permanent way special track work to the T.C. Mr. H. Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester. Deposit £1 1s.

FEBRUARY 12. — **Norwich.** — STEELWORKS.— For the steel constructional work for the new generating station at Thorpe Marshes, for the T.C. Mr. A. E. Collins, City Engineer, Guildhall, Norwich. Deposit £10.

FEBRUARY 12.—**Truro.**—FLOATING BRIDGE.—Construction of a large steam chain floating bridge for use on its ferry service between Devonport and Torpoint, for the Cornwall C.C. Mr. W. L. Platts, Clerk, County Hall, Truro. Deposit £2 2s.

FEBRUARY 13.—**Caistor.**—ELECTRICAL INSTALLATION.—Provision and fitting of a complete electric lighting installation at the Institution of the Board of Guardians. Mr. A. A. Padley, Clerk, Union Offices, Caistor.

FEBRUARY 13.—**Glasgow.**—ELECTRIC LIGHTING.—For electric lighting installation of the Knightswood Housing Scheme, for the T.C. Mr. R. B. Mitchell, City Electrical Engineer, 75, Waterloo-street, Glasgow.

FEBRUARY 13.—**Manchester.**—HEATING INSTALLATION.—Providing and fixing a low-pressure heating apparatus at the Upper Jackson-street Municipal School, Hulme. Education Offices, Deansgate, Manchester. Deposit £1 1s.

FEBRUARY 13.—**Southampton.**—ELECTRICAL INSTALLATION.—For electric installation at the Hollybrook Homes and the St. Mary-street Poor Law Institution, for the Board of Guardians. Mr. A. J. Walden, Clerk, St. Mary-street, Southampton.

FEBRUARY 13.—**Stoke-on-Trent.**—STEELWORK.—For steelwork for foundation to central power house, &c. Borough Electrical Engineer, Stoke.

FEBRUARY 14.—**Argentine.**—**POWER STATION.—For the construction of a central electric power station of 15,000 h.p., for the Argentine State Oilfields Administration. Department of Overseas Trade, 35, Old Queen-street, S.W.**

FEBRUARY 14.—**Lymm.**—STEELWORK.—For the supply of the necessary steelwork for the renewal of the retort house floor, for the U.D.C. Mr. T. H. West, Gas Manager, Lymm.

FEBRUARY 14.—**Portland.**—ROOF.—Taking down of existing roof and constructing reinforced concrete roof for Yeates Reservoir, for U.D.C. Mr. R. Davison, Surveyor, Council Offices, Portland.

FEBRUARY 15.—**London.**—WIRE.—Supply of electric light wire and cable to H.M. Commissioners of Works. Controller of Supplies, H.M. Office of Works, King Charles-street, S.W.

FEBRUARY 16.—**Cromer.**—PUMPING PLANT.—Erection and setting to work of pumping machinery and boiler at the pumping station, Metton, for the U.D.C. Messrs. J. C. Melliss & Co., 156, Gresham House, Old Broad-street, E.C.2. Deposit £5.

FEBRUARY 18.—**Blantyre.**—STEELWORK.—For the providing of the steelwork required in the renewal of an overbridge at Blantyre and an underbridge at Hartwood, for the London Midland & Scottish Railway Co. (Northern Division). Divisional Engineer, Buchanan-street Station, Glasgow. Deposit £2 2s.

FEBRUARY 18.—**Bristol.**—ELEVATOR.—**For the construction of a floating pneumatic grain elevator, to handle 150 tons per hour, at the Avonmouth Docks, for the Docks Committee.** Mr. T. A. Peace, Engineer, Port of Bristol. Deposit £5.

FEBRUARY 18.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland Company of steelwork, for Bridge No. 206. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

FEBRUARY 18.—**Port Talbot.**—ROLLERS.—Supply of one 10-ton and one 8-ton steam roller, to the T.C. Borough Engineer, Port Talbot.

FEBRUARY 20.—**Hull.**—PUMPS.—Construction and erection of two sets of pumping plant, each set capable of delivering five million gallons of water per 24 hours, for the T.C. Mr. C. B. Newton, Engineer, Guildhall, Hull. Deposit £5.

FEBRUARY 21.—**Birmingham.**—BOILER, &C.—Supply of one new Lancashire boiler, 30 ft. by 8 ft. 6 in., the provision of new seating for the same, and also for the enlargement of the existing economiser at Dudley-road Hospital, for the Board of Guardians. Mr. James Curtis, Clerk, Union Offices, Edmund-street, Birmingham.

FEBRUARY 25.—**Edinburgh.**—WASHHOUSE EQUIPMENT.—For the engineering equipment of a new public washhouse to be erected at Abbeymount (including new steam boiler and other relative plant), for the T.C. Mr. James A. Williamson, City Architect, Public Works Office, Edinburgh.

FEBRUARY 27.—**Madras.**—PIPES.—Supply of cast iron pipes, special castings, &c., to the T.C. Messrs J. Mansergh & Sons, agents to the Corporation, 5 Victoria-street, S.W.

MARCH 1.—**Jamaica.**—DAM.—For the construction of a cyclopean masonry dam and contingent works required in connection with the extension of the Kingston and St. Andrews Water Works. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.

MARCH 6.—**Colwyn Bay.**—MACHINERY.—For sewerage pumping machinery, for the U.D.C. Mr Robert Green, engineer, 37, Bennetts-hill, Birmingham. Deposit £5 5s.

MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £10 10s.

MARCH 12.—**Madras.**—PUMPING PLANT.—Supply of sewage pumping machinery to the T.C. Messrs. J. Mansergh & Sons, agents, 5, Victoria-street, S.W. Deposit 10s. each of two contracts.

MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W. 1.

MAY 1. — **China.** — BRIDGE. — **The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference 11647/F.E./E.C./2.**

MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.

ROAD, SANITARY, AND WATER WORKS.

FEBRUARY 9.—**East Lothian.**—EXTENSION OF MAINS.—For construction of pipe lines between Humble Station and Fountain Hall, for the East Lothian Western District Water Board. Water Superintendent, Bank of Scotland Buildings, Haddington. Deposit £2 2s.

FEBRUARY 9.—**Lancashire.**—ROADS.—Construction of a new road and the widening and reconstruction of part of the existing main road between the "Rose and Crown Inn," Much Hoole, and Sollom, for the Lancashire C.C. County Surveyor, County Offices, Preston.

FEBRUARY 9.—**Penistone.**—SEWAGE EXTENSIONS.—Laying about 350 lin. yards of surface water drains, together with extensions and alterations to the sewage disposal works, for the U.D.C. Mr. F. J. Rodwell, 37 and 38, Prudential Assurance Buildings, Park-row, Leeds. Deposit £2 2s.

FEBRUARY 11.—**Barnsley.**—SANITARY.—For the works required for the conversion of privies into water-closets at Pindar Oaks Cottages, Doncaster-road, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

FEBRUARY 11.—**Bedwellty.**—STREET WORKS.—For carrying out, for the Bedwellty U.D.C., the following street works: Sewering, levelling, metalling, flagging, channelling and making good (*a*) Pentwyn-street, Blackwood, (*b*) South View-road, Blackwood, (*c*) Pentwyn-avenue, Blackwood. Mr. Dan. H. Price, Surveyor, Council Offices, Aberbargoed.

FEBRUARY 11.—**Coseley.**—SEWERS.—Construction of stoneware and cast-iron sewers, from 6 in. to 24 in. diameter, &c., for the U.D.C. Messrs. Berrington, Son & Watney, Prudential Chambers, Lichfield-street, Wolverhampton. Deposit £5 5s.

FEBRUARY 11. — **Eccles.** — SEWAGE WORKS.—For additions and alterations to the sewage works of the T.C. Mr. Thomas S. Picton, Borough Engineer, Town Hall, Eccles. Deposit £3 3s.

FEBRUARY 11.—**Glasgow.**—SEWER.—For alterations on the sewer at junction of Fauldhouse-street, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

FEBRUARY 11.—**Huddersfield.**—SEWERS.—Construction of 1,388 lineal yards of earthenware pipe and cast-iron pipe sewers, of internal diameters varying from 5 in. to 12 in., in two sections, for the T.C. Borough Engineer, 1, Peel-street, Huddersfield.

★FEBRUARY 11.—**Leek.**—STREETS AND SEWERS.—Construction of new streets, sewers, &c., for the development of the housing scheme, Junction-road, Leek, for the U.D.C. Mr. W. E. Beacham, Surveyor to the Council, Town Hall, Leek.

FEBRUARY 11.—**Manchester.**—ROADS.—(1) Construction of carriageway and footway, Princess-road; (2) construction of carriageway and footway, Kingsway-road; (3) construction of second carriageway and footway, Royton to Failsworth-road, for the T.C. City Engineer, Town Hall, Manchester. Deposit £2 2s.

FEBRUARY 11.—**Repton.**—SEWERS.—For laying 700 yds. of 9 in. stoneware pipe sewers, &c., at Linton, for R.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £5 5s.

FEBRUARY 11.—**Sleaford.**—SEWERAGE.—For providing and laying sewer pipes in Great Hale-road, and constructing tank and filter, for the R.D.C. Mr. W. B. Marsden, Council Offices, Sleaford.

FEBRUARY 11.—**Whitley and Monkseaton.**—ROADS.—For private street improvement works, for the U.D.C. Mr. A. J. Rousell, Surveyor, Council Offices, Whitley Bay. Deposit £1 1s.

FEBRUARY 11.—**York.**—ROADS.—For making-up parts of (1) Chatsworth-terrace, (2) Berkeley-terrace, (3) Back Chatsworth-terrace, (4) Back Bishopthorpe-road East, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £1 1s.

FEBRUARY 12.—**Birkenhead.**—SEWER.—For the construction of 421 yds. of brick and reinforced concrete sewer, and 580 yds. of reinforced concrete sewer, for the T.C. Mr. C. Brownridge, Borough Engineer, Town Hall, Birkenhead. Deposit £3 3s.

FEBRUARY 12.—**Blaydon.**—ROADS.—For making-up Back Lucy-street West, Back Dene-road, and Back Shibdon-road, for the U.D.C. Surveyor, Blaydon. Deposit £1 1s.

FEBRUARY 12.—**Carlisle.**—SEWERS.—For laying 600 yds. of 9 in. stoneware pipe sewer, &c., for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

FEBRUARY 12.—**Newport (Mon).**—RE-PAVING.—For re-paving portions of the Caerleon-road, Newport (Mon), for the B.C. Borough Engineer, Town Hall, Newport. Deposit £1 1s.

FEBRUARY 12.—**Salford.**—ROADS.—For the paving of five streets with rock asphalte and three passages with stone setts, for the T.C. Borough Engineer, Town Hall, Salford.

FEBRUARY 12.—**Southgate.**—ROADS.—(1) Widening and making-up part of Bourne Hill; (2) widening and making-up Wolves-lane; (3) sewers in Winchmore Hill-road; (4) sewer in Eversley Park-road, for the U.D.C. Mr. R. Phillips, Surveyor, Town Hall, Palmers' Green, N.

FEBRUARY 12.—**Worsborough.**—SANITARY.—For the conversion of trough closets into pedestal latrines, pointing to walls, &c., at Worsborough Blacker Council School, for the West Riding E.C. Education Department, County Hall, Wakefield.

FEBRUARY 13.—**Birmingham.**—SEWERS.—For the construction of about 2,220 yards of stoneware pipe sewers in Watford-road and Linden-road, Cotteridge, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

FEBRUARY 13.—**Birmingham.**—WOOD PAVING.—For laying of 19,000 super yards of creosoted deal wood block paving at Gravelly-hill, Gravelly-hill North, High-street, and Sutton-road, Erdington, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

FEBRUARY 13.—**Dulverton.**—ROLLERS.—Supply of steam rollers for one year to the R.D.C. Mr. F. R. Stoker, Surveyor, Dulverton.

FEBRUARY 13.—**Eccles.**—ROADS.—For making-up Cavendish-street, Vaughan-street (part of), back Catherine-street South, No. 1, back Catherine-street South, No. 2, and various passages, for the T.C. Mr. Thomas S. Picton, Surveyor, Town Hall, Eccles. Deposit £1 1s.

FEBRUARY 13.—**Edmonton.**—TENNIS COURTS.—For laying of twelve hard tennis courts at Recreation Ground, Church-street, for the U.D.C. Mr. Cuthbert Brown, Surveyor, Town Hall, Edmonton, N.9.

FEBRUARY 13.—**Fulham.**—ROADS.—For making-up Sulivan-road, for B.C. Mr. A. F. Holden, Borough Surveyor, Town Hall, Fulham, S.W.6.

FEBRUARY 13.—**Hackney.**—ROADS.—For making-up of (i) Casimir-road, (ii) Cleveleys-road, (iii) Leagrave-street, for the B.C. Mr. Norman Scorgie, Borough Engineer, Town Hall, Hackney, E.8. Deposit £1 1s.

FEBRUARY 13.—**Leeds.**—ROADS.—For the tar macadamising of carriageways and tar paving of footpaths in the following private streets:—Everleigh-street (part), Temple View-grove (part), East Park-view (part), Ivy-street (part), Ecclesburn-road; also for the kerbing and paving of channels at Cockshott-lane improvement, for the T.C. Highways and Permanent Way Dept., 1, Swinegate, Leeds. Deposit £1 1s.

FEBRUARY 13.—**London.**—REFUSE REMOVAL.—For removal of furnace refuse, &c., for periods of six and twelve months, for Metropolitan Water Board. Chief Engineer, Metropolitan Water Board, New River Head, 173, Rosebery-avenue, E.C.1.

FEBRUARY 13.—**Middleton.**—ROADS.—For making-up Cowper-street, Laurel-street, and Saville-street, Middleton Junction, and for partial making-up Mary-street, Glebe-street, and Mitchell-street, Middleton, for T.C. Borough Engineer, Town Hall, Middleton Lancs.

FEBRUARY 13.—**Rothesay.**—SEWERAGE.—For reconstruction of certain sewers within the town, together with an intercepting outfall sewer, 2,610 yds. long, for T.C. Mr. J. B. Brodie, engineer, 141, West George-street, Glasgow. Deposit £5.

FEBRUARY 13. — **Wembley.** — PUBLIC CONVENIENCE. — Construction of a public convenience at Wembley Green, within the Wembley Urban District. Mr. Walter H. Lewis, Engineer and Surveyor, Council Offices, Wembley, Middlesex. Deposit £2 2s.

FEBRUARY 13.—**Wembley.**—ROADS.—For road works at Wembley Green, for the U.D.C. Mr. W. H. Lewis, Surveyor, Council Offices, Wembley. Deposit £2 2s.

FEBRUARY 13.—**Wembley.**—ROADS.—For making-up of Brewery-lane, for the U.D.C. Mr. W. H. Lewis, Surveyor, Council Offices, Wembley. Deposit £2 2s.

FEBRUARY 13.—**Wembley.**—ROADS.—For making-up Northwick-avenue, for the U.D.C. Mr. W. H. Lewis, Surveyor, Council Offices, Wembley. Deposit £2 2s.

FEBRUARY 13.—**Wembley.**—ROADS.—For works of widening at Raglan-gardens, for the U.D.C. Mr. W. H. Lewis, Surveyor, Council Offices, Wembley. Deposit £2 2s.

FEBRUARY 14.—**Barnet.**—ROADS.—For making-up Petworth-road and Myddelton Park, for the U.D.C. Mr. F. P. Kindell, Surveyor, Council Offices, The Priory, Friern Barnet-road, N.11.

FEBRUARY 14.—**Hertfordshire.**—ROADS.—For construction of Watford by-pass road between Elstree and Hunton Bridge (about 6 miles), for the C.C. Mr. A. E. Prescott, County Surveyor, Hatfield. Deposit £10 10s.

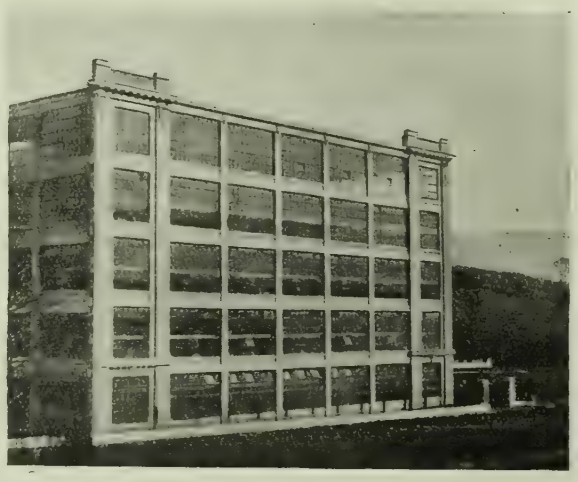
FEBRUARY 14.—**Lambeth.**—ROADS.—For tar-spraying of roads for one year, for the B.C. Mr. B. Cattlin, Borough Engineer, Town Hall, Brixton-hill, S.W.

FEBRUARY 15.—**Islington.**—SEWERS, &C.—For construction and repairs of sewers, drains and gullies, for the B.C. for one year. Mr. C. G. E. Fletcher, Town Clerk, Municipal Offices, Tyndale-place, Upper-street, N.1. Deposit £3 3s.

FEBRUARY 16.—**Greenock.**—ROADS, &C.—Construction of streets and sewers in connection with the Cowdenknowes housing scheme, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

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February 16.—**Nuneaton.**—Sewage Works.—Construction of an outfall chamber, additional screening chamber, and detritus tank and screen house, &c., for the T.C. Mr. R. C. Moon, Borough Engineer, Municipal Offices, Nuneaton. Deposit £2 2s.

February 16.—**Seisdon.**—Sewage Works.—Construction of sewerage and sewage disposal works at Codsall, for the R.D.C. Mr. W. Cannan, engineer, Wombourn, Wolverhampton. Deposit £5 5s.

February 16.—**Tadcaster.**—Sewage Works.—For works in connection with Barwick-in-Elmet and Scholes sewerage and sewage disposal, for the R.D.C. Mr. H. M. Driver, surveyor, Garforth, near Leeds.

February 17.—**Rowley Regis.**—Playgrounds.—For surfacing of school playgrounds, for the U.D.C. Mr. Daniel Wright, Clerk, Council House, Old Hill.

February 18.—**Hertford.**—Sewage Works.—Construction of activated sludge treatment works, for the T.C. Messrs. J. Taylor & Sons, 36, Victoria-street, S.W. Deposit £5.

February 18.—**Hertford.**—Water Mains.—For laying 830 yds. of 6 and 4 in. cast-iron water mains, for the T.C. Borough Surveyor, Hertford. Deposit £2 2s.

February 18.—**Linlithgow.**—Water Main.—For laying about 1,500 yds. of 4 in. cast-iron pipes, for the Linlithgow District Committee of West Lothian C.C. Messrs. J. & A. Leslie & Reid, C.E., 72A, George-street, Edinburgh. Deposit £1.

February 18.—**Pontefract.**—Gas Main.—For laying gas main in Spital Hardwick-lane, for the T.C. Gas Manager, Gas Works, Pontefract.

February 18.—**Southend.**—Roads.—For making-up of Nelson-road, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

February 18.—**Steyning.**—Sewerage Works.—For the construction of about five miles of stoneware and concrete sewers, from 6 in. to 12 in. in dia., &c., for the R.D.C. Mr. Geo. W. Warr, Engineer, Town Hall, Southwick. Deposit £3 3s.

February 18.—**Wigan.**—Reconstruction.—For reconstruction of the Hoscar and Pemberton sewage dispoal works, for T.C. Mr. R. B. Donald, Borough Engineer, Municipal Buildings, Wigan. Deposit £3 3s.

February 18.—**Wimbledon.**—Roads.—For the making-up of Laurel-road, Melbury-gardens (Section 1), Melbury-gardens (Section 2), for the B.C. Borough Engineer, Town Hall, Wimbledon.

February 19.—**Batley.**—Embankment.—For the construction of an embankment, &c., for the formation of a reservoir, with ancillary works, in the Valley of the River Holme, a few miles from Holmfirth, for the T.C. Messrs. G. H. Hill & Sons, civil engineers, 40, Kennedy-street, Manchester. Deposit £5 5s.

February 19.—**Carlisle.**—Bowling-Green.—For the laying of a bowling-green at Blackwell-road Building Estate, for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

February 19.—**Glasgow.**—Roads.—For the construction of roads and sewers at Belvidere, Parkhead, for the T.C. Director of Housing, Govan Town Hall, Glasgow.

February 19.—**Maldon.**—Water Main.—For laying 861 lin. yds. of 3 in. cast-iron water main in Goldhanger-road, Heybridge, for the R.D.C. Mr. W. Almond, engineer, 6, Market Hill, Maldon, Essex.

February 19.—**Tottenham.**—Roads.—For making-up of Vale-road, for the U.D.C. Surveyor, Town Hall, Tottenham, N. Deposit 10s. 6d.

February 20.—**East Lothian.**—Water Mains.—Construction of a pipe line between Yester Mains and Haddington, for the East Lothian Western District Water Board. Water Superintendent to the Board, Bank of Scotland Buildings, Haddington. Deposit £2 2s.

February 21.—**Hythe.**—Roads.—For the removal of a portion of the horse tramway track in Hythe, and making-up the roadway, for the Southern Railway Co. Mr. G. Knight, secretary, Waterloo Station, S.E.1. Deposit £2 2s.

February 21.—**Onllwyn (Neath).**—Drivage.—For drivage of a rise hard heading. The Manager, Onllwyn, No. 3 Colliery, Onllwyn, near Neath (Glam).

February 22.—**Adwick-le-Street.**—Sewage Disposal Works.—Extensions to the sewage works, for the U.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street. Deposit £3.

February 22.—**Claypole.**—Roads.—Supply of material and tar-spraying 50,000 sq. yds. of road. Mr. T. W. Mawer, surveyor, Brant Broughton, Newark.

February 22.—**Letchworth.**—Sewage Works.—For laying 24 in. and 18 in. outfall, and certain smaller sewers, and the construction of outfall works at Letchworth, for the U.D.C. Messrs. Howard Humphreys & Sons, 28, Victoria-street, Westminster, S.W. Deposit £5 5s.

February 23.—**Chester.**—Roads.—For making-up Grange-road, for the T.C. Mr. Charles Greenwood, City Engineer, Town Hall, Chester. Deposit £2 2s.

February 25.—**Huddersfield.**—Sewage Works.—Construction of 800 lin. yds. of 3 ft. diameter U-shaped brick sewer, reinforced concrete tanks, pump house, &c., for the T.C. Mr. W. Jaggar, Borough Engineer, 1, Peel-street, Huddersfield.

February 25.—**Ilford.**—Sewer.—Construction of a sewer consisting of about 209 lin. yds. of 48 in. circular brick sewer, and about 1,790 lin. yds. of 15 in. stoneware pipes with 14 manholes, for the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford. Deposit £2 2s.

February 26.—**Hailsham.**—Roads.—For tar-spraying about 30,000 sq. yds. of roads, for the R.D.C. Mr. G. B. Fairchild, surveyor, Hailsham.

February 26.—**Llandyssul.**—New Road.—For construction of a new road from the District-road to Garthowen Lodge, Garthowen, Llandyssul.

February 29.—**Birkenhead.**—Sewer.—For the construction of 421 lin. yds. of 6 ft. 9 in. by 4 ft. 6 in. brick and reinforced concrete sewer in Livingstone-street, and 580 lin. yds. of 12 in. and 15 in. stoneware pipe sewer and about 182 lin. yds. of 27 in. diameter reinforced concrete pipe sewer in Brook-street, for the T.C. Mr. Chas. Brownridge, Borough Engineer, Town Hall, Birkenhead. Deposit £3 3s.

March 1.—**Montgomeryshire.**—Storage Reservoir and Water Mains.—Construction of a small storage reservoir, and the laying of a main in connection with an additional water supply, for the T.C. of Llanidloes. Mr. James Grant, Surveyor, Llanidloes, Montgomeryshire.

No Date.—**Irvine.**—Roads.—For the road formation intended for the second development, Parts II and III, of the Bank-street, Irvine, Housing Scheme. Messrs. David Gillies and A. R. Wilson, Joint Town Clerks, Council Chambers, Irvine.

Competitions.

(*See Competition News, page* 210.)

Auction Sales, Tenders, etc.

February 12. — **Bloomsbury.**— Messrs. J. W. Coade, Son, & Budgen will sell, by order of the National Council of Y.M.C.A.s, valuable building materials forming the standing structures known as the Shakespeare Hut, Gower-street, Bloomsbury, W.C.1. It will be offered for sale in one lot on the premises. Auctioneers, 118, Southampton-row, W.C.1.

February 12.—**London, E.C.4.**—Messrs. Henry Butcher & Co. will sell, at the London Auction Mart, 155, Queen Victoria-street, E.C.4, the freehold showrooms, warehouse, or workshops, Nos. 61, 63 and 65, Loanpit Vale, Lewisham, S.E.13. Auctioneers, 63 and 64, Chancery-lane, W.C.2.

February 12.— **Oxted, Surrey.**—Mr. C. E. Clark will sell, without reserve, at Master Park, Oxted, Surrey, timbers and building effects, 300 squares, weather boards, 300 deal four-panel doors, &c. Auctioneer, Beddington House, Beddington, near Croydon.

✱February 13.—**London, W.C.1.**—Messrs. Henry Butcher & Co. will sell, at 14, Elm-street, Gray's Inn-road, W.C.1, the entire stock-in-trade of a tube metal and engineers' merchants. Auctioneers, 63 and 64, Chancery-lane, London, W.C.2.

✱February 14. — **Gloucester.** — Messrs. Bruton, Knowles & Co. are instructed by the Gloucestershire Joint Committee for Tuberculosis to sell, at Standish House, near Stonehouse, surplus building materials, tools, fittings, &c. Auctioneers, Albion Chambers, Gloucester.

✱February 18.—**London, S.E.**—Messrs. Veryard & Yates will sell by order of Messrs. Sir Robert McAlpine & Sons (without reserve) completion of L.C.C. Bellingham Housing Contract, Bellingham, S.E., surplus stores and material of various kinds. Auctioneers, 365, Norwood-road, S.E.27.

✱February 19.—**London, S.W.**—Messrs. Veryard & Yates will sell (without reserve) at 255, Clapham-road, S.W. (close to the "Swan," Stockwell), timber, fittings and building materials. Auctioneers, 365, Norwood-road, S.E.27.

February 21.—**London, N.**—Messrs. Veryard & Yates will sell, without reserve, at 109, Stoke Newington-road, N., a large stock of building materials of various varieties. Auctioneers, 365, Norwood-road, S.E.27.

February 21.—**Orpington, Kent.**—Messrs. W. Levens & Son, F.A.I., will sell by auction (unless previously disposed of by private treaty), by order of the executrix of the late Mr. H. M. Glassup, Orpington, Kent, on the premises, freehold business premises known as "Mayfield Cottage," High-street, together with the goodwill and stock-in-trade of a sanitary engineer and decorator. Auctioneers, Station-approach, Orpington.

✱February 27.—**London, E.C.**—Messrs. Rushworth & Brown will sell, by order of the Liquidator (in voluntary liquidation) *re* Messrs. Clements, Jeakes & Co., Ltd., engineers, at Winchester House, E.C., 10½, 12 and 14, Macklin-street, Drury-lane, immediately in the rear of the Winter Garden Theatre, Drury-lane, comprising freehold factory premises; area about 10,000 ft. super. Immediate possession. Auctioneers, 22, Savile-row, W.1.

✱March 6.—**East Sheen, S.W.14.**—Messrs. C. & E. Melville will sell, at the Mart, 155, Queen Victoria-street, E.C. 4, a freehold building site of over 23 acres, at East Sheen, suitable for the erection of 330 small houses, unless previously disposed of. Auctioneers, 155, Queen Victoria-street, E.C. 4.

May 6.—**London, W.1.**—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

February 11.—**Romford, Essex.**—Clerk of Works required in connection with the extension of the Hospital, &c., at the Institution, Romford Union. Mr. Raymond H. Mason, Clerk to the Guardians, Union Offices, The Institution, Romford.

✱February 12.—**Glamorgan.**—Junior Assistant.—Junior assistant required, in the Architect's Department, Western Division, by the Education Committee of the Glamorgan County Council. Mr. W. James Nash, Metropolitan Chambers, Neath.

✱February 12.— **Southall-Norwood.**— Building Inspector.—Building inspector required by the Southall-Norwood U.D.C. Mr. J. B. Thomson, Chartered Civil Engineer, Engineer and Surveyor to the Council, Town Hall, Southall-Norwood.

February 13.—**Harrow-on-the-Hill.**—Town Planning Assistant required in the Surveyor's Department. The appointment will be a temporary one, preference being given to those who hold the Certificate of the Town-Planning Institute. Mr. John Strachan, Clerk to the Council, Council Offices, Harrow.

✱February 14. — **Plymouth.** — Architectural Assistant.—Architectural assistant required by the Borough Engineer of the County Borough of Plymouth, with experience in the preparation of improvement schemes, and in town planning preferred. Mr. J. Wibberley, Borough Engineer, Municipal Buildings, Plymouth, together with copies of three testimonials.

February 16.—**London, E.**—Works Manager required in the Borough Engineer's Department by the Council of the County Borough of West Ham. Town Clerk, Town Hall, West Ham, E.15, together with not less than three recent testimonials.

✱February 22.—**Newmarket.**—Temporary Architectural Assistant required by the Newmarket Urban District Council in connection with their housing scheme. Mr. William H. Eley, Assoc.M.Inst.C.E., Engineer and Surveyor, Council Offices, Godolphin House, Newmarket.

No Date.—**Glamorgan.**—The C.C. is to appoint an Architectural Assistant in the County Schools Architects' Department. Particulars of age, qualifications, experience, &c., to Mr. D. Pugh Jones, County Architect, County Hall, Cardiff.

Northern Counties Building Trade Federation.

The Northern Counties Federation of Building Trades has elected Councillor John Carse as President for the ensuing year. Councillor Carse is an Associate of the Institute of Builders, a member of the Institute of Hygiene, and also a member of the Newcastle Society of Antiquaries. The firm of Messrs. R. Carse & Son, builders and contractors, of Amble and Morpeth, of which Councillor Carse is senior partner, was founded in 1848. Councillor Carse, along with other local builders, formed the Midland and Northumberland Master Builders and Allied Trades Association and was its first President. Mr. Carse was elected a member of the Morpeth Town Council in 1922.

Wages in Building.

The National Wages and Conditions Council for the building industry met in London recently, and considered the application of the Operatives' Federation for an increase of 2d. per hour in the wages of all building trade workers.

The operatives ask that the cost-of-living index figure shall be readjusted, and that the provision in the agreement which relates to the base rate or starting point of the sliding scale shall be made to give an automatic advance of 2d. per hour. It is contended that under the operation of the scale wages have been brought down lower than the present cost of living justifies. Several other claims have been made, with the object of removing hardships in working conditions, such as the abolition of differential rates among craftsmen, and particularly painters, who, in some centres, receive 1d. an hour less than other craftsmen.

The council is also considering an application from the men's side to revert to the 44-hour working week. The national agreement has been modified by the arbitrator's award, and the effect of the application, if granted, would be to alter the awards of the arbitrator on hours and wages. Evidence for the operatives was given by Mr. J. Murrey; and for the employers by Messrs. H. T. Holloway, H. Blackman, and F. A. Wall.

"Quantity Surveying for Builders."

Messrs. Chapman & Hall, Ltd., write us in reference to our review of Mr. Evershed's book ("Quantity Surveying for Builders") in our issue of January 18, as follows:—

"We have perused with much interest the review of our new publication, 'Quantity Surveying for Builders,' by Mr. Evershed, which was in your issue for January 18. There is one small point that we should like to mention. We believe that the reference therein to clerical errors in examples Nos. 31 and 32 concerns the 'dotting' of certain ciphers. By an unfortunate accident on the part of the printers these dotted ciphers dropped out during machining, and as the author had checked them in the press proofs he, of course, had no control in the matter. He noticed it immediately copies reached him, and we have had a cancelled sheet printed, as shown by the enclosed, so that all copies now on sale are correct. We regret that we were not in time, however, to send these out to the reviewers."

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERYSTWYTH.—Plans passed by R.D.C.: Cottage, Bow-street, for Mr. F. Green; house, Borth, for Mr. A. Ross, Birmingham.

AMPTHILL.—Plans passed by R.D.C.: Flitton, house, Mr. Frank Sharpe; Silsoe, house, Mrs. A. L. V. Harris; Flitwick, house, Mr. A. Huckle; Maulden, two houses, Mr. F. Taylor; Maulden, two houses, Mr. J. Northwood; Houghton Conquest, house, Mr. C. A. Hodgson; Harlington, two houses, Mrs. J. C. Ward; Harlington, four houses, Mrs. A. Giles; Westoning, house, Mr. E. Kitchiner.

ARDSLEY.—Plans passed by U.D.C.: Bungalow at Bradford-road, Tingley, for Mr. H. Bradshaw.

AYR.—The Dean of Guild Court has passed the following plans: Scottish Motor Transport Co., Kilmarnock, buildings, Sandgate-street, Ayr; William Drinnan, builder, three double cottages, Whitletts-road; Corporation of Ayr, experimental bungalow, Woodfield-road.

BATH.—Plans passed by T.C.: Bungalow, Englishcombe-lane; house, Bloomfield Park; showrooms, &c., Cheap-street and Union-passage; eight houses, First-avenue; three shops, Bradford-road; shop, Tyning-lane; bungalow and private road, Winifred-lane; new road, off Newbridge-road; houses, Bloomfield Park-road; bungalow, off Newbridge-road.

BEDWELLTY.—The U.D.C. is considering the provision of a fully-equipped fire station at Blackwood to serve the Sirhowy Valley.

BELPER.—Plans passed by U.D.C.: Bungalow, Spencer-road, for Mrs. G. E. Ford; house, Green-lane, for Mr. Strutt; house, Spencer-road, for Mr. J. E. Melbourne; house, Spencer-road, for Mr. R. Stringfellow; house in Marsh-lane, for Mr. Hy. Spencer.

BINGLEY.—Plans passed: Villas at Park-road, Bingley, for Messrs. D. Wildman & Son; house at Station-road, Wilsden, for Mr. H. Drake; two bungalows at Cottingley Moor, for Mr. Broadbent; bungalow at Dowley Gap-lane, for Mrs. L. Thackeray.——The Surveyor has been instructed to obtain tenders for the construction of a footbridge across the River from Myrtle Park to Beckfoot; also to invite tenders for the erection of 2 houses on the Council's land at Low Laithe Farm.

BIRSTALL.—Plans passed by U.D.C.: Conveniences for Irish National League Club, High-street; house, Bradford-road, for Mr. John Oldroyd; shop, Bradford-road, for Mr. John Oldroyd; two semi-detached houses, Cambridge-road, for Mr. Charles Ramsbottom.

BLACKPOOL.—Plans passed by T.C.: New streets, Westcliffe-drive, J. Fielding & Sons (Blackpool), Ltd.; new streets, Frederick-street, Armitage & Midgley; two houses, Lyndhurst-avenue, J. E. Wright; four houses, Burlington-road, E. & M. Crombleholme; four houses, St. George's-avenue, Staunton Bros.; eight houses, Dale-avenue, Bryning & Done; two bungalows, off Layton-lane, E. Wright; six houses, St. Alban's-road, G. Francis; twelve houses, Saville-road and Maudland-road, E. Saville; two houses, Canterbury-avenue, Moore & Durham; house, Burgate, J. Denbigh; house, Queen's-drive, Bispham, H. A. Blackwell; house, Westmoreland-avenue, Hardman & Hamar; two houses and garages, Leamington-road, J. Taylor; six houses, Grenfell-avenue, E. Mason; eight houses, Grange-road, E. Mason; two bungalows, Gosforth-road, T. & C. Hilton; house, Lincoln-road, H. Thompson; six houses, Grange-road, E. Mason; two bungalows, Summerville, Ashworth & Ford; four houses, Collingwood-avenue, H. H. Vickers; four houses, Abbey-road, J. Foster; bungalow, Burgate, Kay & Fisher; bungalow, Bloomfield-avenue, C. A. Clarke; two bungalows, Thirlmere-road, H. D. Whiteside; house, Hesketh-place, Bispham, G. H. Dewhurst; nine houses, Ord-avenue, J. B. Hide; new streets, Fir-grove, Whitegate Brick Co.; two houses, Second-avenue, H. J. Marsden; two houses, Warbreck-drive, W. Hutton; five houses and garages, Westmoreland-avenue, B. Small; bungalow, Piccadilly, H. B. Jaffa; six houses, off Frederick-street, Armitage & Midgley; twelve houses, Laurel-avenue, J. Gregson; three houses, Kirkstall-avenue and New-road, J. Gregson; twenty-two houses, Gorse-road, Roberts-street and Woodland-grove, Park Estate Syndicate; three houses, Laurel-avenue and New-road, J. Gregson; two houses, Manor-road, H. F. Keighley; two houses, Romney-avenue, G. Whiteside; alterations to shop, Lytham-road and Bournemouth-road, Hargreaves & Emery; lavatory accommodation, 8 and 9, Central Beach, T. Collinson & Son; alterations and additions, Abingdon-street and Clifton-street, H. Hunter, Ltd.; alterations, 13, Abingdon-street, J. Whitehead; shop windows, Caunce-street and Moister-road, Miss S. E. Wakelin; addition, Queen Victoria-avenue and Balmoral-avenue, G. H. Coop; alterations, 9, Dale-street, T. Cook; alterations and additions, 19, Market-street, F. Tipping; alterations, 18, Lowrey-terrace, Mrs. J. Dagg; alterations, 31, Lonsdale-road, G. Dale; bungalow, Norbreck-road, J. Marsden.

BOSTON.—The R.D.C. at its last meeting approved a contract for the purchase of additional sites at Leverton, Butterwick, and Bicker. Plans were also approved for a number of houses in the district to be built by private enterprise, and certificates issued.

BRADFORD.—The Corporation is making application to the M.T. for sanction to the borrowing of £126,591 for the reconstruction of various tram tracks in the city.

BRECONSHIRE.—Intimation has been received by the C.C. that M.T. will sanction the borrowing of £10,000, and will make grant of £10,000 for re-surfacing of County main roads. The Ministry will also make grant of 50 per cent. of cost of the Llwynon-road improvement (estimate £3,000), and similar proportionate grant toward the cost of widening Builth bridge.

BRIDGEND.—Plans passed by U.D.C. are as follows: House and premises in Angel-street and Sunnyside, for Mr. Gwilym Jones, Bridgend; house in Grove-road, for Mr. P. Gaylord.—The Council is negotiating to acquire two fields for housing purposes at Pendre.

BRIDLINGTON.—The Corporation has approved of a scheme for the construction of a new bathing pool on the site of the present dance-floor and skating-rink. The estimated cost of the scheme is £6,000.

BROMLEY.—Plans passed by R.D.C.: Bungalow at Victoria-gardens, Cudham, for Messrs. Smith & Sons; bungalow at Polesteeple-hill, Cudham, for Mr. F. Gough; bungalow at Sunningvale-avenue, Cudham, for Miss A. B. Spencer; bungalow at Sutherland-avenue, Cudham, for Mrs. L. E. Murphy; house, Wickham-road, West Wickham, for Mr. E. H. Crease; two houses at World's End-lane, Chelsfield, for Mr. A. Rickards.

CARMARTHENSHIRE.—The M.H. inspector has recommended approval of construction of a new bridge over River Towy by the T.C.——Plan for a house to be erected for Mr. T. Davies, Vron, Henllan, has been submitted to Llandyssul Council.—The Kidwelly Council has decided to at once proceed with section of war memorial.

CHELMSFORD.—The Borough Engineer has been requested to prepare a report on the erection of a block of eight houses and two blocks of four houses each.——Plans passed: Six pairs of houses, Finchley-avenue, for Messrs. W. Fincham & Son; building lay-out, Coval-lane, for Messrs. Davis & Gibbons; house, Cedar-avenue, for Mrs. H. G. Saunders; house, Galleywood-road, for Mr. L. S. Bragg; house, Loop-road, for Mrs. N. G. Bradridge; bungalow, Tower-avenue, for Mr. A. E. Davis; lock-up shop, Rainsford-road, for Mr. L. J. Hazelton.

CHORLEY.—The Ministry of Health has approved the erection of 40 additional houses by the T.C.

CLEETHORPES.—A secondary school is to be built by the Lindsey C.C.

CLIPSTONE.—A school, estimated to cost £15,000, is proposed by the Notts C.C.

COVENTRY.—The T.C. proposes to carry out extensions at the Central Library, at a cost of £3,000.

CROFT.—The R.D.C. has decided to ask the M.H. for approval for the erection of houses in their area under the subsidy scheme.

CROSBY.—The Lindsey C.C. is to erect an elementary school.

DARLINGTON.—The R.D.C. has passed plans for the erection of 27 houses as follows: Four houses, Neasham-road; bungalow, Salter's-lane; 12 houses, Middleton-one-Row; semi-detached house, Middleton-one-Row; villa, at the same place; four houses, Yarm-road; four houses, Denton.——The Council also approved the erection of an Institute for Low Coniscliffe, and has decided to apply for subsidy in respect to 50 houses.

DENABY.—It is proposed to extend both the men's ward and the women's ward, and to add a children's ward with other accommodation to the Fullerton Hospital.

DORSETSHIRE.—The Standing Joint Committee has decided to erect houses for policemen at Tarrant Hinton, Netherbury, Powerstock, Corscombe, Cattistock, Puddletrenthide, Puncknowle, Broadmayne, Bishop's Caundle, and Preston, as soon as sites are acquired.

DUBLIN.—It is proposed to renovate the City Hall at a cost of £6,000.

DUDLEY.—Plans passed by T.C.: Mr. A. J. Crump, seven houses, Himley-road; Mr. J. Potter, four houses at the corner of Himley-road and Park-road.

DUNDEE.—Plans and sections of proposed new buildings, &c., in Dundee have been lodged at the office of the City Engineer.:—Perth-road, dormitory for Trustees of the late T. W. Thoms; Perth-road, alterations for the Dundee Combination Parish Council; Strathmartine-road, store for the Dundee Eastern Co-operative Society, Ltd.

DURHAM.—The C.C. expenditure, amounting to £90,000, was approved for the improvements of roads and bridges, and the construction of new bridges. The education authorities have submitted to the B.E. a detailed list of proposed expenditure for the required repairs and renewals at their schools. This sum, amounting to £114,109 includes for the erection of a new secondary school at Houghton-le-Spring, with accommodation for 350 scholars, estimated cost of construction is £28,000 and cost of furnishing £4,500.——Durham County Council have adopted recommendations from the Education Committee for the proposed erection of new schools, at costs as under: Elementary—Thornley, £9,803; Hunwick, £7,666; Merrington, £4,000; West Cornforth, £5,500; Bewick Maine, £2,500; Easington-lane, £14,000; Delves-lane, Consett, £4,700; Graythorpe, £2,250; Leamside, £9,000; Boldon, White Leas, £4,160; Fishburn, £6,000; Coundon, £7,500; Ludworth, £5,000; Billingham, £2,250; Monkton, £4,000; Usworth Colliery, £700; Silksworth, £6,000; remodelling and enlarging Sunniside Council School, £5,500; Benfieldside Council School, £8,580. Secondary schools—Houghton-le-Spring, £32,500; school sites at Wellfield and Hookergate, £4,000; playing fields extensions at Jarrow, £1,050; repairs and improvements, Tanfield Lea, £1,500; Bishop Auckland Grammar School, £1,000.

GLASGOW.—Linings granted by Dean of Guild Court: Maryhill Unionist Association, hall and offices, Saracen-street, Possilpark; Acme Tea Chest Co., Ltd., aluminium factory, Polmadie-road and Jessie-street; Clydesdale Bank, Ltd., alterations to form bank premises, Newlands-road and Clarkston-road; Garscube Colliery Co., Ltd., house, corner of Crosbie-street and Barra-street, Maryhill; James Paterson, 95, Minard-road, Shawlands, bungalow, Fernleigh-road, Newlands; Corporation Housing Department, to erect dwelling-houses and form roads and sewers at Moss-road, Merryflatts; John Caldwell, builder, 290, Kilmarnock-road, Newlands, two double villas, Monreith-road and Langlands-road.

GLOUCESTER.—Plans passed by T.C.: 18 houses, Calton-road, for W. T. Nicholls, Ltd.

GOWER (GLAM).—Funds are being raised for the proposed erection of a public hall to serve Middleton and Rhosilli villages.

GUILDFORD.—Plans passed by T.C.: Two houses, Abbotswood, by Mr. A. C. Burlingham, for the Onyx Property Co.; house, Mareschal-road, by Mr. F. H. Billmore, Tunsgate, for Mr. Fergus, 22, Woodbridge-road; four parlour houses and two bungalows, Litchfield Way, Onslow Village, by Messrs. Knapp-Fisher, Powell, & Russell, Westminster, S.W.1, for Onslow Village, Ltd.; bungalow, Stocton-road, by Messrs. Clemence & Co., for Mr. P. F. Benstead, 39, Farnham-road; house, Woodbridge-road, by Mr. John Lake, Croft-road, Godalming, for Mr. S. E. Rule, 32, Church-road; house, Millmead Crescent-road, by Messrs. Knapp-Fisher, Powell, & Russell, for Mrs. Wheeler, 4. Rectory-place, Guildford; house, London-road, by Messrs. Tomkins, Homer, & Ley, for Mr. H. M. Budgett; bungalow, Aldershot-road, by Mr. J. H. Norris, 51, High-street, for Mr. H. T. Hencher, Farncombe; house, Joseph-road, by Messrs. H. Knight & Son, 16, Bruce-grove, Tottenham, N.17, for Mr. Stanley Shaw, 2, Armstrong-villas, Worplesdon-road; four houses, Old Farm-road, by Messrs. Chalcraft & Goodchild, 35, New Broad-street, for Mr. A. E. Woodhatch, North-street; house, Nightingale-road, by Mr. E. W. Mountford, 35, Bedford-row, for Dr. Weaver, Waterden-road; house, Glebe House Estate, London-road, by Messrs. J. Rutter & Co., Woodbridge-road; house, Stoke-road, by Mr. N. Nichols, 1, South-road, Stoughton; five pairs of dwelling-houses, Bray-road, by Messrs. Hodgson, Lunn & Co., High-street, for Messrs. F. W. Westlake & J. Mackie; pair of houses, Worplesdon-road, by Messrs. Hodgson, Lunn & Co., for Mrs. A. Butcher, 25, King's-road, Guildford; house, Avonmore-avenue, by Messrs. Frampton & Co., 75, North-street, for Mr. Leonard, Woodbridge-road; house, Mareschal-road, by Mr. L. R. Hiscock, for Mr. B. F. Farris, Wodeland-avenue.

HALIFAX.—Plans passed by the Building Committee: Erection of new banking premises for the National Provincial Bank, Ltd., at the junction of Waterhouse-street and New Crown-street.——The Housing Committee have instructed the Borough Surveyor to invite tenders for the erection of 50 brick-faced and stucco houses to complete the Nursery-lane scheme; also for 62 brick-faced and stucco houses to complete the Booth Town housing scheme.

HASTINGS.—Plans passed by T.C.: Two pairs semi-detached cottages, Bexhill-road, Mr. F. Tanton, owner, per Mr. H. Rundle Harness, architect; tea room, 91, Queen's-road, Messrs Dimarco Bros., owners, per Mr. H. M. Jeffrey, architect; bungalow, Downs-road, Mr. J. Brown, owner, per Mr. J. Hunt, architect; consulting room, &c., at "Rockholme," Quarry-road, Dr. Charnock Smith, owner, per Messrs. Chapman Brothers; chapel at Convent of N.D. des Missions, corner of Old London and Ashburnham-roads, Rev. Mother General N.D. des Missions, owner, per Mr. J. S. D. Hicks, architect; two bungalows in Middle-road, Ore, Mrs. Trowell and Mrs. Flux, owners, per Mr. J. Hunt, architect.

HAWORTH.—Additional school accommodation for 400 scholars, to cost £9,000, has been decided on by the Notts C.C.

HAYFIELD.—An enquiry by the M.H. has been held into the application of the R.D.C. to borrow £14,300 to supply Mellor with water.

HERNE BAY.—The U.D.C. has decided to make application to the Government Departments concerned for sanction to borrow a comprehensive loan of over £19,000 for completion of the sea wall, increased lavatory accommodation, re-decking of the Pier, and the laying down of tennis courts, a bowling green, and a miniature golf course in the War Memorial Park. They have also decided to apply for a loan for dealing with the tramway and tram on the Pier.

HETTON.—The U.D.C. has passed plans for two pairs of bungalows near the "Three Tuns" Inn for Mr. J. M. B. Doxford.—The M.H. has approved of the Council erecting 25 houses.

HORNSEY.—Plans passed by B.C.: Six houses, 22 to 32, Park-avenue South, Hornsey, Mr. John Farrer; house at Hampstead-lane, Mr. E. S. Barr.

HUNSDON.—The Herts C.C. has approved of the plans by the County Surveyor for an elementary school at Hunsdon, estimated to cost £3,767.

HURSLEY.—Plans passed by R.D.C.: Bungalow, North End-road, for Mr. P. Rook; house, Ford-road, for Mr. Matthews; house, North End-road, for Miss L. C. Faithful; bungalow, Baddesley Common, Chandler's Ford, Mr. Harvey; bungalow, Baddesley Common, Mrs. Booth; bungalow, Baddesley Common, Mr. C. Latham; factory, Allbrook Brickyard, for Eastleigh Brick Co.

LEEDS.—The Yorkshire Penny Bank, Ltd., have acquired a range of shop property in Kirkgate, Leeds, recently occupied by Messrs. Cookes, for the conversion of these into banking premises. Plans have been prepared and tenders are about to be invited for the work. The architects are Messrs. Chorley & Gribbon, Leeds.

LIVERPOOL.—Sanction to borrow £75,000, in connection with the payment of subsidies for 1,000 houses under the Corporation scheme for assisting private enterprise, is being sought by the Housing Committee.

* See also our List of Contracts, Competitions, etc.

LLANELLY.—Plans approved by B.C. Health Committee: Two houses in approach to Stradly Park, for Messrs. Pullin & Jones; four houses in Bradford-street, for Mr. T. G. Mends; plan for house for Mr. D. T. Edwards at Penyfanfach, was referred for amendment.—The B.C. has requested Surveyor to report on possibility of erecting tenement houses. The M.H. has sanctioned the advancing of sums aggregating £10,000 to applicants building under Small Dwellings' Acquisition Act.——The B.C. is negotiating for a four-acre site on which to erect new public slaughter-house.

LLANTRISANT.—The Council has decided to apply for sanction to borrow £7,250 for Tynant-street improvements and £2,000 under Small Dwellings Acquisition Act provisions.

LONDON (BERMONDSEY).—Plans passed by B.C.: Factory, Tower Bridge-road, G. Parker & Sons, for S. H. & W. Hart.

LONDON (CAMBERWELL).—The managers of the English Martyrs' R.C. School have given notice of their intention to erect a new school in Herring-street to accommodate 380 children.

LONDON (FINSBURY).—The B.C. is to construct a new street from Rosoman-street to Wilmington-square.

MALTON.—A commencement is shortly to be made of the scheme for the development of Malton by Earl Fitzwilliam. His Lordship proposes to lay out a building estate near Middlecave-road, and there will be space for the erection of 120 houses. The U.D.C. has approved plans of the first house, and they were asked to carry out the work of construction of the roads and sewers at the expense of the earl.

MANCHESTER.—The Libraries Committee proposes to expend £1,500 on the provision of steel shelving at the Central Library.——Plans passed: Alterations to premises, Ardwick Green North; addition to works, Chatham-street, Clayton; alterations to works, Chatham-street, Clayton; additions to premises, 172-174, Hyde-road and Oakfield-avenue, Gorton; additions to premises, Hyde-road, West Gorton; additions to premises, 62, Victoria-street and Fennel-street; garage and repair depot, Jackson's-row and Bootle-street; warehouse to house, Sherdley-road, Crumpsall; additions to premises, Mount Pleasant, Cheetham; alterations to premises, Waterloo-road and Beech-street, Cheetham; warehouse, George Leigh-street, Henry-street and Cotton-street, Ancoats; offices, Blackfriars-street and The Parsonage; dwelling-house, Palatine-road, Didsbury; conversion of shop and house, 153, Mount-road, Gorton; additions to Victoria Baths, Bax-road, Chorlton-upon-Medlock; alterations to "Grove Inn," 378, Stockport-road, Chorlton-upon-Medlock; additions to bakery, York-street, Chorlton-upon-Medlock; two houses, Ryebank-road, Chorlton-cum-Hardy; addition to Withington Girls' School, Wellington-road, Withington; 68 houses, Finchley-road, Brocklebank-road and Barnsfold-road, Rusholme; shop, Wilbraham-road, Chorlton-cum-Hardy; additions to "Sherwood Inn," Claremont-road and Union-street, Rusholme; alterations to "Three Arrows Inn," 47, Hyde-road, and Church-lane, Gorton; workshop, garages, &c., Darley-street, Freda-street and Havana-street, Beswick; garage and store, Buxton-street, London-road; alterations to premises, 49-51, Cross-street, Gorton; alterations to the "Pine Apple" Hotel, Gorton-road and Pine Apple-street, Openshaw; addition to house, Old-road, Blackley; house, Hill-lane, Blackley; alterations to premises, King-street West, Southgate, and back Bridge-street; alterations to the "Crown and Anchor" Hotel, Cateaton-street; alterations to premises, Mount-street; house, Old Hall-lane, Rusholme; alterations to premises, 53, Oxford-road, Chorlton-upon-Medlock; additions to house, 25, Cringle-road, Levenshulme; two houses, Kingsway-avenue, Rusholme; six houses, Circular-road, Withington; six houses, Longford-place, Victoria Park; Baptist Chapel, Wilbraham-road, Rusholme; additions to premises, 137, Moss-lane East, Moss Side; additions to house, St. Werburgh's-road, Chorlton-cum-Hardy; additions to premises, 94, Oxford-road, Chorlton-upon-Medlock.

MONMOUTHSHIRE.—The Pontypool U.D.C. has now decided, conditionally, to proceed with scheme for widening of George-street "bottle-neck" to 45 ft., at an estimated cost of £35,000, including sites acquisition costs.——The accepted tender (£3,825) for erecting offices for the Pontypool B.G. having been withdrawn, the Board has decided to re-invite tenders for the work.——The Blaenavon U.D.C. intends putting in hand work of reconstructing No. 4 reservoir before the end of March, and to borrow £2,950 in order to carry out Forge Side sewerage scheme.——At a meeting of the Monmouthshire Mining Education Committee it was decided to recommend that five mining institutes be established in the county. The Committee was informed that a grant by the Miners' Welfare Fund of £35,000 would probably be made to further the mining education scheme.—A public inquiry is to be held on the application made by Abersychan U.D.C. for sanction to borrow £5,500 for electricity works extensions.

MUSSELBURGH.—A scheme for the reclamation of the foreshore is being seriously considered by the T.C. Plans have been prepared by Messrs. Blyth & Blyth, civil engineers, which include for a sea-wall 2,150 yards long and 1,000 feet of banking behind to enclose 120 acres of foreshore. The estimated cost of the scheme is £45,396.

NEWCASTLE-ON-TYNE.—Vernon Heaton & Co., tailors, have taken over 45 and 47, Grainger-street, and intend to entirely reconstruct the premises.

NEWPORT (MON).—The B.C. has approved plans submitted by the Surveyor for private street works at Jebbo-street, and will proceed with work recommended.

NEW QUAY (CARDIGAN).—The Memorial Hall Committee is about to invite tenders for the construction of the hall.

NORTHAMPTON.—Plans passed by T.C.: Alterations to premises, St. George's-street, for A. Payne & Son; seven houses, Delapre-crescent, for E. H. Tibbs; garage, 455, Weston-road, for Dr. Lilian Blake; house, St. George's-avenue, for A. J. Letts; alteration to premises, Gold-street and The Drapery, for Boots Cash Chemists, Ltd.; house, Park-avenue South, for Arnold Dickens; motor garage, Sandringham-road, for S. J. Soutar; new front to factory, St. Michael's-road, for R. E. Tricker & Co.; house, Thursby-road, for R. G. Bailey; house, Kingsthorpe-grove, for W. Cole; house, Cedar-road, for W. A. Cumberpatch; house, Cedar-road, for T. Phillpot; house, Clarence-avenue, for J. W. Stutley; workshop, St. James'-road, for D. F. Gibson; bakehouse, Purser-road, for A. Valentine; house, Delapre-crescent, for W. A. Whiting; house, Kingsthorpe-road, for J. B. Clarke; house, St. Andrew's-road, for —. Gammage; alterations to premises, 9–11, Ivy-road, for A. E. Tuckley; additions to workshops, Broad-street for C. Finnegan; alterations to premises, 27a, 27b, 29, 29a, Abington-street, for J. Jelley; house, London-road, for Sale & Co.

NOTTINGHAM.—The Housing Committee has received an application from Mr. H. H. Goodall and a syndicate for the purchase of 22,930 sq. yds. of the Sherwood housing estate (so far undeveloped) for the erection of 70 houses.

OGMORE.—The Council has received sanction to obtain loan of £10,000 for disbursement under Small Dwellings Acquisition Act.——The Council recently applied for sanction to erect 200 houses; assent has been given by M.H. to erection of 50 houses. The Council has decided to apply to the new Minister for sanction to proceed with the remaining 150 houses.

OLDHAM.—Plans passed by T.C.: W. Makin, cottage bungalow, Meadow-lane, Hollins Green; A. Kershaw, five houses, Melling-road; Trustees, Manchester-street Wesleyan Church, lavatories, &c., Manchester-street Wesleyan Church.

PEMBROKESHIRE.—The Fishguard U.D.C. has received the following applications for subsidy grants, in respect to houses proposed to be erected: For up to fifteen houses to be erected, for Mr. D. Morgan, Brodog; five houses at Lower Town, for Mr. D. John, Market-square; one house each for the following: Messrs. J. C. Richards, Greenland; H. Richards, Brynhyfryd; J. Brinn, Windy Hall; T. W. Davies, Slade; A. J. Phillips, Clive-road; John Thomas, Kensington-street.—The Fishguard U.D.C. has passed plans as follows: Bungalow, for Mr. Purcer, Slade; warehouses, for Mr. B. Miles Thomas, West-street.—The County E.C. has decided to carry out alterations at St. David's Council School.—The Council will spend surplus money from road works as follows: Improvement of road from Belle Vue Hotel, at estimated cost £200, and repairs to Merlin Hill, at estimated cost £235.——Plans passed by Milford U.D.C. are as follows: two houses, for Mr. B. Blockwell, Stratford-road; house, for Mr. W. Davies, Shakespeare-avenue.——Tenders are to be invited for supply of stone for highways, for a period of twelve months.——The Pembroke R.D.C. has passed the following plans: Bungalow, for Mr. F. Mills, Llanstadwell; bungalow, for Mr. Glover Thomas.

RHOS-ON-SEA.—The original plans for the erection of a new infants' school are likely to be amended, as the local Ratepayers' Association is urging the Denbighshire C.C. to increase the proposed accommodation from 200 to 500, owing to the growing needs of this new residential district.

RIPON.—The T.C. has approved the lay-out of the Malorie Park Estate.

SADDLEWORTH.—The U.D.C. are asking the M.H. for sanction to erect 50 houses at Cobler's-hill, Delph.

SALFORD.—Plans passed by T.C.: Alterations to sanitary accommodation, Albert Park Inn, Duke-street, Broughton; construction of retaining wall in Bury New-road and Clifden-lane, Broughton; re-winding room, King's Picture House, Regent-road, Salford; billiard hall, 223, Chapel-street, Salford; garage and stores, Bird-street, Pendleton; conversion of dwelling house into three flats, 311, Bury New-road, Broughton; construction of electricity sub-station, Silk-street, Salford; boiler house, Wallness-lane, Salford; sanitary accommodation, Butcher's Arms, Cross-lane, Salford; sanitary accommodation, "Railway House," 185, Oldfield-road, Salford; drainage system for 38 dwelling houses, Littleton-road Housing Estate, Broughton; extension of boiler house, Cook-street, Salford; warehouse, Hereford-street, Salford; alterations to "The Big Fiddle," Willia n-street, Salford; Grey Mare Inn, 3, Cannon-street, Salford.

SCARBOROUGH.—The Harbour Commissioners have decided, subject to the necessary financial arrangement being made with the Corporation to carry out immediately extensions and repairs to the West Pier at an estimated cost of £3,830.

SCUNTHORPE.—The Lindsey C.C. proposes to build a secondary school.

SHIPLEY.—The U.D.C. has granted the subsidy in respect of sixteen houses in Wharncliffe-road, for Mr. A. C. Marsden; and twelve houses in Coppy-road, for Messrs. William Pitts & Sons.

SOUTH SHIELDS.—Plans passed by T.C.: Mr. F. W. Newby for Mr. Gifford Brown, extension of premises at corner of Frederick-street and Barnes-road; Mr. John Riddick for Messrs. W. J. Robertson & Sons, semi-detached houses (No. 4), Tynedale-road, Westoe.

SOUTHAMPTON.—The Town Hall Committee of the Corporation has deputed a sub-committee to consider and report upon the provision of a Town Hall, Council House, Municipal Offices, and other necessary buildings.

SPALDING.—It has been decided by the Holland E.C. to extend the Grammar School at a cost of £3,000.

STOCKTON.—Plans passed by T.C.: Pair of bungalows, South-road, Norton, for Messrs. E. J. Whitaker & T. E. Bashford; bungalow, Darlington-lane, for Mr. Williams, of Grange-avenue, Norton; groundsman's house, Oxbridge-avenue, for the Stockton Cricket Club; alterations to premises at the corner of Dovecot-street and Wilson-street, for the executors of Mr. A. Bloom, of Middlesbrough.

WALLASEY.—Plans passed by T.C.: Four streets and 36 houses in Orrell-road and Magazine Brow, for Messrs. Harrocks Brothers, Fisher & J. R. Arthur; garage in Harrison-drive, for Mr. W. H. Stears; garage, 139, Wallasey-road, for Mrs. E. Lazzolo; ballroom, four shops and lavatories in Poulton-road, for The Assembly Rooms (New Brighton), Ltd.; extension to shelter at the Tower Grounds, for the Wallasey United A.F. Club; stage and dressing rooms at "The Cosmo" Picturedrome, Wallasey Village, for Mr. F. V. Ross; alterations, 80, Borough-road, for Mr. William Cleasby; two houses, Willoughby-road, for Mr. J. Henshaw; house in Claremount-road, for Mr. G. A. Lindley; five shops and houses in Wallasey-road and Loretto-road, for Mr. W. Lloyd Jones; five shops and houses and garage in Wallasey-road and Marlowe-road, for Mr. W. Lloyd Jones; alterations and additions, 262 and 264, Liscard-road, for the Birkenhead & District Co-operative Society, Ltd.; 17 houses in Willoughby road, for Mr. J. P. Jones; 17 houses in Willoughby-road, for Mr. J. P. Jones; six shops and houses in Mill-lane between Leominster-road and Dinmore-road, for Mr. J. W. Bradshaw; six houses in Station-road, for Mr. W. Stocks; alterations to Lifeboat House, Egerton-street, for The Royal National Lifeboat Institution; house in Thirlmere-street, for Messrs. T. A. & E. A. Burrows.

YORK.—The Health Committee has prepared an improvement scheme under which it will schedule an area of slum property extending from George-street to Hope-street, between Walmgate and the city wall, as an unhealthy area. It is proposed to demolish the buildings when acquired as equivalent accommodation is secured elsewhere for 805 persons. The estimated cost of acquiring the land and buildings is £7,522, and for erection of dwellings for re-housing, land, roads, and sewers, £73,890—a total of £81,412.

FIRES.

HARTLEPOOL.—Damage to the extent of about £5,000 has been done by a fire at the pattern storing shed at Messrs. Richardsons, Westgarth & Co.'s Hartlepool Engine Works.

HUNTINGDON.—The extensive motor-body works of Messrs. Maddox & Sons, have been burned out, the damage amounting to between £30,000 and £40,000.

SOUTHPORT.—Thousands of pounds worth of damage was recently done by fire at Scarisbrick Hall, near Southport, the residence of Sir Talbot Scarisbrick.

THE RATING BILL AND THE L.C.C.

THE Reports of two Committees of the London County Council, the Finance Committee and the Local Government Committee, were referred to in *The Times*, January 29, and from the very brief report contained in *The Times* it appears that the latter Committee reports that the proposal to adopt that part of the London system whereby the gross value is made conclusive for the assessment of income tax, schedules A and B, should not be extended throughout the country without important modifications. The full report will be awaited with interest, but this expression of opinion appears very important, seeing that London at present is the only area where such a system is in force.

This Report, like that of the Land Owners' Association, which we referred to in our issue January 18, approves the abolition of parochial rating, whereas the Poor-Law Unions Association (see *The Builder*, December 14) objected to this but seemed tacitly to accept the one common assessment for rates and income tax. The Land Owners' Association, inferentially at least, disapproved of the common assessment, and therefore appears in aggreement with the Local Government Committee on this point. Another important point on which the two latter reports appear in agreement is as to the rating of owners, at least, so we gather, from the summary of the Report, but it is not very clearly expressed. The Land Owners' Association deprecated the extension of any system rating owners instead of occupiers, but on this point the summary of the Report of the Local Government Committee is worded as follows:—"That amendment of the law relating to the rating of owners instead of occupiers is imperative," and we take this to mean that occupiers should be rated.

Stolen Mails.

Owing to the mails, which were delivered to Essex Wharf, Canning Town, on the afternoon and evening of February 2nd, having been stolen, Messrs. J. H. Gankey & Son, Ltd., ask those who wrote to them at that time to repeat their communications, if necessary,

The Institute of Builders.

The annual dinner of the Institute of Builders will take place at the Hotel Victoria, Charing Cross, on February 27, at 7 p.m.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.
Flettons, at King's Cross	2 13 3
Do. grooved for plaster	2 15 3
Do. Bullnose	3 8 3
Best Stourbridge Fire brick:— 2½ in.	11 3 0
3 in.	13 2 0

GLAZED BRICKS—

	£ s. d.
Best White Ivory, and Salt Glazed Stretchers	22 0 0
Headers	21 10 0
Quoins, Bull-nose and 4½ in. Flats	28 10 0
D'ble Str'tch'rs	30 10 0
D'ble Headers	27 10 0
One Side and two Ends	31 10 0
Two Sides and one End	32 10 0
Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 0	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
½ in. "	15 0	" "
½ in. Broken Brick	10 6	" "
Pan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6 51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 6
" Finish	3 17 6
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3

HARD YORK—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	24 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

	£ s. d.
Per bundle	0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
¾ in. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	0 9 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work "	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.	£ s. d.
Common Bars	13 10 0 to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	15 0 0
Staffordshire "Marked Bars"	17 0 0	18 0 0
Mild Steel Bars	12 10 0	13 10 0

METALS (*Continued*).

	£ s. d.	£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	14 0 0
Hoop iron, basis price	16 10 0	17 10 0
Galvanised	31 0 0	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 0 0	16 0 0
" " " 24 g.	16 0 0	17 0 0
" " " 26 g.	18 0 0	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	26 10 0
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	25 0 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	42 10 0
Pipe in coils	43 0 0
Soil Pipe	46 0 0
Compo pipe	48 10 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

	£ s. d.
Old lead, ex London area, at Mills per ton	29 10 0 .. —
Do., ex country, carriage forward per ton	30 10 0 .. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1½ in.	1½ in.	2 in.	3 in.	4 in.
7/6	10/-	14/-	23/-	30/- 42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.
Strong Sheet per lb.	0 2 3 .. —
Thin " "	0 2 4 .. —
Copper nails "	0 2 3 .. —
Copper wire "	0 2 4 .. —
TIN—English Ingots "	0 2 6 .. —
SOLDER—Plumbers' "	0 1 1 .. —
Tinmen's "	0 1 3 .. —
Blowpipe "	0 1 5 .. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 4 0
" " " in barrels "	0 4 2
" " " in drums "	0 4 5
Boiled " " in barrels "	0 4 6
" " " in drums "	0 4 9
Turpentine in barrels "	0 6 11
" in drums (10 gall.) "	0 7 2
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 0 0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Speedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 81 0 0

	£ s. d.
Red Lead, Dry (packages extra) per ton	44 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocol per cwt.	0 15 6
Size, XD Quality fkn.	0 3 6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
⅛ Rolled plate	4½d.
⅛ Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 6
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

Darvel.—Houses.—Various works in connection with erection of houses under their housing scheme. All information from Mr. J. E. Gibson, Town Clerk, Darvel, Scotland.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND.

Glasgow.—Church.—The Corporation has been recommended to offer a site at Mosspark to the Home Mission Committee for the erection of a church.

Hamilton.—Houses.—The Scottish B.H. has approved of the erection of 20 houses, which John Dalziel & Sons propose to erect in William-street, Hamilton.

Alexandria.—Church.—The congregation of St. Mary's R.C. Church has bought Ferryfield Works, Alexandria, with ground adjoining, as a site for a church and chapel house.

Crossgates.—Institute.—The Crossgates War Memorial Committee has arranged to purchase the old school at Crossgates, and the Miners' Welfare Fund has agreed to reconstruct it for a welfare institute.

Edinburgh.—Infirmary.—The Royal Infirmary Board proposes to acquire George Watson's Boys' School for the extension of the Infirmary.

Airdrie.—Houses.—The T.C. has accepted offers for the erection of 36 new houses in Burnbank-street district. The total cost was stated to be £11,652, the cost per block of four houses £1,294, and the cost per house £323.

Troon.—Houses.—The Dean of Guild Court has passed plans as follows:—Mrs. J. Fullarton, 199, Southbrae Drive, Scotstounhill, Glasgow, house in Boagend-road, estimated to cost £1,400; Mr. H. Shaw, builder, East Union-street, houses in Bentinck Drive and Bentinck-crescent, at an estimated cost of £3,000, and a double cottage in Morven Drive, at an estimated cost of £1,500.

St. Vigeans.—Church Hall.—The members of St. Vigeans Church have approved of the erection of a new hall at St. Vigeans, near Arbroath. The plans have been prepared by Mr. Hugh Gavin, architect, Arbroath, and the cost, exclusive of furnishing, is estimated at £1,600.

Roadmeetings.—Hospital.—The Upper Ward District Committee of the Lanarkshire C.C. has agreed to a hospital at Roadmeetings, Carluke, at a cost of £42,000.

Cumnock.—Houses.—The T.C. has adopted plans for 24 houses to be built by the Council. The plans were prepared by Mr. W. Cowie, architect, Ayr.

Dunbar.—Houses.—The T.C. has received sanction to erect four additional houses.

BYZANTINE ARCHITECTURE.

The Rev. J. Arnott Hamilton, B.D., Fellow of the Scottish Ecclesiological Society, read a paper recently before the Scottish Ecclesiological Society, at Lansdowne Church Hall, Glasgow. The Rev. A. Boyd Scott, M.C., B.D., presided.

In the course of his paper on "The Origin and Development of Byzantine Architecture," he defined Byzantine architecture as that style which, having evolved during the course of preceding centuries, finally took on its definite characteristics in the days of the Emperor Justinian during the sixth century A.D. Several influences helped to mould it, and these proceeded from diverse quarters, but it was the capital of the Eastern Empire, Constantinople, which organised its distinctive features. Examples of Byzantine architecture were widespread, but a distinction must be made between buildings which were Byzantine in construction and others which were so only in some of their details, their plans being Basilican. The characteristic feature of a Byzantine church was the central dome, covering a square space on the ground floor. It was supported by squinch-arches or by pendentives, the latter being the normal Byzantine method. The dome with pendentives was used largely by the Christian architects of Asia Minor, and that part of the world might be said to be the cradle of Byzantine architecture.

The lecturer traced the development of the Byzantine style in different countries, and the impression, he said, given by the interior of a Byzantine church was one of tranquillity—a profound sense of peace and calm—as contrasted with the feeling of aspiration which attached to Gothic.

Mr. Alexander M'Gibbon, in the course of an appreciation of Mr. Hamilton's paper, mentioned Brixton Parish Church, London, as an interesting example of the Byzantine style in this country.

The Rev. W. Napier Bell, M.A., accorded a vote of thanks to Mr. Hamilton.

Forty Millions for Housing?

Speaking in Glasgow recently, Mr. James Stewart (Under-Secretary of Health for Scotland) said he had used his powers and had informed the Glasgow authorities that they would not be allowed to build houses in excess of 24 to the acre. In the housing schemes which the Glasgow Corporation had in view to make way for slum clearances, they wanted to build 48 to the acre. If the Corporation carried out its threat not to build under the conditions he laid down, the Government would ask Parliament in their new Bill to give them powers to build houses themselves.

When the Labour Party built houses, they would see that the people who built them would occupy them at rents from £14 to £15 per annum. When their whole scheme was completed they anticipated that the State would have to bear a burden of £40,000,000 per annum for housing. That was not much considering they paid more every day in interest on the war debt. The Government also intended to take power to deal with the trusts.

BUILDING TRADE WAGES IN SCOTLAND.*

The following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7	1/7	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/5	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5½	1/5½	1/5½	1/6	1/5	1/6	1/5	1/1½ to 1/2½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2¾	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Greenock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/1½ to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Kirkwall	1/7½	1/5½	1/5½	1/4	1/4	1/4	1/4	1/0½	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2¾	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 234.

CURRENT PRICES FOR BUILDING WORK IN LONDON.

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights ; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail ; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/10
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	3
Do. Do. Sirapite	" "	2	6
Do. Do. Keen's	" "	3	6
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1¾
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ADWICK-LE-STREET.—For erection of 552 houses, forming a self-contained village around Woodlands, Highfields and Adwick, in conjunction with the Councils and Colliery Companies :—

*Industrial Housing Association.

ALNWICK.—For providing and laying 3,675 yds. of 4 in. cast-iron socket pipes, from Hawkhill to Alnmouth, for the R.D.C. The Surveyor, 24, Fonkle-street, Alnwick :—

D. & T. Crombie & Co., Sunderland	£2,962 2
D. P. Lloyd, Dyffryn	2,527 6
Wm. Auty, Doncaster	2,509 11
Provincial Construction Co., Sunderland	2,014 0
Wm. Thompson, Newcastle-on-Tyne	1,975 0
B. S. Knight, Forest Hall	1,783 16
A. E. Green, Amble	1,549 0
Jas. Wood, Alnwick	1,516 10
*McLaren & Co., Belford	1,495 0

BARNSTAPLE.—For erection of 13 houses on Newport Housing site, for the T.C. Borough Surveyor, The Strand, Barnstaple :—

J. Wakely, Barnstaple	£8,091 0 7
Woolaway & Sons, Barnstaple	6,732 17 0
The Western Builders, Barnstaple	6,390 0 0
Wm. Slee & Sons, Barnstaple	6,359 0 0
*J. Cater & Sons, Barnstaple	6,229 0 0

BATH.—For extending water mains in Newbridge-road and Van Diemen's-lane, for the T.C. :—

*E. Ireland £135 4 7

BATH.—For the erection of 50 houses at Englishcombe Park, for the T.C. :—

*Coles Bros., Ltd., Bath £21,880

BINGLEY.—The U.D.C. has placed the following contracts :—

For paving in Industrial-street—
*T. H. Clark & Sons.
For paving in King's-court—
*J. & W. Potter.

BOSTON.—For erection of houses in semi-detached pairs in various parishes, for the R.D.C. Mr. A. Barton, architect and surveyor, Church-lane, Boston :—

Frampton.	
Handley	£884 0
Langley	827 0
Cruise	804 0
Dawson	790 0
Darby	777 0
Belton	764 10
Greenfield	763 0
*Leafe & Sons	758 0
Kirton.	
Langley	810 0
Cruise	775 0
Favel	773 0
Belton	754 10
*Greenfield	742 0
Algarkirk.	
Hales	844 0
Greenfield	825 0
*Darby & Son	777 0
Cruise	775 0
Fishtoft.	
Greenfield	804 0
Sargent	802 13
*Dawson	790 0
Frieston.	
Handley	884 0
Sargeant	805 13
Greenfield	804 0
Belton	776 10
*Darby & Son	777 0
Fosdyke.	
Hales	844 0
Cruise	794 0
*Leafe & Sons	779 0

BRADFORD.—For erection of new banking premises in Toller-lane, for the Yorkshire Penny Bank, Ltd. :—

*Thomas Obank & Son, Thackley.

BRADFORD.—For erection of an additional story to spinning mill, for Messrs. Sykes & Co., Legram's-lane. Mr. W. E. Bickers, architect, Bank-street, Bradford :—

Mason—
*Wm. Garnett & Co., Thackley.
Steelwork—
*Booth, Bolton.
Roof construction—
*The Kleine Patent Fire Resisting Flooring Co., Ltd., London.

CHELMSFORD.—For the conversion of Rainsford House for Municipal Offices, including alterations, additions, electric lighting and decoration, for the T.C.

F. J. French	£2,083 10
G. J. Hawkes & Sons	1,959 10
*Hy. Potter	1,875 0
W. E. Wisbey (*painting and decorating only*)	248 0

ENFIELD.—For erection of 16 houses in Albany-road, for the U.D.C. The Surveyor, Public Offices, Enfield, Middlesex :—

*Forward & Sons, Dalston.

FORT WILLIAM.—For reconstruction of 6¼ miles of roadway between Fort William and Spen Bridge, for the Inverness-shire C.C. Mr. Schoolar, Road Surveyor, Fort William :—

*Kings & Co., Glasgow.

GLOUCESTER.—For the erection of a pair of semi-detached cottages and alterations and additions to the pumping station at Ketford, for the T.C. :—

*W. F. Drew, Ltd. £2,777

HALESWORTH.—For alterations and additions to the Old Boys' School and conversion into children's home, for the Guardians, Blything Union. Mr. A. A. Hipperson, surveyor, Wangford, Lowestoft :—

W. C. Reade, Aldeburgh	£1,200
Smyth Bros., Leiston	1,196
A. Woodyard, Halesworth	1,157
Howard Bros., Halesworth	1,150
*F. E. Wright, Halesworth	1,049

HASTINGS.—For erection of power station buildings, cooling pond, and coal bunkers, &c., for the T.C. :—

*Fairweather & Ranger £27,721 2

HASTINGS.—For erection of women's convenience at Old London-road, for the T.C. :—

*H. & J. Taylor, Hastings £443

ILFRACOMBE.—For construction of concert hall, for the T.C. :—

*Frazzie, Ltd., London £7,950

LEEDS.—For the erection of a new golf pavilion in connection with the Corporation's new course, at Templenewsam. Mr. C. W. Atkinson, architect, 1, Mark-lane, Leeds :—

*H. C. Bridge, Leeds £6,285

LEEDS.—For alterations and extensions at the works of Messrs. H. Boyfields, Blenheim-terrace, Woodhouse-lane. Mr. C. Castelow, architect, Park-row, Leeds :—

*J. Ferguson & Sons, Ltd., St. Columba-street, Leeds.

LICHFIELD.—For the erection of ten houses in Beacon-street, for the T.C. Mr. P. A. Benn, City Surveyor, Guildhall, Lichfield :—

*W. Kendrick & Son, Walsall £4,360

LONDON.—For foundation works in connection with Town Hall extension, for the Wandsworth B.C. :—

*G. E. Everitt & Sons £1,633

LONDON.—For supply of metal shelving for Rotherhithe Library, for the Bermondsey B.C. :—

*Libraco, Ltd. £242 10

LONDON.—For remedying defects to chimneys at houses on Old Oak Estate, for the L.C.C. :—

*A. Fairhead & Sons £393

LONDON.—For structural alterations at Newington Institution, for the Southwark B.G. :—

*Prestige & Co. £38,773

(Accepted in consequence of Castle Bros. having withdrawn their tender.)

LONDON.—For cleaning out ponds, &c., at Telegraph Hill, for the L.C.C. :—

R. Neal & Sons, Wandsworth	£750
Howard Farrow, Golders Green	730
*Mears Bros., Lewisham	593

LONDON.—For supply and erection of close pale oak boundary fencing at Castlewood, for the L.C.C. :—

	Per rod run.
W. Stenning & Son	£5 18 6
J. Stenning & Son, East Grinstead	5 15 6
W. Bowen, Halstead	5 5 6
†B. Horton & Son, Lewisham	5 3 6

LONDON.—For the reconstruction of settling tank at Parliament Hill, for the L.C.C. :—

Mears Brothers	£945
J. & C. Bowyer, Ltd.	880
Howard Farrow	795
J. Garrett & Son	664
*George Bell & Sons, Ltd., Tottenham	561

LONDON.—For laying out and turfing playing field at Beechcroft-road site, Wandsworth, for the L.C.C. :—

J. Cronk & Son, Brixton-hill	£12,821
George Bell & Sons, Ltd., Tottenham	2,992
Howard Farrow, Golders-green-road	2,753
R. Neal & Sons, Wandsworth	2,680
*Mears Bros., Lewisham, S.E.13	2,594

LONDON.—For draining and regulating the Triangle, Kennington Park, for the L.C.C. :—

R. Neal & Sons, Wandsworth	£535
Chittenden & Simmons, Ltd., Maidstone	530
Howard Farrow, Golders Green	497
Mears Bros., Lewisham	447
*George Bell & Sons, Ltd., Tottenham	443

LONDON.—For laying and turfing field on Sutherland-grove School site, for the L.C.C. :—

J. Cronk & Son, Brixton-hill	£2,728
R. Neal & Sons, Wandsworth	2,153
Mears Bros., Lewisham	2,150
George Bell & Sons, Ltd., Tottenham, N.17	1,985
*Howard Farrow, Golders-green-road, N.W.11	1,777

LONDON.—For laying-out ground for games at County Secondary School, Kentish Town, for the L.C.C. :—

R. Neal & Sons	£800
J. & C. Bowyer, Ltd.	575
Hodsons, Ltd.	660
Mears Bros.	612
Howard Farrow	578
*George Bell & Sons, Ltd., Tottenham	393

LONDON.—For the scavenging of Blackwall and Rotherhithe tunnels for a period of 12 months, for the L.C.C. :—

H. Boyer	£1,076 0
J. Hems	809 0
A. Manchester	702 10
Tuff & Hoar, Ltd.	700 0
J. J. Prior	655 0
*J. Calder & Co., Ltd., Cubitt Town, E.14	654 0

LONDON.—For the erection of Tabard House, on the Tabard Garden Estate, for the L.C.C. :—

A. Roberts & Co., Ltd., Earl's Court-road, W.	£20,700
Leslie & Co., Ltd., Kensington	20,694
Rowley Bros., West Green, N.	19,555
*J. E. Billings & Co., Ltd., Westminster	18,977
Albert Monk, Lower Edmonton	18,810
Allen Fairhead & Sons, Ltd., Enfield	18,578

LONDON.—For the extension of women's convenience at Newington Recreation Ground, for the L.C.C. :—

John Garrett & Son	£235 0 0
J. & C. Bowyer, Ltd.	234 0 0
Triggs & Co.	198 0 0
H. King & Sons	191 0 0
W. A. King	189 0 0
John Marsland & Sons, Ltd.	179 10 0
G. Parker & Sons, Ltd.	170 0 0
*W. J. Dixon & Son, Southwark	160 15 6

LONDON.—For the supply of kerb for use in connection with paving works in various roads, for the Wandsworth B.C. :—

*Brotherton Ratcliffe & Co., Ltd. (for South Devon Granite Co.)—2,800 lin. ft. 12 in. by 6 in. flat Cornish granite kerb, at 3s. per lin. ft.; also 2,600 lin. ft. 12 in. by 8 in. flat Cornish granite kerb, at 3s. 8d. per lin. ft.
*Wm. Griffiths & Co., Ltd.—2,800 lin. ft. 12 in. by 6 in. flat Cornish granite kerb, at 3s. 5d. per lin. ft.

LONDON.—For the work of renewal and repair of brickwork and stonework at Rotherhithe fire station, for the L.C.C. :—

Edwards Construction Co., Ltd., Eltham	£325 0
Thomas D. Leng, Deptford	315 0
Douglass, Halse & Co., Ltd., Woolwich	312 0
George Parker & Sons, Ltd., Peckham	305 0
Harry Groves & Son, Greenwich	299 10
W. J. Dixon & Son, Bermondsey	282 0
*Ward, Saul & Co., Blackfriars	275 0

LONDON.—For the provision of low-pressure hot-water heating apparatus in connection with the rebuilding of the London-fields School (Hackney, S.), for the L.C.C. :—

The Well Fire & Foundry Co., Ltd.	£2,329
The Thames Bank (Blackfriars) Iron Co., Ltd.	2,165
W. Griffiths, Son & Cromwell, Ltd.	2,140
J. & F. May	2,139
The Hardware Trading Co.	2,090
The Fretwell Heating Co.	2,015
Palowkar & Sons	1,992
Dallow, Lambert & Co., Ltd.	1,777
*Central Heating Co., Ltd, S.E.1	1,375

LONDON.—For the foundation works in connection with the erection of a new elementary school on the Holcroft-road site (Hackney, S.), for the L.C.C :—

G. Godson & Sons, Ltd.	£2,189 0 0
W. Shurmur & Sons, Ltd.	2,119 10 4
Allen Fairhead & Sons	2,077 0 0
W. J. Maddison, Ltd.	2,074 0 0
E. A. Roome & Co., Ltd.	1,996 0 0
Patman & Fotheringham, Ltd.	1,981 0 0
Fred & T. Thorne	1,958 13 0
F. J. Coxhead	1,930 0 0
C. P. Roberts & Co., Ltd.	1,914 0 0
L. H. & R. Roberts	1,852 0 0
A. Monk	1,840 0 0
C. Miskin & Sons, Ltd.	1,813 0 6
*Rowley Bros., West Green, N.15	1,747 0 0

LONDON.—For supply of various machine tools, for the L.C.C. :—

400-ton Wheel Press—	
*Alfred Herbert, Ltd.	£421 4
Tyre-boring Mill—	
*Hulse & Co., Ltd.	321 0
Axle Turning Lathe—	
*Buck & Hickman, Ltd.	272 5
Axle Grinding Machine—	
*Harry F. Atkins (1922), Ltd.	608 0
Radial Drilling Machine—	
*F. Town & Sons	403 0
Commutator Turning and Grinding Lathe—	
*Alfred Herbert, Ltd.	214 10
Side-driven Slotting Machine—	
*Ward, Haggas & Smith	175 0
Power Press—	
*Selson Engineering Co., Ltd.	338 5
Bench Wood-working Tools—	
*A. A. Byrd & Co.	237 9

LONDON.—For the foundation works in connection with the new building of the Wandsworth Technical Institute (Wandsworth, C.), for the L.C.C. :—

Arthur Vigor, Ltd.	£11,014	1	11
G. E. Wallis & Sons, Ltd.	10,227	0	0
F. & T. Thorne	10,168	0	0
W. H. Gaze & Sons, Ltd.	10,117	0	0
C. Miskin & Sons, Ltd.	9,938	0	0
F. & H. F. Higgs, Ltd.	9,897	0	0
Wilson Lovatt & Sons, Ltd.	9,750	0	0
John Garrett & Son	9,557	0	0
Holloway Bros. (London), Ltd.	9,491	0	0
J. & C. Bowyer, Ltd.	9,397	0	0
Prestige & Co., Ltd.	9,320	0	0
L. H. & R. Roberts	9,192	0	0
Holliday & Greenwood, Ltd.	8,995	0	0
*Albert Monk, Lower Edmonton	8,665	0	0

MANCHESTER.—For the erection of Higher Ormond-street School, for the T.C. :—

*Normanton & Son, Manchester £14,876

MILL HILL.—For erection of 339 houses. Mr. E. Meredith, architect, 7, Goodmayes-road, Goodmayes, Essex :—

Y. J. Lovell & Son, London	£268,550
The Unit Construction Co., London	221,333
F. W. Romain & Sons, Chadwell Heath	212,130
Allen Fairhead & Sons, Enfield	208,668
H. J. Gower, London	205,950
*Urquhart & Anderson, London	204,417

NOTTINGHAM.—For part of the work of widening Trent Bridge, for the T.C. :—

*Cleveland Bridge & Engineering Co., Darlington	£78,709 10 2

OLDHAM.—For the erection of 50 houses on Greenacres site, for the T.C. :—

*J. H. Bardsley, Ltd. £21,150

OSWESTRY.—For work in connection with Daywall and Hengoed Water Supply, for the R.D.C. :—

David Pugh Lloyd, Merioneth	£3,765	9	3
Martin & Element, Smethwick	3,442	3	6
McAdam & Trainer, Oswestry	3,229	0	6
J. Dickenson & Co. (Bolton), Ltd., Bolton	3,195	0	0
William Auty, Doncaster	3,013	16	9
W. H. Rogers, Willenhall	2,837	7	5
W. Edwards, Shrewsbury	2,756	0	0
Crawford Bros., Havant	2,750	0	0
Hussey, Egan & Pickmere, Birmingham	2,705	12	10
*Andrew Blair, Lyell & Co., Ltd., Birmingham	2,568	6	11
Engineer's Estimate	2,610	1	6

SALFORD.—For construction of railway sidings, weighing machine house, foundations, &c., at Gas Works, for the T.C. :—

*A. Monk & Co. £3,498 7 11

SALFORD.—For the erection of 36 "A" type flats; 18 "A" type two-story houses; and 8 "B" type two-story houses on the Weaste Housing Estate (Scheme No. 3), for the T.C. :—

†Co-operative Wholesale Society, Manchester £26,781 3

(Subject to variation in accordance with the rise or fall in the cost of materials or wages.)

STOCKSBRIDGE.—For erection of 20 houses on Shay House-lane site, for the U.D.C. Mr. J. N. Singleton, Surveyor, Stocksbridge :—

For 10 Houses—

*Mason & Quince, Sheffield	£4,545
*G. L. Bradshaw, Sheffield	4,490

For 20 Houses—

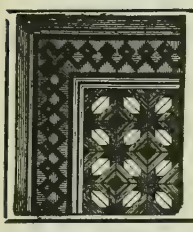
W. Burkinshaw, Deepcar	13,150
J. H. Randall & Son, Ltd., Sheffield	11,600
A. Bradbury & Son, Sheffield	11,350
J. S. Jeanby & Son, Ltd., Sheffield	11,140
D. Brearley & Son, Sheffield	10,200
Battye Bros., Sheffield	9,340

SWANSEA.—For erection of elementary school, Townhill, Swansea. Mr. E. E. Morgan, Borough Architect, 3, Prospect-place, Swansea :—

C. Tyler, Swansea	£54,400	0	0
George Mercer & Sons, Ltd., Llanelly	53,011	12	11
Griff, Davies & Co., Swansea	51,465	0	0
*Lloyd Bros., Swansea	51,260	0	0

WARLINGHAM.—For erection of house for Mr. T. L. Bellatti. Mr. A. H. Jones, architect, 10, Conduit-street, W. 1 :—

R. J. Aston, Croydon	£2,637
W. S. Sabey, Warlingham	2,300
H. & G. Longhurst, Shepherd's Bush	2,279
J. Quittenton, Warlingham	1,842
*R. Mansel, Croydon	1,790



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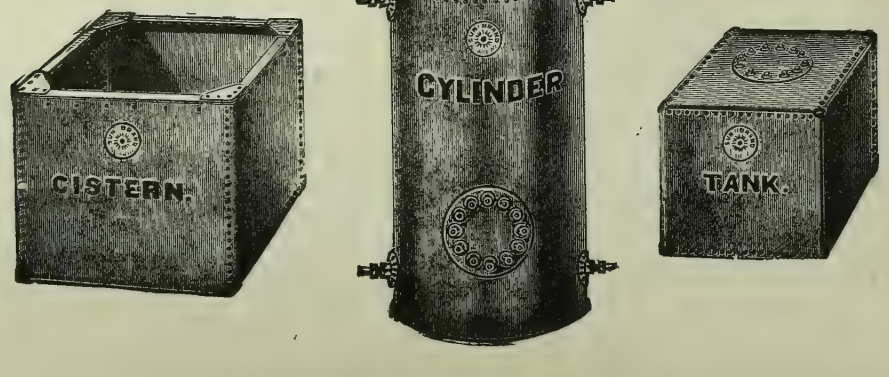
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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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THE FINE ARTS COMMISSION.

THE intention of the late Government in creating a Fine Arts Commission for this country is to be commended, and whatever difference of opinion there may be regarding the constitution and scope of the Commission, we owe thanks to those who have been responsible for getting the Government to act at all. For many years the standard of taste—or rather the absence of it—has been a disturbing factor to many thoughtful people, and the student of social history will record this new and well-intentioned movement as a distinct step, so far, towards the humanising of civilisation. It is possible that in most discussions upon the subject too much stress has been laid upon the hopeless state of public taste, as if the public were wholly responsible for all the disfigurements which we have to tolerate. Certainly, in many matters it will be found that the public takes what it gets, and is assumed to be indifferent because it is silent. Morally, the responsibility lies with a public which indirectly encourages a low standard of taste, but, in point of fact, the average man is afflicted by a number of people who think they know what he likes and contrive to give it to him. The average man is blamed for many things, yet what he really thinks is more or less a mystery. We may assert that his thoughts are nebulous, for the most part, simply because he does not possess the necessary leisure for constructive thinking. Mr. Richard King, writing on the average man, says: "He is too much occupied by the problem of living ever to worry long over the problem of his being." It is always possible to be a little ahead of the public, and a grave responsibility rests on those who deliberately play down to what they think is the public level.

We have frequently urged the point of view that, as a nation, we have not been insensible to the fact that fine art is one of the things which adds to the nobility of life, but there has been a failure to recognise that the education of the individual as an end in itself is not sufficient to make an end of ugliness. We do not hold that the study of fine art is an intellectual pursuit or curiosity without any ulterior end, and that we should merely satisfy an intellectual need and not the interests of practical life. The study of fine art is a pure intellectual study, in so far as its aim is to satisfy the needs of the mind, and while we appreciate true culture which is cultivated for its own sake by the few, we believe that the opposite or negative extreme should be dealt with by legislation when there exists the power to do harm.

We raise the standard of public taste by education in the first instance, and, in time, feeling is translated into various forms of legislation as a preventive and a protection. In our social evolution we have demonstrated from time to time the necessity to safeguard health by numerous laws, and we believe that a high standard of civilisation would safeguard itself against many forms of ugliness. That the time will come when this will be done is beyond all doubt, and the step will be held to be indicative of a high standard of public taste.

The French Ministry of Fine Arts exercises a certain amount of control over public art, but we are following the example of America in setting up an Advisory Commission only. There is undoubtedly much to be said for adopting some such course, especially if facilities are afforded for a really representative Commission (such as that suggested by a correspondent in our last issue), even if we think that a certain amount of legislation is necessary to eliminate ugliness without going to the extreme of exercising control over public art. We will not enter into a philosophic discussion upon the difference between the control of taste in art and the control of ugliness; there is a wide field in which to work in the preventive sense, apart from the gradual building up of a higher standard of public taste.

The new Commission has no disciplinary powers, we are told, and it is merely a consultant body. It is, unfortunately, one of the freakish traits of the smallest Rural District Council that it seldom feels the necessity to desire help, or it takes a certain amount of local pride in ignoring expert advice. Anyone who is inclined to doubt this will find plenty of evidence in many of our small sea-coast towns. Experience will prove whether the advice to those who consult this new body will save us from the blunders arising from ignorance and vulgarity.

We read, for instance, that a certain seaside resort has printed 10,000 posters in nine colours, and that 400 posters 10 ft. square are to be displayed in prominent positions in the large towns. On a matter of this nature we do not suppose the local Council in question will ask the opinion of the Commission, nor do we suppose that the opinion of the large towns will be consulted. The most we can hope for is that science and common sense may in time make it clear that no health resort is an effective antidote to the evils it creates itself.

We frequently hear complaints from small sea-coast towns situated amidst beautiful scenery and commanding extensive sea views, that large sums of money are spent every year in "attractions" for summer visitors, yet every form of ugliness is allowed to go unchecked by the local authorities. We see hoardings and galvanised iron fences in prominent positions, and garden walls to the roadways being erected 10 ft. high with lean-to roofs against them entirely obliterating the beautiful views from the public. The whole problem is not a question whether anyone has a right to any unobstructed view; we merely record the type of intellect which can spend public money on advertisements and trivial distractions for pleasure-seekers and yet be helpless to preserve the simple amenities of life. Even if we take the "practical" type of mind, which only understands public expenditure in relation to boarding-house lists and gate receipts, we begin to realise that when common sense fails and the problem cannot be seen whole, there is cause for pessimism.

We are asked by a correspondent to tell him what hope the Fine Arts Commission has with a local builder who is also chairman of the District Council, and who owns a considerable amount of property in the town. That he is "his own architect and leaves a trail of ugliness behind him" we are prepared to believe, and we are inclined to agree with our correspondent when he says that the absence of local feeling publicly expressed is no reason why anyone should be allowed to destroy beauty and perpetuate ugliness. We would certainly like to see the councillor-builder setting a dignified and civic conception of the art of building as an example to all residents. We do not doubt the efficiency of our by-laws, but there is truth in the statement that the art of house-building may easily develop into the mere glorification of sanitary engineering. As Mr. Lytton Strachey says of Miss Florence Nightingale, "she seems hardly to distinguish between the Deity and the drains."

A representative Commission of the Fine Arts should do much excellent work, and should provide an excellent opportunity for architects to take a greater interest in local administration work—however distasteful—as a part of their larger responsibilities in life.

NOTES.

The Royal Gold Medallist. Many years ago an architect remarked to his friend that he had been sketching in the company of Lethaby and that he felt sure his consuming energy would finish him off quickly unless he abated his efforts. Well, Professor Lethaby is happily still with us and active in service for his fellows, and now we have the pleasure of congratulating him on his nomination as the recipient of the Royal Gold Medal. After the intimate and enthusiastic tribute paid to the Professor by his friends and admirers recently there is nothing fresh left to say but reiteration of his good services to the profession by the enforcement of high ideals. To some it may seem that such a high literary endowment has been attained by the sacrifice of actually executed designs of buildings, but probably Professor Lethaby has filled as honourable and useful a niche in the world's affairs as he could have himself wished. Our own readers have had ample opportunity afforded by his monthly contributions to our pages for some years past of estimating his high quality as a suggestive and original thinker.

An International Congress of Architectural Education. The public discussion of the subject of architectural education appears to have been somewhat neglected recently, though we believe much careful thought has actually been given to it by the Board of Architectural Education and others since Mr. T. E. Collcutt read his paper before the R.I.B.A. a year or two ago. His criticisms took the form of a bold attack on some present-day methods, and were supported, we believe, by a good many architects, who consider that the proper education of architects is of more immediate importance than the education of the public to a better understanding of architecture—that it is, in fact, the only way to that understanding. Probably more would have followed from Mr. Collcutt's address had it not been already decided to hold an International Congress on Architectural Education at a later date. This date has now been fixed for the end of July, and from the particulars we give on p. 250 it will be seen that a very strong Committee has been formed to carry out the necessary arrangements. The Congress will be of great interest, and will no doubt have important results for the profession.

The R.I.B.A. and the National Housing Policy. The important memorandum which the R.I.B.A. has issued, and which we print on p. 267, contains the opinions of the Institute, and, we hope, of most practising architects, on the urgent question of housing. In the course of the memorandum the chief difficulty in the way of making a proper provision for the housing of the working classes—*i.e.*, money, materials and men—are enumerated and suggestions are made in regard to each. It will be noted that the Institute recognises that financial assistance is granted in order to provide dwellings of the minimum standard at a rent which the occupants can pay, but we are glad they emphasise the importance of a high standard of housing as an essential condition. We are all committed now to the policy of financial aid, and we may well ask for an improved standard as a condition.

Institute Politics. Anent the discussion in the current issue of the R.I.B.A. *Journal*, on election to Fellowship, how shall one treat fairly the position of those who have earned the credential as Associates of the R.I.B.A. in regard to the present proposals of change? Is it the welfare of the architect, or the good of architecture, or both, which should discount opposition to the proposed changes and amalgamation of societies? Theoretically we may claim that the good of the art is of more import than the welfare of its practitioners, but we must, of course, be fully satisfied as to what is for the good or the welfare. A pertinent remark on the situation may be, "Don't cry out before you are hurt."

The Fine Arts Commission One of the conditions attached to the Fine Arts Commission is that after the first three years from its establishment two members will retire in turn each year, but will be eligible for reappointment. Past experience teaches us what to expect under these conditions. In the distant future the Commission may consist of nine old gentlemen, most of whom never attend at all, and all of whom hold their places automatically. Death alone will cause a vacancy. If this Commission is to be of the slightest real use there must be some guarantee of fresh blood. We suggest that the senior of the retiring two should not be eligible at any date for re-election. We hope that the Government and the Commission itself will see the necessity of providing some such safeguard as we suggest.



The Queen's Dolls' House: The Garden Front (5 ft. wide).
Sir Edwin L. Lutyens, R.A., Architect.



London Plaquette Competition.
"London as the Capital of the Empire."
By Miss M. Kitchener.

Charing Cross Bridge.

It is to be hoped that there will be a good attendance at the Institute next Monday evening, when Mr. Paul Waterhouse reads a paper on Charing Cross Bridge, expecially of those who have influence over public and official thought. In a matter so greatly affecting the appearance and convenience of London we must all hope for the right solution of the problem. There is something more in it than the building of a fine bridge or viaduct, for its exact position and approaches are of the greatest importance. We can all admire a great viaduct or aqueduct across an open valley, but a city viaduct is a very different matter and can never be undertaken without detrimental influence on the property over which it passes and round about it. A correspondent, writing to us, says "in the case of a viaduct at Charing Cross not only is there to be considered the detrimental influence on the property about it, but there is the cutting off of the splendid vista of gardens and embankment from Waterloo to Westminster, which is one of the finest things in London. In the design for a low-level bridge it has already been shown (by Mr. Caröe) how a 'dive' under the new low-level bridge might carry through the embankment traffic, and in reference to the safe-guarding of fixed tram-lines no one can predict that any will be in existence in 50 years' time."

The Importance of the Bridge.

Whether in regard to the convenience or the beauty of London, no expert student of City development can have any doubt of the vital importance of a great road bridge at Charing Cross. That this should have been foreseen and provided for many years ago is obvious enough, and if it had been the derelict mud banks on the south side of the river might have disappeared long ago. No one with any fair degree of imagination can forget the magnificent possibilities which the Thames in its passage through London has provided. Hanging gardens with terraces and trees, fine hotels, offices, and residential flats might have lined the river from Westminster to Blackfriars; in fact, one could almost imagine that London might have been as fine as Dresden!

County Hall Mural Art.

Though we are sorry that the scheme for decorating the County Hall with so-called mural paintings has miscarried, we are more impressed by the arguments of Mr. Andrew T. Taylor in his letter to *The Times* than with those of the promoters of the scheme. The proposals for these paintings came, we believe, in the first instance from the masters of the four art schools themselves as combining the advantages of cheap art with that of furthering the cause of mural decoration. Mural art was to be better promoted, in their view, through employing students than by artists. These paintings have been in the end declined, "with only one dissentient voice." It seems curious to set out to promote mural decoration by employing students "because artists are so expensive," as we have heard it said. We have some difficulty in accepting a view which establishes itself by putting the cart before the horse. To many artists the proposal came as an affront, and Mr. Muirhead Bone, in telling us that "established, but not necessarily better, artists would not have been thus cavalierly treated" does not seem to realise that this is precisely how they have been treated. The conception of artists as popular landscape and portrait artists suggests a rather limited acquaintance with the resources available from which to draw. The fact must be admitted that the whole scheme has been very unwisely directed. It has offended artists because its approach was likely to bring mural art into contempt. It has been unfair to the students who have been the catspaw of this enterprise, while exposing the schools to the criticism that their ideas about mural art are based on a misunderstanding of its nature.



"Burnt Stub," Chessington: Loggia. Mr. Leonard Martin, F.R.I.B.A., Architect. (*See p.* 256.)

GENERAL NEWS.

Professional Announcement.

Mr. M. J. H. Somaké, F.S.A., recently arrived from abroad, has opened practice as architect and surveyor. Manufacturers, &c., are invited to forward catalogues of building and engineering specialities to "Mossville," 284, Cricklewood-lane, London, N.W. 2.

Change of Address.

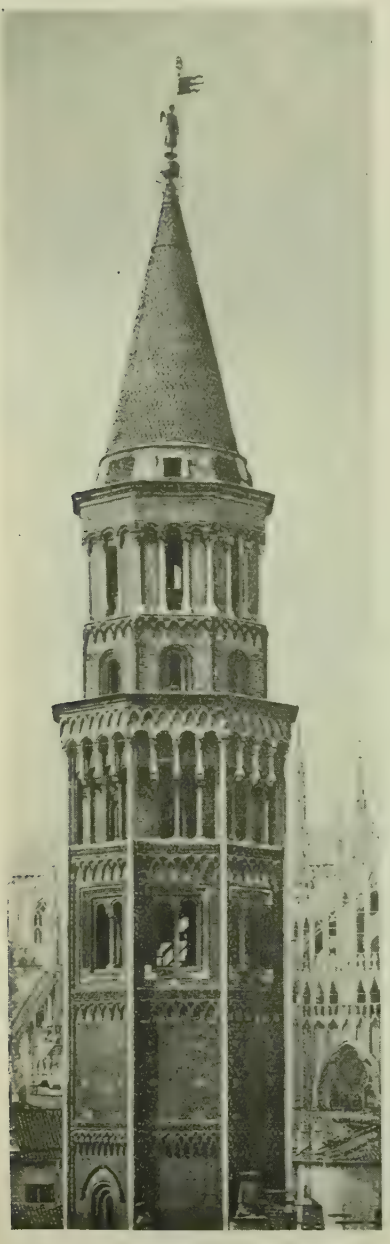
The address of Messrs. Wheeler & Sons is now St. Stephen's House, Westminster, London, S.W.1. Telephone: Victoria 6539.

Architect's Estate.

Mr. Edward Simpson Butterworth (81), of The Gables, 106, Tweedale-street, Rochdale, Lancs, retired architect (net personalty £15,470), £19,918.

St. Paul's Ecclesiological Society.

This Society, which during the past year has given a number of papers and lectures on church architecture, and visited various churches of archæological interest, will hold its forty-fifth annual meeting at the small hall, Bishopsgate Institute, on February 16, at 4 p.m.



Tower of Gottardo, Milan.

Faraday Medal.

The Council of the Institution of Electrical Engineers has made the Third Award of the Faraday Medal to Dr. S. Z. de Ferranti, a past-President of the Institution. The Faraday Medal is awarded by the Council of the Institution not more frequently than once a year, either for notable scientific or industrial achievement in electrical engineering, or for conspicuous service rendered to the advancement of electrical science without restriction as regards nationality, country of residence, or membership of the Institution. Dr. Ferranti was a pioneer in the supply of electricity, and his early grasp of the fundamental principles of electric power supply have had a profound influence not only in this country but all over the world.

Management of Landed Estates.

Mr. A. J. Burrows gave the second of his lectures on this subject at the College of Estate Management recently.

In this lecture the lecturer continued his description of the work of a land agent dealing with insurance. He showed how the land agent must consider his work both from the point of view of the amenities of the estate and also from the commercial side.

He then dealt with the other details of a land agent's duties, and emphasised the necessity for the organisation of each of the departments of the estate on business lines, giving valuable advice as to the best methods of running each of the varied sections of a big country property.

Architects' and Surveyors' Assistants' Professional Union.

The Metropolitan Branch of the A. & S.A.P.U. held their annual dance at Australia House recently. There were about 180 present, including Mr. C. McArthur Butler (Secretary, Society of Architects), Mr. F. R. Yerbury (Secretary, Architectural Association), Mr. R. G. Strachan (General Treasurer, A.S.A.P.U.), Mr. Charles McLachlan, A.R.I.B.A., (Chairman, Executive Committee, A.S.A.P.U.), and Mr. J. Mitchell (General Secretary, A.S.A.P.U.).

Board of Architectural Education.

The arrangements for the International Congress on architectural education, which will be held at the R.I.B.A. from Monday, July 28, to Friday, August 1, 1924, are in the hands of an executive committee under the chairmanship of Mr. Maurice E. Webb, M.A. The following have consented to serve on the Committee:—Sir Reginald Blomfield, R.A., Litt.D., Sir John J. Burnet, A.R.A., R.S.A., Lt.-Col. H. P. Cart de Lafontaine, O.B.E., Mr. Arthur J. Davis, Mr. G. Topham Forrest, F.R.S.E., F.G.S., Mr. W. Curtis Green, A.R.A., Mr. Stanley H. Hamp, Mr. Arthur Keen, Professor Beresford Pite, Hon. M.A., Mr. W. S. Purchon, M.A., Professor C. H. Reilly, O.B.E., Professor A. E. Richardson, Mr. Howard Robertson, S.A.D.G., Mr. H. D. Searles-Wood, Mr. Evelyn Shaw, M.V.O., Mr. Paul Waterhouse, M.A., F.S.A.

Mr. Henry M. Fletcher, M.A., is the Hon. Secretary.

The Congress will consist of meetings for papers and discussions, visits, receptions, and a dinner. An Exhibition of students' work will be held, and it is hoped to be able to arrange for accommodation for the exhibits in Devonshire House, Piccadilly, in addition to the galleries of the R.I.B.A., 9, Conduit-street, W.1.

R.I.B.A. Prizes and Studentships.

The Juries for 1924 have been appointed as follows:—

THE ROYAL INSTITUTE ESSAY PRIZE.—The Chairman of the Board of Architectural Education, Mr. Lionel B. Budden, Mr. S. D. Kitson, Professor Beresford Pite, the Critic.

THE TITE PRIZE.—The Chairman of the Board of Architectural Education, Mr. Robert Atkinson, Mr. Fernand Billerey, Professor C. H. Reilly, the Critic.

THE MEASURED DRAWINGS MEDAL.—The Chairman of the Board of Architectural Education, Mr. H. Chalton Bradshaw, Mr. Theodore Fyfe, Mr. Basil Oliver, the Critic.



FIG. 15.—S. TEODORO, PAVIA.

THE OWEN JONES TRAVELLING STUDENTSHIP.—The Chairman of the Board of Architectural Education, Mr. Arthur J. Davis, Mr. Gerald Moira, Mr. Halsey Ricardo, the Critic.

THE GRISSELL GOLD MEDAL.—The Chairman of the Board of Architectural Education, Mr. Donald Cameron, Mr. W. E. Vernon Crompton, Dr. Oscar Faber, the Critic.

THE GODWIN BURSARY AND WIMPERIS BEQUEST.—The Chairman of the Board of Architectural Education, Professor S. D. Adshead, Mr. Walter Cave, Mr. W. S. Purchon.

COMPETITION NEWS

Proposed Municipal Offices, Kent.

The President of the Royal Institute of British Architects has nominated Mr. H. V. Lanchester, F.R.I.B.A., as assessor in this competition.

Royal Masonic Institution for Boys: Junior School, Bushey, Herts.

The drawings submitted by architects in the limited competition for a Junior School for Boys at Bushey, Herts, will be on exhibition in the board-room at the offices of the Institution, 26, Great Queen-street, W.C.2, between the hours of 10 o'clock and 5 o'clock from February 18 to 22. Members of the profession will be admitted on presentation of their cards.

Masonic Peace Memorial.

For full particulars of this competition see our issue for February 8. No sending-in date has yet been fixed.

Ebbw Vale Memorial.

The Memorial Committee will consider designs and quotations for the erection of a piece of statuary. Closing date, February 23. Particulars from Mr. B. Thomas, London Hotel, Ebbw Vale, to whom designs must be sent.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Essays on Heating and Ventilating (Mar. 31; Nov. 9, 1923). Industrial Designs (June; Dec. 21, 1923). National Theatre (April 26). Monument to Sir Wilfrid Laurier (April 3; Dec. 14, 1923). Belfast Union Lighting (March; Nov. 9, 1923). Dunfermline War Memorial (March 8; Dec. 28, 1923). Newcastle Concert Hall (March 1; Oct. 26, 1923). Ross-Smith Memorial (Sept. 30; Feb. 1). Newcastle Fire Station (March 27; Feb. 1).

TOWERS AND SPIRES.

By SIDNEY TOY, F.S.A., A.R.I.B.A.

VI.—ABBEY OF CHIARAVALLE.

The central crossings of the larger churches built in Lombardy from the eleventh to the thirteenth century were usually covered by domes. The crossings were spacious and it was therefore necessary that the thrusts of their vaults should be exercised at as low a level as possible. Again, since the windows in the naves of these churches were narrow and few and the internal effect, even under Italian skies, sombre, it was desirable that the crossing should be well lighted. This was effected by the construction of an octagonal lantern over the space, pierced by windows of sufficient size and number to flood the crossing and ciborium with high light, and covered by an octagonal dome, as at S. Ambrogio, Milan (Fig. 14). The walling and main body of the structure was usually of brickwork.

At S. Ambrogio,* Milan, and the churches of S. Michele, S. Pietro in Ciel d'oro, and S. Teodoro, at Pavia, all dating from the twelfth century, in respect to their domes, the octagonal lantern rises directly above the four arches of the crossing by means of four wide squinch arches. Often the brickwork of the squinch arches is ingeniously constructed. At S. Michele, Pavia, the arch is trumpet-shaped and the brick courses, tapering as they pass from the outer face of the arch and becoming inconveniently thin as they approach the angle, are stopped on a wide splay, the splay itself being carried on a smaller squinch at a lower level. The latter is constructed of alternate courses of brickwork and stone. The windows of the lantern were usually pierced in the four walls on a level with the squinch arches, as at S. Teodoro, Pavia (Fig. 15), but at S. Ambrogio, Milan, they were formed in the dome itself. Externally the lantern appeared as a low octagonal tower with a pyramidal roof covered with tiles. The broaches over the squinch arches, with their tile coverings, are fixed well above the roof-line of the church and above them, springing from the base of the dome, is an arcaded drum, which carries a timber roof. Occasionally the arcade is open and the dome within exposed, as at S. Ambrogio, Milan, but it is usually blind, as at S. Teodoro (Fig. 15).

This was the early form of covering for the crossing adopted and pursued in Lombardy during the eleventh and twelfth centuries. But in the early years of the thirteenth century a tower and spire was developed from this nucleus which attained a degree of elegance of form and virility of construction hardly surpassed elsewhere; and this while accepting the conditions of spaciousness and lighting laid down and followed by the preceding builders. An early step in this development is seen in the church of S. Teodoro (Fig. 15). Here the lantern and dome are of the usual form, but upon the dome a second and much smaller lantern, with twin lights, is built. This had the object of increasing the dignity and importance of the structure as seen from without. A further advance, on a more elaborate scale, was made in the tower over the crossing of the church of S. Andrea at Vercelli, founded in 1219. This is a true tower and projects high above the roof of the church in two stages crowned by a spire. Though the lantern over the crossing is very lofty, the squinch arches are placed in the usual position on a level with the heads of the great arches of the crossing, and the tower is octagonal throughout from this point. A gallery is carried round the interior immediately above the squinch arches; and the walls, pierced only on the cardinal sides by a circular light about midway and a narrow window at the summit, are carried to a considerable height and enclosed by a ribbed vault. Decorative relief is added by angle-shafts with carved capitals which rise from a string-course round the gallery to the ribs of the vaulting, and by others in the square angles of the crossing between the capitals of the great piers and the trumpet-shaped squinches. The second stage of the tower is much smaller in width and rests upon the vault of the lantern. It is pierced by two tiers of windows and the spire above is surrounded by eight pinnacles which rise from the centre of the walls at its base.

Doubtless the finest production of this school is the magnificent tower over the crossing of the Abbey of Chiaravalle, near Milan (Fig. 16A). The church was consecrated in 1221, as recorded on an inscription near by, and although several times repaired the tower remains substantially the same as when first built. It is constructed of terra-cotta and brick. As will be seen by reference to the section (Fig. 16B) the lower part of the tower forms a lantern entirely open to the spacious crossing beneath. The lantern is not relatively so high as at Vercelli and it is covered by a ribbed dome. Above the lantern the tower rises through four additional stages and is crowned by a tall conical spire. The construction of the support for the upper part deserves close attention. As is well known the weakest part of a dome is at its haunches, where it is liable to burst outwards by the acute thrust of the upper portion. It is necessary, therefore, in order to counteract this tendency, to load the dome here as well as at the base. In this case the system of buttressing is most elaborate. The principal weight of the tower and the spire it carries falls high on the surface of the dome, but its force is counteracted by the addition of a second wall to the lower stage, outside the other. The weight of this latter, assisted by the parapet above, and the thrust of the half-round arch built in the mass of the brickwork behind the haunches, falls much lower down on the surface. The effect is that the combined pressures are distributed over a much wider area and that they are adequately abutted by the mass of brickwork by which they are surrounded. The spire has been bound round with iron girdles in modern times. This tower owes its beauty in no small measure to the refinement of its details. The open parapets, while filling their role of adding loads where required, impart considerable delicacy to the whole and serve to soften the gradation, otherwise abrupt, of the one diminishing tier to the other. The ornamental arrangement of the brickwork decoration is also of great beauty. A later phase of this work is seen in the tower of S. Gottardo, Milan, built about 1330 (Fig. 17).

* There are no transepts at S. Ambrogio, Milan, and therefore no crossing, but the lantern stands over the east bay of the nave.

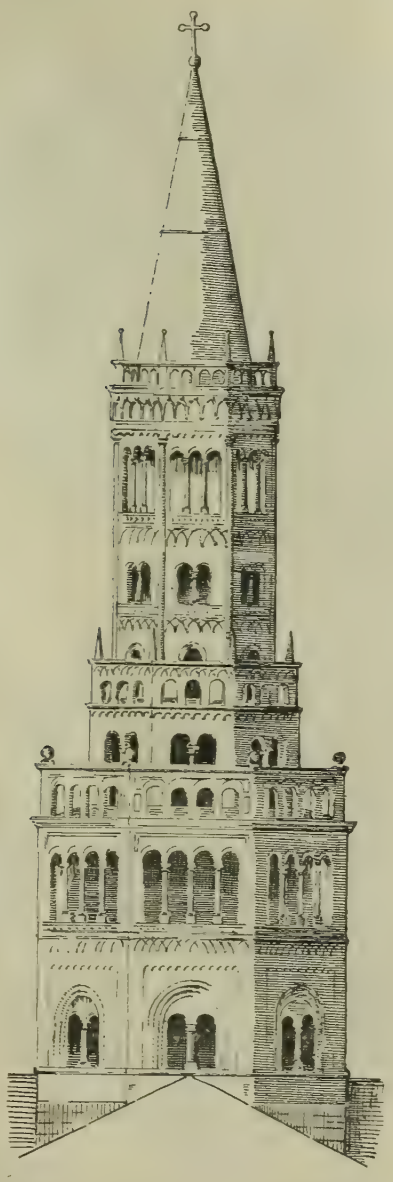


Fig. 16A.—Abbey of Chiaravalle.

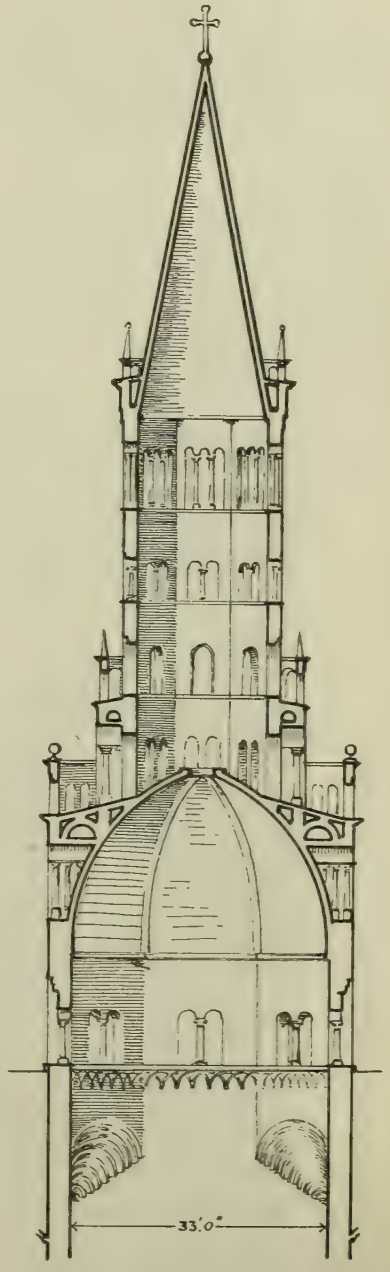


Fig. 16B.—Abbey of Chiaravalle.

CORRESPONDENCE.

The D.B.M.S.

Sir,—In your last issue the Editorial on "The Labour Government and Housing" mentions the "disastrous attempt to make a corner in building materials for public benefit under the D.B.M.S."

As the first Director of that department I may be pardoned for asking what evidence there is to justify that statement. During my connection with the D.B.M.S. it was under the Ministry of Munitions and the policy laid down and acted upon was that it existed for the benefit of the building public generally, and not for the housing schemes only. At first, at least, the energies of the Department were directed to the encouragement of the manufacture of building material rather than to its purchase.

In October, 1919, I retired and the Department was transferred to the Ministry of Health. Of what happened after I left I know little more than the rest of the world, but, had there been a corner or anything like an attempt to make one, I think I should have been one of the first to find it out. J. E. Drower.

Westminster.

***The Government admittedly purchased very large quantities of materials with the intention of providing what was necessary for housing schemes for, as our Leader stated, *public benefit*. It is common knowledge that this scheme was not satisfactory, and resulted in great delay and often expense, because contractors had at times to purchase in the open market to keep men employed as they could not get delivery. The term "corner," we think, was used justifiably, coupled with the intimation that the intention was for the general good. We did not intend to cast any reflection upon individual officers of the Department, who, we are ready to concede, did their duties and much arduous work in difficult circumstances. What we blame is the system.—Ed.

Yes, We Have no Unification To-Day!

Sir,—With reference to the letter received by me, and I presume other Associates, from the R.I.B.A. Defence League, signed by Mr. A. W. S. Cross and Mr. Sydney Perks, may I ask whether we should not, as architects, be in a much better position to-day to press our views upon the Government in the new housing situation if the recommendations of the Unification Committee had by this time been carried out? Quite apart from registration the situation seems, in the form of question and answer, to be as follows:—

Question.—Does the Royal Institute, in this important matter, represent at the moment the whole of the architectural profession?

Answer.—No; but on the other hand we *have* now decided to wear pink costumes on academic occasions.

Hope Bagenal.

Reinforced Concrete Arches.

Sir,—I find that within the last 12 months a reinforced concrete bridge over the Mississippi, having *arches* of which the largest is 400 ft. span, has been completed. This structure is peculiar in having the steel reinforcement framed as riveted structural steelwork, as distinct from work which has round or deformed bars.

W. H. T.

London.

Books Received.

Ideal Boilers, Radiators, Accessories. (The National Radiator Co., Hull, Yorks.).

Who's Who in Architecture, 1924. By Frederick Chatterton. (London: The Architectural Press.) Price 25s. net.

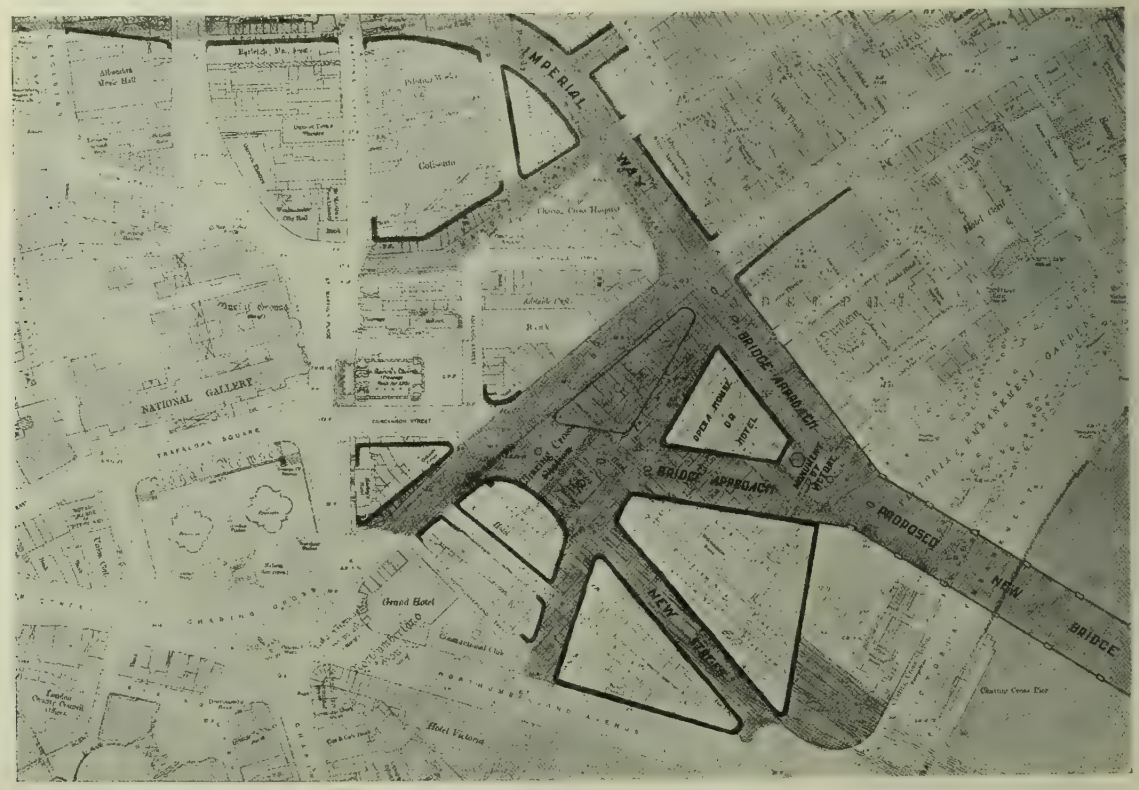
EXHIBITION NOTES

PORTRAITS.

One often feels inclined to ask why portraits are exhibited. It may be as portraits *qua* portraits, or it may be for their value as works of art. Those who like to study mankind would hardly find any exhibition of portraits entirely dull, but we imagine the aim of a portrait society goes beyond the mere setting forth of likenesses. We must say that we found the Exhibition of the Royal Society of Portrait Painters, at the R.A., interesting as to the character revelations of painters and their sitters, but aggressively irritating in the main effect. There are some exceptions, but taking the exhibition as a whole we should not like to think it was representative of the art of portrait painting in this country. Many of the good people who have sat for their portraits would doubtless, under certain conditions of light and colour, and free of intense self-consciousness, make subjects of excellent pictures were they treated with the quality shown by Fiddes Watt, in his "Portrait of a Gentleman" (No. 47), or the rare distinction of "Mrs. George" (No. 48) by Sir William Orpen; but the polished elegance of a high official, or the foolish effrontery of a simpering girl, need a great deal of the artist's reticence and grace to make them acceptable. How foolish and dull are the majority of these portraits compared with the admirable "Portrait of an Old Man" (No. 110), by Miss A. C. Tatham!

LANDSCAPE STUDIES.

Water colours, by Alex. Walker, at the Twenty One Gallery, show a sympathetic and tender handling of landscapes, and many of them have a pleasing sense of mystery, which adds to the interest. They are unequal in quality, but suggest a promise of much good work in the future—such a drawing as that of "Evening in Widdington" (No. 7) is a very complete and satisfying little picture.



Scheme for Approaches to the Proposed Charing Cross Bridge. By Mr. John Murray, F.R.I.B.A.

[This plan provides for one direct approach from Trafalgar-square *via* the Strand and Duncannon-street, and one approach from Piccadilly-circus *via* the proposed new Imperial-way. The Adelphi would be preserved lineable with and east of York Buildings. The existing Charing Cross monument and the Strand tube station would be left undisturbed in their present positions.]



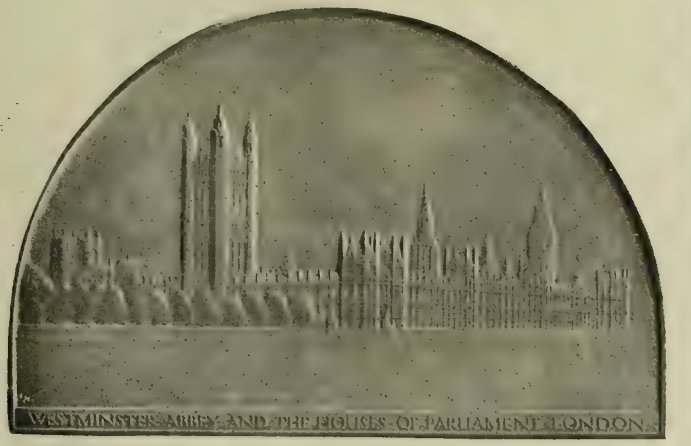
2½ in. Diameter.
THE TOWER. By MR. ALLAN HOWES.



2⅜ in. Diameter.
LONDON AS THE CAPITAL OF THE EMPIRE.
By MR. C. L. J. DOMAN.



2¼ in. Diameter.
TOWER BRIDGE. By MR. PERCY METCALFE.



Size 3¼ in. by 2 in.
WESTMINSTER ABBEY AND THE HOUSES OF PARLIAMENT.
By MR. ERIC BRADBURY.



Size 3 in. by 2⅛ in.
LONDON AS THE CAPITAL OF THE EMPIRE.
By MR. W. H. DOXEY.



Size 3 in. by 1¾ in.
NATIONAL GALLERY AND ST. MARTIN'S CHURCH.
By MR. ERIC BRADBURY.

Competition for London Plaquettes: Prize-Winning Designs.

[The full result of this competition was given in our issue for January 18.]

THE LAW RELATING TO BUILDING.

By W. T. CRESWELL, Lic.R.I.B.A., F.R.S.I. (Barrister-at-Law).

VI.—CERTIFICATES. (1)

Duties of the Architect or Surveyor in relation to Certificates in use.

THE granting of certificates for payment, by instalments, to the contractor by the employer, is one of the duties of the architect or surveyor; and in this he assumes the rôle of a (1) quasi-arbitrator between the parties when the final certificate is granted (see Chambers *v.* Goldthorpe (1901) 1 K.B. 624), and that of (2) agent of the employer in the granting of "progress" certificates—that is, certificates for payment of a proportion of the value of labour and materials on the site, from time to time as the work proceeds, this proportion being originally defined in the contract (see Tharsis Sulphur and Copper Co. *v.* McElroy (1873), 3 App. cases 1040), where the Lord Chancellor said:—"The certificates I look upon as simply a statement of a matter of fact, namely, what was the weight and what was the contract price of the materials actually delivered from time to time upon the ground."

Final certificates state that the work has been completed, and the contract fulfilled, to the satisfaction of the architect or surveyor; and that he assures the employer that the contractor is now entitled to payment of the balance of his account, as finally adjusted. The assurance of approval of the architect or surveyor must be expressed in the manner customary, or in any particular manner originally prescribed in the contract under consideration.

The architect's or surveyor's decision of the amount finally due is essentially a matter of figures, but he must also show the exercise of knowledge, skill, and judgment in the result. And if the employer or contractor is dissatisfied, no action will lie unless fraud or collusion can be proved on the part of the architect or surveyor. In Stevenson *v.* Watson (1879), 4 C.P.D.148, Denman, J., said:—"To hold that an architect was a kind of appraiser or valuer to look at certain work, cast up certain figures, and do rather clerkly than judicial work or the work of an arbitrator which requires the exercise of skill and judgment, would be to ignore the experience of every member of the Bar and Bench who has had to do with building contracts—and as many of us have had great experience of them, we ought to take it into consideration."

In Chambers *v.* Goldthorpe (1901) 1 K.B. 624, the Master of the Rolls in his judgment said:—"The question raised is whether, in ascertaining and certifying the amount payable by the defendant to the contractor, the plaintiff (the architect) was in the position of an arbitrator between the building owner and the contractor, or merely in the position of an agent to the building owner. If he were in the latter position he would clearly be liable for negligence; but if he were in the position of an arbitrator, then, beyond all doubt, the building owner could not sue him for negligence, for in that case he would only be liable to an action on the ground of fraud or collusion."

Unless otherwise provided in the contract, a certificate must be given by the architect or surveyor himself, though he may, with discretion, delegate another to take measurements for his calculations of the amount to be certified (see Clemence *v.* Clarke (1879), reported in Hudson on building contracts, Vol. II, p. 41). An architect's or surveyor's certificate as to a contractor's right to payment will be conclusive, even if, on the face of it, it is founded upon measurements made by another person on his behalf, provided it is not shown that the architect or surveyor has acted corruptly or abdicated his duty.

Unless the contract so provide, it is not necessary for the contractor to give notice to the employer before applying to the architect or surveyor for a certificate, nor for the certificate to be in writing (see Coker *v.* Young (1860), 2 F. and F. 98). In Farmer *v.* Legge (1797), 7 T.R. 191 Kenyon, C.J., said:—"A certificate imports that the party certifying knows that he certifies."

It is usually made clear in the contract that the certificate of the architect or surveyor is necessary before, that is, it is a "condition precedent to," any payment to the contractor; therefore, except in very special circumstances, the contractor cannot recover payment without such certificate.

In Morgan *v.* Birnie (1833) 9 Bingham 672, the contract prescribed that all the proposed erections should be done in a good and workmanlike manner, and with good, sound, and well-seasoned materials; and be completed to the reasonable satisfaction of the defendant's architect. The architect checked the builder's charges and sent them to the defendant. It was held that this was not a certificate of the "satisfaction" of the architect, and therefore did not enable the builder to sue the building owner (the defendant), although the latter had not put forward as an objection to payment that the certificate as rendered was insufficient. Tindal, C.J., said:—"It appears to me that the effect of a certificate would be altogether different applying to the manner in which the work had been done; while the checking the accounts applies only to the propriety of the charges." See, too, Milner *v.* Field (1850), 5 Ex. 829. Here the contract provided that no instalments would be paid unless the plaintiff (the contractor) delivered to the defendant a certificate signed by the surveyor of the defendant stating that the works were performed according to specification. It was held that the lack of such certificate was a good defence in an action for recovery of instalments. The above described certificates are distinguished as "good" and "not good," as they fulfil the contract or custom or not.

Where the contractor has provided sureties for his due performance of the contract, and he, by any wrongful means, obtain a certificate for work defectively done, that certificate does not discharge him or his sureties (see Kingston *v.* Harding (1892), 2 Q.B. 494). But, of course, there is an implied contract that the architect or surveyor will not capriciously or fraudulently withhold a "good" certificate (see Ludbrooke *v.* Barrett (1877), 46 L.J. (C.P.) 798), where it was held that the contractor, having duly performed his contract, and the architect having refused to grant a certificate to that effect, the architect and employer had fraudulently withheld payment.

The architect's or surveyor's duties generally continue until such time as he has fulfilled those duties under the contract, even if the contractor shall have forfeited his rights. Therefore, if a contract provides that payment is to be made as soon as a certificate is obtained, and an architect honestly withholds such a certificate, then no action can be maintained by the contractor for the amounts he alleges to be due to him, since the architect or surveyor is in duty bound to use his discretion and act as quasi-arbitrator (see Botterill *v.* The Ware Board of Guardians (1886), 2 T.L.R. 621).

1. The power of the architect or surveyor to certify on all matters included in the certificate, as between the parties, and such power and authority must exist at the time when the certificate is given.

2. The intention of both parties that such certificate shall be binding.

3. The certificate must be on such matters as call for the skill and judgment of the architect or surveyor; also, if it is honest and not fraudulent (in which case it is void), it still holds if it be not skilfully or accurately made.

4. It must be given without any unfair influence or interference and before any dispute has arisen.

5. It must be given, if so required in the contract, after the ascertainment of the facts upon which the power to give a particular certificate arises.

6. The certificate must plainly show its finality.

The architect's or surveyor's certificate cannot be set aside except in very special circumstances. It may be impeached for fraud or collusion, but cannot be questioned on the grounds of negligence, mistake, or idleness on the part of the architect or surveyor; indeed, if his certificate is intended to be binding, his ignorance or incompetence does not make the certificate void. It therefore follows, that if anyone employs an architect or surveyor who does not know his work, and who honestly certifies his satisfaction when he should not have been satisfied, such employer must take the full consequences of his choice of an architect or surveyor in matters where he has given the architect or surveyor power to act either by special contract or according to custom (see Goodyear *v.* The Corporation of Weymouth (1865), 35 L.J.(C.P.)12).



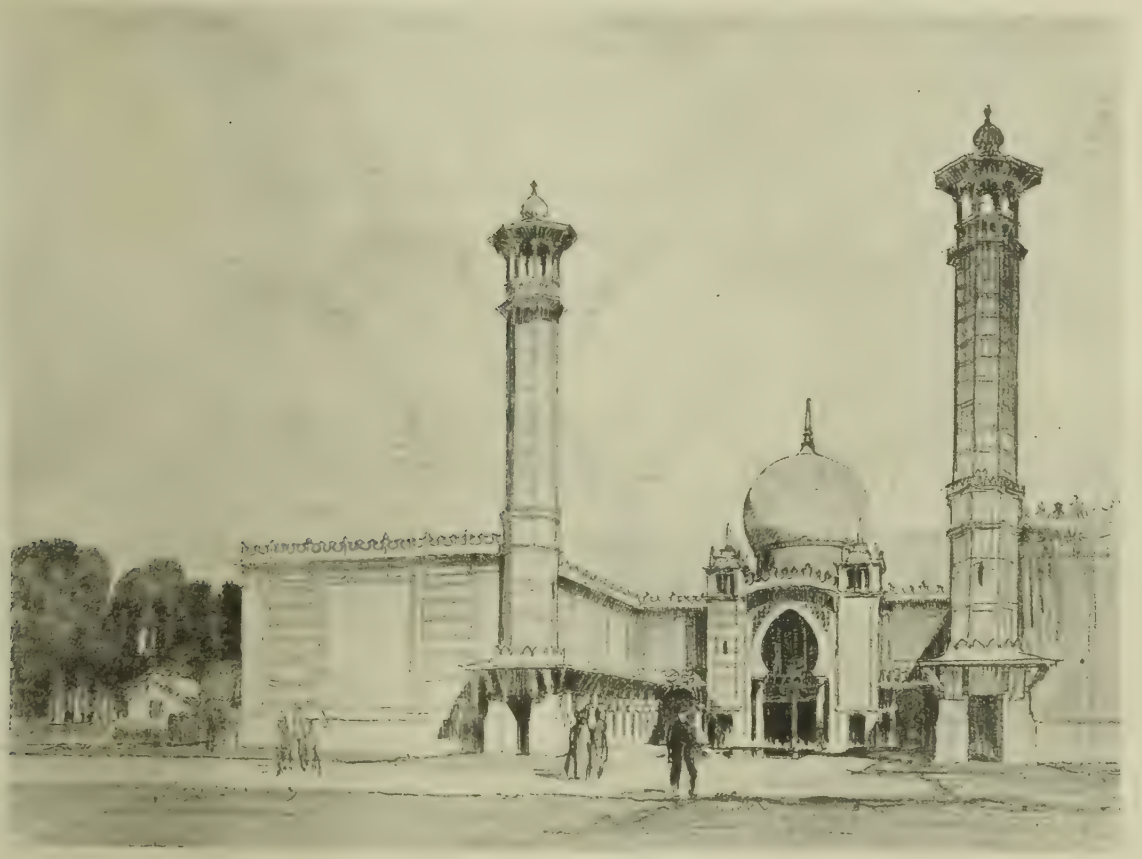
FIG. 14. ST. AMBROGIO, MILAN. (*See p.* 251.)



West Africa Compound: Looking towards Gambia and Sierra Leone.



West Africa Compound: Looking towards Main Entrance.



Malaya Section.



West Indies and British Guiana Building.

British Empire Exhibition.

Messrs. J. W. Simpson & Maxwell Ayrton, FF.R.I.B.A., Architects.

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ILLUSTRATIONS.

Stockton War Memorial.

This monument, which is built of Portland stone and rests on a reinforced concrete foundation, is raised upon three steps, immediately above which is a stone seat or base for the disposal of wreaths. The podium is crowned by a moulded capping from which rises the columned shaft of the monument. The plan of this is practically square, with curved ends and detached columns standing in front of semi-circular recesses. On the face of the shaft is a large bronze panel, enclosed by a reeded border, and bearing the Arms of Stockton-on-Tees contained in a wreath, and other decorations, with the inscription in raised lettering. The back of the shaft is ornamented by the Arms of the town carved in stone, within a wreath.

The general contractors were Messrs. Fenning & Co., Ltd., Palace Wharf, Rainville-road, W.6. Models for the bronze work were prepared by Mr. George Alexander, while the bronze panel, wreaths, urn, and wrought-iron railing enclosing the space occupied by the monument, were made by Crittall-Freeman Bronze, Ltd.

Part of the memorial consists of a vellum "Book of Remembrance," written and illuminated by Miss Price, Holmwood, and bound by Mr. Harold Pain. It is preserved in the adjacent Parish Church, in an oak desk made by Mr. Laurence Turner.

The whole of the work was designed and superintended by the architects, Messrs. Lanchester, Lucas & Lodge, 19, Bedford-square, W.C.1.

War Memorial in Kennington Park.

This memorial is to be erected on a site in Kennington Park, and is in memory of the Fallen of the 24th Battalion London Regiment, "The Queens." The memorial is built of Portland stone and has at its base a group of trophies in bronze and a bronze band running round.

The contractors for the monument are Messrs. Harvey Bros., of 97, Wyndham-road, Camberwell, S.E. The bronze trophies and band are being supplied by the Crittall-Freeman Bronze, Ltd. The sculptor is Mr. L. F. Roslyn, and the architects Messrs. Lanchester, Lucas & Lodge.

"Burnt Stub," Chessington, Surrey.

These illustrations, with the exception of the barn, show an addition made to this house since the war.

The barn, which stood only a few feet from the original house, which was long ago a small farmhouse, was connected to the house by means of a passage and a few steps, and was found to be in such good preservation that it was only necessary to strip the roof and relay the tiles and to replace one or two portions of the roof principals which had decayed, to form an admirable billiard room with oak panelled walls and oak floor. The fireplaces shown were, of course, additions to the original fabric, as were the lavatories adjoining. The end wall was pierced with French windows, giving access to a large covered loggia.

The house was originally a quite interesting farmhouse, but later additions were made of a suburban villa type, but which were removed when the late Sir Francis Barker purchased the estate. It was then decided to add to the house very largely and to cover the small existing portion of the building with brickwork to match that of the new addition. Small hand-made bricks of beautiful texture and varying colour were supplied for this purpose by Messrs. Ames & Finnis; the stonework to the windows, porch and battlemented parapet is of Ham Hill stone. The roof was covered with hand-made sand-faced tiles, of dark varied colours, also supplied by Messrs. Ames & Finnis.

The photographs of the entrance porch show the simple treatment of stone and brickwork. Inside the porch is an oak door, the wrought-iron latch and bell pull being designed and made by Mr. Frost. The photograph of the entrance hall shows the walls panelled to the ceiling with oak panelling supplied by Messrs. T. Crowther & Son, with an old Dutch chimney piece purchased by the owner. The dining room was based on details of Haddon Hall, the oak panelling supplied by Mr. Eshelby following exactly the detail of Haddon Hall panelling, as also did the plaster ceiling which Mr. Eshelby also supplied. The remainder of the house on the ground floor included drawing-room, morning-room, library, extensive tiled kitchens, sculleries, pantries, &c.

On the first floor are the bedrooms, dressing rooms, Lady Barker's boudoir and several bathrooms fitted with sanitary goods supplied by Messrs. John Bolding & Sons.

The general contractors for the whole of the work were Messrs. F. & H. F. Higgs, Ltd.

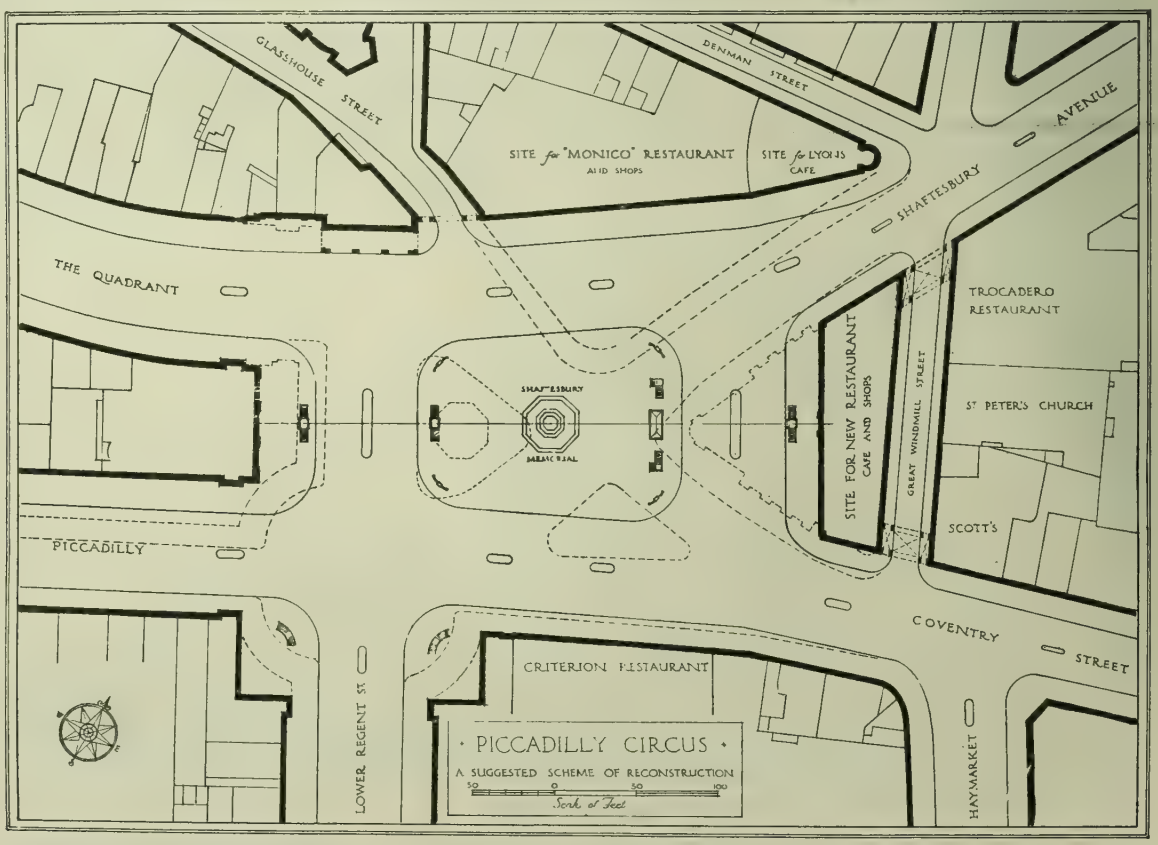
The architect is Mr. Leonard Martin, F.R.I.B.A.

The Squaring of Piccadilly-circus.

This scheme is by Messrs. W. Harding Thompson & P. D. Hepworth. The plan and view illustrated are self-explanatory.

Union Bank of Manchester, Blackpool.

This bank, about to be reconstructed, is situated in Birley-street. The lower story will be entirely of red granite, and the upper stories, which will be let off as offices, will be of Yorkshire stone. The whole of the internal fittings will be of oak; the public space will be covered with marble slabs, and the staff portion of wood blocks. The architect is Mr. Herbert Wade, of 2, Birley-street, Blackpool.



Suggestion for the Remodelling of Piccadilly Circus. By Messrs. W. Harding Thompson and P. D. Hepworth.





The Queen's Dolls' House : The King's Bedroom and the Dining Room.

Sir Edwin L. Lutyens, R.A., Architect.

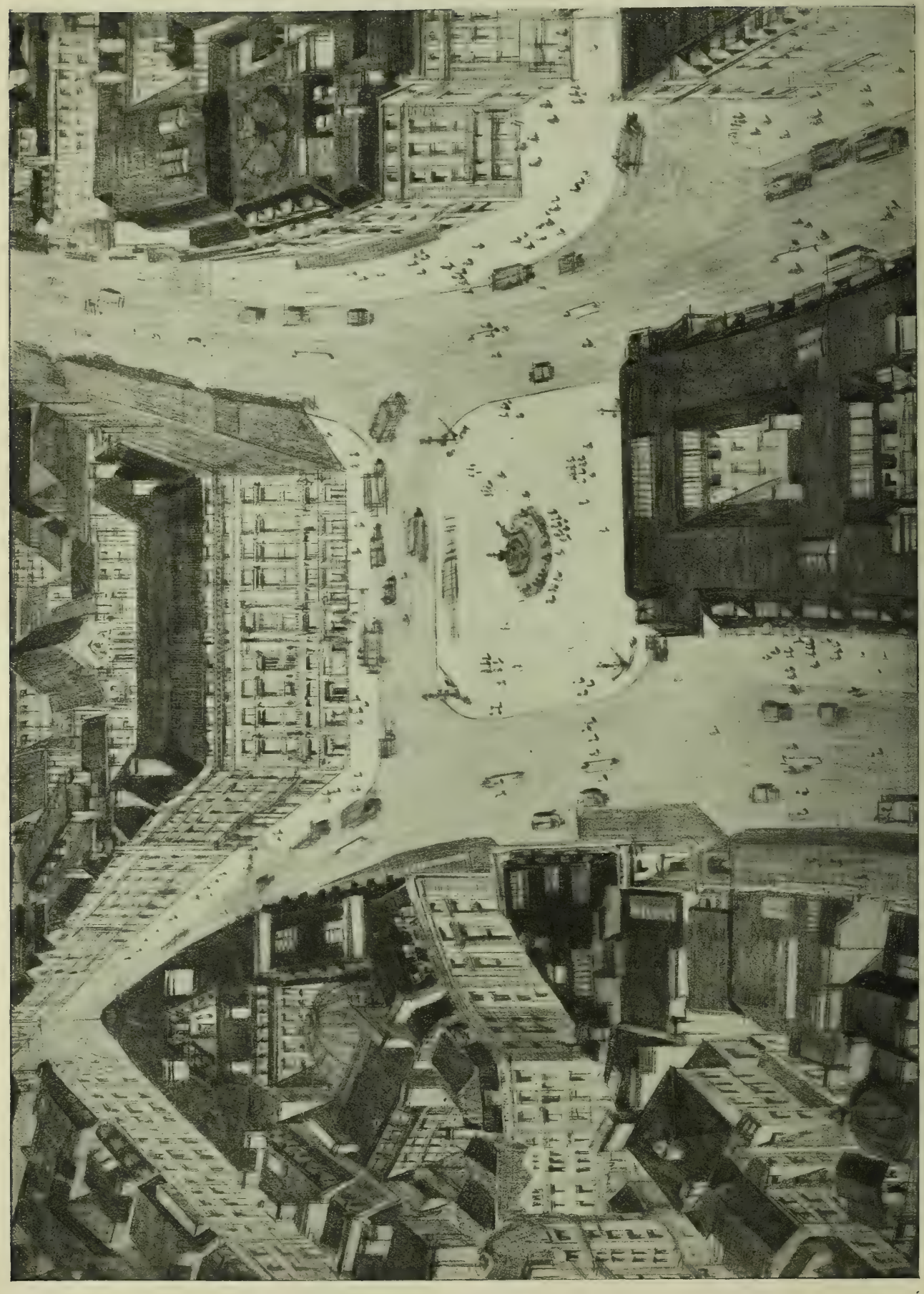
[A list of the artists and craftsmen who took part in this work is given on p. 263.]





The Queen's Dolls' House : The Library and Hall.

Sir Edwin L. Lutyens, R.A., Architect.



Suggestion for the Remodelling of Piccadilly Circus. By Mr. W. Harding Thompson and Mr. P. D. Hepworth.



Union Bank of Manchester, Ltd., Blackpool.

Mr. Herbert Wade, Architect.



War Memorial, Kennington Park, London.

Messrs. Lanchester, Lucas & Lodge, Architects.



Stockton War Memorial.

MESSRS. LANCHESTER, LUCAS & LODGE, Architects.



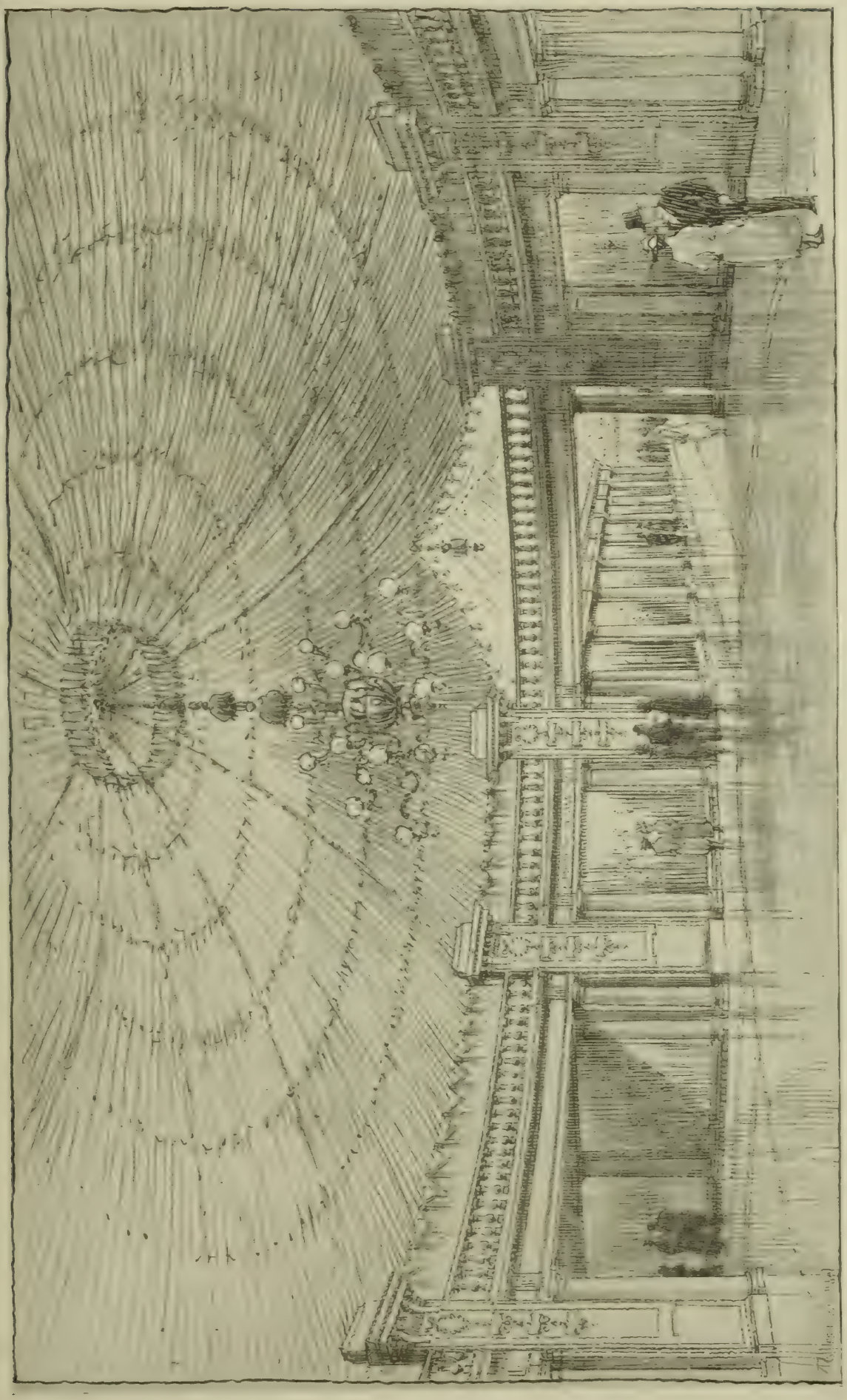
"Burnt Stub," Chessington; Garden Front and Dining Room.

MR. LEONARD MARTIN, F.R.I.B.A., Architect.



"Burnt Stub," Chessington.

Mr. Leonard Martin, F.R.I.B.A., Architect.



Design for a Fashions Fair. By MR. CECIL MASEY. (*See p.* 260.)

DESIGN FOR A FASHIONS FAIR.

THE design for a Fashions Fair, illustrated in this issue, has been prepared on lines incorporating architectural principles. The existing buildings are mere skeletons, and therefore the main central and side avenues have been formed as a colonnade with fibrous-plaster columns with complete entablature over. Above this a draped pendant roof would be formed in colour to conceal the roof trusses, and the central rotunda would be made a special feature with effects devised by means of a colour scheme and terminating in the centre with massive electroliers. Apart from this, lighting would be adopted by means of high power lamps above the drapery.

To relieve the monotony of a long uninteresting main avenue, a large central rotunda has been arranged, together with smaller rotundas at each end which would give vistas in all directions, and, in addition to giving direct emergency access, would make easy access to fire arrangements, in addition to which every exhibitor would have fire extincteurs in his stand. Seats would be arranged in the centre of the rotundas forming a rest space for visitors.

The main avenues would be connected at the extreme ends by corridors, which also give access to a dress salon in which mannequins would parade. A special stage gallery and staircase would be built for this purpose, and a distinctive feature would be made of novel lighting arrangements.

Club premises would be constructed for the use of exhibitors' staffs, where there would be a private restaurant, rest room and lounges.

R.I.B.A.

The attention of the Council of the R.I.B.A. has been directed to the action of certain members who were unsuccessful in a recent competition, in addressing letters to the Press impugning the award of the assessor. It is the opinion of the Council that unsuccessful competitors, if they feel that they have grounds for dissatisfaction with an assessor's award, should approach the R.I.B.A., and that the ventilation of grievances in the public Press without such reference to the R.I.B.A. is highly undesirable. It is to be understood that this expression of opinion by the Council is not intended to preclude genuine and disinterested artistic criticism of designs submitted in competition.

MEETINGS.

SATURDAY, *February* 16.

Architects' and Surveyors' Assistants' Professional Union.—Visit to Britannia House, Finsbury-circus, E.C. At the entrance, 1.45 p.m.

MONDAY, *February* 18.

Royal Institute of British Architects.—Mr. Paul Waterhouse, P.P.R.I.B.A., on "The Charing Cross Bridge." At Burlington House, Piccadilly, W.1. 8 p.m.

TUESDAY, *February* 19.

Liverpool Architectural Society.—Mr. L. Barnish on "Birkenhead." At 13, Harrington-street.

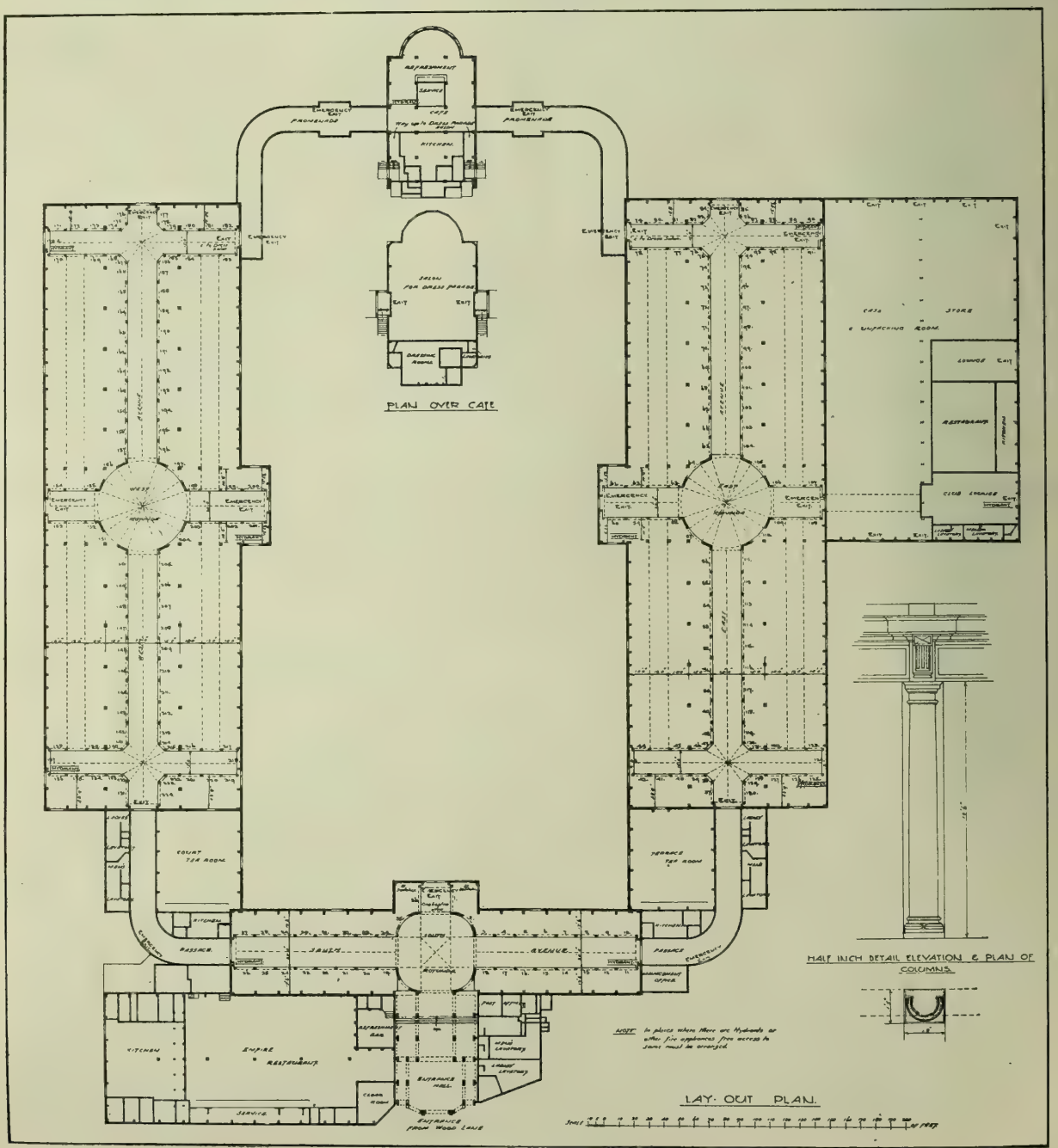
WEDNESDAY, *February* 20.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Roman Architecture." At Southampton-row, W.C.1. 6 p.m.

THURSDAY, *February* 21.

Society of Antiquaries.—Mr. J. D. Le Couteur on "The Shrine of St. Swithin in Winchester Cathedral." At Burlington House, Piccadilly, W.1. 8.30 p.m.

Institution of Electrical Engineers.—Annual Dinner. At Hotel Cecil, W.C.2. 7 p.m.



Design for a Fashions Fair. By MR. CECIL MASEY.

THE LONDON SOCIETY.

SLUM AREAS IN LONDON.

ON February 8 Lieut.-Col. Cecil B. Levita, C.B.E., M.V.O., J.P., Chairman L.C.C. Housing Committee, lectured before the London Society on this subject. The Rt. Hon. Neville Chamberlain, M.P., presided.

The Right Hon. Neville Chamberlain, M.P., in introducing the lecturer, said the subject of slum areas in London was by common agreement most urgent, and perhaps the most difficult, of all social problems. There was some comfort in the fact that they were not responsible for the cause of the problem, a legacy that came from their forefathers, the result of an industrial revolution about the eighteenth century. Before that the whole face of the country was different from the present day. The bulk of the people lived in the country, and though communications were extremely difficult they were not less happy than the people of to-day. The introduction of machinery, etc., and the introduction of the factory system meant changes in the habits and lives of the people as a whole. They got drawn into the cities, so to-day they found in every big industrial centre, above all, in London, vast accumulations of insanitary dwellings, which were responsible for high mortality and moral destruction.

Speakers on the slums often devoted nine-tenths of their words to the horrors and one-tenth to improvements. There was no easier way to disguise insufficiency of constructive ideas than by telling people what they already knew.

The creation and growth of slums had been a slow and gradual process; an accumulative process going on for 100 years. Those who imagined that by some heaven-sent remedy, or heaven-sent minister, they were going, in the twinkling of an eye, to clear the slums, were preparing for disappointment. It was not merely a question of pulling down and putting up so many houses. Take London, the most difficult of all cities. In nineteen wards they had an average of 53 houses to the acre and about 450 persons. That meant that the problem of the slum areas was not merely replacing one set of houses by another. It was a problem of the redistribution of a large part of the population. But they could not begin redistribution until they had somewhere for the population to go. They must have available housing accommodation. It would take time to produce sufficient surplus to bring them back even to 1910. In 1910 the shortage of labour was the chief difficulty, and he wished the Government every success in their efforts to increase building labour. They could not, in any case, get 250,000 houses a year for some time to come.

Town Planning had advanced by great strides during the last ten years. More and more town planners saw, when dealing with the surroundings of a great city, that it was hopeless unless they could deal with that part of the city which had already been built up. Not a town plan for one or two isolated parts, but for the whole city.

Lieut.-Col. Levita, having outlined the antiquity of the housing problem, said he was not actuated by any desire to extenuate the existing state of affairs, but rather to show the disastrous heritage of bad conditions, common to many ancient cities, bequeathed to the present generation. Those who know their London must admit that, although much remained to be done, a vast, though often unrecorded and forgotten, amelioration of its condition had slowly but surely accrued during the later period of its history.

The problem was much aggravated by the abnormal lack of housing accommodation. It must be remembered that in the statistics, both of accommodation and overcrowding, which were derived from the census of 1921, the acute shortage of housing had at the time of the census only existed for about three years. Conditions of high cost of living and shortage of housing which combined to drive people to overcrowding and slums, had existed for a long period. Consequently it was not feasible to execute any scheme of slum reconstruction until new accommodation had been built, in extent at least sufficient for rehousing adequately the same number of persons as were to be displaced.

A surplus of good working-class accommodation was the best automatic cure for overpopulated slums. Nevertheless, this desirable consummation in itself would not solve entirely the problem, for there were many insanitary areas which must absolutely be removed from the face of London.

Bad tenants could, and in fact frequently did, actually induce slum conditions, and when effectuating a reconstruction scheme they generally found a residue of such people that baffled efforts at rehousing.

The L.C.C. had in hand the reconstruction of seven insanitary areas representing:—

Persons displaced, 16,500; persons to be provided for, 14,500; area in acres, 55; estimated nett cost, £1,000,000. There were also a number of small schemes in hand or under consideration by borough councils.

At the present moment the Housing Committee was engaged in preparing a further number of schemes, as he was enabled to make an agreement, on behalf of the Council, with the late Government, whereby the latter had allocated to London an annual sum of not less than £50,000 out of a sum of £200,000 a year earmarked to meet losses arising yearly from slum clearance schemes undertaken in England and Wales. Unfortunately, it was estimated that there were nearly 1,000 areas, containing something like 11,500 houses, or approximately 100,000 persons over and above schemes already commenced, to be dealt with.

Many of these areas, by reason of their size or situation, were difficult to deal with satisfactorily by a scheme involving reconstruction of the site. These must be razed to the ground and the inhabitants entirely provided for elsewhere. "Zoning," namely, the allocation of the use of the land to its most suitable and economic purpose, always presented difficulties, and these were great in London.

In connection with the cost of building, it might be stated that all items were roundly made up of labour 45 per cent., materials 50 per cent., and profit 5 per cent. If they examined further, seeing that a considerable part of the cost of all materials was due to labour, it would be found that between 80 and 90 per cent. of the total costs of a building might be ascribed to labour. The shortage of skilled labour in the building trade seriously hampered everywhere the provision of new housing accommodation. This shortage, and, unfortunately, an increasing shortage, had been known to exist since the termination of the war; and it was regrettable that steps had not been taken by those concerned to overcome it. The building industry to-day was probably at least 25 per cent. weaker than in pre-war days, and it was not very encouraging to note that the numerical strength of the operatives engaged in this great industry had decreased by 50,000 in the last twelve months.

With regard to new legislation, it was suggested that instead of proceeding to acquisition, clearance, and rehousing when an area had been declared, after public inquiry, to be an insanitary area, the local authority should be empowered to suspend all action for such a period as, having regard to all the facts, seemed fit.



SHOWING OUTER WALLS RAISED.

The Queen's Dolls' House. SIR EDWIN L. LUTYENS, R.A., Architect.

ARCHITECTURAL PRIZES AND STUDENTSHIPS.

In our issue for February 8 we gave the annual address of Mr. J. Alfred Gotch, President of the Royal Institute of British Architects, to architectural students. We have pleasure in now giving extracts from the criticism given by Mr. Henry M. Fletcher on the same night.

In the course of his remarks Mr. Fletcher said criticism had been described as "the adventures of a soul among masterpieces," and although the achievement of masterpieces might hardly be expected among students' designs, save once or twice perhaps in a half-century, who could tell that this might not prove itself one of the golden years? It would be unfair, as well as foolishly rash, to say that none of those whose work they saw that night had it in him to achieve a masterpiece one day. There had been great men of all kinds, late developing, whose early attempts bore little promise of their maturer fulfilment, and among architects there were those whose genius, like a fowl's gizzard, needed something grittier than an imaginary programme to stir it into effective working. And there was this to be said for this year's competitors, that they had competed. Two of them, it was true, in the Owen Jones studentship and the Grissell Medal, competed against nobody, but that was not their fault—they put their fortunes to the test.

No, it was not a golden year, and the task of criticism offered few delights. Six entries for the Soane Medallion, the most famous and fame-bestowing architectural prize in the kingdom, with a subject to tempt the most soaring imagination. In this case, he was happy to say, the competition, though among so few, had been of a quality to admit the awarding of the medallion.

Four for the Pugin Studentship, but no award. Three for the Essay Medal, no award. One for the Owen Jones Studentship, which was awarded. One for the Grissell Medal, no award. For the Arthur Cates Prize, no entries.

It was a melancholy list, and needed careful consideration by the Institute, the Schools of Architecture, and all who were interested in architectural education, whether as administrators, masters, or learners. Mr. Fletcher, after discussing in detail the various works, said it was clear from the unsatisfactory state of the competitions that something was wrong somewhere, and he took it that the duty of a critic was not only to comment on the individual work submitted, but also, and perhaps even more urgently, if the occasion called for it, to discuss the conditions under which the prizes were competed for and awarded.

What, then, were the causes of this apparent lack of interest? Was the whole rising generation of architects wanting in ambition? If so, as Alexander Selkirk said of the beasts in his solitude:

"Their tameness is shocking to me."

But he did not for a moment believe it. On the contrary, he believed, and all his experience as a member of the Board of Education confirmed the belief, that there was a great, even an unusual, vitality and enthusiasm for architecture in the present generation of students. They must look further afield, and drop, if they were inclined to take it up, the notion so comforting to the middle-aged, that the younger men did not work as hard, or as keenly, as they themselves did, for it would not fit the facts.

The main cause appeared to be the immense change which had come over the whole system of architectural education in this country since the last century: these prizes and studentships were founded to suit the old system of scholarships. The school courses, which in the principal schools extended to five years, were so absorbing that they left no time for the prolonged extra work called for by such competitions as the Soane and the Tite. It was difficult to see, though it should be inquired into, whether these competitions could be in any way incorporated into the work of the schools with fairness to students who were outside the schools, and without destroying the spirit of individual initiative which it was the intention of the founders to foster. It was true that they were open to competitors long after the school age—indeed, up to 30, 35, and 40—but it must be remembered that architectural education nowadays entailed a rather prolonged claim upon the resources of parents, and it could not be called money-grubbing if students felt it their duty, in return for this, to set about earning their own living with as little delay as possible. It might be, too, that some of the studentships were hampered with conditions which made them less attractive now than in former times and in different circumstances. Possibly there was a fashion—they were all subject to changes of fashion—for standing aside from Institute competitions. If so, it was time the fashion was changed again, and a more intelligent fashion set up in its place. Or, again, the whole thing might be one of the obscure consequences of the war, which would tend to correct itself if and when the world came right-side up.

The position was difficult, and had to be faced. It would be a calamity if prizes, which in the past had been contended for by the most distinguished throughout many generations of English architects, were to fall into disuse. He had endeavoured to point out some of the reasons for the present slump, to diagnose the symptoms of the disease, but the prescription of the remedy called for the careful investigation of many facts, and the collaboration of all those, or representatives of all those, who cared about architectural education. The Board of Architectural Education had appointed a committee capable, by its constitution, of looking at the matter from every point of view. It would be their job to look at it very hard, and to consider whether the difficulty was temporary or permanent, whether or no alterations should be made in the schools or the prizes, or both, in order to bring students and prizes nearer together; what accretions time had stuck on the original intentions or constitutions of these prizes; and what alterations, if alterations were desirable, could be made in the trusts or deeds of foundation, remembering that the prime intention of the founders was that these prizes should be awarded in perpetuity, and that any condition which hindered this prime intention, even if expressed in the most legal of legal phrases, was an encumbrance to be got rid of to the utmost that the law allowed. They looked to them to restore the ancient lustre to these historical contests.



Main Entrance.

"Burnt Stub," Chessington. Mr. Leonard Martin, F.R.I.B.A., Architect.

QUEEN'S DOLLS' HOUSE.

In this issue we give some illustrations of the Dolls' House, designed by Sir Edwin Lutyens, R.A., to be presented to Queen Mary by those who have helped in its production as artists, craftsmen, or donors, the list of whom includes the following :—

Hall and Staircase.

Artists or Craftsmen.—Balustrade : Mr. and Mrs. J. Starkie Gardner. Lifts : Messrs. Waygood-Otis, Ltd. Lanterns : Mr. and Mrs. J. Starkie Gardner.

The Library.

Artists or Craftsmen.—Walnut panelling, shelves, &c. : Messrs. J. Parnell & Son. Ceiling : Mr. William Walcot. Fireplace : Messrs. H. T. Jenkins & Son, Ltd. Sculpture : Mr. V. Martorell.

Dining Room.

Artists or Craftsmen.—Ceiling and overdoors : Prof. Gerald Moira. Limewood carvings : Messrs. W. Turner Lord & Co. Fireplace : Messrs. H. T. Jenkins & Son, Ltd.

The Saloon.

Artists or Craftsmen.—Ceiling : Mr. Charles Sims, R.A.

King's Bedroom.

Artists or Craftsmen.—Fireplace : Messrs. H. T. Jenkins & Son, Ltd.

King's Bathroom.

Artists or Craftsmen.—Mother-of-pearl electric fittings : Messrs. Noble & Co. Sanitary fittings : Messrs. John Bolding & Sons, Ltd.

King's Wardrobe.

Artists or Craftsmen.—Ceiling : Mr. W. G. de Glehn.

Queen's Bedroom.

Artists or Craftsmen.—Ceiling : Mr. Glyn Philpot.

Queen's Bathroom.

Artists or Craftsmen.—Ceiling : Mr. M. Greiffenhagen. Floor, mother-of-pearl : Mr. W. W. Mitchell. Sanitary fittings and plumbing : Messrs. J. Bolding & Sons, Ltd. Bath, alabaster : Messrs. H. T. Jenkins & Son, Ltd.

Queen's Wardrobe.

Artists or Craftsmen.—Ceiling : Prof. R. Anning Bell.

Day Nursery.

Artists or Craftsmen.—Wall decoration : Mr. Edmund Dulac.

Queen's Sitting Room.

Artists or Craftsmen.—Wall decoration : Messrs. Wm. Clouds, Mr. Glowson.

Exterior.

Artists or Craftsmen.—Lifting apparatus : Messrs. Redpath, Brown & Co., Ltd. Lead figures : Sir George Frampton. Lead vases : Messrs. T. Elsley, Ltd. Carving : Mr. Eric Broadbent. Roof slates : Messrs. Stirling & Johnson, Ltd. Painting exterior : Messrs. Muntzer & Son.

The entire structure was made by Messrs. J. Parnell & Son, at Rugby.

Messrs. Higgins & Griffiths carried out the electrical installation.

Messrs. Muntzer & Son painted the house externally and internally.

The marble work was all executed at Torquay by Messrs. H. T. Jenkins; the marbles used came largely from India.

All the wood carving both external and internal (except in the dining room) was done by Mr. Eric Broadbent.

All the grates, fender and fire-irons, locks, bolts, handles, are the work of Messrs. T. Elsley, Ltd.

Jerusalem Public Works.

The Director of Public Works, Russian Buildings, Jerusalem, desires to receive regularly from manufacturers catalogues, price lists and other advertising literature, concerning all kinds of plant, tools, instruments, and materials requisite for general public works, including road building, water and electricity supply, building construction, drainage, &c

ART STUDENTS' PAINTINGS.

In the course of a recent joint letter to *The Times* Messrs. Walter Bayes, William Rothenstein, Charles Sims and Henry Tonks stated, in view of the discussion aroused by the rejection of the paintings prepared by London art students for the approval of the London County Council, they thought it desirable to state the facts of the case as they appeared to them.

When the new County Hall was nearing completion, Mr. Charles Sims and Mr. Ralph Knott, the architect of the building, who were both interested in the revival of mural decoration, suggested that four of the principal schools of art should submit designs for decorating panels in one of the Council chambers. Mr. Knott, while unable to guarantee the unqualified acceptance by the Council of the designs, was able to assure them that the proposal had their sympathy. Subject to their approval of the designs the Council would pay £50 to each of the four schools concerned for working expenses. The proposal was willingly accepted. Feeling that the official rooms should be reserved for decoration by tried artists, they preferred to confine the experiment to a small part of one of the many corridors intersecting the vast building. The eight principal lunettes were subsequently fixed in the corridor and were accepted at a meeting of the Establishment Committee of the L.C.C., at which Mr. Sims was present. The students were duly informed.

After some weeks they heard that the committee had rescinded this, their resolution. They accordingly addressed a letter to the chairman, expressing their dismay at this unexpected issue to a hopeful experiment.

In the course of a letter to *The Times* of February 11, Mr. Andrew T. Taylor stated the challenge to the L.C.C. could not be ignored.

He was entirely in favour of appropriate mural decorations for the County Hall, at the proper time. A noble public building should be a harmonious symphony of architecture, sculpture, and painting; if one of the three was wanting it was incomplete, but they must be harmonious in their style, concept, and treatment, which was not the case with the designs under discussion.

In the Hotel de Ville in Paris they did not find that its splendid chambers and salons were decorated by young students from the art schools, but that artists such as Puvis de Chavannes and others had been commissioned; and all over the Continent, and especially in Italy, the town halls and public buildings were glorious with the genius of their greatest painters. He should gladly hail the advent of the personal work in their County Hall of any or all of the four artists who signed the manifesto.

They owed a duty to their great artists, who had by patient study, long experience, and outstanding ability risen to the top of their profession, that they should not be passed over in favour of immaturity. There were many schools and halls in the poorer parts of London that would welcome the work of their students in art schools, with a twofold advantage—drab neighbourhoods would be brightened, and students themselves would gain experience in the execution of mural painting in actual buildings.

In the course of an interview Mr. Halsey Ricardo said without actuality the art of mural decoration could not progress. Merely imaginary work was not of the slightest use. He felt very strongly that young students should be encouraged to experiment, not only in the schools and studios of artists, but on the actual walls themselves. How else, taking into account the lessons of history, could the art of mural decoration progress? After all, the experiment—at an extremely inexpensive rate—was only in a small part of one of the corridors.

Schools of art were supported by the State, and, presumably, the ratepayers' money. If their work were not considered good enough after having been once accepted, people would naturally say, "What is the good of them? Scrap the lot."

WAR GRAVES IN FRANCE AND BELGIUM.

The fourth annual report of the Imperial War Graves Commission states that, outside the United Kingdom (excluding the Dominions), work has been begun in 1,045 cemeteries, communal cemeteries, churchyards, and burial grounds, and in the case of 725 the constructional work has been completed. Of these last 557 are situated in France and Belgium, 80 in Italy, 21 in Gallipoli, 24 in Sweden, 14 in Egypt, 10 in Macedonia, 10 in the Balkans, four in Palestine, and one each in Kenya, Gibraltar, Persia, Finland, and Switzerland. The remaining 320 are still under construction. and of these 287 are in France and Belgium, four in Italy, 15 in Gallipoli, five in Palestine, one in Egypt, four in Holland, and four in Kenya. The number of headstones which have been shipped to theatres of war is : To France and Belgium, 174,552; to Macedonia, 8,489; to Egypt, Palestine and Gallipoli, 11,000; and to Italy and elsewhere, 7,734—exclusive of headstones erected in the self-governing Dominions. In the United Kingdom contracts have been placed for constructional work in 83 military plots in cemeteries, of which 62 have been completed. Headstones have been erected in 43 of these, and in addition 1,547 headstones have been erected in 600 other churchyards.

The memorials to the missing in Italy and Macedonia have been completed, and nine more are under construction, of which three are in the United Kingdom, two in France, three in Gallipoli, and one in Egypt.

The Commission have provisionally decided on the following places for the erection of memorials to those who fell in France and Flanders, but have no known graves : Nieuport, Ypres, Armentières, Bethune, Arras, Pozières, Amiens, St. Quentin, Cambrai, La Ferté sous Jouarre, and Soissons; and one near Neuve Chapelle, to commemorate the missing of the Indian Army. The sites for the memorials are under consideration, as also is the method of calling for designs, and the President of the Royal Institute of British Architects has consented to advise on the matter and to appoint assessors.

It has been decided to erect in a number of Cathedrals in France and Belgium, as a joint commemoration of the million or more officers and men of the whole Empire who fell during the war in all parts of the world. tablets similar in general form to that unveiled last summer in Amiens Cathedral by the Duke of Connaught.

The construction of the three naval memorials is proceeding satisfactorily. The one at Chatham will be completed by April; the Plymouth memorial should be ready by June; and the Portsmouth memorial will be ready about August. The three memorials are similar in design, each consisting of a column of Portland stone about 100 ft. in height, standing on a base with four buttresses surmounted by sculptured lions. At the top of the column are four bronze figures representing the four winds, above which is a copper sphere. Round the base of the column and on the buttresses are 32 bronze tablets, on which will appear the names of the missing. Above the name panels are four others, commemorative or symbolical, one on each side of the memorial.

Royal Academy Summer Exhibition.

The Summer Exhibition of the Royal Academy this year opens on May 5, and closes on August 9. The days for receiving works are as follows :—Water colours, pastels, miniatures, black-and-white drawings, engravings and architectural drawings, March 28; oil paintings, March 29 and March 31; sculpture, April 1. The hours for the reception of works are from 8 a.m. to 10 p.m. (except March 29, when the hours are from 8 a.m. to 2 p.m.). Not more than three works may be sent by any one artist. Labels and forms may be obtained, during the month of March only, from the Secretary, Burlington House, W.1.

APPROXIMATE ESTIMATES.

On February 11 Mr. Alan Paull read a paper on this subject before the Surveyors' Institution.

In the course of his remarks he said it would ease the life, and, incidentally, increase the earnings of quantity surveyors if bills of quantities were prepared for every building scheme, and remuneration received for such work. This, however, was Utopian, as human nature rebelled against paying for brainwork from which no benefit could be directly traceable; so they found the words "approximate estimates" had come to the fore.

If they traced the usual procedure in the matter of approximate estimates for building schemes they found the architect received from a client an outline of the sort of building he had in his mind, enumerated the amount of accommodation required, and then added as an afterthought that he was not prepared to spend more than so many pounds. The architect proceeded to prepare sketch plans, skeleton elevations, and perhaps a section, though more probably he contented himself with indicating on the elevation the floor levels. He then communicated with his quantity surveyor, and asked for an approximate estimate. It was here that experience of an architect's usual method of working out his schemes in detail was very essential and valuable.

How was the approximate estimate to be prepared?

It would, he suggested, be conceded that cubing was the most common of all methods. Cubing meant taking the outside size of the building, ascertaining the area occupied, and multiplying the result by a height taken from the top of the concrete in the foundations to half-way up the roof. It was advisable also to cube the chimney-stacks, bays, dormers, and other outstanding features, and include them in the total. A worrying point was often what depth of foundations to allow for, so it was essential to find out on what sort of site the building was to be erected, and the nature of the ground. Having obtained all the information possible under the above headings, came the crux of the whole problem, namely, the price per foot cube. It was only experience and comparison with the actual cost of similar class of work which could be a safe guide. To attempt to make a schedule as to the prices for various classes of building would, in his opinion, be absolutely misleading and valueless, as practically every job had to be viewed from its own angle. Not only had size to be considered, but position, whether the site was easy of access, whether the materials proposed to be used were easily obtainable in the locality, and the general character of the finishings. It might sound a heresy to many, but in his opinion success in deciding on the amount for approximate estimates depended largely on intuition, and no rule of thumb method could be laid down without becoming a trap for the beginner.

After deciding the price per foot cube for the building, in many cases the cost of central heating, electric wiring for lighting and heating, drainage, fencing, and paths had to be considered. In the first two cases it was advisable to pass on the approximate estimates to specialist firms, and in the remainder to take out the quantities roughly and price them at current rates. The cost of all these having been ascertained, the additional price per foot cube could be calculated and the report made out. Approximate estimates for buildings with deep basements presented a different problem. In these cases he was in favour of roughly taking out the excavation and brickwork, etc., up to ground level, as a guide to arriving at a price per foot cube, and treating in the same way any underpinning that might be required.

In the preparing of approximate estimates for alterations and additions to existing buildings it was advisable to visit the premises before attempting to place a value on the proposed works. The general method of construction and finishings must be noted, and it might be necessary to open up to ascertain the depth of foundations. Where distinct additions were proposed, these could be cubed in the ordinary way, and then any pulling down of walls or partitions, the erection of new partitions, etc., the blocking up of existing openings and cutting of new ones must be considered. It was also advisable to ascertain whether redecorations were to be included in the report.

Rough quantities was another method of preparing approximate estimates, but to his mind, except in the circumstances he had indicated, there was greater liability to error than in the accepted cubing. It was always a difficult matter to decide how much to take off and what to include in the descriptions. Pre-war it was generally accepted that in 1½ brickwork the finishings, both externally and internally of an opening, could be set against the deduction in the brickwork, and this still held good if the cost of ironmongery be added. Another drawback to this method was the time occupied in tabulating the various items, and where no payment could be anticipated for one's time and trouble this was a serious matter. In asking for an approximate estimate in a kind of off-hand way they were really making a demand for great skill and experience.

The issuing of certificates during the progress of the work might be said to come under the heading of approximate estimates. Where there were no bills of quantities these could be prepared only by carefully ascertaining the ratio the work done bore to the whole, and reporting in accordance therewith. Where bills of quantities priced in detail were available, it was then possible to come to a conclusion as to what proportion of each trade had been completed, not forgetting the preliminaries and provisional sums, until the work was approaching completion, when the total cost should be taken, and a deduction made for what had still to be done, and for the retention money under the contract.

One of the most difficult forms of approximate estimates was issuing certificates where work was being done under a priced schedule, and there also occurred a large amount of work as daywork. Further complications occurred where the client ordered work of a character not previously contemplated, and for which, therefore, there were no schedule prices. As was well understood, it was not always possible for measurements to be completed of any definite section, so that it could be billed and priced; so it was by no means easy to hold the balance fairly between the employer and the builder. In these circumstances he generally examined the method adopted by the builder for keeping his prime cost, and, if satisfied with it, he went through his figures as a help in arriving at an approximate estimate. In the early days of the lecturer's practice great stress was laid on the use of constants for labour in making approximate estimates.

The introduction of labour-saving machinery, first of all in stone working, not forgetting mouldings in joinery, and latterly in digging, concrete mixing, and breaking up of aggregate, had made it practically impossible to rely on any of the old tables. As far as his knowledge went no attempt had been made to form any tables meeting the new conditions of work, nor, he suggested, if any were formed, would they be of service after a very short period, considering the changes that were always taking place in the use of different materials and the varying speed of the human machine.

Thus far they had been considering approximate estimates from a surveyor's point of view, but to his mind even what they called a firm tender from a builder, when based only



The Sarawak Pavilion.

British Empire Exhibition. Messrs. J. W. Simpson & Maxwell Ayrton, FF.R.I.B.A., Architects.

on drawings and specification, was nothing more than an approximate estimate. He undertook to carry out certain work for a definite amount, which he considered would not only pay for all labour, materials, and overhead charges, but also leave him a good margin for living expenses. They all knew how often his anticipations came true, but who had not had the experience of being told of losses having been made? They might have a shrewd idea that losses meant that not as much profit had been made as anticipated, but, after all, they came back to the point that such tenders were, in fact, approximate estimates.

Very often, when an approximate estimate was being discussed, the question was asked, What is the relative cost of building work at the present time compared with pre-war? This did not admit of an easy reply, as in ordinary work methods of construction were adopted, and materials used, very different from the pre-war days; but speaking from his own experience, he was inclined to suggest the present-day cost was 1¾ times over pre-war.

There was one form of approximate estimate which, he understood, was used for insurance purposes, namely, by ascertaining the area of the rooms, or what was known as "carpet area," and attaching a price per 100 ft. super.

A quantity surveyor should first arrive, in the usual way, at the cost of the building before attaching any price to the floor area. He was aware that this floor area was often taken at a letting value for the purposes of a valuation of the property, but this was outside the scope of the present paper.

DEVELOPMENT OF LAND.

Mr. J. J. Done followed with a paper entitled "Approximate Estimates for the Development of Building Land."

With matters in their present fluctuating state, he said, one could do so only with great diffidence, and rather with the desire to assist than with any feeling that the assistance might be of real value.

Before the war the all-round figure which he had in his mind was that the cost of developing building land could be reckoned at about £300 per acre. That was a figure which he had employed on many occasions, and which had generally justified itself; that was for plots having a depth of 100 to 125 ft. deep. Deeper plots required less road-making per acre, and therefore, some modification of that figure. At the present time the cost of development was not easy to reckon; but the following figures might be of some assistance.

In July, 1914, he obtained an estimate for a road 730 ft. long and 50 ft. wide, which came to £1,129. This included kerb, channelling and other works, forming a complete and fully-metalled road and paths, and requiring a sum of £55 for making a sewer connection under a tramway. In May, 1922, on the same bill of quantities, another estimate was obtained to see if it was practicable to go on with this road; and on this occasion the lowest estimate was £2,621 6s., that was nearly 2½ times as much. Since then he thought the cost of road-making had somewhat decreased, but for his own purposes he should be inclined, as a rough estimate, to take £750 per acre as against his former £300.

The following prices for a road at present under construction might furnish some guide:—

9-in. sewer, average 8 ft. 3 in. deep: 10s. per ft.;
Manholes: £5 per ft. of depth;
Storm-water drain, average 5 ft. deep, part 9-in., part 12-in., and part 15-in. pipes: 8s. per ft. run.
The pipes themselves cost as follows:—
343-ft. run of 9-in. pipe, 2s. 7d.
179-ft. run of 12-in. pipe, 5s. 1d.
291-ft. run of 15-in. pipe, 7s. 4d.
Inspection chambers, about 5 ft. deep, £20 each.
Gulleys, £12 each.

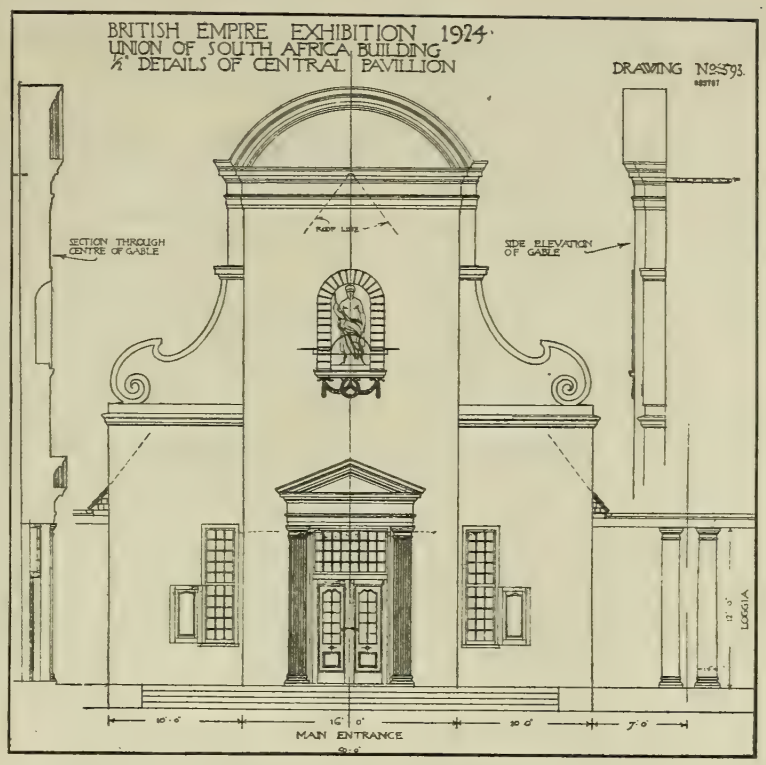
As regarded the cost of road-making, he had no figure for kerb and channel, as he did not think at the present time this was a justifiable expense in a builder's road; but the following figures for road-making might be of some assistance:—

Dig to top spit about 6 in. deep, and lay aside best turfs for re-use, at 3s. cube per yard.
Dig to clay and wheel and deposit (one run) spread and level for formation, including forming batters to cuttings and embankments, at 3s. cube per yard.
Dig to clay and remove and cart away or wheel, average 8 runs, at 3s. cube per yard.
Shoot clay or other approved spoil to fill up low places and to form embankment. Spread level and consolidate to formation level, including forming batters to embankment, at 1s. cube per yard.
Provide screened well-burnt clinker or other approved material, and well roll with a 10-ton roller to be 3 in. thick after consolidation, at 8d. per yard sup.
Provide good clean hard core, and well roll as before to 9 in. thick after consolidation, at 3s. 3d. sup. per yard.
Provide and spread gravel, or clean flints, to pass 2½-in. ring and roll as before to 3 in. thick after consolidation, and form proper cambers, at 3s. sup. per yard.
Lay turfs or top soil laid aside as before described to form cambers at side of metalled surface, and roll with hand roller to proper falls, at 4d. sup. per yard.

In addition to the foregoing figures 10 per cent. should be added for contingencies, including surveyor's charges for quantities, district council's fees, &c.

In making an estimate of the probable cost of development, in addition to the roads, the following items had to be taken into account:—(1) The redemption of land tax, if any; (2) the redemption of tithe-rent charge, if any. This was not absolutely necessary, but it was very desirable in the majority of cases. It was his custom on one estate not to redeem the tithe, because landlords continued to pay as before, which saved trouble. (3) Compensation to tenants on obtaining possession. (4) The cost of diversion of footpaths, his first experience of which was an account for £40, and his most recent, £70, for the same thing. (5) The loss of interest during the process of development; surveyor's commission for the introduction of builders; legal expenses, &c. As to these, one could offer no reasonably reliable guide, because if the estate went off rapidly it was one thing, but if it hung fire it was another and very different thing.

[A report of the discussion on these papers will be given in our next issue.]



British Empire Exhibition.

MESSRS. J. W. SIMPSON & MAXWELL AYRTON, FF.R.I.B.A., Architects.

Kelly's Directory.

WHAT a different place London would be if it had been arranged as systematically as its Directory, and if its development had been as carefully attended to! This year's *Kelly's Directory*, just published (London: Kelly's Directories, Ltd., 186, Strand, W.C.2; price 55s.), has been brought up to date with the thoroughness and carefulness characteristic of this volume. The number of corrections made in this edition exceeds 350,000, principally caused by changes during the past twelve months in residential and business addresses and professional and trade descriptions; alterations necessitated by postal and telephone regulations, and the developments in the social, political, municipal, official, legal, financial or banking activities in the Administrative County of London. Within this comprehensive edition of some 4,000 pages will be found the names and addresses of the inhabitants of London, classified (1) according to streets, and (2) in alphabetical lists of the private residents and of those engaged in professions, commerce or trade. The Classified Trades Section gives an alphabetical list of London's professions and trades (over 5,000), each with a list of those engaged therein. A closer analysis of trade headings than has hitherto been attempted is given. Particulars of the establishments of the various Government departments with alphabetical lists of officials; the seating plans of the leading London theatres; and a transport and hotel section of all principal places throughout the country, giving hotels, railway stations, early closing and market days, &c., are included in this edition of a work indispensable to anyone whose business requires a compendium of information on London.

THE ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

Estimating.

SIR,—In a book on estimating, published before the war, the proportion which the cost of the work in each trade bore to the total cost of an average brick and slate building was given as: Bricklayer 33 1-3 per cent.; carpenter and joiner, 30 per cent.; plumber, 6 per cent.; decorator, 5 per cent., and the remainder was about equally apportioned between the other trades employed. Since the war some materials have altered in price much more than others (though the increase in cost of labour has been about the same in all trades). I should be exceedingly interested, therefore, to know (i) how the above-mentioned figures have been modified, and (ii) what is the average proportion of total cost attributable to "labour" and "materials" respectively, at the present time, in the case of (*a*) a brick and slate dwelling-house, (*b*) a steel-frame and stone shop and office block. The writer would also be greatly interested in the opinions and experiences of practical men as to which of the various forms of fireproof partition (breeze slabs, plaster slabs, &c.) they find the most economical and efficient.

"D. B. K."

[REPLY.]

It is somewhat difficult to allocate the proportional cost of the various trades in building operations owing to the varying factors forming the basis of calculation. We, therefore, give examples of three different types of buildings, all built about the same time and in the same district:—

(*a*) A 28-bed hospital, mostly a one-story building, faced with 2-in. red bricks.

(*b*) A mission hall faced with red bricks.

(*c*) Eleven houses under a housing scheme, 3-bedroom and parlour type, faced with white bricks.

The percentages work out as follows:

	(*a*)	(*b*)	(*c*)
Preliminary	1.75	1.00	1.00
Excavator and concretor	10.50	9.00	4.80
Drains	3.20	2.55	3.20
Bricklayer	23.30	30.10	25.00
Mason	3.05	2.00	5.40
Tiler	3.10	5.40	5.50
Carpenter and joiner..	25.00	23.00	22.80
Smith and founder, including heating and lighting	8.40	12.00	6.60
Plasterer	6.20	3.10	9.20
Plumber	9.75	7.10	11.00
Glazier	0.60	0.55	1.00
Painter	5.15	4.20	4.40
	100.00	100.00	100.00

With regard to the steel-frame building mentioned by our correspondent the variation is so great that no general proportion can be calculated that would be of any service.

Many attempts have been made at various times to allocate the proportion of labour to material in the various trades, but none hitherto has stood any general test.

Breeze concrete pre-cast slabs of good quality have generally proved the cheapest and most reliable of the various forms of partitions. Of the various patent forms, it depends largely upon the special circumstances of their use.

Price for Pointing.

SIR,—I should be greatly obliged if you will kindly inform me as to what is a fair price per square yard for "pointing"; owner of property finds material (one cement, one sand). Property is 60 years old; bricks badly weathered; arrises rounded. All rotten mortar is to be raked out, and this varies from ½ in. to 2 in. deep. Decayed bricks (of which there averages three per square yard) to be filled in with bricks cut to fit. Owner offers me 1s. per square yard. I am unemployed but do not think this a reasonable figure. I trust I am in order in making this request.

Birmingham. "J. L. S."

[REPLY.]

On the particulars given above the value of the labour would be from 2s. 3d. to 2s. 6d. per yard.

Heating and Hot-Water Supplies.

SIR,—I do not see why "Labour-Saver" should be afraid of furring his heating installation, unless he is going to use small tubing to feed his radiators. I would not advise him to take his hot-water supplies direct from his heating installation, as he will always be troubled with rusty water at the taps. The most practical and satisfactory way is to take two circulating pipes to a copper cylinder and take the hot-water supplies from the cylinder. The cold water feed cistern will do for the heating and hot-water supplies. He could also work a back boiler from the kitchen range in conjunction with the heating boiler. There is no successful way of treating tubing with any permanency. I should only be too pleased to draw him a scheme if he would only let me have a plan of the bungalow.

Manchester. WM. COWLISHAW.

Treatment of Oak.

SIR,—I have seen external oak of a very beautiful silver-grey effect, which, I am informed, has been treated by the application of quicklime (applied like whitewash in a thick paste), left on for 24 hours or longer and then brushed and washed off. My informant, being absolutely reliable, I should have no hesitation in recommending this method to your correspondents. "READER."

SIR,—In reply to "Architect," to obtain the silver-grey effect on oak used externally, do nothing; the weather will do all that is required.

J. A. HALLAM.

Smuts from Chimneys.

SIR,—The chimney designed on apparently ideal lines and yet badly behaved, presents a very interesting problem. The first words that rise to the tongue are "bad coal," but "Architect" takes them out of one's mouth and one has to look elsewhere.

It seems to me that the chimney draws too well and combustion is too rapid, producing much the effect of a railway engine when put to its utmost capacity and belching forth smoke and cinders.

If "Architect" has observed his fires to roar away very quickly and the flues to yield very little soot when cleaned, this would tend to confirm my diagnosis of the case.

The remedy would then be to check the draught by substituting an "Edwardian" pot for the present one. This type is closed at the top with lateral outlets, and though designed mainly to check down draughts, would, I think, have the desired effect in this case.

In any case it would not be a very extravagant experiment to try. "ANOTHER ARCHITECT."

A Slating Problem.

SIR,—I am of opinion that the oil putty method suggested by your correspondent "Mancunian" is unnecessary and would prove extravagant. Workmen are trained to do their job in a certain way, and extraordinary methods lower their output and lead to heavy quotations, certainly in this case much above the suggested 6d. per yard.

Given a good tilt and, for preference, a good sprocket, to produce an appreciable hollow to the roof surface, slates will lay quite flat enough for all practical purposes. Rattling slates are generally a sign of bad workmanship. They need to be well centre-nailed, the nails being well driven home up to the limit of the strength of the slate. A good slater knows just how far this is by intuition.

I fully concur with "Mancunian's" objections to bedding the slates in mortar. It seems to me quite a moot point if the post-war economy of omitting torching is not a blessing in disguise, if accompanied with no corresponding economy in lap. "NOTTINGHAM."

Embossed Mouldings.

We have received an inquiry from "G. D. A." for a machine to make embossed picture frame mouldings in wood.

Builder's Remuneration.

SIR,—Is a builder who prepares his own plans and submits them to the local authority entitled to charge a customer for the service as a separate item, in the absence of any understanding, and, if so, what is a fair remuneration? It is assumed the service is efficient and that the work is carried out by the builder himself.

ERNEST EDWARD SMITH.

[REPLY.]

Under Section 157 of the Public Health Act, 1875, an urban authority is empowered to make (and usually does make) by-laws for the deposit of plans by persons intending to construct buildings. It is, therefore, a duty on the part of the builder (or an architect where functioning), and a condition precedent to building, that plans must first be submitted to the local authority for approval. No precedent can be quoted, but it would appear that where a builder contracts to build and complete a building, according to plans prepared by him, or agrees to sell a building built by him to a "customer," he is not entitled, in view of the above condition, to make an additional charge for submitting plans to the local authority, unless the right to do so has been reserved. Where the right is reserved, or where (as in the case of an architect functioning) it is customary to make an additional charge for plans submitted to the local authority, it depends on the magnitude of the work. The charge may be anything from, say, £1 1s. for a villa to £5 5s. for a mansion or similar buildings.

Ancient Lights.

SIR,—What precautions are necessary before taking down old premises with lights now overlooking the next premises with a view to preserve the lights as now existing in the new erection? Is it neccssary to afix notices, "Ancient Lights" on the building some time before commencing the taking down? The area of the present lights will not be increased in the new building. "M. S. A."

[REPLY.]

Anyone, we believe, may pull down a building, including its windows or similar apertures, by which his right to an easement has been enjoyed, without abandoning his right. Nor is it necessary that, pending rebuilding, any part of the wall containing the windows should remain standing, or that rebuilding must commence immediately after demolition of the premises. The length of time between demolition and rebuilding would, however, weigh in the decision as to whether there had been an intention to abandon. To avoid difficulties, exact plans and measurements should be made, and photographs taken of the walls and lights therein, before demolition; for if in the new building the lights (as to position and area) are not altered an action can be supported against any increased obstruction by the adjoining owner. There is no real necessity to put up any notice, though it would be of advantage to do so if it is not intended to rebuild immediately or within a reasonable time. Further, it may be prudent to submit the plans and measurements above referred to, together with the plans of the proposed new building, to the adjoining owner, before commencing to rebuild.

[Will Mr. R. Stannard let us have his address?]

[Other letters are unavoidably held over.—ED.]

NATIONAL HOUSING POLICY.

MEMORANDUM BY THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The Royal Institute of British Architects was founded in the year 1834, and incorporated by Royal Charter in 1837. In addition to its own members and licentiates it represents the members of architectural societies which are established in every part of Great Britain and are allied to it. The Royal Institute thus represents about ten thousand members of the architectural profession.

Early in the 'fifties of the last century the Council of the Royal Institute issued an appeal to improve the dwellings of the poor. Since that date some thirty or more Housing Acts and Acts bearing on the housing of the working classes have been passed. These have been in the main based upon considerations of health leading to the examination of the construction of such houses, the size of their rooms, their lay-out, and their number to the acre.

Standard.

In later years considerations of decency in regard to the separation of the sexes have largely determined the minimum number of rooms, so that at the present time, for a normal working-class family, consisting of father, mother, and children of both sexes over twelve years of age, a living room of adequate size, three bedrooms, and the necessary offices, is considered the minimum standard of health and decency. The Royal Institute are of opinion that every house should have a bathroom, and, if to health and decency are to be added convenience and comfort, the addition of a parlour is essential.

On the question of lay-out, construction of roads, sewers, and of buildings, the Royal Institute do not think it would be useful in this memorandum to discuss these in detail, but would observe that there has been a concentration of attention upon these matters during the last four years unparalleled in quality and extent. In view of this fact His Majesty's Government is asked to reconsider the report on By-laws, the Tudor Walters' Report, and the Ministry of Health Housing Manual, in the light of the experience which has been gained since these admirable reports were framed. The Royal Institute would be glad to place the wide experience of its members at the disposal of the Government.

As is generally recognised, the difficulties in the way of making a proper provision for the housing of the working classes are threefold, and may be summed up as those of money, materials, and men. On these three matters the Royal Institute make the following observations.

Money.

This difficulty arises from the fact that dwellings of the minimum standard before described cannot be provided without financial assistance at a rent within the capacity to pay of a large section of the working classes.

The Royal Institute therefore recognise that financial assistance is essential, but desire to point out that in giving financial assistance, regard should be had to its effect in increasing demand to a point at which inflation in prices and wages ensue. They also desire to emphasise the importance of a high standard of housing as an essential condition upon which financial assistance by the State should be given.

Materials.

The Royal Institute lay the greatest stress upon their opinion that the materials best suited for house building are those which long experience and practice have brought into use. They do not desire to discourage experiments in new building materials, but are strongly of the opinion that the experience of the last four years, if examined, would be found overwhelmingly in favour of the materials in common use before the war.

In their opinion the difficulty in securing an abundant and cheap supply of such materials is largely associated with fluctuations in demand. The inflation of prices which followed upon the abnormal demands made upon the sources of supply in 1919 and 1920 should not be forgotten. The Royal Institute do not desire to see this repeated, and are of opinion that it will inevitably follow the attempt immediately to carry out a housing programme beyond the present capacity of the building industry. They are of opinion that the development of material supplies will take place with the minimum of inflation if the housing programme adopted is so carried out as to cover an extended period, commencing with a number within the compass of available resources, and increasing to the maximum that is required by steady increments.

The Royal Institute are, moreover, of the opinion that the element of cost in house building, which is due to the price of materials, should be isolated and made known, so that a correct opinion upon it may be formed. For this purpose the Royal Institute consider that the work of the committee on the prices of building materials is of the utmost importance, and that the scope of the reference to this committee should be enlarged if necessary, so as to enable it to make recommendations on the methods best calculated to secure an adequate supply of materials at reasonable prices.

Men.

The question of output in relation to labour is as obscure as the cost of production in relation to materials, and the Royal Institute are of opinion that it is as essential to isolate this element of cost and make it known as in the case of materials, and they therefore recommend that the Government should be asked to inquire into this matter contemporaneously with their inquiry into the price of materials. The Royal Institute are also of opinion that to avoid inflation, the necessity for an extended programme beginning with a demand commensurate to the capacity of the building industry, and increasing to a maximum, is as imperative in the case of labour as in that of materials. The man-power of the building industry was seriously depleted by the requirements of the war. This depletion was felt by an industry already suffering from the effect of the depression in the building trade which preceded the war, and is greatly accentuated by the fact that the apprenticeship system has broken down, and has not been replaced by any other means of recruiting the industry. The Royal Institute cannot too strongly express the view that the solution of the housing problem depends more than anything else upon an increase in the number of men employed in building. Holding this opinion they recommend that the Government should at once consider what steps can be taken in view of the failure of the apprenticeship system to secure the annual entry of sufficient numbers into the building industry.

The Effect on Building other than Housing.

The Royal Institute are of opinion that the attention of the Government should be drawn to the fact that house building has hitherto engaged but a small part of the activities of the building industry. Those activities are threefold:—

(1) The maintenance of existing buildings.

(2) The provision of buildings for commercial, industrial, and public purposes.

(3) The provision of dwellings.

It is clear that an abnormal demand upon a depleted industry for the purpose of house building must re-act unfavourably upon the cost of maintenance and the provision of buildings other than dwellings. It would be a penny wise and pound foolish policy, either to let old buildings sink into disrepair, or to cripple the expansion of trade and industry at a time when unemployment is so great. Both these considerations point to the conclusion already expressed that a housing programme, while outlined on a sufficient scale and carried out with vigour and determination, must have regard in its earlier stages to the present capacity of the building industry.

The Royal Institute are of the opinion that the housing of the working classes is a permanent task and not merely a passing problem and that whatever machinery be set up for its performance, it is essential that architectural experience and practice should be employed to the fullest extent.

THE WEEK IN PARLIAMENT.

Westminster, *Wednesday.*

Parliament re-assembled on Tuesday, February 12.

Schemes Approved.

Replying to questions, Mr. Wheatley, Minister of Health, said that up to February 1 approval had been given by the Ministry of Health to schemes proposed by local authorities for 95,715 houses, of which 33,994 were to be erected by local authorities and 61,721 by private enterprise. In respect of the houses to be erected by the local authorities themselves, contracts had been entered into concerning 18,687 houses. As regarded the houses to be erected by private enterprise, certificates had been issued on the approval of plans for 36,543 houses. Since the passing of the Act of 1923 loans amounting to £2,153,595 had been sanctioned to local authorities for the purpose of making advances to prospective owner-occupiers, or to persons undertaking the erection of houses. The total number of houses authorised under the Housing, &c., Act, 1923, up to December 31 last was 85,036, of which 31,434 were to be erected by local authorities and 53,602 by private builders.

Housing Policy.

The Prime Minister, in outlining the housing policy of the Government, said that the view of the Labour Government was that only the fringe of the problem had been touched. They were considering at present the problem in its essential characteristics, and he hoped that, before long, the Minister of Health would be able to present detailed proposals. The first thing to consider was that the housing problem could only be solved when decent human homes were provided for the mass of the working-classes at rents that could be borne by the average income of those classes; and, secondly, that, in the production of those homes, it would be necessary to get the material and labour necessary for that production. The first point—the point of price—had been met since the war by the subsidy, and he was afraid that would have to be continued. It would be continued in relation to the problem of how to build houses, on the average, for £500, and let them, on the average, for 9s. per week, including rent and rates. Not ten per cent. of the houses built under the Addison scheme were inhabited by the class of people whose needs must be met if the housing problem was to be solved; and the 1923 Act of Mr. N. Chamberlain's was only going to be fruitful in the building of houses for sale. That did not solve the problem.

Dealing with the problem of labour, the Prime Minister said that to-day they had only 50 per cent. of the men in the building trades that they had in those trades before the war. Because private building had failed. The trade had become so disorganised that a decent person, thinking of his child's welfare, chose some other channel of trade. With regard to dilution, the first thing to do was to give the building trade a guarantee of continuous work over a certain number of years. There was no difficulty about that, because the shortage of houses was now so great that all that was required was to create a programme that would stretch over a certain number of years. Beyond that, the workmen asked, perfectly rightly, for a guarantee that the inrush of men into the trade should not swamp them completely, reduce their wages, and still further disorganise their trade. The spirit of the conference which the Government had called between employers and employed had been admirable.

THE BUILDING TRADE.

THE TWO DEMANDS.

By A BUILDING CONTRACTOR.

[We print the following suggestive article, by a well-known building contractor, as a basis for discussion of matters of considerable importance to the industry, but they are the writer's views and are not necessarily ours. —ED.]

AT the present time there are two demands before the building trade. One is from the operatives for an increase of wage, and the other is from the people of Britain for buildings at a more reasonable cost. Both of these require careful consideration.

In the following remarks the writer is simply stating his own opinion and not that of any organisation.

Dealing with the demand for an increase of wage, any man who lives in comfort and considers in detail the expenses of maintaining his own home must come to the conclusion that, if at all possible, the scale of living of the skilled worker should be raised, and the term "skilled worker" should include not only the joiner and bricklayer, but also the intelligent and skilled labourer, scaffolder, hod-carrier, drainer, etc., as a man cannot learn to become a first-class labourer without several years' severe training.

After analysing the costs of maintaining a home the practical idealist will find that a reasonable ideal at which to aim under present conditions of living would be about £300 per year for the highly skilled and industrious tradesman, and £225 per year for the expert and hard-working labourer. At the same time the demand of the people of Britain for respectable homes at a cost which they can afford to pay needs even more urgent consideration than the question of wages. First it may be laid down as an essential principle that the building industry should be so organised as to need no Government doles or subsidies to support it. There should be no bolstering up one industry and its workers by putting a burden upon other industries and other workers. Further, the higher scale of living desired by the building community should not involve an increased load upon other industries which are already sufficiently tried through competition with the foreigner.

Is it possible for the demands of both the building operatives and of the community to be met? The writer, after considerable experience in the building trade, believes that it is. How?

By developing the highest type of operative, more skilled, better educated, better fed, better housed, and with even greater self-respect than at present. The first step in this direction is that all men should be paid by the result of their labours rather than as at present for the time spent on producing the result. It is the more honourable and manly way, and it will gradually evolve a more skilled type of workmen.

When we watch the skill and dexterity of the first-class worker in some of the trades where payment is made according to the value of work done, and compare it with the slow and awkward movements of many who are paid according to the time spent, we see the one method gradually evolving a higher type while the other results in gradual degeneration to a lower type. But many workers bitterly oppose payment by result, remembering all the evils of sweated labour and its association of blood for money.

Need this necessarily be the spirit of payment by result?

Some of the best industries in Britain are paid by result, and in Australia, considered to be the most completely organised labour country in the world, much building work under the highly developed trade union rules is paid by result.

The trade unions of the building industry in Great Britain are strong, and in conjunction with the employers' federations can surely be trusted to look after the welfare of the operatives.

The following are suggestions which could be modified in discussion:—

Where workers are to be paid by result, let there be an agreed minimum wage at a rate decidedly higher than the day-work rate, say 10%; let the rate for work done be decided upon, the operative in the first case to receive his hourly wage plus 10%, and then let the balance between the amount spent and the agreed price for the work done be divided between the employer and the operative. The result should at least add 20% to wages without adding anything to the cost of the work, while it could safely be reckoned to add 33% to the operative's wage and reduce the cost 10%. This would tend to prevent the employer desiring to cut down unreasonably the price of the work done, as if his men did not make a bonus he would lose considerably.

A secondary economy would lie in a smaller margin for profit for the building contractor. Competition usually forces his profit down to the lowest figure compatible with safety. His principal risk at present is variation in the cost of labour. Payment by result would reduce this risk and allow estimates to be more closely calculated, with a corresponding national benefit.

Further, as the employer's and operative's interests would be identical, the worker would be ready to point out any errors in organisation which would ensure more careful organisation than at present. This change, while a benefit to the workers and community, would not be a financial advantage to the highly developed firm of contractors who now thrive in competition with their less organised and skilful brothers, but in the development of the industry and the consequent national benefit there would doubtless be indirect compensating benefits to them also.

There are difficulties in the revolution of an industry as outlined, such as how to accommodate it to difficult classes of work, adjustments with regard to labour on the high grade university, or church, and the humble cottage, and there is the question of ensuring that the work shall be of good quality.

DILUTION IN THE BUILDING INDUSTRY.

IN the course of a letter to the *Times*, Mr. C. Jesson, writing on behalf of the British Workers' League, states: "The building trade operatives undoubtedly see that the coming of concrete houses is going to revolutionise their industry. Whole housing schemes are now being carried out in various parts of the country, consisting entirely of concrete houses that require only 10 per cent. of skilled labour to build. These houses are not only solving the problem of the dearth of skilled labour, but as over 70 per cent. of the necessary material can usually be found on or near the building sites, there is also a great saving in haulage. Experts are claiming that these concrete houses are both dry and warm in winter and cool in summer, and can be made to look equally attractive as houses built with baked earth, *i.e.*, clay. They should also be considerably cheaper to build than brick houses, which, again, should prove a boon to the unfortunate worker who has to pay from one-third to one-half of his wages for rent, while the heavy losses on most of the recent housing schemes, which have to be made good from the rates and taxes, add considerably to the cost of living."

THE MASTER CARVERS' ASSOCIATION OF LONDON

THE members of the Master Carvers' Association of London held their 26th annual dinner at the Connaught Rooms on February 17. The President, Mr. Laurence A. Turner, F.S.A., was in the chair.

After the loyal toasts had been honoured the President, in proposing "Our Guests and Visitors," said he placed those who represented architecture first because their relation to the Master Carvers was similar to that of the Solicitor to the Barrister.

Mr. H. B. Judge then responded, and Mr. W. Aumonier, in proposing "The Ladies," welcomed the fact that they had the daughter of such an eminent craftsman as Mr. Walter Frith to respond to the toast.

Mrs. E. Frith, in reply, said she hoped the comradeship which existed between master and man in their Association was a sign that carving had not degenerated into the prevalent commercialism of the present day.

Mr. Gilbert H. Jenkins, F.R.I.B.A., then proposed the Master Carvers' Association, and said architects were only too glad that they had such a splendid body as the Master Carvers' Association to assist them in making their buildings beautiful. Carving was an art even older than architecture: Palæolithic man practised it. While architecture in England during the thirteenth century could not claim to be superlatively better than that on the Continent of Europe, the English carvers, on the other hand, produced a new form of carving as fine as anything which had been done since. The detail in the early cathedrals was better than the work of their French brothers. Not only was it wonderful carving, but they upset the squeamishness of their monkish clients: the carver was always a free man until the architect came along.

Mr. J. D. Daymond, in reply, said he hoped they would do their best to live up to the traditions of the Association. The late Mr. Bentley once remarked that there was no room in heaven or earth for a bad carver.

Mr. W. D. Gough, in proposing the health of the President, reiterated the pleasure they all had in the happy position of affairs between operatives and employers.

The President, in briefly responding, said the body of men employed in carving was small compared with other crafts and trades; and he considered that carvers should be a separate body from men who were little more than mechanics. He hoped that their men would strive to do more than merely imitative work.

In conclusion Mr. A. T. Bradford proposed a vote of thanks to the artistes.

During the evening a six-reel living cinematograph performance, of which the author was the Hon. Secretary, was given. The letterings of the close-ups, executed by Mr. A. Aumonier himself, showed the craftsmanship of the Association at its best.

The Master Carvers' Association was founded in 1897, and consists of employers of architectural sculptors, stone carvers, wood carvers and modellers. The objects of the Association are the promotion and protection of the above crafts generally and the members of the association in particular.

Builders' Estates.

Mr. Jonathan Sanderson, of Lydgate-lane, Sheffield, builder (net personalty, £7,10[illegible]), £8,656.

Mr. Robert Mickel, J.P., of Rivaldsgreen, Linlithgow, formerly a timber merchant in Glasgow, and the builder of many houses and business premises in London, £25,699.

THE ROMANCE OF BUILDING THROUGHOUT THE AGES.—II.

THE second* of this series of lectures, given by Mr. George W. Thompson to the junior members of the Amalgamated Society of Woodworkers, at Liverpool, dealt with the following periods:—(1) Western Asiatic (including Chaldean, which was the oldest); (2) Assyrian, when Nineveh was built; and (3) Persian, when Cyrus had conquered this region (2458 B.C. to 330 B.C.).

The art of that period was, he said, generally referred to as Assyrian. Assyrian art was young compared with Egyptian, but it was old compared with Greek and Roman.

Fragments of palaces and much ornament had been excavated. Brick and coloured tiles were the materials used for main buildings, while sculpture was done on stone. Whereas Egyptian remains were mainly temples and tombs, Assyrian remains were chiefly palaces. Assyrians were not so cultivated as the Egyptians, but were more warlike. Egyptians doubtless felt that nothing was too costly, grand, or permanent for the houses of their gods.

In the old days in Egypt, Greece, and in this country, when cathedrals were being



FIG. 1.

built, craftsmanship was at a high level, and the present-day craftsman should endeavour to obey more completely than he usually did the voice that exclaimed: "Whatsoever thy hand findeth to do, do it with all thy might."

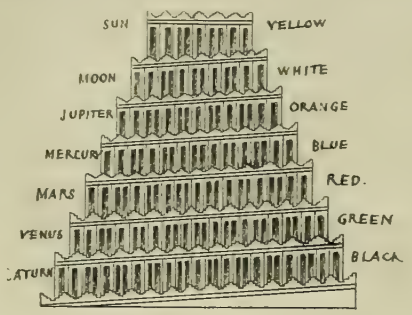
Features of Assyrian art were the great winged human-faced bulls, and bull-headed giants shown engaged in the sport of taming lions and bulls. Alabaster vases had been found decorated with sculptures of ducks, pigs, fish, and squatting monkeys. A peculiar feature of both Egyptian and Assyrian art was the observance of what was known as "The Law of Frontality," that was to say, the sculptured bulls, lions, vultures, and human figures were always shown looking straight ahead; there was no deviation of the face from right to left.

The arch was used by the Assyrians.

The City of Babylon was 60 miles in circumference. It had walls 300 ft. in height and 72 ft. broad. The Temple of Baal was half a mile in circumference, and over 600 ft. high, and the hanging gardens were considered to be one of the seven wonders of the ancient world.

Only fragments of the architecture of this period remained. The palaces were of great size and were erected on mounds. Brick and coloured glazed tiles were the materials used for the principal parts of buildings.

The ancient cities of Western Asia were situated on the Rivers Tigris and Euphrates.



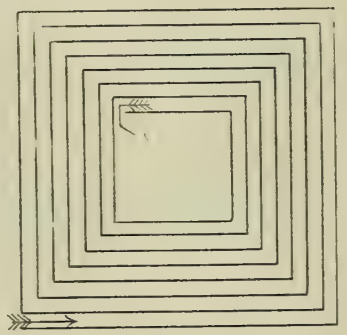


FIG. 2.

This district, which was now called Mesopotamia, was one of the earliest seats of civilisation. The exceptional fertility of the soil enabled an immense population to be supported in and around the cities of Babylon and Nineveh.

The more modern city of Mosul stood near the site of Nineveh. The temples were sometimes surmounted by an observatory. That at Khorsabad was dedicated to the seven heavenly bodies, and the several stories were built in terraces. The inclined path surrounding the terraces formed the means of approach to the summit. Each terrace differed from the others in colour; the lowest tier was black, for Saturn; the second green, for Venus; the third red, for Mars; the fourth blue, for Mercury; the fifth



FIG. 3.

orange, for Jupiter; the sixth white, for the Moon; and the temple on the summit was thought to have been yellow, for the sun.

It was interesting to note that the angles of these buildings were made to face the cardinal points (north, east, south and west), in contrast to the Egyptian pyramids, whose sides faced the cardinal points. It was not known why the Babylonians erected such lofty structures as these, but it was worth recollecting that the Book of Genesis, chap. 11, verse 4, referred to the attempts they made to build towers that



FIG. 4.

should "reach to heaven"; they worshipped the heavenly bodies, such as the sun and moon, and elemental natural phenomena, such as wind and thunder.

Fig. 1 is an alabaster slab showing the Assyrian sphinx, from the Louvre; Fig. 2 shows the Observatory at Khorsabad, with terraces dedicated to the seven heavenly bodies; a capital and base from the ruins of Persepolis are seen in Fig. 3—these capitals were of the "double-bull," "double-unicorn," "double-

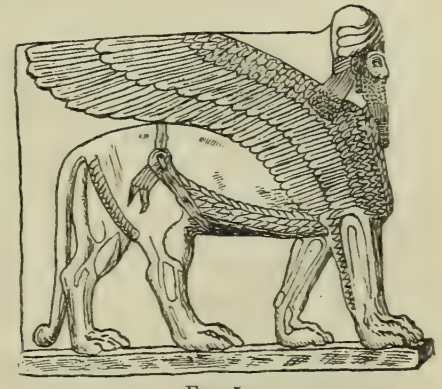


FIG. 5.

horse," or "double-griffin" type; two pieces of Babylonian sculpture are shown in Figs. 4 and 5—the former is a sculpture of a dog, while the latter is of a winged human-headed lion.

Refuges in the Mall.

The Office of Works has lately begun an experiment in the interest of the safety of persons using the Mall. This particularly wide thoroughfare is at all times, and particularly during the evening, extensively used by fast motor traffic. A series of new refuges has been laid down the middle of the road, and at night each is illuminated by an electric light contained in a pillar about 5 ft. high. The light shows red to traffic passing up and down the roadway, and white to either side, for the guidance of pedestrians on the sidepaths. While conducing to the principle of "Safety First," it is doubtful whether these refuges add to the harmony of the Mall in general. Only a short while back we woke up to find our refuges had become famous by the addition of silver and aluminium paint.

Building in Norway.

In Christiania houses arranged in flats constitute 57 per cent. of all the city's buildings. In all other Norwegian towns houses of one or two stories predominate. Wood is a much-used material, and barely one-sixth of the houses in Norwegian towns are brick. Christiania and Aalesund—the latter was destroyed by fire some years ago—are the only towns where brick dominates.

* The first lecture was given in our issue for February 1.

THE "DUO-SLAB" SYSTEM OF CONCRETE COTTAGE CONSTRUCTION.

We illustrate herewith the "Duo-Slab" system of concrete cottage construction, which is now being extensively adopted by several local authorities for their new housing schemes. This system has been developed by Messrs. Wm. Airey & Sons, Ltd., of Greek-street Chambers, Leeds, who have built over 3,000 "Duo-Slab" houses, and have other large contracts in hand.

The system is essentially one for the mass production of houses on a unit system, although the unit can be varied to suit any design. On the Leeds scheme (where some 1,600 "Duo-Slab" cottages have been built) the "unit" is 4 ft.—the distance between the centres of the piers (see Fig. 1). The houses may, of course, be finished with roughcast, cement rendering, or any desired method.

The wall is formed of pre-cast slabs laid on edge one above another with a vertical space between each tier of slabs which is filled in with concrete poured *in situ*, thus binding all the slabs together at their ends.

Moulding the Slabs.

Although the slabs may, of course, be of any desired size, in the cottages illustrated (which are all on the Leeds housing scheme, for which Mr. H. S. Chorley was the architect), they are 3 in. thick by 8 in. high. The ends are splayed in order to get a stronger bond at the piers, and the length of the slabs is 3 ft. 8 in. on the longer face and 3 ft. 6 in. on the shorter face (see Fig. 5). The piers measure 8 in. across the face of the wall, and thus occur at 4 ft. centres all round the cottages. The slabs are formed of a concrete consisting of 5 parts hard clinker, 1 part sand, and 1 part Portland cement.

A patent mould is used for the manufacture of the slabs. As shown in Figs. 1, 2, 3 and 4, the mould consists of a wooden frame hinged at three corners and having fastenings at the other corner, so that it can be stood up on edge to enclose a rectangular area a little deeper than the thickness of the slab (so that there will be sufficient depth for the concrete necessary to form the slab before it is consolidated) or opened out in order to remove it from the finished slab. The area enclosed by the slab is the length of the slab and sufficiently wide to enable three slabs to be formed, face up, side by side and separated by longitudinal runners or division plates. A plan of the mould is given in Fig. 1; Fig. 2 is a side elevation; Fig. 3 an end elevation showing one of the hinged corners and the corner which is locked to keep the mould in position; Fig. 4 is a side elevation showing three moulds placed one above another (the hinged corners are on the right and the locked corners on the left). The vertical alignment of one mould above the other is ensured by two iron straps on each face which project downwards and pass over the face of the mould immediately below; or, alternatively, by pins fixed in the bottom of the mould entering holes in the upper edge of the mould below.

The tamping is performed by placing over the top of the mould a board with a rebated edge. The rebates project over the top of the mould, so that when pressure is applied the board (except for the rebates) is pressed into the concrete until the rebates come to rest on the edges of the mould, thus ensuring uniformity in the thickness of the slab. The pressure is applied by a man stamping his feet on the board, or by striking the board with a rammer.

After the first three slabs have been made in the bottom mould the tamping board is removed and the concrete covered with paper or sprinkled with sawdust. Another mould is then placed on the first, and a fresh batch of concrete poured, tamped, and covered with sawdust, and this operation is repeated until a height is attained beyond which it is inconvenient to work, usually about 12 moulds. The forms are removed the following day and used again, and the slabs left to cure. The removal of the moulds is an extremely simple matter, all that is necessary being to unfasten one corner and walk round the pile of slabs "unfolding" the mould away from the slabs. By this method the slabs are all made quite close to the site where they are to be used (see Fig. 0, which shows the slabs alongside the footings), and the unnecessary labour often entailed by carrying blocks on pallets away from the moulds to a curing ground and back again to the site of the work is eliminated. We are informed that with the use of these moulds it is possible for one trained labourer to make 100 slabs per day, and as cottages of the type being built by local authorities require on an average 1,000 slabs, it therefore takes ten days for one man to make sufficient slabs for one house.

The walls are formed of two leaves, with a 2 in. cavity between, making a total thickness of 8 in. The blocks are of the same size for both leaves, and no variation is made in the concrete for the external and internal walls.

The method of erection is to place the slabs on edge one above another without horizontal mortar joints, strips of wood, which also form the sides of the piers and are afterwards removed, being used as distance pieces. The distance between the slabs along the outside of the wall is 6 in., and on the inner face 4 in., the difference being accounted for by the chamfered edges (see Fig. 5). As the slabs are laid shuttering is erected to enclose these spaces on the outer faces of the two leaves forming the wall, and pieces of wood are placed inside the cavity 3 in. from the ends of the slabs. Within this shuttering concrete is poured *in situ*, forming a solid pier throughout the height of the wall at 4 ft. centres.

In the construction of these piers a patented system of shuttering is employed (Figs. 6, 7 and 8). When the slabs (*a*, *a*) have been placed in position the uprights (*f*, *f*) of the framework are first placed in their vertical position as at Fig. 6, that is, on the outer surface of the two rows of slabs, horizontally across the space between the edges (*e*, *e*), and with cross pieces (*j*, *j*) transversely across the two rows of slabs forming the wall. The uprights of the framework are locked in a plumb position by the upper transverse loops (*l*, *l*) and the screw shaft (*q*). The wedges (*u*, *u*) act as distance pieces and also retain the slabs in position and press the outer surface of the latter against the portions of the uprights below the pivot bolt (*k*). When the concrete which forms the pier has

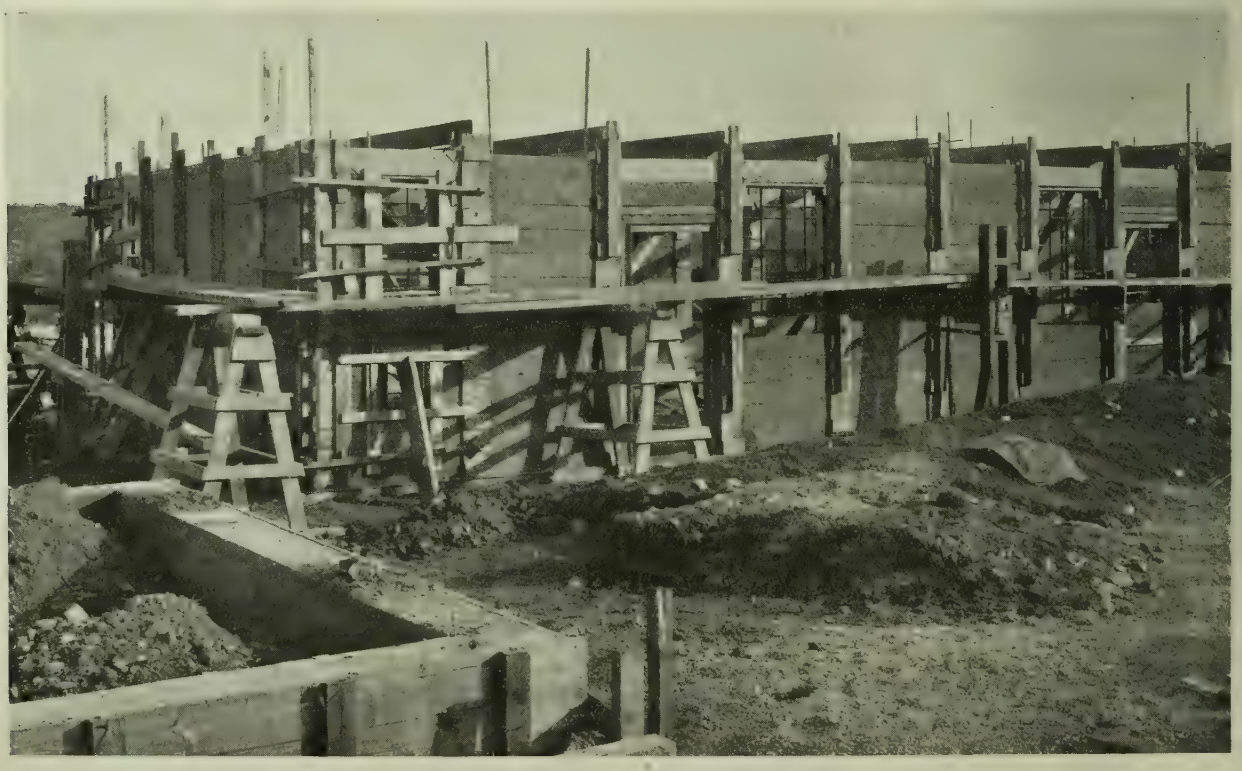
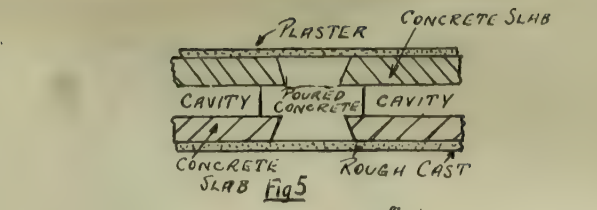
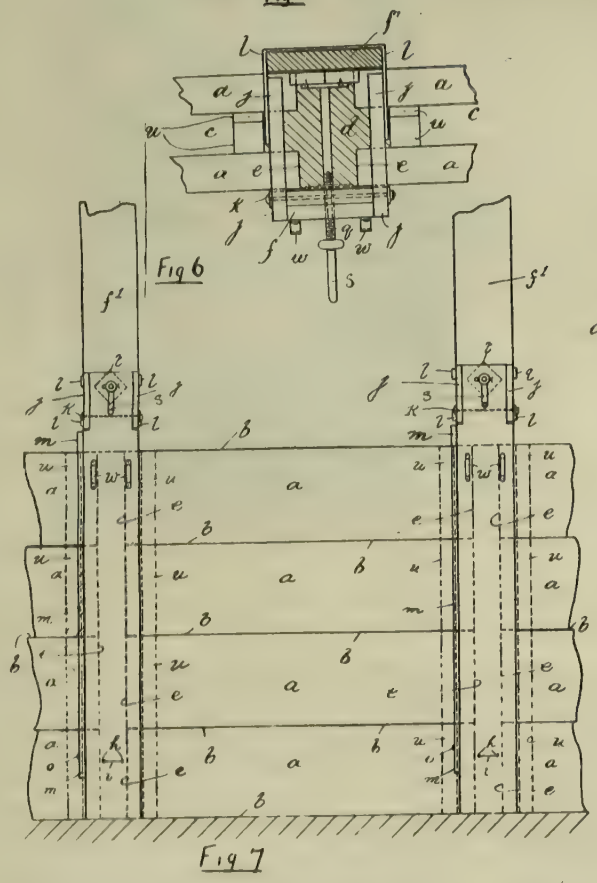
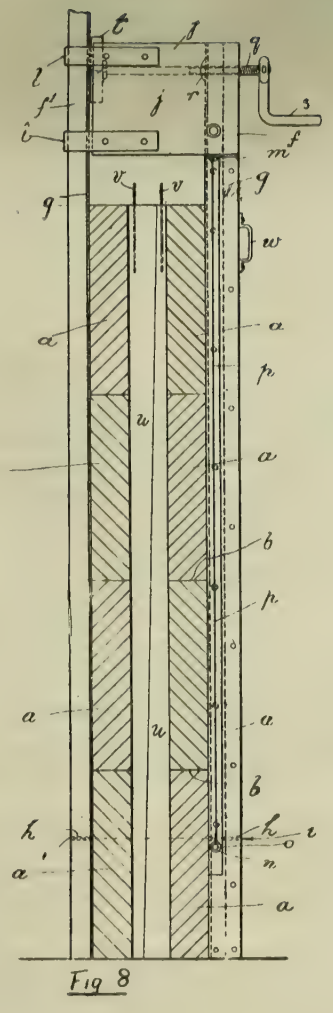


Fig. 1.—"Duo-Slab" Houses in Course of Erection.

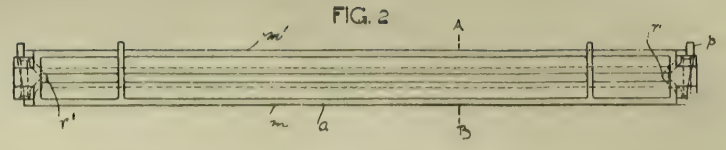


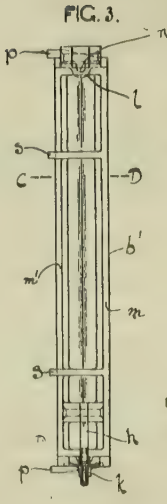


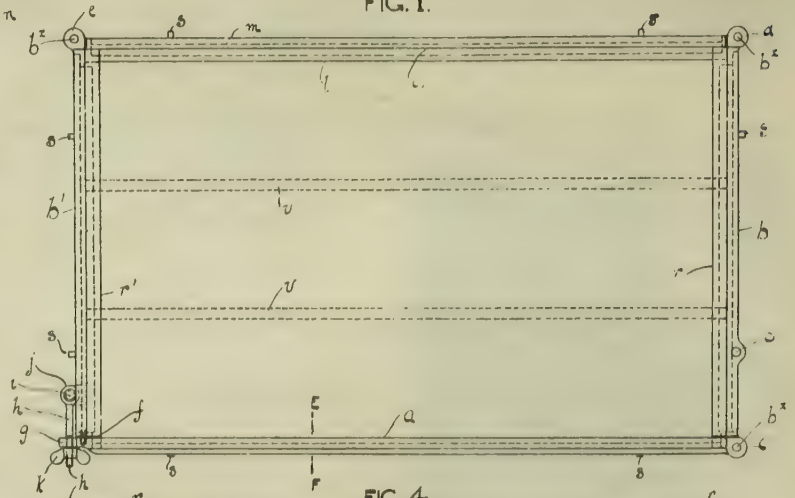


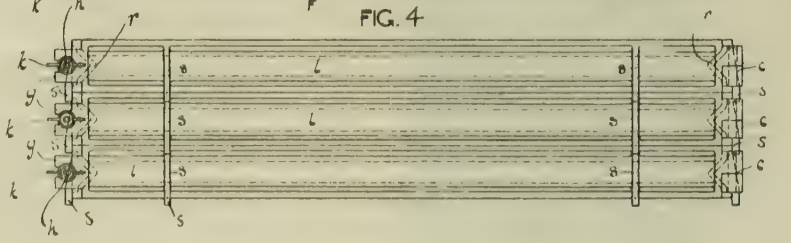
SHUTTERING FOR FORMING PIERS.

Fig. 5, Horizontal Section of Finished Wall; Fig. 6, Plan showing Shuttering in Position; Fig. 7, Front Elevation; Fig. 8, Side Elevation with Slabs shown in Section.









MOULDS FOR MAKING SLABS.

Fig. 1, Plan; Fig. 2, Side Elevation; Fig. 3, End Elevation; Fig. 4, Side Elevation showing three Moulds placed one above the other.

The "Duo-Slab" System of Cottage Construction. (*See p.* 000).



Fig. 2.—"Duo-Slab" Houses at Leeds.
Mr. H. S. Chorley, F.R.I.B.A., Architect.

been run it is allowed wholly or partially to set, and when it has become hard enough to permit of one or both the uprights being removed another set of concrete slabs is placed upon the preceding ones, and after the framework has been released by the withdrawal of the wedges it is raised and readjusted to the new position, when the operation of forming the pier is continued until the wall is carried to the required height. Fig. 6 is a plan showing the shuttering in position, with a pier shown in section; Fig 7 is a front elevation of the shuttering; Fig. 8 is a side elevation of the apparatus with the slabs shown in section. This system ensures that the walls are built true, and the metal facing to the wooden framework results in a smooth finish.

Fig. 1 shows the "Duo-Slab" system of walling in course of erection.

Letters patent have been granted to Messrs. Wm. Airey & Son, Ltd., for this special form of concrete house construction; the Company, however, has already granted licences to several contractors and are prepared to issue licences to other approved contractors for the use of the system in the erection of houses, on royalty terms, which have been approved by the Ministry of Health.

NATIONAL ASSOCIATION OF SHOP FITTERS.

ANNUAL DINNER.

Mr. G. A. Coulson (President) occupied the chair at the annual dinner of the National Association of Shopfitters, at the Restaurant Frascati, on February 7, when amongst the guests were Messrs. W. H. Nicholls (President, National Federation of Building Trades' Employers), H. T. Holloway (President, London Master Builders' Association), E. J. Brown (Director), and A. G. White (Secretary of the National Federation of Building Trades' Employers).

Mr. W. H. Nicholls, in proposing the toast of "The National Association of Shopfitters," said that body could not have a man to guide it of greater capacity than Mr. Coulson. Standing as he did for the spirit of federation and co-operation amongst employers engaged in kindred industries he had given consideration to the connection between the two bodies, and his conclusion was that this connection so far had neither been sufficiently definite, nor sufficiently to the advantage of both organisations. Speaking generally, the craftsmen and the materials employed by shopfitters were the same as those used by builders, and therefore they ought to realise that if they were to hold their own in the near future they must sink any differences—if there were any. They had to realise that there was a distinct intention on the part of the mass of the community to exercise a larger control in the industrial life of the nation. On reflection, he was not sure that this would not prove to be for the good of industry, provided that certain social factors came along. Faced with this condition of things it behoved employers to group themselves together for protection and advancement unless they were to be beaten in the struggle. Those present were employers who believed in the individual putting all his capacity into his work, and showing what he could do, and a definite duty devolved on them to associate themselves together to protect their interests. He was sure the National Builders' Federation could help the shopfitters, for the whole policy of that body was not to lead its members into trouble, but to keep them out of it. He urged strongly that everyone in the industry should ally himself with the Federation even if it meant a small personal loss. He knew of nothing better than the organising work of the Federation, which would be put at the service of the Association of Shopfitters.

The Chairman said they would appreciate that the National Federation of Building Trades' Employers had offered them the right hand of fellowship, and the Association of Shopfitters would feel all the stronger in consequence and would be inspired with even higher ideals than in the past. Their industry, like that of the building industry, was subjected to troubles owing to firms being unfederated, but the creation of an organising staff by the Builders' Federation would give them the means of approaching other firms and getting them into the Association. Unless they were united they would fall, and so he trusted that next year they would be able to give a good account of themselves.

Mr. E. Pollard (Vice-President of the Association) gave the toast of the "Visitors," and said when they started they framed their rules and came under the protection of the National Federation of Building Trades' Employers; but it was difficult, perhaps, for a powerful Federation to realise that the Shopfitters' Association, small as it was, had a soul of its own, and had aspirations and desires which did not always coincide with those of the master builders. He asked the master builders to recognise those desires, to tolerate them, and even to encourage them. If that were done no trouble would ensue—if more freedom were given less would be required.

Mr. H. T. Holloway, in reply, said the building industry ranged from the heavy constructional work of the civil engineer to the finest specialised work of the shopfitter. Naturally many differences and requirements must arise in such a condition of things, but it was their duty to adjust such differences and work together. It was a fine piece of work when they formed the Association, and a finer piece of work when they linked themselves up with the Builders' Federation in the London area, for they strengthened both themselves and the builders. He was not aware that there were any acute differences, but in the Standing Committee they had a body through which any differences could be adjusted. They lived in critical times, but on the other hand they had never had a more favourable time for extending the work of organisation.

Mr. C. E. Speaight also responded.

Mr. P. Josephs proposed the health of the Chairman, which was enthusiastically honoured.

Welfare Movement.

Messrs. Mander Brothers' welfare movement was started in 1920 to continue the personal relationship between employer and employee, which, naturally, expansion of business rendered difficult. It has since made rapid progress, and in connection with this development great assistance was rendered by the Industrial Welfare Society of 51, Palace street, London, S.W. 1, which has accumulated a mass of valuable experience on these matters and is in a position to give expert advice to those taking up this important side of industrial activity. H.R.H. the Duke of York is President of the Society, and its Council is composed of a number of the leading employers and labour leaders of the day, the work being carried out under the general direction of Mr. R. R. Hyde.

The committee of the Welfare Movement discusses in a frank and open way any question which is at all relevant to the business or industrial conditions, though it should be said that wages and hours are settled for the whole of the paint, colour and varnish industry by a National Joint Industrial Council.

The scheme has been a great success, owing to the willing and enthusiastic co-operation of all concerned.



Fig. 3.—"Duo-Slab" Houses before Roughcasting.

FENCING AND OTHER SAFETY PRECAUTIONS FOR WOOD-WORKING MACHINERY.

THIS safety pamphlet* contains the wood-working machinery regulations 1922, relating to the duties of occupiers and the duties of persons employed in connection with the provision and efficient use of safeguards for wood-working machinery. It has been in the past far too usual to neglect to provide adequate shields to fast-running machinery, or to use such appliances even when they have been provided. Such carelessness, always reprehensible, has now become illegal and occupiers are required to install adequate shields which persons employed must use "except when owing to the nature of the work being done the use of the guards or appliances is rendered impracticable." This proviso puts a heavy responsibility upon inspectors and opens up the possibility of divergence of opinion in cases of claims for compensation following upon accidents, but in view of the extreme range in the nature of work done on modern machines the exception has, at the present moment, some colour of justification.

Rules as to the lighting arrangements at points where wood-working machines are installed should prove of great practical value, both in regard to safety and in efficiency of output. Bad or indifferent light, or, what is worse, brilliant light injudiciously placed where it will dazzle the operative's eyes or cast a shadow upon the cutting edges, has been responsible for a great many accidents in the past. The floor in the neighbourhood of the machine must be kept level and, as far as practicable, be maintained free from chips, and must not be allowed to become slippery. The training of persons in the work of machine joinery must include careful instruction as to the dangers arising and the precautions to be observed, and "no person shall be employed at a wood-working machine unless he has been sufficiently trained to work that class of machine or unless he works under the adequate supervision of a person who has a thorough knowledge of the working of the machine." Detailed regulations are also given of the nature of safeguards required with specific classes of machinery.

The body of the pamphlet is devoted to the explanation of these requirements and suggestions for efficiently putting them in execution. The advice is of an eminently practical order, and the devices suggested have in many cases commercial advantages, in addition to their primary object of securing safety in working. A really adequate safety device will not be cumbrous in use and may even lead to increased speed through the confidence it inspires. To attain this end, all connections must be devised in accordance with the dual requirements of the case. A shield to a piece of running machinery must be firm and rigid when in position; if it is not itself to become an additional source of danger it must deserve the confidence its presence should inspire. On the other hand, it must be capable of being fixed or detached with ease and without loss of time, for notwithstanding legal enactments a shield troublesome to fix would be thrown aside unused. The combination of shield and dust extractor is strongly recommended in the book and should be carefully considered by those in charge of wood-working machinery. The pamphlet is one which should interest all modern wood-workers.

*Safety Pamphlet No. 8. Issued by the Home Office. London: Published by His Majesty's Stationery Office. Price, 1s. net; by post, 1s. 1½d.

Tender.

The contract for painting the L.C.C. Seawell-reet School, Shoreditch, has been obtained by essrs. Turnbull & Son, London, at £923. essrs. Lister & Co. having withdrawn their nder.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/9	1/8½	1/4
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1¼
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4½	1/0¾
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2¾
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0¾
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾

(For rates of wages in the Building Trade in Scotland, see page 282).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

FEBRUARY 16.—**Alderley Edge.**—HOUSES.—Erection of eight cottages at Heyes-lane, for the U.D.C. Mr. H. Sheldon, Architect, Council Offices, Alderley Edge. Deposit £2 2s.

FEBRUARY 16.—**Altofts.**—HOUSES.—Erection of four scullery houses, for the U.D.C. Mr. T. H. Hailstone, Surveyor, Council Offices, Altofts, near Normanton. Deposit £1.

FEBRUARY 16.—**Bexhill.**—HOUSES.—Erection of 35 houses upon the London-road site, for the Corporation of Bexhill housing scheme. Mr. George Ball, A.M.I.C.E., Borough Engineer and Surveyor, Town Hall, Bexhill. Deposit £1 1s.

FEBRUARY 16.—**Bridgend.**—HOUSE.—For erecting residence for Mr. R. D. Heard, at Bridgend. Messrs. Cook & Edwards, M.M.S.A., 22, Dunraven-place, Bridgend. Deposit £2 2s.

FEBRUARY 16.—**Bridlington.**—SHELTERS.—For erection of shelters on the Beaconsfield Sea Wall, for T.C. Borough Surveyor, 1, The Crescent, Bridlington. Deposit £1 1s.

FEBRUARY 16.—**Sheffield.**—PAINTING.—For painting works at (1) Town Hall, part interior; (2) Attercliffe Library, exterior; (3) Brightside Library exterior; (4) 178-186, Mushroom-lane (five houses), exterior, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

FEBRUARY 18.—**Clydebank.**—PAINTING.—For the painter work in connection with the 22 houses comprised in the first development at Whitecrook site, for the T.C. Town Clerk, Municipal Buildings, Clydebank. Deposit £1 1s.

FEBRUARY 18.—**Coniston.**—POLICE COTTAGE.—Erection of police cottage with cells, for Lancashire Standing Joint Committee. County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

FEBRUARY 18.—**Cupar.**—RECONSTRUCTION.—For the reconstruction of the Tontine Hotel, Cupar, for the purpose of extending the County Buildings and Sheriff Court Offices, Cupar, for the Fife C.C. Mr. C. R. Douglas, surveyor, Prudential Chambers, 15, East Port, Dunfermline. Deposit £2.

FEBRUARY 18.—**Edinburgh.**—DEMOLITION.—For the demolition of existing buildings at Nos. 31 and 32, Princes-street, and No. 3, St. Andrew-square, Edinburgh. Messrs. John Burnet, Son, & Dick, architects, 239, St. Vincent-street, Glasgow. Deposit £1 1s.

FEBRUARY 18.—**Harrow-on-the-Hill.**—HOUSES.—For the erection of 18 parlour type houses on the Honeybun Estate, for the U.D.C. Mr. J. Percy Bennetts, Engineer and Surveyor, Council Offices, Harrow. Deposit £1.

FEBRUARY 18.—**Hertfordshire.**—SCHOOL.—Erection and completion of a new County Council school to accommodate 144 scholars at Walkern, near Stevenage, for the Hertfordshire County Council. County Surveyor's Office, Hatfield. Deposit £1 1s.

FEBRUARY 18.—**Huddersfield.**—HOUSES.—Erection of 14 houses in Almondbury Bank, for the T.C. Borough Architect, 26, Ramsden-street, Huddersfield.

FEBRUARY 18.—**Ilford.**—SCHOOL BUILDINGS.—Erection and completion under one contract of the following buildings at Steven's-road, Becontree, for the Ilford U.D.C.: (*a*) Upper school; (*b*) Middle and lower schools; (*c*) Medical inspection block, with covered ways thereto from each school. Mr. H. Shaw, M.Inst.C.E., Engineer and Surveyor to the Council, Town Hall, Ilford. Deposit £5 5s.

FEBRUARY 18.—**Penparcau (Aberystwyth).**—MEMORIAL HALL.—For erecting, for the Penparcau and District War Memorial Committee, a public memorial hall. Mr. T. Llew. Thomas, Hon. Sec., "Pretoria," Rhydyfelin, Aberystwyth.

FEBRUARY 18.—**South Queensferry.**—HOUSES.—Erection of 20 houses at Hopetoun-road, for the T.C. Mr. W. M. Scott, architect, Linlithgow.

FEBRUARY 18.—**Stirling.**—HOUSES.—Erection of four five-apartment houses for Larbert Housing extension scheme. For Eastern District Committee of the Stirling C.C. Messrs. A. & W. Black, architects, 5, King's-court, Falkirk. Deposit £1 1s.

FEBRUARY 18.—**Wakefield.**—ALTERATIONS.—For alterations to 4, Bond-street, for West Riding General Purposes Committee. West Riding Architect, County Hall, Wakefield.

FEBRUARY 18.—**Welwyn, Herts.**—COTTAGES.—Erection of 100 cottages in the parish of Welwyn Garden City, in the County of Hertford, for the R.D.C. Mr. Louis de Soissons, Architect, Estate Office, Welwyn Garden City, Herts. Deposit £2 2s.

FEBRUARY 19.—**Brighton.**—PAINTING &C.—For external painting, repairs and renovation, &c., at (1) Poor Law Institution and Infirmaries, Elm-grove; (2) Warren Farm Schools, near Brighton, for the B.G. Mr. E. Wallis Long, architect, 6, Old Steine, Brighton.

FEBRUARY 19.—**Easington.**—HOME.—Erection of a home for the nursing staff, for the Easington Board of Guardians. Mr. F. W. Girven, Surveyor, Council Offices, Easington. Deposit £2 2s.

FEBRUARY 19.—**Eglwysilan (near Pontypridd).**—EXTENSIONS.—For carrying out, for the Pontypridd and Caerphilly U.D. Councils, extensions and alterations to the Small Pox Hospital, Mynydd Mayo, Eglwysilan (near Pontypridd). Mr. W. E. Lowe, Surveyor, Municipal Buildings, Pontypridd.

FEBRUARY 19.—**Islington, N. 1.**—REPAIRING AND REPOINTING.—Repairing and repointing the retaining wall to the footway on the south-west side of Highgate-hill, for the Metropolitan Borough of Islington Borough Engineer, Municipal Offices, Tyndale-place, N. 1.

FEBRUARY 19.—**Manchester.**—ALTERATIONS.—For alterations at the Hulme Branch Library, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

FEBRUARY 19.—**Manchester.**—ALTERATIONS, &C.—For furniture and alterations to Children's Rooms at the Moss Side, Levenshulme, and Newton Heath Branch Libraries, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

FEBRUARY 19.—**Plymouth.**—ALTERATIONS AND REPAIRS.—For alterations and repairs to Harson Villa, Valletort-place, High-street, Stonehouse, for T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth.

FEBRUARY 19.—**Shotton.**—MANSE.—For erection of a manse at Shotton, for the Primitive Methodist Church. Messrs. Hays & Gray, architects, Wingate. Deposit £1 1s.

FEBRUARY 19.—**Tottenham.**—HUT.—Supply and erection of sectional hut, for the U.D.C. Surveyor, Town Hall, Tottenham, N. Deposit 10s. 6d.

FEBRUARY 19.—**Virginia Water.**—BRIDGE.—For strengthening and improvement of Ruins Bridge on Virginia Water, for the Surrey C.C. Mr. W. P. Robinson, County Surveyor, County Hall, Kingston-on-Thames. Deposit £2 2s.

FEBRUARY 19.—**Warmley.**—HOUSES.—For erection of ten houses (in pairs) at Parkwall in parish of Oldland, for R.D.C. Clerk, Council Offices, Warmley, near Bristol. Deposit £1 1s.

FEBRUARY 19.—**Warrington.**—HOUSES.—Erection of 54 houses on the Reynolds-street site, for T.C. Mr. W. T. Davenport, Queens' Chambers, Sankey-street, Warrington. Deposit £2 2s.

FEBRUARY 19.—**Worthing.**—CABINS.—For the construction and supply of fifteen timber-framed beach cabins to the T.C. Borough Surveyor, Municipal Offices, Worthing.

FEBRUARY 20.—**Bradford.**—HOUSE.—For the erection of a residence in Baslow-grove, Toller-lane, Heaton, Bradford. Messrs. T. H. & F. Healey, architects, 42, Tyrrel-street, Bradford.

FEBRUARY 20.—**Crook.**—COTTAGES.—Erection of the following houses for the Aged Miners' Homes: Four houses, situated at Hill Top, Stanley, near Crook; two houses, situated at Sunniside, near Crook, Co. Durham. Mr. Thos. J. Shepherd, Secretary, 17, Double-row, Sunniside, Tow Law, Co. Durham.

FEBRUARY 20.—**Dawdon and Washington.**—HOMES.—Erection of twelve homes at Dawdon and twelve homes at Washington, for the Durham Aged Mineworkers' Homes Association. Mr. R. Lawson, District Secretary, Miners' Hall, Dawdon, Seaham Harbour; and Mr. E. Hemsley, District Secretary, 1, Springwell terrace, Springwell, Gateshead-on-Tyne.

FEBRUARY 20.—**Hillhou e.**—ALTERATIONS.—For alterations to the Slubbers Arms. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield.

FEBRUARY 20.—**Kilmallock.**—HALL.—Erection of a new hall at Kilmallock. Mr. Patrick J. Ryan, C.E., Kilmallock. Deposit £1 1s.

FEBRUARY 20.—**Pudsey.**—HOUSES.—For the erection of six houses on the Heath Grove Estate, for T.C. Borough Surveyor, Town Hall, Pudsey. Deposit £1 1s.

FEBRUARY 20.—**Reading.**—COMPRESSING STATION.—Erection of a compressing station, including compressor house, concrete foundations for machinery, workshop, messroom and subsidiary buildings, for the T.C. Mr. G. Midgley Taylor, 36–38, Victoria-street, Westminster, S.W. 1. Deposit £5.

FEBRUARY 20.—**Sowerby Bridge.**—HOUSES.—Erection of 20 houses on Albert-road housing site, for the U.D.C. Mr. J. Eastwood, Surveyor, Council Offices, Sowerby Bridge.

FEBRUARY 20.—**Stornoway.**—COTTAGES.—Erection of cottages at Stornoway, for the T.C. Messrs. Alexander Ross & Son, architects, Inverness.

✱FEBRUARY 20.—**Teddington.**—IRON RAILINGS.—Supplying and fixing iron railings and gates at the National Physical Laboratory, Teddington, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1.

FEBRUARY 21.—**Ealing, W.5.**—NEW SCHOOL.—Erection of a new school at South Ealing, for the E.C. of the Borough of Ealing. Mr. W. R. Hicks, M.Inst. C.E., Borough Engineer, Town Hall, Ealing, W.5. Deposit £5 5s.

FEBRUARY 21.—**Fulham.**—DEMOLITION.—For pulling down casual wards, &c., for the Board of Guardians. Mr. E. J. Mott, Clerk, 129, Fulham Palace-road, London, W. 6.

FEBRUARY 21.—**Guildford.**—HOUSES.—Erection of 30 pairs of three-bedroom, non-parlour houses, on the Guildford Park Housing Estate, for the Borough of Guildford. Borough Surveyor, Tun's-gate, Guildford. Deposit £2 2s.

FEBRUARY 21.—**Lichfield.**—IMPROVEMENTS.—For alterations and improvements to the Guildhall and Municipal Offices, for the T.C. Mr. P. A. Benn, City Surveyor, Lichfield. Deposit £2 2s.

FEBRUARY 21.—**London, S.E. 1.**—ELECTRIC LIGHTING.—Installation of a complete electric lighting scheme at the Newington Institution, Westmoreland-road, S.E. 1, for the Guardians of the Southwark Union. Messrs. A. Saxon Snell & Phillips, 9, Bentinck-street, Manchester-square, W. 1. Deposit £5.

FEBRUARY 21.—**St. Austell.**—ADDITIONS.—For erection of casual wards and disinfecting station at Sedgmoor Priory, for the St. Austell Board of Guardians. Mr. J. W. Simcox, surveyor, St. Austell.

✱FEBRUARY 21.—**Southcourt.**—HOUSES.—Erection of 44 houses for the Aylesbury Borough Council, on their housing estate. The Town Clerk, Town Hall, Aylesbury. Deposit £2 2s.

FEBRUARY 21.—**Sunbury-on-Thames.**—HOUSES.—Erection of 20 houses, in or near Manor-lane, for the U.D.C. Mr. E. Beeching, Council Offices, Sunbury-on-Thames.

FEBRUARY 21.—**Worthing.**—PAINTING.—For internal painting, &c., at the Corporation Baths, Heene-road. Borough Surveyor, Municipal Offices, Worthing.

✱FEBRUARY 22.—**Brighton.**—SCHOOL.—Erection of a secondary school for girls, for the Brighton Education Committee. Messrs. Thomas Simpson & Son, 16, Ship-street, Brighton. Deposit £3 3s.

FEBRUARY 22.—**Halifax.**—WORKSHOP.—Erection of workshop, for the Halifax Society for the Blind. Mr. M. Hall, architect, 1, Harrison-road, Halifax.

FEBRUARY 22.—**Welburn.**—HOUSE.—Erection of residence at Welburn, near Kirbymoorside, for Captain J. E. D. Shaw. Messrs. Garside & Pennington, architects, Ropergate, Pontefract.

FEBRUARY 23.—**Aberystwyth.**—TWO VILLAS.—Erection of two villas for Mr. T. W. Powell at Brynymor-road, Aberystwyth. Mr. J. Lewis Evans, architect, 21, Great Darkgate street, Aberystwyth.

✱FEBRUARY 23.—**Bradford.**—HOUSES.—Erection of the following houses in accordance with the conditions stated. Housing Scheme, No. 10, Thornton: 36 houses, Class "A"; 44 houses, Class "B." (1) Contractors may tender for separate trades or for the whole of the work in all trades complete; (2) the tenders shall be based upon fixed prices for labour and materials. City Architect, Town Hall, Bradford.

FEBRUARY 23.—**Crostwick.**—NEW WORKSHOPS.—For erection of new workshops at Stanninghall Farm Colony, for the Norfolk Joint Sanatorium Committee. Messrs. A. F. Scott & Sons, 24, Castle Meadow, Norwich.

FEBRUARY 23.—**Doncaster.**—LOOSE BOXES.—For the erection of 32 loose boxes, &c., on land adjoining Belle Vue, for the T.C.. Mr. R. E. Ford, Race Department, 3, Priory-place, Doncaster. Deposit £1 1s.

FEBRUARY 23.—**Ebbw Vale.**—WORK AT SCHOOLS.—For jobbing work at schools for one year, for U.D.C. Mr. P. L. Davies, Surveyor to the Council, District Council Offices, Ebbw Vale. Deposit £1.

FEBRUARY 23.—**Staincliffe.**—PAINTING, &C.—For redecorating inside of chapel and class rooms for the Trustees. Mr. W. Sykes, 11, Hillend-terrace, Killpinhill-lane, near Dewsbury.

FEBRUARY 25.—**Edinburgh.**—HOUSES.—For erection of following houses, for the T.C.: (1) Gilmerton, 24 houses; (2) Longstone, 4 houses. Messrs. Murray & Baird, 50, George-street, Edinburgh.

FEBRUARY 25.—**Enniskillen.**—BAKERY.—Erection of bakery, for Messrs. G. Whalley & Sons. Mr. J. Donnelly, architect, Enniskillen.

FEBRUARY 25.—**France.**—CEMETERY CONSTRUCTION.—Construction of approximately 30 cemeteries in France. Contract 1924. S. Secretary (Works Dept.), Imperial War Graves Commission, 82, Baker-street, London, W.1. Deposit 15 guineas.

✱FEBRUARY 25.—**Gloucester.**—SCHOOLS.—Erection of proposed new Northgate Council Schools, for the Gloucester Education Committee. Mr. Walter B. Wood, A.R.I.B.A., 12 Queen-street, Gloucester.

FEBRUARY 25.—**Hemsworth.**—HOUSES.—Erection of 50 houses and the construction of roads and sewers at Grimethorpe, near Barnsley, for the R.D.C. Mr. W. T. Lineham, architect, Union Offices, Hemsworth, near Pontefract. Deposit £2 2s.

FEBRUARY 25.—**Heswall.**—EXTENSIONS.—For extensions to the Sanatorium, Heswall, for the West Derby Board of Guardians. Mr. Ernest B. Bailey, F.S.I., 9, Cook-street, Liverpool. Deposit £2 2s.

FEBRUARY 25.—**Hindley.**—HOUSES.—Erection of houses on the Housing Site, Atherton-road, for the U.D.C. Mr. O. P. Abbott, architect, Council Offices Hindley. Deposit £3 3s.

FEBRUARY 25.—**Leith.**—SCHOOL.—For erection of new elementary school, James-place, Leith, for Edinburgh E.C. Mr. J. M. Johnston, architect, 47, Charlotte-street, Leith.

FEBRUARY 25.—**London.**—GENERAL WORKS AND REPAIRS.—Execution of general works and repairs (including jobbing works), exclusive of works of a mechanical character, to sewers, engine houses, buildings, bridges, subways, tunnels, &c., under the supervision of the Chief Engineer of the London County Council, on a schedule of prices for a contract for 12 months commencing April 1, 1924 Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

FEBRUARY 25.—**London, W.**—NURSES' HOME EXTENSIONS.—Extension of the Nurses' Home at the St. Marylebone Hospital, Rackham-street, W.10, for the B.G. of St. Marylebone. Messrs. Constantine & Vernon, architects, 82, Mortimer-street, W., where conditions, &c., may be seen between the hours of 10 a.m. and 5 p.m. on the 18th, 19th and 20th. Deposit two £1 Treasury Notes.

FEBRUARY 25.—**Pontefract.** &c.—ALTERATIONS AND VILLAS.—(1) Additions to their Head Office in Pontefract, for the South Kirby, Featherstone & Hemsworth Collieries Co., Ltd.; and (2) a pair of semi-detached villas, Wakefield road, Purston. Messrs. Garside & Pennington, architects, Pontefract.

FEBRUARY 25.—**Salford.**—HOUSES.—Erection of 3 houses and flats on Littleton-road housing estate, for the T.C. Mr. C. Swain, architect, 12, Exchange street, Manchester.

FEBRUARY 25.—**Shiney-row.**—HOUSES.—Erection of 18 houses at Shiney-row, and 39 at Fence Houses, for the Lambton & Hetton Collieries Co. Architect's Office, Philadelphia Lime Depot.

FEBRUARY 25.—**Worthing.**—SHELTERS.—Erection of four glazed shelters on the Marine-parade, Worthing, for the B.C. Borough Surveyor, Municipal Offices, Worthing. Deposit £1 1s.

FEBRUARY 26.—**Aylesbury.**—PUMPING STATION.—For construction of pumping station and sewage tank in reinforced concrete, for the T.C. Mr. Wm. Harold Taylor, Borough Engineer, Town Hall, Aylesbury.

FEBRUARY 26.—**Belvedere.**—POST OFFICE.—Erection of a branch Post Office at Belvedere, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

FEBRUARY 26.—**Dublin.**—RESTORATION.—For restoration of station buildings at Bennett's Bridge, Durrow, Molahiffe and Gortatlea, for the Great Southern and Western Railway Co. Chief Engineer, Inchicore, Dublin. Deposit £1 1s. each contract.

FEBRUARY 26.—**London, E.3.**—BUILDING ADDITIONS, &c.—Building of a nurses' dining-room, alterations and additions, and redecorations at St. Andrew's Hospital, Devon's-road, Bow, E.3, for the Managers of the Poplar and Stepney Sick Asylum District, St. Andrew's Hospital. Messrs. Andrews & Peascod, architects, 135, Bow-road, E.3. Deposit £3.

FEBRUARY 26.—**London, N.W.6.**—DECORATION, STEAM HEATING AND LIGHTING.—Decoration of certain buildings at the Municipal Hospital, Brentfield-road, Neasden, for the Willesden U.D.C. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W. 6.

FEBRUARY 26.—**Newton-in-Makerfield.**—HOUSES.—For erection of 40 type "A" houses at the South Mesnes, Earlestown, for U.D.C. Mr. J. Elston, Market Chambers, Earlestown.

FEBRUARY 27.—**Ashford.**—BUILDING.—For the erection of a brick-built incinerator at its Hampden Farm Refuse Depot, for the U.D.C. Mr. Wm. Terrill, surveyor, 5, North-street, Ashford, Kent.

★FEBRUARY 27.—**Belmont (Surrey).**—GIRDER (WOOD) AND FLOORING.—Repairing wood girder and relaying wood floor at Belmont Institution, Belmont, Surrey, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

FEBRUARY 27.—**Gloucester.**—REPAIRS, &C.—For the execution of ordinary works and repairs at the buildings in charge of H.M. Office of Works in the Gloucester District. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit 10s. 6d.

FEBRUARY 27.—**Harwich.**—DRESSING BOXES, &C.—For erection of dressing boxes and incidental works at the bathing pool on Dovercourt beach, for T.C. Mr. F. H. French, Borough Surveyor, Harwich. Deposit £2 2s.

★FEBRUARY 27.—**Hove.**—HOUSES.—Erection of 90 houses in Ingram-crescent and Bolsover-road, Hove, for the B.C. of Hove. Borough Surveyor's Office, Town Hall, Hove. Deposit £2 2s.

★FEBRUARY 27.—**Kent.**—UNDERGROUND COAL STORE.—An additional underground coal store, for the Upper Boiler House, at the Southern Hospital, Dartford, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

★FEBRUARY 27.—**London, S.W. 10.**—CLEANING AND PAINTING.—Cleaning and painting work, at St. George's Home, Milman-street, Chelsea, S.W. 10, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

★FEBRUARY 27.—**London, S.W. 17.**—ADAPTATION (BUILDING).—The adaptation of laundry for use as kitchen, clothing store, &c., together with new covered ways, yard and roadway, &c., at Tooting Bec Mental Hospital, Tooting, S.W. 17, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

★FEBRUARY 27.—**Lowestoft.**—HOSPITAL.—Erection of a gate lodge at St. Luke's Hospital, Kirkley Cliff-road, Lowestoft, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

FEBRUARY 28.—**Greenwich.**—HOUSES.—Erection and completion of 48 houses in two sections on the Charlton Housing Estate, completion of Site No. 3, under the supervision of the Council's Architect. Town Clerk's Department, Town Hall, Greenwich. Deposit £2 2s.

FEBRUARY 28. — **Hereford.** — STATION SORTING OFFICE.—Erection of a station sorting office, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

★FEBRUARY 28.—**London, S.E.**—BUILDING ADDITIONS.—Additions to laundry and provision of drying-horses, &c., at the Bermondsey and Rotherhithe Hospital, Lower-road, Rotherhithe, S.E., for the Guardians of the Parish of Bermondsey. Mr. Henry H. Reeve, Clerk, Guardians Offices, 283, Tooley-street, S.E.1, between 10 a.m. and 12 noon on February 18, 19, 20 and 21, 1924. Deposit £5 Bank of England Note.

FEBRUARY 28.—**Saltash.**—ALTERATIONS.—For alterations and renovations at the Guildhall, for the T.C. Borough Surveyor, Guildhall, Saltash. Deposit £2 2s.

FEBRUARY 28.—**Wakefield.**—WORKSHOPS.—Supply of 17 sectional wood workshops, for the West Riding C.C. Health Committee. West Riding Architect, County Hall, Wakefield.

FEBRUARY 29.—**Ely.**—HOUSES.—Erection of 20 houses on "The Mews" Housing Site, for the Ely U.D.C. Contractors are invited to tender for the whole or part of the above, including drains, paths and fences. Mr. W. McKelvie, Architect and Surveyor, City Surveyors' Office, Ely. Deposit £1 1s.

★FEBRUARY 29.—**Hants.**—REPAIRS AND MATERIALS.—Works contract from March 17, at the station mentioned, address of Royal Engineers' Office, Marlborough Lines, North Aldershot, Hants (station, Sandhurst), including Arborfield Cross, in the North Aldershot Royal Engineer District of the Aldershot Command. Above-named Royal Engineer.

MARCH 1.—**Denbigh.**—ALTERATIONS.—For alterations at Green Congregational Church, near Denbigh. Specifications at Voel Gaer, Fron, Denbigh.

★MARCH 3.—**Newcastle-on-Tyne.**—For Contract No. 2, in connection with banqueting hall and additional bedroom, Station Hotel, being all trades except steelwork, for the L. & N.E. Railway. Mr. Stephen Wilkinson, architect, North-Eastern Area, Newcastle-on-Tyne.

MARCH 4. — **Aldershot.** — HOUSES. — Erection of eight blocks of four houses, thirty-two in all, at Aldershot Park Housing Scheme No. 2, for the Borough of Aldershot. Borough Surveyor's Office, Municipal Buildings, Aldershot. Deposit 5.

MARCH 4.—**Barking.**—HOUSES.—Erection of about 59 houses on the Eastbury Estate, Ripple-road, Barking, for the Barking U.D.C. Council's Architect, Mr. C. J. Dawson, F.R.I.B.A., Clock House Chambers, East-street, Barking. Deposit £5.

★MARCH 4.—**Hornsey, N.6**—BUILDING EXTENSION.—Erection of an extension to the Electricity Works, Hornsey, comprising new converter house, switch room, offices, &c., for the T.C. of the Borough of Hornsey. Mr. E. J. Lovegrove, Borough Engineer and Surveyor, Town Hall, Highgate, N.6, on any morning between 10 and 12 o'clock.

★MARCH 5.—**Hindley.** — PUBLIC ELEMENTARY SCHOOL.—Architects and surveyors are invited to submit terms for the preparation of plans, specifications, quantities, &c., for the erection of a public elementary school (approximate accommodation, 450) at Hindley Green. Mr. I. C. Pharaoh, Secretary for Education, Education Dept., Council Offices, Hindley, endorsed "Architect."

MARCH 5.—**Salford.**—BUILDING.—Erection of old people's homes, at Hope, Pendleton, near Manchester, for the Salford Board of Guardians. Mr. E. H. Inchley, Clerk to the Guardians, Poor Law Offices, Eccles New-road, Salford. Deposit £2 2s.

★MARCH 6.—**Epsom.**—COTTAGES.—Erection of cottages on the following sites: Scheme 1, Winkworth Farm, Banstead, 20 cottages; Scheme 2, Canons-lane, Burgh Heath, 20 cottages; Scheme 3, Pound Meadow, Fetcham, 10 cottages, for the Epsom R.D.C. Housing Act, 1923.

★MARCH 10.—**Walsingham, Norfolk.**—COTTAGES.—Erection of 20 cottages at Briston, Norfolk, for the Walsingham R.D.C. Mr. W. O. Humphery, Surveyor, Fakenham, Norfolk.

MARCH 13.—**Ashton-in-Makerfield.**—SCHOOL.—For the erection of a Council School of semi-permanent construction, for 500 scholars, at Ashton-in-Makerfield, near Wigan, for the Lancashire E.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

MARCH 14.—**Crompton.**—SCHOOL.—For the erection of a Council school for 350 scholars at Crompton, near Oldham, for the Lancashire E.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

NO DATE.—**Bridgend.**—SHOPS.—For erection of two lock-up shops at corner of Cemetery-road, Bridgend. Mr. R. Rees, Brynteg, Litchard (Glam).

NO DATE.—**Cwmgwrach (Glyn-Neath).**—HOUSES.—For erection of three blocks of semi-detached houses at Cwmgwrach, Glyn-Neath (Glam). Mr. J. Horatio George, architect, Aberavon, Port Talbot.

NO DATE.—**Dundonald.**—HOUSES.—Erection of 40 houses for the Lochgelly Iron & Coal Co., Ltd. Mr. A. D. Haxton, architect, Leven.

NO DATE.—**Falkirk.**—HOUSES.—Erection of 52 houses at Thornhill Site, for the T.C. Mr. A. Balfour Gray, Town Clerk, Falkirk.

NO DATE.—**Falkirk.**—PAINTING.—Painter work of 80 houses, for the T.C. Mr. Wm. Gibson, Director of Housing, Arbotdale, Falkirk.

NO DATE.—**Glynneath.**—HOUSES.—For erection of three block of semi-detached houses at Cwmgwrach, Glynneath. Mr. J. H. George, surveyor, Aberavon. Port Talbot.

★NO DATE.—**Hants.**—BUILDING ADDITIONS.—Additions to the "Montagu Arms," Beaulieu, Hants. Messrs. Broad, Babbs & Dockerill, quantity surveyors, Oxford-road, Bournemouth; or of the architects, Messrs. Biram & Fletcher, George-street, St. Helens, Lancashire.

NO DATE.—**Heaton.**—BUILDING WORKS.—For works at St. Bede's School. Messrs. Simpson & Son, 12, Cunliffe-terrace, Manningham.

NO DATE.—**Horsforth.**—WALLS, &C.—Forming concrete foundations, building retaining and boundary walls, for Troy improvement, for the U.D.C. Mr. G. H. Shipley, Surveyor, Council Offices, Horsforth.

NO DATE.—**Ipswich.**—HOUSES.—For erection of 30 houses on Gripping-street site, and 76 houses on London-road site, for T.C. Mr. S. Little, Borough Surveyor, Town Hall, Ipswich. Deposit £2 2s.

NO DATE.—**Ponthenry.**—HOUSES.—Erection of 40 workmen's houses at Ponthenry, for Ponthenry Colliery Co., Ltd. Messrs. C. S. Thomas & H. Jones, architects, Salisbury Chambers, Wind-street, Swansea. Deposit £3 3s.

FURNITURE, MATERIALS, etc.

FEBRUARY 16.—**Bedford.**—MATERIALS.—For supply of road materials and for cartage of road materials, for C.C. County Surveyor, Shire Hall, Bedford.

FEBRUARY 16.—**Boston.**—MATERIALS, &C.—Supply of broken and unbroken road materials and surface tarring, for the Holland C.C. Mr. Wm. A. Rogerson, County Surveyor, Sessions House, Boston.

FEBRUARY 16.—**Cardiff.**—MATERIALS.—Supply of engineers', builders' and other stores, to the Water Dept. Mr. C. H. Priestley, Waterworks Engineer' City Hall, Cardiff.

FEBRUARY 16.—**Chislehurst.**—MATERIALS.—Supply of materials for one year, to the U.D.C. Mr. J. J. Brown, Clerk, Council Offices, Chislehurst.

FEBRUARY 16.—**Hayes.**—TAR.—Supply of 12,000 gallons of refined tar, to the U.D.C. Mr. D. C. Fidler, Surveyor, Council Offices, Hayes.

FEBRUARY 16.—**Hursley.**—TAR.—Supply of tar to the R.D.C. Mr. J. P. Game, Surveyor, Hursley, near Winchester.

FEBRUARY 16.—**Stafford.**—MATERIALS.—Supply of stores and materials to the T.C. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford.

FEBRUARY 18.—**East Barnet Valley.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. H. York Surveyor, Council Offices, New Barnet.

FEBRUARY 18.—**Finsbury.**—MATERIALS.—Supply of stores and materials for six or twelve months, for B.C. Borough Surveyor, Town Hall, Finsbury, E.C. 1.

FEBRUARY 18.—**Godstone.**—MATERIALS.—For supplies and work in connection with the maintenance and repair of highways, for one year, for the R.D.C. Mr. G. E. Crowter, Surveyor, Council Offices, Oxted, Surrey.

FEBRUARY 18.—**Gravesend.**—MATERIALS.—Supply of various materials to the T.C. Town Clerk, Gravesend.

FEBRUARY 18.—**Isle of Wight.**—MATERIALS.—Supply of granite, chippings, tar, &c., to the R.D.C. Mr. E. B. Wray, surveyor, 30, Pyle-street, Newport, Isle of Wight.

FEBRUARY 18.—**Kingston-on-Thames.**—MATERIALS.—Supply of oils and greases, tar, &c., to the Surrey C.C. Mr. W. P. Robinson, County Surveyor, County Hall, Kingston-upon-Thames.

FEBRUARY 18.—**Long Sutton.**—ROAD MATERIALS.—For supply of road material to the U.D.C. Surveyor, Long Sutton, Lincs.

FEBRUARY 18.—**Richmond.**—MATERIALS.—Supply of road and other materials, to the T.C. Mr. J. H. Brierley, Borough Surveyor, Town Hall, Richmond, Surrey.

FEBRUARY 18.—**Southport.**—MATERIALS.—Supply of various materials to the T.C. Mr. A. E. Jackson, Borough Engineer, Town Hall, Southport.

FEBRUARY 18.—**Wakefield.**—MATERIALS.—Supply to the West Riding County Council of road materials and stores. West Riding Surveyor, County Hall, Wakefield.

FEBRUARY 18.—**Waltham.**—MATERIALS.—Supply of granite, flints, gravel, hoggin, ballast and sand, and tar-macadam, &c., to the U.D.C. Mr. W. C. Holloway, Surveyor, Town Hall, Waltham Abbey.

FEBRUARY 18.—**Warrington.**—SANITARY CART.—For one tumbler cart with a capacity of 260 gallons, for the T.C. Mr. A. M. Ker, Borough Engineer, Warrington.

FEBRUARY 19.—**Birkenhead.**—STORES.—Supply of stores to Tramways' Department for one year. Tramways' Manager, Birkenhead.

FEBRUARY 19.—**Boston.**—ROAD MATERIALS.—Supply of granite, slag and tarred slag for R.D.C., for six months. Mr. A. Barton. Church-lane, Boston.

FEBRUARY 19.—**Manchester.**—STORES.—For supply of stores to the tramways department. Mr. H. Mattinson, general manager, 55, Piccadilly, Manchester.

FEBRUARY 19.—**Poole.**—MATERIALS.—For supply of granite, tarmacadam, and tar, and hire of steam road rollers for six months, for T.C. Mr. S. J. Newman, Borough Surveyor, Municipal Offices, Poole.

FEBRUARY 20.—**Buckingham.**—MATERIALS.—Supply of granite chippings, tar macadam and refined tar, to the R.D.C. Mr. F. L. Reynolds, surveyor, Buckingham.

FEBRUARY 20.—**Chester.**—MATERIALS.—Supply of granite macadam and chippings, tarred material, tar compounds, and tarspraying, to the Cheshire C.C. Mr. W. Holland, County Surveyor, The Castle, Chester.

FEBRUARY 20.—**Hammersmith.**—STORES.—For supply of stores for one year to the Electricity Dept. of the B.C. Mr. G. G. Bell, Borough Electrical Engineer, Hammersmith, W.

FEBRUARY 20.—**London.**—LOCKS.—For the supply of locks to H.M. Commissioners of Works. Controller of Supplies, H.M. Office of Works, King Charles-street, S.W.

FEBRUARY 20.—**Rawtenstall.**—MATERIALS.—Supply of highways material to the T.C. Borough Surveyor, Town Hall, Rawtenstall.

FEBRUARY 21.—**Frome.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. L. Slaughter, Public Offices, Frome.

FEBRUARY 21. — **Greenwich.** — MATERIALS. — For supply of road and other material, for one year, for B.C. Borough Engineer, Town Hall, Greenwich-road, S.E. 10.

FEBRUARY 21.—**Romney.**—MATERIALS.—Supply of tar, or tar substitute, rock, rock chippings, gravel, beach and grit, to the R.D.C. Mr. H. J. Smith, New Romney, Kent.

FEBRUARY 22.—**Finchley.**—MATERIALS.—Supply of tar and road materials to the U.D.C. Surveyor, 9, The Hawthorns, Finchley, N.3.

FEBRUARY 22.—**Wetherby.**—MATERIALS.—Supply of slag, granite, tar, &c. Mr. A. Suttel, surveyor, Council Offices, Wetherby.

FEBRUARY 22.—**Woodford.**—MATERIALS.—Supply of road and other materials for six or twelve months, for U.D.C. Mr. W. Farrington, Surveyor, Council Offices, Woodford Green, Essex.

FEBRUARY 23.—**Diss.**—MATERIALS.—Supply of road materials for U.D.C. Mr. A. Cooper, Surveyor, 9, Market-place, Diss, Norfolk.

FEBRUARY 23.—**Earby.**—MATERIALS.—Supply of granite, limestone, tarred slag, refined tar or other spraying compounds to the U.D.C. Mr. Jas. E. Aldersley, Surveyor, Council Offices, Earby.

FEBRUARY 23.—**Harrogate.**—MATERIALS.—For highways materials, for one year, to the T.C. Mr. C. E. Rivers, Borough Engineer, Harrogate.

FEBRUARY 23.—**North Walsham.**—TAR, &C.—Supply of 16,000 gallons of tar or bituminous compounds and 400 tons of grit, for U.D.C. Mr. W. Morris, Surveyor, to the Council, Bacton-road, North Walsham.

FEBRUARY 23.—**Paddington.**—MATERIALS.—Supply of stores and materials for one year for B.C. Borough Treasurer, Town Hall, Paddington, W.2. Charge 2s. 6d. per schedule (22).

FEBRUARY 23.—**Pembroke.**—ROAD MATERIALS, &c.—For supply to R.D.C., for 12 months as from April 1 next, of highways materials for parishes of Castlemartin and St. Mary Out-Liberty, Tenby. Also provision of team labour. Mr. F. S. Jones, Clerk, Main-street, Pembroke.

FEBRUARY 23.—**Woking.**—TAR.—Supply of 8,000 gallons of dehydrated tar. Mr. G. J. Wooldridge, surveyor, Woking.

FEBRUARY 25.—**Broadstairs.**—MATERIALS.—Supply of dehydrated tar, crude tar, crushed pebble, granite chippings, to the U.D.C. Mr. H. Hurd, surveyor, Pierremont Hall, Broadstairs.

FEBRUARY 25.—**Chelmsford.**—MATERIALS.—Supply of road and other materials to the R.D.C. Mr. L. A. Cozens, surveyor, Waterloo-lane, Chelmsford.

FEBRUARY 25.—**Flaxton.**—MATERIALS.—Supply of broken slag and broken whinstone, tar and tar compounds to the R.D.C. Surveyor, 3, Rowan-avenue, New Earswick, York.

FEBRUARY 25.—**Haywards Heath.**—MATERIALS.—Supply of 11,000 gallons of tar or tar compounds for U.D.C. Mr. G. Plummer, Surveyor, Urban Council Offices, Haywards Heath.

FEBRUARY 25.—**Hertford.**—MATERIALS.—Supply of broken granite, slag, limestone, gravel, sand, lime, tar, &c., to the T.C. Borough Surveyor, The Castle, Hertford.

FEBRUARY 25.—**Islington.**—VEHICLES.—Supply of two electric dust-collecting vehicles with tipping bodies and four horse-drawn street watering vans. Superintendent, Cleansing Department, Liverpool-road, N.

FEBRUARY 25.—**Lewisham.**—MATERIALS.—Supply of stores and materials for one year for B.C. Borough Surveyor, Town Hall, Catford, S.E.6.

FEBRUARY 25.—**St. Marylebone.**—MATERIALS.—Supply of tools and ironmongery, &c., to Highway Dept. of B.C. Mr. J. Gair, Engineer, Town Hall, Marylebone-road, N.W.

FEBRUARY 26. — **Hailsham.** — MATERIALS. — For supply of granite, limestone and flints to the R.D.C. Mr. G. B. Fairchild, surveyor, Hailsham.

FEBRUARY 26.—**Leyton.**—MATERIALS.—Supply of materials for public services, for the U.D.C. Surveyor, Town Hall, Leyton.

FEBRUARY 26.—**Maidstone.**—FENCING.—Supply of 16,000 5-ft. cleft chestnut spiles and 400 6-ft. by not less than 3 in. dia. chestnut posts, to the Kent C.C. Mr. P. W. Cox, Chief Agricultural Officer, Sessions House, Maidstone.

FEBRUARY 27.—**Manchester.**—CHAIRS.—Supply of 1,000 or more collapsible garden chairs to the T.C. General Superintendent, Parks, &c., Dept., 38-40, Lloyd-street, Manchester.

FEBRUARY 27.—**Smethwick.**—MATERIALS—Supply of various materials to the T.C. Mr. Alex. Hosken, Borough Engineer, Council House, Smethwick.

FEBRUARY 27. — **Southwark.** — MATERIALS. — For supply of stores and materials for B.C. Mr. P. H. Grey, Town Clerk, Town Hall, Walworth-road, S.E.17.

FEBRUARY 27.—**Twickenham.**—MATERIALS.—For supply of materials, for six months, to the U.D.C. Mr. F. W. Pearce, Surveyor, Town Hall, Twickenham.

FEBRUARY 28.—**Hoylake.**—MATERIALS.—Supply of road materials, cast-iron pipes, reinforced concrete pipes, &c., to the U.D.C. Surveyor, Town Hall, Hoylake.

FEBRUARY 29.—Canterbury.—MATERIALS.—Supply of road and other materials to the T.C. Mr. P. H. Warwick, City Surveyor, Canterbury.

FEBRUARY 29.—**Ossett.**—MATERIALS.—For supply of materials, stores, workmen's tools, &c., for one year, for T.C. Borough Surveyor, Town Hall, Ossett.

FEBRUARY 29. — **Upholland.** — MATERIALS. — For road and other materials, for one year, for U.D.C. Mr. A. Hunt, Clerk, Upholland, Lancs.

FEBRUARY.— **Westminster.**— MATERIALS, &C.— For works and supplies, for the Westminster C.C. Mr. John Hunt, Town Clerk, City Hall, Charing Cross-road, W.C.2.

MARCH 1.—**Ormskirk.**—MATERIALS.—Supply of highway materials to the West Lancashire R.D.C. Mr. R. Rosbotham, surveyor, Town End, Ormskirk.

MARCH 3.—**Middlesbrough.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. S. E. Burgess, Borough Engineer, Middlesbrough.

MARCH 4.—**Belfast.**—STORES.—Supply of stores for one year to the Tramways Department. General Manager, Belfast.

MARCH 4.—**Leeds.**—MATERIALS.—Supply of materials, to the Tramways and Highways Dept., for one year. Mr. G. B. Hamilton, Commercial Manager, 1, Swinegate, Leeds.

MARCH 4.—**Padiham.**—MATERIALS.—Supply of road and other materials, to the U.D.C. Mr. R. Radcliffe, Surveyor, Council Offices, Padiham.

MARCH 5.—**Battersea.**—PAINTS, &C.—Supply of (1) Paints, &c., (2) special paints, enamels, &c., (3) painters' sundries, (4) varnish, &c., (5) bricks, cement, lime, &c., for 12 months, to the B.C. Town Hall, Lavender-hill, S.W.11.

MARCH 5.—**King's Lynn.**—MATERIALS.—Supply of ironmongery, oils, colours, packing, brushes, &c., to the T.C. Mr. J. C. Matthew, Borough Surveyor, King's Lynn.

✱MARCH 5.—**London, S.W. 11.**—MATERIALS, &C.—Tenders are invited for the following from April 1 next, for three, six and twelve months: (1) Supply of paints, &c.; (2) supply of special paints, enamels, &c.; (3) supply of painters' sundries; (4) supply of varnish, &c.; (5) supply of bricks, cement, lime, &c. For twelve months: horse hire for the Battersea B.C. Mr. Edwin Austin, Town Clerk, Town Hall, Battersea, S.W. 11.

MARCH 11.—**Liverpool.**—MATERIALS.—For the supply of various materials required for city engineer's dept. City Engineer, Municipal Buildings, Dale-street, Liverpool.

MARCH 12.—**Rye.**—MATERIALS.—Supply of material for one year to the R.D.C. Mr. H. J. Elliot, surveyor, Winchelsea, Sussex.

ENGINEERING, IRON AND STEEL.

FEBRUARY 16.—**Cromer.**—PUMPING PLANT.—Erection and setting to work of pumping machinery and boiler at the pumping station, Metton, for the U.D.C. Messrs. J. C. Melliss & Co., 156, Gresham House, Old Broad-street, E.C.2. Deposit £5.

FEBRUARY 18.—**Blantyre.**—STEELWORK.—For the providing of the steelwork required in the renewal of an overbridge at Blantyre and an underbridge at Hartwood, for the London Midland & Scottish Railway Co. (Northern Division). Divisional Engineer, Buchanan-street Station, Glasgow. Deposit £2 2s.

FEBRUARY 18.—**Bristol.**—ELEVATOR.—For the construction of a floating pneumatic grain elevator, to handle 150 tons per hour, at the Avonmouth Docks, for the Docks Committee. Mr. T. A. Peace, Engineer, Port of Bristol. Deposit £5.

FEBRUARY 18.—**Dublin.**—STEELWORK.—Supply to the Midland Great Western Railway of Ireland Company of steelwork, for Bridge No. 206. Chief Engineer, Broadstone Terminus, Dublin. Charge 4s.

FEBRUARY 18.—**Glasgow.**—ELECTRIC LIGHTING.—Electric lighting installation of Partick District Library, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

FEBRUARY 18.—**Liskeard.**—RESERVOIR.—Erection of reservoir for water supply to Menheniot, for the R.D.C. Mr. H. R. Venning, architect, Liskeard.

FEBRUARY 18.—**London.**—FENCING.—Supply of wrought-iron unclimbable iron fencing at Millfields, Clapton, for the L.C.C. Chief Officer, Parks Department, County Hall, Westminster Bridge, S.E.1.

FEBRUARY 18.—**Port Talbot.**—ROLLERS.—Supply of one 10-ton and one 8-ton steam roller, to the T.C. Borough Engineer, Port Talbot.

FEBRUARY 18.—**Stockport.**—SEWAGE PLANT.—Supply and erection at the Stockport Sewage Works, Cheadle Heath: (1) Helical reduction gear sets; (2) mild steel shafting, including couplings and plummer blocks, &c.; (3) mild steel paddle-wheels (10 ft. dia.); (4) sludge pumps and rising main. Mr. Herbert Hamer, Borough Surveyor, Town Hall, Stockport.

FEBRUARY 20.—**Dublin.**—DISCHARGE PIPE.—Construction of 30 in. steel discharge pipe for the Dublin Port and Docks Board. Engineer, East Wall, Dublin.

FEBRUARY 20.—**Dundee.**—WHARF.—For the construction in ferro-concrete of an extension to the new wharf, commonly called King George Wharf. Mr. J. Hannay Thompson, General Manager, Dundee Harbour Trust, Dundee. Deposit £5 5s.

FEBRUARY 20.—**Glossop.**—PIPES.—For the supply of iron water pipes, valves, hydrants and fittings. Borough Surveyor, Town Hall, Glossop.

FEBRUARY 20.—**Hull.**—PUMPS.—Construction and erection of two sets of pumping plant, each set capable of delivering five million gallons of water per 24 hours, for the T.C. Mr. C. B. Newton, Engineer, Guildhall, Hull. Deposit £5.

FEBRUARY 21.—**Birmingham.**—BOILER, &C.—Supply of one new Lancashire boiler, 30 ft. by 8 ft. 6 in., the provision of new seating for the same, and also for the enlargement of the existing economiser at Dudley-road Hospital, for the Board of Guardians. Mr. James Curtis, Clerk, Union Offices, Edmund-street, Birmingham.

FEBRUARY 21.—**Easington.**—HEATING INSTALLATION.—For the heating of and supplying of hot water to one Block of Isolation Hospital at Thorpe, for the R.D.C. Mr. F. W. Girven, Surveyor, Easington, co. Durham.

FEBRUARY 21.—**Manchester.**—RETORTS.—For the reconstruction of an installation of horizontal retorts at the Bradford-road Station, for the T.C. Mr. J. H. Sillitoe, Secretary, Gas Dept., Town Hall, Manchester. Deposit £1 1s.

FEBRUARY 21.—**Newbury.**—BOILER.—For a vertical "Cochran" type steam boiler, or, alternatively, two boilers of a smaller vertical type, for the Board of Guardians. Master of the Institution, 99, Newtown-road, Newbury.

FEBRUARY 21.—**Stratford-on-Avon.**—BRIDGE.—For widening the Clopton Bridge (reinforced concrete), for the T.C. Mr. F. W. Jones, Municipal Offices, Stratford. Deposit £5 5s.

FEBRUARY 23.—**Chelmsford.**—AIR COMPRESSOR.—(*a*) Supplying a belt-driven air-compressor, and (*b*) fixing same, and supplying and fixing an overhead driving shaft, at the pumping station, Great Baddow, for the R.D.C. Mr. James Dewhirst, engineer, Waterloo-lane, Chelmsford.

FEBRUARY 23.—**Kendal.**—ELECTRIC LIGHTING.—For the installation of electric lighting in the Parish Church, for the Parochial Church Council. Mr. John Hutton, L.R.I.B.A., Kendal.

FEBRUARY 23.—**Skipton.**—BRIDGE.—Construction of a ferro-concrete bridge to carry the Keighley and Kendal main road over the Leeds and Liverpool Canal, near Gargrave, Skipton, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

FEBRUARY 25.—**Ashton-under-Lyne.**— HEATING.—For the supply and erection of central heating apparatus, for the Board of Guardians. Mr. G. J. Gibbs, 7, Lime-street, Preston. Deposit £5.

FEBRUARY 25.—**Edinburgh.**—WASHHOUSE EQUIPMENT.—For the engineering equipment of a new public washhouse to be erected at Abbeymount (including new steam boiler and other relative plant), for the T.C. Mr. James A. Williamson, City Architect, Public Works Office, Edinburgh.

FEBRUARY 25.—**Gravesend.**—CONCRETE TANKS.—For the construction of reinforced concrete tanks at sewage outfall works at Denton Marshes, for the T.C. Mr. Frederick T. Grant, Engineer, 4, Woodville-terrace, Gravesend. Deposit £3 3s.

FEBRUARY 25.—**Manchester.**—WATER WORKS.—Construction of concrete straining chambers and supplementary works at Lostock, near Bolton, for the Manchester T.C. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.

FEBRUARY 26.—**Stourbridge.**—RESERVOIR.—For the construction of a reinforced concrete reservoir (Hennebique System) of about 352,000 gallons capacity at Wychbury Hill, Hagley, for the Stourbridge and District Water Board. Mr. W. Fiddian, F.S.I., 13, Church-street, Stourbridge. Deposit £3 3s.

FEBRUARY 27.—**Dublin.**—STEELWORK.—Supply of steelwork for a shed, for the Dublin Port Docks and Board. Engineer, East Wall, Dublin.

FEBRUARY 27.—**Madras.**—PIPES.—Supply of cast-iron pipes, special castings, &c., to the T.C. Messrs J. Mansergh & Sons, agents to the Corporation, 5 Victoria-street, S.W.

MARCH 1.—**Jamaica.**—DAM.—For the construction of a cyclopean masonry dam and contingent works required in connection with the extension of the Kingston and St. Andrews Water Works. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.

MARCH 6.—**Colwyn Bay**—MACHINERY.—For sewerage pumping machinery, for the U.D.C. Mr Robert Green, engineer, 37, Bennetts-hill, Birmingham. Deposit £5 5s.

MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £10 10s.

MARCH 12.—**Madras.**—PUMPING PLANT.—Supply of sewage pumping machinery to the T.C. Messrs. J. Mansergh & Sons, agents, 5, Victoria-street, S.W. Deposit 10s. each of two contracts.

MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W. 1.

MAY 1. — China. — BRIDGE. — The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference 11647/F.E./E.C./2.

MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.

JULY 1.—**Chili.**—HARBOUR WORKS.—For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.

NO DATE.—**Glasgow.**—SHAFTS.—For sinking two circular shafts about 300 fathoms deep. Secretary, James Dunlop & Co., Ltd., Tollcross, Glasgow. Deposit £5.

NO DATE.—**Llanelly.**—DRIVAGE.—For driving two slants, each 300 yds. long, from the surface. Manager, Emlyn Colliery, Penygroes, Llanelly.

NO DATE.—**Salford.**—HEATING.—For a scheme of heating for motor garage and workshop at the Wilburn-street Depot, for the T.C. Borough Engineer, Town Hall, Salford.

ROAD, SANITARY, AND WATER WORKS.

FEBRUARY 16.—**Gower (Glam).**—TAR-MACADAM.—For supply to the Gower R.D.C. of tar-macadam for resurfacing of roads, as follows:—(1) 2,500 tons to be delivered at Killay Station (L. M. & S. Railway); (2) 2,500 tons to be delivered at Mumbles-road Station (L. M. & S. Railway). Mr. G. A. Jones, surveyor, Fairfield, Three Crosses, Dunvant (Gower).

FEBRUARY 16.—**Nuneaton.**—SEWAGE WORKS.—Construction of an outfall chamber, additional screening chamber, and detritus tank and screen house, &c., for the T.C. Mr. R. C. Moon, Borough Engineer, Municipal Offices, Nuneaton. Deposit £2 2s.

FEBRUARY 16.—**Seisdon.**—SEWAGE WORKS.—Construction of sewerage and sewage disposal works at Codsall, for the R.D.C. Mr. W. Cannan, engineer, Wombourn, Wolverhampton. Deposit £5 5s.

FEBRUARY 16.—**Tadcaster.**—SEWAGE WORKS.—For works in connection with Barwick-in-Elmet and Scholes sewerage and sewage disposal, for the R.D.C. Mr. H. M. Driver, surveyor, Garforth, near Leeds.

FEBRUARY 17.—**Rowley Regis.**—PLAYGROUNDS.—For surfacing of school playgrounds, for the U.D.C. Mr. Daniel Wright, Clerk, Council House, Old Hill.

FEBRUARY 18.—**Chelmsford.**—WATER MAIN.—Supplying and laying 240 yds. of water main in Finchley-avenue, for the T.C. Borough Engineer (Mr. E. J. Miles), 16, London-road, Chelmsford.

FEBRUARY 18.—**Glasgow.**—ROADS, &C.—For the construction of roads and sewers in Newlands, at Newlands Park, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

FEBRUARY 18.—**Hertford.**—SEWAGE WORKS.—Construction of activated sludge treatment works, for the T.C. Messrs. J. Taylor & Sons, 36, Victoria-street, S.W. Deposit £5.

FEBRUARY 18.— **Hertford.**— WATER MAINS.— For laying 830 yds. of 6 and 4 in. cast-iron water mains for the T.C. Borough Surveyor, Hertford. Deposit £2 2s.

FEBRUARY 18.—**Linlithgow.**—WATER MAIN.—For laying about 1,500 yds. of 4 in. cast-iron pipes, for the Linlithgow District Committee of West Lothian C.C. Messrs. J. & A. Leslie & Reid, C.E., 72A, George-street, Edinburgh. Deposit £1.

FEBRUARY 18.—**Pontefract.**—GAS MAIN.—For laying gas main in Spital Hardwick-lane, for the T.C. Gas Manager, Gas Works, Pontefract.

FEBRUARY 18.—**Port Glasgow.**—PAVING.—For the paving, &c., work at Robert-street, for the T.C. Mr. James Murray, Burgh Surveyor, Anderson-street, Port-Glasgow.

FEBRUARY 18.—**Southend.**—ROADS.—For making-up of Nelson-road, for the T.C. Mr. Robert H. Dye, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

FEBRUARY 18.—**Steyning.**—SEWERAGE WORKS.—For the construction of about five miles of stoneware and concrete sewers, from 6 in. to 12 in. in dia., &c., for the R.D.C. Mr. Geo. W. Warr, Engineer, Town Hall, Southwick. Deposit £3 3s.

FEBRUARY 18.—**Stockport.**—SEWERAGE WORKS.—Construction of pyramidal settling tanks, sludge mains, sludge pump house, &c., at the Stockport Sewage Works, Cheadle Heath, for the T.C. Mr. Herbert Hamer, Borough Surveyor, Town Hall, Stockport. Deposit £5 5s.

FEBRUARY 18.—**Wigan.**—RECONSTRUCTION.—For reconstruction of the Hoscar and Pemberton sewage disposal works, for T.C. Mr. R. B. Donald, Borough Engineer, Municipal Buildings, Wigan. Deposit £3 3s.

FEBRUARY 18.—**Wimbledon.**—ROADS.—For the making-up of Laurel-road, Melbury-gardens (Section 1), Melbury-gardens (Section 2), for the B.C. Borough Engineer, Town Hall, Wimbledon.

FEBRUARY 19.—**Altrincham.**—SANITARY.—For the conversion of 27 privies into w.c.'s, for the U.D.C. Mr. H. E. Brown, Surveyor, Town Hall, Altrincham.

FEBRUARY 19.—**Audenshaw.**—BOWLING GREEN.—For the construction of a bowling green at the Recreation Ground, St. Anne's-road, for the U.D.C. Cemetery Superintendent, St. Ann's-road, Audenshaw.

FEBRUARY 19.—**Batley.**—EMBANKMENT.—For the construction of an embankment, &c., for the formation of a reservoir, with ancillary works, in the Valley of the River Holme, a few miles from Holmfirth, for the T.C. Messrs. G. H. Hill & Sons, civil engineers, 40, Kennedy-street, Manchester. Deposit £5 5s.

FEBRUARY 19.—**Bootle.**—FOOTPATHS.—Construction of asphalte footpaths and drainage at Borough Cemetery, for the T.C. Borough Engineer, Town Hall, Bootle.

FEBRUARY 19.—**Carlisle.**—BOWLING - GREEN.—For the laying of a bowling-green at Blackwell-road Building Estate, for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

FEBRUARY 19.—**Glasgow.**—ROADS.—For the construction of roads and sewers at Belvidere, Parkhead, for the T.C. Director of Housing, Govan Town Hall, Glasgow.

FEBRUARY 19.—**Keymer.**—LAVATORIES.—For erection of men's and women's lavatories, for Parish Council. Mr. A. Seal, Station-road, Hassocks.

FEBRUARY 19.—**Lewisham.**—ROADS.—For making up Rushford-road, Brockley, for the B.C. Surveyor, Town Hall, Catford, S.E.6.

FEBRUARY 19.—**Maldon.**—WATER MAIN.—For laying 861 lin. yds. of 3 in. cast-iron water main in Goldhanger-road, Heybridge, for the R.D.C. Mr. W. Almond, engineer, 6, Market Hill, Maldon, Essex.

FEBRUARY 19.—**Tottenham.**—ROADS.—For making-up of Vale-road, for the U.D.C. Surveyor, Town Hall, Tottenham, N. Deposit 10s. 6d.

FEBRUARY 20.—**Birkenshaw.**—SEWERAGE.—Completion of the sewage disposal works at Drub, for the U.D.C. Council Offices, Whitehall-road, Birkenshaw. Deposit £1.

FEBRUARY 20.—**Birmingham.**—ROADS.—For the reconstruction of 3,000 yds. lineal of carriageways in Watford-road, Linden-road, and part of Oak Tree-lane, for the T.C. Mr. Herbert H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

FEBRUARY 20.—**Dorking.**—ROADS.—For making up new roads on Denbies Estate, for Cubitt Estates, Ltd. Mr. S. S. Gettings, Council Offices, Dorking. Deposit £2 2s.

FEBRUARY 20.—**East Lothian.**—WATER MAINS.—Construction of a pipe line between Yester Mains and Haddington, for the East Lothian Western District Water Board. Water Superintendent to the Board, Bank of Scotland Buildings, Haddington. Deposit £2 2s.

FEBRUARY 21.—**Hythe.**—ROADS.—For the removal of a portion of the horse tramway track in Hythe, and making-up the roadway, for the Southern Railway Co. Mr. G. Knight, secretary, Waterloo Station, S.E.1. Deposit £2 2s.

FEBRUARY 21.—**Onllwyn (Neath).**—DRIVAGE.—For drivage of a rise hard heading. The Manager, Onllwyn, No. 3 Colliery, Onllwyn, near Neath (Glam).

FEBRUARY 22.—**Adwick-le-Street.**—SEWAGE DISPOSAL WORKS.—Extensions to the sewage works, for the U.D.C. Mr. George Gledhill, Surveyor, Council Offices, Adwick-le-Street. Deposit £3.

FEBRUARY 22.—**Claypole.**—ROADS.—Supply of material and tar-spraying 50,000 sq. yds. of road. Mr. T. W. Mawer, surveyor, Brant Broughton, Newark.

FEBRUARY 22.—**Kent.**—ROADS.—For bituminous surfacing in connection with certain sections of the arterial road known as Watling-street, Kent, for the Ministry of Transport. Chief Engineer, Arterial Roads Dept., Ministry of Transport, 7, Whitehall-gardens, S.W.1. Deposit £25.

FEBRUARY 22.—**Letchworth.**—SEWAGE WORKS.—For laying 24 in. and 18 in. outfall, and certain smaller sewers, and the construction of outfall works at Letchworth, for the U.D.C. Messrs. Howard Humphreys & Sons, 28, Victoria-street, Westminster, S.W. Deposit £5 5s.

FEBRUARY 23.—**Beverley.**—ROADS.—For (1) spraying, 1,000,000 square yards of roads with tar, and (2) spraying 500,000 square yards with "Spramix" or other bituminous compound, for the East Riding of York C.C. Mr. J. W. Chapman, County Surveyor, Beverley.

FEBRUARY 23.—**Chester.**—ROADS.—For making-up Grange-road, for the T.C. Mr. Charles Greenwood, City Engineer, Town Hall, Chester. Deposit £2 2s.

FEBRUARY 23.—**Exmouth.**—WATER MAIN.—For the laying of 900 yds. of 10 in. water main, in the parish of East Budleigh, for the U.D.C. Mr. Samuel Hutton, Engineer, Public Hall, Exmouth.

FEBRUARY 23.—**Tadcaster.**—WATER MAINS.—For providing and laying cast-iron water pipes with valves, hydrants, &c., for the R.D.C. Mr. H. M. Driver, Surveyor, Garforth, near Leeds.

FEBRUARY 25.—**Glasgow.**—SEWER.—For the construction of a 3 ft. 6 in. and 3 ft. brick sewer from Ashfield-street to Hawthorn-street, for the T.C. Offices of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

FEBRUARY 25.—**Huddersfield.**—SEWAGE WORKS.—Construction of 800 lin. yds. of 3 ft. diameter U-shaped brick sewer, reinforced concrete tanks, pump house, &c., for the T.C. Mr. W. Jaggar, Borough Engineer, 1, Peel-street, Huddersfield.

FEBRUARY 25.—**Ilford.**—SEWER.—Construction of a sewer consisting of about 209 lin. yds. of 48 in. circular brick sewer, and about 1,790 lin. yds. of 15 in. stoneware pipes with 14 manholes, for the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford. Deposit £2 2s.

FEBRUARY 25.—**London.**—ROADS.—For scavenging, &c., Thames embankments and bridges, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1 Deposit £3.

FEBRUARY 25.—**London.**—SLUDGE REMOVAL.—For the removal and disposal of sewer deposit and other material in connection with the main drainage, &c., services for four districts, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £1.

FEBRUARY 25.—**Rowley Regis.**—ROADS.—For widening and improving Gorsty Hill-road, for the U.D.C. Mr. Daniel Wright, Clerk, Rowley Regis.

FEBRUARY 26.—**Hailsham.**—ROADS.—For tar-spraying about 30,000 sq. yds. of roads, for the R.D.C. Mr. G. B. Fairchild, surveyor, Hailsham.

FEBRUARY 26.—**Llandyssul.**—NEW ROAD.—For construction of a new road from the District-road to Garthowen Lodge, Garthowen, Llandyssul.

FEBRUARY 26.—**Middlesex.**—ROAD.—For construction of approximately 1.6 miles, commencing at Finchley-road (in the Borough of Hampstead) and terminating at the North Circular-road (in the Urban District of Hendon), for Middlesex C.C. Mr. A. Dryland, County Engineer, Guildhall, Westminster, S.W.1. Deposit 20 guineas.

FEBRUARY 26.—**Watford.**—SEWER.—For the laying of 295 lineal yards of sewer in Gills Hill-lane, Radlett, and 260 yards in Loom-lane and Batlers Green, for the R.D.C. Surveyor, 9, Market-street, Watford. Deposit £2.

FEBRUARY 27.—**Birmingham.**—ROADS.—For the widening of Harborne Park-road and Harborne-lane, including the construction of new carriage-way and surface-water sewers and the reconstruction of the bridge over the Bourn Brook, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

FEBRUARY 27.—**Birmingham.**—SEWERS.—Construction of about 164 yds. of cast-iron pipe sewer and 154 yds. of brick and concrete sewers in five sewer crossings under the Tame Valley and Birmingham and Fazeley Canals, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

✱FEBRUARY 28.—**Watford.**—SANITARY WORK, &C.—Minor alterations, the provision of new lavatory basins and sinks, and laying new paving in the Operating Unit at the Infirmary in Vicarage-road, Watford, Herts, for the Guardians of the Watford Union. Messrs. A. Saxon Snell & Phillips, 9, Bentinck-street, Manchester-square, W.1, on February 18, 19, and 20. Deposit £2.

FEBRUARY 29.—**Birkenhead.**—SEWER.—For the construction of 421 lin. yds. of 6 ft. 9 in. by 4 ft. 6 in. brick and reinforced concrete sewer in Livingstone-street, and 580 lin. yds. of 12 in. and 15 in. stoneware pipe sewer and about 182 lin. yds. of 27 in. diameter reinforced concrete pipe sewer in Brook-street, for the T.C. Mr. Chas. Brownridge, Borough Engineer, Town Hall, Birkenhead. Deposit £3 3s.

FEBRUARY 29.—**Lingwood.**—WELL.—For sinking seven deep water wells and deepening existing deep water well at Lingwood, Burlingham Estate, for the Norfolk C.C. Mr. Victor Playle, County Land Agent, Shirehouse, Norwich. Deposit £1 1s.

MARCH 1.—**Montgomeryshire.**—STORAGE RESERVOIR AND WATER MAINS.—Construction of a small storage reservoir, and the laying of a main in connection with an additional water supply, for the T.C. of Llanidloes. Mr. James Grant, Surveyor, Llanidloes, Montgomeryshire.

MARCH 3.—**Middlesex.**—ROADS.—For the construction of approximately 3¾ miles, commencing at Lawrence-street (Mill Hill Urban District, Hendon) and terminating at Elstree (in the Rural District of Hendon), for Middlesex C.C. Mr. A. Dryland, County Engineer Guildhall, Westminster, S.W.1. Deposit 20 guineas.

MARCH 4.—**Gellygaer.**—TARSPRAYING OF ROADS.—For undertaking for the Gellygaer U.D.C. the tar-spraying of certain roads in the area, during the current year. The area will be approximately 80,000 super yards and work may be let wholly or in several contracts by the Council. Mr. F. Read, Surveyor, Council Offices, Hengoed.

MARCH 7.—**Hayward's Heath.**—WATER MAINS.—For laying and jointing about seven miles of 12 in. dia. and about four miles of 9-in. dia. cast-iron water mains, for the Mid-Sussex Joint Water Board. Mr. Francis Martin, Waterworks Offices, Haywards Heath, Sussex. Deposit £2 2s.

NO DATE.—**Stapleford.**—DRAIN.—For laying 165 lineal yds. of 7-in. dia. and 6-in. dia. storm water drain, in the parish of Bramcote, for the R.D.C. Surveyor, Mr. John Moult, The Greenway, Sandiacre. Deposit £1

Competitions.

(*See Competition News, page* 250.)

Auction Sales, Tenders, etc.

✱FEBRUARY 16.—**Sutton, Surrey.**—Mr. C. E. Clark will sell, without reserve, at High-street, opposite the Green, clearance sale of timber and builders' timbers. Auctioneer, Beddington House, Beddington, near Croydon.

FEBRUARY 18.—**London, S.E.**—Messrs. Veryard & Yates will sell by order of Messrs. Sir Robert McAlpine & Sons (without reserve) completion of L.C.C. Bellingham Housing Contract, Bellingham, S.E., surplus stores and material of various kinds. Auctioneers, 365, Norwood-road, S.E.27.

FEBRUARY 19.—**London, S.W.**—Messrs. Veryard & Yates will sell (without reserve) at 255, Clapham-road, S.W. (close to the "Swan," Stockwell), timber, fittings and building materials. Auctioneers, 365, Norwood-road, S.E.27.

✱FEBRUARY 20.—**Maidenhead.**—Messrs. Walton & Townsend will sell at the Town Hall, at 4 o'clock, freehold business premises, 18, King-street, and dwelling-house, 16A, King-street, together with garage, High Town-road. Auctioneers, 22, Queen-street, Maidenhead.

FEBRUARY 21.—**London, N.**—Messrs. Veryard & Yates will sell, without reserve, at 109, Stoke Newington-road, N., a large stock of building materials of various varieties. Auctioneers, 365, Norwood-road, S.E.27.

✱FEBRUARY 21.—**Orpington, Kent.**—Messrs. W. Levens & Son, F.A.I., will sell by auction freehold business premises known as "Mayfield Cottages," High-street, together with the goodwill and stock-in-trade of a sanitary engineer and decorator. Auctioneers, Station-approach, Orpington.

✱FEBRUARY 26 AND FOLLOWING DAYS.—**Liverpool.**—Messrs. Geo. N. Dixon & Co. will sell, by order of Messrs. Trollope & Colls, Ltd., at the works, Pleasant-street, Brownlow Hill, and the yard, St. Andrew's-street, Liverpool, the very valuable timber and builders' plant and material. Auctioneers, 41, Castle-street, Liverpool.

✱FEBRUARY 26.—**London, W.**—Messrs. J. T. Skelding & Co. will sell, without reserve, at Boswell House, Ossington Buildings, Paradise-street, W., stock and plant of a builder and decorator. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

FEBRUARY 27.—**London, E.C.**—Messrs. Rushworth & Brown will sell, by order of the Liquidator (in voluntary liquidation) *re* Messrs. Clements, Jeakes & Co., Ltd., engineers, at Winchester House, E.C., 10½, 12 and 14, Macklin-street, Drury-lane, immediately in the rear of the Winter Garden Theatre, Drury-lane, comprising freehold factory premises; area about 10,000 ft. super. Immediate possession. Auctioneers, 22, Savile-row, W.1.

✱FEBRUARY 29.—**Cambs.**—Messrs. Joseph Hibbard & Sons, in conjunction with Messrs. F. W. Seward & Son, will sell, at a moderate reserve, unless previously sold by private treaty, by order of F. W. Shanks, who is relinquishing this branch of his business, at the George Hotel, Chatteris, Cambs, valuable, well-arranged and finely situated freehold builders' and contractors' premises situated in Station-street, Chatteris. To be sold with vacant possession of the whole (except the dwelling-house). Auctioneers, 15, Newington-green, Islington, London, N.16.

✱MARCH 4.—**Cambs.**—Messrs. Joseph Hibbard & Sons, in conjunction with Messrs. F. W. Seward & Son, will sell, without reserve, by order of F. W. Shanks, who is relinquishing this branch of his business at Station-street, Chatteris, Cambs, builders' stock and plant, timber, sanitary goods, five-bay grand stand, rolling stock, &c. Auctioneers, 15, Newington-green, Islington, London, N.16.

✱MARCH 4, AND TWO FOLLOWING DAYS.—**London, S.E.**—Messrs. Henry Butcher & Co. will sell by order of the Hamilton Trading Company, Hamilton-road, West Norwood, S.E., large quantities of miscellaneous tools and stores, &c., including 1-ton crane, electric motors, marine engines, &c. Auctioneers, 63 and 64, Chancery-lane, London, W.C.

MARCH 6.—**East Sheen, S.W.14.**—Messrs. C. & E. Melville will sell, at the Mart, 155, Queen Victoria-street, E.C. 4, a freehold building site of over 23 acres, at East Sheen, suitable for the erection of 330 small houses, unless previously disposed of. Auctioneers, 155, Queen Victoria-street, E.C. 4.

MAY 6.—**London, W.1.**—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament, freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

FEBRUARY 16.—**London, E.**—Works Manager required in the Borough Engineer's Department by the Council of the County Borough of West Ham. Town Clerk, Town Hall, West Ham, E.15, together with not less than three recent testimonials.

✱FEBRUARY 21.—**Newcastle-upon-Tyne.**—Clerk of Works required by the City and County Council of Newcastle-upon-Tyne in the Department of the Housing Architect. Housing Architect, 18, Cloth-market, Newcastle-upon-Tyne, enclosing copies of not more than three testimonials.

FEBRUARY 22.—**Newmarket.**—Temporary Architectural Assistant required by the Newmarket Urban District Council in connection with their housing scheme. Mr. William H. Eley, Assoc.M.Inst.C.E., Engineer and Surveyor, Council Offices, Godolphin House, Newmarket.

✱FEBRUARY 23.—**Salop.**—ARCHITECTURAL ASSISTANT.—Temporary Architectural Assistant required by the Salop C.C. Mr. F. Crowte, Clerk to the County Council, Shirehall, Shrewsbury.

FEBRUARY 25.—**Wallasey.**—Temporary Junior Architectural Assistant required in the Borough Engineer and Surveyor's office, by the B.C. Mr. George Livsey, Town Clerk, Town Hall, Wallasey.

✱FEBRUARY 27.—**Bootle.**—Architectural and Town-Planning Assistant required in the Borough Engineer and Surveyor's Department, by the County Borough of Bootle. Mr. J. Spencer Tumilty, Town Clerk, Bootle, enclosing copies of three recent testimonials.

✱FEBRUARY 27.—**Leicester.**—Architectural Assistant required in the Housing Dept. Mr. J. S. Fyfe, Housing Architect, Wyggeston House, Highcross-street, Leicester.

✱NO DATE.—**London, N.7.**—Teacher in Land-Surveying and Trigonometry wanted Thursday afternoons, from 1.30. The Secretary, Northern Polytechnic Institute, Holloway, N.7.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—Plans passed by T.C.: Bungalow Queen's-road, for Mr. John P. Weir, Jun., per Messrs. Wilson & Walker, architects; bungalow, Royfold-crescent, for Mr. Alexander H. Wyness, per Mr. William E. Gauld, architect.—The Corporation are seeking powers to borrow £100,000 for the erection of new baths.

ALDERSHOT.—Plans passed by T.C.: Six houses, Cranmore-lane, for Mr. I. J. Harvey.

ATHERSTONE.—Notice has been given by the Warwick C.C. of its intention to provide a school for 400 children.

AUDENSHAW.—Plans passed by U.D.C.: Two houses, Audenshaw-road, for Messrs. Moreton & Woodcock; house and garage, Audenshaw-road, for Mr. Bostock; two semi-detached houses, Audenshaw-road, for Mr. J. Barker.

BANGOR.—An inspector of the Northern Ministry of Home Affairs has held an inquiry with reference to an application by the U.D.C. for sanction to raise a loan of £16,600 for improvements.

BARRY.—The M.H. held an inquiry into the application of the U.D.C. for sanction to borrow £19,000 for the purpose of proceeding with the construction of a reservoir with holding capacity of 2¼ millions of gallons and the laying of mains in connection therewith.

BATH.—The Corporation propose to erect 50 additional houses on the Englishcombe Park Estate, estimated cost £21,880.

BATLEY.—Plans passed: Extensions and alterations to Batley Girls' High School, to take the form of a separate building. Mr. W. Hanstock, of Batley, is the architect.——The Corporation are about to invite tenders for the construction of a new reservoir in the Holme Valley, and plans have been passed for the erection of several houses in connection with the reservoir scheme.

BELFAST.—Plans passed by T.C.: Six houses, off Old Cavehill-road, for A. Jones; house, Holywood-road, for A. Jones; four houses, Ballygomartin-road, for the Parkview Brick Works, Ltd.; reconstruction of premises, Cromac-street, for the representatives of the late F. O'Hagen; shop and store, Antrim-road, for E. & W. Pim, Ltd.; conversion of stores into shops, East Bridge-street, for the Ulster Banking Co., Ltd.; four houses, Luxor-gardens, for J. Buckley; workshop and offices, Wandsworth-gardens, for the East Belfast Housing Society, Ltd.; seven houses, Ardilea-street, for the White Cross Building Society; two houses, Skegoniel-avenue, for S. M. Thompson and Chas. McCallion; house, Marlborough-park, for Miss A. Matier; house, Kincora-avenue, for S. McCune; house, Bladon-drive, for T. R. Malcolmson; shop and warehouse, King-street, for J. Adams; two houses, Sandown-road, for F. Carroll; house, College-park, for D. B. Marr; two houses, Luxor-gardens, for J. McMillan; nine houses, Malone-avenue, for N. B. Kilpatrick; two houses, Elrington-gardens, for J. Moore; house, Sandown-road, for Mrs. V. Neill; shop and additions, Glen-road, for E. McEnaney; house, Sandown-road, for Mrs. J. Foy; shop and house, Bloomfield-avenue, for Mr. W. McClughan (Mr. C. A. Aickin, architect); villa, Malone-avenue, for Messrs. W. & J. Robinson (Mr. John McGeagh, architect); villa, Green-road, Knock, for Mr. Oswald Mahood (architect, Mr. G. W. C. Porte); additions to shop and offices, Albertbridge-road, for Mr. John Wilson (Mr. T. Callender, architect); warehouse and offices (steel construction), Linenhall-street, for Messrs. Samuel Lamont & Sons (Mr. J. Scott, B.E., architect); two villas, Ravenhill Park-gardens, for Capt. M. B. Kilpatrick (architect, Mr. T. R. Eagar).

BERKHAMPSTEAD.—The R.D.C. has passed a plan for a cottage, for Mr. Muspratt.

BEXHILL.—Plans passed by T.C.: Two houses, Reginald-road, Mr. J. H. Lye, for Messrs. Matthews & Co.; house, Peartree-lane, Mr. C. T. Armstrong, for Miss Ayres; house, Hartfield-road, Messrs. Broad and Patey, for Mrs. Durrell Harwood; bungalow, Beaulieu-road, Messrs. Tubbs, Messer & Val Myer, for Mr. A. C. Rowson; house, Holmesdale-road, for Mr. G. Cash; house, Cooden-drive, Mr. G. Cash, for Miss E. Stringer; house, Wickham-avenue, Mr. J. E. Maynard, for Messrs. J. & T. Skinner; pair of semi-detached houses, Cambridge-road, Mr. J. E. Maynard, for Mr. A. Spiers; bungalow, Dalmeny-road, Mr. J. E. Maynard, for Mr. J. Stone; house, Terminus-avenue, Mr. J. E. Maynard, for Mr. J. Arscott; three houses, Brockley-road, Mr. J. E. Maynard, for Messrs. Nuroads, Ltd.; house, Egerton-road, Mr. J. E. Maynard, for Messrs. Nuroads, Ltd.; two bungalows, Cooden-drive, Mr. J. E. Maynard, for Messrs. Greed & Jewhurst; bungalow, Richmond-grove, Mr. A. C. Morris Edwards, for Mr. G. J. Bosworth; bungalow, Cooden-drive, Mr. G. H. Gray, for Mr. R. F. Luck; house, Piemont-gardens, Messrs. Wall, Callow & Callow, for Lieut.-Comdr. H. Call; lock-up shops, Sackville-road, for Mr. W. Gordon Harris; house, Hartfield-road, Messrs. Gordon, Jackson & Lambert, for Mrs. Parnie; house, Warwick-road, Mr. D. B. Sceats, for Miss Bottomley; converting 6 Marine-crescent into flat and two maisonnettes, Messrs. Wall, Callow & Callow, for Mr. A. E. Tylor; converting workshop into flat, Leopold-road, Mr. G. E. Matthews, for Mr. W. Brown; road and sewer, Gillham Wood-road, Cooden, Messrs. Tubbs, Messer & Val Myer, for the Earl de la Warr.

BIRKENHEAD.—The T.C. has prepared schemes to cost £94,495, for the erection of 230 non-parlour houses; £8,577 in connection with the necessary street work and retaining wall; £3,208 in connection with the necessary sewer works.

BIRSTALL.—Plans passed: Fish restaurant, Cambridge-road, for Mr. Charles Ramsbottom.

BLACKPOOL.—Plans passed by T.C.: bungalow Winchester-avenue, J. & W. Ormerod; four houses, Garton-avenue, J. Lund; two houses, Leamington-road, J. Taylor; tramway shelter, transformer chamber and public lavatories, Waterloo-road and Central-drive, Corporation of Blackpool; transformer chamber, Squires Gate-lane, Corporation of Blackpool; two houses, Trent-road, Hogarth & Pollard; three houses and garages, Leamington-road, H. Thompson; eight houses, Levens-grove, J. & A. Nuttall; fifty houses, Red Bank Park Estate, Bispham, Whitaker & Gardner; house, Durley-road, E. Grimshaw; three houses, Devonshire-road and Boothley-road, C. Smith, five houses, Boro'-road and Lilac-avenue, G. Walmsley; new street, Summerville, F. Ilett; offices, Durham-road, Hartley Bros.; house, Squires Gate-lane; P. Bickerstaffe; four houses, Newcastle-avenue, H. Parker; new sewer, Squires Gate-lane, T. Fenton; two houses, Rothsay-road, T. Clayton.

BOLTON.—Plans passed by T.C.: W. H. Orrell, four houses, off Back Ivy Bank-road; Bradshaw, Gass & Hope, extension to premises, Wilkinson Sanatorium. Belmont-road; Francis Draper, two houses, Bury-road; John Turner, bungalow, Church-road; J. Moss, two houses, Devonshire-road; Porter & Beresford, two houses, New Church-road; Great Lever Tennis Club, tennis pavilion, Manchester-road; W. Gornall & Sons, Ltd., two houses, Carlton-road; A. H. Lund, lock-up shop, Radcliffe-road, Darcy Lever; Wm. Sharples & Son, office, Green-street; Rev. H. Heaton, sports pavilion, off Lonsdale-road; A. S. Woods, two houses, Greenmount-lane; Halliwell and Heaton Village Club, tennis pavilion, Waddington-road; First Church of Christ Scientist, Church, Bromwich-street; John Chadwick, cooling-room, Howard-street.

BOSTON.—The R.D.C. has passed plans for the erection of several houses.——It was also decided to contribute £1,700 towards the rebuilding of Mainridge Bridge over the Maud Foster Drain.

BOURNEMOUTH.—Plans passed by T.C.: house, corner Pine and Stourcliffe-avenues, Mr. E. R. Saunders; house, Bloomfield-avenue, Mr. F. Richards; house, Alyth-road, Mr. A. Barnes; house, East-avenue, Mr. A. Barnes; house, Dingle-road, Mr. J. C. Kershaw; house, corner Dingle-road and Boscombe Overcliffe-drive, Mr. R. J. M. Nabney; house, Southbourne Overcliffe-drive, Messrs. Bunning & Patrick; three houses, Watcombe-road, Mr. T. Millson; house, corner Watcombe and Cranleigh-roads, Mr. C. B. Philpot; house, Arcadia-avenue, Mr. S. G. Ward; conversion into flats, "Cortina," Alumhurst-road, Mrs. Verity Law; house, Elmes-road, Mr. W. Barnes; house, Watcombe-road, Mr. F. Hanington; house, Ravine-road, Mr. F. H. Butler; house and garage, Penrith-road, Mr. C. Horton; house, corner Beechwood and Browning-avenues, Mr. S. Wild; house, Portland-road, Mr. F. White; house, Bloomfield-avenue, Mr. B. C. Butchers; house, Firs Glen-road, Mr. F. H. Holloway; five houses, Charminster-avenue and Pine-road, Mr. A. Adams; house, South Hill-road, Mr. F. E. Kimber; house, Vicarage-road, Mr. J. H. Jackson; four bungalows, Namu-road, Mr. G. H. Burt; bungalow, Lascelles-road, Messrs. Midgley & Hardy; house, Chessel and Browning-avenues, Dr. Horden; house, St. Ledger's-road, Mr. C. V. Miller; conversion into flats, 83, Wimborne-road, Mr. C. G. Knight; house and workshop, corner Oswald and Croft-roads, Messrs. Sheppard Bros.; additions, Richmond Hotel, Charminster-road, Messrs. Strong & Co.; house, Darracott-road, Mr. W. J. Kingsbury; house, Stamford-road, Mr. P. Pearce; house, Browning-avenue, Mr. J. Newbury; house Dingle-road, Mr. J. Newbury; additions, "Whitehall" and "Lampeter House," Exeter Park-road, Mr. S. Brown; house, Bethia-road, Mr. J. F. Ellen; bungalow, Sutton-road, Mr. C. Newton; house, St. Ledger's-road, Mr. J. F. Ellen.

BRADFORD.—The Electricity Committee of the Corporation has approved of plans for the erection of an electricity sub-station at Four Lane-ends, Allerton.

BRECONSHIRE.—The R.D.C. propose to carry out water supply improvement, estimated at £750.—The Builth Wells U.D.C. has requested the G.W.R. Co. to make station improvements.

BRIGHOUSE.—Plans passed by T.C.: Three houses, Thornhill-road, for E. & F. W. Bottomley.

BURNLEY.—Plans passed by T.C.; two houses, Powell-street, for Mr. L. Todd; house, Cemetery-road, for Mr. E. Hope.

BUXTON.—The T.C. has decided to erect a further 20 houses.——Plans passed: Mr. F. Dawson, conversion into two shops of "Buxton House," Terrace-road; Messrs. Wadsworth, Broadbent & Wadsworth, conversion of a portion of the Peak Hydro into five shops; Messrs. Shirt, Goodwin & Thorp, three houses, Sylvan Cliffe; Mr. J. Bullock, six houses, Lightwood-road.

CAMBRIDGE.—Plans passed by T.C.: Extension to Nursing Home, Trumpington-road, for Committee of the Evelyn Nursing Home; house, Richmond-road, for H. Williams; shop and house, Victoria-road, for W. Boyton; house, Leys-road, for L. F. Hornsby; house, Leys-road, for Miss M. Whitworth; house and garage, Milton-road, for H. G. Gray; extension of Millington-road, Millington-road, for the Provost and Fellows, King's College; cottage, Green End-road, for S. Howe; house, Milton-road, for S. Cole; house, Huntingdon-road, for H. C. Buttress; house Storey's Way, for H. C. Buttress; houses, Chesterton Hall Housing Estate, for the Corporation; houses, Milton-road, for the Corporation; houses, Milton-road, for Hard & Dickerson; house, Huntingdon-road, for Wm. Bell & Sons; bottling store, Gwydir-street, for F. Dale; house, Trumpington-road, for E. B. Moore.

CARLISLE.—The Health Committee have approved plans for the following: Eight houses, Newtown-road; two, Long Sowerby; two, Burgh-road; one, Belle Vue-road.——The Corporation General Purposes Committee recommends the authority to purchase land at Thorney Flatt, for building purposes.

CARMARTHENSHIRE.—The Llanybyther R.D.C. has applied for sanction to erect a new stone bridge at Nantyffin.

CHELTENHAM.—Plans passed by T.C.: F. W. Watson, timber warehouse, Rutland-street; W. Herbert, two semi-detached houses, Leckhampton-road; Mrs. R. Lewis, house, Painswick-road; R. F. Channon, two semi-detached houses, Whaddon-lane.

CIRENCESTER.—Plans passed by U.D.C.: House, Somerford-road, by Mr. A. J. Colborne; house at Chesterton, by Mr. A. E. Morris; house, London-road, by Mr. S. D. French.

DALKEITH.—The T.C. plans of lay-out of site for new tenements, which it is proposed to erect on the allotment gardens ground to the rear of the police station, and which will comprise 30 two-roomed houses, have been submitted.

DARLINGTON.—The T.C. has approved of the following: Clark & Moscrop, three houses, Leafield-road; Spiritualist Hall, Hopetown-lane; two houses, Fife-road; Thos. Rodgers, two houses, Garden Suburb; four houses, Harris-street; W. W. Lee & Son, five houses, Mildred-street; shop and offices, Parkgate and Borough-road; three houses, Walworth-road; Bussey & Armstrong, 36 houses, Holmlands-road and Banklands-road; W. Lyall, new streets, Neasham-road; T. W. Brown, outhouses, 136, Thompson-street; Taylor & Smith, bungalow, adjoining Polam Halland Cricket Field; J. C. Moody, 22 houses, Bowman-street; W. Lunn, two houses, Haughton-road; J. Walker, 30 houses, Langdale-road; two houses, Yarm-road; four houses, Durham-road; eight houses, Brickburn-road; 16 houses, Bates-avenue; 12 houses, Yarm-road and The Mead; 10 houses, Deneside-road; four houses, Haughton-road; four houses, Thompson-street West; Reeve & Catterick, 14 houses, Willow-road; Kellet & Clayton, 12 houses, Springfield terrace; three houses, Vaughan-street; W. Lambell, house, and house and shop, Neasham-road; W. Jameson & Co., new street, Pierremont Nursery; G. Dougall & Son, five houses, Stooperdale-avenue.—The Streets Committee have sanctioned plans for 17 houses in different parts.

DEWSBURY.—Plans passed by T.C.: Messrs. W. Hodgson & Sons, two houses, Warren-street, Savile Town; Mr. Henry Walker, house, Bank Top, Old Bank-road; Mr. J. H. Patchett, bungalow, Wakefield-road site; Mr. W. C. Wakefield, lay-out of new street and building sites, St. Michael's Estate, Thornhill; Mr. A. C. Begbie, house, Boothroyd-lane; Mr. M. Tylson, bungalow, Leeds-road.

DONCASTER.—Plans for extensive alterations at the "Doncastle Arms," Bennitthope, are before the Justices. — The Corporation are considering a proposal for the erection of a new infirmary, together with the nurses' quarters, &c. The estimated cost is £100,000.

DORKING.—Messrs. John Taylor & Sons' scheme for the drainage of Capel has been adopted by the R.D.C., the estimated cost being £13,000, plus way-leaves, legal expenses, &c.

DUBLIN.—Plans passed: Roof over girls' dressing-room and laundry store, for the Phœnix Laundry, Russell-street; annexe to tobacco factory, South Circular-road, for Messrs. Clarke & Son.

DUNFERMLINE.—The D.C. has passed plans for the erection of 72 houses and 28 houses, to be erected by the Coltness Iron Co., at Blairhall.

DURHAM.—The Insurance Committee have decided to bring to the notice of the M.H. the urgency of the requirements of additional hospital accommodation in the county for insured persons.

EAST HAM.—Plans passed by B.C.: Two houses, corner of Chester and Katherine-roads, for C. Manning; 42 lock-up garages, Kempton-road, for F. Pike.

EDINBURGH.—Linings granted by Dean of Guild Court: John Aitchison & Co., Ltd., brewers, tunrooms, 21, Holyrood-road; Danish Bacon and Co-operative Trading Co., boiler and smoke-houses, 201, Leith-walk; Mr. Daniel Henderson, six flatted houses, Kirkhill-road; Mr. James Robb, two flatted houses, West St. Albans-road: Mr. William E. Tod, house and garage, Barnton-avenue, Davidson's Mains; Mr. Thomas Wilson, double villa, Belgrave-road, Corstorphine; Mr. Thomas S. Henderson, four bungalows, new road off Hillview-terrace, Blackhall; Mr. Robert Bruce, bungalow, Drumbrae-road, Corstorphine; Mr. Francis Low, two double cottages, Hillview-terrace, Corstorphine.

EXMOUTH.—The U.C. are to build nine houses under the scheme recently adopted.

FOLKESTONE.—The T.C. decided to instruct the Surveyor to prepare plans for the erection of a band pavilion at the eastern end of the Marine Gardens, at an estimated cost of about £15,000.

FROME.—The Surveyor to the U.D.C. has reported that an agreement had been reached with Mr. F. J. Seward to build 12 houses of the parlour type at Broadway. He had agreed to sell the houses when complete for £570 each.

GAINSBOROUGH.—The T.C. has decided to erect 50 houses.

GLAMORGANSHIRE.—The Llandaff Working Men's Club is to be extended at an estimated cost of £3,000. The architect is Mr. Lennox Robertson.—The Neath R.F.C. proposes to construct a new pavilion, at an estimated cost of £2,000, at the Gnoll ground. The architect is Mr. J. Cook Rees, of Neath.—The Penarth U.D.C., as a matter of urgency, has requested sanction to proceed immediately with the erection of eleven houses on a site vacant in Cawnpore-street, estimated to cost £380 each. The Council is to proceed immediately with the improvement of the Cardiff-Barry road.—The

* See also our List of Contracts, Competitions, etc.

Tygwyn Anthracite Colliery Co., Ltd., is to undertake constructional works at Cwmllynfell. Railway sidings, plant houses, &c., are to be erected.

GLASGOW.—Negotiations are proceeding between Glasgow Corporation and the L.M. & S. Railway Co. for the acquisition by the Tramways Department of a spacious area extending to fully 53,000 square yards for the purpose of erecting an additional workshop and other requirements.—The City Council Hall is to be reconstructed and enlarged, plans having been prepared by Messrs. Watson, Salmond & Gray.

GRIMSBY.—The Corporation propose to erect 150 houses at Nunthorpe Garden City site, and to spend £22,000 on the construction of mains and sewers in connection with this housing scheme.

HAWORTH.—Plans have been approved for the erection of a new public institute at Butt-lane, at an estimated cost of £4,000.——Sanction is being obtained for the erection of a further 20 houses by the Council.

HAZEL GROVE.—At a meeting of the Building and Sanitary Committee the following plans were approved: Bungalow, Offerton-lane, for Mr. H. Hartley; two houses, Commercial-road, for Mr. S. Arnold; six houses, Norman-avenue, for Messrs. Oldham & Hallworth; house, Bramhall Park-road, for Mr. R. J. Chapman; house, Grange-road, for Mr. Crawford; house, Woodford-road, for Mr. S. Withers; two houses, Offerton-lane, for Mr. A. Frost; house, Ladythorn-crescent, for Mr. J. W. Y. Caistor; house, Glendene-avenue, for Mr. W. H. Snow; house, Grasmere-crescent, for Mr. E. B. Jones: four houses, Linney-road, for Mr. F. Marsland.

HILLMORTON.—The Warwickshire C.C. intends to provide a school for 400 children.

HORSFORTH.—Plans passed: Bungalow, Broadgate-lane, for Mr. H. Holmes (subsidy); seven bungalows, Victoria-walk, for Mr. J. B. Lee (subsidy); pair of houses, West End-lane, for Mr. H. Boyes (subsidy): two pairs of houses, Victoria-crescent, for Messrs. Read Bros.; pair of houses, Stanhope-drive, for Messrs. Read Bros.; pair of houses, Broadgate-lane, for Messrs. A. & O. Cracknell; three pairs of houses, New road-side, for Messrs. E. C. Briggs; pair of houses, Victoria-gardens, for Messrs. F. Furness & Sons; 10 lock-up garages, New Road-side, for Mr. E. C. Briggs; lay-out plan of new Laithes Gardens, for Mr. J. L Micklethwaite; lay-out plan of New-road Side, for Mr. E. C. Briggs.

HULL.—The T.C. is granting subsidies in respect of the following houses: A. Robertson, four houses, Cottingham-road; W. A. Dufton, six houses, Monmouth-street; A. Robertson, seven houses, North-road; J. E. Wray, 12 non-parlour houses, Lee-street; G. Bishop, 16 parlour houses, Inglemire-lane; A. Robertson, four non-parlour houses, Cottingham-road.—The Justices have passed plans for alterations at the Manchester Hotel, at a cost of £6,000.

ILKESTON.—Plans passed by T.C.: Three pairs houses, Queen's-avenue, for Mr. David Roberts; house, Sudbury-avenue, for Mr. Amos Burrows; house, King George-avenue, for Mr. W. Hufton; pair houses, Manners-road, for Messrs. Beardsley & Booth; 26 houses, Manor-lane, for Messrs. Briggs & Co.; house, Wharncliffe-road, for Mrs. L. L. Bryan; bungalow, Vicarage-street, for Mr. A. Harrison; house, Wharncliffe-road, for Mr. J. Newton.

KENDAL.—Plans passed by T.C.: Bungalow at Howard-street, for Mr. W. Corbett (architects, Messrs. Shaw & Stables).

KERESLEY.—A school for 1,200 children is to be provided by the Warwick C.C.

KIDDERMINSTER.—Plans passed: Three cottages, Aggborough, for Mr. R. S. Brinton; house, Aggborough, for Mr. T. Merrifield; sanitary conveniences, Green-street, for Messrs. Grosvenor, Woodward & Co.; pair of houses, Franche, for Mr. W. Cooke.

KNARESBOROUGH.—The U.D.C. has passed a comprehensive scheme for providing more facilities for recreation. They have decided to lay out a hard tennis court, erect a shelter in the Castle grounds, and lay out the old Castle moat as a landscape garden and place a bridge over the moat, at a total cost of £1,500.

LEEDS.—The T.C. has granted subsidies in respect of the following applications: Messrs. H. & E. Lolley, two semi-detached houses, Monkbridge-drive, Meanwood; Messrs. Albert Chapman and George H. Appleyard, two semi-detached houses, Atha-street, Beeston; Messrs. Ernest Jordan and Laurice Garnett, two semi-detached houses, Green Hill Mount, Bramley; Messrs. Pickard & Co., 36 semi-detached houses, Moor-road, Headingley; Messrs. W. J. & R. Turnbull, 22 semi-detached houses on Lodge Farm Estate, Dewsbury-road; Mr. Arthur Smith, 24 semi-detached houses on an estate off Town-street, Bramley; Mr. A. A. Prill, four semi-detached houses, Aston-road, Bramley; Mr. W. Sewell, two semi-detached houses, Talbot-grove, Street-lane; Mr. W. Gibb, house in Lingwell-road, Town-street, Middleton; William Airey & Son, Ltd., two semi-detached houses, Town-street, Middleton; Mr. Arthur Smith, house, Hill End-road, Bramley; Mr. J. B. Johnson, 14 semi-detached houses, Roman-view, Roundhay.

LINDSEY.—At the meeting of the C.C. the Health and Housing Committee decided to ask the M.H. to approve of the erection of a new hospital. The plans provide for a block of eight cubicles and a building of wood and iron containing 14 beds, estimated cost is £12,500.—The E.C. of the C.C. is to make application to the M.H. for sanction to borrow £710 for provision of a cottage at Wainfleet, and £2,020 for four police officers' dwellings at Great Coates, Stallingborough, Marcham and Langwick.

LIVERPOOL.—Plans have been prepared, and tenders are being invited for erection of new Women's Hospital, to take the place of the existing one in Shaw-street. A site has been acquired at the corner of Falkner-street and Bedford-street, the estimated cost is £100,000.

LONDON.—The Metropolitan Asylums Board proposes to carry out the following works: Staff accommodation at Downs Hospital for Children (estimate, £535); alterations to roads at South-Western Hospital (estimate £350); extensions at Queen Mary's Hospital for Children (estimate £830); hot water supply to cottages at High Wood Hospital (estimate £240).

LONDON (CAMBERWELL).—Building, 2, Middle-street, for F. J. Wallis; new buildings, 1-13, Bournemouth-road, for H. Payne Wyatt.

LONDON (HACKNEY).—Plans passed by B.C.: Sawmills, opposite Craven Wharf, for H. V. Clogg: chapel, Crawley-road, for Crawley & Co.; factory, 43, Well-street, for E. B. Holmes & Co.——The B.C. has received sanction of the L.C.C. to borrow £32,800 for paving works.

LONDON (LEWISHAM).—Plans passed by B.C.: Five houses, Pearfield-road, for B. A. Clinging: two houses, Brockley View, for Harding & Marks: church, Bellingham Green, for P. W. Meredith.

LUTON.—Plans passed by T.C.: W. D. Dyer, four houses, Biscot-road; Luton Masonic Hall Co., masonic hall, Church-street; Lloyds Bank, Ltd., new bank premises, George-street; E. Pryer, four houses, Biscot-road; G. Hickman, house, Marlborough-road; D. Carter, six houses, Old Bedford-road.

LUTTERWORTH.—Plans have been passed by the R.D.C. for seven houses at Broughton Astley for Mr. E. R. Cook, and for four houses for Mr. Hewitt at Dunton Bassett.

MAIDSTONE.—Plans passed by T.C.: Loose-road, six houses, for Messrs. Norman Smith & Son and W. H. Poole; ten houses, Messrs. Norman Smith & Son and W. H. Poole; house, for Mr. J. A. Beckett, Tonbridge-road.

MANCHESTER.—Plans passed by the Corporation: C. Gradwell, 40 houses, Cooper-street, Clarence-street, and Butler-street, Gorton; Clayton Aniline Co., Ltd., alterations to works, Chatham-street, Clayton; Butterworth Bros., glass works, Barker-street, Oldham-road: R. Pennington, warehouse, Sherdley-road, Crumpsall: J. Williams, warehouse, George Leigh-street, Henry-street, and Cotton-street, Ancoats; Bleachers Association, Ltd., offices, Blackfriars-street, and "The Parsonage"; J. Cross, 2 houses, Moston-lane: W. A. Schedler, house, Palatine-road, Didsbury; W. Lord, conversion of shop and house, 153, Mount-road, Gorton: D. Ellis, office, Wilmslow-road, Withington: Lanes Hygienic Dairies, Ltd., milk store, Mulberry-street, Hulme; Brownhill & Bird, 2 houses, Ryebank-road, Chorlton-cum-Hardy: Manchester and Salford Equitable Co-operative Society, Ltd., shops, hall, &c., Platt-lane, and Yew Tree-lane, &c., Rusholme; A. Hartley, 68 houses, Finchley-road, Brocklebank, and Barnsfold-road, Rusholme; P. Foster, garage, 12, Malvern-grove, Withington; A. Shaw, shop, George-street, Bradford; Corn and Produce Exchange Co., reconstruction of premises, Hanging-ditch and Fennel-street; W. Wykeham, house, Hill-lane, Blackley; F. Butterworth, 2 houses, Polefield-road, Blackley; Mrs. E. Potts, 6 houses, Park-road, Crumpsall; Western Homelands, Ltd., 4 houses, Bank-road, Crumpsall: A. Redford, 16 houses, North-avenue, and Kendall-road, Crumpsall; J. Gomerley, 4 houses, Bennett-road, and Rectory-lane, Crumpsall: H. Blythe, house, Old Hall-lane, Rusholme: L. Dobson, Ltd., 2 houses, Kingsway-avenue, Rusholme; L. Dobson, Ltd., office, Wilmslow-road, Didsbury: Union Chapel Memorial Club, pavilion, Henry-street, Cotton-street, Withington; W. B. Gould & Co., 6 houses, Circular-road, Withington; W. Meredith, 6 houses, Longfield-place, Victoria-park: new Baptist school, Baptist Chapel, Wilbraham-road, Rusholme; Wingfield Park Estate Co., 4 houses, Macfin-avenue, West Didsbury.——The Public Health Committee proposes to erect a convenience on the Rochdale Canal Bridge, Deansgate, estimated to cost £1,000.——The Paving, &c., Committee, proposes to reconstruct sewers in Forge-lane, Bradford, estimated to cost £8,100; and also the intercepting of the sewer between Cornwall-street and Bessemer-street, Openshaw, at a cost of £1,650.——The Rivers Committee proposes to erect sludge drainage beds at the Davyhulme Works, and alterations to footpaths at the same works, at a cost of £1,100.——The Parks and Cemeteries Committee proposes to pave Crossley-road, Cringle Fields, at a cost of £1,200. The Housing Committee proposes to build 484 houses between Old Hall-lane and Yew Tree-road, Withington, the total estimated cost of the scheme is £262,824.——New public washhouses, at Moss Side, are proposed by the Baths and Washhouses Committee, the total estimated cost is £37,700.——New schools at St. Patrick's, Livesey-street, Manchester, are to be built shortly. The architects, Messrs. Foden, Hemm & Williams, of 199, Deansgate, have been instructed to prepare plans for a building of two stories, to accommodate 520 children. This scheme has been sanctioned by the B.E.——Application is to be made to the Manchester Consistory Court for a faculty, for the erection of a reredos in Holy Trinity Parish Church, Bardsley. The reredos has been designed and executed by Mr. R. Martin, L.R.I.B.A., 90, Deansgate.

MONMOUTHSHIRE.—The Ebbw Vale E.C. has decided to erect a new school at Badmington-grove.—The Tredegar U.D.C. is to erect a new mortuary.—The Llantarnam U.D.C. is in communication with G.W.R. Co. for assistance in erecting proposed new Two Locks bridge. The Company is to consider making grant of 25 per cent. of cost upon submission of plans. The Council is considering the provision of a public hall. The Council has received sanction to borrow £2,525 for improvement of Llantarnam-road, and an additional grant of £1,200 in respect to road works at Victoria-street is sought.—The Abertillery U.D.C. proposes to carry a road resurfacing and improvement scheme at an estimated cost of £17,000.—The Magor R.D.C. proposes to widen and divert a portion of the Llanmartin-road at an estimated cost of £2,145.—The Abergavenny R.D.C. is to undertake the following works: Improvement of Llangwillym-road, at an estimated cost of £2,534, and improvements at Penyparc.—The County E.C. has approved recommendation of the Sites and Buildings Committee that a new school be erected at Cwmffrwdeor, and that repairs are to be carried out at several schools in the County. New schools are proposed for Cwmbrau, at the Trauch, Pontypool and Pontllanfraith, and it has been decided to confer with the Higher E.C. as to advisability of erecting a secondary school at Pontllanfraith. Mining instruction centres are to be erected at Newbridge, Tredegar, Abersychan, Abertillery and Pontllanfraith.

MUSSELBURGH.—The T.C. has instructed their architects and engineers to invite tenders from five firms for the widening of the new stone bridge at Esk. Messrs. Blyth & Blyth, C.E., have prepared the plans, and have charge of the contract when let.

NELSON.—Plans passed by T.C.: Preston and District Farmers' Trading Society, warehouse and motor shed, Clayton-street; Short Homers' Working Men's Club, club premises, Midland-street; Mr. A. Gates, two bungalows, Barkerhouse-road; Nelson Co-operative Society, 7 houses, Pinder-street.

NEWCASTLE.—The T.C. has decided to secure sanction for the completion of C. and E. sections of the Walker Housing Estate. This would involve the erection of 120 more houses.—Subject to the approval of the M.H., a tender for 70 additional houses on the Pendower site has been accepted.—The Improvement Committee has passed plans for the erection of 12 houses.—— The Corporation is inviting tenders for the purchase, for housing purposes, of building sites forming part of the High Heaton Housing Estate, which comprises in all about 126 acres. On the western side the E.C. have already secured approximately 25 acres on which they are to erect a secondary school, and the land now on offer consists of 22½ acres, divided up into 252 lots.

NEWTON ABBOT.—The Council has approved plans of the Newton Abbot Development Co. for the erection of 94 houses on the Milber Estate.

NEWPORT (MON).—The Housing Committee recommends the Council to apply for borrowing powers for £14,700 for erection of 98 houses on the Somerton Estate, and that an additional £43,980 be borrowed for giving assistance under the Government schemes to the private erection of houses. It is proposed by Council to widen East Usk-road bridge. The G.W.R. Co. proposes to lengthen Somerton-road bridge, prior to applying to M.T. for grant, to arrange a widening scheme to be carried out simultaneously with the lengthening scheme. The M.T. has now made the grant of 65 per cent. of cost toward demolition of old Usk bridge and construction of new bridge (at an estimated cost of £160,000).—The Tredegar Estate, Newport, is to construct a new road from Queen's-hill to St. Mark's-crescent.—For nearly three years the Corporation has lost at the rate of more than £9,000 a year on Wooloston House, a portion of the workhouse, and it is to be turned into sixty-five flats.

NORTHAMPTON.—Plans passed by T.C.:—Seven houses, Delapre-crescent, for Mr. E. H. Tibbs; house, St. George's-avenue, for Mr. A. J. Letts; offices, Main-road, for Messrs. The Crown Foundry Co.; house, Park-avenue South, for Mr. A. Dickens; new front to factory, St. Michael's-road, for Messrs. R. E. Tricker & Co.; house, Thursby-road, for Mr. R. G. Bailey; house, Kingsthorpe-grove, for Mr. W. Cole; house, Cedar-road, for Mr. W. A. Cumberpatch; house, Cedar-road, for Mr. T. Phillpot; house, Clarence-avenue, for Mr. J. W. Stutley; bake house, Purser-road, for Mr. A. Valentine; house, Delapre-crescent, for Mr. W. A. Whiting; house, Kingsthorpe-road, for Mr. J. B. Clarke; house, St. Andrews-road, for Mr. Gammage; house, Delapre-crescent, for Messrs. Sale & Co.

NOTTINGHAM.—The M.H. has issued an order sanctioning the clearance of the unhealthy area situated around Red Lion-street, and the City Council has discussed important proposals relating to the Exchange site, swimming bath accommodation, sanitary reform, and other subjects.

OSSETT.—Plans passed by T.C.: House, Spa-street, for Mr. H. Ellins.

OXFORD.—Plans passed by T.C.: C. Wright, 10, Clifford-street, W.1, house, Charlbury-road; H. Capel, 279, Banbury-road, house, Lonsdale-road: J. H. Grant, 65, Princes-street, Cowley-road, block of sanitary arrangements to workshops in rear of 64 and 65, Princes-street, Cowley-road: J. E. Tyler, "Bridgwater," Botley-road, eight houses, Riverside-road: The Oxford Lock-up Garages Co., Magdalen-road, motor garage consisting of 50 lock-ups on the north-east side of Magdalen-road: W. Laitt, 19, Howard-street, two houses, Fairacres-road extension; N. J. Sansum, 39, Divinity-road, two houses, Hamilton-road; E. Burnard, 62, Hill Top-road, house, Hill Top-road: Rev. C. C. Lilley, Aldborough Hall, Norwich, house, Northmoor-road extension.

PAISLEY.—The Dean of Guild Court has granted permission to Messrs. J. & J. Crangle, builders, 72, Canal-street, for house in Greenock-road: to Daniel Wright, solicitor, double cottage in Calside-avenue: to British Cotton and Wool Dyers' Association, Deansgate, Manchester, additions to works in Greenhill and Underwood-roads: Cayzer, Irvine & Co., Ltd., shipowners, 109, Hope-street, Glasgow, road 40 ft. wide.

PEMBROKESHIRE.—Plans passed by the Haverfordwest R.D.C. are as follows: Bungalow, at Dinant, for Mr. James Williams; bungalow, at Marloes, for Mr. J. Dixon. The Council has received intimation from Mr. Talmadge, managing director of Johnston Brickworks, of proposed erection of houses by the firm at Johnston.—The Tenby T.C. has passed plans as follows: House for Mr. W. H. Phillips, at St. John's-grove. The Surveyor has presented plans to T.C. for pathways from Queen's-parade to Golf Links, estimated cost, alternatively, of £375, £575 and £170.

PENRITH.—An inquiry has been held by the M.H. into an application by the U.D.C. to borrow £26,800 for works of water supply extension and improvement.

PONTYPRIDD.—The Surveyor has submitted plans and estimates for new roadway and road diversion at Gyfeillon in connection with proposed works by U.D.C. The estimates are placed at £33,000. Application for grants from Government departments and assistance from neighbouring authorities has been asked for. The U.D.C. is to construct new footbridge at Lewistown to replace dismantled bridge.

PRESTATYN.—Plans passed by U.D.C.: House, Woodland-grove, for Mr. W. H. Pincombe; bungalow, Plas-avenue, for Mrs. Royle; residence, Bryneithyn-avenue, for Mrs. Whiteford; house, Tudor-avenue, for Messrs. Roberts & Sons; house, Glyn-avenue, for

Miss Althea Williams; shop and flat, High-street, for Councillor E. T. Williams; bungalows, Pendre-avenue, for Mr. J. R. Saronie; shop and house, Station-road, for Mr. Spragg.

Redcar.—The T.C. are considering a proposal to construct a hall to accommodate 1,700 people on a site adjoining the Coatham Promenade extension, at an estimated cost of £11,000.

Rotherham.—Plans passed by T.C.: Mr. William Tyrrel, St. Ann's-road, eight houses; Messrs. H. Pearson & G. W. Milner, Fitzwilliam-road, pair of semi-detached houses; Mr. G. Bilton, Badsley Moor-lane, nine houses and shops; Messrs. Duncan Gilmour & Co., Hartington-road, pair of houses; Mr. A. Thompson, Ramsden-road, pair of semi-detached houses; Mr. Wainwright, Boswell-street, two houses; Mr. F. Waite, Hall-street, stable.

Rhondda.—A site of 3½ acres has been obtained by the Glamorgan Territorial Association at Pentre for the construction of a drill hall, recreation rooms and messes, with offices and a covered artillery drill parade ground.

St. Helens.—Plans passed by T.C.: House, Hartington-road, Mr. J. Thierens; house, Wilbur-street, Mr. S. Huyton; "Globe" Hotel, Hardshaw-street, Messrs. Greenall, Whitley & Co., Ltd.; pair of houses, Wynne-road, Mr. I. Griffiths; motor garage and showrooms, Prescot-road, Messrs. McLean & Appleton.

Scalby (Yorks).—Plans passed:—Two houses at Newby, for Miss Giles; bungalow for Miss Giles; pair of semi-detached bungalows for Mr. R. Wood; house in Hackness-road, for Miss Walker; bungalow for Mr. Dugdale; pair of semi-detached bungalows adjoining to Cross-lane, for the Scarborough Estate Agency; and pair of semi-detached bungalows and a shop, for Mr. A. Hoyle.

Sedgefield.—The R.D.C. have decided to apply to the M.H. for sanction to borrow £2,600, £2,200, and £1,150 for street making at Ferryhill, Cornforth, and Chilton.——The R.D.C. have approved plans for the erection of eight aged miners' cottages at Trimdon Grange, for the Trimdon Grange Aged Miners' Homes Committee; six miners' homes at the Broom, Ferryhill, for the Mainforth Aged Miners' Homes Committee; a farmhouse and buildings at Bishop Middleham, for General Trustees.

Sheffield.—The Corporation is to consider a committee recommendation that further schemes be approved for the erection of not less than 250 houses a year for the next four years, involving an annual loss at the end of the fourth year, on present estimates, of £20,000, half of which will be borne by the Government.

Shiney Row.—The Sunderland District Electric Tramways, Ltd., are proposing to erect 13 houses at Shiney-row.

South Crossland.—Plans passed by U.D.C.: House, Church-lane, for Mr. C. Hickson; eight cottages in Bankfoot-lane, for Major Brooke.

Spenborough.—Plans passed:—Conveniences at Moorend Recreation Ground, and proposed road improvement near Healds Hall, for the U.D.C.

Stockton-on-Tees.—Plans passed by T.C.: Eight houses in Bowesfield-lane, for Mr. R. Grant.

Stoke-on-Trent.—An inquiry has been held by Mr. F. O. Stanford, an inspector of the Ministry of Health, into an application by the Council for sanction to borrow £9,700 for works of sewerage at Dresden, Longton.

Stokesley.—The R.D.C. has passed plans for four houses at Enterpen, for Messrs. J. T. Tarran & Son.

Stroud.—The Gloucestershire C.C. has ordered plans to be prepared for a new girls' school.

Sutton-in-Ashfield.—The Notts C.C. has agreed to purchase a site for a new secondary school.

Tynemouth.—The Corporation have resolved to apply to the M.H. for sanction to borrow £12,268 for street improvement purposes.

Wakefield.—Plans passed by City Council:—Messrs. Bell & Kay, two houses in Alverthorpe-road, for Mr. J. Bedford; two houses in Horbury-road, for Mr. George Curley; Mrs. Henrietta Hodgson, house in Eden-avenue, for herself; The Yorkshire (W.R.) Electric Tramway Co., Ltd., three houses, shelter and conveniences in Aggbrigg-road, for themselves; house, shelter, &c., in Barnsley-road, Sandal, for The Yorkshire (W.R.) Electric Tramway Co., Ltd.; Messrs. Massie & Holdsworth, two houses in Belgrave Mount, for Messrs. T. B. Broadhead and H. C. Longbottom; two houses in Dickinson-street, for Mrs. M. Walker; two houses in Park Lodge-lane, for the Victoria Coal and Coke Co., Ltd.; Mr. W. Wrigley, house in Many Gates-lane, for Mr. W. E. Stephenson; Mr. G. Hope, house in Thornes-road, for Mr. R. Briggs; and Mr. J. P. Firth, house in Hanshaw-lane, for Mr. J. Butterworth.

Wallsend.—The T.C. has decided to apply for sanction to borrow money for the erection of 36 houses, and also to seek permission to borrow £12,000 for privy conversions.

Watford.—Plans passed by T.C.: Six houses, St. Albans-road, for Messrs. Kempster & Williams; two houses, Rickmansworth-road, for Kempster & Williams; bungalow, Oxhey-road, for Mrs. C. Allen; bungalow, Oxhey-road, for Mrs. M. Turton; three shops, St. Albans-road, for Kempster & Williams; house, Pinner-road, for Mr. G. W. Pitkin; two cottages, Gammons-lane, for Mr. F. Pearce; house, Hempstead-road, for Messrs. Clark Bros.; house, Whippendell-road, for Messrs. D. & C. Eames; lay-out plan of new roads off Rickmansworth-road, for Messrs. Clifford & Gough; bungalow, Queen's-avenue, for Mr. Lewonski; house, Bucks-avenue, for Mr. W. B. Rodnight; house, Oxhey-road, for Mr. H. E. Browne; house, Oxhey-road, for Mrs. R. J. Clay; house, Gammons-lane, for Mr. W. Wells; house, Buck's-avenue, for Mr. S. G. Knowles; house, Buck's-avenue, for Mr. E. F. Gill; house, Mildred-avenue, for Mr. G. A. Cox.

Weymouth.—Plans passed by T.C.: Four pairs of semi-detached houses, Southland-road, for Mr. K. Openshaw; bungalow, Old Castle-road, for S. A. Jackson.

West Hartlepool.—The E.C. scheme for the erection of new schools to accommodate 700 children has been approved by the B.E.——The T.C. have approved the following plans: Mr. C. Turnbull, two houses, Caledonian-road; Mrs. Spawls, house, Caledonian-road; Mr. J. L. Mason, bungalow, Caledonian-road; Mr. W. Brazell, pair semi-detached villas, Lindon-grove.—The Corporation have received sanction from the M.H. to borrow £18,090 for housing purposes on the Raby-road estate.

Wickwar.—The endowed schools are to be improved by the Gloucestershire E.C. at a cost of £1,550.

Wimbledon.—Plans passed by B.C.: Mr. F. E. Hall, house, Pepys-road; Mr. R. J. Thomson, house, Ridgway-place South; Messrs. Jones Bros., shop, 148, Merton High-street; Mr. H. A. Sargeant, house, Belvedere-drive.

Winchester.—Plans passed by R.D.C.: House, King's Worthy, Mr. E. Northover; two bungalows, Horton Heath, Mr. E. Denham; rebuilding part of Rose Cottage, King's Worthy, Col. Thompson.

Wolverhampton.—Plans passed by T.C.: A. L. Bould, bungalow, corner of Crowther-road and Coleman-street; E. J. Duckhouse, house, McBean-road; —. Elkington, house, Lansdowne-road; P. Whithurst and A. J. Morris, two houses, Upper Villiers-street; L. Price Lewis, house, Goldthorn-hill; Wolverhampton Steel & Iron Co., extension of motor house, Horseleyfields.—The L.M.S. Railway Co. are considering the proposed improvements to High Level Station. The Corporation and local Chamber of Commerce are urging speedy action.

Worksop.—The Notts C.C. intends to provide additional accommodation in the Haggonfields district for 350 children.—At the last meeting of the Blyth and Cuckney Council it was stated that 1,500 new houses are to be built in connection with the new colliery which is being sunk at Langold. The first instalment of 100 are about to be commenced, also 10 villas for the colliery officials.

Worthing.—Plans passed by T.C.: House, St. Lawrence-avenue, S. E. Merredew, for Miss Peacock; house, West-avenue, F. G. Abell, for J. T. Lawrence; six houses, St. Valerie-road, for S. W. Phillips & Co.; two houses and garages, Grand-avenue, for W. Weller; house, Brooklyn-avenue, E. J. Love, for Mrs. Richardson; house, St. Thomas's-road, A. Clare, for B. M. Sampson; 18 houses, Leigh-road, R. C. Turnham, for H. F. Carmichael; two houses, Pembury-road, J. E. Lund, for J. Goodman; house, St. Thomas's-road, C. E. Parsons, for W. & C. E. Parsons.

York.—Plans passed by T.C.: W. Johnson, house, 191, Bishopthorpe-road; G. H. Pegg & Son, two houses, Norfolk-street; W. West, house, Layerthorpe; W. West, two houses, Terry-street; G. H. Pegg & Son, four houses, Cameron-grove; Belt & Harrison, two houses, Moorland-road; Vicar and Churchwardens of St. Lawrence's Church, mission-room, Lawrence-street; A. Bowerman, house and shop, Fourth-avenue, Tang Hall Estate; G. H. Pegg & Son, three houses, Norfolk-street; T. Harrison, two houses, Hull-road; J. Pottage, house, Osbaldwick; G. Knowlson, two houses, Skelton-road.

FIRES.

Llanelly.—Damage estimated at £15,000 was caused by fire which completely destroyed Penyfai, the Llanelly residence of Mr. Joseph Holmes, managing director of the Welsh Tinplate & Metal Stamping Co., Ltd.

Nelson.—One of the most serious mill fires in the Nelson district has occurred at the Hollin Bank Mill, Brierfield. The damage is estimated at £100,000, the stock being valued at £50,000 and the buildings at £50,000. The buildings are owned by the Brierfield Loom and Power Company.

Pudsey.—A destructive fire, causing damage which has been estimated at between £40,000 and £50,000, has occurred at South Park Mills, Pudsey, owned and occupied by Messrs. E. Wilman & Sons, spinners and manufacturers.

Treherbert.—A disastrous fire has occurred on the premises of the Bute Colliery, Treherbert (United National Co.). It is estimated that damage amounting to nearly £50,000 was done.

Worcester.—A disastrous fire has occurred at a corn warehouse at Lowesmoor Wharf, occupied by Messrs. Needham.

PATENTS.*

APPLICATIONS PUBLISHED.*

185,117.—A. N. MacNicol: Manufacture of concrete pipes.

185,760.—J. J. Bergsma: Manufacture of insulating or building materials.

186,044.—E. L. Von Balluseck: Ditching machine.

186,048.—A. N. MacNicol: Apparatus for the manufacture of concrete pipes,

186,324.—H. R. Bliss: Packing-cases.

187,582.—A. Kleinlogel: Wearpoof and dustless concrete compound.

187,975.—F. Guy and M. L. Davey: Method of and apparatus for moulding building-blocks and tiles.

190,140.—E. Chapotat: Packing-cases.

190,470.—H. H. Robertson Co.: Building material or like articles of manufacture.

191,034.—J. B. Strauss: Construction of bridges.

193,042.—P. P. Brunschvig: Packing-box.

194,657.—H. R. Bliss: Packing cases.

195,629.—W. Shindler: Builders' hoisting-devices.

206,446.—Internationale Siegwartbalken-Ges: Method and device for the production of hollow articles, such as tubes and poles, from reinforced concrete.

200,512.—S. J. Boussiron: Reinforced-concrete bridges.

200,498.—G. W. Adams: Concrete-mixers.

206,434.—Sprengluft-Ges and L. Lisse: Transporting vessels for blasting-cartridges saturated with liquid air.

195,070.—C. A. Forssell: Framework for buildings.

206,266.—H. A. Cope (G. Pfarrius): Method or process of treating fibrous material for building insulation.

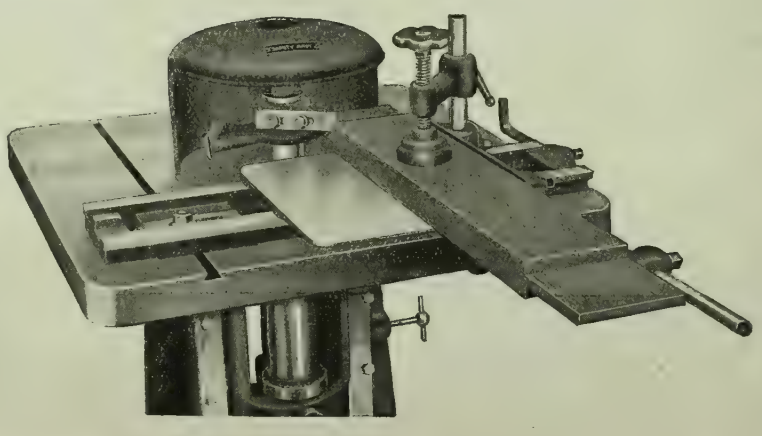
206,304.—W. P. Thompson (A. C. Andersen): Locks and latches.

206,329.—P. G. R. Macinnes: Window-catches.

189,116.—A. D. Munslow: Stay devices for hinged doors and windows.

206,379.—Monolithic & General Constructions, Ltd., and F. B. Hamilton: Construction of factory chimneys.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.



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" " White	3 12 6
" Fine	5 12 0
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Do. do. delivered on road wagons at above stations, per ft. cube	4 5
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Small random blocks, up to 10 ft. cube. Per ft. cube	7/–
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Sawn two sides "	27/–
Sawn three or four sides "	32/–
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK— Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/–	1¼	33/6
½	23/–	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING. Inches.	per sq.	MATCHINGS (BEST). Inches	per sq.
1	26/6	½	17/6
1¼	33/6	¾	22/–
1½	38/6	1	26/–

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	—
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Hip and valley tiles (per dozen) { Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS. To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS— (Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 0 0	..	16 0 0
" " " 24 g.	16 0 0	..	17 0 0
" " " 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.		£ s. d.
LEAD—Sheet, English, 4 lb. and up	43 10 0		
Pipe in coils	44 0 0		
Soil Pipe	47 0 0		
Compo pipe	49 10 0		
NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s.6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.			
Old lead, ex London area, at Mills per ton	31 0 0	..	—
Do., ex country, carriage forward per ton	32 0 0	..	—

PLUMBERS' BRASS WORK. Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/–	45/–	76/–	153/–	246/–	510/– per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/–	92/–	174/–	300/–	588/– per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/–	23/–	30/–	42/– per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/–	29/–	36/–	63/– per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/–	56/–	98/–	162/–	228/– per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/–	41/–	56/–	101/–	per doz.
8 lbs. S. traps	35/–	45/–	66/–	126/–	"

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin "	0 2 4	..	—
Copper nails "	0 2 3	..	—
Copper wire "	0 2 4	..	—
TIN—English Ingots "	0 2 6	..	—
SOLDER—Plumbers' "	0 1 1	..	—
Tinmen's "	0 1 3	..	—
Blowpipe "	0 1 5	..	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 4 6
" " " in barrels "	0 4 8
" " " in drums "	0 4 11
Boiled " " in barrels "	0 4 11
" " " in drums "	0 5 2
Turpentine in barrels "	0 6 11
" in drums (10 gall.) "	0 7 2
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 0 0

GENUINE WHITE LEAD PAINT—"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 81 0 0

Red Lead, Dry (packages extra) per ton	44 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocol per cwt.	0 15 6
Size, XD Quality fkn.	0 3 6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.	
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft

⅛ Rolled plate	4½d.
⅜ Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 6
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

FEBRUARY 18.—**Larbert.**—HOUSING EXTENSION.—Larbert Housing Scheme extension, consisting of five-apartment houses, for the Eastern District Committee of the Stirling C.C. Plans may be seen with Messrs. A. & W. Black, architects, 5, King's-court, Falkirk, from whom schedules may also be obtained. Deposit £1 1s.

NO DATE.—**Forres.**—HOUSES.—Various works required in connection with proposed Forres Housing Scheme. All particulars from Messrs. R. Carruthers, Ballantyne & Taylor, architects, 28, Queensgate, Inverness.

THE SCOTTISH BUILDER

GLASGOW AND THE NEED FOR TOWN PLANNING.

MR. JAMES MACULAY recently read a paper on this subject before the Scottish Branch of the Surveyors' Institution. After dealing with the past history and development of Glasgow, he said the primary consideration of the people was their health, and, indisputably, the city enjoyed all the necessary natural conditions despite the reputation for rain and dullness. Yet to Dr. A. K. Chalmers (Medical Officer of Health), when he reported in 1911 the movement of population in relation to town planning, the City owed her awakening to the need of dealing with congested areas in her midst. Again, in 1922, his report showed that the average density of population was 56 persons per acre over the whole city; it was as high as 224 persons on every acre in Woodside, 212 in Gorbals, and 175 in Townshead, deducting shops, public buildings, industrial works, &c., from the acreage. The tenement system of housing was responsible for this excessive density, because it led to congestion on space; lighting and ventilation were impeded by similar adjacent buildings, while ashbins in back courts were in almost dangerous contiguity to inhabited rooms. The number of rooms per house was on the average 2.7.

In respect of slums, Glasgow was particularly bad, having some 14,000, which, in ratio to population, made her 50 per cent. worse than Edinburgh. In Glasgow were to be seen the four-story tenements flanking narrow streets, unrelieved by trees or shrubs in most cases, soot-laden and drab, depressing, utilitarian, monotonous.

It was commendable that Glasgow had about 1,500 acres of land in the neighbourhood of Cumbernauld used for farming operations, and in town planning every effort should be made to increase the bonds between the country and the city.

With regard to housing, there was need for provision for all classes of society. The housing schemes at present were planned of three-, four- and five-apartment houses, and large numbers of these were being built over considerable areas.

PROPOSED PRINCES STREET MEMORIAL.

THE Lord Provost Sleigh has received a communication through Mr. John Buchan, who was recently the chief guest at the Edinburgh Burns Club dinner, for a Scottish-American memorial in Edinburgh. Mr. Buchan has been approached by a Scotsman resident in America, on behalf of a number of Scottish organisations in that country, in order that a suggestion might be considered that a memorial of Scotsmen's part in the war should be erected in Edinburgh as a tribute from Scotsmen in America. The suggestion, subject to variation in all details, was that a piece of statuary, probably the figure of a Highlandman, should be erected in Princes-street. If the proposal were approved, the writer of the communication on the subject was prepared to get in communication with the various Scottish societies throughout America in order to meet the cost.

The difficulty is that suitable sites for statues in Princes-street are already occupied. However, it is understood that local views on the form such a memorial might take would be open to consideration on the part of the originators of the proposal.

NEW BUILDINGS IN SCOTLAND.

Edinburgh.—HOUSES.—The Corporation has decided to obtain estimates for the erection of 1,000 concrete houses.——Plans passed by the Dean of Guild Court: A. S. Fairn, two bungalows, Granton-road; James Johnston's trustees, bungalow, Barony-terrace, Corstorphine; Oldrieve, Bell & Paterson, bungalow, Lanark-road, Kingsknowe; Mrs. M. G. Spaven, house, Hillview-terrace, Corstorphine; and A. & R. Scott, Ltd., stores, West Mills, Colinton.

Ardrossan.—CLUBHOUSE.—The Dean of Guild Court has passed plans for constructing a new clubhouse between the two greens, for the Ardrossan Bowling Club.

Cowdenbeath.—HOUSES.—A housing scheme for the employees of the Fife Coal Co., Ltd. Cowdenbeath, was put in hand recently, and the total number of houses contracted for was 500.

Kilmacolm.—HOUSES.—Tenders have been invited for two blocks of houses, consisting of four houses each, at Kilmacolm.

Fraserburgh. — CLASSROOMS. — The School Management Committee for the Fraserburgh area has recommended that an addition be made to the science room, and that three new classrooms be provided at the Academy.

Paisley.—NEW ROAD.—The Dean of Guild Court has passed the following plans: British Cotton and Wool Dyers' Association, Dean-gate, Manchester, to make additions to the works, Greenhill and Underwood-roads; Messrs. Cayzer, Irvine & Co., Ltd., shipowners, 16 Hope-street, Glasgow, to construct at Alt a road, 40 ft. wide, to be known as Lanfin road.

Buckie.—HOUSES.—The T.C. has received permission from the B.H. to erect four m houses.

£100,000 for Houses.

The Epsom Rural Council, which received advanced £50,000 to persons building their houses, has decided to advance a further £50,000. The advances are by way of loan under the Housing and Small Dwellings Acquisition Act

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7	1/7	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/5	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1 1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/1½ to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Kirkwall	1/7½	1/6½	1/3½	1/4	1/4	1/4	1/4	1 0½	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 278.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	54	0
Do. Do. in flats	"	52	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	"	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	11d.	1/8	1/11	3/5	4/2	
Do. service	"	1/7	2/1	2/6	3/10		
Do. soil	"						6/10
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1¼
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PAINTING CONTRACT FOR THE EAST HAM BOROUGH COUNCIL.

A DECISION of importance to painting contractors to Borough Councils was given recently by Judge Snagge in the Bow County Court.

Plaintiffs in the action were Messrs. J. M. James & Sons, of 736, Romford-road, Manor Park, E., paint factors and dealers in paint, brushes and materials, and they sued Messrs. Barnes & Co., of 6A, Longhurst-road, Lewisham, S.E., painting and decorating contractors, to recover £74 6s. 2d., for paint, brushes, and other materials supplied.

Counsel for the plaintiff explained that the defendants had had a contract for the painting of two of the East Ham Borough Council's schools, in Walton-road and Essex-road, East Ham. During the course of the work being carried out a quantity of paint and brushes had been ordered by the two foremen employed by the defendants in charge of the work, and the authority for the supplying of these materials had been given over the telephone by somebody in the employ of Barnes & Co. When payment was asked for it was suggested that they had no time to go through the accounts for the moment but that a cheque would be sent on, and then when proceedings had been started the defence was put in on affidavit, that "In August we were doing contract work for the East Ham Borough Council, under certain specifications which included the using of certain material by certain firms appointed by the said Council. Neither I nor my partner has authorised the ordering of, or the acceptance of, goods or material from the plaintiff firm, and the ordering or acceptance of goods or material from them would be a breach of my said firm's contract for the work we were undertaking. There were two foremen on the jobs whom I am informed ordered from the plaintiff firm material without my said firm's knowledge, authority, or consent. These said foremen always had a small sum of money in hand to purchase articles for cash, permission for which would be given by the contract owner. No details of the claim have at any time been supplied to me, although my said firm have demanded same from the plaintiffs."

After various evidence had been heard on both sides, Mr. Smith, counsel for the defendants, addressed his honour, and said it seemed abundantly clear to him that plaintiffs had no right to have supplied the foremen painters with material to the extent that they had done without written authority, and that if they were allowed to do so it would leave the way open to the practice of all sorts of abuse. Of course, if the paint had actually been supplied and used on the job defendants should pay, but there were two points he would submit. First, "Do you believe that paint and materials were delivered?" and second, "Are you satisfied that the goods were used on the job, or another job elsewhere, by the foremen?"

Without calling on plaintiffs' counsel, Judge Snagge said that accepting orders in the way they had been given was a very unsatisfactory way of doing business, and it was very regrettable that no steps had been taken to find the two foremen concerned. He was saved a good deal of trouble as regards the actual use of the material by the affidavit in which the question of the supply, delivery and use of the material was not questioned, and only the authority to order was challenged, in view of the East Ham Borough tender, which excluded plaintiffs from supplying the paint. In his opinion that the deliveries were made there could be no possible question or inference that the materials were used on the jobs. Under the circumstances judgment must be for the plaintiffs for the full amount of their claim, £74 6s. 2d. Judgment was entered accordingly, with costs.

TRADE NEWS.

A new Sanitary Appliance Catalogue containing some 240 pages illustrated with examples of the latest and most modern sanitary equipment has just been published by Messrs. W. N. Froy & Sons, Ltd., Brunswick Works, Hammersmith, W., and will be sent post free to any reader applying for a copy of same. The sanitary showrooms at Brunswick Works, Hammersmith, have been entirely remodelled and enlarged, and the firm will gladly show over any architects or builders who care to pay a visit. Messrs. Froy & Sons, Ltd., also have separate catalogues representing the following departments:—Stoves and ranges, ironmongery, leaded lights, paints, enamels, &c., wall papers, and any of these will be sent post free.

Messrs. James Keith & Blackman Co., Ltd., inform us that the James Keith Hall, Arbroath, which has been given by the Directors as a club for the workers of this firm, was formally opened by Mr. George Keith on January 16.

We are informed that both the offices and depot of the Anglo-Italian Commercial Agency, Ltd., who specialise in Fiat Lorries will in future be at 162, Grosvenor-road, Vauxhall Bridge, S.W.1; the city address has been given up. At 162, Grosvenor-road, there are both garages and showrooms with every facility for demonstrating the model.

We have received from Messrs. J. H. Sankey & Son, Ltd., a short pamphlet dealing with their Cranham-Moler (Fossalsil) hollow partition blocks and bricks.

Messrs. Lumby's, Ltd., send us a list of their unbreakable mild steel corrugated boilers.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

A. J. HOPWOOD & CO., LTD. (194,198), Registered December 5. London-road, South Benfleet, Essex. Builders and decorators, cartage contractors, &c. Nominal capital, £1,500.

POTTS BROS., LTD. (194,125). Registered December 1. Brick Works, Hoyes-lane, Alderley Edge, Cheshire. Brick and drain pipe manufacturers, now carried on by Potts Bros. at The Alderley Edge Brick and Tile Works, Alderley Edge, Chester. Nominal capital, £2,000.

F. NORTHEAST, LTD. (194,268). Registered December 7. 422, Clapham-road, S.W.9. Builder and joiner, now carried on by Frederick Northeast at 15, York-terrace and 422, Clapham-road, S.W., under the style of Hibberd & Northeast. Nominal capital, £1,500.

HARRY NEAL, LTD. (194,482). Registered December 17. 27, Green-lanes, Northwood, Middlesex. Builder and contractor now carried on at Northwood, Middlesex, by H. Neal, under the style of H. Neal. Nominal capital, £20,000.

F. GLEESON & CO., LTD. (194,493). Registered December 17. 16, Warcock-road, Clarksfield, Oldham. Builders and contractors, &c. Nominal capital, £500.

BROMLEY JOINERY WORKS, LTD. (194,489). Registered December 17. 3, Queen Victoria-street, E.C. 4. To buy and sell timber and wood and all materials used in building, joiners, carpenters, &c. Nominal capital, £100.

SWABY & WALSHAM, LTD. (194,571). Registered December 19. 117, Patrick-street, Grimsby. Builders and contractors, &c. Nominal capital, £3,000.

ALFRED G. WINTERS, LTD. (194,536). Registered December 19. 150A, Portland-road, South Norwood, S.E. To acquire and take over the business as now carried on by Alfred George Winters, builder and contractor, of 150A, Portland-road, South Norwood, S.E. Nominal capital, £2,000.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

*** Denotes *accepted*. † Denotes *provisionally accepted*. ‡ Denotes *recommended for acceptance*. § Denotes *accepted subject to modifications*.**

ABERDEEN.—For road work in connection with tramway extension to Hazelhead, for the T.C.:—

Supplying and laying 2 in. mastic rock asphalt—

*Highways Construction Co., Ltd. £8,776 0 0

Supplying steel reinforcement—

*British Reinforced Concrete Engineering Co., Ltd. 331 10 3

AMBLE.—For laying 420 yds. of cast-iron water main and 320 yds. of earthenware sewer, for the U.D.C. Mr. W. Burton, Surveyor, Amble:—

Water mains—

*A. E. Green, Amble £154 19 7

Sewers—

*McLaren & Co., Belford 148 17 7

ASHTON.—For 58 houses on the Heys Estate, for the Ashton H.C.:—

*Randall, Ltd., Sheffield.

BECKENHAM.—For erection of a sports' pavilion for Lloyds Bank, Ltd.:—

Coles Bros., Ltd.	£16,000
J. Watt	14,790
G. E. Wallis & Son	14,565
Holliday & Greenwood	14,557
Rice & Son	14,491
W. Lawrence & Son	14,414
Andrews & Andrews	14,399
E. A. Roome & Co.	14,281
Trollope & Colls, Ltd.	14,280
Griggs & Son	14,071
Sabey & Son	13,833

BECONTREE.—For the erection of three additional shops with flats over, in Bennett's Castle-lane, south of Linkway, and lock-up shop adjoining 167, Bennett's Castle-lane, for the L.C.C.:—

Clements (Grays), Ltd., Grays	£6,190 0
Hammond & Miles, Ltd., Ilford	5,675 0
W. J. Cearns, Stratford	4,940 5
H. C. Horswill, Forest Gate	4,899 0
*F. W. Romain & Sons, Chadwell Heath	4,685 0

BEXHILL.—For the erection of a garage in Station-road, for the T.C.:—

D. P. White	£405 0
W. Banks	380 0
W. H. Sanders	361 5
*E. Godwin & Sons	355 0

BIRKENHEAD.—For removal of John Laird statue and re-erection at Woodside Ferry, for the T.C.:—

*E. Moss & Sons, Liverpool £225

BIRKENHEAD.—For preparation of War Memorial site, for the T.C.:—

*G. Ellidge & Sons, Birkenhead..... £257

BOGNOR.—For works at Pavilion Gardens, for the U.D.C.:—

*E. L. Noye £230

BOURNEMOUTH.—Erection of retaining wall, levelling playgrounds, &c., at Lansdowne School, for the T.C.:—

*M. Loader £1,193 14 9

BRADFORD.—For reconstruction of premises with alterations and additions in Hammerton-street for Messrs. Shell Mex, Ltd.:—

Mason and joiner—

*E. Fearnley & Sons, Bradford.

Asphalter—

*Tunstall's Rock Asphalte Co., Ltd., Leeds.

BRADFORD.—For erection of 104 houses on the Shuttleworth Hall Estate, Allerton, for the Bradford Guild of Social Service. Messrs. Wm. Illingworth & Son, architects, Bradford:—

Mason's work—

†Michael Booth & Sons, Bradford.
†R. Naylor & Sons, Girlington.
†R. Leech, Girlington.

Joiner's work—

†Wilkinson & Dawson, Ltd., Bradford.
†E. Fearnley & Sons, Bradford.

BRIGHOUSE.—For erection of 12 type "B" houses for the T.C.:—

*G. & H. Crowther, Brighouse—*Mason.*
*T. A. Hirst, Brighouse, and W. Halliwell Brighouse—*Joiners.*
*Atkinson & Smith, Bradford—*Plumbers.*
*J. H. Barraclough, Brighouse—*Plasterer.*
*E. Hillam, Bradford—*Slater.*
*Brighouse District Industrial Society, Ltd.—*Painter.*

CASTLEFORD.—For work (1) at Welbeck-street School, and (2) repairs to Ashton-road C. School, for the E.C.:—

Builder's work—

*(1) H. Robshaw.
*(2) H. Robshaw, F. Greatbatch, and R. Nicholson Ltd.

CATERHAM.—For the erection of 14 cottages Queen's Park, for the U.D.C. Mr. H. R. Martin Surveyor, Council Offices, Caterham Valley:—

J. B. Edwards & Co., London £6,020

CHELTENHAM.—For painting at rear of Municipal Offices, for the T.C.:—

*J. H. Grace & Sons..... £135

GLASGOW.—For steel furnishings and fittings required at (*a*) Water Department; and (*b*) City Rate Collector's Department, at Municipal Building extension, for the T.C. :—

*Art Metal Construction Co. (a) £737 7 3
(b) 2,815 17 0

GLASGOW.—For the brickwork for the Scotstoun Housing Scheme, for the T.C. :—

*J. Crawford £35,039 4 7

GLASGOW.—For the erection of houses in connection with Crossmyloof Housing Scheme, for the T.C. :—

Carpenter work—
*Ritchie & Anderson £35,156 10 1
Slater work—
*W. Walker & Sons 5,767 0 0
Plumber work—
*Hugh Twaddell & Sons 16,907 3 10
Plaster work—
*David H. M'Kellar..... 7,455 11 8
Glazier work—
*George G. Kirk, Ltd..... 698 7 8
Iron railings and gates—
*Alex. Peters, Ltd. 1,271 12 3

GLASGOW.—For the Housing Scheme at Whitefield-road, for the T.C. :—

Mason work—
*James Crawford £17,929 17 10½
Joiner work
*Matthew Braid & Sons 10,694 5 6
Slater work—
*J. M'Laren 1,823 4 3
Plumber work—
*H. Twaddell & Sons 7,545 2 8
Plaster work—
*H. S. Bathgate 2,896 0 4
Glazier work—
*A. S. Wright & Co. 238 14 9

GLASGOW.—For supply and erection of fencing on Cathcart-road, for the T.C. :—

*Russell & Co..... £240 2 2

GLASGOW.—For the erection of iron fencing round open spaces at Moss Park, for the T.C. :—

*A. & J. Main £1,428 11 3

GLASGOW.—For the alterations and additions to the entrance buildings at Knightswood Hospital, for the T.C. :—

Excavator, &c., works—
*John Porter & Sons, Ltd. £3,646 11 11
Carpenter and joiner works—
*John Baxter & Son 2,199 5 5
Slater work—
*P. White & Co. 554 14 0
Plumber, &c., works—
*Hugh Twaddell & Sons..... 830 0 0
Plaster work—
*George Rome & Co. (Glasgow), Ltd. 331 18 3
Painter work—
*Logan & Gray 160 9 2
Tile work—
*John Youden & Son, Ltd. .. 375 15 7

GLASGOW.—For the erection of the new pavilions at Bellefield Sanatorium, for the T.C. :—

Brick, &c., works—
*William Taylor & Son (Glasgow), Ltd. £10,976 19 4
Wright, &c., works—
*William Taylor & Son (Glasgow), Ltd. 3,514 19 3
Glazier work—
*Bailie & Telfer 205 0 0
Slater work—
*Thomas Glaister 978 0 10
Plumber work—
*Hugh Twaddell & Sons..... 2,062 17 2
Lath and plaster work—
*Thomas Glaister 1,468 6 10

HAMPTON.—For making up Gloucester-road, for the U.D.C. Mr. S. H. Chambers, Surveyor, Public Offices, Hampton :—

Campbell, Kenyon & Co., Acton £5,210 6 2
Tarslag, Ltd., Stockton-on-Tees 4,943 18 6
R. D. Swinford, Ltd., Woking .. 4,919 10 3
W. H. Wheeler & Co., Ltd., London 4,598 16 4
Wm. Shepherd & Sons, Rochdale 4,558 3 6
John Mowlem & Co., Ltd., Chelsea 4,417 9 5
Limmer and Trinidad Lake Asphalte Co., London 4,412 6 11
E. Parry & Co., Putney..... 4,331 17 6
Philip Shepherd & Co., Acton .. 4,180 10 9
Battye Bros., Sheffield 4,143 14 11
Constable, Hart & Co., London 4,116 6 0
G. Winpey & Co., Ltd., Hammersmith 4,023 19 10
Tarmac, Ltd., Wolverhampton 4,016 4 3
*Brookes, Ltd., London 3,922 13 4

LEEDS.—For re-slating roofs of property, for the T.C. :—

*Watson & Worsnop—Grand-street, Ark-street, &c. £178 4
*J. Atkinson & Son—Mill-green and Wortley-lane 139 0

LEEDS.—For construction of tennis pavilion and conveniences at Bushingthorpe Recreation Ground, for the T.C. :—

*H. C. Bridge..... £337

LEEDS.—For provision of new lavatory accommodation and reconstruction of existing lavatories in Town Hall, for the T.C. :—

*Jones (Leeds), Ltd..... £885 1

LEEDS.—For provision of dressing room, storage chamber, &c., at Kirkstall-road Baths, for the T.C. :—

*Wood Bros., Ltd. £403 2

LEEDS.—For construction of bowling green pavilion at North-street Recreation Ground, for the T.C. :—

*H. C. Bridge..... £142 10

LEEDS.—For erection of bandstand in Middleton Park, for the T.C. :—

*T. Milnes & Co..... £270

LIVERPOOL.—For the supply of kerb, to the T.C. :—

*McCreath, Taylor & Co., Glasgow—
10,000 yds. 12 in. by 6 in. Norwegian granite curb, 6s. 9d. per yd.
*Alfred H. Evans, Liverpool—
10,000 yds. 12 in. by 7 in. Norwegian granite channels, 6s. 9d. per yd.

LIVERPOOL.—For erection of tramway shelter at Ranelagh-place, for the T.C. :—

*Coulthard & Woods, Liverpool..... £764

LIVERPOOL. For alterations and additions to Old Welsh Chapel, Crosshall-street, for the T.C. :—

*Rimmer Bros..... £8,652

LIVERPOOL...For the erection of six tenement dwellings on St. Augustine-street, for the T.C. :—

*Rimmer Bros., Liverpool..... £3,229

LIVERPOOL.—For repairs to roofs of Horseshoe Galleries, in Museums' Department, for the T.C. :—

*W. & H. Piercy..... £213

LIVERPOOL.—For the erection of Western block of New Hall-lane Council School :—

*J. Rimmer £22,195

LIVERPOOL.—For asphalting work at Thurloe-street Recreation Ground, for the T.C. :—

*Lawrence, Marr & Son..... £225

LONDON.—For the reconstruction of Wick-lane bridge on the Eastern-avenue arterial road, for the L.C.C. :—

Campbell, Kenyon & Co., Ltd. £21,489 10 9
Kinnear, Moodie & Co. 20,995 2 0
Mitchell Bros., Sons, & Co., Ltd. 19,576 1 11
A. Waterman 17,700 14 2
*Caffin & Co., Ltd. 16,929 10 3

LONDON.—For the erection of three shops with dwellings over and four workshops on the Tabard Garden Estate, for the L.C.C. :—

John Marsland & Sons, Ltd. £4,966
J. D. Leng..... 4,860
Rowley Bros..... 4,057
J. E. Billings & Co., Ltd..... 3,699
H. Groves & Son 3,673
Douglass Halse & Co., Ltd. 3,601
*W. J. Dixon & Son, Bermondsey.... 3,522

MALDON.—For the erection of two shelters, for the Maldon R.D.C. :—

*A. Baxter, Maldon £141

MANCHESTER.—For the erection of school, Higher Ormond-street, for the E.C. :—

*Moston Brick and Building Co., Manchester £7,600

MARKYATE.—For repairs to cottages, &c., for the Herts C.C. :—

*J. Jarman, Redbourn..... £161 7

MIDCALDER.—For construction of new bridge over river Almond, for the Midlothian C.C. :—

‡Sir Wm. Arroll & Co., Ltd. £6,175

NELSON.—For the various trades required in the erection of 19 houses on the Marsden Hall-road site, for the T.C. :—

Bricklayer, mason, &c.—
*Co-operative Wholesale Society, Manchester—2 houses
*T. Dent & Sons, Nelson—5 houses
*D. Flory & Sons—6 houses
*E. Armstrong & Son, Brierfield—6 houses
Carpenters and joiners—
*Russell Bros., Nelson—5 houses
*J. Hanson, Burnley—12 houses
Plumbers—
*P. J. Quinn, Ltd., Brierfield—7 houses
*T. Rycroft, Nelson—12 houses
Plasterers—
*Co-operative Wholesale Society, Manchester—19 houses
Slaters—
*T. Dent & Sons, Nelson—19 houses
Painter—
*T. Rycroft, Nelson—19 houses

NEWARK.—For forty-four conversions, in seven groups, for the T.C. Mr. J. W. Hipwood, Surveyor, Town Hall, Newark :—

Groups 1, 2 & 4—
W. Smith, Newark £119 10 0
Groups 3, 5, 6 & 7—
J. Wright, Newark 285 19 7

NORMANTON.—For improvements at the Woodhouse Council School, for the Education Authorities :—

*The Normanton Gas Co.

NORTHAMPTON.—New isolation block. Northampton General Hospital :—

*H. Martin, Ltd., Northampton .. £14,424

NEWPORT PAGNELL.—For alterations to manager's house, for the Newport Pagnell Gas Co., Ltd. Mr. W. B. Stonebridge, architect, Bedford :—

Wilford Bros. £481
J. Coverley 457
T. & C. Shelton 371
*J. C. Tarry 345

NOTTINGHAM.—For asphaltic work to roofs and floors of new super shop premises in Beastmarket, for Messrs. Montagu Burton. Mr. Harry Wilson, architect, Leeds :—

*Tunstall's Rock Asphalte Co., Ltd., Leeds.

NOTTINGHAM.—For construction of new service reservoir at Colwick Hill, for the T.C. :—

*Matthews & Mumby, Manchester.

NORWICH.—For erection of 48 houses and non-parlour cottages on Mile Cross Housing Estate, for the T.C. Mr. A. E. Collins, City Engineer, Guildhall, Norwich :—

Rice Bros. (Norwich), Ltd., Norwich.. £21,156
(Rough cast).
Added for seven blocks in red brick facings 246
Amount of accepted tender £21,402

PLYMOUTH.—For the erection of 120 houses at North Prospect, for the T.C. :—

*J. W. Spencer..... £54,436
(Subject to variation in respect of rise or fall of wages.)

PONTEFRACT.—For various works, for the Corporation :—

Supply of water main, to be laid in Hillcrest-avenue—
T. Allen & Sons, Ltd.—
Per ton £10 3 6
Supply of solid drawn weldless tubes :—
Stewart & Lloyds, Ltd.—
2,640 yds. at 6s. 9d. per yd.
880 yds. at 3s. 6¾d. per yd.
(Accepted subject to M.H.)

PONTYPRIDD.—For construction and supply of 3 ft. wide steel wire ropeway suspension bridge at Trehavod, for Pontypridd U.D.C. :—

*David Powell & Co., Ltd., Westminster £298
(Foundations for same constructed by Surveyor to U.D.C. at cost of £200.)

PRESTON.—For the widening and diversion of the length of the Preston and Liverpool main road, commencing at Longton Bridge station and terminating near the "Rose and Crown" Inn, Much Hoole, for the Lancashire C.C. :—

*Morrison & Sons, Ltd., Wavertree, Liverpool..... £37,097 18 7

PUDSEY.—For erection of seven houses on the Heath-grove Estate :—

*G. Verity & Son, Pudsey.

PUDSEY.—For construction of a sewer on the Heath-grove Estate, for the Corporation :—

*W. & J. Kendall & Co., Pudsey.

RHYMNEY.—For conversion of The Lawns, Rhymney, into a central school, for the Monmouthshire E.C. :—

†B. W. Davies, Blaina £5,407 12 5

ROTHERHAM.—For the erection of 50 houses on the Eastdene Estate, for the T.C. :—

*W. H. Treherne, Ltd... Per house, £368 8 9

ROYTON.—For the construction of the road from Rochdale-road deep cutting to Tandle Hill-park, for the D.C. :—

*S. & J. Smethurst, Oldham .. £18,972 1 8

ROYTON.—For the construction of road from High Barn to Luzley Brook, for the D.C. :—

*J. Spencer & Bros., Ltd., Oldham £5,880 16 9

SALFORD.—For making-up two streets on Weaste Housing Estate, for the T.C. :—

*J. Randall, Salford £836 10

SALFORD.—For supply of six showcases for Peel Park Museum, for the T.C. :—

*Peace & Norquoy, Manchester..... £273

SHIPLEY (YORKS).—For erection of 16 houses in Wharncliffe-road, and 12 houses in Coppy-road :—

*(1) A. C. Marsden, Frizinghall.
*(2) Wm. Pitts & Sons, Shipley.

SOUTHWARK.—Alterations and decorations, Hill-street, for Mr. Ronald Peacock. Messrs. Robinson & Roods, architects :—

*Castle Bros., Ltd., London..... £360

SOUTHWARK.—Alterations, &c., to warehouses, 1, 3 and 5, Garden-row, for Stainax Co. Mr. Walter Farmer, surveyor :—

*Castle Bros., Ltd., London..... £550

SPENBOROUGH.—For erection of 62 houses, for the U.D.C., on the Gomersal, Heaton House and Scholes sites :—

Mason's work—
*J. Horkin & Sons, Liversedge.
*A. Drake & Son, Cleckheaton.
*Robinson & Crowther, Cleckheaton.
Joiner's work—
*R. J. Patchett & Co., Cleckheaton and Clayton.
Tiler's work—
*H. Thompson & Son, Farsley.
*S. Hepworth & Son, Cleckheaton.
Plumber's work—
*G. Sykes, Cleckheaton.
*H. Bentley, Cleckheaton.
*Bancroft & Naylor, Cleckheaton.
Plasterer's work—
*Iredale Bros., Gomersal.
*Sellers Bros., Cleckheaton.
*W. Lockwood, Cleckheaton.
Painter—
*S. Sutton, Cleckheaton.

STAFFORD.—For surface water scheme at Doxey, for the T.C. :—

*G. Sandy & Co. £2,317 11 3

STRETFORD.—For the erection and completion of 50 houses on the Seymour-grove site, for the Council :—
*Grimshaw & Thomas, Stretford..... £22,060

SURBITON.—Three pairs of semi-detached villas, Ditton Hill, for Mr. W. J. Barnard. Mr. Alex. L. Woodward, architect :—
*Castle Bros., Ltd., London..... £5,955

SURBITON.—Alterations to form four flats at "Saxonbury," St. Mary's-road, for Miss E. Robertson. Mr. Alex. L. Woodward, architect :—
*Castle Bros., Ltd., London..... £1,363

WALLASEY.—For installation of heating apparatus at Wallasey Grange, for the T.C. :—
*G. Lee, Ainsdale £265

WARLINGHAM.—Erection of bungalow, Hornchurch-road, for Mr. J. R. S. Dixon :—
*Castle Bros., Ltd., London..... £838

WATFORD.—For supply of cast-iron pipes for Cassiobury Park Estate water supply, for the T.C. :—
*Stanton Iron Works Co..... £1,371 6 3

WHYTELEAFE.—Erection of bungalow, Whyteleafe-road, for Mr. A. H. Smith :—
*Castle Bros., Ltd., London..... £770

WISBECH.—For structural alterations, rebuilding works and new shop front, at the Borough Studio, for Mrs. L. Ream. Mr. F. B. Ward, architect, 8, South Brink, Wisbech :—

White & Holmes, Wisbech	£2,389	0	0
H. G. Papworth, March	2,383	0	0
Rands & Son, Ltd., Wisbech ..	2,253	10	4
*Elworthy & Co., Wisbech	2,231	0	0

WOLVERHAMPTON.—For the erection of six shops on Birches Barn Estate, for the T.C. :—
*Poole, Bros. £4,392

WOLVERHAMPTON.—For the erection of 72 houses on Old Heath Colliery site, for the T.C. :—
*A. M. Griffiths..... £22,646

WORTHING.—For supply of materials for making-up Grand-avenue, for the T.C. :—
Paving bricks—
*Lunsford Co., Ltd., Bexhill—100,000—132s. 6d. per 1,000, delivered to Worthing Station.
*Clapham Common Brick & Tile Co.—185,000—127s. 6d. per 1,000, delivered to Grand-avenue.
Kerbing—
*Brotherton & Ratcliffe, Ltd., London, E.C.—2,300 ft., 12 in. by 6 in., 2s. 8d. per ft.; 300 ft. (circ.), 3s. perf.
Pipes—
*Broadbent & Stephens, Leicester—550 yds., 6 in. pipes, at 2s. 8¾d. per yd.; 950 yds., 9 in. pipes, at 4s. 10¾d. per yd.

WORTHING.—For the supply of road stone, to the T.C. :—
*Mowlem & Co., S.W.1—600 tons (approx.) granite ¾ in. chips—18s. 11d. per ton.
*Mowlem & Co., S.W.1 (100 tons (approx.) granite dust—17s. 11d. per ton.
*E. Matthews & Co., W.C.—450 tons slag 2 in. (not tarred)—21s. 6d. per ton.

WORTHING.—For erection of sports pavilion at Beach House Park, for the T.C. :—

G. Still, Shoreham	£3,450	0	0
Wm. Harbrow, Ltd., London	3,352	0	0
Playfair Toole, Ltd., Southampton	3,304	16	1
James Bodle, Ltd., Eastbourne	3,259	0	0
Percival Cooper, Midhurst	3,170	0	0
Frank Sandell & Sons	3,140	0	0
Bostel Bros. (Worthing 1918), Ltd.	3,065	0	0
*James Longley & Co., Crawley	2,879	0	0

WORTHING.—For erection of attendant's cabin, Denton-gardens, for the T.C. Borough Surveyor, Worthing :—

W. T. Revitt, Olney	£120	0	
H. W. Sandell, Worthing	96	0	
A. M. Lyne, Worthing	77	8	
*G. Still, Shoreham Beach	72	10	

YORK.—For alterations to sidings at Electricity Works, for the T.C. :—
*H. E. Turner & Son..... £106

Tabard House.

With reference to the list of tenders published for the Tabard Garden Estate for the L.C.C. in the last issue of *The Builder*, Messrs. Allen Fairhead & Sons, Ltd., inform us the reason their tender (which was the lowest) was passed over was on account of the qualification which they inserted with regard to the increased cost of wages.


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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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THE R.I.B.A. AND EDUCATION.

IT was a happy thought of the R.I.B.A. Council to convene an International Congress on Architectural Education during the summer while the British Empire Exhibition is in full swing. We referred briefly last week to this Congress, which is being held in London at the end of July. Invitations have been widely issued to architectural schools and colleges all over the world, and, falling as it does at the time when London will be full of visitors, it is certain to be well attended. The papers and discussions are, we understand, being arranged to give the different countries represented an opportunity of telling us something of their hopes and aspirations for the future training of their young architects, as well as an historical survey of their methods and developments in the past. American, French and British architects have been invited to read short papers on the past, present, and future aspects of architectural education in their countries, and the other countries have been asked to contribute papers on similar lines to be printed with the former in the book of the proceedings, which is to be published as soon after the Congress as possible. This book should form a unique record of the subject. At a time when we hear so many contradictory opinions on our methods of architectural education, this Congress should afford an invaluable opportunity for discussion of the reasons upon which some of these opinions are based, and, by contact with teachers of other nations, to find by comparison with others the weak points or otherwise in our system and theirs. In addition to the papers, a very comprehensive exhibition is being arranged of the various schools' work. It is intended to house this exhibition in Devonshire House, which has—subject to non-demolition—been very kindly lent to the R.I.B.A., and in addition to hold an exhibition at Conduit-street of a collection of work done in Rome by American, French, and British Prix de Rome winners of recent years. The list of universities and schools who have been invited to send work is too long to print here, but to give our readers some idea of the representative nature of the exhibition we may mention that the list includes, in addition to some 16 British schools, 17 from America, 14 from the Dominions, two each from France, Holland, Spain and Portugal, eight each from Belgium and Italy, four from Russia, and three from Sweden. We believe and hope that in these exhibitions the schools of the British Empire will more than hold their own with those of foreign countries, but, in any event, no one who is interested in architectural education can afford to miss what should prove a unique opportunity of studying the work of many schools in other countries.

In connection with the school system which has grown up during the last twenty years in England, the R.I.B.A. Council, through the Board of Architectural Education, have recently taken two steps of an administrative nature which are of more importance than has, perhaps, been realised, and they will, no doubt, figure in the Congress discussions. In the first place, it has been found that, while the system whereby external examiners, appointed by the university schools under their own regulations, have in practice also acted for the Board in connection with the granting of exemptions from the R.I.B.A. examinations has hitherto worked well, there is one serious defect in it when dealing with a number of schools—some sixteen in all—whose students receive exemption from the Intermediate or Final, or both. In practice it has been found that different external examiners have been appointed by different schools, and it is obviously difficult for the Board to ensure from their reports that an approximately uniform standard of work has been obtained. Mr. Paul Waterhouse in his paper on Education in 1920 foreshadowed the likelihood of a change.

As announced in our issue of February 8, this change has now been made. In future a panel or Visiting Board of Architects, nominated direct by the R.I.B.A., will visit all the schools at frequent periods, both before and after any exemptions are granted. This will in no way affect any appointment by the schools of their own external examiners for their own purposes, but it will ensure that the R.I.B.A. has a full knowledge direct from its own inspectors of the comparative efficiency of the different schools, and will, we think, very much assist the weaker schools in improving their standards. In our judgment this is a wise step and will help still further to raise the prestige of the R.I.B.A. examinations by ensuring that no exemptions are given to young students who have not fully deserved them.

In this connection it is interesting to note that the influence of these examinations is spreading to the Dominions, for only recently the New South Wales Institute has decreed that the R.I.B.A. examination shall form their examination for membership. If this example is followed by other Dominions, the Institute and its Allied Societies abroad will be linked together by one more common bond, which will be all for good.

It is a development which will require some consideration on the part of the Council at a future date in the direction of encouraging men who belong to Dominion Institutes and reside in the Dominions after passing R.I.B.A. examinations to remain in some way attached to the parent body.

The other matter we have referred to above is the poor competition of recent years for R.I.B.A. prizes—another subject which is sure to be discussed at the Congress. Whether this is due to the recent introduction of the Prix de Rome, Jarvis, and other prizes, to the lack of time complained of by the students in the schools, to the conditions and methods of judging the R.I.B.A. prizes, or to other and less obvious causes, we do not pretend to know, but everyone is sorry to see that the Soane and Tite—once the blue ribands of a student's career—are so sadly neglected. We hope that the Committee, which is now sitting to endeavour to find the reason and remedy the fault, will issue its report before the Congress assembles. We feel that the whole question of prizes and competitions for students might well be reviewed at the same time. It may be that there are too many, or that they are not sufficiently co-ordinated with the educational curriculum in the schools, and this again is a matter upon which the Congress might well spend some time and discuss with the other nations represented, who, no doubt, have experienced the same sort of difficulty.

Finally, we sometimes hear complaints that the R.I.B.A Council are too absorbed by the purely business and semi-political affairs of the profession to give time to other and, perhaps, more important work. We ourselves have never lent credence to these suggestions, but we are glad when opportunity offers to emphasise the good work they are doing for education.

NOTES.

Charing Cross Bridge.

Though the paper by Mr. Waterhouse on Monday night was an admirable one in substance, the awakening of imagination and foresight at which it aimed did not seem to have had any good result on some of the principal speakers who followed him. The idea of Charing Cross Bridge appeared to them chimerical and impossible, at least for a long time to come. One of the most powerful pleas for the abandonment of the St. Paul's Bridge is the menace it might offer to the safety of St. Paul's Cathedral, and evidently the Cathedral architect, Mr. Macartney, is very uneasy on that score. Those who have both foresight and imagination, however, look even beyond the safety of St. Paul's to the wider issues involved, and wholly deprecate a muddling and piecemeal policy which fails to take account of the far-reaching effects of such schemes as the erection of new bridges at St. Paul's or Charing Cross. After all, it is not the bridge *qua* bridge we have to think of, but the effect that it will have on transport and circulation, and how its approaches on each side of the river will aid or injure a right development of the city. One of the amazing proposals evolved at the meeting was the erection of a "beauty screen" at each side of the existing bridge, so that the steam railway may pass between two roadways at each side of it, and so perpetuate the old bridge for years to come! On the whole the meeting on Monday does not appear to have been helpful to the cause of progress, though that could not be laid to lucid arguments of Mr. Waterhouse.

Unfair Comparisons.

One unfortunate item in the account presented by objectors to a new Charing Cross Bridge is the comparative cost. Is it fair to compare the cost of two millions for St. Paul's Bridge with fourteen millions for Charing Cross? Is it by deterioration of property by the erection of a costly viaduct? There is, at any rate, no need for this in a low-level bridge, which would result in large added values to the land about the approaches on both the north and south banks. We can even imagine an outlay of fourteen millions on a bridge which is wanted being better value than two millions on one which is not, especially if in the former case it results in the fine and beautiful development of an imperial city. There may be no greater curse to the good of a great city than the hide-bound and unimaginative mind of the so-called practical man.

An Art or a Profession?

A very timely article appears in the *Outlook* of February 9, by Mr. Manning Robertson, on "Architecture as an Art or a Profession." He thinks that more outspoken criticism on modern architecture should be forthcoming, and that the duty of looking after the new architecture, which is still in splints, must fall on the shoulders of the architect, even when kindness entails a certain amount of cruelty. He says, as things are to-day, a difficulty arises from the architect's dual personality: "The time has come for the architect to make up his mind once and for all which he is going to be. It he elects to be an artist, half the world will lose faith in him, for how could an artist understand about drains and gas coppers? If he decides on the professional man, the other half will have no use for him, for how can one profitably discuss matters of art with a man who admittedly is not an artist? The present tendency is unquestionably for the architect to regard himself more and more as an artist, and it is his business to make the public realise that artists are not necessarily fools when it comes to practical considerations affecting their art."

Exemption of New Houses from Rating.

We give this week an interesting article by Major Harry Barnes, on "Exemption of New Houses from Rating," in which the objections to the proposal are cogently stated. We have already expressed similar opinions on this method of assisting the production of houses, and we believe that, while local rates have a serious effect on house building, the idea of giving temporary relief would not be a remedy. It is merely another method of avoiding the burden by placing it on other shoulders.

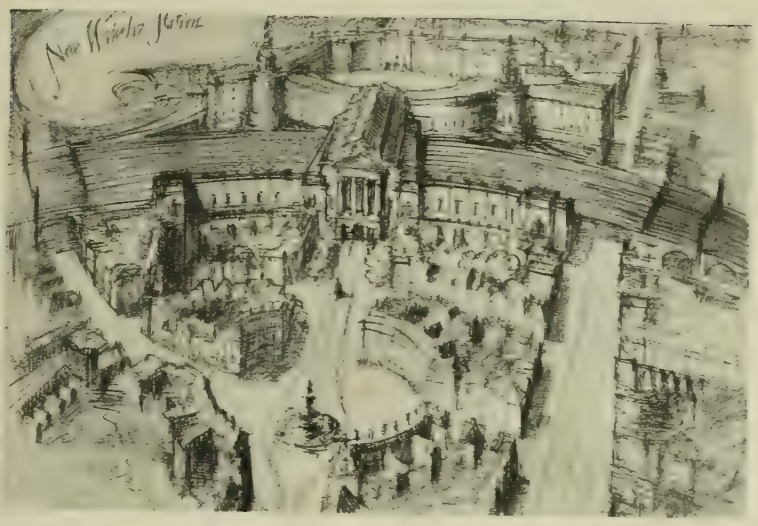
Landscape Architecture.

As might have been expected, the election of Mr. Thos. H. Mawson to the Presidentship of the Town-Planning Institute has given him an opportunity to urge the claims of landscape architecture to a much more



Proposed St. Paul's Station and Approaches. Specially drawn for *The Builder* by the late Adrian Berrington.

important place in the world than it has at present, and that its teaching should be made a more prominent feature in our educational work. That the landscape architect should be a dominant factor in town planning was strongly objected to by Mr. Carby Hall after the delivery of Mr. Mawson's Presidential address; but, however strongly this view may be held by many, there is still ample force in Mr. Mawson's claim for the possibilities which underlie the profession of landscape architecture. After all, landscape gardening and landscape architecture may be two very different things. The new President, with his great enthusiasm, linked with an exceptionally wide experience, should be a valuable asset to a body which has already done so much good work.



Scheme for a New Waterloo Station and Approaches.
Specially drawn for *The Builder* by the late Adrian Berrington.

A Query. As an example of current taste and thought we might instance the cover of the Society of Women Artists' catalogue. We are inclined to doubt whether the insistence of the nude has any necessary or vital import concerning the exhibition. Do we need to be reminded of a figure which we can see in a picture gallery or museum, or every night in a music-hall? To some people, of course, the human figure is the most attractive subject for art effort, but even this is not universal.

Canadian Architecture. A first glance at the recent paper on Canada, by Mr. Percy Nobbs, would suggest a visit to a region with a strong appeal for the architect. The fact is that the English and French traditions, from the England of the Georges and the France of the Louis, produced a particularly interesting type which was well shown in the illustrations to Mr. Nobbs' paper. The French influence as well as the English produced something definitely fresh and quaint in their early colonial work which, as Mr. Nobbs pointed out, was partly ameliorated by climate and partly by the use of that greatest of all timbers, white pine, now well-nigh squandered out of existence: "To build in the good old ways now becomes desperately costly, and that part of the goodness which was craftsmanship is quite unattainable." Fairly to estimate the reasons for the unfavourable contrast between earlier work and that of the present time, we should have to go deeper than a mere difficulty as to materials. In more than half of the thirty-seven illustrations to Mr. Nobbs' paper the architect may discern an architectural instinct, which is largely lacking in the work of to-day. Architects will, we are sure, be grateful to Mr. Nobbs for his able paper and its illustrations.

The Sculpture of Rheims Cathedral. Judging by the crowded audience which listened to the recent lecture at University College by Monsieur Paul Vitry on the sculpture of Rheims cathedral, there is a larger public than commonly supposed who appreciate such lectures. That an audience of so varied a character should listen with evident delight, for considerably over an hour, to a speaker in a foreign tongue, says as much for the vivid manner of Monsieur Vitry's lecture as for the interest of his matter. With dramatic realism he described first the mediæval craftsman and his work (differentiating between the archaic style of some of the statues, and the more contemporary style of others); then the tragedy which opened in September, 1914; and finally the efforts now being made to gather together and, in some cases, to restore the shattered remnants of the glory of Rheims. The lecture was admirably illustrated.

Mural and Poster Art. The recent developments which have improved so much the art of the poster, through the use of gay and flat colour and simple decorative design, have led to reactions in other directions, and this simpler and more elementary treatment so adapted to the ephemeral character of the poster is the logical direction of much of the work carried on now as an alternative to the old traditions of painting, which are somewhat discounted to-day. Yet this tradition of painting cannot be lost sight of, with its higher accomplishment and fulness of treatment, without great loss to art. We seem to denote in the present exponents of mural decoration a confusion between two things, and much of what they would attribute to the nature of mural painting applies more to the poster. It is not desirable that mural art should be confined within such limits, or that it should be supposed to depend on them. Crude and gay colour, flat tinting, &c., reach a result, but it is not the result we should look for in mural painting; but for an epic and exalted approach in which we see mastery in relation to great and enduring ideas.

Methods of Mural Painting. When it comes to examining the methods through which the mural decoration for the London County Hall was to be promoted, it will be seen that in spite of all the sentimental talk about "the art of mural decoration," these actual paintings were not mural at all. We quote the following from the letter of Mr. George S. C. Swinton (County Hall): "But the real trouble was that while in all probability these cartoons were designed and worked out in wide studios, these corridors in which they were shown—and rightly shown, because they would have to hang there—are only nine feet wide. We were too near them—hence these tears." Could condemnation be more complete? These paintings were a studio substitute executed under none of the conditions of mural art—which is done *in situ*—on the wall itself. The work not having been executed in the right situation could not but fail, and the astonishing thing is that such methods should have been adopted in order to promote mural art. Mr. Halsey Ricardo regrets that opportunity of encouraging young artists "at an extraordinarily cheap rate"—what a recommendation, coming from an artist!—should have been lost. It is felt by many artists that all the talk about "actual mural treatment" in the light of the facts is very ill-informed indeed. A great deal of mystery is made about it, but approached in the right way the walls themselves will yield up to the artist what he needs to know. How much experience of mural painting had Michelangelo when he started the Vatican Chapel? The theoretic approach which has governed the promoters of mural art leads them away from the facts, and enables them to believe in the advantage of fostering it "at an extraordinarily cheap rate," by employing students instead of experienced artists, and by doing the work in the wrong way.

GENERAL NEWS.

Concrete Houses for Bradford.

The Bradford Health Committee recently accepted a tender for the erection of 200 concrete houses at a cost of £418 per house. Acceptance of the tender followed the visit of a deputation to see concrete houses at Birmingham.

Zoning of London.

The Council of the London Chamber of Commerce has appointed a Special Committee with authority to communicate with the Ministry of Health and other bodies offering the Chamber's assistance in the various proposed schemes for town planning, which are being undertaken in London districts.

Esher Common.

Esher and Dittons Council decided recently to drop the idea of the promotion of an Improvement Bill to give them control of about 1,000 acres of common. The Bill would have given the Council power to establish a golf-course on Esher Common, but it has been strongly opposed by a ratepayers' meeting.

Tutankhamen at Wembley.

An exact reproduction of the tomb of Tutankhamen has been completed for the British Empire Exhibition at Wembley. It is the work of Mr. W. Aumonier, architectural sculptor, who evolved all the reproductions from photographs. The amount of gold leaf used in the reproduction cost about £1,000. The contents will be arranged at Wembley in exactly the same positions in which they were found at Luxor. The tomb has been dug out of the ground.

City Aldermanic Vacancy.

Mr. Josiah Gunton, F.R.I.B.A., is a candidate for the vacancy in the representation of the ward of Coleman-street on the Court of Aldermen, caused by the death of Sir John Bell.

Mr. Gunton has represented the ward on the Court of Common Council for over twenty years, and was Chief Commoner for the Court in 1922. He is a member of the Wheelwrights' Company, of which he was Master in 1909. He has practised as an architect in the ward for thirty-five years.

The Architect as Town-Planner.

Mr. H. V. Lanchester, F.R.I.B.A., recently delivered the third lecture of the Northern Architectural Association's session. Mr. W. T. Jones was in the chair.

In the course of his remarks he said town planning needed co-operative effort, and the question to be determined was the place of the architect in the group of technicians employed. The statement that town planning required co-operative effort among technicians of various types he regarded as in no way detracting from the position of the architect. He was far more likely to find his contribution of value if he were able to appreciate the points of view of the engineer and the sociologist. He would like to see the architect as the leading spirit of all adventures in civic planning and, given one with appropriate faculties, this might well be the case. The fuller his knowledge of the technique of town planning, the more likely he was to be able to justify the ideas he propagated.

In regard to the reorganization of our towns, Mr. Lanchester said most of our large towns would soon be demanding definite plans for the development of their central areas so as to provide suitable sites for public buildings and monuments. Our streets were susceptible of many improvements—shelters, kiosks, and the arrangement of lights would often lend themselves to better arrangement.

The easiest way to obtain recognition for their own views, he concluded, was to make it clear that they were able to comprehend the ground on which others formed theirs. Thus, general knowledge of the subject as a whole must be used as a basis in order to establish the importance of the position occupied by architects.

A Builder's Estate.

Alderman Charles Edward Doughty of Cornwall-gardens, Margate, builder, aged 72, left £43,825.

British Empire Exhibition.

In addition to the contract for the Australian Pavilion, the contract for the entire roofing of the Canadian Buildings at the Wembley Exhibition has been secured by the Ruberoid Co., Ltd., Lincoln House, 296-302, High Holborn, W.C.2, and represents a roof area of 12,000 square yards.

COMPETITION NEWS

Weybridge Hospital Competition.

The assessor, Mr. William A. Pite, F.R.I.B.A. has issued his award in this competition, and it has been adopted by the Committee :—

1. Messrs. A. W. Kenyon, F.R.I.B.A., and S. B. Livock, A.R.I.B.A., London.

2. Mr. Percy J. Westwood, A.R.I.B.A., 7, Adam-street, Adelphi, W.C.

3. Messrs. H. V. Lanchester, F.R.I.B.A., Lucas, F.R.I.B.A., and T. A. Lodge, A.R.I.B.A., London.

The design placed first is given in this issue.

Royal Masonic Institution School for Boys.

A review of the designs submitted in this competition is given on p. 291, and the design placed first, by Messrs. Davis & Emanuel and Mr. Henry C. Smart, is given in this issue.

Leicester Fire Station.

The assessors in this competition, Mr. Stockdale Harrison, F.R.I.B.A., and Mr. E. G. Mawbey, City Surveyor, have made the following award :—

1. (£100).—Mr. Trevor Sawday, A.R.I.B.A., 56, London-road, Leicester.

2. (£50).—Mr. Arthur J. Wood, A.R.I.B.A., Prestwold, Westfield-road, Leicester.

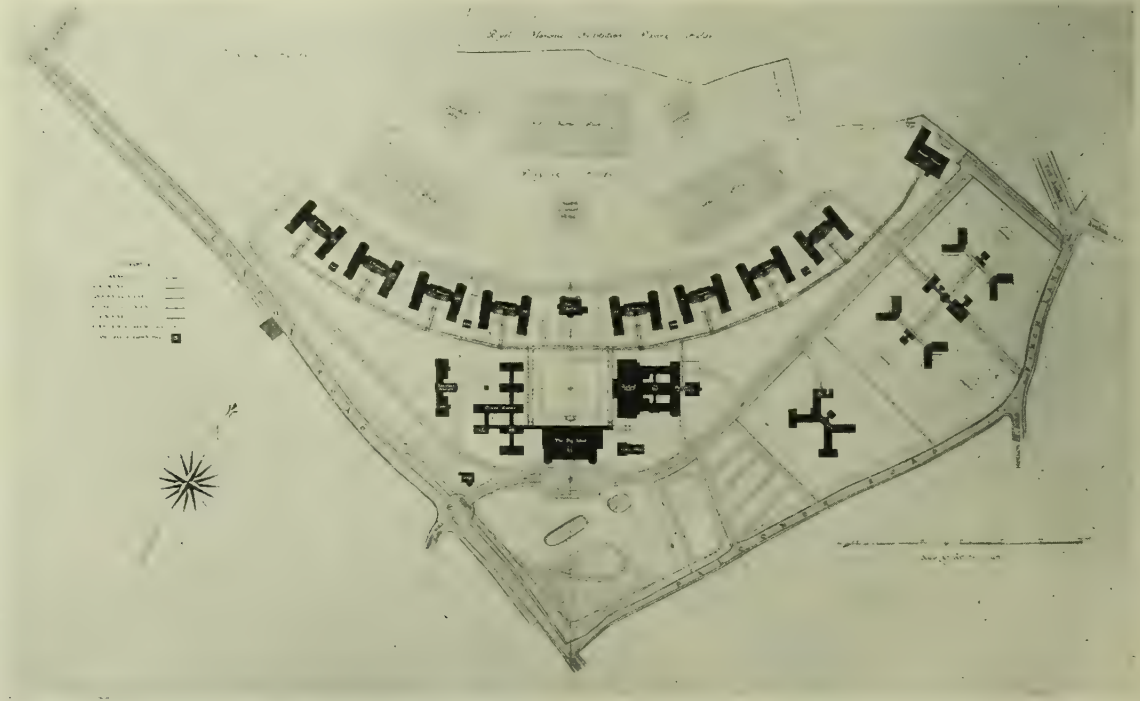
3. (£25).—Messrs. Moore and F. H. Morley, A.R.I.B.A., Leicester.

Masonic Peace Memorial.

For full particulars of this competition see our issue for February 8. No sending-in date has yet been fixed.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given) :—Essays on Heating and Ventilating (Mar. 31; Nov. 9, 1923). Industrial Designs (June; Dec. 21, 1923). National Theatre (April 26). Monument to Sir Wilfrid Laurier (April 3; Dec. 14, 1923). Belfast Union Lighting (March; Nov. 9, 1923). Dunfermline War Memorial (March 8; Dec. 28, 1923). Newcastle Concert Hall (March 1; Oct. 26, 1923). Ross-Smith Memorial (Sept. 30; Feb. 1). Newcastle Fire Station (March 27; Feb. 1).



Lay out Plan.

Royal Masonic Institution Junior School for Boys, Bushey, Competition.

Design Placed First; By Messrs. Davis & Emanuel and Henry C. Smart. (*See p.* 291.)

ROYAL MASONIC BOYS' SCHOOL, BUSHEY.

We illustrate this week the design placed first in the limited competition for a Boys' School for the Royal Masonic Institution at Bushey.

The winning design (D), by Messrs. Davis & Emanuel and Henry C. Smart, gives a good main frontage to the angle of London-road and Falconer-road; the big school is in the centre, flanked by classrooms on the left and dining hall block on the right. Behind the big school is a quadrangle 170 ft. square, and on the northern boundary of this the curved line of connecting corridors impinged fronting the bowed line of eight pairs of houses, with the headmaster's house in the centre commanding the playing-fields to the north. The existing gardens are retained at the angle of the site, and to the east are the infirmary, hospital, &c. The lay-out is simple and in many respects good. The elevations are in the main nicely balanced and have a touch of collegiate character. If we consider that the main consideration in a hospital should be the patient we might also think the boy should be the main concern in a boys' school. So we rather doubt whether it was best to place the urinals and lavatories at the south-end of the boys' houses and the gardens and ends of dayrooms and dormitories to the north. It would perhaps have been better to have the conveniences on the playing-fields' fronts, and the gardens to the south end of the houses, so that the sun might fairly penetrate the ends of the rooms and avoid having sanitary blocks to the south ends and so shutting out direct sunlight from dayrooms and dormitories. In the winning design these blocks appear to be two stories high if we regard the plans, but only one story high if we go by the elevation. The pen-and-ink perspective with this design was prepared by Mr. Sydney R. Jones.

The lay-out of (F), Messrs. Gotch & Saunders, has some similarity to design (D), but the blocks of houses run across the site east and west in one straight line, with the assembly hall in the centre. In front of the hall is a quadrangle with classrooms at the south side, and to the south of the quad is the dining-hall, and in front of that again the kitchen department, whilst north of that is the power-house, and right and left infirmary and sanatorium. The headmaster's house and the music school are left and right of the assembly hall, fronting the playing-fields. There is some pleasant elevational treatment, especially in the infectious diseases sanatorium and the assembly hall, the principal elevations of which would only be seen from the quad. There are no less than 34 sheets of well-executed drawings illustrating the design.

(B), by Mr. T. R. Milburn, is an Elizabethan design which, in its general impressiveness, with a good balance of parts, is quite good, and is shown in a pleasing bird's-eye. It has a good carriage approach from the angle of the roads, a lodge, and, forming one side of the quad to the south, a block of administrative offices. The headmaster's house is in the centre between the houses, looking over the playing-fields. Some of the house blocks are parallel to the front buildings at the south side of the master's house, and four more are parallel to the London and Falconer roads. There are only six sheets to the illustration of this design.

(G), by Mr. J. C. Dawson, has a very picturesque disposition of buildings, giving an agreeable main front centred by a tower. The houses are arranged around two courts (west and east) with polygonal sides. The treatment and proportion of the elevations are good, and the collegiate character of the work is very satisfactory. It is certainly an attractive design, and would result in many features of interest, with excellent architectural qualities.

(E), by Messrs. Brown & Barron, is a Tudor design of merit, and the big school is made a pleasant and outstanding feature in the grouping. The dining-hall is economically treated in the kitchen block. The headmaster's house is rather out of the way.

(A), by Mr. H. Percy Monckton, would have ranked better had he not crowded his buildings so closely together.

(C). Messrs. Buckland & Farmer have adopted a sort of Georgian type with some able treatment. One hardly likes the placing of the hospital blocks to the south at the roads' angle, though a good effect of the design would, however, be had from the playing-fields. The headmaster's house is in a good place for the occupier, but it was to have oversighted the playing-fields. No doubt masters and nurses prefer to have a corner isolated somewhat from the place in which they are continually working.

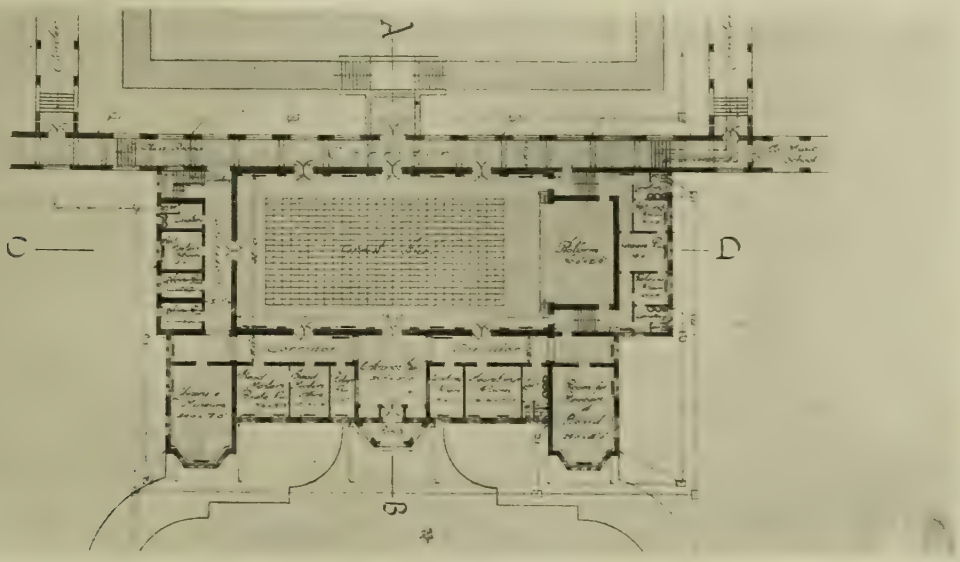
The following is the Assessor's report:—

"The seven designs submitted are exhibited by 580 drawings and 197 typewritten folios; and it has been necessary to study these closely, for though most of the designs have some excellent features, there is none that I can confidently recommend you to carry out as it stands in a satisfactory manner for less than a 10 per cent. addition to the £240,000 allowed. The competitors have evidently found difficulties in dealing with the site; in the large amount of accommodation required on the first floor of the boys' houses, as compared with that below, and, on combining adequate cross-ventilation in the kitchen department with a convenient and lavour-saving concentration. But it is evident that the limit of cost has been the chief difficulty, and has generally resulted in cramped dimensions, inferior construction or underpriced estimates. My examination of the designs has convinced me that the required accommodation in a convenient form, and in buildings of sound construction and materials, must involve a larger expenditure than £240,000. The design marked (D) though not a perfect solution of the problem set by the "Instructions and Conditions," approaches, in my opinion, more nearly to such a solution than any other. An injudicious desire to preserve the existing gardens has led the competitors to place the buildings farther down the hill than necessary, and you will probably desire a more permanent form of covered-way than a timber-framed one. But in other respects the arrangements are generally good, and in several departments are the best proposed. The specification of materials and construction are particularly full and satisfactory; my check of the estimate makes this one of the least costly designs, and the architectural character of the buildings is simple and pleasing without extravagance or superfluous ornamentation. Accordingly, I declare the design marked D to be the best. Design A is to be commended for an excellent internal arrangement of the boys' houses, (B) for the monumental character of the scheme, and (F) for beautiful drawing.

(Signed) Frank T. Baggally.

Royal Institute of Architects of Ireland.

At a recent meeting of the Council of the Royal Institute of the Architects of Ireland, a vote of condolence with the relatives of the late Mr. James Moore Caldwell Robinson, of Londonderry, was passed. It was resolved to take steps so as to arrange, if possible, for a conference on the subject of the shortage of skilled tradesmen in Ireland, which it is feared is likely to hamper developments. The following were declared elected members of the Institute: Messrs. Robert S. Barnes (Navan), Joseph J. Bruntz (Edenderry) and Frederick H. Jermyn (Dublin).



The Big School: Ground Floor Plan.

Royal Masonic Institution Junior School for Boys, Bushey, Competition.

Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.

CORRESPONDENCE.

Doing or Talking.

Sir,—It is awfully good of the R.I.B.A. to think of giving Professor Lethaby a medal, and I'm sure Professor Lethaby will be delighted to have it, but I'm equally sure that both Professor Lethaby and all sensible members of the Institute would rather that the "old Lady of Conduit-street" did as he told them instead of giving him medals.

I suppose about two hundred years hence, when this civilisation has passed away, some member of an Art Committee or possibly of a Fine Arts Commission will wake up from his doze and say: "This man spoke the truth; this man was great and wonderful; let us go and write books about him; let us go and make speeches over his grave; let us lay wreaths on his tomb and thus show honour to the great——." But when, oh when, will Humanity obey the great—not in word but in deed?

W. W. Scott-Moncrieff.

Unification and Registration.

Sir,—The Defence League circular signed by Mr. Cross and Mr. Perks, with which members of the R.I.B.A. have been favoured, indicates clearly that the policy of this League is now definitely anti-registrationist, for reasons set out in the circular, as well as against any real reconciliation with the Society of Architects.

Every vote given for the League is, therefore, a vote given against registration.

Whatever the policy of the present Council may be, its members were certainly not elected by an overwhelming vote at the last election to give up in so half-hearted a manner the attempt to find a solution of this difficult problem and it is, therefore, to be hoped that members will wait until the proposals of the Council are announced before lending their support to such a retrograde movement as is foreshadowed in the Defence League circular.

Maurice E. Webb,
Hon. Secretary, 1922 Emergency Committee.

Sir,—I have received another circular letter from the R.I.B.A. Defence League. The points therein seem to me to lack the force and reason that a previous document anent registration possessed.

For instance, the fact that we have not a "public case," and are unable to put one before our Parliamentary agents on such a vital matter to the profession as registration, leads me to think we had better put an end to dissention and try to make the Institute an harmonious and live body, of real assistance to its members. Why should we trouble about such items as:—

(1) The temporary loss of dignity, because a few probably quite capable, but unqualified men, are admitted to its ranks.

(2) Considering whether it is consistent with professional etiquette to draw public attention by notice boards to the fact that plans of new buildings can be seen at an architect's office.

(3) Endeavouring to make its members dress up in gowns or pose as artists, when the majority are struggling professional men trying to make a bare living, some even as assistants.

Objects that are "purely defensive" do not lead to progress.

One of the few practical matters taken up by the R.I.B.A., which has led to good results for its members and the public, is the banning of unfair competitions, and this was the result of united action.

With regard to the need for registration or unification. In a suburban town, at a recent General Purposes Committee meeting, out of 47 sets of plans submitted for approval by the local authority, only eight sets were prepared by architects. In this same town there is a builder whose office windows are filled with drawings of "villas" and "bungalows" of questionable design, and who further offers to submit plans for intending clients, of whom, incidentally, he obtains a great many. These are facts which it is useless to dream over, or pass by.

Our Institute has long aimed to improve the public taste and raise the dignity of the profession, and it is not by its present methods or by public lectures that it will quickly and satisfactorily attain these ends, but by a scheme of registration or unification by Act of Parliament which will effectually prevent the present scandalous methods which are a disgrace to the architectural world. No building can be erected without consent of the local authorities; therefore, why not make it compulsory for all plans submitted to local authorities to be prepared by an architect qualified by Act of Parliament?

Times are changing, and a sane and vigorous policy is needed, otherwise the position of the architect will become worse instead of better.

A. Archer-Betham, A.R.I.B.A.

Sir,—Such an enormous number of professional classes allow preconceived political notions to formulate their estimate of any given political circumstances that it seems opportune to make a suggestion that although any given group of legislators may, in the accepted and possibly not accurate conception of their motive, appear to be adverse to the welfare of a given class or principle, they may in detail, so far from being so, represent a point of view quite dissimilar from any notion preconceived. The present Government is one very likely to encourage this preconception so far as the professional classes are concerned. I heard only recently a distinguished member of the clergy express a view which might lead us to suppose that the advent of a Labour or Socialist Ministry necessarily led to a submersion of intellectual interests to the material selfishness of one. It is not difficult to perceive that there exists in the present Government, whether we like it politically or not, elements more sympathetically inclined to the interests of our art than in preceding Governments, and having reached that conclusion we should be very foolish not to consider such a circumstance as one which should be carefully studied with a view to the opportunity it affords to establish the unselfish ideals which we have long cherished but until now have seen so little possibility of putting into practical form.

The suggestion, therefore, is, having circumstances of government favourable with liberty to give intelligent attention to the many just demands, whether we shall not immediately put forward our claims for proper recognition. The design of such important structures as theatres, public buildings generally, hospitals, homes for the working classes, and similar highly responsible undertakings are at least as important as the drawing of a tooth—a dentist can, by carelessness or incompetence, break the tooth or injure the jaw of one person at a time, but he is still recognised; an architect failing to make proper calculations for the structure of a stadium or theatre jeopardises or perhaps destroys the lives of scores or even hundreds of people by one mistake. It is fully obvious, therefore, to all but the intelligently blind, or singularly foolish, that it is of more importance for the public to have some guarantee of the competence of those whom it employs to design its structures than those who draw its teeth, and yet up to now this point of view has never been recognised by the State.

Now, therefore, that a chance presents itself of receiving the consideration of a new element in government, our profession should make an endeavour to have its claims for recognition considered at once, and it should ask the various Institutes and Societies representing the architectural profession if it is not a fitting time to endeavour to compromise their many, and in some cases trifling, differences with a view to having a Registration Bill considered during the life of the existing Parliament.

We do not know how long the present Ministry will remain in office—those of us whose political opinions are antagonistic to the Labour policy will, perhaps, wish it to be short—the aims of the present Cabinet are such that it is highly probable that as a new thing in governments its life may be short: that the same party will return again to office no thoughtful person can doubt, but still not one of us can tell how long once they have departed they may remain out of office. Surely, then, we should not miss what may be our greatest opportunity to gain recognition in this generation.

I would, therefore, like to suggest that it is a fitting time for the Institute and Society of Architects to settle their minor difficulties, and, in some cases, trivial disputes, and bring into sympathetic unison the other organisations affected with a view to submitting a Bill to this Government. The signs are that such a Bill would receive their support; there have been few such potential elements in any government before. We have to regard the matter not as members of any particular party, so far as politics are concerned, but as men wanting to see our work, and the public who trust it, properly safeguarded from the incompetent and unscrupulous. Do not let us allow any lethargy or any group prejudice arising from the differences between different bodies among us and comprising us, interfere with the accomplishment of this very great and very important object. It would be well if someone—best of all the Institute itself—set to work to formulate and set in motion machinery to accomplish this most desirable end in the shortest possible time.

H.

Sir,—Judging from a circular recently issued to all corporate members of the R.I.B.A., it appears as if the old quarrel between "ins" and "outs" is to be revived, upon crabbed points and petty issues. I am now becoming an old man, and rarely intervene, but trust you will allow me to point a way by which, perhaps, what all desire (registration, with such unification as would necessarily be involved), may be brought about with good feeling and general consent. There are strong opponents of either "Registration" or "Unification" taking precedence. The way of generous statesmanship appears to be that of concurrency.

The Society's Bill, as it stands, would certainly register all members of the Society, but it would wreck the Society. On the other hand, it would not need much altering to itself confer upon these gentlemen, as well as upon all others who, not being members of the R.I.B.A., could claim registration, the title of "Registered Architect" (or any other that might be agreed upon), and to bring all under Institute control. A little generosity here, in admitting at the time of passing of the measure a considerable number as Fellows, Associates or Licentiates (not under Charter, but under the Bill), would work wonders, and do only temporary harm.

Such a Bill, under the present Government—remembering that the Society's Bill as it stands was "settled" by a K.C. who now holds high office, and that its general principles are those with which trade unionists are bound to agree—would stand quite a good chance of passing. To say, as has been said, that there is no public case for it is sheer nonsense. The whole of the slum problem of the present time denotes the case! With properly trained architects, under whom alone habitable buildings would be allowed to be constructed, no such problem could have arisen. But the necessary powers could only be given to architects who were welded under registration into a body whose competence was recognised, and who could be dealt with if necessary—just as the issue of death certificates could scarcely have been permitted to medical practitioners before they secured registration. All our building by-laws, &c., are mere makeshifts for lack of such registration.

Statesmanship, generosity, and boldness, combined, perhaps, with a little mutual goodwill, alone are necessary—and also combined with promptitude and clear leadership from the right quarter—to secure that which we all desire, and for which I have personally been striving ever since my letter of February, 1884, just forty years ago. Croakings may be disregarded, for the whole outlook of Parliamnet has changed.

Kent. G. A. T. Middleton.

Does the Institute produce the Architect or the Architect the Institute?

Sir,—Members of the Royal Institute of British Architects, judging by correspondence received, are much concerned about "inclusion" and "exclusion" of those who are at present outside its circle.

The argument for "exclusion" is based mainly on these gentlemen's failure or omission to present themselves for examination. In the majority of cases these practitioners have passed the age for academical study, yet probably have a much more advanced knowledge than the student, who by passing the examination merely shows he has the minimum amount of general knowledge required before he should attempt to practise. This examination is of great value, for it sets a standard and produces a syllabus of subjects desirable for study. To pass the examination shows, at least, a student has set his mind upon the profession, but its value may be over-estimated.

The practise of architecture is of a peculiar nature. It depends upon a man's inherent gifts, or hereditary ability, much more than on academic training. It requires a power not to be acquired from books. The power to assimilate is especially necessary. Architects are assimilators, or they are not architects. One must assimilate the wants and requirements of any building to obtain fitness in design. Besides, there is no penalty that can be imposed upon one who has passed the examination, if he erects buildings devoid of architectural merit. If an architect who has not passed the examination proves he can produce a meritorious design, surely this is quite sufficient? It is urged by some, No—the man should be a man of culture and have had a liberal education. Can we demand so much? Is this demand made in any profession? It is ability that counts, and the examination can be no criterion or a sure testimony of the student's ability in the years to follow. It is necessary to stoop to rise, and if the Institute should, by inclusion, embrace all those of approved ability to practise within its circle, the Institute, like a balloon, will rise again and by its increased size be much more prominent than it is to-day. In fact, as before urged, the Institute should blend with kindred societies, then teach as well as examine; in short, aim at forming a Royal College of Architecture. By dropping individual interests all societies could combine and solidify—have one aim which would lift the Institute out of perpetual bickerings of a never-to-be-settled policy. With apology for my length.

Edward A. Jollye.

London.

Literature and Architecture.

Sir,—The comments made at the annual dinner of the Leeds Architectural Society suggested that no great writer had yet dealt successfully with architecture because of the lack of the requisite technical training. Is not Thomas Hardy (Hon. F.R.I.B.A. Inst. Medallist (Essays) 1862), and possibly the greatest of living English novelists, an exception? He was articled to an architect in Dorset when sixteen years of age, and later worked under Sir A. Blomfield in London. He did not finally abandon architecture until he was 34 years of age. Surely this has a certain clear significance?

In "Jude the Obscure" there occurs (after Jude had confessed he was sickened of ecclesiastical work) the following illuminating passage: "You ought to have learned Classic. Gothic is barbarian art, after all. Pugin was wrong, and Wren was right. Remember the interior of Christminster Cathedral. . . . Under the picturesqueness of those Norman details one can see the grotesque childishness of uncouth people trying to imitate the vanished Roman forms, remembered by dim tradition only."

Again, in describing Jude's first sight of the city of Christminster:

"The numberless architectural pages around him he read, naturally, less as an artist critic of their form than as an artisan and comrade of the dead handicraftsmen whose muscles had actually excited those forms. He examined the mouldings, stroked them as one who knew their beginning, said they were difficult or easy in the working, had taken little or much time, were trying to the arm, or convenient to the tool."

These examples, which are by no means isolated, surely show that in dealing with architecture Thomas Hardy has a depth of understanding, a knowledge of technique, and a charm of style which is unsurpassed.

By becoming saturated with his work one can possibly get some understanding of the meaning of architecture. After all, Ruskin being an obvious snare, there is perhaps no particular reason for his use by those who are fond of quoting a supposed safe authority.

London. L. P.

R.I.B.A. Housing Memo.

Sir,—Much interested by your "Note" on p. 248 of last week's issue, I turned eagerly to p. 267 hoping to find in the R.I.B.A. Memorandum a clear, constructive programme which would express the opinion of most practising architects, and so gratify your desire. But what is there in this very characteristic R.I.B.A. Memorandum to encourage the Government to take advantage of the offer of the Royal Institute to place the wide experience of its members at the disposal of H.M. Ministers?

The Royal Institute "are" of the opinion that "it is essential that architectural experience and practice should be employed to the fullest extent"; "and so say all of us."

The Memorandum points out (what it admits to be "generally recognised") that the difficulties are threefold; and it "make" observations on these three matters: Money—Materials—Men (the three M's). One looks in vain for anything new in the observations (the Royal Inst. "make"), and one fails to find any suggestion with regard to: (*a*) Methods of Finance to meet the special conditions; (*b*) How to break the Rings dealing in building material; (*c*) The course to adopt in order to obtain better output.

These are the things the Government wants to know, and upon which Ministers might reasonably expect the representative of 10,000 members of the architectural profession to enlighten them.

Like the difficulties of housing, the Memo. tells us that the activities of the building trade are threefold, and the provisions of dwellings appears to the Royal Institute to be the least of these.

I am afraid a very large number of the 10,000 practising architects really interested in housing will be disappointed by this effort of the R.I.B.A. Early in the "fifties" of last century the Council of the Institute issued an "Appeal," to-day it issues a "Memorandum." I wonder if it will ever act the part of a living member of a great community interested in real construction of ways and means as well as buildings!

John E. Yerbury.

The National Housing Problem.

Sir,—At the present time we are again confronted with the comprehensive and difficult problem of housing a large number of working-class people in sufficient and sanitary housing accommodation to promote a good standard of health and decency.

Apart from the question of financial assistance requisite to cope with the demands imposed by high building costs, we should not lose sight of the importance of producing beautiful, as well as inexpensive dwellings, of which our island home, "Britain Beautiful," is so worthy. If a satisfactory scheme for financial assistance can be arrived at by the Government, we venture to suggest that a little attention be paid to evolving a means of producing beautiful buildings at low cost.

In and prior to 1914 a great deal of consideration was given to this matter by many influential men, including our present Premier, Mr. Ramsay MacDonald, who zealously contended for, and had at heart, the preservation of the beauty of our countryside.

We hear suggested to-day, as a short cut to reducing building costs, the introduction of a patent system of concrete slabs. Admirable as this may be it is doubtful whether this system, if adopted on the ordinary common or garden "jerry-built housing scheme," will conduce towards beautiful building. The inauguration of a comprehensive architectural competition, either by the Government, or by some other highly influential administrative body, would, we feel sure, do much toward solving present difficulties.

Owing to the availability of certain materials in one district and their total or partial absence in another, the design submitted by the London suburban architect will not necessarily be of the same type as that designed by the provincial architect. It seems evident, therefore, that such a competition should embrace a large number of separate districts, and that one, two, or even three awards be made in respect of each district, at the discretion of the assessors. The winning designs should be those that conform most rigidly with the rules and conditions upon which the competition is founded, and those which combine at low cost, a judicially arranged plan, pleasing and artistic elevation, and a healthy home in point of ventilation and sanitation; built, as far as possible, from the materials at the immediate disposal of the local builder.

In the admirable organisation with the same aim as is now at issue, set up in 1914, but inadvertently indefinitely postponed owing to the outbreak of war, a number of landowners in each district agreed to build a certain number of houses from the winning designs for their local type. However, in these more advanced days of miraculous inventions, and in view of the comprehensive housing policy suggested by the new Government, is it not possible that, under the supervision of competent members of the profession, beautiful dwellings can be erected, under financial aid by the Government, to house the working classes under conditions that conduce to a higher standard of health, satisfaction, and decency?

In conclusion, it may be mentioned, as it has been many times before, that architectural amenity is the outcome of skill rather than of money, and that artistic dwellings can be erected under proper professional guidance, as well as can the "ugly and jerry-built types."

"Reader."

Trowbridge, Wilts.

Other Letters.

[Another letter is given on p. 304, and others are unavoidably held over.—Ed.]

Liverpool Hospital.

The proposed new Hospital for Women in Liverpool will cost, it is estimated, £100,000. It will take the place of the existing hospital in Shaw-street and the Samaritan Hospital in Upper Parliament-street. A site has been secured at the corner of Falkner-street and Bedford-street, and the intention is to erect there a modern building with accommodation for about 120 beds, equipped on modern lines, and ranking in all respects as a gynæcological institution with St. Mary's Hospital at Manchester.

A meeting of the Royal Institute of British Architects was held at Burlington House, W.1, on Monday last.

Obituary.

The Hon. Secretary (Mr. A. Keen) announced the death of Mr. Marshall Robinson, elected Associate in 1893. It was decided that a message of sympathy and condolence be conveyed to his relatives.

CHARING CROSS BRIDGE.

Mr. Paul Waterhouse, F.R.I.B.A., then read a paper, illustrated by lantern slides, on the proposed Charing Cross bridge.

In the course of his remarks he said so long as the present Charing Cross Bridge existed the Charing Cross Bridge question would never die. It happened, by an unexpected turn of events, that the revival by the promoter of the St. Paul's Bridge scheme, since the beginning of his preparations, gave very special point to their consideration of a project which had in every kind of way a prior claim to attention and to public interest.

The building of that bridge was possibly pardonable; for its retention there was no excuse, nor was there any parallel calamity in the river's history save one: the lamentable loss of old London Bridge. Speaking personally, he might say that there was only one bribe that would induce him to acquiesce in the continuance of Charing Cross Bridge. If by some wizardry they could give him back the pre-fire London Bridge with the houses on it, he would at that price reconcile himself to the prolonged existence of the unholy thing. Common sense would reply to this observation that he did not know the elementary facts of the practical problem at issue, and that one who could talk of the demolition of the ancient London Bridge as a calamity ignored the fact that the loss of the old bridge brought about the abolition of a most inconvenient obstruction to river traffic, the weir with which the construction of the bridge was incorporated. He had no wish to pursue this point, and as they could not have old London Bridge back he would not cry for the moon.

But, let it be said, it was not merely fools who had suggested that the water traffic problem would be partly improved—not hindered—by the re-establishment of a weir, or rather a modern barrage, at some chosen point below bridges.

From the general consideration of traffic problems, traffic being what it was to-day, he maintained that no useful public purpose was served by giving either the Continental visitor or the magnates of Surrey a means of central access which was denied to West Countrymen or Scots. Moreover, ignorance as to the value and centrality of Surrey land in the heart of London was rampant. One would think that the establishment of the L.C.C. palace on the Surrey shore would by now have had its effect on that ignorance. But no. Not yet. The effect, however, would come, and would come rapidly. Slowly but surely even those who officially placed Sir Reginald Blomfield's eagle, with its beak facing symbolically south, would learn that it was facing east, and would become convinced that Westminster Bridge was heading, not for the south coast, but for the City shores of the Thames. Bit by bit they would learn that a new and almost direct road of supreme importance in value would find its way along the line which was the bowstring of the Thames's bow from the Houses of Parliament to London Bridge. With that would come: (1) the acknowledgement of the value of Surrey land, which, one would suppose, even its owners, including the Duke of Cornwall, would like to encourage; (2) the sense of its available quality for first-class buildings of all kinds; (3) the desirability of planting the new Charing Cross station in a district which would give the station itself a chance of necessary expansion, coupled with extremely easy access to all parts of London—east, west, and central. They need not realise these facts if they preferred muddle to method, and if they persisted in their present policy of letting things happen without foreseeing them. He had always said that expense was no argument whatever against the discussion of these south-side, or rather Surrey-side, problems. Surrey was going to be developed as a part of London. Vast sums were going to be spent upon that development, and every penny of that expenditure was going to be interest-bearing. All that was needed—and this was a statement so elementary as scarcely to need utterance—was that some kind of official forethought should be given to the problem. Those who breathed of forethought were, it seemed, called dreamers, and were accused of ignoring the value of money.

It was merely because architecture, whether in house planning or in town planning, meant thinking before spending, that those who were interested in architecture insisted that in this matter of the Surrey future thought should precede expenditure.

This paper was not—it was true—on the subject of the Surrey side, but the Surrey side question must be brought into it, because there was no aspect of the bridge problem which was not either connected therewith, or likely to be precipitated, by those elements on the further shore which would act spontaneously and ungoverned if their outbreak was not controlled by forethought from the first.

Now what were the elements of the bridge problem? He thought they were five in number:—

1. The bridge must go because it was an abomination of ugliness standing commandingly in the spot which was London's great opportunity for beauty on a grand scale. When he used the word beauty he meant nothing more fantastic than the ordered arrangement of the useful according to traditional and recognised art.

2. A new bridge must take its place because one was needed at that point, not only for the foot traffic already existing, but also for the wheeled traffic which was ready to make immediate use of any new bridge at, or near that point, which would accommodate it.

3. The abolition of railway traffic across the river at that quarter would not only simplify the problem of making the new bridge a thing of beauty, but would release a large amount of Middlesex land which could be profitably and beautifully used for new streets and new buildings.

4. Incidentally, this would have a double effect in the relief of wheeled traffic, for the new roadway would be a remedy for a congestion of which the presence of a railway station was in itself a part cause.

5. The new bridge, besides being a compensation to the railway companies for the loss of their own powers of crossing the river, would be the means of providing for wheeled traffic a means of crossing from side to side, the present necessity for which was as nothing to that which the future—the comparatively early future—would demand.

Next came the questions: Where should that bridge start and where should it arrive?

They knew there were two schools of thought in this matter. There were advocates of the high level scheme—who might be described as those who proposed to utilise the fall of the ground towards the river on the Middlesex side so as, starting from some point twenty feet or more above the present embankment level, to allow the present Middlesex embankment road to pass beneath the new approach road. Some proposed that the Surrey embankment, if and when formed, should be similarly crossed by the Surrey approach road.

The low levellers were those who claimed that both embankments would be best served by having direct access to the new bridge.

In fact, the low-levellers' bridge would follow the example of Westminster Bridge, while the high levellers were on the Waterloo Bridge principle.

There were disadvantages, or rather difficulties, besetting each of these schemes as well as their great and obvious advantages.

The high-leveller must be very careful as to where he started his new road. Some said relieve the Strand by starting straight from the site of Charing Cross Station. But the Strand was rather fully burdened with its own troubles, and they had to make quite sure that the new road, while relieving with one hand, so to speak, did not, with the other, pour into the Strand at its worst point a burden of fresh influx too heavy to be borne. On this ground there was something to be said for starting higher up—at the level of St. Martin's Church and spanning both the Strand and the Embankment.

Again, the arrival on the Surrey shore needed thought. Unless it be decided to honour the new Charing Cross Station by making it the object at which the new bridge aimed, there was no great reason for insisting on a high level arrival on the Surrey shore.

First among the schemes in a place of honour he would put that of Sir Aston Webb and Sir Reginald Blomfield. It was a notable high-level scheme, and bore the imprimatur of Mr. John Burns. For magnificence the scheme of the late Mr. Adrian Berrington (illustrated in *The Builder*) took a high place. Mr. Carõe, a low-leveller, put a semi-circular "place" between the two stations, Waterloo and New Charing Cross. Professor Adshead, a high-leveller, had a scheme full of dignity. Mr. Barrett, again a high-level man, broke new ground by making Coventry-street his point-de-départ. Mr. Lucas's two schemes were on high-level lines.

Mr. Barclay Niven put, he knew, a great deal of thought into his low-level project. He was very conscientiously in favour of the embankment to embankment journey, and the lecturer was satisfied he gave to the question of levels and gradients a very careful study.

Others were the schemes of Sir Hamo Thornicroft, the sculptor (a project to which their friend, Mr. E. T. Hall, devoted deep interest), and some plans prepared by Mr. Nesbitt Kemp. He had also received, through the kindness of Mr. John Murray, slides relating to his own scheme.

In thinking out some questions connected with the development of the Surrey side, he adopted Mr. Niven's bridge as an assumed low-level scheme, and he exhibited his plan in relation to possible Surrey roads. Incidentally he showed a suggested position for the new Charing Cross, which he adopted because, though placed on the South-Eastern and Chatham system, it fell in with his view as to the general arrangement of terminal stations, which was that they should not only all be at a respectful distance from the centre of London but reasonably distant from one another—thus avoiding the congestion of road traffic which would result from allowing the streams leading to one station to unite with, or conflict with, those leading to and from another. This, by the way, was his great objection to putting Waterloo and the new Charing Cross cheek-by-jowl.

It would be noticed that on two of his own plans he had indicated St. Paul's Bridge. Heaven forbid that he should thus be sus-

pected of encouraging its birth! The fact was that at the time when he made these plans the little stranger seemed likely to arrive, and he was determined to see whether, if the event did take place, some arrangement could not be made whereby its very doubtful utility in Middlesex could not be compensated for by a life of comparative usefulness on the Surrey shore. He had hoped to speak of it as an hypothesis only, but recent tidings made them fear that the advocates and paymasters of the St. Paul's Bridge project were in full cry. It would be a calamity were money to be poured out on an unwanted enterprise when the needs they were now pressing so urgently needed satisfaction.

The difficulties of the low-level school were also difficulties of level. Assuming, not an wholly necessary assumption, that the gradients of the new bridge must not be steeper than those of Westminster Bridge, and assuming also, as he believed they must, that the clear-way of the central arches must be as high above high-water level as the central arches of the latter bridge, they were faced with the necessity—if an easy gradient was essential—of quitting the embankment on the Middlesex shore at the level 25 or higher. This meant that if the end of Northumberland-avenue were adopted as the springing-off point they had to raise the embankment road by from 7 to 10 ft. This, he believed, could be done.

For various reasons he hesitated to come forward with a definite proposal, but he confessed that it had lately occurred to him that the high-versus-low-level controversy might conceivably be solved by a combination of the two, such as would be produced by a central bridge way at the level of, say, O.D. 44, with a roadway on each side of it running from embankment to embankment, and only touching the 44 level at a point over the central arch.

There were many objections which could be immediately levelled against such a notion. The first was that whatever level was adopted as the revised embankment level there would necessarily be a fairly stiff gradient up and down from embankment to embankment. To this he replied that the bridge, having optional routes, no vehicle was compelled to cross at a gradient which its horse or its gear-box found inconveniently exhausting.

But give a motorist on the Middlesex embankment the option of attempting a gradient of 1 in 15 or going round by Westminster or Blackfriars, and he felt sure that he would dash up the slope of the new bridge.

As to width, 100 ft. had been by most designers assumed as the proper dimensions for the new over-river roadway, on the ground (*a*) that width added to dignity, (*b*) that it eased traffic. He wondered if either of these assumptions were reasonable. Personally, he believed that the narrower a bridge was, in reason, the finer it was in effect, and as to the second argument he believed experience was against its universal application.

What stopped most traffic was a right-handed crossing with a policeman; second to this came road repair. What was the road in London that conveyed the least obstructed, or swiftest traffic? The highway from Charing Cross to Victoria, otherwise the Mall. How wide was the Mall? Sixty-six feet. But that was not the whole story. Sir Aston Webb, in token of the gratitude of Englishmen to a late monarch, placed an admiral's palace at the eastern end, which, for all its beauty and dignity, was none the less a perforated obstacle.

Did it hinder traffic? Not a bit. It would scarcely be believed that the fair way available for approach to the 66-ft. roadway had a bare aggregate of 30 ft. There were, of course, three archways, all three standing open. The middle one was 21 ft. wide, the two side ones 18 ft. each. Few, if any, vehicles made use of the centre arch. It existed, as the child said, "in case of the King." So it happened that all day long motors were buzzing contentedly through openings no bigger than the short side of a billiard room.

What was more, he took the trouble to track the traffic a few weeks ago, when there was a white frost, and found that as far as the vehicles were concerned the road would have satisfied them if it had been one long billiard room all the way from King George V to King Charles I.

Thus, far from suggesting a bridge 300 ft. in width for the triple road, he would venture on 50 ft. for the high level causeway and 50 or even 40 for each side (low level) road, making it understood that on the Westminster side all traffic should proceed only from Surrey to Middlesex; Middlesex to Surrey vehicles being confined to the Blackfriars flank of the bridge.

In conclusion, he would summarise his remarks by reiterating:—

(1) That C.C.B.M.G. (Charing Cross Bridge must go).

(2) That the position of Charing Cross Station was neither logically nor rationally fixed where it was.

(3) That traffic needs demanded even now a roadway at this point or near it.

(4) That they would demand it infinitely more as the near future approached.

(5) That the dispute between high-levellers and low-levellers was or might be capable of solution by combination; and

(6) Finally, that money spent upon this bridge would be no bombastic expenditure on luxury but a stately measure of economy, part, in fact, of that considered development of the Surrey-side to which there was no alternative but the desperate and terribly probable course of leaving the Surrey side problem to chance and (coupled with this *laissez-aller*) some lavish expenditure on an at present unwanted bridge at St. Paul's.

Discussion.

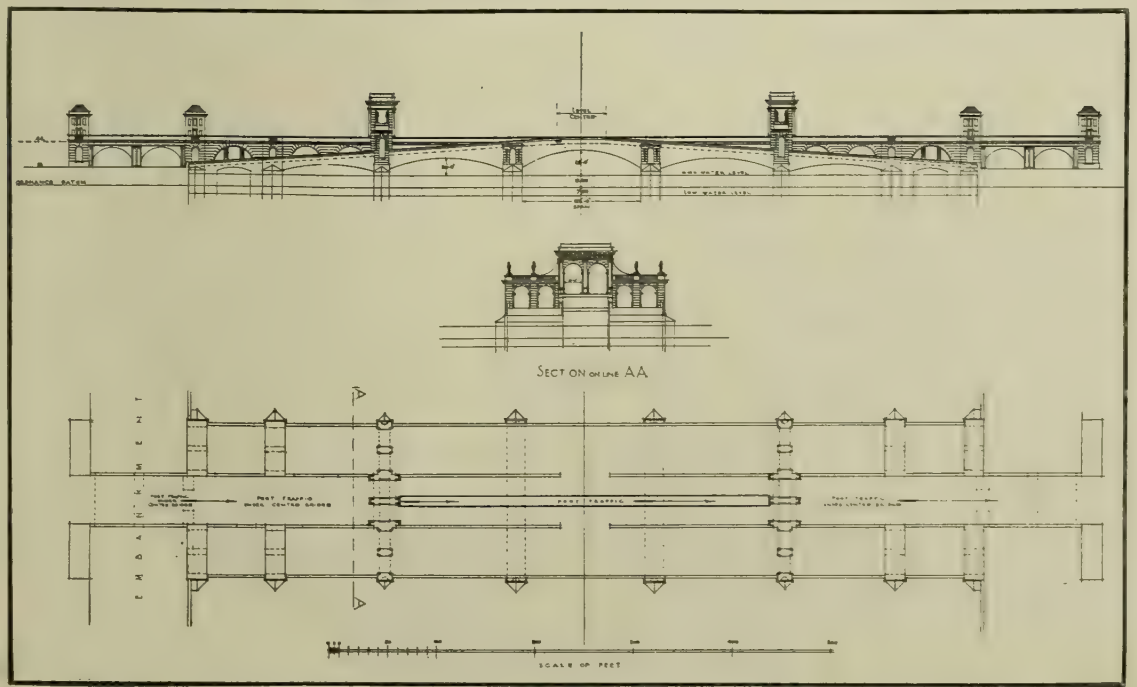
Sir Henry Kimber, Bart., in moving a vote of thanks to the lecturer, said the paper was of intense interest, and showed there was a possibility of doing good to the community on both sides of the river worthy of the consideration of the best brains of the country. The question of a bridge across the Thames was fraught with great difficulties, especially on the Middlesex side. There did not seem, in his opinion, to be any settled conviction on the part of those who favoured a bridge in the vicinity of Charing Cross as to the nature of the bridge or where it had to go.

Sir Bannister Fletcher, said he was an enthusiastic supporter of a bridge at Charing Cross—whether a one, two, or three-decker. He hoped the L.C.C. would reinstate the possibility of a Charing Cross scheme. He was much opposed to St. Paul's Bridge.

Mr. Maurice Hulbert said the removal of the present railway bridge at Charing Cross was not within the sphere of practical politics. The idea must be dismissed for a number of years. Because it was ugly it was not practical politics to say take it away. Architects were living up to their reputation of being not practical men but dreamers.

Captain G. S. C. Swinton said in regard to the question of the L.C.C. being pledged to spend money on the proposed St. Paul's Bridge, no such pledge had been given. The Council's purse had got a bottom to it, and they were already committed to re-building Lambeth Bridge at a cost of £100,000.

Mr. John Murray, F.R.I.B.A., said he considered the question was threefold—traffic, financial and æsthetic. The two chief, perhaps, traffic and æsthetic, were dependent on the financial capital required.



Suggested Combined High and Low Level Bridge at Charing Cross. By Mr. Paul Waterhouse.

WEYBRIDGE COTTAGE HOSPITAL COMPETITION.

The designs recently submitted in this competition are now on view at Vigo House, Church-street, Weybridge, and Mr. William A. Pite, F.R.I.B.A., the assessor, has made his award as follows:—First premium, Messrs. Kenyon & Livock; second premium, Mr. Percy J. Westwood; third premium, Messrs. Lanchester, Lucas & Lodge.

We are able to illustrate this week the winning scheme, which we understand has been adopted by the Committee. From an examination of the seven designs submitted we consider the selection a very happy one.

The conditions required that a hospital of 36 beds should be provided, preferably in a single story building, on a site which appears to have presented many difficulties to the majority of the competitors, but which in the direct plan of Messrs. Kenyon & Livock seem to have vanished. The site is certainly a peculiar one both from its shape, aspect and the limited access obtainable only from the southern end in Church-street. It is surrounded by a high brick wall which, in our judgment, should be lowered on the southern and western sides. The accommodation required comprises wards for men and women, each containing 12 beds, a children's ward of 6 cots, and 6 private wards; further, the conditions stipulated that consideration should be given to the possibility of extension in the near future.

An unusual but interesting feature of the scheme is the electrical and radio-therapeutical department, which is at present carried on in Vigo House now occupying the front portion of the site. Much excellent work has been done here, and an extensive connection has been formed, especially among private paying patients of the district. This section, to be incorporated in the hospital, will form a very important branch, and its inclusion has to a considerable extent governed the planning and general lay-out of the proposals.

One of the most difficult of the many problems connected with the hospital design is the skilful preservation of a true architectural composition not interfered with by the varied technical requirements, which are of greater necessity in this than most other kinds of building.

The authors of the winning design are to be congratulated upon the production of a very charming little proposal, which should result in the acquisition of a small but very complete hospital and a model of its kind. The plan is skilfully arranged with wards slightly radiating towards the south, having correct orientation, a measure which is fundamental and essential in securing the full benefits of sunshine for the patients. The plan is a simple and economical one, compact and with the services well arranged for ready and convenient access. The elevation and general treatment of the buildings are of an unusually high standard, well suited to this type of building. The plans show the general proposals. The electro-therapeutic department is placed in the centre on the north side of the corridor, and is planned as a complete self-contained unit which can, if required, be closed at night without in any way interfering with the Hospital. The wards are well planned, but we do not care for these being merged into the building in such a way as to preclude complete cross-ventilation to some of the beds. The clerestory windows shown at the north end of the wards would no doubt be blocked by further extensions over, and at no time would prove entirely efficient. The duty rooms are too small, and in other parts of the plan we notice apartments of miniature dimensions. The walls are generally drawn about half the thickness required, but we observe this is corrected in the report. We can safely assume that such defects as mentioned will disappear in the study and development of working plans.

Future extension to the hospital is provided for at the first floor level, and this will involve the nurses' home becoming sandwiched between the two upper ward units. It is not clear how additional accommodation for the nurses and maids can be secured as will be found necessary to meet demands of the future bed extensions. The kitchen department is well arranged, perhaps a little small in some respects. The nurses' sitting-room is not quite well placed for outlook or aspect. The operation theatre unit is shown disconnected as it should be, and appears to be thoroughly well considered and worked out in detail.

The scheme No. 4, placed second, is that submitted by Mr. Percy J. Westwood, and indicates a simple hospital plan with excellent ward units without some of the defects of the winning scheme. The electro-therapeutic department is planned as a distinct unit away from the hospital, but connected by a covered way. On the site of the present Vigo House is placed the nurses' home, having a small casualty section beneath on the ground floor, with an out-patients' department and matron's office. The latter seems to be somewhat out of touch with the hospital in such a position. We consider it a mistake to allow the corridor which passes through the electrical department to become a traffic way. The operation theatre plan is inadequate, also the kitchen and stores are very limited. The pay wards with northern aspect would have to be reconsidered, and as in the other plans no special sanitary provision seems to be made for these rooms. The author of this design is certainly to be commended in having maintained adequate air space around the wards in striking contrast to many of the crowded designs submitted.

The design (No. 2), submitted by Messrs. Lanchester, Lucas & Lodge, is illustrated by a very complete set of drawings, and shows the main portion of the site to be well covered by an extensive group of buildings, apparently a more expensive scheme than the other premiated sets. The authors have in this instance assumed that a back access road can be obtained which, if unattainable, means that all stores would have to perambulate the site. The details of the planning are good, the wards being correctly orientated, but in the case of the male ward the sanitary annexes are placed at the southern end, so obstructing valuable sunshine and air from the beds. This arrangement also prevents a proper and direct connection between the private wards and the sink room, etc. The theatre is well planned, also the kitchen and dining-rooms, and the electrical department provided with its own special entrance. A well-arranged nurses' home is placed on the first floor over the principal entrance, this being the only instance where we noticed that adequate provision had been made for possible extension of the Home.

The interpretation of the problem set forth by the remaining four competitors indicates the usual diversity of views as to the detailed requirements of modern hospital planning. From a general survey of these we get the impression that the authors have failed to grasp the salient points of the problem. Hospital planning seems so easily to become a complex thing, and in striking contrast with such the winning design illustrates excellently the required simplicity and directness of plan which are essential to the correct solution of the problem.

Design No. 5 shows a small administrative unit placed on the site of Vigo House, containing the matron's office and sitting-room, committee room, etc., with the nurses' home over and the maids' bedroom on the second floor. The main hospital building is placed on the open portion of the site, with wards thrown out on the northern side with the consequent lack of winter sunshine which would be intercepted by the connecting block containing the pay wards, etc. Intervening between the main building and the administration block are the electro-therapeutic and X-ray departments, through the centre of which passes the main connecting corridor. In order that women and children may reach the electrical department it would be necessary for them to pass through what is virtually a portion of the men's ward.

No. 7.—The best part of the site in this scheme is occupied by the administration section and the electro-therapeutic department, the wards being relegated to a position next the boundary on the north-east side; the isolated children's wards are no better treated by being given a site on the north side with the high boundary wall on one side and the operation theatre on the other.

No. 6 possesses a most attractive elevation, but with many defects in plan. The whole of the main buildings are placed on the open portion of the site with the main entrance gates well arranged in the centre of a symmetrical grouping formed by the porter's lodge and the mortuary block. The principal hospital entrance is placed in the centre of a long building (200 ft.), which practically occupies the full length of the site on the west side, and parallel with the ward units. This entrance appears to be a common one for all departments, with the exception of the casualty, but with an unfortunate arrangement of kitchen service immediately off a bay of the entrance hall. Four of the pay wards are placed off the main corridor leading from the entrance to the main ward unit with northern aspect, and on the opposite side is situated the children's ward; the entire service to these can only be through the principal corridor, which we consider to be a most unsatisfactory plan to adopt.

No. 3 is planned to occupy the greater portion of the site at the rear, and consists of a symmetrical grouping of buildings, the axis of the wards running north-east to south-west, with the administration block with kitchen service and dining-rooms in the centre. The children's ward is grouped with the women's as suggested by the conditions, but the sanitary annexe serving both these units can only be reached by the main corridor, giving access to the operation theatre. Timber roofs are shown over the wards, these would have to be removed to enable extensions to be carried out, and so expose the wards beneath to damage by weather.

MEETINGS.

Friday, *February* 22.

Glasgow Architectural Craftsmen's Society.—Mr. W. J. Smith on "Ancient Egyptian Architecture Details." At Royal Technical College. 7.45 p.m.

Junior Institution of Engineers.—Mr. J. S. Marshall on "Ciment Fondu." At 39, Victoria-street, S.W.1. 7.30 p.m.

Saturday, *February* 23.

Royal Institute of British Architects.—Visit to Derby House.

Tuesday, *February* 26.

Builders' Clerks' Benevolent Institution.—Annual General Meeting. At 48, Bedford-square, W.C.1.

Wednesday, *February* 27.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Roman Architecture." At Southampton-row, W.C.1. 6 p.m.

Leeds and West Yorkshire Architectural Society.—Lecture by Mr. H. T. Buckland. At Leeds Philosophical Hall, Park-row. 7.30 p.m.

Institute of Builders.—Dinner. At Hotel Victoria, Charing Cross. 7 p.m.

Thursday, *February* 28.

Incorporated Institute of British Decorators.—Mr. A. Orr on "A Tour in Spain." At Painters' Hall, E.C. 7.30 p.m.

A PROPOSAL TO STIMULATE DESIGN.

By J. HEMBROW.

THERE is little which flourishes in this world and improves faster than the slow pace which evolution provides, unless it is encouraged and fostered. At present there is only the highest award for the idealist in design; I mean the consciousness of work well done, and in our world—the world of architecture—it is not enough; it is leaving too much to nature—particularly to good nature.

Although some of us have criticised the R.I.B.A. harshly for its lethargy, I certainly think that the Royal Institute of British Architects has given a great fillip to design in London by their medal for the best building design in the year from an architectural point of view. Furthermore, I think this idea should be extended; and that its extension would result in very great benefit. Design in London needs stimulus, but it is also vital elsewhere in our land, and I venture the following suggestion for the encouragement of design in the little group of not unimportant islands in which we live and labour.

Could not each of the allied societies be responsible for making a yearly selection of the most beautiful building in its area? A jury of suitable judges could be formed, and each year members of the profession, and others, if desired, could be invited to send photographs of a building, either their own or someone else's, in their district (whether the architect of a selected building is a qualified man or not should not disqualify his work). The building having been selected, a bronze medal could be given—these medals being struck from a design prepared and authorised by the Royal Institute. London being the capital and much larger, might follow the same proceeding, but should carry a silver medal, the honour being greater. The photographs of the buildings chosen by the allied societies and London should then be forwarded to the Institute, and a committee formed of two architects, one a town-planner, an artist, a sculptor, and a distinguished dilettante, could select one from them and, after a visit, if required, the author of the most beautiful building erected in the British Isles in the year should receive a gold medal. This scheme would not entail any prohibitive expense. I am sure it would stimulate design in the profession, and further, would attract public interest. This latter would be, perhaps, added to if the "medal" building or buildings were exhibited at the Royal Academy each year.

Such a brief outline as this cannot, of course, cover all the details. I foresee certain difficulties in the composition of the committee in districts where the men most competent to adjudicate are also most likely to deserve the award; but I think by an exchange of nominees between neighbouring societies such troubles could be dealt with. Any town, I am sure, would be proud of having one of its buildings dubbed the most beautiful of the year, and I cannot see but that it would greatly stimulate public interest in architecture; nor can I see any element of the undesirable in the publicity it would invite.

[**** We think the suggestion is an excellent one, which we hope will be sympathetically considered by all concerned.—ED.]

R.I.B.A. MINUTES.

WE take the following notes from the Minutes of the Council meeting held on February 4:—

ROYAL GOLD MEDAL, 1924.—By a unanimous vote it was decided to nominate Mr. W. R. Lethaby as a suitable recipient of the Royal Gold Medal for the year 1924.

NATIONAL HOUSING POLICY.—On the recommendation of the Housing Committee a memorandum on the subject of National Housing Policy was approved and ordered to be sent to the Minister of Health and communicated to the Press.

ARTERIAL ROADS.—On the recommendation of the Town Planning Committee a memorandum was approved for submission to the Minister of Transport.

ST. PAUL'S BRIDGE AND CHARING CROSS BRIDGE.—It was decided to invite the Royal Academy, the London Society, the Architecture Club and the Town Planning Institute to appoint representatives to attend a Conference to discuss the present position and to take any public action that might seem desirable.

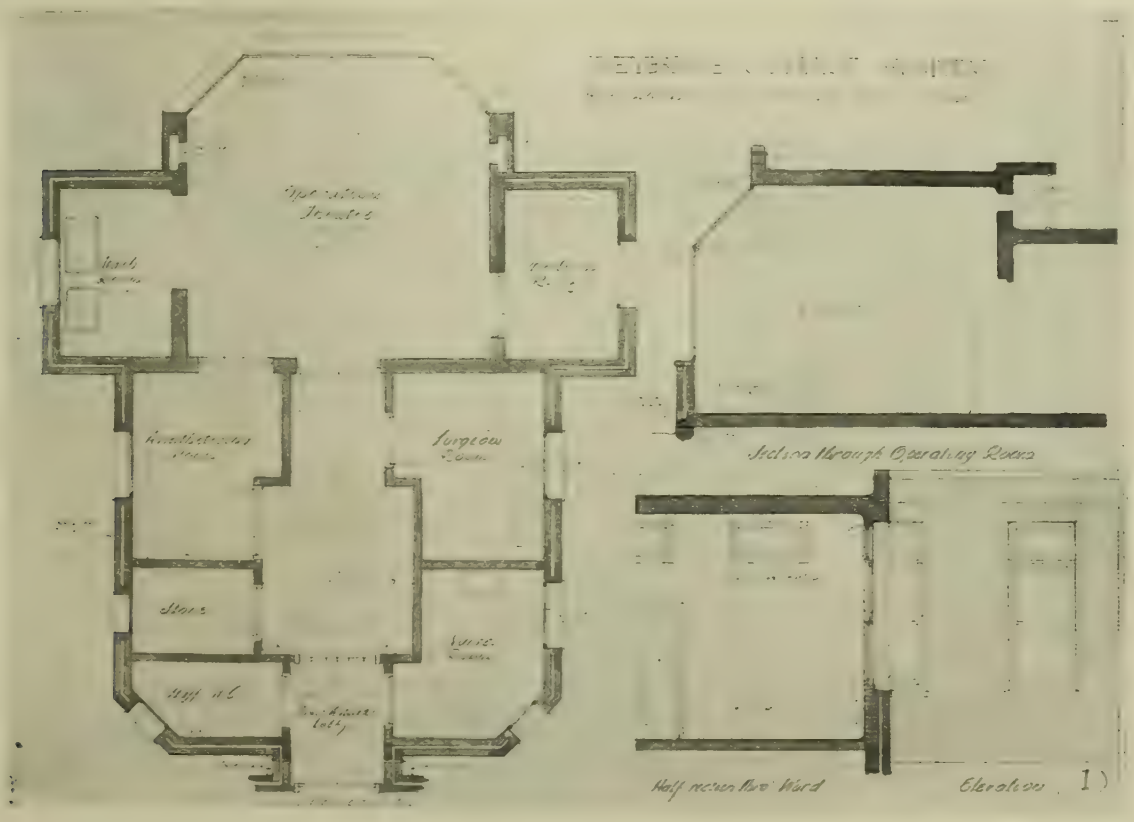
INTERNATIONAL CEMENT CONGRESS.—Mr. H. D. Searles-Wood and Mr. C. Stanley Peach were appointed to represent the R.I.B.A. at the meetings of the International Cement Congress in April.

TRIBUNAL OF APPEAL (LONDON BUILDING ACTS).—Mr. John Slater was re-appointed to represent the R.I.B.A. on the Tribunal of Appeal.

RETIRED FELLOWSHIP.—Mr. F. O. Lechmere-Oertel and Mr. Arthur Edmund Street were transferred to the Class of Retired Fellows.

Eighteenth-Century Architecture.

Mr. J. A. Gotch, President of the Royal Institute of British Architects, recently lectured on this subject at a meeting of the Glasgow Institute of Architects. In the course of his remarks he said the eighteenth century saw the development of the great movement in art which began in the early years of the sixteenth. When man had once made up his mind that the masterpieces of Italy were the only examples to be followed nothing but time and determination alone were wanted to produce in all the lands of Europe a general sameness of appearance and treatment. If they were to seek inspiration from the work of the eighteenth century they would find it in two directions—first, in the grand schemes of house and garden combined, and in the general grandeur of treatment bestowed upon the great houses of the time; second, in the sober and simple houses where the plainness of the general appearance was sometimes unexpectedly broken by the curious treatment of a door or chimney and where the joiner's work was full of homely lessons.



Weybridge Hospital Competition. Design placed first: By MESSRS. KENYON AND LIVOCK. (*See p.* 296.)

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ILLUSTRATIONS.

Royal Masonic Institution Junior Boys' School at Bushey.

The accepted design in this limited competition is by Messrs. Davis & Emanuel and Henry C. Smart. The buildings have been planned on the high ground, the axis of the plan taking a north-westerly direction from the highest portion of ground at the junction of London-road and Falconer-road.

The central feature of the scheme is a large quadrangle with cloisters around it, having the big school and entrance on the south, the class rooms on the west, the dining room block on the east, and the boys' houses on the north side spreading east and west on a curved front, following to some extent the contours of the ground, the head master's house being placed on the axis. The whole of the boys' houses and head master's residence overlook the playing fields. The entrance is from London-road opposite Merry Hill-road.

The whole of the foregoing buildings are connected by covered ways or cloisters, beneath which is placed the main subway for pipes, &c., thus giving a direct run from the power house for heating, hot water and electric mains, &c., with branch subways north and south to feed the several buildings. The infirmary and sanatorium are placed well away from the houses and schools, but sufficiently near the kitchen department to be served by it.

The materials proposed are Luton facing bricks with red brick dressings and quoins and red tile rustications. The small quantity of stone used would be Portland. The roofs would be covered with sand-faced Broseley tiles.

A review of the designs submitted appears on p. 291.

Weybridge Hospital Competition.

The design of Messrs. Kenyon and Livock was placed first in the recent competition for a hospital at Weybridge. A review of the designs submitted is given on p. 296.

PROPOSED ST. PAUL'S BRIDGE.

In a letter to *The Times* on February 15, Mr. Mervyn Macartney, Surveyor to St. Paul's Cathedral, states:

"As the architectural adviser of the Dean and Chapter of St. Paul's Cathedral, I feel bound to protest against the carrying out of the St. Paul's Bridge scheme, which will shortly come before the Court of Common Council, even more forcibly now than I did 13 years ago.

"In the intervening years I have learnt more of the construction of the Cathedral with the result that I am more alarmed at its state than I was in 1910. There is visible evidence of recent movement in the two nave piers. There was an inquiry held about 1910 into vibration, but neither the consulting engineer at the time nor I was satisfied with the result of that inquiry, and since then the speed, weight, and amount of vehicular traffic has increased enormously. The vibration of the chain supporting the chandelier in the Chapel of St. Michael and St. George is quite perceptible. The introduction of the six-wheeled omnibus will certainly add to the seriousness of the menace. But the chief danger lies in the weakness of construction of the building. The foundations are but 5 ft. below the crypt floor level, and lie on a stratum of pot earth, also about 5 ft. thick, under which there is sand and gravel for 18 ft. 6 in. till the London clay is reached, the last six to eight feet being saturated with water. The level of this water is 26 ft. above datum at the G.P.O. The level of Queen Victoria-street, where it will pass under the new bridge, is 28 ft. above datum. I confess that I view the sinking of abutments for arches into this water-bearing strata with the greatest apprehension.

"The Chapter have an agreement made in 1911 with the Corporation which gives them some control over the construction of the northern approaches, but I doubt if, in view of present knowledge, this protection is adequate.

"If Mr. Basil Mott, the engineer of this scheme, will assure the Dean and Chapter that there will be no risk whatever, his opinion will, of course, be received with respect, but it must be remembered that Mr. Mott designed the bridge before he had the opportunity of examining the Cathedral, and also that as a member of the Commission on the fabric he signed the Interim Report of June, 1922, from which the following extract is taken:—

"'It would be an exceedingly formidable task to attempt to strengthen the foundations and, in our opinion, it is not necessary, provided always that no building or other operations are carried out below the level of these foundations in the neighbourhood of the Cathedral.

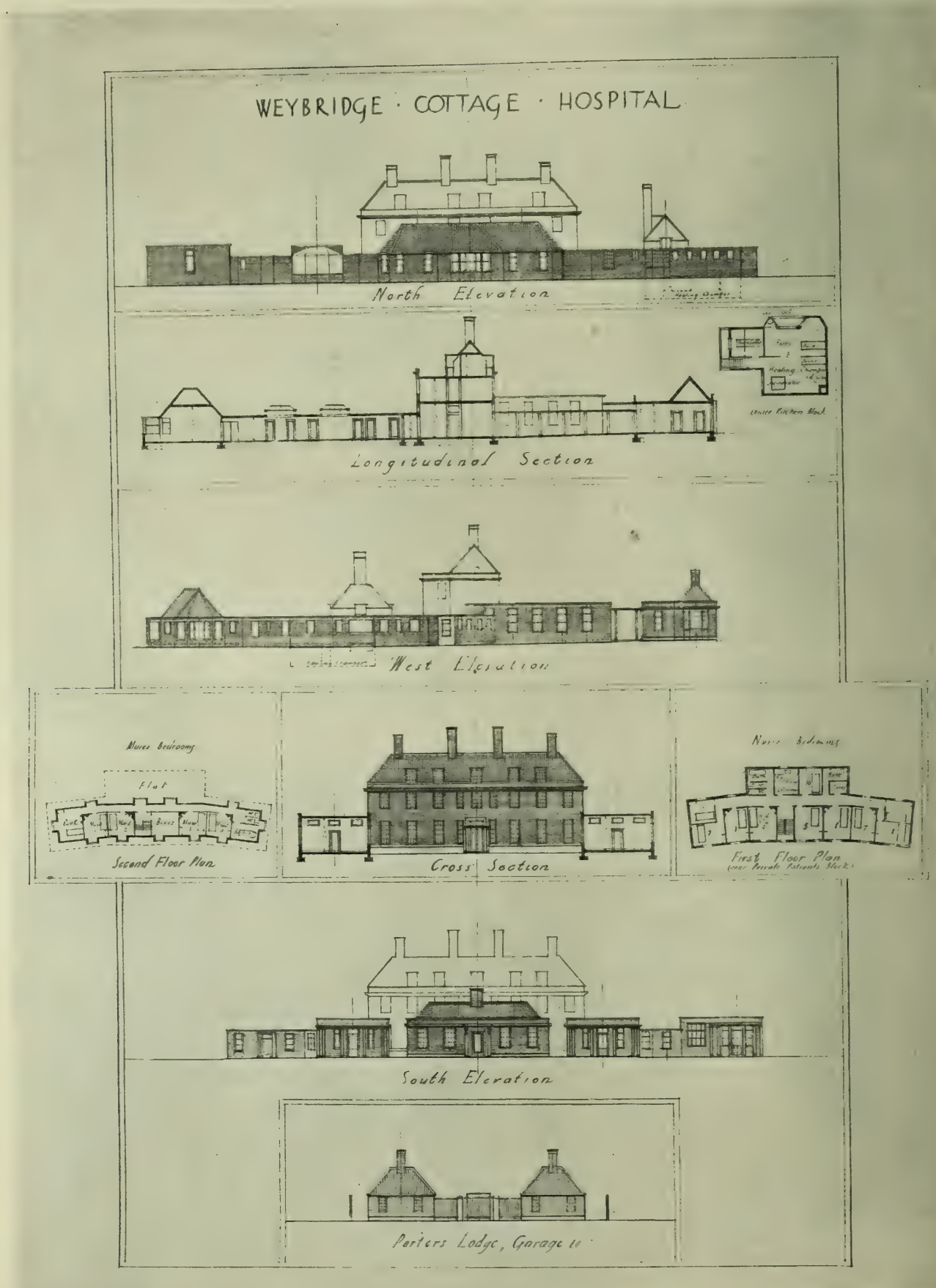
"This report is signed by two other eminent engineers, Mr. G. W. Humphreys, Chief Engineer, London County Council, and Mr. E. C. Trench, Chief Engineer of the London Midland and Scottish Railway.

"The whole position is one to cause anxiety, and the Chapter, while not desirous of offering factious opposition, naturally feel that no risk can be taken."



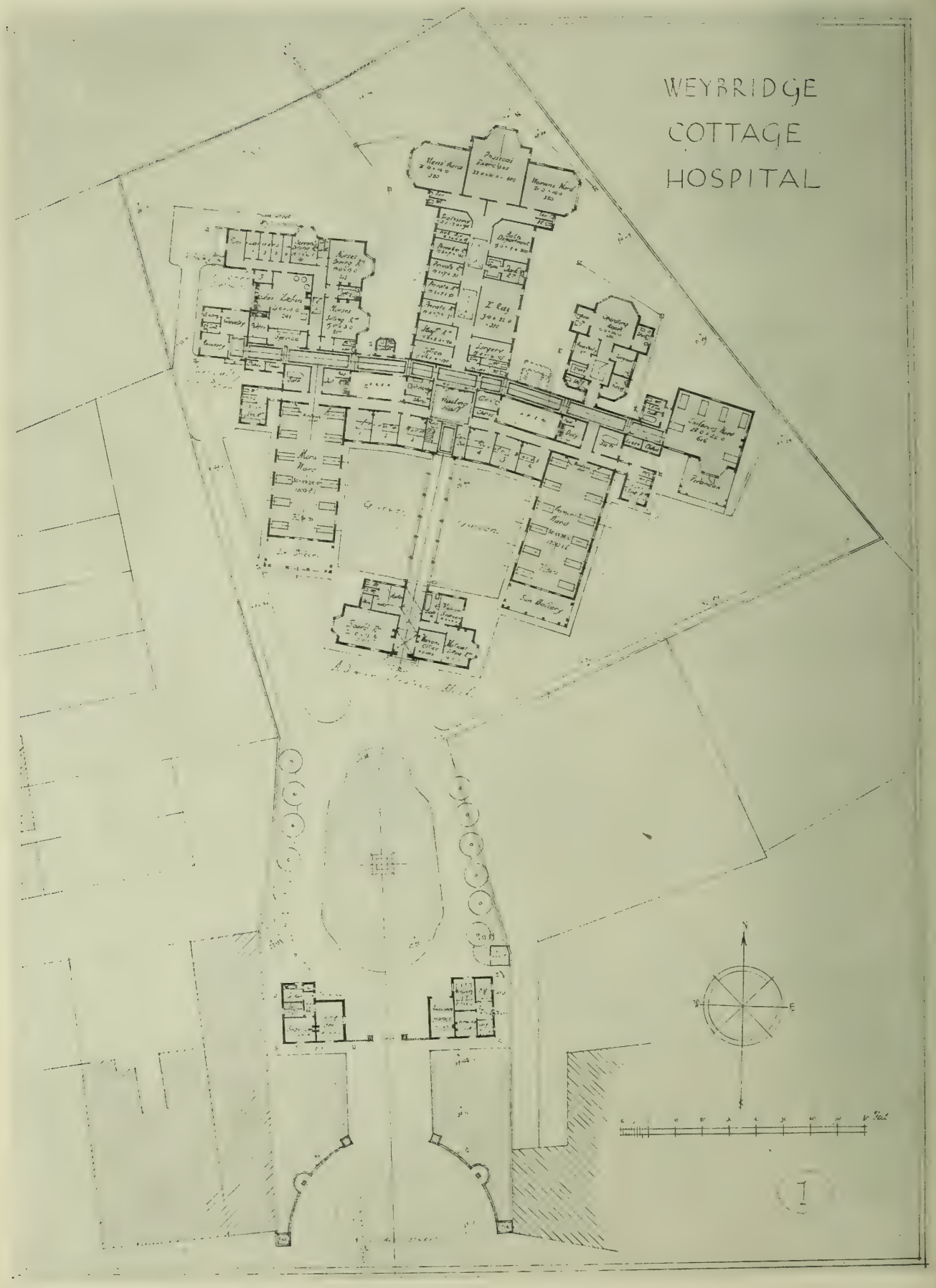
Suggestion for an Approach to Charing Cross from Waterloo.

Specially drawn for *The Builder* by the late Adrian Berrington.



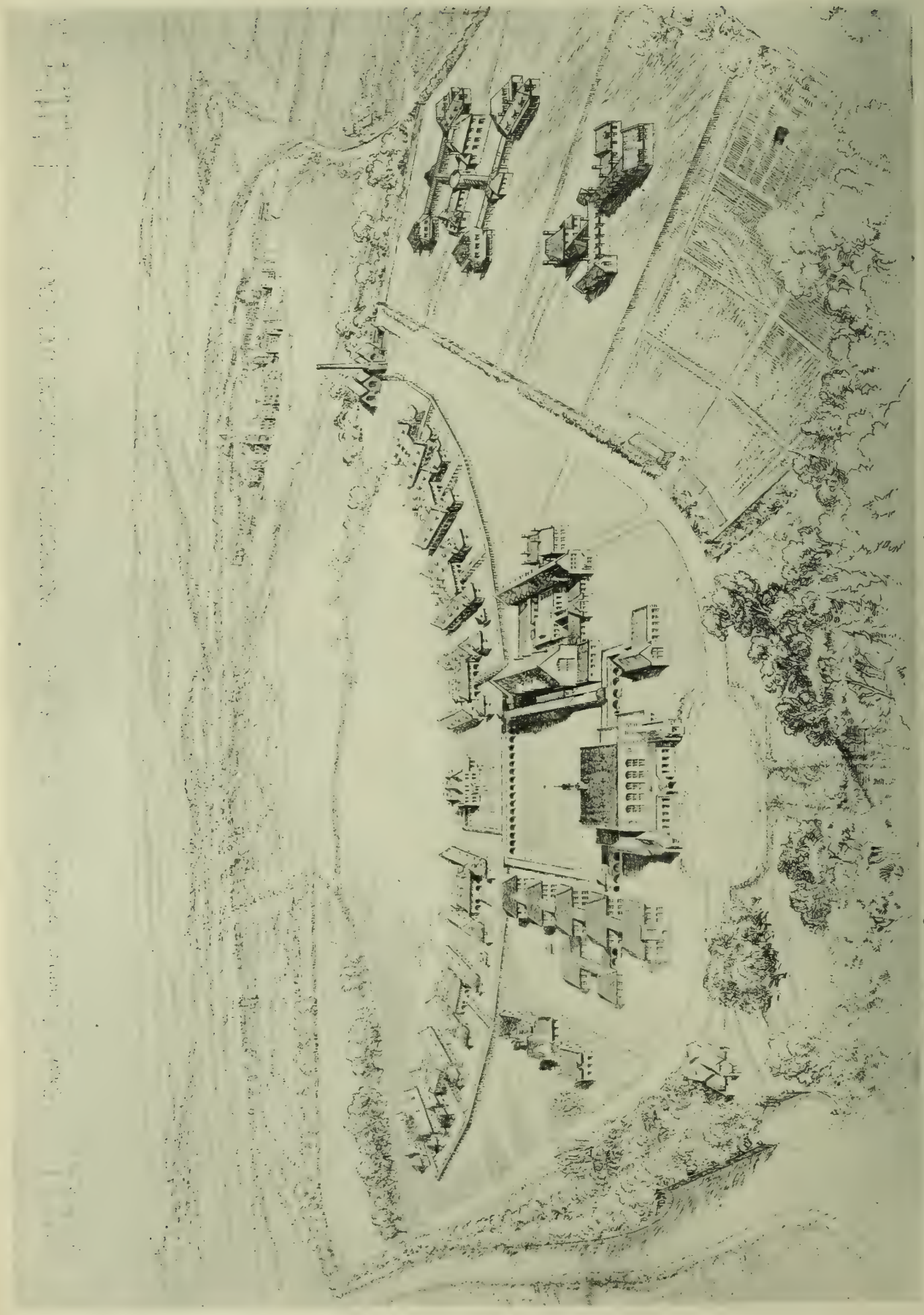
Weybridge Hospital Competition.

Design Placed First: By Messrs. Kenyon & Livock.



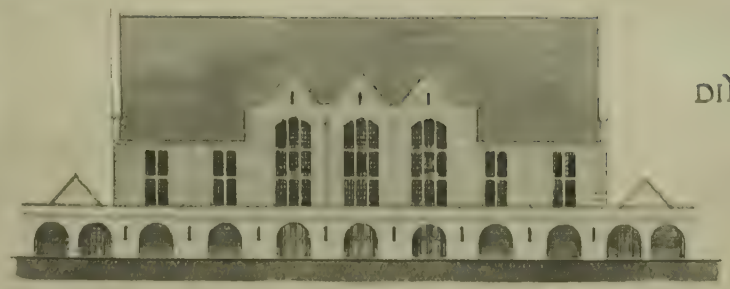
Weybridge Hospital Competition.

Design Placed First: By Messrs. Kenyon & Livock.



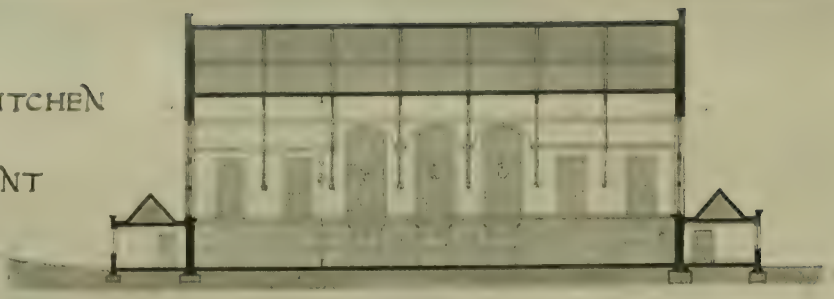
Royal Masonic Institution School for Boys, Bushey, Competition.

Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.



Elevation of Dining Hall to Quadrangle

DINING and KITCHEN DEPARTMENT



Longitudinal Section thro' Dining Hall



South East Elevation



Section A–B



Section C–D

Royal Masonic Institution School for Boys, Bushey, Competition.

Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.

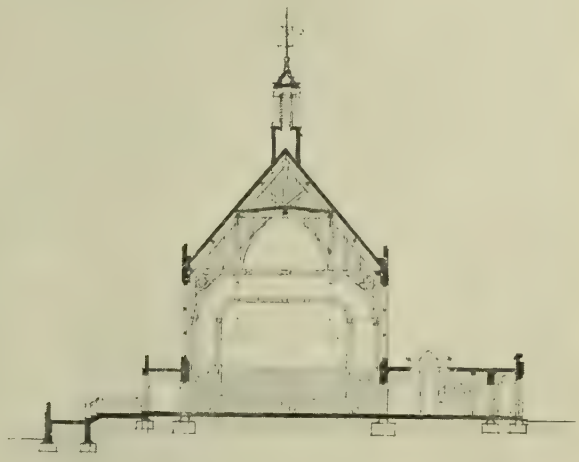
THE BIG SCHOOL.



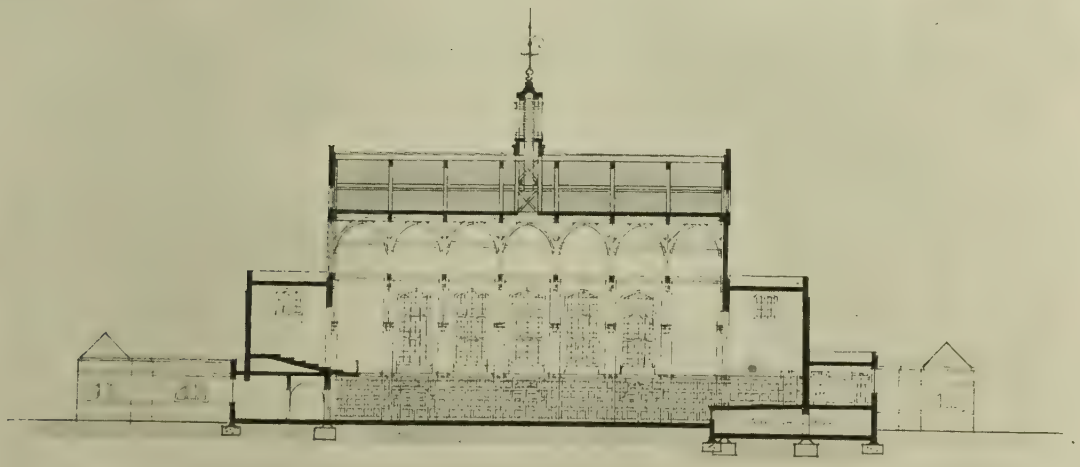
South East Elevation



South West Elevation



Section A-B

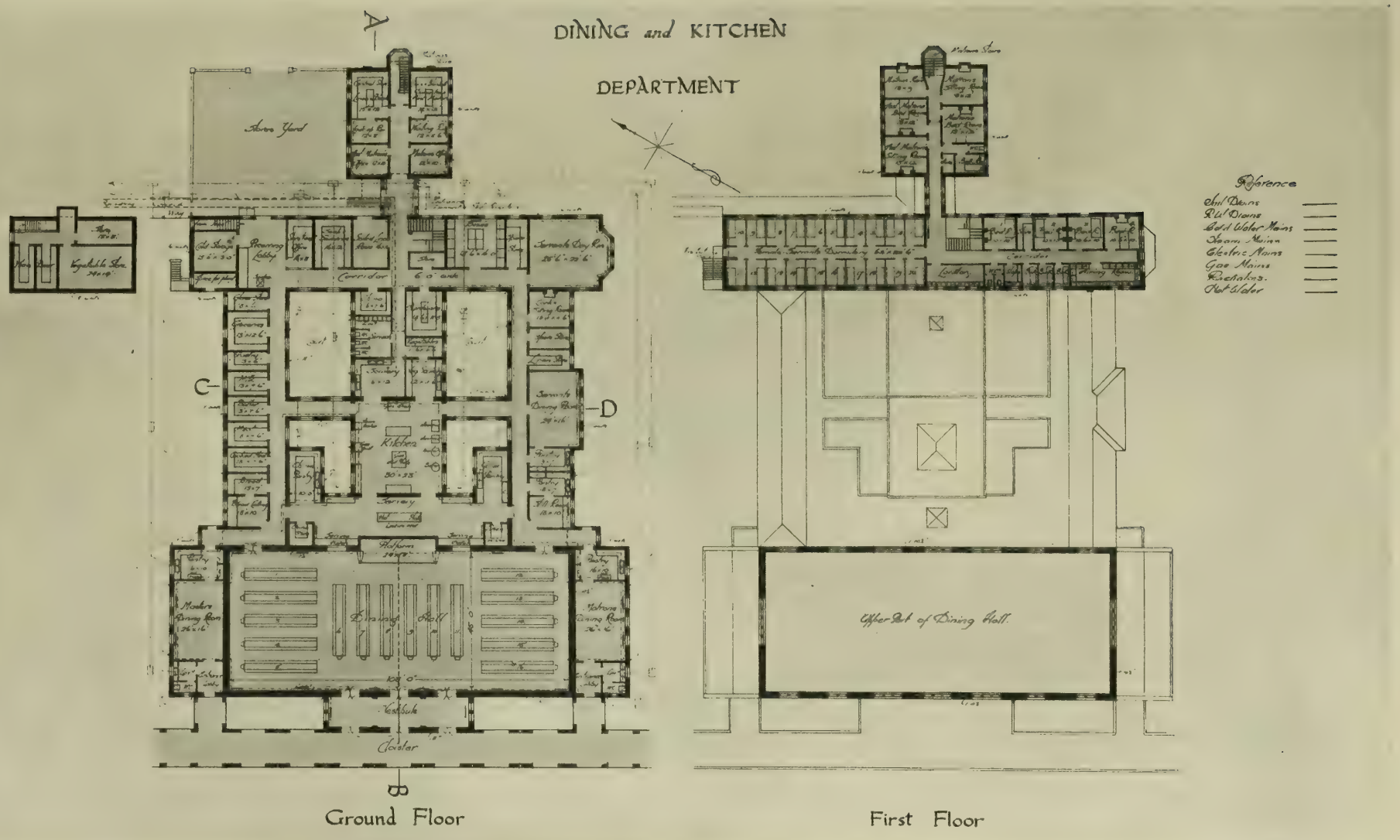


Section C-D

Scale 16 feet to 1 inch

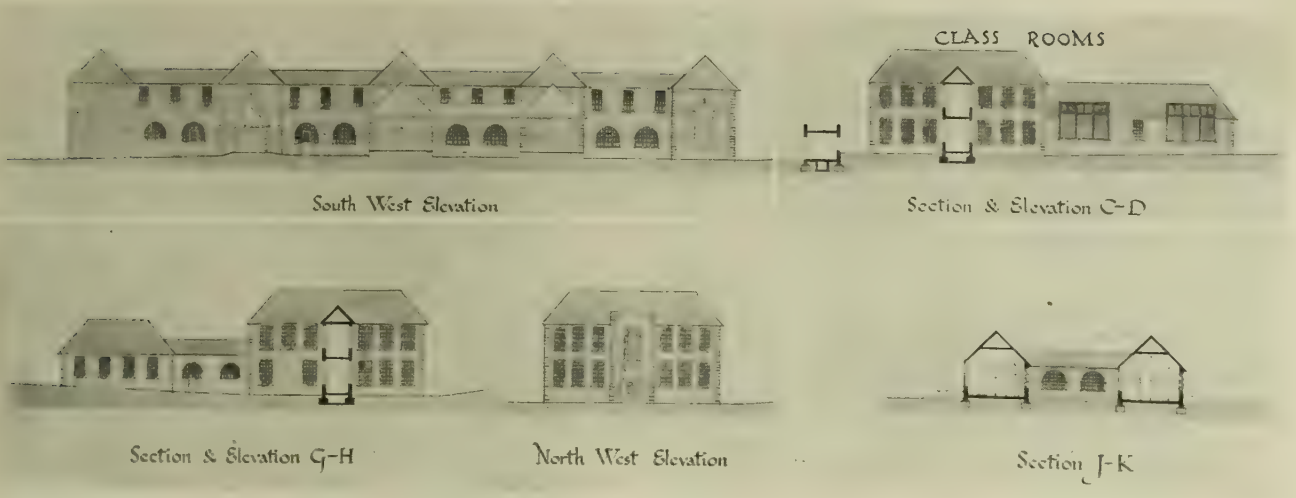
Royal Masonic Institution School for Boys, Bushey, Competition.

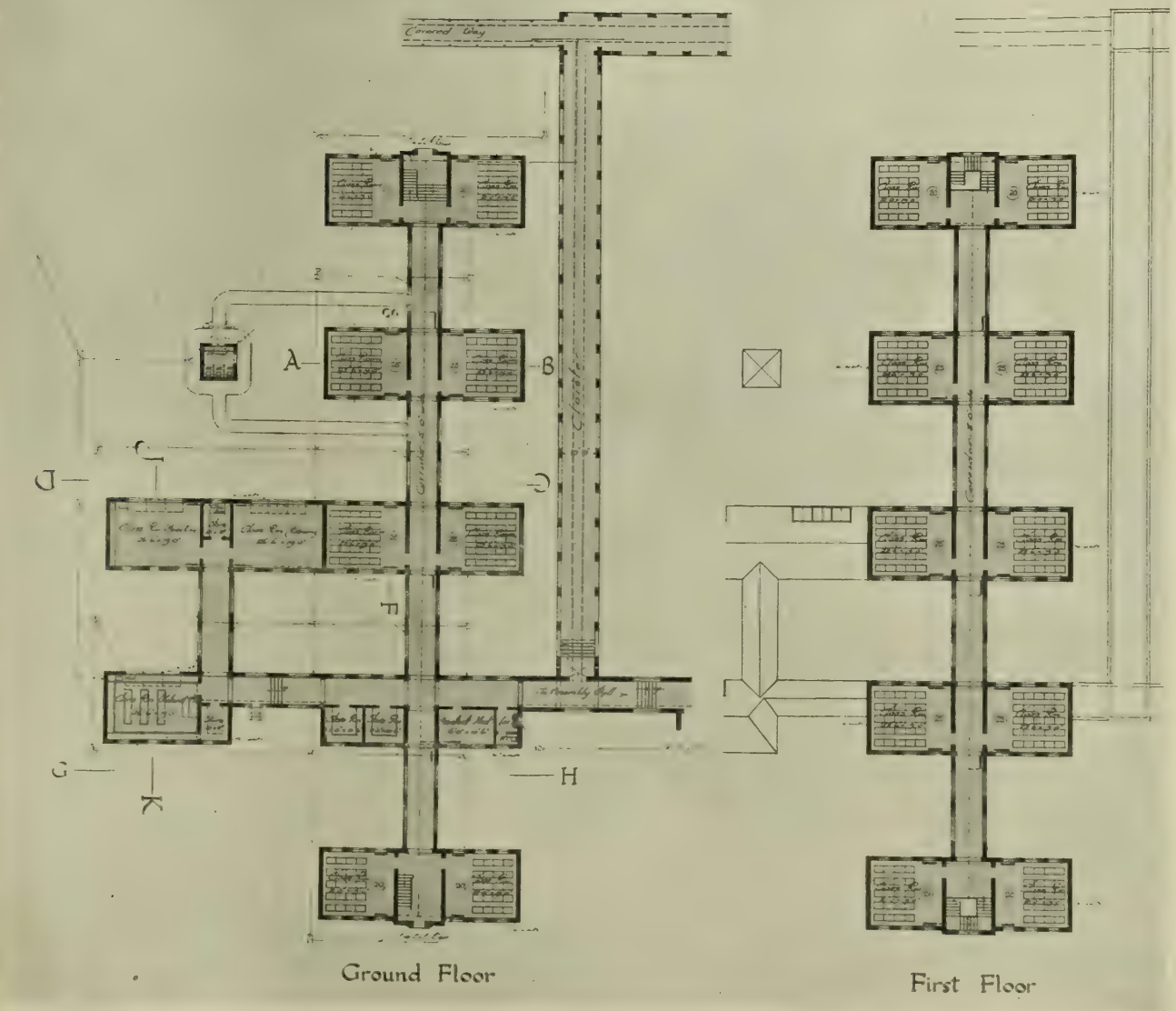
Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.



Royal Masonic Institution School for Boys, Bushey, Competition.

Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.

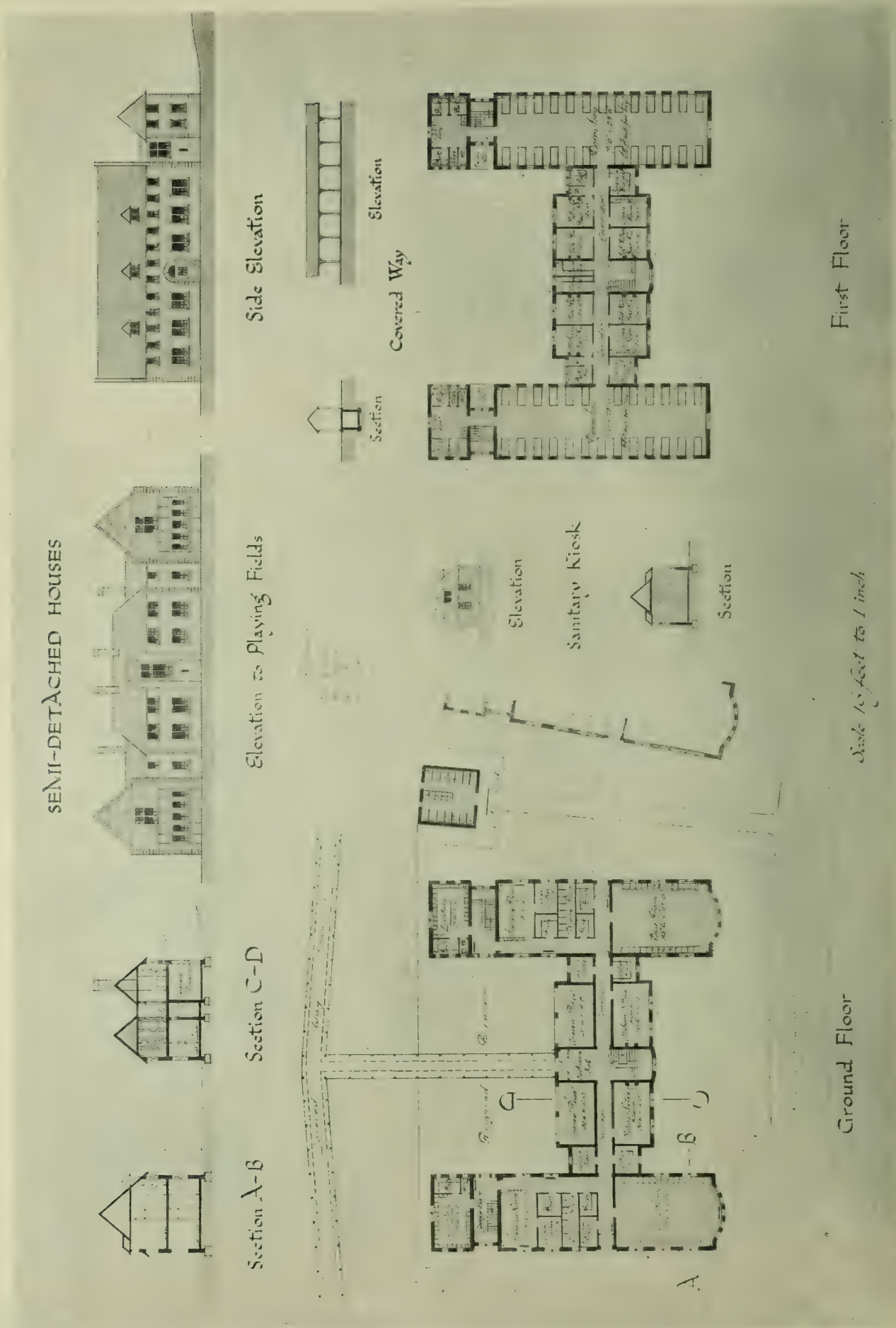




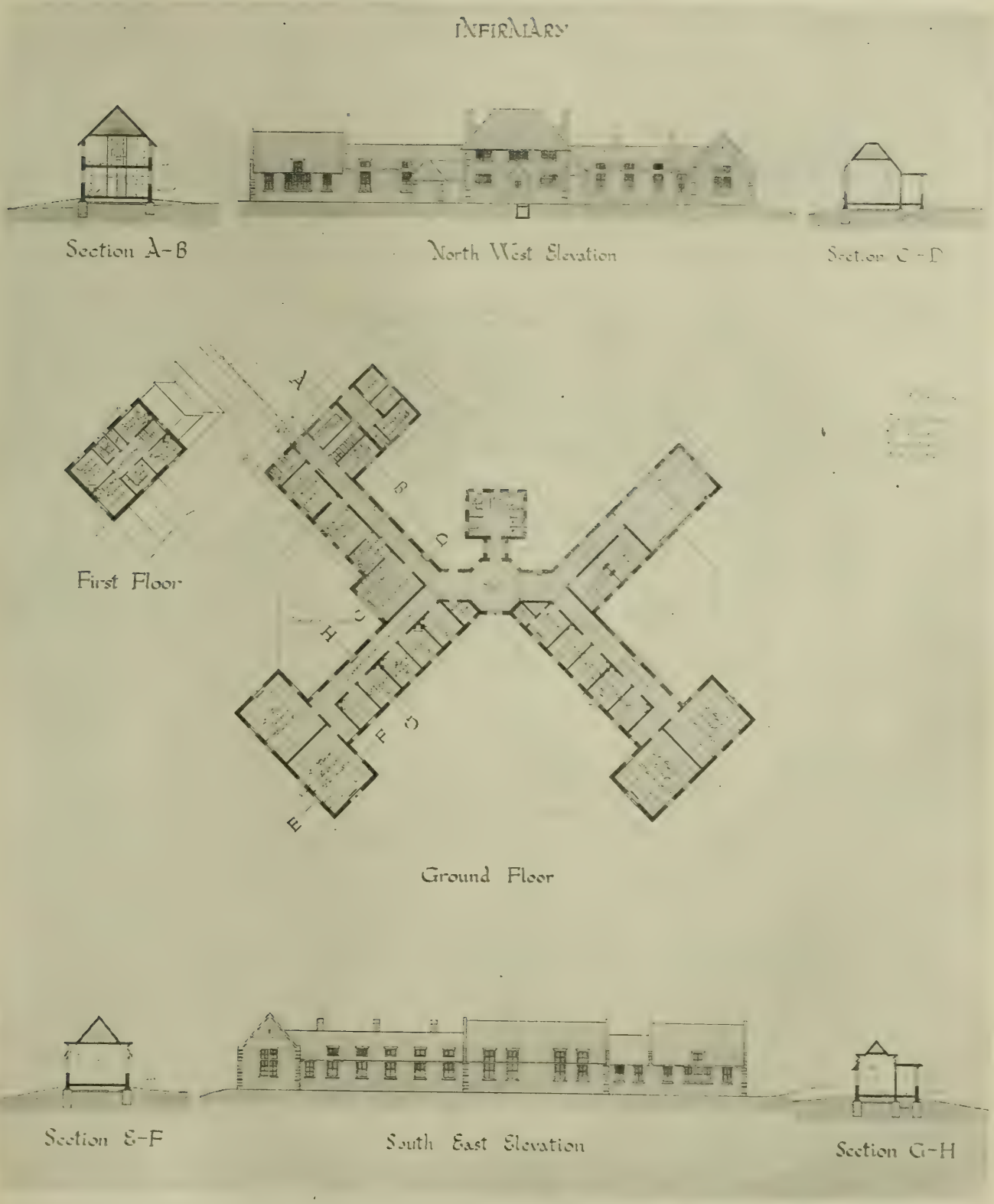
CLASS ROOMS.

Royal Masonic Institution School for Boys, Bushey, Competition.

Design Placed First: By MESSRS. DAVIS & EMANUEL and HENRY C. SMART.



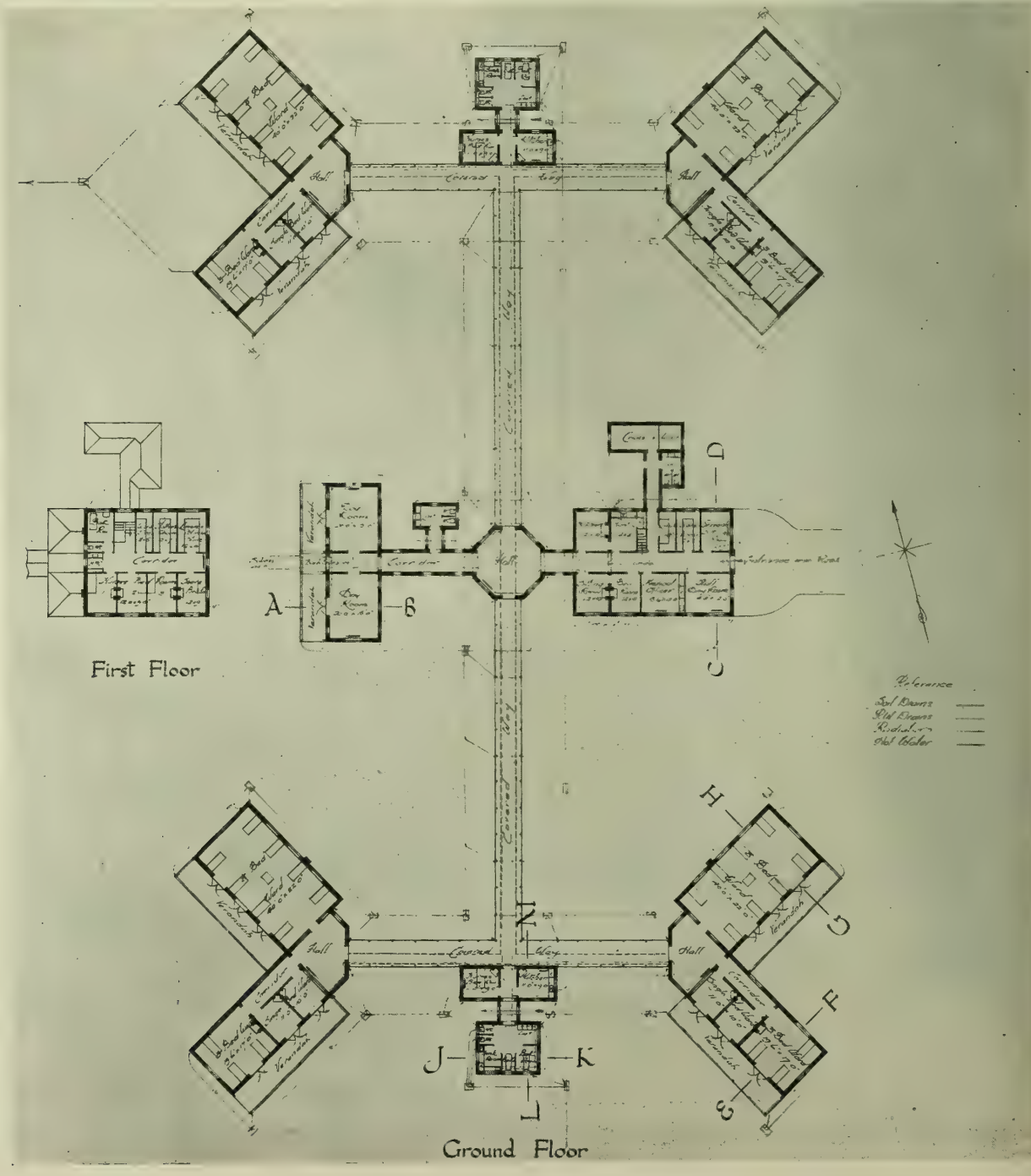
Royal Masonic Institution School for Boys, Bushey, Competition.
Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.



Royal Masonic Institution School for Boys, Bushey, Competition.

Design Placed First: By MESSRS. DAVIS & EMANUEL and HENRY C. SMART.





Royal Masonic Institution School for Boys, Bushey, Competition: The Sanatorium.
Design Placed First: By MESSRS. DAVIS & EMANUEL and HENRY C. SMART.

THE EXEMPTION OF NEW HOUSES FROM RATING.

By MAJOR HARRY BARNES.

The nature of this proposal can only be understood by a consideration of the purpose of rating. The purpose is to determine the amount which certain individuals in a definite area are to contribute in order to make up a total sum which is required to cover the cost of Local Administration within that area.

The first effect of all exemptions from rating is to relieve a number of individuals from the whole or part of the amount they would otherwise contribute towards the total sum required. The next effect is to increase the amount which the remaining individuals must contribute in order to make up the total sum required.

It has been decided that the individuals within the area who are to make the contributions are the individuals who exclusively and beneficially occupy land and buildings. Where the buildings contain machinery it has been decided that the benefit they derive is to take into account any enhancement of the value of the premises by reason of the presence of the machinery.

There are at the present time a certain number of exemptions and relief granted to certain individuals occupying certain specified classes of land and buildings—for instance, the occupier of agricultural land receives a relief of 75 per cent. from what he would otherwise pay; and railway companies and others pay only one-quarter of the general district rate on certain portions of their premises. It is also being urged that occupiers of premises containing machinery should be relieved of the enhancement in value at present contributed by the presence of the machinery.

All the reliefs and exemptions granted to these individuals, of course, increase the contribution which the remaining individuals must take, and that fact is, in the main, the reason for opposition to the relief granted under the Agricultural Rates Act and also to the opposition to the exemption of machinery from rating. It is now suggested that the individuals who occupy new houses of a certain class should be exempted for a period of twenty years or more from making any contribution to the costs of Local Administration or are only to be required to make a diminished contribution. This, of course, would again increase the contribution to be made by the remaining ratepayers. No estimate appears to have been made as to the increased burden which would fall upon the ratepayers who do not secure this exemption.

While some people advocate the entire exemption of contribution of this class of person, others would limit the exemption and would determine the contribution they should make by ascertaining the increased cost of administration due to the erection of these new houses and apportioning it between the individuals occupying them. It is hardly necessary to point out that this would be a very difficult and complicated process. Apart from the question of producing new houses there would appear to be nothing to commend the proposal.

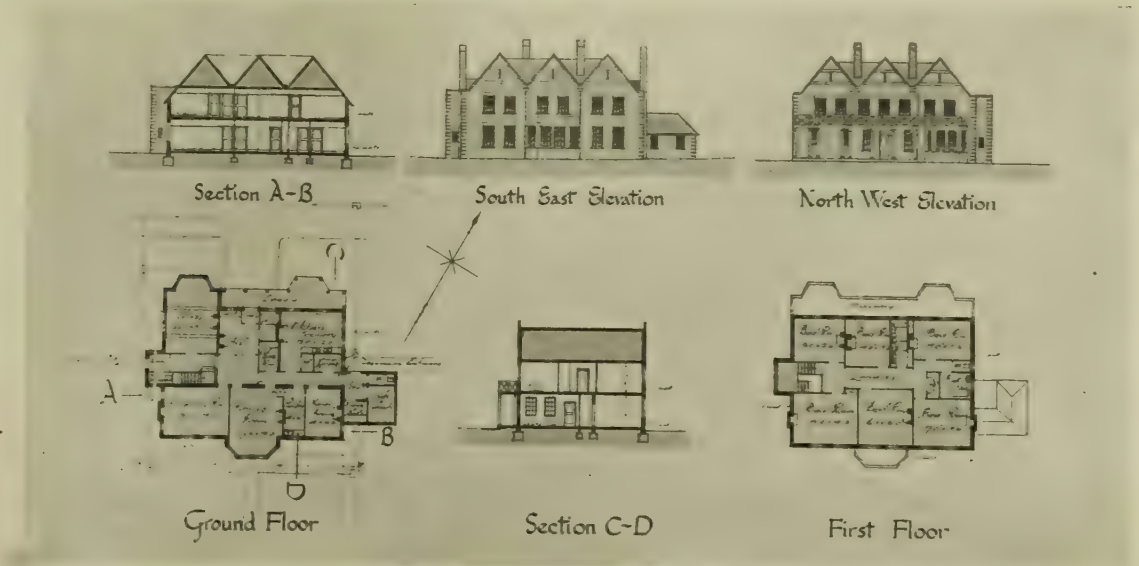
It is true the income tax limit exempts certain individuals whose incomes are below the statutory limit from making any contribution in the form of direct taxation to imperial expenditure, and there would be logic in the contention that persons with an income below a certain figure should be relieved from contributions to local expenditure; but that result is, of course, not secured by the proposals which exempt new houses from rating, as it might very well be that the persons occupying the new houses would be in a better position to contribute towards local expenditure than many of the persons occupying the old houses not exempt from rating.

The proposal, it would seem, therefore, does not rest upon any grounds of equity as between ratepayer and ratepayer, but is put forward solely and entirely as a means of securing the erection of new houses. The argument is this: that if an individual is released from the necessity of making a contribution towards local expenditure, he can apply the relief so granted towards the payment of additional rent, and the additional payment which he is thereby enabled to make will bring the rent he is able to pay up to the economic level required to induce the production of new houses.

On this it may be said it is of course clear that to relieve any person of one part of his expenditure will enable him to increase his expenditure on another part, and the same argument which is being used as a ground for relieving these people of local taxation would have equal force in a plea that they should be relieved from imperial taxation, or from contributions to health and unemployment insurance, or, to put it to an extreme, if it were agreed that all persons living in new houses should be entitled to be exempted from taxation of all forms and, in addition, to be supplied with rations, they would undoubtedly be put in a position to pay a much higher rent than would otherwise be the case. Freed from all the fallacies by which the argument is surrounded, it must be clear that the proposal to exempt people who occupy new houses from making a contribution to local expenditure is, in effect, nothing more or less than to subsidise them at the expense of other ratepayers in order to enable them to pay a higher rent.

However, assuming that to be admitted, it might still be urged that the necessity for getting new houses is so great that it is worth doing, even at the cost of a subsidy of this character, and that, as in fact a subsidy of some kind or other must be given, and all subsidies must be at the expense of the ratepayers or taxpayers, it is immaterial the form which the subsidy takes, whether directly given as a grant or by a remission of local taxation over a certain number of years.

On that it may be said that the present form of open grant, the amount of which is ascertained and known, is one in which the division of the payment of the grant is



Royal Masonic Institution School for Boys Competition; Headmaster's House.

Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.

clearly shown as between the central and local authorities. It is a loss, an admitted loss, which is equally divided between the two, and it is further a loss which is arrived at after taking into account the contribution towards local expenditure which, under existing conditions, the occupier of such houses would make.

The idea in the minds of those who push the proposal for the exemption of such houses from rating is (as I have already shown with regard to houses in private ownership) that the exemption will enable higher rents to be paid. With regard to houses in municipal ownership, the idea is that if these houses are relieved from contributions to local expenditure, the loss will be diminished, and i tmay be eliminated.

That is true as far as municipal book-keeping is concerned, but as the effect of the exemption will be to reduce what would otherwise be the rateable value of the area, it must follow that in order to raise the sum required the poundage of rate must be increased, and therefore the effect of the elimination is to increase the burden on the remaining ratepayers, the whole of the loss falling on them. As under present arrangements the contribution of the Imperial Authority is a proportion of loss only, if no loss is shown there will be no grant from the Imperial Authority; to that extent, therefore, the effect will be that as to one-half of the loss the ratepayers will be damnified. Looked at from this angle, it is clearly seen that the proposal is one which would bring relief to the taxpayer at the expense of the ratepayer. From the point of view of those who regard housing as a local problem, that would be no objection; but those who believe that housing is a national service, the cost of which should not wholly fall upon the localities, will find in this fact a serious objection to the proposal.

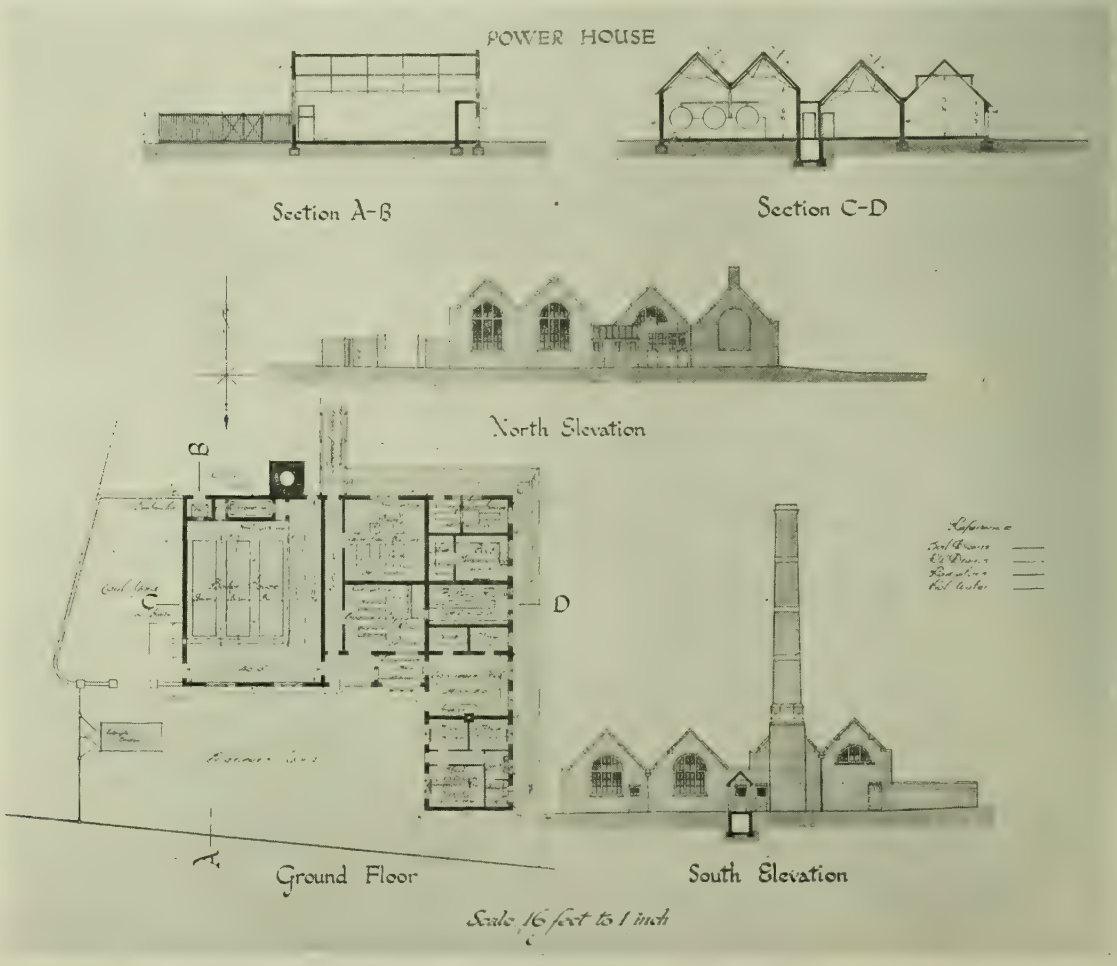
However, on the assumption that all these considerations must be put aside as having no weight in the face of the necessity for the production of new houses, we come to the question as to whether this policy is likely to produce new houses.

Let us take the case, first, of municipally provided houses. Is it likely that municipalities will adopt a scheme which would throw the whole burden of loss upon their constituents, in substitution for the existing one under which half the loss is borne by the Imperial Government? This course does not appear to me to be in the least likely to be taken.

The other question is, whether houses are likely to be erected by unaided private enterprise on the security afforded by the remission of rates for a given period. It is conceivable that persons who are able to buy houses for their own occupation might be disposed to take the risk of paying a price for a house which can only be justified on the ground that the remission of local taxation will be continued for a definite period; but such owner-occupiers form a small portion only of those who will occupy such new houses, and the real question is whether the investor, the person who is considering whether to place his money in house-property or in some form of industrial securities or gilt-edged securities, would consider a legislative enactment remitting rates over a given period as giving sufficient security to induce him to pay a price for a property which would, apart from the legislative enactment, be more than the property was worth. This is seriously open to doubt. Such an enactment would produce a great amount of irritation as between the owners and occupiers of properties which were exempted, which resentment would be accentuated by every increase in the rate. Such a feeling would produce a sense of instability and insecurity at least tending continually to minimise the value of the exemption.

No surveyor would advise an investor to buy such property without discounting very heavily the advantages presumably offered by the Act. In other words, the rate remission would have to be considerably more than the actual amount required to bring the rent up to an economic rent standard.

To sum up, the proposal is one that in the first place is inequitable as between one section of ratepayers and another; in the second place it is inequitable as between the local authority and the central authority; and in the third place would either fail to produce the result desired, namely, the erection of new houses or only produce them at a greater cost than the present system of open grant.



Royal Masonic Institution School for Boys, Bushey, Competition.

Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.

EXHIBITION NOTES

A HUNDRED YEARS OF ARCHITECTURAL DRAUGHTSMANSHIP.

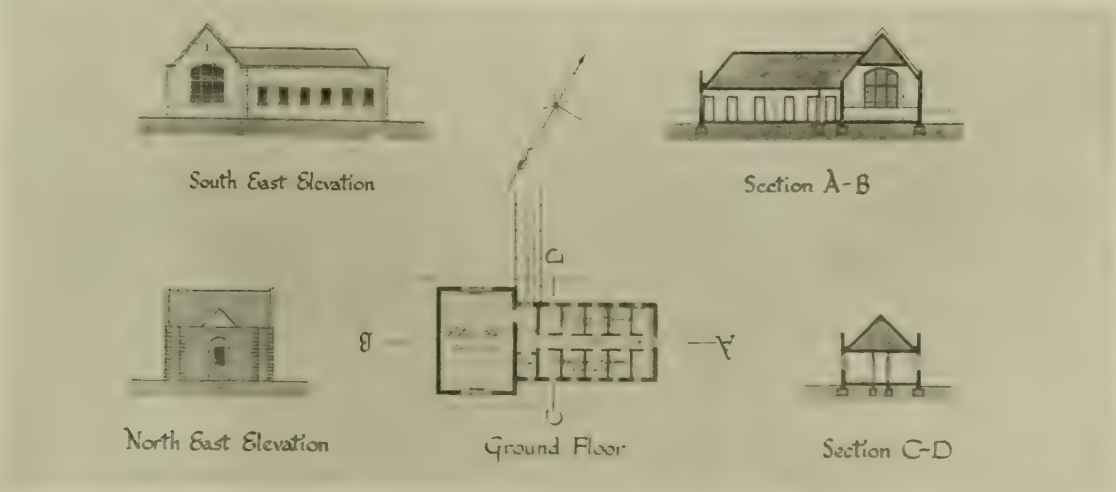
The few examples of architectural draughtsmanship brought together by the Association could hardly be said to represent the best of what the last hundred years has produced in England, but they are interesting as showing diverse methods of representing designs, and judged from the varying standpoints of many would impress more or less favourably. We doubt whether any of the architects whose works are illustrated would feel that the quality of their designs was done full justice to, or that even they themselves could succeed where others fail. But that is no reason why we should not find some degree of pleasure and satisfaction in what has been done. We remember with what pleasure a certain well-known artist's pictures of architecture were received years ago in England, and many of us probably rate them higher than his vastly more ambitious drawings in recent years, but we cannot complain if the artist's maturer vision has given us pleasure of a different kind. To some artists there has been given the capacity for an individual expression, whilst to others an excellent quality of work has come by study of the work of others. Generally a quality of individuality provides the greater interest, but the evidence of an artist's pleasure in his work is an unfailing pleasure to others. We doubt if the joy in his earlier efforts is ever felt by the artist when he has allowed his outlook to be modified by acrid criticism, undue envy of others' methods, loss of belief in himself, and divided aims. How few of us fully realise that it is easier to lead than to drive? If we did we should find better men around us and be the better in ourselves. Great art has certainly thriven in spite of criticism and other hindrances, but generally art is a tender plant, and watered by kind and appreciative thought may be counted on to flourish. The strident and brilliant, and often slightly vulgar, drawings which illustrate architecture have their value (it may be great to architects and promoters), but we can at least be grateful for the essentially modern developments of architectural draughtsmanship, and do our best to encourage such a beautiful art.

Coming to the exhibits, names immediately arise in our mind which are not represented, such as the late H. W. Brewer, Axel Haig, Norman Shaw, R.A., and F. L. Griggs, A.R.A. The drawings are exhibited in chronological order and many of the draughtsmen and their work are probably unknown to the present-day student, though from them he can well profit, for if the so-called "slickness" is missing the sincerity is there. A. W. Pugin's "Rouen" drawings are pleasing and quiet in colouring, suggesting a desire for truth rather than assertive draughtsmanship. The late Mr. Phene Spiers' exhibit faithfully portrays an "Entrance Porch to the Chapter House, Beauvais," in pleasant and harmonious colour, broadly handled and devoid of tricks and mannerisms. The exhibit of Alfred Waterhouse, R.A., dated 1862, "Design for New Law Courts from the Embankment," is boldly handled, the relative values of buildings, foliage and surroundings being accurately judged and at no point of the drawing is any hesitancy or indecision apparent. Alfred Waterhouse exhibited regularly in the Painting and Architectural Galleries at the Royal Academy, and in each his work was of a high order. Sir Ernest George, R.A., is represented by a typical sunny example entitled "Welbeck Abbey, New Loggia and Central Bay." George Edmund Street, R.A.'s, work is shown by a bird's-eye view of the "New Courts of Justice," a good drawing, but it would be considered laboured by our present-day men; probably at the time it was made it was thought highly of. One must not lose sight of the fact that these men were practising architects of the day and not solely draughtsmen. The work of Chas. Gascoigne and Alick Horsnell are not the best specimens of their work; these two brilliant young men bid fair to gain an eminent position in their profession, had they been spared; both handled their work in a broad and bold manner. C. E. Mallows' work is well known to most of us; his work was always clean and direct; he had a large following and many admirers: some representative examples are on view. The brilliant work of A. E. Ricards is also well known; he is represented by a clean and direct drawing of an interior. Amongst those who are still with us mention may be made of Sir Reginald Blomfield, R.A., who shows some sympathetic pencil drawings; one, entitled "Point Hill from the Railway Bridge, Rye," is a drawing handled with much delicacy. Mr. Maurice B. Adams is represented by a drawing of Blicking Hall, dated 1869. Mr. T. Raffles Davison is well represented by drawings of the work of Sir Edwin Lutyens, R.A., in whose work he appears quite in sympathy. The fountain court, Deanery Garden, is full of sunlight, with all unnecessary detail eliminated, yet conveying to the mind a truthful representation; note the sunlight on the old lead cistern; it can only suggest a drawing made on the spot. "House at Ilkley"—here again note the foreshortening of the metal work to staircase, a difficult task, put in with admirable and apparently effortless precision. Mr. Davison is also represented by "Whiteley Homes," a drawing for Sir Aston Webb, R.A. Other exhibitors whose work is so familiar to us at the present time that it is unnecessary to comment on are W. Walcot, Curtis Green, A.R.A., C. W. English, Robert Atkinson, Cyril Farey, T. S. Tait, P. Hepworth, L. H. Bucknell, Winton Newman, Geoffry Lucas, and others. The exhibition is of considerable interest, and should be visited by all who are interested in draughtsmanship.

In conclusion, perhaps one might say tricks of draughtsmanship are more prevalent to-day than they were 20 years ago. In no drawing of the older men does the famous sediment trick appear—the mop-head tree, the fretwork or scenic tree. Perhaps these older men went more frequently to nature.

WOMEN ARTISTS.

Amongst nearly seven hundred exhibits at the Society of Women Artists' Exhibition, at the Institute, there is a good deal of clever work, even if most of it lacks any particular distinction. One can only hope that the production of all these things has given the artists themselves a certain pleasure, and that the object of it has not been chiefly to earn money. We miss nowadays the distinctive work of such artists as Clara and Hilda Moutalba, and probably one vital drawback in so much of it is the lack of really good subjects. Colour effects are sometimes quite good, as is the pleasant "St. Ives Harbour" (No. 309), by Miss Hewitt; the "Blue of the Sea" (No. 279), by Constance Bradshaw; "The Pool" (No. 268), by M. Attenborough; "Hazy Morning, St. Ives" (No. 233), by Constance Bradshaw; "A Bridge, Venice" (No. 220), by Florence A. Englebach; and the excellent water-colour drawing of "The Padre's Wistaria" (No. 39), by Evelyn I. Rimington. A broad, simple and impressive sketch is "In Old Verona" (No. 54), by Marianne Niven. Some good jewellery, modelled figures, decorative pottery, and hand-woven scarves add to the interest of the exhibition, and suggest how greatly the general effect of picture shows may be improved by the interposition of decorative accessories between various groups of pictures. If we knew of the work of women artists only through such an exhibition as this, we should be inclined to estimate the value of their work as artists lower than it actually is. Mere prettiness is a delusion for all, but an exhibition such as this would suggest it as a peculiar drawback to the work of women painters. Certain it is that we are here very definitely confronted with the doubt as to the value of the aims which bring most of these pictures into being. Some definite arresting charm of line or colour, of mass or composition—some summarised vision of natural beauty—some accentuation of real charm to be carried forward from the artist's own realisation to the mind of others—these are the aims of the artist, even if imperfectly fulfilled, which ought surely to appear in a greater degree than we find in this large exhibition of the Society of Women Artists.



Royal Masonic Institution Junior School for Boys, Bushey, Competition: Music Room.
Design Placed First: By Messrs. Davis & Emanuel and Henry C. Smart.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

Housing.

At a recent meeting of the Birmingham Architectural Association, Major Harry Barnes, V.-P.R.I.B.A., gave an address on the housing question. He said that the dilemma in which they stood to-day was that a standard of housing had arisen which never had been in the past, could not be in the present, and did not appear likely to be in the future, provided for a considerable section of the population of the country; the reason in all cases being that such a house as the present standard demanded could not be provided at a rental within the capacity to pay of a considerable and increasing proportion of the wage-earners of the country.

He expressed the opinion that the present housing problem was not the result of the war but of a steady accumulation of arrears extending over the whole century. The increase in houses in each decade had always been less than the increase in families, and he gave the following figures in support of his statement :—

Year.	Houses.	Families.
1811	221,581	245,425
1821	290,652	351,276
1831	393,388	418,451
1871	519,612	557,492
1881	572,402	584,076
1891	619,978	487,809
1901	809,355	905,867
1911	880,929	968,422

The result was that there had been a steady increase in the number of families for whom no separate dwellings were provided.

He then dealt with the question as to whether, in estimating the number of houses required, population should be taken as the basis or the number of marriages in each decade. The importance of this point was that if population were taken as the basis the increase in population during the last decade had only been half of that in the former decade, and on that basis it might be argued that only half the number of houses were required. He expressed the view that the proper basis for calculation in determining the number of houses which were required from decade to decade was the number of marriages in the decade—that it was the marriage which created the demand for the new dwelling. On this basis he pointed out that though in the decade ending 1921 the increase in population had been only half of that which took place in the decade ending 1911, the number of marriages in the later decade was nearly half-a-million more than in the former one, the figures being 2,640,515 for the decade ending 1911 and 3,075,903 for the decade ending 1921.

For the decade ending 1911 there had, in fact, been an increase of 840,640 houses, and if the marriage basis was the proper one, it was clear that the number required to satisfy the marriage claims in the decade ending 1921 was approximately 950,000.

On the capacity of the building industry, he said that on an examination of the Census Returns, in so far as the number of men engaged in the building industry were concerned compared with the number of houses produced in each decade, the result showed that the average over sixty years was 1 house, 1 man, 1 decade. He quoted the following figures :—

	Men.	Houses.	Average. Houses per man.
1851 ..	.. 463,491	.. 492,666 ..	1.06
1861 ..	.. 472,103	.. 596,263 ..	1.26
1871 ..	.. 581,903	.. 697,733 ..	1.2
1881 ..	.. 685,112	.. 605,486 ..	.88
1891 ..	.. 698,839	.. 886,103 ..	1.27
1901 ..	.. 952,093	.. 840,649 ..	.88

or an average over the sixty years of 1.09

On that basis, if it were adopted for the purpose of estimating, and it seemed a sufficiently broad basis for that purpose, it might be expected that for every man in the building industry in 1921 we might get an additional house by 1923. The latest figures of men in the industry were for February, 1923, 625,400. Therefore, on that basis, unless exceptional activity was shown and extraordinary means employed the normal output for the decade was not likely to exceed 700,000 houses, leaving us with a shortage of anything up to half-a-million.

On the figures that were the result of recent housing experience, a round figure could be taken was that the number of houses that could be produced was equal to 1 man, 1 house, 1 year; that was to say, that for every man engaged upon house building they might expect to get one house in the course of a year. The figures already given showed that what was obtained was 1 house, 1 man per decade, the conclusion of which was that during the past there could not have been more than one-tenth of the men in the building industry employed upon house building for the working classes.

If normal conditions prevailed, it could not be expected that more than one-tenth, or 70,000, of the men engaged in the building industry at the present moment would be engaged on the erection of houses for the working classes, and on the basis of one man, one year, one house, it would give us 700,000 in the decade—a figure again closely related to the one already obtained.

The lecturer concluded by expressing his view that on all the facts that could be ascertained, the situation in 1931 so far as housing was concerned was likely to be worse than that in 1921.

BIRMINGHAM ADVISORY ART COMMITTEE.

The city of Birmingham appears to provide a fruitful soil for the modern efforts towards a better general amenity of city life. The foundation of the Birmingham Civic Society was a happy circumstance, and now we have the report of the Birmingham Art Advisory Committee for the year ending December, 1923, which amply proves the success of its work and the justification for this further extension of effort for city improvement. Some explanation of the success may be found in the presence on the committee of the Lord Mayor, the City Engineer, the Vice-Chancellor and Principal of the University, besides Directors of Schools of Art and Architecture, representatives of the Civic Society, &c., Mr. Wm. Hayward, F.R.I.B.A., being the able secretary. It is quite obvious that the full value of such an advisory committee cannot be set down in its report.

The eighth item in the constitution of the advisory committee reads as follows :—

8.—Hereafter all such *new* designs for public buildings, bridges, lamps, gates, fences, public conveniences, or other structures to be erected upon land belonging to the city, all such proposals for planning and laying out new parks or park extensions, all such new statues, fountains, arches, monuments or memorials of any kind to be erected in any public street, square, park, or municipal building as may be selected for submission to the Advisory Art Committee by the City Departments concerned, shall be reported upon by the Advisory Art Committee.

As to the work of the committee we note the following in the report :—

Experience with 57 submissions made during the year ending December 31, 1923, led to the delegation of personal consultation and the preliminary examination of designs to those members of the committee having a special technical knowledge of the subject under consideration. This arrangement has worked well and will be continued; it is found to be absolutely necessary to a proper understanding of the designs submitted, and gives opportunities for suggestion and adjustment before coming to the committee for report. It is obvious that in many cases a design can only be properly judged after an inspection of the site for which it has been made. A delegate of the committee has, therefore, visited each of the sites in question; and in many cases the choice of sites for shelters, refreshment rooms and lavatories in parks has been left to the committee's representative, subject to the approval of the Parks Committee.

That the action of this committee has had much influence on other big centres is an item of special value in its work, and it is to be noted that its inception was due in the first instance to the Birmingham Architectural Association.

SHEFFIELD SOCIETY OF ARCHITECTS AND SURVEYORS.

Steel Construction.

On February 14 Professor J. Husband lectured on this subject before the Sheffield Society of Architects and Surveyors.

In the course of his remarks he stated he proposed to notice some of the aspects of steel construction of more particular interest to architects, and would, therefore, confine his remarks to matters relating to steel buildings.

Two distinct types existed—low buildings in which wind stresses were small or negligible, and lofty buildings on which wind pressure was of great importance and strongly affected the design. In this connection the experience gained from the design and erection of the tall steel-framed buildings in the United States was valuable. In this country architects and engineers were seldom called upon to erect buildings exceeding ten or twelve stories in height. The steel buildings might be divided conveniently into four units—the foundation, stanchions, floor system, and roof. The requisites of a good foundation were enunciated and the importance emphasised of distributing the load in order to ensure uniform settlement of all parts of the framework. The purpose for which the building was designed determined the stanchion positions and consequently the foundation areas. The lecturer devoted considerable attention to special features in the design of floor beams and to their duty in resisting effects of wind pressure in buildings where special wind bracing was not provided.

An interesting comparison of the relative merits of flat and sloping roofs and consideration of wind and snow loads was followed by an examination of the general effects of wind pressure on the members of the framework and of the various systems employed for the wind bracing in buildings, special reference being made to this feature in the case of very lofty buildings.

Acquisitions at the National Gallery.

Two paintings have just been acquired by the National Gallery, and are now on exhibition. The first, which hangs in Room XII, is a signed work by Jacob Ochtervelt (c. 1635–1700), and represents a lady playing a spinet, accompanied on the violin by a gentleman, while another lady conducts. In this work the painter shows himself under the influence of Vermeer of Delft, and for a moment acquires something of that master's luminous atmosphere and power of design.

The second painting, which hangs in Room III, is a group of three figures seen in profile, looking out of a window in a fortress on the sea. In one corner are the arms of the Montefeltro family. The identity of the persons represented has not been finally settled; but it is thought that the boy holding a book is probably Guidobaldo Montefeltro, who, in 1482, succeeded his father, the famous Federigo, as Duke of Urbino. This curious panel appears to be the work of some pupil of Melozzo da Forli.

THE ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

Provisional Amounts.

SIR,—Can you tell me how the law stands in regard to provisional amounts? Where a provisional amount has been inserted in the specification and the builder goes into liquidation before the contract work is finished, is an architect justified in issuing a certificate to the merchant or sub-contractor to the full amount of the provision and deducting the said amount from any money due to the builder; in other words, has the merchant or sub-contractor, in such cases, the right of preferential treatment over other creditors? If so, does the rule apply equally if the builder is not actually bankrupt, but has made a voluntary composition with his creditors? Also, is it necessary that the name of the merchant or sub-contractor should be inserted in the specification, or is the provisional amount alone sufficient? If the amount of the goods supplied exceeds the amount of the provision, can the merchant still be paid in full? "NO LAWYER."

[REPLY.]

The contract must, in the first place, be scrutinised, to find if there are any clauses defining the rights of the employer or the architect as to provisional sums. A consideration of the following, however, may assist:—

Provisional sums are inserted in building contracts in order that such sums shall be for the direct use of the employer. The builder must give credit for the full amount of the provisional sum, and, where the provisional sum is used wholly or in part the rule that obtains is to allow the builder the nett price paid for the work ordered, plus a profit of 10 or 15 per cent., or, the percentage of profit as fixed to the provisional item in the priced bill of quantities. If the provisional sum is exceeded, the amount by which it is exceeded is an "extra" on the contract, and must be treated as such in all respects. If a provisional sum is inserted in a contract for a specific work, and to a specific contractor, it would appear that if the work is omitted, or given to another contractor, the employer may render himself liable for damages for loss of profit to the sub-contractor direct, or through the general contractor were the sub-contract made by him; also for any additional profit the general contractor had provided for himself in his estimate.

An employer cannot withhold payment to the builder of money due under the contract, and pay it direct to a specialist or merchant with whom he has no privity of contract, unless there is an express provision enabling him to do so.

When an architect has power to direct payment of provisional sums due to the merchant or sub-contractor, the employer is liable to pay the merchant or sub-contractor; and, when there is an express condition that the employer is empowered to pay the merchant or sub-contractor in the event of the builder failing to do so, the employer may deduct the amount from monies due to the builder (to the full extent of the provisional sum only) and pay the merchant or sub-contractor direct. Such power is not annulled or revoked by the bankruptcy of the builder; and, should the employer avail himself of the power, the merchant or sub-contractor is entitled to be paid in priority to the builder's trustee in bankruptcy. It is not, however, a question of preferential treatment, but merely a fulfilment of the terms of the contract. The fact that the name of the merchant or sub-contractor does not appear in connection with the provisional sum in question does not affect the general rule, and the above matter applies equally in the case where the builder has made a voluntary composition, since "the greater includes the less."

The following cases may well be referred to:—Hobbs *v.* Turner (1902) 18 T.L.R., 235 (which was followed in Young & Co. *v.* White (1911) 28 T.L.R., 87); and in *re* Wilkinson *ex parte* Fowler (1905), 2 K.B. 713.

Hard Wearing Floors.

SIR,—I have a large dining room, about 80 ft. by 70 ft., which has, at present, a concrete floor rather badly worn, and I want to cover it with something that will be durable, efficient, and will stand hard wear (*i.e.*, workmen's heavy boots).

(*a*) Cement rendering is unsightly and cold.

(*b*) Composition flooring is considered fairly suitable, but will it stand a certain amount of ill-usage?

(*c*) Wood flooring and ordinary floor tiles are not suitable in this case.

(*d*) Can you suggest anything else? If so, would you give me names and addresses, as I am anxious to put the work in hand at once.

C. T. MORRIS EVANS.

[REPLY.]

Any good class composition floor would seem to be the best material for our correspondent to adopt. There are several good varieties advertised in our pages, and he will appreciate that we cannot particularise any individual kind. The writer remembers inspecting such a floor in a Working Boys' Club in the North of England where, after about a year of the hardest wear, the surface showed no sign of failing. The surface is, however, cold, and may be thought to have the same objection as cement, but the appearance is warm and cheerful and, after all, the eye can do much to reassure the feelings. One word of warning: These floors need careful attention to ensure their successful maintenance. Polish often and be sparing with water.

The Builder of the Albert Hall.

SIR,—I should be very much obliged if you could let me know the name of the builder who built the Albert Hall, also the name or names of the people who had it built. R. S.

REPLY.

The Royal Albert Hall, Kensington Gore, was suggested by the Prince Consort. Its huge amphitheatre measures 273 ft. in length, 240 ft. in breadth, and 155 ft. in height, its designer being Lt.-Col. Scott, R.E., who was assisted by an architect, Thomas Verity, who afterwards erected "The Criterion" in Piccadilly-circus. The Albert Hall was built by a joint stock company and cost £200,000. The structure consists of two concentric walls between which are corridors and staircases planned on an oval layout, the interior dimensions being 219 ft. 4 in. and 185 ft. 4 in. respectively. The roof consists of light wrought-iron work with a flanged curb resting on the top of the wall, 120 ft. high from Kensington-road level. Iron shoes bolted on this curb furnish the springers from whence the curbed ribs spring. The curved principals are capable of carrying their own weight together with the weight of seven rows of purlins set between them, as well as the rafters and the ceiling. The thrust bearing on the main ribs is taken by the main wall plate, and the strains of these ribs are adjusted by means of wedges between the wall plate and the foot of each rib by the slackening or tightening of which the whole of the thrust is brought upon these curved ties resting on the wall. The top flange of the rib, acting as an arch, communicates the strains produced under every variety of loading, pressure of wind and snow. The exterior of the edifice is faced with brick and terra-cotta. The rotunda is enriched above by a noble figure frieze, carried out by Minton, depicting the various peoples of the globe. These groups were designed by Pickersgill, Armitage, Stacey Marks and Edward Poynter, subsequently President of the Royal Academy. The large porches on each side add effective shadows and colour to the vast pile, to which they furnish scale and contribute the grandiose character to the composition which otherwise is not very beautiful. The organ is by Willis, and the auditorium seats 8,000 persons. The building was executed between 1867 and 1871.

Concrete Members Subject to Combined Stress.

SIR,—I have been studying Dr. Oscar Faber's articles in your issues of January 5 to 19, 1923, on reinforced concrete members subject to combined stress, and there is one point on which I should be glad if you could enlighten me. In the case of combined bending and thrust (Case I), the moment of inertia is calculated about the centroid of the section; but in Case II as the lever arm is given as $d\frac{N}{3}$. The resistance of the member is calculated about the neutral axis. Am I correct in this assumption? And if so, can you explain the apparent discrepancy?

Norbury. EDGAR BUNCE.

[REPLY.]

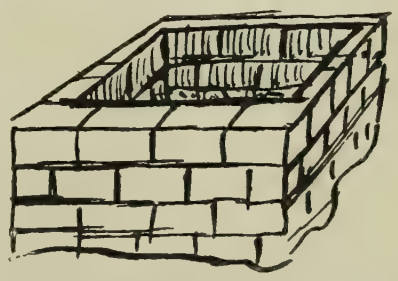
Mr. Bunce is quite correct in stating that the moment of inertia is calculated about the centroid of the section, but in Case II the lever arm, sometimes called the radius arm, is given as $d\frac{N}{3}$. There is, however, nothing whatever inconsistent about this. The moment of inertia varies according to the line about which it is calculated, but the resistance moment of a member is independent of the line about which it is calculated and consists merely of the total compression or the total tension multiplied by the distance from the centre of compression to the centre of tension. It will be seen that both these quantities are entirely independent of any particular line or position to the centroid or neutral axis, and depend solely on the distance from the centre of compression to the centre of tension.

May I take this opportunity of correcting example 2, under "Bending and Compression," in your issue of January 19, 1923? The curves, tables and mathematics are prefectly correct, but, unfortunately, a slip occurred in the solution of this particular example. $\frac{P}{bd}$ taken from the curves should be 270 instead of 85. The effect is to make the breadth 3.7 in. and the area of steel rods in proportion. I may add that nothing else in the article is in the slightest degree affected by this slip, but I thought it well to make the correction in case anybody should be puzzled by the original error.

OSCAR FABER.

Chimney Flues.

SIR,—Could you tell me the actual average prices per foot cube or yard cube quoted by the contractors for building a chimney flue of ordinary bricks, like this—



I wish to know this price in order to see if it would be possible to introduce in England a new system of chimneys, already known in other countries. H. BOLLIGER.

[REPLY.]

Our correspondent's sketch is not quite clear to us, but we take it to represent an ordinary chimney flue 9 in. by 9 in., or 14 in. by 9 in., or perhaps 14 in. by 14 in. Such flues are generally measured and estimated for as though in solid brickwork, without deduction for the cavity. The extra labour of building quoins and gathering over is thus compensated for by the extra material allowed.

Brickwork at £30 per rod works out at about 13s. 3d. per yard super at 9 in. thick, or £2 13s. per yard cube. This would include the flue and the surrounding brickwork.

TOWN-PLANNING INSTITUTE.

Mr. Mawson (President) took the chair at a meeting of the Town-Planning Institute held recently at 92, Victoria-street, when further discussion took place on the subject of "Streets" (as defined in the Model Town-Planning Clauses issued by the Ministry of Health). A summary of Mr. E. R. Abbott's paper for the discussion at the first meeting appeared in *The Builder* of December 28 last.

Mr. F. C. Minshull (Chief Assistant Solicitor to the Birmingham Corporation) contributed a second paper and said he agreed with the view expressed that town planning was primarily and strictly concerned with arterial routes only where these approached, crossed or affected the development of existing human communities. He was not one who thought it impossible for town planning to be too ambitious in its scope. The speaker first gave a summary of the historical development of the legal formulæ annexed to the map which, he said, even the most enthusiastic legal non-member reluctantly conceded to be necessary. He dealt with the several Birmingham schemes, the Ruislip-Northwood, Rochdale, North Bromsgrove, Otley, Hunslet, Leeds and Wallasey schemes, and said the Model Clauses followed as to streets along the general lines first laid down in the Ruislip-Northwood scheme, supplemented by the limitation of expenses to the cost of street works not exceeding a by-law width.

The difference between the Ruislip-Northwood scheme and the Model Clauses were dealt with by Mr. Abbott. The right of entry upon notice was conferred by Model Clause 6, but it was not so useful a right as might appear at first sight, for they could not touch a single forecourt of a dwelling-house except by agreement, because it was required for the "amenity or convenience" of the building within the terms of the section. Some Councils were specially enabled to prescribe frontage lines with power to acquire compulsorily unbuilt-on-land lying in front of such lines. It would be seen that in the absence of some provision of this kind too much optimism must not be displayed in anticipating the unimpeded construction of new streets or widenings under town-planning schemes through lands which had ceased to be merely agricultural. Clause 9 involved some consideration of the effect of Section 58 in the matter of compensation. Unless there was some express prohibition of building upon lands appropriated for one of the purposes of a scheme he did not see how such building could be regarded as a contravention within the meaning of Section 57 of the Act of 1909. The other street clause, upon which he especially wished to invite comment, was Clause 2. A clause of this kind was to be found in nearly all the existing schemes, often expressly in addition to the powers conferred by Section 17 of the Public Health Acts Amendment Act of 1907. But when they considered the clause it conferred a formidable power: "Whenever a plan for a new street is submitted the Council shall" (not may) require the "owner of any land within that part of the area, the development of which, in their opinion, will be affected, to furnish plans and particulars showing generally a scheme for the development or laying-out of the land." Why should such owner be put to the expense of preparing plans and consulting experts? The new street might not even be constructed. He would like to make some observations on a new type of clause not included in the Models. It was one included in a scheme before the Minister for approval, which sought to avoid the Scylla of uncertainty on one side for the Charybdis of inelasticity on the other. It followed the lines of a section in a Liverpool local Act, and was designed to enable the provision of traffic streets as and where their need might appear. First, the responsible authority was empowered, with the approval of the Minister of Health, to make an Order determining to construct a traffic street on any land within the area. Traffic street was defined as "A main thoroughfare or a continuation of a main thoroughfare, or a means of communication between main thoroughfares, or a main approach or a continuation of a main approach or a means of communication between main approaches." The owners of the lands concerned were, upon the expiring of the prescribed notice, to give access thereto to enable any surveying and measuring necessary in the preparation of plans. Before applying for approval of the Order the authority was to give notice and plans to the owners concerned, as well as notice by public advertisement. Secondly, the effect of the Order (into which the Minister was to introduce such modifications as he might think fit) was to cause the traffic street to which it related to be deemed to be included in the scheme as a new street, the claim for compensation, of course, to be made within a year from the expiration of the notice requiring entry for the purposes of street construction. The clause provided, as it were, for the making of a little scheme upon a scheme; and it was a course of procedure which, if so regulated as not unduly to entrench upon public confidence, might do much in the future to enable schemes to adapt themselves to changing developments, which could not be foreseen, and in directions too slight to call for the heavy artillery of a supplemental or amending scheme. Mr. Minshull touched on other clauses, including 10 (7) as to the construction of streets by owners, in regard to which the appeal is to the Minister. He did not question the excellence of such a tribunal, but many landowners and other interested parties regarded an appeal to the Town-Planning Department as an appeal to the executioner rather than to the judge. And there was some ground for the argument in favour of the local Bench who, however, far from being town-planning experts, at any rate, knew the town and were of like passions with the townsmen. To ensure the success of town planning it was a truism that the spirit of co-operation and sweet reasonableness must prevail. Much of the difficulty as to adaptation, however, beyond doubt arose through a tendency to town plan in the dark—to develop details beyond the point to which prophecy based on present development could safely go. If this natural temptation was repressed in time the advantage should surely be found in economy both in money and the vital energies of surveyors and town clerks. They must not make the mistake of over-reaching testators who endeavoured to keep the dead hand upon their posterity for all time.

Mr. E. Willis (Surveyor, Chiswick U.D.C.) urged the impossibility of defining a standard street, although it might be possible to define a number of standard streets. The first thing to do was to define the standard traffic, and the standard he had always advocated (and which to some extent had been supported by the Ministry of Transport) a traffic unit of 10 ft. for roads where the traffic was essentially of a main or arterial road character, 9 ft. for a Class 2 road, and 8 ft. for an ordinary street or local road. They should never go below the 8 ft. unit. The difficulty of the standard street was increased by the question of construction and it could be overcome only by taking certain areas, for what was suitable for one area was not suitable for another. With regard to sterilising land, he saw no reason why Mr. Marshall should be concerned, because in his own case permanent buildings were not allowed on such land, but temporary buildings were allowed subject to removal without compensation.

Mr. S. A. Kelly (Liverpool), in a written communication, expressed the view that in regard to new arterial roads, the owner should be responsible for the cost of a 36 or 40 ft. street, according to the by-laws in force. The payment for this should be imposed as a frontage charge when the adjoining land was developed or sold or leased for building or other purposes, and any extra width of land required should be sold at its unimproved value. This was for large owners, and small owners must of necessity be dealt with on a different basis, as in many cases they would be left with very little land to develop. The owner should only be charged with the cost of an ordinary constructed road.

Mr. G. L. Pepler said it was quite clear that the making of a scheme put a restriction on the land, and any claim for compensation must be made within twelve months, and consequently when the land was taken it would be taken at its value subject to the restrictions the scheme put upon it. The object in introducing the standard street was simply to meet the question of charge. The owner would be called upon to pay for a street of the standard in the district which he was ordinarily called upon to pay for and nothing more.

Mr. Lovelock (Carshalton) commented on the narrowness of streets in some of the schemes, and said he foresaw the time when in the estate in his district some of them would have to be widened. Taken as a whole, he thought the Model Clauses would be very helpful, particularly in regard to the laying of sewers.

Mr. Raymond Unwin agreed with Mr. Pepler as to the meaning of the standard street. It was impossible to have a common standard, and therefore they must in each district take the local standard as the basis for assessment. He agreed with Mr. Willis as to the necessity for different widths of streets for different classes of traffic, and they would come then as to whether there should be any regulations of the width of vehicles. No doubt in the enthusiasm of economy in some housing schemes roads of too narrow a width had been made, but on the whole there had been remarkably few complaints.

Mr. J. M. Jopling said he was in favour of making the roadway as narrow as possible, but it was important to make the side-walks as broad as possible. In Paris and other Continental cities, where people lived in flats, they spent a lot of their life in the streets and the side-walks were broad. He noticed on coming back to England that the habits of the people were changing in this respect, for the side-walks in London were not wide enough. In Bombay, broad roads were made with narrow side walks, and the people used the roadway. On coming back to England after years of absence, he was surprised at the absence of knowledge and interest in town planning by the average Englishman.

Mr. H. V. Lanchester agreed with the traffic units put forward by Mr. Willis. He also raised the point of whether a local authority, making an arterial road under a Ministry of Transport grant, could take enough land on either side of the road to create decent building frontages.

Mr. Reay Nadin said that in many parts of the country, where arterial roads had been made, there had been reserved sufficient land for building frontages, so that the local authorities might recoup themselves for the large outlay they had gone to in conjunction with the Minister of Transport. The condition precedent was that some portion of the land taken must be for the making of the road. He would like to draw attention to a clause now before the Minister and the Association of Municipal Corporations, dealing with the question of the acquisition and sterilisation of land and the subject of compensation. The clause enabled a local authority, when an application was made to it for approval of the formation on any estate or lands of a new street, or widening, which, in its opinion, would form a new thoroughfare or means of communication between main thoroughfares, to require a width not exceeding 80 ft. The owner, however, would not be called upon to incur any greater expense in the execution of the street works than he would have been required to do under the by-laws in force, and the additional expense involved in making the street of a greater width would fall on the local authority. Compensation would be assessed in the manner provided by the Acquisition of Land (Assessment of Compensation) Act, 1919, but in estimating the amount of compensation, the benefits accruing to the owner by reason of the greater width of the road should be estimated and set against the compensation.

AEROPLANE PHOTOGRAPHIC SURVEY.

At an ordinary general meeting of the Surveyors' Institution recently, Major M. Macleod read a paper on this subject. In the course of his remarks he said the process of survey might be divided roughly into two parts, the first consisted of the fixing, by instrumental observation and subsequent computation, of the positions of a certain number of selected points, and the second the drawing in of the detail between these points. Topographical surveys were really nothing more than sketches of the ground made by eye. Points for control were required only because hand and eye working together could not accurately copy the ground except over short distance. Even the most skilled workman had to fix for himself, with the aid of instruments, a very large number of points, and had to spend a long time on the ground, both for his actual drawing and for moving about over it. During all this time he was liable to be interrupted by weather or delayed by obstacles.

The attraction of the camera as an instrument of survey laid in its power to make an accurate picture of a comparatively large area, without the aid of an elaborate control of previously fixed points, in a very short time. More than fifty years had elapsed since the first attempts were made to exploit its possibilities for this purpose, but until the advent of aeroplanes its successful use had been mainly as a means of replacing theodolites and other instruments for measuring angles and fixing points. Attempts were made to employ it from balloons, for making a direct picture, by pointing it perpendicularly towards the ground to be surveyed, but the difficulty in getting a balloon exactly over a particular spot was so great that practical success in these endeavours was small. As soon, however, as the perfection of aircraft allowed the camera to be transported to a position vertically above any region, survey by what might be called "direct" photography became a practical proposition. The development of aeroplane photographic survey might be said to have commenced in earnest during the Great War, when military surveyors had to apply themselves to the difficult task of making accurate large-scale maps of intricate trench systems.

The stabilisation of so large a thing as an aerial camera by gyroscopes or other devices depending on force was a difficult matter, and might be ruled out, but Professor Melvill Jones had shown that, by training pilots and by using a gyro rudder control, it was possible to stabilise the machine within quite small limits. If this could be done and the machine could be flown at a uniform height, the photos taken could be fitted together so as to form a "mosaic" whose scale could be determined with very fair accuracy from only two points which appeared on it. Practically, slight variations of height would occur during the flight, and these "mosaics" required a certain amount of "adjustment" in addition to the simple enlargement or reduction required to bring them to a particular scale. The photos had to be taken during a straight flight, and the prints when fitted together formed a strip which consisted of a dozen or more photos. Professor Melvill Jones had found that the most convenient way of making the adjustments necessary was to stick each print separately on to a long piece of elastic which was slightly stretched before they were attached. The prints were, in the first instance, enlarged or reduced as nearly as possible to the correct scale, and each was fitted as exactly as possible to the one next to it by means of any overlap there might be. The final adjustment was made by slightly easing or further stretching of the elastic. A complete map could be made up by series of parallel strips having a small overlap with one another. This was probably the cheapest, quickest and simplest method of covering an area, and was suitable for comparatively small-scale work where great accuracy was not essential and where the ground was not greatly accidented.

In the other direction the Air Ministry was working on a gyro tilt-recorder which was quite small and seemed to hold out good prospects of success.

From the economic point of view the expensive part of an aerial survey was the cost of keeping a machine in the air. It was of the first importance to be able to photograph the whole area in the shortest possible time. The taking of the photographs must be organised so that each flight completed a definite area without unnecessary overlaps and without gaps.

Gaps were particularly troublesome, as it was difficult to locate them without a map on a subsequent flight, and it was said to be actually quicker to re-photograph a whole area than to attempt to fill in two or three small gaps in a previous series of photographs. Now, if the camera was not stablised at all, it was obvious that gaps were much more likely to occur than if the direction in which the camera was pointed was controlled. From this point of view the stabilised machine had the advantage. Up to the present, however, they had neither perfectly stabilised machines nor perfect tilt-recorders. For every class of accurate work an indispensable preliminary to any aerial survey was a framework of control-points, fixed and marked on the ground by the surveyor on foot.

The problems of aerial photographic survey, then, resolved themselves into two different categories—

(1) The nature and extent of the control and how to provide it; (2) how best to use the control-points for eliminating tilt and other distortion from the photographs.

A trigonometrical control executed on the ground was desirable, in fact, necessary for any form of survey. For accurate, as opposed to reconnaissance, work it was essential. Aerial survey was no exception, but the points usually fixed by an ordinary trigonometrical survey would most probably be unsuitable for aerial work. Peaks of hills, beacons, tall chimneys, church spires, and similar features, conspicuous and unmistakable to a man on foot, were often impossible to identify with certainty on an aerial photograph.

On the assumption that accurate survey was contemplated and that an adequate control could be provided, the lecturer passed on to a brief outline of the various methods which had been used or suggested for making use of it. They might be divided into three classes:—

(1) Graphic methods; (2) Rectification methods; (3) stereophotogrammetry.

In graphic methods the photo was usually replotted point by point by means of some form of "grid." This grid was first drawn on the map in a definite relation to the control-points, and a corresponding grid, distorted according to the tilt, was drawn on the photographs by some kind of geometric construction, based on the principles of perspective. By making the "mesh" of this grid sufficiently small, the position of any point could be interpolated on the map from its relation to the grid on the photo.

"Rectification" methods depended on the use of a projecting lantern or some analogous device for projecting an image of the fie negative on to an adjustable screen. The control-points, four in number for each photograph, were plotted on the screen, and camera and screen were adjusted until the corresponding points on the image projected into these positions. This adjustment could be done by trial provided the projecting lantern was so designed as to give the various parts the requisite range of movement. It was, however, rather troublesome, especially if the tilt were considerable, as it involved correlated movements of the negative, and the lens as well as the screen. The difficulties were due largely to the fact that the dimensions of the image had to be varied not only by the direct longitudinal movement required for ordinary enlarging but also by tilting the screen. This upset the focus, which must be corrected by tilting lens and negative. This in its turn again altered the dimensions of the image, and so on. The adjustment would be considerably easier if the process of taking the photo could be simply reversed; if they could, as it were, take the aerial camera out of the aeroplane, put a light behind it, and use it as a projecting camera. It was, however, focussed for infinity, and they required an image on a screen a few feet away from the lens. Some systems of map-making did, in fact, employ essentially this system, and relied on stopping down the lens to sharpen the image, but he felt fairly confident that the results could not be completely satisfactory. In any case the adjustment by trial became very complicated if the control-points were of different heights, and in his opinion it was better to determine scale and tilt by a preliminary process and use these elements for calculating the positions for the various parts of the projecting lantern.

There were several ways of determining scale and tilt, either by graphic constructions or by computations based on linear measurements made on the negative. All these, again, were troublesome and complicated if the control-points were of different heights, yet it was precisely under such conditions that "rectification" was likely to be most useful.

Those who were interested in the details of a purely mechanical solution by means of a piece of specially designed apparatus called a "tilt-finder," would find a description of it in a recent number of the journal of the Royal Geographical Society. Having determined tilt and scale, the positions in which to set the various parts of the projecting lantern, so as to give a print in sharp focus, to a given scale, and from which tilt distortion had been eliminated, could be calculated from fairly simple equations. This computation and the setting of the parts in position naturally took a certain time; but when complete, the whole photo was dealt with in a short exposure plus a few minutes for developing and fixing the print. There was undoubtedly a net gain in both speed and accuracy as compared with the tedious processes required in plotting a photo point by point by any graphic method. If one compared the two, one might say that rectification methods were preferable when the map had to be prepared *ab initio*, and that graphic methods were often convenient for adding information required to bring an existing map up to date.

Stereophotogrammetry, the third alternative, had been developed recently in Germany with a remarkable degree of practical success. Starting from the principle of the "stereoplotter" (invented by the late Major F. V. Thompson, R.E.), Professor Hugershoff, of Dresden University, had devised a machine called an "autocartograph," which enabled a map to be drawn from two oblique aerial photographs of the same area taken from view-points sufficiently close together to enable the two to be combined as a stereoscopic pair.

It was necessary, as a preliminary step, to determine the positions and heights of the two view-points and the direction of the optical axis of the camera at each. This could be done by a preliminary computation if three control-points appeared on each photograph.

From this data the machine could be set in adjustment and the stereoscopic view transferred quite mechanically on to a map or plotting-board. The method of operating was generally similar to that employed by Major Thompson and also in the "stereoautograph" of Von Orel. That was to say, a "mark" or "pointer" appeared in the field of view, and could be made to coincide both laterally and in depth with any desired point in the landscape, which was seen "in relief."

In conclusion, the lecturer said, although the aerial photograph had great possibilities, he thought it evident it had many limitations as a means of survey.

APPROXIMATE ESTIMATES.

In our last issue we reported two papers read at the Surveyors' Institution by Mr. A. Paull and Mr. J. J. Done, on "Approximate Estimates," and a report of the discussion on these papers is given below.

Mr. F. H. A. Hardcastle said the method of cubing up held the field. It was a rough method of calculation, but in the hands of a man of experience and judgment a tolerably close forecast could be made. He saw that a dictionary definition of "approximate" was "reasonably correct." He rather hoped that some more accurate and reliable method of arriving at approximate estimates might be arrived at.

Mr. A. Burnett Brown, in seconding, said his own view of approximate estimates was that they were those which were not based upon a full and proper bill of quantities prepared by a quantity surveyor. Broadly, he would venture the assertion that competence in the very difficult art of forming approximate estimates of a fairly accurate character could only be acquired by long experience, close observation, and accurate deduction. He advised the younger members in framing approximate estimates never to be afraid of overestimating.

Mr. Dryland Haslam contended that in the development of an estate it ought to be compulsory that the tithe as well as the land tax should be redeemed.

Mr. Cuthbert Lake said there was only one piece of advice to give to junior members about approximate estimates in valuation work as distinct from building work, and that was "Don't." His knowledge of approximate estimates warned him against the judgment of anyone who depended upon them. No one would pay for approximate estimates.

Mr. J. E. Drower said that was the first time, as far as he could understand, that they had ever had a paper which dealt purely with the techniques of quantity surveying. He did not quite understand what other word they could use, but "approximate" estimate, and, as they had it, he thought they had better keep it. They all knew what was meant by an approximate estimate. Anybody could take out the quantities roughly, but who could price? Someone had spoken of the intuition people had in pricing. It was an intuition with many people, and an intuition which could not be explained. It was certain there was a strange intuition which enabled them to deal with figures with great accuracy.

Mr. Christopher Chart agreed with Mr. Alan Paull that cubeing held the field as the most general method of estimating the cost of building work. Within the past month he had seen tenders for two new housing schemes, and the difference in the price per foot cube of the two sets of houses varied as much as 1½d. In the one case the houses were to be built in blocks and in the other case very much smaller houses were to be built in pairs.

Mr. A. G. Cross remarked that many members of the Institution worked at the Ministry of Munitions in regard to the provision of munition factories. They stated the number of squares in the area and based cost upon so much a square. That, on approximate quantities, he thought far and away the best method of obtaining an approximate estimate.

Mr. A. E. Baylis expressed the opinion that cubeing was the most common, but the least satisfactory method of arriving at an approximate estimate. He had in mind housing schemes where the cost came out too much. The architect replanned the cottages and actually lessened the cost; he showed the original plan to the builder, who said, "Oh, yes, take it on the cube." But the builder was not going to be paid on the cube; he was going to be measured up and paid on his schedule. Instead of the cottages being, as the architect anticipated, £50 less they came out at £50 more. Although the architect knocked off £50 worth of work on each cottage, the actual work increased the value £50.

Mr. William Woodward remarked that he had said over and over again that there was no such thing as giving a client a rough idea of what a building was going to cost, and the most fallacious way, to his mind, of arriving at the probable cost of a house was by the foot cube, unless the building they were going to erect was precisely like one they had already erected, and unless the labour was the same. Supposing in the intervening period the ca' canny method arose to lay not 400 bricks per day but 20 (laughter). Young architects could not do it, but as they got older they could tell their clients distinctly, "If you want a rough idea, a real idea, of what this building is going to cost, you must employ a quantity surveyor to take out quantities. You must pay for that. In the event of your saying you cannot afford to put up the building you have to pay for those quantities."

The vote of thanks was heartily accorded, and was briefly acknowledged by Mr. Paull and Mr. Done.

THE WEEK IN PARLIAMENT.

Westminster, *Wednesday.*

Housing.

Sir Kingsley Wood, in advocating a spirit of co-operation, pointed out that during last year 77,000 houses were built, which was more than the annual average for the last ten years before the war. That was not a bad start. This year the Director-General of Housing had stated that 105,000 houses would be built. Referring to the Prime Minister's statement that the Government were going to build houses for £500 and let them at 9s. a week, he said that from inquiries he found that the recent tender price in London was £625 per house. A £500 house, with from eight to ten houses to the acre, would require 25 per cent. of that sum for roads and drainage, and, therefore, these houses would have to be erected at less than £400 each. He refuted the suggestion that the cost of land sent up the price of building. If the Prime Minister was going to continue the policy of subsidies he had some dangerous enemies. Directly the subsidy policy was embarked on under the Addison scheme, prices rose almost in a night from £350 to £800 or £1,000, and he could not see how, with millions dangled before both employers and employed, they were to escape sky-scraping prices. As to dilution, an agreement on that question ought to have been come to long ago, and no trade had a right to take up a selfish attitude. The building operatives were asked to build houses, not for people in Park-lane, but for their fellow workmen.

Mr. P. Harris, a Liberal, suggested that the only way to solve the problem was to put forward a seven years' programme, and Mr. George Edwards, from the Labour benches, expressed profound disappointment at the Government proposals from the rural point of view. Mr. Ayles, another Labour member, alleged that the price of bricks rose from 65s. to 72s. 6d. a thousand directly it became known that a Labour Government was coming into office and was going to tackle the problem in a determined way.

Mr. Clynes, the Lord Privy Seal, defended the Government's proposals. Lieut.-Col. Fremantle, a Unionist, and former Chairman of the L.C.C. Housing Committee, while agreeing with any steps which might be taken to prevent trusts and rings, pointed out that profiteering was not all on one side. The Government should consider the question of output as well as that of profit.

Asked by Mr. D. G. Somerville if, in view of the promotion of employment, he would inquire into the various trade union regulations governing the number of apprentices who might be trained, and whether he had any information that the existing regulations prevented the extended technical training of the young, Mr. Shaw said that the cases in which the proportion of apprentices allowed was definitely laid down by trade union rules or by agreements between trade unions and employers' associations were not numerous. The matter was largely governed by unwritten practice, and an inquiry into this would be laborious and not likely to produce useful results. He had no reason to suppose that trade union rules as to the number of apprentices prevented the extended technical training of the young, and he might add that in one case in which the small number of apprentices was at present a source of serious difficulty, viz., in the building trade, the actual number according to his information was below that recognised by both employers' and workers' organisations as adequate to the needs of the trade.

The Subsidy.

Mr. Wheatley informed Mr. Raynes that in cases in which he was satisfied that builders, on the faith of assurances given by or on behalf of local authorities, had proceeded with building in anticipation of the approval of the local authorities' scheme for assisting grivate enterprise the equivalent of the Government grant under the Housing Act would be paid in respect of houses which would otherwise be eligible for assistance.

BOOK REVIEW.

Manual of Information on City Planning and Zoning. By Thedora Kimball. (Harvard University Press. 1923). Price 16s. net.

No one is likely to realise more than the librarian the need that undoubtedly exists for the classification of information on the subject of town planning, and, as librarian to the school of Landscape Architecture, Harvard University, and Hon. Librarian, American City Planning Institute, no one is better able to give this in concise form than Miss Thedora Kimball. Her work in all fields of city planning is well known in the States, and this useful manual is but another proof of her deep interest in the subject.

In the introductory chapter on the principles and procedure of town planning she emphasises the need of outside expert advice in the development of the city plan—"The problems of a city are so complicated that the local city planning commission can hardly be expected to arrive at comprehensive solutions unless it employs outside assistance." The city planning commission having been appointed, and having begun its work with the aid of technical advice, the next step, as Miss Kimball points out, is to inform the public thoroughly concerning the value of city planning and what it can do for the development of the city. Valuable suggestions on conducting publicity campaigns are given, "no group of citizens and no section of the locality should be overlooked." "Citizens and taxpayers alike have something to gain from the adoption of a comprehensive city plan, and every one of them, however obscure or modest, is worth reaching." Securing newspaper aid, enlisting support of local clubs, enrolling business organisations, convincing municipal officials, educating future citizens, are a few of the suggestions put forward under this heading. Town councils and Regional committees in this country have much to learn from American town planning work, and from Miss Kimball's book.

The greater part of the book is, of necessity, a catalogue of the bibliography on the subject and it must come as a surprise to many that in the comparatively short time town planning has been a science, so vast an amount of literature has been written on the subject.

Many pages of the book will, no doubt, be of great use to American citizens and town planners on the services performed by the various departments dealing with housing and building; there is also included an interesting chapter on city planning progress in the United States and other countries. In short, Miss Kimball has contributed an "enquire within" on everything relating to city planning in the United States and unlike most "enquire withins" appears to have omitted nothing.

THE BUILDING TRADE.

TRADE UNIONS AND EMPLOYMENT.

In these days of rivalry between trade unions a further complication has arisen in connection with employment, and a recent decision in the case Reynolds *v.* Shipping Federation (1924, 1 Ch. 28) is of interest. In the judgment in that case the following passage occurs: "For many years past no one has questioned the right of a trade union to insist, if they are strong enough to do so, under penalty of a strike, that an employer or group of employers shall employ none but members of the trade union."

Trade unionists have fought for that principle for years and as the above passage shows it has generally been accepted, as we think, mainly on the ground that there are advantages to both sides in collective bargaining. But of late years unions relating to the same trade have multiplied and there are more than one union representing men in similar employment, and an example of this was before the public eye recently in the case of the National Union of Railwaymen and the Associated Society of Locomotive Engineers and Firemen, although there are many other examples. The question therefore arises: what is the position of the employer as regards men who belong to different unions relating to the same character of employment?

The facts in the above case are somewhat complicated, and we will briefly indicate them as they bear upon this question, but it is necessary first to take from the judgment a short history as to how the position arose. In 1917, during the war, the Ministry of Shipping set up an organisation for the purpose of enabling shipowners to obtain crews without difficulty, of removing causes of friction and of enabling questions between employer and employed to be settled promptly and effectively. On this organisation, the National Maritime Board, apparently all interests were represented—the shipowners by the Shipping Federation; the masters by three societies; the marine engineers by two societies; the navigating officers by three societies; the sailors and firemen by the National Union; and the stewards by a union of their own; and the independent chairman was the Parliamentary Secretary of the Ministry of Shipping. This Board appears to have succeeded admirably and it inaugurated a successful scheme embodying for the first time in that industry collective bargaining. After the termination of the war the Ministry withdrew, but in view of the advantages that had resulted both the Ministry of Reconstruction and the Ministry of Labour urged the shipowners to keep the Board in existence and in 1920 it was reconstituted, and without entering into detail it appears that all interests were again represented much as before and that the organisation worked smoothly down to the present time.

But in 1921 the seed of trouble was sown in a manner very instructive in connection with the recent dispute on the railways. In that year a question arose in connection with a demand by the employers for a reduction of wages, and after some negotiation this was settled by all the bodies concerned with the exception of the Stewards' Union, the members of which struck. After the termination of the strike this union withdrew from the National Maritime Board and in 1922 a new union was formed called the Amalgamated Union, by the amalgamation of the Stewards' Union with a small union at Southampton called the British Seafarers' Union. Whether this latter body had at any time been represented on the Board is not stated in the Report, but the Amalgamated Union, after that date, was in rivalry with the National Union and never became a member of the Board, and never officially recognised its decisions. With the institution of this separate union we now come to the point directly raised in the case. The Shipping Federation seeing that if any considerable number of the men employed belonged to the Amalgamated Union they would not be bound by any decision of the National Maritime Board, and collective bargaining would be at an end, made an arrangement that the supply of men should be made through the National Union and that for this purpose every man engaged should produce a card stamped by the National Union. It does not appear that every man should necessarily be a member of that union, but it was assumed only men should be sent who would be bound through their representatives by the decisions of the National Maritime Board.

The plaintiff in this action had at one time been a member of the National Union, but had some time back ceased to contribute to it, and in February, 1923, had become a member of the Amalgamated Union. His employment was a greaser in the engine room. This man had applied to the second engineer of a ship lying in the London Docks for employment, and the second engineer, who had had experience of him as a reliable man, told him to attend the next day to pass the doctor and sign on. When he so attended the delegate of the National Union employed at the docks for the purpose of seeing that the arrangement mentioned above was observed raised the objection that he had not the card required issued by the National Union. He was offered the opportunity of rejoining the National Union or rejoining on paying up arrears and thus obtaining a card, but he declined to do so and the second engineer thereupon declined to take any further steps to engage him. The plaintiff brought this action against the Shipping Federation, the National Union and their President, and the port delegate, alleging that the acts and conduct of the defendants constituted an unlawful conspiracy to prevent him from obtaining employment in any ship under the control of the Shipping Federation, and claiming a declaration that he was entitled to employment on any ship without being a member of the National Union or possessing the card in question.

There were other points in the case, but this is the issue we are concerned with. The Court distinguished the cases Temperton *v.* Russell (1893, 1 Q.B. 715), and Quinn *v.* Leatham (1901, A.C. 25), on the ground that the agreement or combination here was not against a particular individual, but merely operated to exclude such individuals as might not from time to time satisfy a qualification which was within the reach of anyone who desired employment; the exclusion was against a class, and that a class to which anyone at any time might cease to belong; and the motive was not a malicious desire to inflict loss on any individual, or class of individuals, but only a desire to advance the business interests of employer and employed alike by securing or maintaining those advantages of collective bargaining or control which had been experienced since the institution of the National Maritime Board, and in this respect the case came within the principle laid down in the Mogul Steamship Case (1892, A.C. 25).

In the judgment occurs the passage we set out at the beginning of this article, that it has long been recognised that a trade union can insist that an employer shall employ none but members of a trade union, and the judgment proceeded to point out that the result of any such effective combination of workmen has been to impose on other workmen the necessity of joining the union as a condition of obtaining employment, and that in this case all that the employers had done was voluntarily to adopt the system which could have been enforced upon them of employing only men belonging to the trade union, and that the incidental result to other workmen in the trade was the same as if the employers had yielded against their will to accept the trade union practice. In other words, the Court held what was sauce for the goose was sauce for the gander.

It must be noted that it was held in this case that there was no malicious or capricious intention by the agreement to injure an individual or a class, the agreement being made solely to advance business interests as in the Mogul Steamship case (*ubi sup*), and it also falls within the principle laid down by the House of Lords in Allen *v.* Flood, that every workman has the right to exercise his option as to whom he will work with. That case and Quinn *v.* Leatham will be found discussed in *The Builder*, April 4, 1913. The importance of the case is that it applies this doctrine as reversed in the case of employers and explains what may be their position where without malicious intent but to further the interests of trade they may be confronted with the claims of rival unions.

At the present time there is a tendency among trade unionists if they dissent from the advice given by their leaders, or if they in a minority disagree with an award made by a tribunal before which they have been represented, but which is not binding in law, to withdraw from that union and form another which will represent their independent views, and such action must place employers in a position of great difficulty. If they continue to take men from the union from which the men in a minority have seceded, difficulty may occur with the union formed by the minority (the case of Allen *v.* Flood only turned upon a dispute between two unions, the Boilermakers objecting to work with the Shipwrights), and the multiplicity of unions must injure trade and inflict loss on both employer and employed; it also strikes at the root of the main principle of trade unionism—collective bargaining. This is a matter deserving the most serious attention of the Trade Union Congress and the present decision serves to show that what is considered reasonable action on the part of the men in selecting with whom they will work applies equally to the action of employers as to whom they will employ, but the action of both bodies has to be kept within reasonable limits. Conspiring, malicious action, the victimisation of individuals or classes, is not tolerated on either side.

DILUTION IN THE BUILDING TRADE.

In the course of a letter to the *Times*, on this subject, Mr. John Coleridge, F.R.I.B.A., states: "There is one method of solving the question of dilution of labour and apprenticeship in the building trade, which go together, that has not, so far as I am aware, been suggested.

"The first difficulty is to get the masters to apprentice grown men, because they want something to live on during their apprenticeship. I venture to suggest that during an apprenticeship of, say, two years, the present amount of the dole should be paid to the master on the production of his apprentice's receipt for his week's pay of an equal amount or more. This would ensure that a man did his work and got his pay, and it would no longer be a dole for doing nothing, but an honourable subsistence allowance while learning his trade. It could be worked through the Labour Exchanges with little trouble.

"The unions will say it takes five years to make a bricklayer, but no person of sense who handled men during the war will believe it. They learned! It is not as if the standard of craftsmanship was universally high in the unions. I would set no limit to the age of an apprentice. Why should a man be debarred from learning a trade because he has more sense than a boy? The present tyranny of the building trade unions is ridiculous and contrary to public policy when houses are so badly needed, and the present Government will deserve badly of the great class of people who need homes and the great class of decent unemployed if they allow it to go on."

HOUSING AND RECENT LEGISLATION.

On February 7, Mr. T. P. Bennett lectured before the Northern Polytechnic Institute on this subject.

In the course of his remarks he said the subject of his paper was one which had given rise to an extraordinary amount of controversy, and dealt with problems which were hedged around with quite unusual difficulties. In the first place it was necessary to study the reasons which had necessitated legislation in connection with such a perfectly simple and straightforward subject as the building of houses. If every person were now paid, and had always been paid, wages which enabled them to support themselves in a satisfactory residence, there would be no need for discussion on housing or for special legislation.

The next section of their subject which needed consideration was the reason for the introduction of legislation. In the first place the constant migration of country people to the towns had outstripped the supply of houses to a surprising extent, and if means of cheap transport had not simultaneously developed their present position would be infinitely more serious than it was. Transport, however, was comparatively new, and it was only beginning to have an extensive influence on the solution of the housing problem. Legislation had also been attempted by groups of sociologists who had endeavoured, by various means, to improve the lay-out of their towns, to raise the standard of accommodation provided in their houses, and to find ways and means of replacing the assistance which was formerly given by the landowners in housing their employees. Finally, they got a great crop of legislative efforts coming directly from the artificial conditions created by the war, conditions which were partly the result of the complete cessation of building, partly the desire to help the returning members of their civilian armies, and partly a desire to create satisfactory and healthy conditions of living for the whole of the community.

The third, and most important, division of the subject was the consideration of the legislation which had actually taken place in recent years.

The first Act of Parliament which demanded attention was the Finance Act of 1909-10, usually referred to as the Lloyd George Act. This Act, as they were probably aware, gave rise to an enormous amount of controversy, and in 1922 was repealed. It was important that they should examine the object which it had in view, and the actual result of its passage into law, because it showed, on the one hand, that incomplete knowledge might lead to entirely fallacious reasoning, and, on the other hand, that results might accrue which were absolutely contrary to the intentions of the promoters.

The most surprising feature of the Act was the disastrous effect it had upon building. Before the Act was passed a large amount of housing development was taking place, principally through the agency of the speculative builder. Investigation which was subsequently made proved that the builder drew his profit more from the increased value of the land than from the houses erected thereon, so that as soon as a large part of the increased value of the land was taken away from him he was unable to build.

In 1909 the Town-Planning Act was passed. This was another Act dealing with housing which had been the subject of considerable criticism. Its main provision dealt with the restriction on the number of houses per acre of developed housing land, which was to be 8 for rural and 12 for uburban districts.

The Rent Restriction Act was undoubtedly a wartime necessity, but as time went on and building costs increased, the Rent Restriction Act stood still and created an entirely erroneous idea of the value of building or its relation to the cost of living. In 1920 building prices were over 2¼ times pre-war, while the Rent Restriction Act limited the increase of rent to 40 per cent. above pre-war. It was argued that, although the price of building had increased to this extent, the price of existing houses remained the same.

The cost of the work carried out under this Act was so great that, after being in operation for 18 months or so, the whole of the country realised that it must come to an end or we should be bankrupt.

They then experienced the drastic attempts of Sir Alfred Mond to arrest the scheme. Housing contracts were cancelled, attempts were made to re-sell land, grants were stopped, and, in short, an entire reversal of the previous policy took place. Building, in common with other prices, fell rapidly and continuously until the first few months of 1922 when something like stable conditions began to reappear. In 1923 the Rent Restriction Act was renewed, many of them thought to the detriment of housing development. Much of the fear expressed at the possibility of its removal was, he was certain, unfounded. The immediate effect of removal would not necessarily have meant a substantial increase in the rent of existing houses, and it would have created an enormous amount of confidence on the part of those whose business it was to develop housing.

The year 1923 also saw the introduction of still another Housing Act, and further provisions for the payment of subsidies or contributions upon the part of the Government to those who proposed erecting houses. This time the grants were made on a much more conservative basis, and local authorities were given power to make those grants under various headings, as follows:—

(*a*) A lump sum grant per house.

(*b*) An annual payment for a period of not more than twenty years to the person by whom the rates were payable.

(*c*) Periodical payments to a building society or other body or person (including the local authority) of a part of the amounts due in respect of interest and redemption charges on advances made for the building of a house or for the purchase of a new house, the building of which within the prescribed period was approved by the local authority.

He had been informed by the Ministry of Health that approval had been given under the 1923 Act for the erection of the following:—

33,782 houses by local authorities.
60,280 houses by private enterprise.

This seemed to him a surprisingly satisfactory result considering the short time during which the Act had been in operation, and he thought it was particularly advantageous to find that over 60,000 houses had already been erected by private enterprise.

Sir Charles Ruthen, the Director-General of Housing at the Ministry of Health, had stated that the houses authorised under the 1919 Act were now practically completed. The total number erected under that Act, and under the Housing (Additional Powers) Act of 1919, would reach approximately 220,000. During the year ended September 30, 1923, 77,630 houses were completed, of which 25,289 were built by local authorities and 25,350 by private enterprise; of the latter, 39,150 were houses not exceeding an annual rateable value of £26; 11,550 had a rateable value of between £26 and £52, and only 1,650 had a rateable value of between £52 and £78. The majority of the dwellings erected by private enterprise were "five-roomed" houses.

In referring to the great shortage of skilled labour in the building industry, Sir Charles Ruthen drew attention to the fact that the numerical strength of the operatives has decreased by 50,000 in the last 12 months.

These were the principal Acts which had become law, but it was extremely valuable to consider various suggestions for legislation which had been discussed from time to time.

The most important of those proposals was the Compulsory Enfranchisement of Leaseholds. As they were probably aware, the system of granting leaseholds which was so common in London and in many other districts in England, had frequently been the subject of attack, mainly because there appeared on the face of it to be a certain amount of injustice for one man to build a house and another man, at the end of the lease, to acquire possession of it without payment.

There were certain advantages of leaseholds which were more apparent to the independent observer than to a person with an active interest in property. For example, the examination of a number of cases proved that the state of repair of leasehold property was, on the whole, considerably above that of similar freehold property, particularly with regard to small houses. It also transpired that the granting of leases more or less ensured the rebuilding of property once every 120 years or so, so that there was a constant tendency to destroy obsolete and unsatisfactory houses and to replace them with modern houses suitable to the new environment and to the changing ideas of the public. The leasehold property was much more certain to be brought up to date than freehold property, and although this might be disadvantageous to certain individuals, it is undoubtedly beneficial to the community.

The next proposal, which was of long standing, and had recently been revived, was the taxation or rating of vacant building land. This had some sort of analogy with the proposals of the Lloyd George Act of 1909, which endeavoured to secure the increment value of building land for the supposed benefit of the community. It was open to the grave objections which had actually occurred in the previous case, and which eventually led to the repealing of the Act.

The recent legislation in connection with finance had, by creating a high Income Tax on unearned income, taxed ground rents much more heavily than any proposal to levy upon them a charge for the local rates, and in some cases 25 per cent., in other cases as much as 60 per cent., of the ground rent was now taken by the Exchequer.

A further proposal had been made that empty houses should be taxed or rated, with a view of inducing the owners to let. Here they were on ground which was extremely difficult because if, as some asserted, houses were purposely kept on the market in order that a high rent might be obtained, it was purely an incident in the progress of the housing problem. In pre-war days roughly 10 per cent. of the houses in the country were permanently vacant, and this was quite a big enough margin to keep rents constantly at the lowest possible figure.

It would be seen that since 1909 a large number of efforts had been made to solve the housing problem or to solve sections of it by means of legislation. One of the primary difficulties of the whole question was the fact that they were still living with the tradition of uneconomic rents created in the days when we were primarily an agricultural people.

The great ally of the town-planning scheme was the development of transport, and the solution of the housing problem was undoubtedly closely connected with this very important factor in modern life. Without transport they could not solve the housing problem.

In conclusion, Mr. Bennett said the study of legislation on housing was extremely involved, very extensive, and by no means easy. He had endeavoured to indicate briefly the directions in which past legislative efforts had been made, and to refer to their results. He sincerely hoped any future legislation would not be taken in hand without very full and complete consultation with those professional and business men who had had to deal with the problem of the erection of economic houses.

NATIONAL FEDERATION OF BUILDING TRADE EMPLOYERS.

Annual Dinner.

Mr. W. H. Nicholls (President) occupied the chair at the annual dinner of the National Federation of Building Trades Employers of Great Britain and Ireland, held at the Hotel Victoria, Charing Cross, on Tuesday last. Some 300 members and guests were present, including Mr. Henry Matthews (Senior Vice-President), Mr. E. J. Partridge (President, Society of Architects), Mr. A. J. Forsdike, Mr. John M. Theobald, F.S.I., Mr. John Good (Past President), Mr. James Petrie (President, Institution of Structural Engineers), Mr. W. T. Nicholls, Mr. Jno. Croad, Mr. Fred G. Hodges (Hon. Treasurer), Mr. E. P. Bovey (President, South-Western Federation), Mr. F. R. Ackroyd, Mr. J. M. Macfarlane (President, North-Western Federation), Mr. G. A. Hewitt (President, Midland Federation), Mr. W. C. Walker (President, South-Western Federation), Mr. J. Carse (President, Northern Counties Federation), Mr. I. J. Chorley (President, South Wales Federation), Mr. G. A. Coulson (President, National Association of Shopfitters), Mr. S. Smethurst, Mr. J. P. Cox (Vice-Chairman, National Allied Building Trades Employers), Mr. C. E. Campbell, Mr. W. Scott (President, Institute of Plumbers), Mr. J. E. Chadwick (President, National Association of Master Plasterers), Mr. G. A. G. Robertson, Mr. W. Sharratt, Mr. Stanley Miller, Mr. Henry T. Holloway (President, London Master Builders' Association), Mr. Roland B. Chessum, Mr. Frank Cowlin, Mr. C. H. Long, Mr. E. Quibell, Mr. B. Talbot, Mr. T. Howarth, Mr. J. H. Barker, Mr. G. A. Hotter, Mr. E. J. Strange, Mr. R. A. Costain, Mr. J. G. Mallett, F.S.I., Mr. G. J. Aldous, Mr. E. C. Desch, Mr. A. J. Thomas, Lic.R.I.B.A., Mr. P. C. Culver, Mr. A. H. Adamson, Mr. G. S. Roberts, Mr. A. B. Falkner, Mr. A. J. Thomas, Lic.R.I.B.A., Mr. M. W. Matts, Lic.R.I.B.A., Mr. R. J. Senecal, A.R.I.B.A., Mr. F. Thorne, Mr Ernest J. Brown (Director of the London Master Builders' Association), Mr. G. M. Burt, Mr. R. J. Holliday, Mr. F. W. Loasby, Mr. P. W. Cox, Mr. F. H. Smith, Mr. A. S. Grunspan, A.M.Inst.C.E., Mr. L. Stanley Crosbie, F.R.I.B.A., Mr. A. G. White (Secretary), Mr. F. A. Wall (Assistant Secretary), Mr. A. Legge, J.P. (Organiser), and Mr. W. J. Rudderham (Secretary, London Master Builders' Association).

After the loyal toasts had been honoured, Mr. B. Matthews proposed "The Architects and Surveyors." In the course of his remarks he said that toast was a very important one, and they were very glad to have architects present on that occasion. Builders were always very pleased to meet architects—in fact, it was their business to do so! But they always had in mind that there were architects and architects—some architects, fortunately very few, might be put on a "black list," and builders warned to have nothing to do with them; they were, however, very pleased to be associated with the majority of architects in the erection of the wonderful modern buildings which were being built. He thought architects might very well form a "Committee for the Removal of Signs on Buildings and Other Monstrosities," a committee for the refinement of public taste, and to bring into the minds of the public a better conception of the beautiful. They might also have a publicity committee through which architects could draw public attention to some of the things which disfigured the beautiful city of London. What a monstrosity was that bridge at Charing Cross—however could any community ever have permitted such a thing to come into existence? Why it should be permitted to continue passed the comprehension of all who had any thought and consideration for the amenities of London. They looked to architects to be censors of anything of that kind, to agitate for the removal of existing monstrosities, and prevent the erection of such things in the future.

In responding for the architects, Mr. E. J. Partridge congratulated Mr. Matthews on the fact that he would shortly be taking the office of President of the Federation. The signs which disfigured so many buildings in London offended the eyes of architects as much as the eyes of builders, and he was hopeful that the Fine Arts Commission which had been set up recently—partly through the offices of the Society of Architects—would have a good effect in that direction; they would all like to see those horrible signs done away with. With regard to a publicity campaign with the object of removing the signs, he thought such a proceeding was highly undesirable, because it was exactly what the owners of the signs wanted; he would certainly like to see them done away with, but with as little publicity as possible.

Mr. J. M. Theobald responded on behalf of the quantity surveyors.

The toast of "The National Federation of Building Trades Employers was proposed by Mr. John M. Macfarlane, who said the North-Western Federation had done a great deal for the building trade, and, incidentally, for the public. In the past builders were generally forced to sign a form of contract which was nothing less than a surrender of soul, but owing to the energies of the National Federation that was a thing of the past. Owing to the efforts of those who comprised the National Federation, that time was past and they had now obtained at least an equitable form of contract. Sometimes, however, they found the equity was seasoned with other qualities, and that the equity had almost disappeared, and their rights had disappeared in their obligations. But they were making progress, and they trusted the day was not far distant — in fact, he thought that day had actually dawned—when they would have a form of contract which would leave nothing to be desired on the part of the building owner, architect, or the builder. The Federation had dealt with many other things besides the form of contract. It had carried out negotiations with the operatives, and they now boasted of possessing an organisation which could meet the operatives on almost equal terms. Perhaps it was not too much to hope that with the perfecting of the organisation at no distant date they would find the operatives and employers meeting on equal terms. The Federation had been of benefit to the building owner, the architect, and the quantity surveyor, as well as the builder. The present position of the Federation had entailed a great deal of work, and the industry was enormously indebted to those who had borne the major portion of that labour. In conclusion, he paid a tribute to the work of Mr. Nicholls during his term of office.

In responding, Mr. Nicholls thanked those present for the way in which they had received the toast. The Federation had, he said, difficult times in front of it in the near future. The most difficult problem at the present moment was that of attempting to make the small amount of labour they had at their disposal meet the enormous demand on the industry of the country. The difficulty at present of solving the labour problem would require all the assistance the Federation could give to its members, and the Federation was determined, so far as lay within its power, to meet the case both now and in the future. The Federation realised that only by doing that could it rightly perform its functions; with the co-operation of every one of its members the Federation would do its utmost to meet the difficult position now confronting it. Touching on the housing problem, he said the builders were not behind any other members of the community in their sincere desire to see that the housing needs of the country were met. Hitherto they had carried that responsibility for the community, and but for the interference of statesmen who did not know the serious issues they were playing with, the building industry would have met it up to to-day. The only thing which prevented builders from providing houses was that politicians interfered with businesses they did not understand. The country needed houses, and the industry was going, at great cost if need be, to meet those needs. They believed that the socialisation of the industry was the wrong way to meet the case. As a Federation it stood for every one of its members having complete liberty to carry on his business. The housing problem could best be met by private enterprise. They also believed that the whole of the industrial needs of the country, which called for factories and other buildings, must go forward at the same time as the building of houses. To attempt to shut down the industrial and commercial requirements of the country in order to allow the housing needs to be met was not a method which the National Federation would approve. They agreed that houses were necessary, and were prepared to do all in their power to build them, but other work must not be stopped in order to allow houses to be built. All types of buildings were necessary for the proper development of the country, and the Federation said with no uncertain voice that workers should not be withdrawn from commercial buildings and transferred to housing. There were workers and materials for the better class of work, but the situation would not be met by closing down one class of work in order to proceed with another.

The toast of "The Ladies" was proposed by Mr. A. J. Forsdike and responded to by Sir H. McLaughlin.

"Our Guests," proposed by Mr. Fred G. Hodges, was responded to by Mr. C. E. Campbell and Mr. W. Scott.

PAINT IN WINTER.

It is of interest to note that the National Federation of Associated Paint, Colour and Varnish Manufacturers of the United Kingdom has taken energetic action in regard to the question of painting during the current year.

It is rather surprising, in view of the fact that surfaces, if painted in time, have very much longer life, that a false economy of delay is so often practised.

There is a saying "It is not worth while spoiling the ship for a ha'porth of tar." Apart from the question of tar, however, the majority of ship-owners are seldom guilty of spoiling their ships for the lack of paint. It is usually a question of paint, paint, and yet more paint. On the other hand building owners do not always seem to realise the ultimate economy of a protective coat of paint on ironwork.

If all master painters, decorators, and others interested co-operated in urging the public to put painting work in hand in winter, both the decorators and the public would be benefited. After all, there is no logical reason why, from a strictly utilitarian point of view, 50 per cent. at least of painting should not be done in the winter. Better results can usually be guaranteed now than later on in the year when trade is so much busier.

Is the attitude against painting in the winter a question of "prejudice"?

House Building in Vienna.

The Vienna Corporation has decided to build 5,000 houses annually for five years, and private initiative is also to the fore. For the latter "every man his own house" seems to have become the accepted motto, and the idea is being realised, both in rows of houses, semi-detached or double houses, and one-family houses. For the advancement of this movement the Government and the city of Vienna have granted a credit of 60,000,000,000 Austrian Kr. Legislation is gradually being modified so as to remove existing impediments for national evolution.

THE SCOTTISH BUILDER

HOUSING IN SCOTLAND.

THE number of houses completed in Scotland at the end of last year numbered 21,087 under the Act of 1919; under the private subsidy scheme, 2,319; under the slum clearance scheme, 208. The houses under construction were 2,914; and under slum clearance, 1,143. Capt. Walter Elliot, late Under Secretary to the Scottish Board of Health, has, in a letter to the press, analysed the financial side of the Government's new housing proposals. The rent at which houses are to be let is now given at 9s. a week, inclusive of rates, which for Scotland works out, less rates, at about £15 12s. a year. Such a house costs £500. The debit balance would thus demand a subsidy of approximately £20 a year for sixty years. The annual payment would be £30, or a total expense of £600, equal to a cash-down payment of £378 a house. Captain Elliot regards the new proposals as contemplating a payment per house, five times greater than that approved of last year. "It has been suggested that two million houses are to be built. This means an annual addition to the taxes of forty millions a year for sixty years, or sixty millions for twenty-six years."

Mr. Climie, Socialist M.P. for Kilmarnock, said recently in the House that he hoped that the Minister of Health and the Secretary for Scotland would make it plain that they were not going to allow houses to be built of a smaller size than two bedrooms, a living room, a kitchen, and a bath-room. Doubt had been thrown on the Prime Minister's statement that it was intended to build houses at £500. That it could be done he knew from personal knowledge. The last contract given this year in Kilmarnock was for thirty houses, eighteen of them with three bedrooms each; and twelve with two bedrooms each, with living room and scullery. The average price for these houses in open contract was £440 "all in." They were being built by a private builder on the £6 subsidy, and the Council had been able to fix rents of £24 for the three-roomed houses, and £27 for the four-roomed houses. At this rate they had been able to bring out a balance sheet showing that they would lose only £12 13s. 5d. a year on the thirty houses for the first twenty years. At a conference in Edinburgh on housing, with one or two exceptions, the delegates were in agreement in urging that two-apartment houses were requisite in existing circumstances, and that a density of 24 houses to the acre for slum reconstruction schemes was too low. Examples were given to show that the density of some areas which were being cleared now was up to 200 houses to the acre. These houses were meant for old-age pensioners, single women, and young married couples without families. Sir Henry Keith pointed out that £500 houses, to be let at 9s. a week, inclusive of rates, which, according to the Prime Minister, was to be the key of the Government's housing policy, would involve a subsidy of £20. Mr. Stewart, Under Secretary for Health, said that 51 per cent. of the total houses in Scotland were one or two-apartment houses, and that 47 per cent. of the population were living in these houses. Councillor Allan pointed out, after the conference, that, if a three-roomed scheme is insisted on, it means that the loss will run to from £12 to £15 a house per year, for twenty years, to be paid by the community.

HOUSING STANDARDS.

ON February 18, Dr. A. K. Chalmers, Medical Officer of Health, Glasgow, lectured at the Goldsmiths' College Lecture Hall, New Cross, on this subject. Sir William J. Collins, Chairman of the Chadwick Trustees, was in the chair.

Dr. Chalmers, in the course of his lecture, contrasted housing customs in England and Scotland, and referred to the initial difficulty in use of terms. A tenement in Scotland was usually a building of three or four stories, with each floor divided into two or three or more houses; in England, as a rule, the terms were reversed—the whole building was the house and the separate occupancies were the tenements. As a common term, the house might be regarded as the accommodation required for home and family life. When this complex was broken and the house was "made down" to accommodate several families, the primary services—water supply, drainage, ventilation—originally designed for one family, were all modified and frequently impaired. As a rule, the house in England had more rooms than the house in Scotland, but the rooms of the house in Scotland tended to be usually larger. The one-apartment house was a common feature of Scottish housing. It combined the functions of the living-room, scullery and bedroom. Sculleries were not common in small houses in Scotland until recent housing schemes.

As to the question of standards, the Housing Acts and building regulations defined them in a degree. The primary requirements of healthy housing were obviously a pure water supply and an adequate system of refuse removal. Absence of these was commonly associated with other defects in the construction of the house, its design and relationship to other buildings. The Housing Act of 1890 focussed and amplified earlier legislation. Building regulations were complementary to the clearance of insanitary areas. Among other purposes they were intended to prevent over-building of sites and to provide free circulation of air and adequate lighting of rooms. The width of the street in relation to height of buildings facing it was an important factor.

The inflexibility of building regulations was often a drawback, and the desire in New York to adapt them to the needs of particular areas by a system of "districting" showed that this was the case in other countries as well as here. The orientation of streets in relation to available sunlight was an important feature of town planning. There was an advantage in streets running diagonally with the cardinal points of he compass.

NEW BUILDINGS IN SCOTLAND.

Glasgow.—HOUSES.—The Corporation has been recommended to accept tenders for the erection of houses at Crossmyloof, at a total cost of £67,256, and also at Whitefield-road and Brand-street, Govan, at a total cost of £41,127.

Johnstone.—HOUSES.—The T.C. is forwarding a proposal to the B.H. which it has under consideration, for the erection of 100 houses.

Alloa.—HOUSES.—The Dean of Guild Court has passed plans for a house in Queen-street for Mr. W. McMillan, Calcutta, and for four blocks of houses at Ashley-terrace, for the T.C. Each block consists of four houses.

Ayr.—HOUSES.—The Dean of Guild Court have passed the following plans:—R. W. Hutchison, builder, two houses in Falkland Park-road, at a cost of £1,200; H. H. Mills, house at Doonfoot-road, at a cost of £1,600; Quintin Clark, joiner, two houses at Bellesley-hill-road, at a cost of £1,490.

Bridge-of-Allan.—DWELLINGS.—The T.C. has passed plans for alterations at Craigievar, Henderson-street, submitted by Bell & Harvey, architects, Stirling. The building will be converted into two dwellings.

Aberdeen.—BATHS.—The T.C. has passed plans for new buildings, including four houses, and the total estimated cost is £4,500. The Corporation Links and Parks Sub-Committee are to ask for powers to borrow £100,000 for the erection of baths.

Renfrew.—OFFICE.—The B.H. has approved of the plans for the new Board offices.

New Elgin.—HOUSES.—The Moray C.C. has now decided to erect a house for the sanitary inspector at New Elgin.

Lochgelly.—HOUSES.—Various works required in erecting 40 houses at Dundonald, for the Lochgelly Iron & Coal Co., also for forming a new street there. Schedules can be obtained from Mr. A. D. Haxton, architect, Leven.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7	1/7	1/4½		1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Arbroath	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/5		1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½		1/2½	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½		—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½		1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½		1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½		1/2½	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½		1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½		1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Greenock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½		1/1½ to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½		1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½		10½d to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Kirkwall	1/7½	1/5½	1/3½	1/4	1/4	1/4	1/4		1/0½	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½		1/2½	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 815.

THE BUILDING TRADE: THE TWO DEMANDS.

Mr. John E. Yerbury, Lic.R.I.B.A., writes :—

SIR,—The article by "A Building Contractor" in your issue for last week strikes a sympathetic note which encourages me once more to return to the question of the revival of the Industrial Council for the Building Industry, with a reformed constitution.

I know I shall be called all sorts of names and be told that I don't know what I am writing about; but I will face that music because the time is opportune, and because I know that your correspondent does not stand alone in the ranks of contractors in his desire to reach a settlement of disputes by saner methods than those of the past.

Notwithstanding the reactionary employer and the revolutionary worker, I feel that the majority (on both sides) desire agreement, and would arrive at a settlement of all disputes if a properly constituted authority could be established by agreement, and in your paper (March 27, 1914) I made a suggestion for the establishment of a conciliation board, with representatives of the public nominated by the representatives of employer and employed.

Since that time I have advocated the taking up of the Foster Report as a basis for discussion (to be told this was arrant nonsense). But if the new Minister of Health is successful in his negotiations with regard to "dilution," and we are to set out on new schemes with guarantees against unemployment, surely it is a good time for men of influence on both sides to try once more the round table conference with the purpose of re-establishing the Building Trade Parliament.

I do not follow your correspondent's figures, but presume he means that having fixed a minimum hourly wage at 10 per cent. higher than the present hourly wage, piece rates are to be fixed for all work; the piece rate to be higher than the time rate in every case. If the cost (labour) is less than the piece rate the difference is to be shared, *i.e.*, the employee would take 50 per cent.; if it cost more the employer would lose.

Example.—Minimum wage 1s. 8d. + 10 per cent. = 1s. 10d. per hour. A piece of work taking average man 12 hours to complete *on present records* would be rated at, say, 10 per cent. on present cost, viz., 22s. + 2s. 2½d. = 24s. 2½d. If completed in 10 hours, the labour cost would be 18s. 4d., a saving of 5s. 10d. on piece rate, of which the employer would receive 2s. 11d. This might add 20 per cent. to 33⅓ per cent. to wages, and at the same time reduce cost to the consumer by 10 per cent. if the whole industry can agree upon *fixed rates for all work.*

The difficulty is to fix a rate in the building trade where men work in gangs, and gangs are frequently broken by one or more men being taken from the particular work in hand. Piece rates are easy enough in the shops, but I have never seen a suggestion which would work in practice on the job.

Except in big business, it is the same with profit-sharing schemes, and even in co-partnership schemes in the building trade only those in constant employ of the same firm—a minority—can share, unless the industry is dealt with as a whole.

A detailed statement of your correspondent's suggestion would be of great interest.

Building Wages.

The National Wages and Conditions Council for the Building Industry, composed of employers and employed, met recently in London to resume discussions on the demand of the operatives for an increase of 2d. per hour in the wages of all workers.

The application was opposed by the employers, and after several hours' discussion the meeting ended without any agreement being reached.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	C'p'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
E. Glam.(Mon. Val.)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1¼
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0¾
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0¾
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2¼
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0¼
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0¾
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0¼
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾

(For rates of wages in the Building Trade in Scotland, see page 314).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

FEBRUARY 23.—**Aberystwyth.**—TWO VILLAS.—Erection of two villas for Mr. T. W. Powell at Brynymor-road, Aberystwyth. Mr. J. Lewis Evans, architect, 21, Great Darkgate street, Aberystwyth.

FEBRUARY 23.—**Bradford.**—HOUSES.—Erection of the following houses in accordance with the conditions stated. Housing Scheme, No. 10, Thornton: 36 houses, Class "A"; 44 houses, Class "B." (1) Contractors may tender for separate trades or for the whole of the work in all trades complete; (2) the tenders shall be based upon fixed prices for labour and materials. City Architect, Town Hall, Bradford.

FEBRUARY 23.—**Crostwick.**—NEW WORKSHOPS.—For erection of new workshops at Stanninghall Farm Colony, for the Norfolk Joint Sanatorium Committee. Messrs. A. F. Scott & Sons, 24, Castle Meadow, Norwich.

FEBRUARY 23.—**Doncaster.**—LOOSE BOXES.—For the erection of 32 loose boxes, &c., on land adjoining Belle Vue, for the T.C. Mr. R. E. Ford, Race Department, 3, Priory-place, Doncaster. Deposit £1 1s.

FEBRUARY 23.—**Ebbw Vale.**—WORK AT SCHOOLS.—For jobbing work at schools for one year, for U.D.C. Mr. P. L. Davies, Surveyor to the Council, District Council Offices, Ebbw Vale. Deposit £1.

FEBRUARY 23.—**Staincliffe.**—PAINTING, &C.—For redecorating inside of chapel and class rooms for the Trustees. Mr. W. Sykes, 11, Hillend-terrace, Killpinhill-lane, near Dewsbury.

FEBRUARY 25.—**Dewsbury.**—PAINTING.—For painter's and decorator's work at the public library and baths, Wellington-road, for the T.C. Borough Surveyor, Town Hall, Dewsbury.

FEBRUARY 25.—**Edinburgh.**—HOUSES.—For erection of following houses, for the T.C.: (1) Gilmerton, 24 houses; (2) Longstone, 4 houses. Messrs. Murray & Baird, 50, George-street, Edinburgh.

FEBRUARY 25.—**Enniskillen.**—BAKERY.—Erection of bakery, for Messrs. G. Whalley & Sons. Mr. J. Donnelly, architect, Enniskillen.

FEBRUARY 25.—**France.**—CEMETERY CONSTRUCTION.—Construction of approximately 30 cemeteries in France. Contract 1924. S. Secretary (Works Dept.), Imperial War Graves Commission, 82, Baker-street, London, W.1. Deposit 15 guineas.

FEBRUARY 25.—**Gloucester.**—SCHOOLS.—Erection of proposed new Northgate Council Schools, for the Gloucester Education Committee. Mr. Walter B. Wood, A.R.I.B.A., 12 Queen-street, Gloucester.

FEBRUARY 25.—**Hemsworth.**—HOUSES.—Erection of 50 houses and the construction of roads and sewers at Grimethorpe, near Barnsley, for the R.D.C. Mr. W. T. Lineham, Architect, Union Offices, Hemsworth, near Pontefract. Deposit £2 2s.

FEBRUARY 25.—**Heswall.**—EXTENSIONS.—For extensions to the Sanatorium, Heswall, for the West Derby Board of Guardians. Mr. Ernest B. Bailey, F.S.I., 9, Cook-street, Liverpool. Deposit £2 2s.

FEBRUARY 25.—**Hindley.**—HOUSES.—Erection of houses on the Housing Site, Atherton-road, for the U.D.C. Mr. O. P. Abbott, architect, Council Offices, Hindley. Deposit £3 3s.

FEBRUARY 25.—**Kirkcaldy.**—HOUSE.—Erection of house for sanitary inspector, for the District Committee. Mr. G. P. Deas, Architect, Central Chambers, Kirkcaldy.

FEBRUARY 25.—**Leith.**—SCHOOL.—For erection of new elementary school, James-place, Leith, for Edinburgh E.C. Mr. J. M. Johnston, architect, 47, Charlotte-street, Leith.

FEBRUARY 25.—**Liverpool.**—ALTERATIONS.—For alterations to operating department, Smithdown-road Institution, for the West Derby B.G. Mr. Ernest B. Bailey, F.S.I., 9, Cook-street, Liverpool. Deposit £1 1s.

FEBRUARY 25.—**London.**—GENERAL WORKS AND REPAIRS.—Execution of general works and repairs (including jobbing works), exclusive of works of a mechanical character, to sewers, engine houses, buildings, bridges, subways, tunnels, &c., under the supervision of the Chief Engineer of the London County Council, on a schedule of prices for a contract for 12 months commencing April 1, 1924 Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

FEBRUARY 25.—**London, W.**—NURSES' HOME EXTENSION.—Extension of the Nurses' Home at the St. Marylebone Hospital, Rackham-street, W.10, for the B.G. of St. Marylebone. Messrs. Constantine & Vernon, architects, 82, Mortimer-street, W., Deposit two £1 Treasury Notes.

FEBRUARY 25.—**Pontefract**, &c.—ALTERATIONS AND VILLAS.—(1) Additions to their Head Office in Pontefract, for the South Kirby, Featherstone & Hemsworth Collieries Co., Ltd.; and (2) a pair of semi-detached villas, Wakefield road, Purston. Messrs. Garside & Pennington, architects, Pontefract.

FEBRUARY 25.—**Salford.**—HOUSES.—Erection of 38 houses and flats on Littleton-road housing estate, for the T.C. Mr. C. Swain, architect, 12, Exchange-street, Manchester.

FEBRUARY 25.—**Sheffield.**—ALTERATIONS.—For alterations, including new bookcases and fittings at the Upperthorpe Branch Library, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

FEBRUARY 25.—**Sheffield.**—PAINTING.—For external and internal painting at the Tramways Depot, Shoreham-street, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

FEBRUARY 25.—**Shiney-row.**—HOUSES.—Erection of 18 houses at Shiney-row, and 39 at Fence Houses, for the Lambton & Hetton Collieries Co. Architect's Office, Philadelphia Lime Depot.

FEBRUARY 25.—**Various Towns.**—PAINTING, &C.—For cleaning and repainting bridges, station buildings, &c., at the following places:—(6) Woofferton, Tenbury, &c.; (7) Kington, Dolyhir, &c.; (8) Much Wenlock, Presthope, &c., for the Great Western Railway Co. Engineer, Shrewsbury Station.

FEBRUARY 25.—**Worthing.**—SHELTERS.—Erection of four glazed shelters on the Marine-parade, Worthing, for the B.C. Borough Surveyor, Municipal Offices, Worthing. Deposit £1 1s.

FEBRUARY 26.—**Aylesbury.**—PUMPING STATION.—For construction of pumping station and sewage tank in reinforced concrete, for the T.C. Mr. Wm. Harold Taylor, Borough Engineer, Town Hall, Aylesbury.

FEBRUARY 26.—**Barnsley.**—HOUSES.—For the erection of four houses in Barnsley. Mr. A. P. Haigh, 16, Western-street, Barnsley.

FEBRUARY 26.—**Belvedere.**—POST OFFICE.—Erection of a branch Post Office at Belvedere, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

FEBRUARY 26.—**Dublin.**—RESTORATION.—For restoration of station buildings at Bennett's Bridge, Durrow, Molahiffe and Gortatlea, for the Great Southern and Western Railway Co. Chief Engineer, Inchicore, Dublin. Deposit £1 1s. each contract.

FEBRUARY 26.—**Leeds.**—HOUSE, &C.—Erection of a house for the Superintendent of Parks and of a block of conveniences at Roundhay Park, for the T.C. Mr. W. T. Lancashire, City Engineer, Municipal Buildings, Leeds.

FEBRUARY 26.—**Liverpool.**—FIRE STATION, &C.—Erection of fire station and firemen's dwellings, &c., for the T.C. Steward and Surveyor (Architectural Dept.), Municipal Buildings, Liverpool. Deposit £2 2s.

FEBRUARY 26.—**London, E.3.**—BUILDING ADDITIONS, &c.—Building of a nurses' dining-room, alterations and additions, and redecorations at St. Andrew's Hospital, Devon's-road, Bow, E.3, for the Managers of the Poplar and Stepney Sick Asylum District, St. Andrew's Hospital. Messrs. Andrews & Peascod, architects, 135, Bow-road, E.3. Deposit £3.

FEBRUARY 26.—**London, N.W.6.**—DECORATION, STEAM HEATING AND LIGHTING.—Decoration of certain buildings at the Municipal Hospital, Brentfield-road, Neasden, for the Willesden U.D.C. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W. 6.

FEBRUARY 26.—**Newton-in-Makerfield.**—HOUSES.—For erection of 40 type "A" houses at the South Mesnes, Earlestown, for U.D.C. Mr. J. Elston, Market Chambers, Earlestown.

FEBRUARY 27.—**Ashford.**—BUILDING.—For the erection of a brick-built incinerator at its Hampden Farm Refuse Depot, for the U.D.C. Mr. Wm. Terrill, surveyor, 5, North-street, Ashford, Kent.

FEBRUARY 27.—**Belmont (Surrey).**—GIRDER (WOOD) AND FLOORING.—Repairing wood girder and relaying wood floor at Belmont Institution, Belmont, Surrey, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

FEBRUARY 27.—**Celbridge.**—HOUSES.—Erection of 29 cottages, for the R.D.C. Mr. F. Shortt, Clerk, Council Offices, Celbridge, Ireland.

FEBRUARY 27.—**Gloucester.**—REPAIRS, &C.—For the execution of ordinary works and repairs at the buildings in charge of H.M. Office of Works in the Gloucester District. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit 10s. 6d.

FEBRUARY 27.—**Harwich.**—DRESSING BOXES, &C.—For erection of dressing boxes and incidental works at the bathing pool on Dovercourt beach, for T.C. Mr. F. H. French, Borough Surveyor, Harwich. Deposit £2 2s.

FEBRUARY 27.—**Hove.**—HOUSES.—Erection of 90 houses in Ingram-crescent and Bolsover-road, Hove, for the B.C. of Hove. Borough Surveyor's Office, Town Hall, Hove. Deposit £2 2s.

FEBRUARY 27.—**Huddersfield.**—HOUSE, &C.—For the erection of house and shop at Station-road, Skelmanthorpe. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield.

FEBRUARY 27.—**Kent.**—UNDERGROUND COAL STORE.—An additional underground coal store, for the Upper Boiler House, at the Southern Hospital, Dartford, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

FEBRUARY 27.—**Leyburn.**—WALLS.—For erection of boundary walls, entrance gateway, tool house and pathway, for new cemetery at Wemsley, for R.D.C. Mr. Foss Robinson, Wemsley.

FEBRUARY 27.—**London, S.W. 10.**—CLEANING AND PAINTING.—Cleaning and painting work at St. George's Home, Milman-street, Chelsea, S.W. 10, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

FEBRUARY 27.—**London, S.W. 17.**—ADAPTATION (BUILDING).—The adaptation of laundry for use as kitchen, clothing store, &c., together with new covered ways, yard and roadway, &c., at Tooting Bec Mental Hospital, Tooting, S.W. 17, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

FEBRUARY 27.—**Lowestoft.**—HOSPITAL.—Erection of a gate lodge at St. Luke's Hospital, Kirkley Cliff-road, Lowestoft, for the Metropolitan Asylums Board. Office of the Board, Victoria embankment, E.C.4. Deposit £1.

FEBRUARY 27.—**Marshland.**—HOUSES.—For the erection of four houses in pairs at Little London, Terrington, St. Clement, for the R.D.C. Mr. W. Dymoke White, architect, Paradise Chambers, King's Lynn. Deposit £1 1s.

FEBRUARY 27.—**Northwich.**—PAINTING.—For painting and decorating 158 dwelling-houses at Rudheath Park, for the R.D.C. Mr. J. Birtwistle, surveyor, Bank Chambers, Winnington-street, Northwich.

FEBRUARY 27.—**Rochdale.**—PAINTING.—For external painting of 22 houses, for the T.C. Borough Surveyor, Rochdale.

FEBRUARY 28.—**Barnsley.**—CHURCH.—For the additions to St. George's Church, Barnsley. Messrs. Wade & Turner, 10, Pitt-street, Barnsley.

FEBRUARY 28.—**Barnsley.**—HOUSES.—For the erection of two semi-detached houses, Keresforth Hall-road, Barnsley. Mr. F. Birkinshaw, 30, Pogmoor-road, Barnsley.

FEBRUARY 28.—**Greenwich.**—HOUSES.—Erection and completion of 48 houses in two sections on the Charlton Housing Estate, completion of Site No. 3, under the supervision of the Council's Architect. Town Clerk's Department, Town Hall, Greenwich. Deposit £2 2s.

FEBRUARY 28.—**Hereford.**—STATION SORTING OFFICE.—Erection of a station sorting office, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

FEBRUARY 28.—**London, S.E.**—BUILDING ADDITIONS.—Additions to laundry and provision of drying-horses, &c., at the Bermondsey and Rotherhithe Hospital, Lower-road, Rotherhithe, S.E., for the Guardians of the Parish of Bermondsey. Mr. Henry H. Reeve, Clerk, Guardians' Offices, 283, Tooley-street, S.E.1, between 10 a.m. and 12 noon on February 18, 19, 20 and 21, 1924. Deposit £5 Bank of England Note.

FEBRUARY 28.—**Saltash.**—ALTERATIONS.—For alterations and renovations at the Guildhall, for the T.C. Borough Surveyor, Guildhall, Saltash. Deposit £2 2s.

FEBRUARY 28.—**Wakefield.**—WORKSHOPS.—Supply of 17 sectional wood workshops, for the West Riding C.C. Health Committee. West Riding Architect County Hall, Wakefield.

FEBRUARY 29.—**Barnsley.**—BUNGALOW.—For the erection of a bungalow, Smithies-lane, Barnsley. Mr. N. A. Whitham, Chronicle Buildings, Barnsley.

FEBRUARY 29.—**Barnsley.**—REBUILDING.—For the rebuilding of "Needlewood," Barnsley. Mr. P. A. Hinchliffe, 14, Regent-street, Barnsley.

FEBRUARY 29.—**Barnsley.**—SHOPS AND OFFICES.—For the erection and completion of the proposed shops, offices, &c., Regent-street South, Barnsley. Mr. C. F. Moxon, Regent-street South, Barnsley.

FEBRUARY 29.—**Clevedon.**—DEMOLITION.—For the removal of chimney-stack at the old water works, for the U.D.C. Town Surveyor, Madeira-road, Clevedon.

FEBRUARY 29.—**Doncaster.**—PAINTING.—For painting the exterior and part of the interior woodwork, &c., of the Poor Law Institution Buildings at Balby, &c., for the Board of Guardians. Mr. H. M. Marshall, Clerk, Union Offices, Nether Hall, Doncaster.

FEBRUARY 29.—**Ely.**—HOUSES.—Erection of 20 houses on "The Mews" Housing Site, for the Ely U.D.C. Contractors are invited to tender for the whole or part of the above, including drains, paths and fences. Mr. W. McKelvie, Architect and Surveyor, City Surveyor's Office, Ely. Deposit £1 1s.

FEBRUARY 29.—**Hants.**—REPAIRS AND MATERIALS.—Works contract from March 17, at the station mentioned, address of Royal Engineers' Office, Marlborough Lines, North Aldershot, Hants (station, Sandhurst), including Arborfield Cross, in the North Aldershot Royal Engineer District of the Aldershot Command. Above-named Royal Engineer.

FEBRUARY 29.—**Peterborough.**—HOUSES.—For the erection of 16 houses on the Grange-road Estate, for the T.C. City Surveyor, Broadway, Peterborough. Deposit £1 1s.

FEBRUARY 29.—**Selkirk.**—HOUSES.—For the erection of three blocks of four houses each, at Goslawdales for the T.C. Deposit £1 1s.

FEBRUARY 29.—**Willington.**—HOUSES.—Erection for the Brancepeth and Oakenshaw Aged Miners' Homes Committee of nine cottages and a reading room at Old Hall-terrace, Willington. Architects, Messrs. J. Plummer and W. Cummings, Engineer's Department Brancepeth Colliery Offices, Willington, Durham.

MARCH 1.—**Abersychan.**—HOUSES, &C.—For erecting for the Abersychan U.D.C., 54 dwelling-houses on the Manor-road site, and for construction of necessary roads and sewers. Mr. W. T. Springall, Co-operative Wholesale Society, Ltd., St. Mary-street, Cardiff.

MARCH 1.—**Builth.**—BRIDGE.—For widening and strengthening six-arch masonry bridge and approaches for the Breconshire and Radnorshire County Council: Mr. W. L. Harpur, County Surveyor, County Offices Brecon. Deposit £2 2s.

MARCH 1.—**Cardiff.**—MORTUARY.—For erection of mortuary at Ely Lodge Institution, for the Board of Guardians. Messrs. Willmott & Smith, architects 4, Park-place, Cardiff. Deposit £2 2s.

MARCH 1.—**Denbigh.**—ALTERATIONS.—For alterations at Green Congregational Church, near Denbigh Specifications at Voel Gaer, Fron, Denbigh.

MARCH 1.—**Lostwithiel.**—COTTAGES.—For the erection of four pairs of cottages, for the Lostwithiel Building Syndicate. Mr. E. Brown, Secretary, Pentillie, Lostwithiel.

MARCH 1.—**Romsey.**—HOUSE.—For building small house, at Whitenap, near Romsey. Mr. George Symes, Lond View, Winchester-road, Romsey.

✱MARCH 3.—**Eastbourne.**—CHALET, &c.—For the erection of a tea chalet and shelter at Holywell, for the C.B. Borough Engineer's Office, Town Hall, Eastbourne. Deposit £1 1s.

✱MARCH 3.—**Hendon.**—HOUSES.—Erection of 44 houses and 8 flats at Kingsbury-road, West Hendon, for the U.D.C. Mr. A. O. Knight, A.M.I.C.E., Engineer to the Council, Town Hall, Hendon, N.W.4. Deposit £3 3s.

✱MARCH 3.—**London, S.W.1.**—DECORATIONS AND REPAIRS.—Painting internal woodwork, papering walls, whitening ceilings, &c., and repairs to four cottages, situated at the Council's western pumping station, Grosvenor-road, Pimlico, S.W.1, for the L.C.C. Chief Engineer, the Old County Hall, Spring Gardens, S.W.1. Deposit £1.

MARCH 3.—**Newcastle-on-Tyne.**—For Contract No. 2, in connection with banqueting hall and additional bedroom, Station Hotel, being all trades except steelwork, for the L. & N.E. Railway. Mr. Stephen Wilkinson, architect, North-Eastern Area, Newcastle-on-Tyne.

MARCH 3.—**Plymouth.**—Erection of 27 houses, containing 54 flats, at Prince Rock. Form of tender, copy of bills of quantities, block plan, may be obtained, and conditions of contract, plans, and specification seen at the office of the undersigned, on and after 19th inst. Tenders sealed and endorsed "Tenders for erection of flats, Prince Rock," together with all documents, &c., be delivered to Town Clerk, Municipal Offices, Plymouth, not later than 10 a.m. on March 3 next. A deposit of £2 2s. will be required to be refunded on receipt of bona fide tender and return of plan and all documents. The Council do not bind themselves to accept the lowest, or any, tender. Mr. J. Wibberley, Borough Engineer and Surveyor, Municipal Offices, Plymouth.

MARCH 3.—**St. Andrews.**—HOUSES.—Erection of 50 houses at St. Mary's-street site, for the T.C. Mr. Wm. Watson, Burgh Surveyor, Town Hall, St. Andrews. Deposit £1 1s.

MARCH 3.—**Sheffield.**—SUB-STATIONS.—Erection of (*a*) transformer sub-station in Greystones-road, and (*b*) transformer sub-station in Sheldon-road, for the T.C. Mr. S. E. Fedden, General Manager, Commercial-street, Sheffield. Deposit £1 1s. each contract.

MARCH 3.—**Truro.**—ALTERATIONS.—For proposed additions and alterations to Truro Wesleyan College. Mr. A. J. Cornelius, architect, Truro.

✱MARCH 3.—**West Ham.**—PAINTING, &c.—For repairing and painting the exteriors of various schools for County Borough of West Ham Education Committee. Mr. John H. Jacques, Lic.R.I.B.A., architect, 61, West Ham-lane, Stratford, E. 15. Deposit £1.

MARCH 4.—**Aldershot.**—HOUSES.—Erection of eight blocks of four houses, thirty-two in all, at Aldershot Park Housing Scheme No. 2, for the Borough of Aldershot. Borough Surveyor's Office, Municipal Buildings, Aldershot. Deposit £5.

MARCH 4.—**Barking.**—HOUSES.—Erection of about 59 houses on the Eastbury Estate, Ripple-road, Barking, for the Barking U.D.C. Council's Architect, Mr. C. J. Dawson, F.R.I.B.A., Clock House Chambers, East-street, Barking. Deposit £5.

MARCH 4.—**Hornsey, N.6.**—BUILDING EXTENSION.—Erection of an extension to the Electricity Works, Hornsey, comprising new converter house, switch room, offices, &c., for the T.C. of the Borough of Hornsey. Mr. E. J. Lovegrove, Borough Engineer and Surveyor, Town Hall, Highgate, N.6, on any morning between 10 and 12 o'clock.

MARCH 4.—**Wombwell.**—FLOORS.—Construction and erection of movable floors over the swimming ponds at the Public Baths, for the U.D.C. Surveyor, Town Hall, Wombwell. Deposit £1 1s.

✱MARCH 4.—**Woolwich.**—WAR DEPT. CONTRACT FOR REPAIRS AND MATERIALS.—For Artificers' Works Contract from April 1, 1924, for 1st and 2nd Divisions in Woolwich R.E. District. Commanding Royal Engineer, Woolwich District, Royal Engineer Office, New-road, Woolwich, S.E. 18.

MARCH 5.—**Bletchley.**—COTTAGES.—For the erection of 20 cottages in Western-road, for the U.D.C. Mr. John Chadwick, Architect, Bletchley, Bucks. Deposit £2 2s.

MARCH 5.—**Hindley.**—PUBLIC ELEMENTARY SCHOOL.—Architects and surveyors are invited to submit terms for the preparation of plans, specifications, quantities, &c., for the erection of a public elementary school (approximate accommodation, 450) at Hindley Green. Mr. I. C. Pharaoh, Secretary for Education, Education Dept., Council Offices, Hindley, endorsed "Architect."

MARCH 5.—**Hove.**—JOBBING WORK.—For steel masonry and jobbing work for one year, for the T.C. Mr. H. H. Scott, Borough Surveyor, Hove.

✱MARCH 5.—**London, S.E.**—FLAG STAFF.—Provision and fixing of a new 40 ft. flag staff complete at the Chief Station of the London Fire Brigade, Southwark Bridge-road, S.E., for the L.C.C. Architect, County Hall (Room No. 3), Westminster Bridge, S.E. 1.

✱MARCH 5.—**Salford.**—OLD PEOPLE'S HOMES.—Erection of old people's homes at Hope, Pendleton, near Manchester. Comprising administrative block, receiving wards, &c., and six pavilions to accommodate 500 persons, for the Salford B.G. Mr. E. H. Inchley, Clerk to the Guardians, Poor Law Offices, Eccles New-road, Salford. Deposit £2 2s.

MARCH 5.—**Wolsingham.**—HOUSE.—Erection of a house for the Medical Superintendent at Holywood Hall Sanatorium, Wolsingham, for the Durham C.C. Mr. Albert E. Brookes, County Engineer, Shire Hall, Durham.

✱MARCH 6.—**Edinburgh.**—HOUSES.—Proposals from building firms for the erection of from 800 to 1,000 houses, mainly of three apartments with scullery, bath, and all other usual appointments. Director of Housing, City Chambers, Edinburgh. Deposit cheque for five guineas sterling.

MARCH 6.—**Epsom.**—COTTAGES.—Erection of cottages on the following sites: Scheme 1, Winkworth Farm, Banstead, 20 cottages; Scheme 2, Canons-lane, Burgh Heath, 20 cottages; Scheme 3, Pound Meadow, Fetcham, 10 cottages, for the Epsom R.D.C. Housing Act, 1923.

MARCH 6.—**Lanchester.**—CONVENIENCES.—Erection of public conveniences at Craighead and Burnhope, for the R.D.C. Mr. J. R. Lupton, Surveyor, Council Offices, Lanchester.

✱MARCH 7.—**Canterbury.**—ADDITIONS.—For the completion of two new blocks of buildings and other works in connection therewith at the Mental Hospital, Chartham Downs, near Canterbury, for the Kent County Mental Hospitals' Committee. Mr. W. J. Jennings, architect, 4, St. Margaret's-street, Canterbury. Deposit £10.

MARCH 7.—**Manchester.**—CONVERSION.—For the conversion of the Isolation Ward into a Discharge Ward at Monsall Hospital, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

MARCH 7.—**Manchester.**—EXTENSION.—For extension to kitchen block, Baguley Sanatorium, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

MARCH 8.—**Carmarthenshire.**—NEW SCHOOL.—For erection of a new elementary school to accommodate 300 pupils at Gorslas, for the Carmarthenshire Education Committee. Mr. W. Vincent Morgan, Architect, County Offices, Carmarthen. [Note.—Names of intending tenders to be submitted by February 23; quotations to be returned by March 8.]

✱MARCH 8.—**Derbyshire.**—THE WILLIAM HOLMES' ALMSHOUSES.—Erection and completion of six almshouses at Greenwich, Ripley, Derbyshire, for the Ripley U.D.C. Mr. G. W. Bird, C.E., Town Hall, Ripley, Derbyshire. Deposit 10s. 6d.

✱MARCH 8.—**Reading.**—HOUSES.—Erection of 26 houses on the Shinfield-road Housing Site, for the Town-Planning Committee of the County Borough of Reading. Housing Architect, Old College Buildings, St. Laurence's Churchyard, Reading.

✱MARCH 10.—**London, S.W.**—BUILDINGS AND COTTAGES.—Erection of administrative buildings and 12 cottages in Pleasance-road, on the Roehampton Estate, Putney, S.W.15, for the L.C.C. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £2, to Cashier.

MARCH 10.—**Walsingham, Norfolk.**—COTTAGES.—Erection of 20 cottages at Briston, Norfolk, for the Walsingham R.D.C. Mr. W. O. Humphery, Surveyor, Fakenham, Norfolk.

MARCH 11.—**Bingley.**—FLOORING.—For re-boarding floors at Mornington-road School, for the West Riding E.C. Education Dept., County Hall, Wakefield.

✱MARCH 11.—**Bognor.**—P.O., &c.—For the erection of a Post Office and Telephone Exchange at Bognor, Sussex, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

MARCH 11.—**Ecclesfield Lound.**—HUT.—Erection and adaptation of Army hut at Ecclesfield Lound Council School, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Kirkburton.**—HOUSE.—Erection of a detached residence at the Storthes Hall Mental Hospital, Kirkburton, near Huddersfield, for the West Riding Mental Hospitals Board. Mr. W. E. H. Burton, Architect, Wakefield. Deposit £1.

MARCH 11.—**Maltby.**—SCHOOL.—Erection of school for 800 children, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Stanley Outwood.**—BATHROOM.—Erection of bathroom for teacher's house, for the West Riding E.C. Education Dept., County Hall, Wakefield.

✱MARCH 12.—**Bedford.**—TELEPHONE EXCHANGE.—For the erection of a Telephone Exchange at Bedford, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

MARCH 13.—**Ashton-in-Makerfield.**—SCHOOL.—For the erection of a Council School of semi-permanent construction, for 500 scholars, at Ashton-in-Makerfield, near Wigan, for the Lancashire E.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

✱MARCH 13.—**Willenhall.**—ALTERATIONS, &c.—For alterations and extensions to Willenhall Post Office, Staffs, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

MARCH 14.—**Crompton.**—SCHOOL.—For the erection of a Council school for 350 scholars at Crompton, near Oldham, for the Lancashire E.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

✱MARCH 19.—**Evesham.**—HOUSES.—Erection of 26 houses (with other work incidental thereto) on their site near King's-road, Bengeworth, Evesham, under the provisions of the Housing Acts, for the T.C. of the Borough of Evesham. Borough Surveyor (Mr. J. Abbott), Town Hall, Evesham. Deposit £2 2s.

NO DATE.—**Aberdare.**—THREE BUNGALOWS.—For erection at Abernant, Aberdare, of three bungalows, for the Powell Duffryn Coal Co., Ltd. Mr. G. Kenshole, M.S.A., 30, Charles-street, Cardiff. Deposit £3 3s.

NO DATE.—**Bradford.**—EXTENSION.—For extension at Hind-street Dyeworks, Bradford. Mr. Horace E. Priestley, architect, 4, Bertram-road, Manningham.

NO DATE.—**Brynamman.**—HALL, &c.—For the erection of a public hall and institute at Brynamman. Sir Charles T. Ruthen & Co., Bank Chambers, Heathfield-street, Swansea. Deposit £2 2s.

NO DATE.—**Leeds.**—REBUILDING.—For the rebuilding of the Old George Inn, Garforth Bridge. Mr. W. P. Peters, architect, 89, Albion-street, Leeds.

NO DATE.—**Petersfield.**—FLOORING.—Supplying and laying about 200 sq. yds. pitch-pine wood-block flooring. Estate Office, Bedales, Petersfield.

NO DATE.—**Port Talbot.**—BUNGALOW.—For erection of a bungalow at Port Talbot. 38, Abbey-road, Port Talbot.

NO DATE.—**Rawmarsh.**—HOUSES.—For the erection of 10 houses, for the U.D.C. Mr. J. A. Tonge, Surveyor, Parkgate, Yorks, W.R. Deposit £2 2s.

✱NO DATE.—**Streatham Hill.**—FLATS.—Erection of a terrace of thirty-four flats on the Leigham Court Estate, at Streatham Hill, for the Artisans' Labourers' & General Dwellings Co., Ltd. Architect, Chief Offices of the Company, 1, Cromwell-road, South Kensington.

NO DATE.—**Trimdon Grange.**—HOMES.—For the erection of eight aged miners' homes at Trimdon Grange. Jas. Stones, architect, Sedgefield, Ferryhill.

✱NO DATE.—**Wembley, Middlesex.**—CHURCH.—Erection of the new Wesleyan Church at Wembley, Middlesex, for the Trustees. Mr. A. E. Lambert, architect, 28, Park-row, Nottingham. Deposit £2 2s.

NO DATE.—**Wyke.**—WAREHOUSE.—Erection of warehouse, Wyke. Mr. T. L. Dixon, architect, Bowling Old-lane, Bradford.

FURNITURE, MATERIALS, etc

FEBRUARY 23.—**Diss.**—MATERIALS.—Supply of road materials, for U.D.C. Mr. A. Cooper, Surveyor, 9, Market-place, Diss, Norfolk.

FEBRUARY 23.—**Earby.**—MATERIALS.—Supply of granite, limestone, tarred slag, refined tar or other spraying compounds to the U.D.C. Mr. Jas. E. Aldersley, Surveyor, Council Offices, Earby.

FEBRUARY 23.—**Harrogate.**—MATERIALS.—For highways materials, for one year, to the T.C. Mr. C. E. Rivers, Borough Engineer, Harrogate.

FEBRUARY 23.—**North Walsham.**—TAR, &c.—Supply of 16,000 gallons of tar or bituminous compounds and 400 tons of grit, for U.D.C. Mr. W. Morris, Surveyor to the Council, Bacton-road, North Walsham.

FEBRUARY 23.—**Paddington.**—MATERIALS.—Supply of stores and materials for one year, for B.C. Borough Treasurer, Town Hall, Paddington, W.2. Charge 2s. 6d. per schedule (22).

FEBRUARY 23.—**Pembroke.**—ROAD MATERIALS, &c.—For supply to R.D.C., for 12 months as from April 1 next, of highways materials for parishes of Castlemartin and St. Mary Out-Liberty, Tenby. Also provision of team labour. Mr. F. S. Jones, Clerk, Main-street, Pembroke.

FEBRUARY 23.—**Woking.**—TAR.—Supply of 8,000 gallons of dehydrated tar. Mr. G. J. Wooldridge, Surveyor, Woking.

FEBRUARY 25.—**Alfreton.**—MATERIALS.—Supply of slag, granite and tar to the U.D.C. Mr. R. F. Ward, Surveyor, Council Offices, Alfreton.

FEBRUARY 25.—**Barnsley.**—ASHBINS.—Supply of 1,000 regulation ashbins, for the T.C. Sanitary Inspector, Pontefract-road, Barnsley.

FEBRUARY 25.—**Broadstairs.**—MATERIALS.—Supply of dehydrated tar, crude tar, crushed pebble, granite chippings, to the U.D.C. Mr. H. Hurd, Surveyor, Pierremont Hall, Broadstairs.

FEBRUARY 25.—**Chelmsford.**—MATERIALS.—Supply of road and other materials to the R.D.C. Mr. L. A. Cozens, Surveyor, Waterloo-lane, Chelmsford.

FEBRUARY 25.—**Feltham.**—TAR.—Supply of 20,000 gallons of tar to the U.D.C. Mr. H. W. A. Carter, Surveyor, Council Offices, Feltham.

FEBRUARY 25.—**Flaxton.**—MATERIALS.—Supply of broken slag and broken whinstone and tar, or tar compounds to the R.D.C. Surveyor, 3, Rowan-avenue, New Earswick, York.

FEBRUARY 25.—**Haywards Heath.**—MATERIALS.—Supply of 11,000 gallons of tar or tar compounds, for U.D.C. Mr. G. Plummer, Surveyor, Urban Council Offices, Haywards Heath.

FEBRUARY 25.—**Hertford.**—MATERIALS.—Supply of broken granite, slag, limestone, gravel, sand, lime, tar, &c., to the T.C. Borough Surveyor, The Castle, Hertford.

FEBRUARY 25.—**Ilford.**—MATERIALS.—Supply of various materials for six months to the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford.

FEBRUARY 25.—**Islington.**—VEHICLES.—Supply of two electric dust-collecting vehicles with tipping bodies and four horse-drawn street watering vans. Superintendent, Cleansing Department, Liverpool-road, N.

FEBRUARY 25.—**Lewisham.**—MATERIALS.—Supply of stores and materials for one year, for B.C. Borough Surveyor, Town Hall, Catford, S.E.6.

FEBRUARY 25.—**Mutford.**—MATERIALS.—Supply of granite, flint gravel, slag, path shingle, &c., to the R.D.C. Mr. H. Blewitt, Council Offices, Oulton Broad, Lowestoft.

FEBRUARY 25.—**Penarth.**—MATERIALS.—Supply of mountain limestone road metalling and gravel and basalt or granite gravel, to the U.D.C. Mr. Edgar I. Evans, Surveyor, Offices, Penarth.

FEBRUARY 25.—**Radcliffe.**—MATERIALS.—Road materials, street castings, &c., for the U.D.C. Mr. W. L. Rothwell, Surveyor, Offices, Radcliffe.

FEBRUARY 25.—**Rhondda.**—PAVING.—Supply of 1,000 yds. of artificial paving, to the U.D.C. Mr. E. Taylor, Surveyor, Pentre, Rhondda.

FEBRUARY 25.—**St. Marylebone.**—MATERIALS.—Supply of tools and ironmongery, &c., to Highway Dept. of B.C. Mr. J. Gair, Engineer, Town Hall, Marylebone-road, N.W.

FEBRUARY 25.—**Watford.**—MATERIALS.—Supply of materials to the T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, Watford.

FEBRUARY 26.—**Belfast.**—REFUSE BINS.—Supply of 3,000 galvanised steel refuse bins, for the T.C. City Surveyor, Belfast. Deposit £1 1s.

FEBRUARY 26.—**Dover.**—TAR.—Supply of 10,000 gallons tar to Road Board Specification, and 12,000 gallons proprietary tar, to the T.C. Mr. Wm. Smith, Borough Engineer, Maison Dieu House, Dover.

FEBRUARY 26.—**Fleet.**—TAR MACADAM.—For 200 tons of tar macadam, for the U.D.C. Surveyor, Fleet, Hants.

FEBRUARY 26.—**Hadleigh.**—MATERIALS.—Supply of granite, tar macadam and tar to the U.D.C. Surveyor, Hadleigh, Suffolk.

FEBRUARY 26.—**Hailsham.**—MATERIALS.—For supply of granite, limestone and flints to the R.D.C. Mr. G. B. Fairchild, Surveyor, Hailsham.

FEBRUARY 26.—**Hertford.**—MATERIALS.—Supply of road and other materials to the T.C. Borough Engineer, Hertford.

FEBRUARY 26.—**Henley.**—MATERIALS.—Supply of flints and gravel and sand for tarspraying, to the R.D.C. Mr. R. O. Gooby, Surveyor, 12, Hart-street, Henley-on-Thames.

FEBRUARY 26.—**Leyton.**—MATERIALS.—Supply of materials for public services, for the U.D.C. Surveyor, Town Hall, Leyton.

FEBRUARY 26.—**Maidstone.**—FENCING.—Supply of 16,000 5-ft. cleft chestnut spiles and 400 6-ft. by not less than 3 in. dia. chestnut posts, to the Kent C.C. Mr. P. W. Cox, Chief Agricultural Officer Sessions House, Maidstone.

FEBRUARY 26.—**Rothwell.**—MATERIALS.—Supply of granite, whinstone, slag, hard York setts and pavors, flags, kerbs, &c., to the U.D.C. Surveyor's Dept., Council Offices, Rothwell, near Leeds.

FEBRUARY 26.—**Sleaford.**—MATERIALS.—Supply to the U.D.C. of granite and crushed gravel. Mr. J. W. Bell, Clerk, 27, Carre-street, Sleaford.

FEBRUARY 26.—**Warminster.**—MATERIALS.—Supply of roadstone and tar to the R.D.C. Mr. R. M. Lapham, Surveyor, Warminster.

FEBRUARY 27.—**Caistor.**—MATERIALS.—Supply to the R.D.C. of granite, slag, clean chips, tarred slag and refined tar. Surveyor, Council Offices, Caistor.

FEBRUARY 27.—**Manchester.**—CHAIRS.—Supply of 1,000 or more collapsible garden chairs to the T.C. General Superintendent, Parks, &c., Dept., 38-40, Lloyd-street, Manchester.

FEBRUARY 27.—**Smethwick.**—MATERIALS—Supply of various materials to the T.C. Mr. Alex. Hosken, Borough Engineer, Council House, Smethwick.

FEBRUARY 27. — **Southwark.** — MATERIALS. — For supply of stores and materials for B.C. Mr. P. H. Grey, Town Clerk, Town Hall, Walworth-road, S.E.17.

FEBRUARY 27.—**Twickenham.**—MATERIALS.—For supply of materials, for six months, to the U.D.C. Mr. F. W. Pearce, Surveyor, Town Hall, Twickenham.

FEBRUARY 27.—**Wortley.**—MATERIALS.—Supply of various materials to the R.D.C. for one year. Mr. F. Thurlby, Surveyor, Grenoside, Sheffield.

FEBRUARY 28.—**Hampton.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. S. H. Chambers, Surveyor, Public Offices, Hampton, Middlesex.

FEBRUARY 28.—**Hoylake.**—MATERIALS.—Supply of road materials, cast-iron pipes, reinforced concrete pipes, &c., to the U.D.C. Surveyor, Town Hall, Hoylake.

FEBRUARY 28.—**Chertsey.**—MATERIALS.—Supply of tarred macadam, broken granite and gravel, to the R.D.C. Capt. H. Beeney, Surveyor, West Byfleet.

FEBRUARY 29.—**Canterbury.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. P. H. Warwick, City Surveyor, Canterbury.

FEBRUARY 29.—**Hatfield.**—TAR.—Supply of refined tar to the Herts C.C. Lt.-Col. A. E. Prescott, County Surveyor, Hatfield.

FEBRUARY 29.—**Merton.**—MATERIALS.—Supply to the U.D.C. of road and other materials. Mr. C. J. Mountifield, Clerk, Offices, Kingston-road, Merton, S.W.19.

FEBRUARY 29.—**Ossett.**—MATERIALS.—For supply of materials, stores, workmen's tools, &c., for one year, for T.C. Borough Surveyor, Town Hall, Ossett.

FEBRUARY 29.—**Southend-on-Sea.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. Robert H. Dyer, Borough Engineer, Southend-on-Sea.

FEBRUARY 29.—**Stafford.**—MATERIALS.—Supply of granite slag and refined tar to the R.D.C. Mr. W. Blackshaw, Surveyor, 3, Crabbery-street, Stafford.

FEBRUARY 29. — **Upholland.** — MATERIALS. — For road and other materials, for one year, for U.D.C. Mr. A. Hunt, Clerk, Upholland, Lancs.

FEBRUARY 29.—**Whitefield.**—MATERIALS.—Supply of granite, macadam, setts, chippings, kerbs, flags, earthenware pipes, ironwork, &c., to the U.D.C. Surveyor, Council Offices, Whitefield.

FEBRUARY 29.—**Wrexham.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. Jno. England, Borough Surveyor, Wrexham.

FEBRUARY.— **Westminster.**— MATERIALS, &C.— For works and supplies, for the Westminster C.C. Mr. John Hunt, Town Clerk, City Hall, Charing Cross-road, W.C.2.

MARCH 1.—**Cardiff.**—MATERIALS.—Supply of road materials, tools, castings, and general ironmongery, to the R.D.C. Mr. William Farrow, Surveyor, 20, Park-place, Cardiff.

MARCH 1. — **Chailey.** — MATERIALS. — Supply of granite, flints, tar, &c., to R.D.C. Mr. R. P. Cheale, Surveyor, West-street, Lewes.

MARCH 1.—**East Retford.**—MATERIALS.—Supply of broken slag, screenings and tar to R.D.C. Clerk, 1, Leverton-road, Retford.

MARCH 1.—**Glamorgan.**—MOUNTAIN LIMESTONE.—For supply of (1) mountain limestone and team labour to the Cardiff R.D.C. during the year ending March 31, 1925, in the following parishes: Bonvilstone, Lavernock, Leckwith, Llsvane, Llancarfan, Llanedarne, Llanilterne, Llanfedu, Llantrithyd, Michaelston-le-Pit, Pendoylan, Penmark, Peterstone-super-Ely, Porthkerry, Radyr, Rhydygwern, Rudry, St. Andrews, St. Brides, St. Fagans, St. Georges, St. Lythans, St. Nicholas, Sully, Van, Welsh St. Donatts, Wenvoe, Whitchurch; limestone to be delivered direct to roller or to depots as prescribed; (2) supply of tarred nut gravel and stone delivered to depots in the various parishes; and (3) supply of tools, castings and general ironmongery. Mr. William Farrow, 20, Park-place, Cardiff.

MARCH 1.—**Goole.**—MATERIALS.—Supply to the R.D.C. of whinstone, slag tarmacadam refined tar, &c. Mr. R. Plewes, Surveyor, 4, Belgravia, Goole.

MARCH 1.—**Hampton Wick.**—MATERIALS.—Supply of road materials and tar to the U.D.C. Mr. Harold Fawssett, Clerk, Council Offices, High-street, Hampton Wick.

MARCH 1—**Ormskirk.**—MATERIALS.—Supply of highway materials to the West Lancashire. R.D.C. Mr. R. Rosbotham, Surveyor, Town End, Ormskirk.

MARCH 1.—**Rochford.**—MATERIALS.—Supply of hoggin, sand and pea gravel to the R.D.C. Mr. A. C. Madge, Surveyor, Rayleigh, Essex.

MARCH 1.—**Rochford.**—TAR.—Supply of 50,000 gallons of tar, for the R.D.C. Mr. A. C. Madge, Rayleigh, Essex.

MARCH 1.—**South Shields.**—MATERIALS.—For the supply of various materials to the T.C., for six or nine months. Mr. F. P. Sissons, Borough Engineer, Town Hall, South Shields.

MARCH 1.—**Weymouth.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. A. J. Haxworth, Surveyor, Wyke Regis.

MARCH 3.—**Bulkington.**—MATERIALS.—Supply of broken granite to the U.D.C. Surveyor, Offices, Bulkington.

MARCH 3.—**Dunstable.**—MATERIALS.—Supply of tarred slag, dry slag, and tar, to the T.C. Mr. S. F. Wilkins, Borough Surveyor, Town Hall, Dunstable.

MARCH 3.—**Ealing.**—MATERIALS.—Supply of various materials for the public services, for the T.C. Mr. W. R. Hicks, Borough Surveyor, Town Hall, Ealing.

MARCH 3.—**East Ham.**—MATERIALS.—For supply of various materials to the T.C. Town Clerk, Town Hall, East Ham.

MARCH 3.—**Middlesbrough.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. S. E. Burgess, Borough Engineer, Middlesbrough.

MARCH 3.—**Rhondda.**—MATERIALS.—Supply of white lump lime, acid, firebricks and retorts, silica bricks, oils, &c., to Gas Dept. Mr. O. Thomas, Manager, Gas Offices, Pentre, Rhondda.

MARCH 3.—**Stoke-on-Trent.**—MATERIALS.—Supply of stores to Gas Dept. Gas Engineer, Stoke-on-Trent.

MARCH 3.—**Westhoughton.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. G. Hayes, Surveyor, Town Hall, Westhoughton.

MARCH 4.—**Belfast.**—STORES.—Supply of stores for one year to the Tramways Department. General Manager, Belfast.

MARCH 4.—**Chelmsford.**—CEMENT.—Supply to the Joint Sewerage Committee of the Chelmsford Urban and R.D. Councils of 1,500 tons of best English Portland cement. Borough Engineer, Chelmsford.

MARCH 4.—**Leeds.**—MATERIALS.—Supply of materials, to the Tramways and Highways Dept., for one year. Mr. G. B. Hamilton, Commercial Manager, 1, Swinegate, Leeds.

MARCH 4.—**Padiham.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. R. Radcliffe, Surveyor, Council Offices, Padiham.

MARCH 5.—**Cardiff District.**—REFUSE REMOVAL, &C.—For hire of horses to the Cardiff R.D.C. for scavenging wagons in the district of Whitchurch and removal of refuse, &c., in 15 different districts specified; whole or part of work may be contracted for. Contracts 1 to 6 Mr. Evan Jones, "Cartref," Mill road, Tongwynlais, Nos. 7 to 11 Mr. William Lewis, 8, Palace road, Llandaff; and Nos. 12 to 16 Mr. William Morgan, Cwm, Millbrook-road, Dinas Powis.

MARCH 5.—**Dunblane.**—MATERIALS.—Supply of road and other materials, general stores and ironmongery, to the Perthshire C.C. Mr. W. L. Gibson, Road Surveyor, Dunblane.

✱MARCH 5.—**Hove.**—SUPPLY OF STORES, &C.—Supply of various stores and execution of various works, hire of horses, carts and drivers, &c., during the year commencing April 1 next. Borough Surveyor (Mr. H. H. Scott), Town Hall, Hove.

MARCH 5.—**King's Lynn.**—MATERIALS.—Supply of ironmongery, oils, colours, packing, brushes, &c., to the T.C. Mr. J. C. Matthew, Borough Surveyor, King's Lynn.

MARCH 5.—**King's Lynn.**—MATERIALS.—Supply of road materials to the T.C. Mr. J. C. Matthew, Borough Surveyor, Town Hall, King's Lynn.

MARCH 5.—**London, S.W. 11.**—MATERIALS, &C.—Tenders are invited for the following from April 1 next, for three, six and twelve months: (1) Supply of paints, &c.; (2) supply of special paints, enamels, &c.; (3) supply of painters' sundries; (4) supply of varnish, &c.; (5) supply of bricks, cement, lime, &c. For twelve months: horse hire for the Battersea B.C. Mr. Edwin Austin, Town Clerk, Town Hall, Battersea, S.W. 11.

MARCH 5.—**Smallburgh.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. W. L. Lewis, Surveyor, Stalham.

MARCH 6.—**Hendon.**—MATERIALS.—Supply of road and other materials to the R.D.C. Mr. H. W. Rackham, Surveyor, Council Offices, Stanmore.

MARCH 6.—**Heston and Isleworth.**—ROAD MATERIALS.—Supply of granite, 93,000 gallons of refined tar, granite chippings, and Kentish pit flints, to the U.D.C. Mr. J. G. Carey, Surveyor, Council House, Hounslow.

MARCH 6.—**Nottingham.**—MATERIALS.—Supply of stores and materials to the Works Committee of the T.C. Mr. T. Wallis Gordon, City Engineer, Guildhall, Nottingham. Deposit 5s. per section.

MARCH 6.—**Thakeham.**—ROAD MATERIALS.—Supply of basalt, granite, flints and tar to the R.D.C. Mr. Wm. Forrester, Surveyor, Storrington, Pulborough.

✱MARCH 10.—**Nelson.**—ANNUAL CONTRACTS.—Supply and delivery of materials for roads, &c., for the year ending March 31, 1925, for the B.C. of Nelson. Mr. W. Shackleton, A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Nelson.

MARCH 11.—**Liverpool.**—MATERIALS.—For the supply of various materials required for City Engineer's Dept. City Engineer, Municipal Buildings, Dale-street, Liverpool.

MARCH 12.—**Rye.**—MATERIALS.—Supply of material for one year to the R.D.C. Mr. H. J. Elliot, Surveyor, Winchelsea, Sussex.

MARCH 12.—**Shoreditch.**—MATERIALS.—Supply of road materials, brooms, &c., for one year, to the B.C. Borough Surveyor's Department, Town Hall, Old-street, E.C.2.

MARCH 15.—**Marple.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. D. J. Driver, Surveyor, Council Offices, Marple.

MARCH 17.—**Merthyr Tydfil.**—SUPPLIES.—For supply to the Board of Guardians for (1) Poor-Law Institution, Merthyr Tydfil; (2) Subsidiary Institution, Trecynon, Aberdare; (3) Central Homes, Llwydcoed, Aberdare, in bulk, of straw, haulage, boots and shoes, officers' uniforms, oils, paints, ironmongery, boot-making materials, leather, drugs, medical accessories, &c. Mr. F. T. James, Union Offices, High-street, Merthyr Tydfil.

MARCH 25.—**Penarth.**—STORES.—For supply to U.D.C. of general stores, ironmongery and brushes, &c. Mr. J. W. Morris, Clerk, Council Offices, Penarth.

NO DATE.—**Aberdare.**—MATERIALS.—Supply of stores for six months, to the Powell Duffryn Steam Coal Co. Stores Manager, Aberaman Offices, Aberdare.

ENGINEERING, IRON AND STEEL.

FEBRUARY 23.—**Chelmsford.**—AIR COMPRESSOR.—(*a*) Supplying a belt-driven air-compressor, and (*b*) fixing same, and supplying and fixing an overhead driving shaft, at the pumping station, Great Baddow, for the R.D.C. Mr. James Dewhirst, engineer, Waterloo-lane, Chelmsford.

FEBRUARY 23.—**Kendal.**—ELECTRIC LIGHTING.—For the installation of electric lighting in the Parish Church, for the Parochial Church Council. Mr. John Hutton, L.R.I.B.A., Kendal.

FEBRUARY 23.—**Skipton.**—BRIDGE.—Construction of a ferro-concrete bridge to carry the Keighley and Kendal main road over the Leeds and Liverpool Canal, near Gargrave, Skipton, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

FEBRUARY 25.—**Ashton-under-Lyne.**—HEATING.—For the supply and erection of central heating apparatus, for the Board of Guardians. Mr. G. J. Gibbs, 7, Lime-street, Preston. Deposit £5.

FEBRUARY 25.—**Edinburgh.**—WASHHOUSE EQUIPMENT.—For the engineering equipment of a new public washhouse to be erected at Abbeymount (including new steam boiler and other relative plant), for the T.C. Mr. James A. Williamson, City Architect, Public Works Office, Edinburgh.

FEBRUARY 25.—**Gravesend.**—CONCRETE TANKS.—For the construction of reinforced concrete tanks at sewage outfall works at Denton Marshes, for the T.C. Mr. Frederick T. Grant, Engineer, 4, Woodville-terrace, Gravesend. Deposit £3 3s.

FEBRUARY 25.—**Manchester.**—WATER WORKS.—Construction of concrete straining chambers and supplementary works at Lostock, near Bolton, for the Manchester T.C. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.

FEBRUARY 25.—**Rhondda.**—STEEL JOISTS, &C.—For supply to the Rhondda U.D.C. of the following:—(1) About 30 tons of 6 in. × 5 in. × 25 lbs. British-made rolled steel joists in 10 ft. and 11 ft., and about 15 tons of ½ in. dia. mild steel rods in 18 ft. and 14 ft. lengths; and (2) about 1,000 yds. of artificial paving. District rate of wages required to be paid by contractors in each class of work. Mr. E. Taylor, Engineer and Surveyor, Council Offices, Pentre (Rhondda).

FEBRUARY 26.—**Paddington.**—GIRDERS.—Supply to the G.W.R. Co. of 152 tons steel girders and other iron and steel work of British manufacture. Engineer, Paddington Station.

FEBRUARY 26.—**Stourbridge.**—RESERVOIR.—For the construction of a reinforced concrete reservoir (Hennebique System) of about 352,000 gallons capacity at Wychbury Hill, Hagley, for the Stourbridge and District Water Board. Mr. W. Fiddian, F.S.I., 13, Church-street, Stourbridge. Deposit £3 3s.

FEBRUARY 27.—**Dublin.**—STEELWORK.—Supply of steelwork for a shed, for the Dublin Port Docks and Board. Engineer, East Wall, Dublin.

FEBRUARY 27.—**London.**—DRYING MACHINE.—For the installation of a new continuous drying machine at the South-Eastern Fever Hospital, New Cross, S.E., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

FEBRUARY 27.—**Madras.**—PIPES.—Supply of cast-iron pipes, special castings, &c., to the T.C. Messrs. J. Mansergh & Sons, agents to the Corporation, 5, Victoria-street, S.W.

FEBRUARY 28.—**Birmingham.**—ELECTRIC WIRING.—For the installation of electrical wiring to supply electrical sterilisers in various wards at Dudley-road Hospital, for the Board of Guardians. Mr. J. Curtis, Clerk, Offices, Edmund-street, Birmingham. Deposit £3 3s.

FEBRUARY 28.—**Birmingham.**—PIPES.—Supply of 1,520 lineal yards of socket and spigot straight pipes with a finished internal diameter of 23 in., to the T.C. Secretary, Water Department, Council House, Birmingham. Deposit £1 1s.

FEBRUARY 28.—**Sunderland.**—STEELWORK.—Supply of steelwork for the renewal of three bridges at South Dock, Sunderland, for the London & North Eastern Railway Co. Chief Engineer, North Eastern Area, York.

FEBRUARY 28.—**York.**—BRIDGES.—For renewal of the floors of four overbridges on the York and Newcastle Railway, for the London & North Eastern Railway Co Chief Engineer, North Eastern Area, York.

FEBRUARY 29.—**Rotherham.**—BRIDGE.—For the reconstruction and widening of bridge carrying Meadow Bank-road, over L. & N.E. Railway, for the T.C. Borough Engineer, Town Hall, Rotherham. Deposit £5.

FEBRUARY 29.—**Thrapston.**—BRIDGE.—Designs and tenders for 24 ft. ferro-concrete bridge, for the R.D.C. Mr. A. R. C. Bradbury, Surveyor, Thrapston.

MARCH 1.—**Blackburn.**—ELECTRIC INSTALLATION.—For electric light and power installation in Institution laundry, for the Board of Guardians. Mr. C. E. Bygrave, Clerk, Blackburn. Deposit £1.

MARCH 1.—**Jamaica.**—DAM.—For the construction of a cyclopean masonry dam and contingent works required in connection with the extension of the Kingston and St. Andrews Water Works. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.

MARCH 1.—**Skipton.**—BRIDGE.—For widening and strengthening Pickhill Bridge, Skipton, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

MARCH 1.—**Urmston.**—FENCING.—For the supply of about 470 lineal yards of wrought-iron fencing and gates to the U.D.C. Surveyor, Council Offices, Urmston. Deposit £1 1s

MARCH 1.—**Wakefield.**—BRIDGES.—(a) Reconstruction of Bonny Bridge (6 ft. span), at Thurlstone; (b) reconstruction of new Dyke Bridge (7 ft. span), at Great Ouseburn; (c) re-building of a masonry retaining wall and part of Upperfoot Bridge (10 ft. span), at Huddendenfoot, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1 each contract.

MARCH 3.—**Coulsdon.**—FIRE ALARM SYSTEM.—For (1) A closed circuit fire alarm system; (2) a closed circuit fire alarm system combined with an ambulance call system, for the U.D.C. Chief Officer, Fire Station, Purley.

MARCH 3.—**Grimsby.**—PIPEWORK.—For steam and other pipework, for the T.C. Mr. W. A. Vignoles, Corporation Electricity Works, Grimsby.

MARCH 3.—**York.**—BRIDGE.—For the widening of Bayerthorpe Bridge over the River Foss, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

MARCH 4.—**Sheffield.**—BRIDGE.—For reconstruction and widening of bridge over the Sheffield and Tinsley Canal at Staniforth-road, for the T.C. Mr. E. Partington, Improvement Surveyor, Town Hall, Sheffield. Deposit £5.

MARCH 6.—**Calverley.**—BRIDGE.—Construction of temporary steel bridge to carry a light railway over the line of the London, Midland & Scottish Railway, near the Calverley and Rodley Station, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

MARCH 6.—**Colwyn Bay**—MACHINERY.—For sewerage pumping machinery, for the U.D.C. Mr Robert Green, engineer, 37, Bennetts-hill, Birmingham. Deposit £5 5s.

MARCH 7.—**Carlisle.**—BRIDGES.—Construction of new concrete arched bridges over the River Caldew and the little Caldew, also retaining walls, filling and masonry work, &c., for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle. Deposit £2 2s.

MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £0 10s.

MARCH 12.—**Madras.**—PUMPING PLANT.—Supply of sewage pumping machinery to the T.C. Messrs. J. Gransergh & Sons, agents, 5, Victoria-street, S.W. Deposit 10s. each of two contracts.

MARCH 20.—**Congresbury.**—BRIDGE.—For the diversion of the main road and the River Yeo, and construction of reinforced concrete bridge at Congresbury, for the Somerset C.C. Mr. E. Stead, County Surveyor, 3, High-street, Weston-super-Mare. Deposit £2 2s.

MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

MAY 1.—**China.**—BRIDGE.—**The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £95,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.**

MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £3 3s.

JULY 1.—**Chili.**—HARBOUR WORKS.—For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.

TO DATE.—**Cross Keys (Mon).**—DRIVAGE.—For driving a cross measure drift, approximately 134 yds. sloping 1 in 6, also a drift approximately 32 yds. sloping 1 in 2. Agent, United National Collieries, Cross Keys (Mon).

TO DATE.—**Kingswinford.**—BRIDGE.—For the erection of a steel girder bridge at Buck Pool, Wordsley, for the R.D.C. Mr. W. Meredith, Kingswinford, Dudley. Deposit £2 2s.

ROAD, SANITARY, AND WATER WORKS.

FEBRUARY 23.—**Beverley.**—ROADS.—For (1) spraying 1,000,000 square yards of roads with tar, and (2) spraying 500,000 square yards with "Spramix" or other bituminous compound, for the East Riding of the C.C. Mr. J. W. Chapman, County Surveyor, Beverley.

FEBRUARY 23.—**Chester.**—ROADS.—For making-up Bridge-road, for the T.C. Mr. Charles Greenwood, City Engineer, Town Hall, Chester. Deposit £2 2s.

FEBRUARY 23.—**Deal.**—DRAINAGE WORK, UNEMPLOYMENT AND RELIEF WORK.—Renewing 2 ft. diameter earthenware pipe, and extending two 18 in. cast-iron form relief outfalls, all work practically above ordinary low-water mark, for the Borough of Deal. Borough Engineer and Surveyor's Office, 18, Queen-street, Deal.

FEBRUARY 23.—**Exmouth.**—WATER MAIN.—For the laying of 900 yds. of 10 in. water main, in the parish of 1st Bu..leigh, for the U.D.C. Mr. Samuel Hutton, Engineer, Public Hall, Exmouth.

FEBRUARY 23.—**Tadcaster.**—WATER MAINS.—For providing and laying cast-iron water pipes with valves, hydrants, &c., for the R.D.C. Mr. H. M. Driver, Surveyor, Garforth, near Leeds.

FEBRUARY 25.—**Chelmsford.**—SEWAGE PLANT.—Apply to the Joint Sewerage Committee of the Chelmsford Urban and Rural District Councils of screens, detritors, elevators, penstocks, iron pipes, and other special fittings, in connection with sewage scheme. Mr. J. Miles, Borough Engineer, 16, London-road, Chelmsford.

FEBRUARY 25.—**Finchley.**—SEWERS.—Construction of surface water sewers, in the East End-road, for the U.D.C. Mr. Percival T. Harrison, Surveyor, 9, The Hawthorns, Regent's Park-road, Finchley, N. 3. Deposit £2.

FEBRUARY 25.—**France.**—CEMETERIES.—For the construction of approximately thirty cemeteries in France. Secretary (Works Dept.), Imperial War Graves Commission, 82, Baker-street, W.1. Deposit £15 15s.

FEBRUARY 25.—**Glasgow.**—SEWER.—For the construction of a 3 ft. 6 in. and 3 ft. brick sewer from Ashfield-street to Hawthorn-street, for the T.C. Offices of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

FEBRUARY 25.—**Huddersfield.**—SEWAGE WORKS.—Construction of 800 lin. yds. of 3 ft. diameter U-shaped brick sewer, reinforced concrete tanks, pump house, &c., for the T.C. Mr. W. Jaggar, Borough Engineer, 1, Peel-street, Huddersfield.

FEBRUARY 25.—**Ilford.**—SEWER.—Construction of a sewer consisting of about 209 lin. yds. of 48 in. circular brick sewer, and about 1,790 lin. yds. of 15 in. stoneware pipes with 14 manholes, for the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford. Deposit £2 2s.

FEBRUARY 25.—**London.**—ROADS.—For scavenging, &c., Thames embankments and bridges, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

FEBRUARY 25.—**London.**—SLUDGE REMOVAL.—For the removal and disposal of sewer deposit and other material in connection with the main drainage, &c., services for four districts, for the L.C.C. Chief Engineer, Old County Hall, Spring-gardens, S.W.1. Deposit £1.

FEBRUARY 25.—**Milford Haven.**—ROAD MATERIALS.—For supply to U.D.C. of 450 tons of granite, or other stone of approved quality, for highways, broken to 2-in. and 1½-in. gauges, and about 180 tons of chippings, ¾-in. to dist.; description of stone to be specified and prices given for (1) delivery to Castle Pill Beach; (2) at Docks, free of all dues and charges; (3) at the Council's stone depot, Great North-road, Milford Haven, and to depot at Hakin. Mr. T. G. Williams, Council Offices, Milford Haven.

FEBRUARY 25.—**Penarth.**—ROAD MATERIALS.—For supply to U.D.C. in year ending March 31, 1925, of mountain limestone road metalling, gravel and basalt or granite gravel. Mr. Edgar I. Evans, Surveyor District Council Offices, Penarth.

FEBRUARY 25.—**Rowley Regis.**—ROADS.—For widening and improving Gorsty Hill-road, for the U.D.C. Mr. Daniel Wright, Clerk, Rowley Regis.

FEBRUARY 26.—**Camelford.**—WATER WORKS.—For laying water mains, building reservoirs, &c., in connection with a water supply scheme for the parish of St. Breward, for the R.D.C. Messrs. Andrew & Randell, New Inn Chambers, St. Austell. Deposit £1 1s.

FEBRUARY 26.—**Dunfermline.**—ROADS.—For making improvements at Brucefield Housing Scheme, for the T.C. Mr. R. Muir Morton, Burgh Engineer, City Chambers, Dunfermline.

FEBRUARY 26.—**Hailsham.**—ROADS.—For tar-spraying about 30,000 sq. yds. of roads, for the R.D.C. Mr. G. B. Fairchild, Surveyor, Hailsham.

FEBRUARY 26.—**Llandyssul.**—NEW ROAD.—For construction of a new road from the District-road to Garthowen Lodge, Garthowen, Llandyssul.

FEBRUARY 26.—**Middlesex.**—ROAD.—For construction of approximately 1.6 miles, commencing at Finchley-road (in the Borough of Hampstead) and terminating at the North Circular-road (in the Urban District of Hendon), for Middlesex C.C. Mr. A. Dryland, County Engineer, Guildhall, Westminster, S.W.1. Deposit 20 guineas.

FEBRUARY 26.—**Watford.**—SEWER.—For the laying of 295 lineal yards of sewer in Gills Hill-lane, Radlett, and 260 yards in Loom-lane and Batlers Green, for the R.D.C. Surveyor, 9, Market-street, Watford. Deposit £2.

FEBRUARY 27.—**Birmingham.**—ROADS.—For the widening of Harborne Park-road and Harborne-lane, including the construction of new carriage-way and surface-water sewers and the reconstruction of the bridge over the Bourn Brook, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

FEBRUARY 27.—**Birmingham.**—SEWERS.—Construction of about 164 yds. of cast-iron pipe sewer and 154 yds. of brick and concrete sewers in five sewer crossings under the Tame Valley and Birmingham and Fazeley Canals, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

FEBRUARY 27.—**Harwich.**—ROADS.—For hire of steam-rollers and tar-spraying, for one year. Mr. J. H. French, Borough Surveyor, Harwich.

FEBRUARY 27.—**Hinckley.**—SEWER.—Construction of 1,200 yds. of stoneware sewer, for the R.D.C. Mr. W. M. Edwards, Surveyor, Burbage.

FEBRUARY 27.—**Rochdale.**—ROADS, &C.—For the construction of roads and sewers, on the Turf-hill Estate, for the T.C. Borough Surveyor, Town Hall, Rochdale.

FEBRUARY 28.—**Chertsey.**—ROADS.—For steam rolling in the various parishes comprising the rural area. Mr. H. Beeney, Surveyor, West Byfleet.

FEBRUARY 28.—**Morecambe.**—ROADS.—For making-up Margaret-street, for the T.C. Mr. Percival Holt, Borough Engineer, Morecambe. Deposit £1 1s.

FEBRUARY 28.—**Redruth.**—STONE BREAKING.—For breaking and screening stone by machinery, in various parts of the district of the R.D.C. Mr. F. L. Rider, Surveyor, Pool, Carn Brea, Cornwall.

FEBRUARY 28.—**Sennybridge.**—ROAD WORKS.—Reconstruction of a bridge, building of culverts, and widening carriage-way, for the Breconshire C.C. Mr. W. L. Harpur, County Surveyor, County Offices, Brecon. Deposit £2 2s.

FEBRUARY 28.—**Wandsworth.**—ROADS.—For paving Dawnay and other roads, for the B.C. Mr. E. J. Elford, Surveyor, 215, Balham High-road, S.W. Deposit £1 1s.

FEBRUARY 28.—**Watford.**—SANITARY WORK, &C.—Minor alterations, the provision of new lavatory basins and sinks, and laying new paving in the Operating Unit at the Infirmary in Vicarage-road, Watford, Herts, for the Guardians of the Watford Union. Messrs. A. Saxon Snell & Phillips, 9, Bentinck-street, Manchester-square, W.1. Deposit £2.

FEBRUARY 29.—**Birkenhead.**—SEWER.—For the construction of 421 lin. yds. of 6 ft. 9 in. by 4 ft. 6 in. brick and reinforced concrete sewer in Livingstone-street, and 580 lin. yds. of 12 in. and 15 in. stoneware pipe sewer and about 182 lin. yds. of 27 in. diameter reinforced concrete pipe sewer in Brook-street, for the T.C. Mr. Chas. Brownridge, Borough Engineer, Town Hall, Birkenhead. Deposit £3 3s.

FEBRUARY 29.—**Hatfield.**—TARRING.—For surface tarring 2,000,000 sq. yds. of roads, for the Herts C.C. Lieut.-Col. A. E. Prescott, County Surveyor, Hatfield.

FEBRUARY 29.—**Lingwood.**—WELL.—For sinking seven deep water wells and deepening existing deep water well at Lingwood, Burlingham Estate, for the Norfolk C.C. Mr. Victor Playle, County Land Agent Shirehouse, Norwich. Deposit £1 1s.

MARCH 1.—**Montgomeryshire.**—STORAGE RESERVOIR AND WATER MAINS.—Construction of a small storage reservoir, and the laying of a main in connection with an additional water supply, for the T.C. of Llandloes. Mr. James Grant, Surveyor, Llandloes, Montgomeryshire.

MARCH 1.—**St. Andrews.**—ROADS.—Construction of new streets, footpaths, sewers, at their housing scheme, St. Mary-street site, for the T.C. Burgh Engineer, Town Hall, St. Andrews.

MARCH 1.—**Stanley.**—SEWER.—Construction of Ferry lane outfall sewer and branch sewers in Ferry-lane, etc., for the U.D.C. Mr. Frank Massie, M.Inst.C.E., Tetley House, Wakefield. Deposit £2 2s.

MARCH 3.—**Bridgend.**—WATER MAINS.—Providing and laying: (1) 430 lin. yds. of 3 in. dia. cast iron mains at Pyle Housing Scheme; (2) 180 lin. yds. of 3 in. dia. cast iron mains at St. Marie-street, Bridgend; (3) 415 lin. yds. of 3 in. dia. cast iron mains near General Hospital, Maesteg; (4) 295 lin. yds. of 3 in. dia. cast iron mains at Brynteg Field, Bridgend, for the Mid-Glamorgan Water Board. Mr. E. W. Davies, Manager, Water Board Offices, Bridgend. Deposit £1 1s.

MARCH 3.—**Burton-in-Lonsdale.**—ROADS.—Improvement of the Lancaster and Richmond main road at Burton-in-Lonsdale, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

MARCH 3.—**Hendon.**—SEWAGE WORKS.—For the construction of sewage disposal works and sewerage and drainage works, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W. 4. Deposit £5 5s.

MARCH 3.—**Middlesex.**—ROADS.—For the construction of approximately 3¾ miles, commencing at Lawrence-street (Mill Hill Urban District, Hendon) and terminating at Elstree (in the Rural District of Hendon), for Middlesex C.C. Mr. A. Dryland, County Engineer, Guildhall, Westminster, S.W.1. Deposit 20 guineas.

MARCH 3.—**Mid-Glamorgan.**—LAYING OF WATER MAINS.—For supply and laying, in each case with all necessary valves, fittings, &c., for the Mid-Glamorgan Water Board of (1) about 430 lineal yds. of 3-in. dia. cast-iron mains at Pyle Housing Scheme; (2) about 180 lineal yds. of 3 in. dia. cast-iron mains at St. Marie-street, Bridgend; (3) about 415 lineal yds. of 3-in. dia. cast-iron mains near General Hospital, Maesteg; (4) about 295 yds. 3-in. dia. cast-iron mains at Brynteg Field, Bridgend. Mr. Eiryn W. Davies, Manager, Water Board Offices, Bridgend. Deposit £1 1s.

MARCH 3.—**Sunbury.**—SEWER.—Construction of 600 yds. of 8 in. cast-iron pipe intercepting sewer and 280 yds. of 8 in. glazed stoneware pipe sewer, in Manor-lane, for the U.D.C. Mr. H. F. Coales, Surveyor Council Offices, Sunbury-on-Thames.

MARCH 3.—**Sunbury.**—SEWER.—Construction of 1,392 yds. of 8 in. glazed stoneware pipe sewer in the Avenue, for the U.D.C. Mr. H. F. Coales, Surveyor, Council Offices, Sunbury-on-Thames.

MARCH 3.—**Westhoughton.**—ROADS.—For reconstruction of Bolton-road, for the U.D.C. Mr. George Hayes, Surveyor, Town Hall, Westhoughton. Deposit £3 3s.

MARCH 4.—**Chipping Norton.**—WATER WORKS.—For providing and laying about 544 lineal yds. of 2 in. wrought-iron galvanised screwed and socketed water pipe and specials on the Burford main-road, for the T.C. Mr. R. Stanton, Borough Surveyor, Chipping Norton.

MARCH 4.—**Clacton.**—SEWER.—For repairs to 12-in. cast-iron west sewer outfall, for the U.D.C. Surveyor, Clacton.

MARCH 4.—**Gellygaer.**—TARSPRAYING OF ROADS.—For undertaking for the Gellygaer U.D.C. the tar-spraying of certain roads in the area, during the current year. The area will be approximately 80,000 super yards and work may be let wholly or in several contracts by the Council. Mr. F. Read, Surveyor, Council Offices, Hengoed.

MARCH 4.—**Tring.**—SEWERS.—For construction of sewers in Grove and Station-roads, for the U.D.C. Mr. H. N. Hedges, Surveyor, Tring. Deposit £2 2s.

MARCH 5.—**King's Lynn.**—ROADS.—For road rolling and scarifying, for the T.C. Mr. J. C. Matthew, Borough Engineer, Town Hall, King's Lynn.

MARCH 5.—**King's Lynn.**—TAR SPRAYING.—For tar-spraying of roads, for the T.C. Mr. J. C. Matthew, Borough Surveyor, Town Hall, King's Lynn.

MARCH 6.—**Londonderry.**—ROADS.—For strengthening and resurfacing about 50 miles of road, for the C.C. Mr. T. B. Adams, Secretary, County Courthouse, Londonderry.

MARCH 6.—**St. Mellon's (Mon).**—SUPPLY OF STONE, &C.—For supply to R.D.C. of broken limestone and gravel in specified quantities; and (2) carrying out the scavenging in the parishes of Duffryn (part of), Graig, Malpas, Rogerstone, Rumney, and St. Woolos. Mr. William Dowler, Clerk to R.D.C., Union Offices Queen's-hill, Newport (Mon).

MARCH 7.—**Haywards Heath.**—WATER MAINS.—For laying and jointing about seven miles of 12 in. dia. and about four miles of 9-in. dia. cast-iron water mains, for the Mid-Sussex Joint Water Board. Mr. Francis Martin, Waterworks Offices, Haywards Heath, Sussex. Deposit £2 2s.

MARCH 7.—**Leicester.**—ROADS.—For reconstruction of main roads in bituminous materials, for the C.C. Mr. J. E. Blackwall, County Surveyor, Leicester.

MARCH 10.—**Clutton.**—ROADS.—For steam rolling, for the R.D.C. Surveyor, Hallatrow, near Bristol.

MARCH 11.—**Glasgow.**—ROADS.—Reconstruction of main road from Langloan to Airdrie, for the T.C. Mr. James Dalrymple, 44, Bath-street, Glasgow. Deposit £2 2s.

MARCH 12.—**Birmingham.**—DEEPENING BROOK.—For deepening brook of a length of about 1,184 yds. of the Hockley Brook, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

NO DATE.—**Torquay.**—GAS MAINS.—For laying about 930 yds. of 6 in. cast iron gas main in Marldon-road, Paignton, for the Torquay and Paignton Gas Co. Mr. C. G. Dawson, Gas Works, Paignton. Deposit £1 1s.

Competitions.

(See Competition News, page 290.)

Auction Sales, Tenders, etc.

★FEBRUARY 23.—**Great Bookham, Surrey.**—Mr. C. E. Clark will sell, without reserve, at Eastwick Farm Buildings, Lower-road, Great Bookham, Surrey (about 1½ miles from Leatherhead). Important sale of upwards of 50,000 of various timbers and builders' effects. Auctioneer, Beddington House, near Croydon.

★FEBRUARY 26.—**London, W.**—Messrs. J. T. Skelding & Co. will sell, without reserve, stock and plant of a builder and decorator, as previously advertised, at Boswell House, Ossington-buildings, Paradise-street, W. Auctioneers, 48, Gresham-street, Guildhall, E.C. 2.

★FEBRUARY 26 AND FOLLOWING DAYS.—**Liverpool.**—Messrs. Geo. N. Dixon & Co. will sell, by order of Messrs. Trollope & Colls, Ltd., at the works, Pleasant-street, Brownlow Hill, and the yard, St. Andrew's-street, Liverpool, the very valuable timber and builders' plant and material. Auctioneers, 41, Castle-street, Liverpool.

FEBRUARY 27.—**London, E.C.**—Messrs. Rushworth & Brown will sell, by order of the Liquidator (in voluntary liquidation) *re* Messrs. Clements, Jeakes & Co., Ltd., engineers, at Winchester House, E.C., 10½, 12 and 14, Macklin-street, Drury-lane, immediately in the rear of the Winter Garden Theatre, Drury-lane, comprising freehold factory premises; area about 10,000 ft. super. Immediate possession. Auctioneers, 22, Savile-row, W.1.

★FEBRUARY 28.—**London, S.E.**—Messrs. Veryard & Yates will sell, without reserve, at 126, Norwood-road, at 1.30, building materials, timber, &c. Auctioneers, 365, Norwood-road, S.E. 27.

FEBRUARY 29.—**Cambs.**—Messrs. Joseph Hibbard & Sons, in conjunction with Messrs. F. W. Seward & Son, will sell, at a moderate reserve, unless previously sold by private treaty, by order of F. W. Shanks, who is relinquishing this branch of his business, at the George Hotel, Chatteris, Cambs, valuable, well-arranged and finely situated freehold builders' and contractors' premises situated in Station-street, Chatteris. To be sold with vacant possession of the whole (except the dwelling-house). Auctioneers, 15, Newington-green, Islington, London, N.16.

MARCH 4.—**Cambs.**—Messrs. Joseph Hibbard & Sons, in conjunction with Messrs. F. W. Seward & Son, will sell, without reserve, by order of F. W. Shanks, who is relinquishing this branch of his business at Station-street, Chatteris, Cambs, builders' stock and plant, timber, sanitary goods, five-bay grand stand, rolling stock, &c. Auctioneers, 15, Newington-green, Islington, London, N.16.

MARCH 4, AND TWO FOLLOWING DAYS.—**London, S.E.**—Messrs. Henry Butcher & Co. will sell by order of the Hamilton Trading Company, Hamilton-road, West Norwood, S.E., large quantities of miscellaneous tools and stores, &c., including 1-ton crane, electric motors, marine engines, &c. Auctioneers, 63 and 64, Chancery-lane, London, W.C.

★MARCH 4.—**Woolwich, S.E. 18.**—ARTIFICERS' WORKS.—Artificers' works contract from April 1 at the Station and Divisions in the Woolwich Royal Engineer District. Contract 1. Woolwich, 1st and 2nd Divisions: Commanding Royal Engineer, Royal Engineer Office, New-road, Woolwich, S.E. 18.

★MARCH 6.—**East Sheen.**—Messrs. C. & E. Melville will sell at the Mart, 155, Queen Victoria-street, E.C.4, unless previously disposed of, a freehold building site of over 23 acres. Auctioneers, 233, Upper Richmond-road, East Sheen, S.W.14.

★MARCH 18 AND FOLLOWING DAYS.—**Aldershot.**—Messrs. Joseph Hibbard & Sons will sell, without reserve, on the premises, Elms-road and Boxalls-lane (two minutes from Station), Aldershot, surplus stock of Messrs. George Kemp & Co., owing to amalgamation with A. H. Stroud, Esq., stock, plant, scaffolding, ironmongery, and sanitary goods, blacksmiths' material, concrete mixer, timber stocks, rolling stock. Auctioneers, 15, Newington-green, Islington, N.16.

MAY 6.—London, W.1.—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

FEBRUARY 23.—**Salop.**—ARCHITECTURAL ASSISTANT.—Temporary Architectural Assistant required by the Salop C.C. Mr. F. Crowte, Clerk to the County Council, Shirehall, Shrewsbury.

★FEBRUARY 25.—**Guildford.**—Two Clerks of Works required in connection with the Council's Housing schemes, as follows: (*a*) One for the erection of 12 cottages in the parish of West Horsley; (*b*) one for the erection of 12 cottages in the parish of Shere, viz., 6 at Pathfield, and 6 at Peaslake. Mr. W. S. V. Cullerne, Clerk to the Council, Commercial-road, Guildford.

FEBRUARY 25.—**Wallasey.**—Temporary Junior Architectural Assistant required in the Borough Engineer and Surveyor's office, by the B.C. Mr. George Livsey, Town Clerk, Town Hall, Wallasey.

FEBRUARY 27.—**Bootle.**—Architectural and Town-Planning Assistant required in the Borough Engineer and Surveyor's Department, by the County Borough of Bootle. Mr. J. Spencer Tumilty, Town Clerk, Bootle, enclosing copies of three recent testimonials.

FEBRUARY 27.—**Leicester.**—Architectural Assistant required in the Housing Dept. Mr. J. S. Fyfe, Housing Architect, Wyggeston House, Highcross-street, Leicester.

★MARCH 3.—**Wandsworth, S.W. 17.**—First-class Architectural Assistant and Quantity Surveyor, experienced in reinforced concrete construction, for a period of not less than six months. Mr. Ernest J. Elford, Borough Engineer, Borough Engineer's Office, 215, Balham High-road, S.W. 17, endorsed "Architectural Assistant."

★MARCH 4.—**Carlisle.**—Architectural Assistant in the City Engineer's Department. The appointment is a temporary one, but is likely to last for at least eighteen months. Mr. Henry E. Marks, M.Inst.C.E., City Engineer and Surveyor, 18, Fisher-street, Carlisle.

★NO DATE.—**Hong Kong.**—Assistants (three) required by the Government of Hong Kong for service in the Public Works Department for a period of three years, with possible permanency. Crown Agents for the Colonies, 4, Millbank, London, S.W.1, quoting at head of application the reference number M/12221.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

MARK ROUND & SONS, LTD. (194,566). Registered December 19. Builders and contractors now carried on at New-street, Dudley, under the style of Mark Round & Sons. Nominal capital, £7,000.

E. MORLEY & SONS (DERBY), LTD. (194,581). Registered December 20. 3, Exeter-street, Derby. Builders and contractors. Nominal capital, £3,000.

JOHN CORBISHLEY & SONS, LTD. (194,518). Registered December 18. 168, North-road, Preston. Plumbers, glaziers, decorators, &c. Nominal capital, £3,000.

HOUSING CORPORATION OF GREAT BRITAIN, LTD. (194,335). Registered December 11. 9, Queen Anne's-gate, S.W. 1. To prepare and execute building and town-planning plans and schemes of every kind, and to engage in the development and management of property, buildings and building estates. Nominal capital, £25,000.

ROBINSON, JAMES & CO., LTD. (194,346). Registered December 11. 16, Charterhouse-chambers, E.C. Builders, contractors, &c. Nominal capital, £100.

BENEDICT ARTS AND CRAFTS CO., LTD. (194,407). Registered December 13. To acquire and carry on the business of builders and decorators. Nominal capital, £10.

JOHN THOMPSON & SONS, LTD. (194,442). Registered December 14. 43, Wood-street, Peterborough. Builders and contractors now carried on by Walter Stuart Thompson, at 43, Wood-street and Cromwell-road, Peterborough, under the style of John Thompson & Sons. Nominal capital, £35,000.

W. H. COLE & SONS, LTD. (194,432). Registered December 14. 25, Spear-road, Southampton. Builders, decorators and contractors. Nominal capital, £1,200.

J. & A. MILLWARD, LTD. (194,600). Registered December 20. Builders, painters and decorators. Nominal capital, £2,500.

ALLEN FAIRHEAD & SONS, LTD. (194,664). Registered December 22. Sydney-road, Enfield, Middlesex. Builders and contractors. Nominal capital, £100,000.

BALL & WILKINSON, LTD. (194,703). Registered December 27. 13, Walnut-road, Torquay. Builders and contractors, &c.; to carry on business for the sale and purchase of any estates, land, or hereditaments. Nominal capital, £5,000.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C. for Borough Council; and P.C. for Parish Council.

ABERDEEN.—Plans passed by the T.C.: Two semi-detached houses, Hammerfield-avenue, for Mr. Samuel B. Russell, bricklayer, per Messrs. J. & J. Cameron, architects; bungalow, Queen's-road, for Mr. Harry Chapman, contractor, per Messrs. Walker & Duncan, architects; house, Desswood-place, for Mr. John Reid, carpenter, per Messrs. Walker & Duncan, architects; four shops and store, Holburn-street, for Mr. Andrew Bowman, carver and gilder, per Mr. George Watt, architect.

ADWICK.—The U.D.C. has decided to apply to the M.H. for sanction to a loan of £4,867 for the purpose of a water supply on the new building estate between Doncaster-lane and the Great North-road at Woodlands; and a further £1,000 for surface-water drainage.

ASHBURTON.—Two houses, by Mr. F. Eales.—The U.D.C. proposes to erect 12 houses.

AYR.—The T.C. has agreed to construct a new sea-wall and esplanade at Blackburn bents in extension of the present esplanade. The probable cost is stated to be £12,000.

BARNSLEY.—Plans passed by T.C.: J. Smith & Co., Ltd., hotel, Huddersfield-road; A. R. Potter, conversion of house into two, Sheffield-road; T. Graham, house, Westbourne-grove; G. Ellison, two houses, Harbro' Hills-road; Capt. B. C. V. Wentworth, rebuilding of house, Needlewood; W. H. A. E. Gibbs, two houses, Carlton-road; J. Robert and A. Henshaw, two houses, Wentworth-street; Mrs. J. Vornberger, bungalow, Smithies-lane; A. R. Potter, plumber's shop and workshop, Beech-street; E. Audin, house, Woodstock-road; Miss Ibbotson, house, Woodstock-road; A. Turner, extension to model lodging house, Doncaster-road; Barnsley British Co-operative Society, Ltd., new business premises.

BEDFORD.—Plans passed by T.C.: Mr. E. H. C. Inskip, for Mr. R. Jeakings, house and shop, Hurst-grove; Mr. C. A. White, two houses, Bradgate-road; Messrs. Usher & Anthony, for Mr. W. Goldsmith, two houses, London-road; Mr. E. H. C. Inskip, for Messrs. Warton & Goodship, two villas, Goldington-road; Mr. E. H. C. Inskip, for Mr. J. Foster, conversion to two flats, 4, Park-avenue; Mr. J. Sear, two houses, Kathie-road; Mr. E. Brightman, house, Cutcliffe-place; Messrs. Usher & Anthony, for Miss C. A. Veasey, additions, 31, Albany-road; Mr. A. W. G. Prosser, house, Pemberley-crescent.

BEDWELLTY.—The U.D.C. has asked the Powell Duffryn Coal Co. and the Gellygaer U.D.C. to join in the construction of a bridge at Tiryberth.—The Council has passed plans for proposed extension of the Council offices at Aberbargoed, at an estimated cost of £1,000, and will expend £500 on recreation ground improvements.

BLACKPOOL.—Plans passed by Buildings Committee: C. Auty, 2 houses, Grasmere-road; F. Unsworth, 4 houses, Rosebery-avenue; R. Fielding, 2 houses, Links-road; Senior & Barron, 2 bungalows, Bispham-road; J. Harrop, house, Watson's-lane; Holt & Dawson, 2 houses, Poulton-road; John Midgley, house, Broadway; J. Taylor, 2 houses, Condor-grove; J. Williams, 4 houses, Condor-grove; Vicar and Wardens of Holy Trinity Parish Church, parsonage, Central-drive; Cross & Whittaker, 2 houses, Condor-grove; A. Eden, 2 houses, Bispham-road; Pilling, France & Co., 3 houses, Warbreck-drive and Bedford-avenue; W. B. Snape, 3 houses, Warbreck-drive and Bedford-avenue; Mr. Demmallett, 2 houses, Piccadilly; R. Wilkinson, bungalow, Burgate (Squires Gate-lane); Mr. Foster, 4 houses, Grosvenor-road, Bispham; A. E. Murdoch, 12 houses, Rothsay-road, and 6 houses, Keswick-road; Threlfall, Whiteside & Midgley, 2 houses, Holmcliffe-road; R. Dawson, 2 houses, Condor-grove; L. G. Wilkinson, house, Park avenue; Mrs. Walker, 2 houses, Holmcliffe-road; J. Fos[illegible] 2 houses, Boscombe-road; J. Parkinson & Sons, ho[illegible] Leicester-road and Leeds-road; Foster & Dickinson, 5 houses, Queen Victoria-road, Bela-grove, &c.; J. Gregson, 12 houses, Laurel-avenue; W. Spen[illegible] bungalow, Fleetwood road; Park Estates Syndicate, 5 houses, off Gorse-road; Osborne Mansions Co., L[illegible] flats, Osborne road; H. G. Mason, 6 houses, Worsley-avenue; J. Harrison, 4 houses, Whitegate drive; Glastonbury avenue; J. Rawcliffe, bungalow, Burgate; W. B. Denner, 5 houses, Watson's lane and Bain[illegible] avenue; R. Kirkham, 2 houses, Squire's Gate la[illegible] J. Fenton, bungalow, Romney-avenue (off [illegible] avenue); J. W. Clarkson, 24 houses, Orchard avenue; H. Johnson & Co., 6 houses, new street off Bispham-road; Mrs. Davies, 2 houses, Whitegate drive; J. Hargreaves, house and shop, Watson's lane; Mason, 14 houses, Grange road, Layton. The [illegible] poration have applied to the M.H. for permission to borrow the sums of £93,000 for the purchase of land for housing, &c., and £56,656 for street improvements.

BLYTH.—The T.C. have decided to erect 25 houses. 13 houses are to be built in George-street by the Cowpen Coal Co.

* See also our List of Contracts, Competitions, etc.

BOLTON.—The E.C. have received plans of a proposed extension at St. Joseph's, together with a report by the Committee's architect, which has been forwarded to the B.E.——The Borough Engineer submitted to the Streets Committee a plan showing a proposed improvement at the junction of Spar-road and Mayor-street, by rounding off the corner of the Spar-road Recreation Ground and setting back the entrance gates. The Committee approved the scheme and passed it on to the Parks Committee with a request that they will give up 99 sq. yds. of land forming part of the recreation ground.

BOSTON.—The Surveyor to the R.D.C. has been instructed to prepare plans for a new burial-ground.

BOURNEMOUTH.—Tenders are to be invited by the Borough Surveyor for the construction of two new bridges. One is to be situate at Alum Chine, and the other in the Boscombe Chine gardens. An early start is to be made with the erection of a new police station and court house, on the east side of the Law Buildings. Application for sanction to borrow £6,000 has been made for this purpose.

BROMLEY.—Plans passed by T.C.:—Bungalow, Burford-road, Mr. A. A. Webb; house, Park-avenue, Mr. A. Frampton; house, Highfield-road, Messrs. Woodhams & Tyler; house, Bromley Common, Mr. P. Coad; four houses, Warren-avenue, Mr. E. A. Stone; four houses, Alexandra-crescent, Mr. A. Frampton.—Plans passed by R.D.C.:—House at Hill View-road, Orpington, for Mr. C. E. Castellan; house in Hayes-lane, Hayes, for Mr. A. J. Bolton; bungalow at World's End-lane, Chelsfield, for Mr. T. G. Beavis.

BURNLEY.—The Improvements Committee of the T.C. have recommended that Colne-road should be widened 60 ft.; the estimated cost is £6,500. It is proposed to apply to the M.H. for sanction to borrow the money, and to the M.T. for a grant of 50 per cent. of the cost of the work.

BURY.—Funds are being raised by the Grammar School authorities for the purchase of the old Bury Cricket Field and the field adjoining it as an additional playing field for the schools.

CARLISLE.—The T.C. has received sanction to erect 200 concrete bungalows and 100 brick houses.

CASTLE DONINGTON.—Ten houses for Messrs. A. Ramsden and J. Bosworth.

CHEADLE.—The Surveyor to the Cheadle and Gatley U.D.C. stated it was their intention to carry out the whole of the proposed road widening works upon Brick-lane.

CHESTERFIELD.—The Board of Management of the Royal Hospital has instructed Mr. W. Cecil Jackson, architect, to prepare sketch plans and estimates of additional accommodation.

CHICHESTER.—The T.C. has decided to erect an additional 38 houses.

CHORLEY.—The B.E. have approved the site of a new Council School to be erected on the Highfield estate, and to be known as the Highfield Council School.——The M.H. has decided to approve the erection of 50 houses by the Chorley T.C. on the Highfield estate.——The County Roads and Bridges Committee have decided on a scheme for straightening the main Chorley-Bolton-road, at Skew Bridge Heath, Charnock, estimated to cost £18,000. A steel bridge would be erected, and a Government grant of 65 per cent. had been obtained.

COLNE.—The M.H. has sanctioned the borrowing of £4,997 for the purpose of the construction of a relief sewer and storm overflows in the Primet Bridge district. It was decided to make application for another £2,653 for the completion of the scheme.

CONISBORO'.—At the last meeting of the U.D.C., the Surveyor reported the sanction of the M.H. to the borrowing, with respect to privy conversions, of £1,660 for a period not exceeding thirty years; and £3,340 for a period not exceeding six years.——An application was received from the Conisboro' Housing Association, Ltd., for a subsidy and loan in respect to 500 houses proposed to be erected by them as a public utility society, off Garden-lane, Conisboro'. The Town planning Committee recommended that the M.H. be requested to authorise the grant of a subsidy of £100 with respect to each of the 500 houses.

COVENTRY.—It has been announced that Barr's Hill Secondary School is to be enlarged, and that further accommodation for boys' secondary school education is to be provided.

COWES.—To relieve unemployment and to increase the attractiveness of Cowes for visitors, the Cowes U.C. has adopted a £15,000 scheme for the erection of a sea wall and road in continuation of the present Western esplanade.

DEWSBURY.—Plans passed by T.C.: New ward at the Whitley Hospital.

DISLEY.—Structural alterations are proposed at "The Crescent" Hotel.——The R.D.C. have received a section of the M.H. to borrow £9,250 to construct a sewage scheme in a portion of their district adjoining Wilmslow. The scheme will be assisted by a Government grant, and work will commence next month.

DOUGLAS.—The Tynwald Court has voted £37,500 from the Isle of Man revenue to erect and equip a Secondary school at Douglas for 400 boys; £14,225 has been voted for alterations and additions to Park road School.

DOVER.—Plans passed by R.D.C.:—Bungalow, Capel, for Mr. H. J. Atkins; house, Kingsdown, for Mr. H. Briggs; bungalow, Temple Ewell, for Mr. F. Wigpott; bungalow, West Hougham, for Mr. H. R. Cook; house, Kingsdown, for Mrs. Chambers; house and shop, Lydden, for Mr. Copeland; bungalow, Capel, for Mr. A. W. Pope.

DRIFFIELD.—Plans have been approved of for a new road, submitted by Mr. Atkinson, architect for G. T. Wilson, Kendale, Driffield. The site is a line from Bridlington-road to the Bridlington-road, the roadway being 42 ft. wide, with a 6 ft. wide pathway along one side.

DROITWICH.—The Borough boundary has been extended, and a contract has been placed for the necessary extension of sewers at Falsham Pits.

DUMBARTON.—The T.C. has approved of plans by the Burgh Engineer for construction of a new road to connect Hartfield-gardens with the new municipal houses at Silverton.

DUNDEE.—Plans and sections of proposed new buildings have been lodged at the office of the City Engineer: Montague-street, Barnhill, cottage, for A. Sturrock.

EDINBURGH.—Linings granted by the Dean of Guild Court: Brown Bros. & Co., Ltd., reconstruct foundry at Rosebank Iron Works, Broughton-road; Mr. A. H. Duncan, bungalow at Drumbrae-road, Corstorphine; Mr. A. E. Hasfield, villa at Barnton-avenue, Davidson's Mains; Mr. S. M. C. Mackenzie, house at Saughton-road, Corstorphine; Mr. Alexander Raitt, bungalow at Dovecot-road, Corstorphine; Mr. J. Ross, bungalow at Drumbrae-road, Corstorphine; The Royal Blind Asylum and School Managers, workshop in Gillespie-crescent.

FEATHERSTONE.—Plans passed by U.D.C.: House at Pontefract-road, for Mr. E. Blackburn; house at Pontefract-road, for Mr. P. Gwynn; house at Pontefract-road, for Mr. A. Batten; house at Pontefract-road, for Mr. H. Hoyland; house at Pontefract-road, for Mr. A. Peasant; and house at Featherstone-road, for Mr. J. Poppleton.

HALSTEAD.—Messrs. Rippers, of Sible Hedingham, have approached the R.D.C. offering to erect 50 houses for their workmen if the Council would give a subsidy of £76 18s. 6d. per house and loan 90 per cent. of the value of the houses. The matter has been referred to the Parish Council for a report.

HAWORTH (YORKS.): Plans passed—An electricity sub-station at Cross-roads, for Keighley Corporation.

HINCKLEY.—An enquiry has been held by the M.H. into the U.D.C.'s application for sanction to a loan of £34,400, the estimated cost of the new works of sewage disposal.

HOLMFIRTH.—Plans passed by U.D.C.: Two houses at Nabb, for Mr. H. Tinsdeall.

HOVE.—Plans passed by T.C.:—Mr. E. E. Brown, house and garage, Langdale-road; Mr. E. Wallis Long, for Mr. S. C. Thompson, house, Nizells-avenue; Messrs. Penty & Farrar, for Mr. B. Cook, shop, Western-road at Cambridge-road; Mr. T. Goodchild, for Mr. F. Stublington, conversion into flats, 6, Selborne-road; Mr. A. Carden, for Mr. E. T. Atkins, conversion into flats, "Westview," Somerhill-road; Mrs. A. Squires, house and garage, Glendor-road; Mr. G. W. Warr, for Mr. L. Lewis, house, Langdale-road; Mr. G. W. Warr, for Mrs. H. L. Farmer, house, Palmeira-avenue; Mr. H. C. Hillier, for Mrs. Carter, house, Portland-avenue; Mr. H. M. Pett, for Mr. G. S. Johnson, house, Hallyburton-road; Mr. W. Whiteman, for Mr. P. Roccaplumba, house in three flats, Langdale-road; Mr. E. Gladman, 24 houses, Marmion-road; Mr. H. M. Pett, for Messrs. Terry & Steele, pair houses, Hallyburton-road; Mr. W. H. Overton, for Mr. W. J. Keene, four pairs semi-detached houses, Langdale-gardens; Mr. W. H. Overton, for Mr. M. Bromet, conversion into flats, 24, Palmeira-square.

IRVINE.—Plans have been passed for the renovation of the Roman Catholic Chapel in West-road, at an estimated cost of about £2,000; and for a bungalow in Mill-road, for Mr. W. Shaw.

LEEDS.—Plans have been approved for the reconstruction of the "Chain and Bull," at Moortown, for Messrs. Ind, Coope, Ltd., brewers, Burton; Messrs. A. & F. Morleys, of Wormald-row, Leeds, are the architects. The "Mexborough Arms" is also to be reconstructed, for Messrs. Tetley's, The Brewery, Leeds; Messrs. Kitson, Parish & Ledgard, Vicar-lane, Leeds, are the architects.

LONDON (BETHNAL GREEN).—Drainage plans passed by B.C.: At 7, Gibraltar-walk, for Messrs. C. & F. Rutley; at City of London Hospital for Diseases of the Heart and Lungs, for Messrs. Thomas & Thomas; at "Barley Mow" beerhouse, No. 15, Hague-street, for Mr. A. R. Mayston, for Whitbread & Co., Ltd.

LONDON (STEPNEY).—Rebuilding of factory, Brewhouse lane, J. A. J. Keynes, for D. & W. Gibbs, Ltd.

LONGBENTON.—The R.D.C. have approved of the lay-out of the Forest Hall station estate for 79 houses; for a number of semi-detached houses in Forest-avenue; and terrace houses in Briar-edge and Burn-avenue.

MALVERN.—Plans passed by U.D.C.:—Pair of cottages in the Worcester-road, Malvern Link, for Mr. C. Burston; new houses in Alexandra-road, for Mr. W. H. Hayes; in Mathon-road, for the Rev. R. E. Verini; and in Abbey-road, for Mrs. Bushell.

MIDHURST.—Plans passed by R.D.C.: Eight cottages in June-lane, for Mr. P. Ewens.

NEATH.—The St. Joseph's Roman Catholic School, Pendrill-street, is to be extended to accommodate sixty additional scholars.

NEWPORT (MON).—The T.C. proposes to expend £28,000 on improving Dock-street and Ebenezer-terrace.

NORTHALLERTON.—Messrs. Lofthouse & Sons, architects, Middlesbrough, have submitted plans to the R.D.C. showing the proposed lay-out of the building sites on the south side of Racecourse-lane, Romanby.—Plans of two bungalows for Mr. Willoughby have been approved.

OGMORE.—The Ogmore and Garw U.D.C. has allocated the proposed erection of 50 houses, as follows: 20 each at Pontynawel and Llangenior, and 10 at Nantymoel.

PAISLEY.—The Paisley Victoria Eye Infirmary is to be extended, at an estimated cost of £6,000.

PENMAENMAWR.—Plans passed by U.D.C.: 19 houses, St. David's-terrace, for the Penmaenmawr and Welsh Granite Co., Ltd.; three houses, Conway Old-road, by Cae Cyd, for Mr. J. J. Morgan, Aelybryn.

REIGATE.—Plans passed by R.D.C.: Cottage, Caterham-road, Chaldon; bungalow, Charlwood-lane, Charlwood; two cottages, Brighton road, Hooley; 12 cottages, Lee-street, Horley; house, Tinsley-road, Horley; 12 cottages, Bremner-avenue, Horley; cottage, Tinsley-road, Horley; bungalow, Balcombe-gardens, Horley; bungalow, Vicarage-lane, Horley; bungalow, Lodge-lane, Horley; two bungalows, Vicarage-lane, Horley; house, Holmesdale-road, South Nutfield.

RUGBY.—The Governing Body of Rugby School contemplate erecting at an early date a new school for music and geography on the Hillmorton-road. The building has been designed by Sir Charles Nicholson.

SHEFFIELD.—Plans passed by T.C.:—Two bungalows, Dalewood-road, for Mr. J. Ramsden; bungalow, Kirkby-road, Gleadless, for Mr. W. E. Taylor; two houses, Grove-avenue, for Messrs. P. E. & H. F. Sargent; two houses, Grove-avenue, for Mrs. E. Sellars and Mrs. E. Wheelhouse; house, Furnace-lane, for Mr. W. Stokes; eight houses, Underwood-road, for Mr. M. J. Gleeson; house, Arundel-road, Handsworth, for Mr. J. Worsnop; house, Main-road, Handsworth, for Mr. E. Allen; bungalow, Dalewood-road, for Mr. Wm. J. Smith; bungalow, Dale wood-road, for Mr. P. S. Dobson; bungalow, Dalewood-road, for Mrs. Fletcher; two houses, Chesterfield-road, for Mr. R. Jones; 10 houses, Brooklands-crescent and avenue, for Mr. Riley Watson; four tenement flats, Canterbury-avenue, for Mr. J. W. Sivil; two houses, Norton Lees-lane, for Messrs. Bonser Bros.; four houses and four lock-up shops, Infirmary-road and Lock-street, for Mr. S. Taylor; 146 houses, Manor Estate, City-road and Prince of Wales-road, for Sheffield Corporation, Estates Committee; house, Richmond-road, for Mr. John Gladwin; bungalow, Seagrave-road, for Mr. Wm. Linacre; eight houses, Todwick-road, for Mr. W. Plant; two houses, Abbey-lane, for T. Alcock; bungalow, Crimicar-lane, for Mr. J. A. Hanson; bungalow, Crimicar-lane, for Mr. C. B. Malam-Wilson; two houses, Rupert-road, for Messrs. J. Vasey & Son; two houses, Dalewood-road, for Messrs. C. H. Miller and E. G. Rowlinson; 73 houses, Sandygate-road and Watt-lane, for Mr. James Samuel; four houses, Brooklands-crescent and Brooklands-avenue, for Mr. Riley Watson; house, Louth-road, for Mr. T. Norman; house, Louth-road, for Mr. W. Norman; bungalow, Abbey-lane, for Mr. Booth; six houses and garages, Grove-road, for Mr. R. Bottomley; house, Richmond-lane, for Mr. F. Atkinson; house and garage, Richmond-road and Avenue, for Messrs. W. & E. Sadler; house, Nursery-street, for Messrs. Jno. Aizlewood, Ltd.; house and alterations, Brincliffe Edge-road, for Mr. Riley Watson.

SHEPLEY.—The Housing Committee of the U.D.C. have decided to erect 16 working-class houses, and the Council have decided to accept the offer of Mr. W. B. Smith for land in Joss-lane.

SPALDING.—Plans passed by U.D.C. include for the erection of 13 houses by private enterprise, and eight houses in Carrington-road for Mr. M. Johnson.

STAFFORD.—Plans passed by R.D.C.: 15 houses, Weeping Cross and Radford Bank, for the English Electric Co.; house, Weeping Cross, for Mr. R. Horne, Rising Brook; bungalow, Moss Pit, Castlechurch, for Mr. H. T. Eachus, 211, Oxford-gardens.

STOURPORT.—The G.W.R. propose to construct a new railway station, plans for which are being prepared by the Company's engineers.

SWANSEA.—Plans passed by T.C.: House, Pinewood-road, for Mr. H. Kennard; six houses, Tycoch Estate, for Messrs. J. R. Banfield & Sons; two houses, Tycoch-road, for Messrs. Williams & Bennett; house, Richmond-road, for Mr. Watts Jones; electric sub-station, Swansea Brickworks, Fforestfach, for the Electricity Committee; two houses, Llythryd-avenue, for Mr. L. James; nine houses, Hazel-row, for Messrs. Benyon Davies & Thomas; two houses and shops, Newton road, Mumbles, for Messrs. W. & G. Beynon; house and shop, Cory street, Sketty, for Mr. C. Marles; vicarage on road between Carmarthen-road and Middle-road, for Rev. D. Thomas; house, West Cross-lane, for Mr. J. C. Williams; house, Pentrepoeth-road, Morriston, for Mr. Rupert George: new road, off Boarspit-lane, Norton, for Mr. H. G. Honey; house, Llangyfelach-road, Morriston, for Mr. Thos. Harris; bungalow Whitestone-lane, Newton, for Mr. D. Davies; three, houses, Pentregethin-road, for Mr. F. G. Rosser; restaurant and dwelling, Glanmor Estate, for Mr. John Pye; four houses, Manor-road, Manselton, for Messrs. Ll. and D. J. Thomas; bungalow, Tycoch Estate, for Mr. J. J. Evans; house, Manor-road, Manselton, for Mr. Geo. Carson; house, St. John's-road, Manselton, for Mr. J. L. Matthews; house, Manor-road, Manselton, for Mr. J. E. Lewis; house, Glanmor-road, for Mrs. Mary Thomas; two houses, Pentregethin-road, for Messrs. Harris & Macleod; two houses, Hendrefoilan-road, for Mr. H. H. Kirkpatrick; bungalow, Hendrefoilan-road, for Mr. D. A. Williams; house, Middle-road, for Mr. Ben Grey; bungalow, Gower-road, Killay, for Miss M. R. Davies; bungalow, Gower-road, Killay, for Mr. John Davies; house, Neath-road, Plasmarl, for Mr. J. A. Reiman; two houses, Dinas-street, Plasmarl, for Mr. Edgar Thomas; bungalow, Tycoch Estate, for Mr. J. Tomalin; four houses, Llangyfelach-road, for Mrs. Mary Thomas.

TAUNTON.—Plans have been passed for 45 houses for Councillor Spear.

WHITBY.—Plans passed: House, Southend-gardens, for Mr. R. Vasey.

WOODHALL SPA (LINCS).—There is every likelihood of the Victoria Hotel being rebuilt; at a meeting held, a scheme was considered, and is about to be adopted.

WORSBOROUGH.—Plans passed by U.D.C.: Detached residence, Kingwell-road, Cutting End, for Dr. Beverley; four houses, Bank Top-road, by Messrs. H. Goldthorpe & C. Goldthorpe, and two houses for Mrs. J. C. Goldthorpe; house, Bank Top-road, Mr. B. Francis.

WORCESTER.—Twenty houses are to be built at Northwich-road by Mr. A. Vernon Rowe.

FIRES.

GLASGOW.—St. Luke's Parish Church has been completely destroyed by fire.

LEICESTER.—A fire which broke out recently at the premises of the British Thread Mills, Lower Brown-street, Leicester, caused damage estimated to amount to about £25,000.

LLANDUDNO.—For the second time within fourteen months, the drapery premises of Messrs. Arthurs, Llandudno, have been gutted by fire. The damage estimated is nearly £20,000.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Fletton, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick:—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and	
		two Ends	31 10 0
Headers	21 10 0	Two Sides and	
		one End	32 10 0
Quoins. Bull-nose and 4½ in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 7	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „ „	15 0	„ „
⅜ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Padding-ton.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6

51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	23/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2	0 to	0	2 6
¾ in. do. do.	0	1	6 to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9 to	0	2 6
Cuba Mahogany	0	3	0 to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0	0 to	50	0 0
American Whitewood planks, per ft. cube	0	14	0 to	0	16 0
Best Scotch Glue, per cwt.	4	10	0 to	—	—
Liquid Glue, per cwt.	4	7	0 to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London.
	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	6 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Hip and valley tiles (per dozen) { Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „ „	3 6½	2 5½	3 3½
3 in. „ „	4 2½	2 8	4 0½
3½ in. „ „	4 7	3 3½	4 8½
4 in. „ „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16 0 0
„ „ „ 24 g.	16 0 0	..	17 0 0
„ „ „ 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

	£ s. d.
(Delivered in London.)	45 0 0
LEAD—Sheet, English, 4 lb. and up	45 10 0
Pipe in coils	48 10 0
Soil Pipe	5 0 0
Compo pipe	

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s.6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	32 10 0	.. —
Do., ex country, carriage forward per ton	33 10 0	.. —

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.
Strong Sheet per lb.	0 2 3
Thin „ „	0 2 4
Copper nails „	0 2 3
Copper wire „	0 2 4
TIN—English Ingots „	0 2 7
SOLDER—Plumbers' „	0 1 2
Tinmen's „	0 1 4
Blowpipe „	0 1 6

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes per gallon	0 4
„ „ „ in barrels „	0 4
„ „ „ in drums „	0 4
Boiled „ „ in barrels „	0 4
„ „ „ in drums „	0 5
Turpentine in barrels „	0 6
„ in drums (10 gall.) „	0 7
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	60 0

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots per ton delivered 84 0

Red Lead, Dry (packages extra) per ton	47 10
Best Linseed Oil Putty per cwt.	0 16
Filocol per cwt.	0 15
Size, XD Quality fkn.	0 3

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 ,, thirds	4½d.	32 ,, thirds	10½d.
21 ,, fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 ,, thirds	6½d.	,, ,, 21 ,,	5½d.
26 ,, fourths	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
26 ,, thirds	7½d.	Enrolled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
⅛ Rolled plate	4½d.
⅜ Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 0
Knotting (patent)		1 5 6
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

Obituary.

The death occurred recently, at Workington, of Mr. George Hy. Chambers, aged seventy, who had carried on business as a builder and contractor for over forty years.

Colchester Councillors' Subsidy.

The Colchester Town Council recently decided to send a deputation to the Ministry of Health with a view to the removal of the restrictions which prevent members of councils receiving a subsidy under the Housing Acts if they desire to build. A member of the Colchester Town Council, who proposes to build five bungalows, has been informed that it is illegal to take the grant of £100 per house offered by the council while he remains a member of the council. The Ministry of Health have upheld this decision. The Ministry, it is stated, hold that the receipt by a member of a council of a lump sum grant under the Housing Acts operates as a disqualification under section 12 of the Municipal Corporations Act of 1882.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

*** Denotes *accepted*. † Denotes *provisionally accepted*. ‡ Denotes *recommended for acceptance*. § Denotes *accepted subject to modifications*.**

ABERKENFIG.—For (1) erection of 30 parlour-type houses, in pairs, with boundary walls and drains; and (2) short extension of road with surface water drainage, &c. Mr. F. H. Heaven, architect and surveyor, 33, Coronation-street, Aberkenfig:—

	£ s. d.
Houses, per pair—	
E. A. Bond, Cardiff	£1,050 0 0
Eclipse Builders Ltd., Porthcawl	1,022 4 6
Hill & Morgan, Bridgend	998 0 0
E. Clark, Melton Mowbray	972 0 0
S. A. Bartlett, Ogmore Vale	960 0 0
*C. Jewell & Son, Aberkenfig (for 11 pairs)	880 8 0
*Wm. Whitlock, Aberkenfig (for 4 pairs)	880 8 0
E. & H. James, Cardiff	865 0 0
Roads and sewers—	
S. A. Bartlett, Ogmore Vale	1,100 0 0
E. Clark, Melton Mowbray	940 0 0
*C. Jewell & Son, Aberkenfig	925 0 0
Hill & Morgan, Bridgend	776 0 0

AMMANFORD.—For building central school to accommodate 500, for the Carmarthenshire E.C. Mr. W. V. Morgan, County Architect, County Offices, Carmarthen:—

W. Williams & Sons, Ammanford	£20,025
D. J. Thomas, Ammanford	19,743
George Mercer & Sons, Ltd., Llanelly	18,888
D. L. Rees, Brynamman	17,813
D. Howell & Son, Llandebie	17,517
Lewis Davies, Llanelly	17,490
Gathen Building & Joinery Co., Ltd., Llanelly	17,100
John Evans, Burry Port	16,985
Benjamin Howell & Son, Ltd., Llanelly	16,436
David Bevan, Tirydail, Ammanford	15,999
William Evans, Ammanford	15,478
*Charles Thomas & Co., Llandilo	14,998

ARBROATH.—For relaying with granolithic about 7,000 yds. of footways to (1) Class I roads; (2) Class II roads, for the T.C. Mr. D. H. Shaw, Burgh Engineer, Arbroath:—

*Ramsay & Gordon, Arbroath	(1) £1,612 14
	(2) 798 0

ASHBURTON.—For carrying out water scheme, for the U.D.C.:—

*A. J. Steer, Ltd., Plymouth	£3,781 4 5

BARNSLEY.—For the erection of 100 non-parlour houses on site adjoining Kendray Hospital, for the T.C.:—

*C. Smith, Barnsley	£362 10

BARNSLEY.—For conversion of privies into water-closets, Pindar Oaks Cottages, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley:—

Builder and drainlayers' work—

*C. K. Taylor, Barnsley	£203

BRADFORD.—For the erection of 20 concrete bungalows on the Brierley Hall Estate, for the T.C.:—

*W. S. Taylor, Bristol	£7,025

BRADFORD.—For the erection of 22 houses on the Lower Grange Estate, for the T.C.:—

*T. Obank & Sons	£8,513

BRADFORD.—For the erection of new shop front at 31, Darley-street, for the T.C.:—

*John Stow, Ltd.	£237 13

BRADFORD.—For erection of 200 concrete houses on the Bierley Hall Estate, for the Corporation:—

*Hy. Boot & Sons, Sheffield and London	per house £418

BRADFORD.—For erection of 38 houses for the Bradford Guild of Social Service. (Amended acceptance in lieu of tender withdrawn by J. P. Leach, Girlington):—

*Allan Shephard, Queensberry.	

BROMLEY.—For the erection of houses, for the R.D.C.:—

World's End-lane, Chelsfield—Six houses:—	
*F. W. Atkins, Bromley	£2,550
Post Office site, Knockholt—Eight houses:—	
*F. W. Atkins	3,400
Westerham-road, Keston—20 houses:—	
*R. Large, Orpington	8,480
Hearn's-road, St. Paul's Cray:—	
*R. Large	6,604

BURNTISLAND.—For plumber and gasfitter works of five blocks of houses on the Haugh site, for the T.C. Mr. J. A. Waddell, Burgh Surveyor, Burntisland:—

Martin Macaulay, Burntisland	£642 17 11
Walter Crow, Aberdour	614 9 10
W. S. Crow, Burntisland	610 7 2
*H. Twaddle & Son, Glasgow	504 9 3

CHICHESTER.—For plant for the sewage works for the T.C.:—

*Tangye—Sludge pump	£203 0
*General Electric Co.—Dynamos and motor	343 0
Motor and gear	103 10

CLOWNE.—For erection of 40 houses for the R.D.C. —eight houses at Barlborough, 16 houses at Clowne, and 16 houses at Whitwell:—

*G. Rowley, Woodhouse, Sheffield	£14,644

CROYDON.—For additions to the engine room at generating station, for the T.C.:—

*R. Mansell	£3,785

CUDWORTH.—For erection of 34 houses with streets and sewers, for the U.D.C. Mr. J. R. Shephard, Surveyor, Council Offices, Cudworth, near Barnsley:—

Barwell & Farrance, Sheffield	£18,057 0
Oaklands, Ltd., Wombwell	14,110 0
J. H. S. Randall, Ltd., Sheffield	14,043 10
W. Johnson, Wombwell	13,630 0
W. H. Fuller, Wath-on-Dearne	13,305 10
W. Jennings & Son, Barnsley	12,905 8

DROITWICH.—For extension of sewage lines to the new Borough boundary at Falsham Pits, for the T.C.:—

*Tilts Bros., Broomsgrove	£579

(Six tenders were received varying from £903 to the accepted tender.)

EDWORTH, BEDS.—For improvements to the Rectory House and premises, Edworth, for Rev. R. A. Sparway. Mr. W. B. Stonebridge, architect, Bedford:—

F. J. Bailey & Co.	£930
S. Redhouse & Son	898
T. Razan & Son	869
*H. Cope, Sandy	846

ELSTAR, BEDFORD.—For alterations to Elstar Green House, for Rev. S. V. Hartley. Mr. W. B. Stonebridge, architect, Bedford:—

*Baines & Lirket, Bedford	£1,386

ERITH.—For reinstatement and erection of Crescent-road School, for the U.D.C. Mr. Harold Hind, Engineer and Surveyor, Council Offices, Erith:—

*F. Ling & Sons, Erith	£3,140

EXETER.—For erection of 45 houses, for the T.C. City Architect, 2, Southernhay West, Exeter:—

*Exeter Master Builders' Federation—Average price, per house	£524

The following builders have undertaken the work:—
Stephens & Stephens, Exeter—5 houses.
Woodman & Son, Exeter—5 houses.
F. E. Sleeman, Exeter—4 houses.
M. T. Sleeman & Sons, Exeter—3 houses.
E. C. Lea & Co., Ltd., Exeter—5 houses.
W. R. Brealy, Exeter—6 houses.
E. T. Curtis, Exeter—5 houses.
Ham & Passmore, Exeter—5 houses.
A. E. Eveleigh, Exeter—5 houses.

(Continued on page 325)

F. J. BARNES, Ltd.,

PORTLAND STONE QUARRY OWNERS.

Stone from these quarries used in refacing Buckingham Palace, the construction of Waterloo Station and Victory Arch, etc.

LONDON OFFICE:
25, NINE ELMS LANE, S.W.8.

OFFICE & WORKS:
PORTLAND, DORSET.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6 ..	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses.....	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails....	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates .....per foot cube		5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers .. "		50	0
Do. to beams .....per ft. sup.		1	0
Centres for arches ..... "		1	6
Gutter boards and bearers ..... "		1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds .....per ft. sup.		1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stile, tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size.....		3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed .....per ft. sup.		2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners .....11½d.		Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays.....	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints ..	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do. ..	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	59	0
Do. Do. in flats	"	57	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

	½"	¾"	1"	1½"	2"	4"
Drawn lead waste per ft. run	1/1	1/9	2/0	3/6	4/2	
Do. service "	1/8	2/2	2/7	3/10		
Do. soil "						6/10
Bends in lead pipe each					3/3	8/2
Soldered stop ends "	1/2	1/8	2/1	2/10	3/6	
Red lead joints .... "	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints "	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws .....,,				14/7	19/6	
Bib cocks and joints ..,,	6/4	9/7	15/4	41/-		
Stop cocks and joints "	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS—(*Continued from page* 323.)

FILEY.—For the construction of a new borehole in connection with the T.C.'s water undertaking:—
*Matthews & Co., Ltd., Manchester.

GATESHEAD.—For erection of 104 houses on the Carr's Hill Estate, for the T.C.:—
†The Co-operative Wholesale Society, Ltd. (Building Dept.), Manchester £44,818 10 2

GRAYS, ESSEX.—For laying a 12 in. sewer in Ward-avenue, Grays, Essex. Mr. Christopher M. Shiner, architect, "The Barn," Grays, Essex:—
Brown Bros. (Grays), Ltd., Essex.. £882 0
W. & C. French, Essex..... 735 0
W. L. Allan, Essex 669 10
*W. E. Walsham, Essex..... 650 0

HARROGATE.—For extensions and alterations to "Crimple Dene" House, near Boston Spa. Messrs. Brierley & Rutherford, Architects, York:—
*J. S. Wright & Sons, Leeds.

HULL.—For the erection of 200 houses on Cottingham-road site, for the T.C.:—
*P. T. Kettlewell £85,456

KINGSBRIDGE, DEVON.—For the erection of house at Thurlestone, for Mr. Osmond Moore. Messrs. Rowell Locke & Son, architects, Newton Abbot. Quantities by Messrs. Harris & Hills, Paignton and Torquay:—
W. S. Smith & Son[illegible]..... £1,250

KIRKINTILLOCH.—For the supplying and laying of new water mains from Antermony Loch to Campsie Hills, in connection with a new water scheme for the T.C.:—
*James Millar & Son, Kirkintilloch £3,471 14 4

LEEDS.—For erection of a hostel for the Salvation Army Council at Stafford-street, Hunslet:—
*Wm. Simpkiss, Highgate Works, Hunslet.

LLANELLY.—For erection of school to accommodate 100 children, for the Carmarthen E.A. Mr. W. Vincent Morgan, County Architect, County Offices, Carmarthen:—
Charles Thomas & Co., Llandilo .. £2,900 0
Hughes & Samuel, Pwll Llanelly .. 2,805 0
D. Howell & Son, Llandebie 2,624 10
R. Morgan, Pontyberem 2,600 0
*C. Mercer & Sons, Llanelly 2,490 0
Henry Evans, Llandilo 2,430 0

LONDON.—For paving works in connection with the rebuilding of 57, Charing Cross, for the Westminster C.C.:—
Alexander Thomson & Co. (London), Ltd. £1,832 9 2
Improved Wood Pavement Co., Ltd. 1,540 18 2
W. Griffiths & Co., Ltd. 1,498 18 4
G. J. Anderson 1,471 4 4
Mowlem & Co., Ltd. 1,390 2 6
*Acme Flooring & Paving Co. (1904), Ltd. 1,383 16 10

LONDON.—Resurfacing 2,400 yds. of roadway in Well-street, with Duraphalt natural rock asphalte carpeting 1½ in. thick, for the Hackney B.C.:—
*Whitehall Asphalt & Engineering Co.—7s. 5d. per yd., with free maintenance for five years.

LONDON.—For laying of asphaltic paving in certain roads, for the Hackney B.C.:—
*H. V. Smith & Co.—7s. 10d. per sq. yd., with five years free maintenance.

LONDON.—For extension at St. George's Baths, for the Stepney B.C.:—
Turnbull & Son, Limehouse £1,096
Patman & Fotheringham, N. 1,084
Ashby & Horner, Shadwell, E.1 1,079
J. Jarvis & Sons, E.8..... 1,075
Geo. Barker, E.1 1,037
W. Gladding & Co., E.1 915
*Harris & Wardrop, E.14 909

LONDON.—For construction of dry playgrounds at Finsbury Park and Ravenscourt Park, for the L.C.C.:

	Finsbury Park.	*Ravenscourt Park.*
Geo. Bell & Sons, Ltd.	£3,293 0	£1,562
Hodsons, Ltd.	2,997 0	2,997
R. Neal & Sons	2,985 0	1,387
Mears Bros.	2,950 0	1,295
*Howard Farrow.....	2,615 10	1,238

LONDON.—For the construction of the Eltham sewer, for the L.C.C.:—
James Byrom, Ltd., Piccadilly, W. £286,319 4 5
Walter Scott & Middleton, Ltd., S.W. 280,395 6 0
John Price & Son, S.W..... 277,561 15 10
Mitchell Brothers, Sons & Co., Ltd., S.W..... 271,581 10 4
Metropolitan Tunnel and Public Works Co., Ltd., S.W..... 259,401 7 11½
Henry Boot & Son (London), Ltd., S.W. a251,701 8 9
Wm. Muirhead, Macdonald, Wilson & Co., Ltd. S.W. 238,165 13 10
*Kinnear, Moodie & Co., S.W 223,721 7 2
a Tender based on current rates of wages

LONDON.—For (1) renovating the surface of bare areas at Tooting Common; and (2) cleaning out ornamental ponds at Wandsworth Common, for the L.C.C.:—

	Tooting Common.	*Wandsworth Common.*
Hodsons, Ltd.	£1,800	£1,910
Mears Bros.	1,700	1,689
Geo. Bell & Sons, Ltd.	1,685	2,080
*Howard Farrow.....	1,595	1,590
*R. Neal & Sons	1,565	1,900

Neal's tender accepted for Tooting Common and Farrow's for Wandsworth.

LONDON.—For completion of the carriageways and footways of certain roads on the second section of the Roehampton estate, for the L.C.C.:—
Geo. Wimpey & Co., Ltd. £4,932 16 3
Tarslag, Ltd. 4,439 12 0
G. J. Anderson 4,156 9 4
Henry Woodham & Sons, Ltd. 4,126 8 8
W. N. Wheeler & Co., Ltd. 4,119 14 0
Wm. Shepherd & Sons, Ltd..... 4,111 7 5
Gunn, McNeil, Ltd. 3,844 0 0
John Mowlem & Co., Ltd..... 3,778 14 4
Tarmac, Ltd. 3,636 19 0
E. Parry & Co..... 3,564 11 10
*W. & J. Glossop 3,096 19 4

MANCHESTER.—For erection of block of offices, for Messrs. R. Johnson, Clapham & Morris, Ltd. Mr. Arthur Clayton, architect, Duchy Chambers, Clarence-street, Manchester:—
*J. Byrom, Ltd., Bury..... (approx.) £20,000

MARSHLAND.—For the erection of three pairs of houses at Tilney, for the R.D.C.:—
*H. W. Reeder..... Per pair £809

METROPOLITAN ASYLUMS BOARD.—The following tenders have been received by the Board:—
Goldie Leigh Homes—Installation of ironing machine—
American Laundry Machinery Co., Ltd., S.W. £510 15 0
S. Hodge & Sons, Ltd., Millwall 270 0 0
J. Armstrong & Co., Ltd., E.C... 270 0 0
†D. & J. Tullis, Ltd., Kingsway, W.C. 250 0 0

Queen Mary's Hospital for Children—Conversion of boilers—
Halliwell Furnace & Engineering Co., Ltd., S.W. £289 7 6
Gallagher & Crompton, Romiley.. 275 0 0
Pillatt & Co., Ltd., Stapleford.. 200 0 0
Harland & Wolff, Ltd., Woolwich 190 0 0
Premier Electric Welding Co., Ltd., S.E..... 188 5 0
Meldrums, Ltd., Altrincham.... 179 0 0
S. Hodge & Sons, Ltd., Millwall.. 140 0 0
†H. & T. Danks (Netherton), Ltd., Dudley 135 0 0

S. Margaret's Hospital and Bower Cottage—Cleaning, painting and repairs—
T. Carr, W.C. £299 0 0
Building Renovations, Ltd., W. 262 0 0
Dilliway & Co., Kensington.... 243 14 0
Greenwood & Son, Ltd., W..... 234 18 7
Hensun & Co., Wood Green.... 230 0 0
J. S. Fenn, Woolwich..... 217 0 0
J. Hocking & Co., Charlton.... 213 0 0
F. Cousins, Holloway..... 199 4 0
J. Darch, Ltd., E.C..... 198 10 0
E. Stevens, St. Albans..... 195 0 0
W. S. Sharpin, Bow 189 0 0
Whitbys, Ltd., W.C..... 188 12 0
C. H. Boyd & Son, Ltd., W..... 188 0 0
Douglass, Halse & Co., Ltd., Woolwich 187 0 0
W. Gower & Son, Leytonstone.. 169 0 0
H. A. Thomas & Son, S.E..... 162 0 0
Falkus Bros., E.C..... 158 10 0
Barnes & Co., Lewisham..... 149 0 0
E. Proctor & Sons, Plumstead.. 148 0 0
D. C. Bowyer, Belvedere, Kent.. 147 0 0
G. Bennett, Hornsey Rise..... 142 10 0
†J. Dennis, St. Albans..... 120 0 0

Tooting Bec Mental Hospital extension—Supply of bricks—

	Red facing bricks.	Red squint bricks.
	per 1,000.	
Eastwoods, Ltd., S.E.	£6 19 6..	£12 10 0
Red Bank Manufacturing Co., Measham	6 10 0..	7 10 0
R. Passmore & Co., Limehouse	6 5 0..	7 5 0
†Young & Son, Ltd., E.....	5 12 6..	7 2 6

	Grooved Flettons	Hard sound "seconds" stock per 1,000.	Grooved wire cut bricks.
W. T. Lamb & Sons, E.C.	— ..	£4 9 0..	—
A. H. Lavers & Co., S.E.	— ..	4 5 6..	—
C. Burley, Ltd., Sittingbourne	— ..	4 2 0..	—
J. A. Pratt & Co., Ltd., Watford..	£3 12 6..	4 14 0..	£4 2 6
The London Brick Co., Ltd., N. ..	3 9 3..	— ..	—
R. Passmore & Co., Limehouse	3 8 3..	4 6 0..	—
Eastwoods, Ltd., S.E.	3 7 9..	4 10 0..	—
Young & Son, Ltd., E.	3 6 6..	4 5 10..	—

MITCHAM.—For erection of public conveniences Fair Green, for the U.D.C. The Surveyor, Broadway House, Mitcham:—
T. Taylor, Mitcham £1,187 17 5
A. F. Simpson, South Norwood 1,178 0 0
F. & G. Foster, Norwood Junct. 1,158 0 0
S. Dale, Mitcham 1,128 7 7
H. Bacon & Son, Coulsdon 1,097 0 0
*H. Hann, Mitcham 1,066 18 6
A. A. Secrett, Ltd., Wallington 1,035 0 0
Surveyors' Estimate 1,064 0 0

NEWCASTLE-UPON-TYNE.—For the erection of 208 flats at Delaval-road, Newcastle, for the Housing Architect's Dept.:—
H. Kelly, Ltd., Newcastle.... £89,212 0 0
Stanley Miller, Newcastle .. 88,500 0 0
Alexr. Anderson, Newcastle.. 72,000 0 0
W. Brazell, West Hartlepool.. 69,502 17 11
R. F. Brown & Co., Blaydon-on-Tyne 68,845 0 0
E. R. Davison & Son, Blaydon-on-Tyne 66,196 0 0
Geo. G. Carr, Newcastle 65,520 0 0
*J. S. Hetherington, Newcastle 65,322 10 0
W. W. Franklin, Newcastle.. [58,761 15 5

OLDBURY.—For erection of 20 houses in Queen's-road, Londonderry, for the U.D.C. Mr. E. Fletcher, Surveyor, Public Buildings, Oldbury:—
Alcester Builders, Ltd., Alcester £9,960
Whitcomb, Harding & Co., Aston 8,520
A. J. Crump, Dudley 8,519
Meredith & Hingley, Cradley 8,516
W. Jackson, Langley Green 8,500
Housing, Ltd., Blackheath 8,484
W. Edwards, Birmingham 8,300
Harper & Sons, Blackheath 8,200
Butler Bros., Erdington 7,760
*Hankins & Edwards, Smethwick..... 7,270

PAIGNTON.—For alterations to the Wesleyan Church, Paignton, for the Trustees. Messrs. W. G. Couldrey & Son, architects, Paignton. Quantities by Messrs. Harris & Hills, Paignton and Torquay:—
S. Batten..... £1,765
W. Smaridge 1,736
Willcocks & Barnes 1,570
C. & R. E. Drew..... 1,542
*H. T. Drew..... 1,487

PETERBOROUGH.—For construction of sewage disposal works at Eye, for the R.D.C. Mr. G. A. Penwill, Surveyor and Engineer, 33, Queen-street, Peterborough:—
Gunn & Macneill, Ltd., London £3,412 7 1
J. Cracknell, Ltd., Peterborough 2,470 0 0
R. S. Jellings, Peterborough.. 2,394 0 0
*J. Guttridge & Sons, Peterborough 2,148 0 0
Surveyor's estimate 2,335 0 0

PORTSMOUTH.—For rebuilding shop premises Albert-road, for Messrs. Baker & Co. Messrs. A. E. Cogswell & Sons, architects, Portsmouth. Quantities by architects:—
Henry Jones & Son £2,287
Saml. Salter 2,210
Davis & Son 2,197
E. & A. Sprigings..... 2,193
John Lay & Co. 2,193
Jno. Croad 2,175
Tanner Bros. 2,155
*F. Privett 2,077

PENYBONT.—For (1) erection of 12 parlour-type houses, Pencoed; (2) construction of road and sewer, Pencoed; (3) erection of eight non-parlour type houses, Pencoed, for the R.D.C. The Engineer, Penybont R.D.C., 8, Wyndham-street, Bridgend:—

E. Clarke, Bridgend—	Per house.
Parlour house	£530 0 0
Non-parlour	480 0 0
D. Davies, Pencoed—	
Parlour house	425 0 0
Non-parlour	385 0 0
W. H. Pickering, Pencoed—	
Parlour house	422 10 0
Non-parlour	382 10 0
Roads and Sewers—	
E. Clarke, Bridgend.....	742 10 0
Watson & Horocks, Bridgend ..	462 15 6
Rees Jones, Coychurch	439 13 0

ROCHDALE.—For erection of 50 houses on Turf Hill Estate, for the T.C. Mr. S. H. Morgan, Borough Surveyor, Town Hall, Rochdale:—
*R. & T. Howarth, Rochdale.

SCARBOROUGH.—For (*a*) erection of 50 houses on Edgehill Park Estate: (*b*) block of 8 houses, Potter-lane; (*c*) block of 9 flats, Longwestgate, for the B.C. Mr. Harry W. Smith, Borough engineer, Town Hall, Scarborough:—
*(*a*) Jenkinson (Worksop), Ltd., Worksop.
*(*b*) Jackson & Oates, Goole.
*(*c*) Fenwick & Co., Ltd., Hull.

SEDBERGH.—For laying about 2,200 lin. yds. of 5-in., 4-in., and 3-in. cast-iron pipes, &c., for the R.D.C. Messrs. Taylor & Wallin, engineers, 47, Pilgrim-street, Newcastle-on-Tyne:—
W. H. Rogers, Willenhall..... £6,538
C. Collins & Co., Radcliffe 5,980
John Best, Edinburgh 5,723
Gunn McNeill, Ltd., Westminster 5,642
J. G. Porteous, Middlesbrough 5,142
W. V. Patrick, Grassington 5,092
Farr & Co., London 4,978
Gibson & Gibson, Middlesbrough 4,776
John Hine & Son, Kendal 4,766
*James Leslie & Sons, Whitehaven 4,741

SHEFFIELD.—For various building works, for the T.C. :—

*G. Longden & Son—

Erection of a transformer sub-station in Upperthorpe	£860
Alterations and additions to the rotary converter sub-station at Newhall-road	690
Additions to the existing transformer sub-station in Denby-street	337
Erection of a transformer sub-station on the Manor Housing Estate	1,036
Erection of a transformer sub-station at Bents Green	980

SHEFFIELD.—For excavations, taking down and rebuilding boundary walls, &c., in connection with the widening of Fulwood-road between Lawson-road and Taptonville-road, for the T.C. :—

*H. & E. Andrews £1,400

SHEFFIELD.—For the construction of retaining walls and invert to the River Sheaf, Broadway-road, for the T.C. :—

*J. & E. Nadin & Son £5,000

SHEFFIELD.—For demolition of concrete foundations at Neepsend, for the T.C. :—

*British Concrete Breaking Co., Bolton .. £250

SHEFFIELD.—For the supply of 500 4 in. cast-iron water pipes, to the T.C. :—

*Staveley Coal & Iron Co. £481 7 3

SHEFFIELD.—For painting at Heeley Baths for the T.C. :—

*Flint Bros. £215

SKEGNESS.—For installation of additional pumping machinery at the Welton bore, for U.D.C. :—

*Sulzer, London .. £1,280 and £210 for concreting plant.

STOBSWOOD.—For erection of elementary school, Ulgham, to accommodate 200 scholars, for the Northumberland E.C. :—

*Taylor & Fulbeck, Blyth £4,981

STOURPORT.—For laying of a concrete floor at the Fire Station, for the T.C. :—

*E. Oakley & Son, Stourport.

TAUNTON.—For reconstruction of sewage disposal works, for the T.C. Mr. J. F. Shellard, Borough Engineer, Taunton; :—

The Standard Construction & Maintenance Co., Swansea	£30,471
Cowlin & Son, Bristol	29,559
W. H. Smith, Torquay	28,520
J. & W. Stewart, London	27,187
Spiller & Browne, Taunton	26,995
Geo. Pollard & Co., Taunton	25,190
Fothergill Bros., Exeter	25,185
E. Ireland, Bath	24,395
H. Smith, Newport	24,214
‡F. & E. Small, Taunton	23,129

TOBERMORY.—For erection of eight houses in four blocks of two, for the T.C. Mr. A. Macnaughton, Engineer, Council Offices, Tobermory. Quantities by Mr. Gladstone Browne, Treasurer, Glasgow :—

Brickwork—*John Adam & Co., Glasgow.
Joiner work—*A. McTavish, Connel Ferry.
Plumber—*Anderson & Nisbet, Oban.
Slater, plaster and concrete work—*H. Sinclair & Son Tobermory.

WALSALL.—For the erection of slipper baths and caretakers' quarters on Bloxwich Fields, for the T.C :—

*J. & F. Wootton £1,913 1 2

WALTON-ON-THAMES.—For iron fencing for Hersham Recreation Ground, for the U.D.C. :—

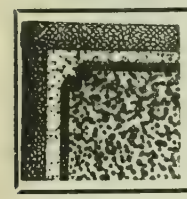
*Faulkner, Ltd. £679 11 6

WEYMOUTH.—For the construction of an extension to the booking offices, Esplanade, for the T.C, :—

Bird & Cox, Ltd.	£211 9 9
Theo. Conway, Ltd.	217 0 0
Jesty & Baker	226 15 0
*Jenkins, Hitt & Grant, Ltd.	179 0 0

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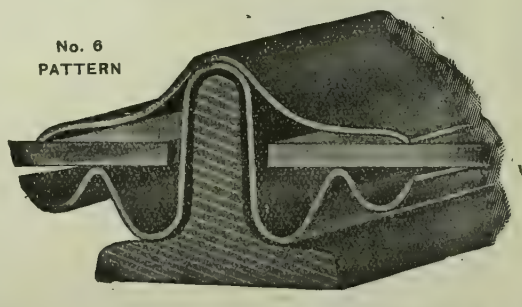
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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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ARCHITECTURAL DRAUGHTSMANSHIP.

ARCHITECTURAL drawing and the drawing of architecture may be two very different things. In architectural drawing we should, of course, expect to see the quality of architecture expressed in an architectural way with a certain reticence, conventionality, and insistence on whatever brings out the architectural values; at its best and highest it would also have a something of decorative quality, too; but the drawing of architecture might be taken to include architectural drawing proper and everything else whatever from Vilars de Honcourt to Prout.

The last hundred years, as we are reminded by the interesting little exhibition at the Architectural Association, in Bedford-square, has seen a steady and very interesting development in architectual drawing and never in the world before has there been so much or parallel to it in extent and quality.

There is the danger in all pleasures that we may mistake the shadow for the substance, and this has been probably in the mind of those who enveigle against pretty drawings and caution students against being led away by their attraction and so mistake drawing for architecture. We have also been warned against paper architects whose thoughts are concentrated on their drawing boards. Here, again, we have a useful counsel which may come to harm. We have yet to learn that there is any better method available for the design of a building than careful paper studies, and one must be a poor judge of architectural values if one cannot visualise a projected building from its paper studies. Models are of value, though often very misleading, and are only a fairly true guide when they can be viewed on a level with the actual line of vision from which the buildings will usually be seen. The fact is that if we were to eliminate draughtsmanship we should be hopelessly at sea, for the man who could visualise all that a building should be without paper aids does not in practice exist. That architectural draughtsmanship has a varied use goes without saying: even in its most mechanical and prosaic form it may have a quality of its own. We hope the habit is growing of making clear and readable drawings of a building, and its various parts with their accurate inter-relation explained, when useful, by careful sketches showing how features end or abut, if there be any cause for doubt. We are convinced that good expressive draughtsmanship for office use is a matter of great importance, though we fear many offices in the hurry and rush of business have got into rather careless ways about it.

One great mistake about draughtsmanship, a peculiar fault with most architects, is over-statement, and this especially applies to elevations which are practically always merely plans of the façades. Thus the roof delineation in elevations is in numberless cases a gross misstatement of fact, and so are many of the features of a building misleading in elevation. Therefore, the highly finished elevation in a competition is often misdirected labour. We have noted a growing tendency to over-elaboration of plans, which often rather confuses their understanding than otherwise. With the plastic or sculptural quality of a building, draughtsmanship seldom deals with any real approach to adequacy, yet there may be a quality of great value in a building itself from its texture and values of its plane surfaces. In the main the first value in the view of a building is to emphasise and explain its mass and its modelling with the significance of its main features. After that we desire some explanation of its details and texture. We may obviously over-accentuate one feature at the expense of others, or modify the horizontal or the vertical to an unfair degree if so desired. The serious student of architecture does not like tricks, but should he take it too seriously he may, on the other hand, reject all alleviations, owing to the dullness of his temperament.

Architectural draughtsmanship, at its best, is a beautiful art. At its best it calls for some critical understanding of the art of architecture, or else its true value cannot be expressed. Like other forms of illustration it is finest and most expressive when it is limited by a certain restraint of handling, when it avoids tricks and does not emulate the photographic lens. In some ways it is as fine an art as the art of architecture itself. When we speak of architecture we are not supposed to mean any sort of building, but only that which can claim to be styled architecture. Any sort of drawing may be called draughtsmanship and yet unworthy of notice. There is, however, a draughtsmanship which has so much of art in it that it may be contemplated with great pleasure and profit. Even those who can design well cannot always draw well, whilst some able draughtsmen are not specially gifted in the art of design.

Anyone who has studied the drawings made in the students' competitions in modern times may see at once if any sympathetic feeling for the subject has been displayed and whether the execution has been a mere task or a genuine pleasure. It seems impossible to expect that a drawing executed without pleasure to the draughtsman can give pleasure to others. Warnings have often been uttered as to the snare of "pretty" drawings, but the very word "pretty" would hardly occur to one as relevant to the character of a really good architectural drawing. There has been a vast quantity of vulgar, flashy, or characterless drawing produced in the last fifty years, but the great development of good architectural drawing during the past century or two is a noticeable and valuable product of modern times, which is, so far as we know, practically new in the world's history. We say architectural drawing and not the drawing of architecture, for the two things are often very different. The carefully and often beautifully-executed engravings of architectural subjects a hundred or more years ago were not architectural drawings in the sense we speak of now. Architectural drawings in modern times have generally been the work of accomplished architects or students of architecture and have ranged over every sort of medium, the most expressive probably being those executed in pencil, chalk, or pen-and-ink. A really worthy collection of such drawings would be a revelation to many who know of them only through their fitful reproductions in the Press. That they can appeal to the public in the same way as those executed by the pictorial artist with no special knowledge of, or training, in architecture, is not to be expected, for their emphasis is naturally concentrated primarily on the qualities of architecture which the public understand in only a small degree.

With some it may be a moot point how far architects should go in endeavouring to catch the eye of the public by clothing their design in the piquancy, breadth or sparkle of the artist's vision, and so secure an approbation which has little or nothing to do with the architectural qualities, but we may well believe that the architect who loves his art will not care very greatly for such fictitious joys. We have to remember that the public can, after all, appreciate some of the qualities of fine building. They like the dignity of big columns; they love the picturesque and they adore ornament. Who shall deny that such admiration has not its rightful place? The architect, if he be worthy the name, wants to find appreciation for those things which constitute the real beauty of fine building. He will not, therefore, readily give up his own sense of the vital quality necessary in that architectural draughtsmanship which is to do justice to his design; but he would be narrow-minded indeed, and perhaps even impolitic, if he rejected any of the aids which beautiful drawing may bring to the understanding and allurement of fine architectural design.

NOTES.

Architectural Designs. "This mysterious indefinable something, which we call architectural design," are the words used by Professor Beresford Pite, in speaking of the paper by Professor Percy Nobbs on "Canadian Architecture," and he expresses a doubt as to what Professor Nobbs was looking for in his description of Canadian work. The most impressive quality Professor Pite sees in these buildings is their scale, and he adds that "the sense of homogeneous style, a real feeling for ornament, and any expression of intellectual culture is almost sought for in vain." He contrasts the overwhelming amount of commercial architecture illustrated, which has no spiritual appeal, with the paucity of that which makes any appeal to the higher qualities of thought and life. He suggests that perhaps buildings of religion and education have not fallen much into the hands of Canadian architects. He reflects on the undoubted fact that the impressive buildings of the world in all ages have been devoted to other purposes than commerce or self-aggrandisement: "Until buildings of that character and motive arrive in the New World we shall still find the New World bursting the heavens with sky-scrapers for commercial development."

The City Churches. The arguments urged in favour of the destruction of the City churches indicate that the enthusiasts for demolition consider that the Church of England is moribund. Apparently, unless we sell the City churches and hand them over to destruction the dwellers in the suburbs cannot get the churches necessary for public worship. In other words, while the suburbs are prepared to support financially cinemas and public houses, they will only have churches on condition they do not have to pay for them! Religion demands sacrifice, and it would be better for the Church to resist rather than encourage any assistance out of capital.

The Pressure of Theories. Theories and principles are hard of wholesale application. *The Times* pertinently shows how Nash's broad, simple and refined treatment of Regent-street was brought into being with its quiet homeliness in a noisy, violent and brutal time: "If stucco be a sham how came stucco to be first favoured in an age whose cardinal merit was that it despised shams?" But may we not say that the sham stucco was quite a parallel to the courtliness and grace which overlaid the real brutality of its time? May not the world of to-day be getting the architecture it desires? This makeshift, apologetic age is surely not and could not be expressed in fine, rhythmical, and logical architecture.

Advisory Art Committees. The memorandum of the R.I.B.A. on Advisory Art Committees, which we print on p. 341, contains some useful suggestions, especially that in reference to the formation of an Advisory Art Committee in towns and rural districts. As we understand it, this is really a suggestion for a civic society in our towns, such as we have in Birmingham, and which has worked with such success—probably because it is in the hands of the right people, who try, in connection with leading citizens, to get things done. The suggestions contained in the R.I.B.A. memorandum are well worth careful consideration, and we hope steps are being taken to bring them before local architects and municipal bodies.

A Happy Issue. The announcement that two of the rejected County Hall lunettes have been acquired by the Underground Railway, and will be hung in Westminster Station, appears to us a very happy solution of a difficulty, and a far more suitable place. We have no ironical intention whatever in saying this, or in any way to deprecate what has been done, but it has averted the danger of a wholly inappropriate interpretation of mural art becoming established in our great buildings. The field of mural decoration which has as its background the contemplative and spiritual qualities in which the imagination delights to dwell, will, therefore, not become mixed up with an ephemeral application which, while wholly suitable in a railway station, should find no place in buildings less related to transitory things. We hope this beginning towards decorating our stations will continue, and that further opportunity will be forthcoming. By establishing itself in the right place, the many objections felt to the claims put forward to represent mural art in such ways will disappear, and the genus of the present experiments become better declared, their relation being much nearer to poster than mural art, both in spirit and treatment. It may also lead us to look in the direction where mural art may be found.

The Overhead Crossing. Sir Alfred Yarrow's offer to erect at his own expense a trial crossing in one of our busy cross-roads has already elicited a nervous objection that such a



From the Exhibition of Draughtsmanship at the Architectural Association.

Chartres Cathedral. From a Drawing by the late A. W. Pugin.

[A review of this Exhibition was given in our last issue.]

crossing might interfere with light or with the crowds that gather about the great shop windows. The objection as to obscuration of light is obviously ridiculous, and as to the shop window crowds, we are tired of the vested interests that cry out against every experimental reform. If such crossings are desirable to relieve traffic congestion, the shops would be well advised to make the best of it in a public-spirited manner and not to cry out before they are hurt. We do not believe that the shops would suffer at all, but we resent any suggestion that the public must go on suffering from traffic chaos in case by any chance an improvement might prejudice the sales returns of fashionable shops.

The Underground

The Underground is complaining that the public supports the "pirate" 'bus services while the traffic on the Underground shows a decrease. If it does not know why this is, we can tell it. It is because people do not like hanging like gibbons from straps in stuffy and overcrowded carriages. The Underground has even gone so far as to design almost seatless compartments, with poles and straps for the inmates to cling to. The "Tubes" labour under a further and unavoidable handicap: however well ventilated they may be, it is not the same thing as the outside air.

Art in a Public School.

Mr. Wells' book on "A Great Schoolmaster," though more propaganda of Mr. Wells' own theories than an actual work of reference, has revived interest in a great educationist. Those who wish to know the subject more intimately will turn to another book, "Saunderson of Oundle," edited by a committee of old Oundle boys, and giving us a store of unbiased information. Saunderson was essentially English, believing in the group spirit of work as distinct from individualistic self-expression, and his message has a wider significance than an educational method. It is interesting to notice that his pioneer of scientific modern education insisted more upon art values as an influence in education than did the majority of his so-called "humanistic" colleagues. Although hopelessly unmusical himself, he ardently encouraged musical talent, especially by making the boys sing in the music in the school services. In order to produce an unconscious taste and an interest in good work, he had the class-rooms hung with reproductions of great paintings, and also with photographs of architectural masterpieces. Considering the absence of such incentives from most of our public schools, and its reflection on public taste, Saunderson's innovation is the more remarkable.



From the Exhibition of Draughtsmanship at the Architectural Association.

Entrance Porch. Sir Edwin L. Lutyens, R.A., Architect.

Drawing by Mr. T. Raffles Davison.

The Recovery of Village Life.

In giving account of the resources available for the recovery of village life, which include the very useful Rural Industries Intelligence Bureau, the Village Clubs Association, and Women's Institutes, we convey only a limited idea of the resources growing towards this recovery if we forget the small workshops, which craftsmen are setting up, and which are increasing in number. In a variety of different occupations, such as pottery, hand-weaving, printing, woodwork, and other crafts, we have a nucleus round which much further activity should in time gather, and every encouragement should be given in the way of making them better known and directing local purchasers to them. In various counties these small workshops are establishing themselves, and as they develop give not only a measure of employment to others, but establish the practicability of finding a return from the locality for the good work they produce. The influence of educated and enlightened people, with a sense of the real needs of life and setting the example of contented labour, established in the country, should exercise on our villages an influence to direct them towards using their own hands to make and shape useful things with the freedom from the industrial tyranny of mass-production, and therefore likely to find delight in their work. There lies a better prospect for the restoration of beauty in these natural ways than in any others, and the young craftsman will do well to consider the advantage of establishing his work under these healthy country conditions, taking his part in this deeply important restoration.

Charing Cross Bridge.

In reference to the recent paper by Mr. Paul Waterhouse on Charing Cross Bridge, read at Burlington House, in which he summarised his remarks by saying, "C.C.B.M.G." (Charing Cross Bridge must go), we have pleasure in quoting, by the courtesy of the *Morning Post*, the following:—

Can Earth show anything in much worse taste?
Dull must the artist be who won't decry
A bridge so plainly a monstrosity.
This city should reclaim with all due haste
The beauty of its river so disgraced;
Up artists! architects! with each other vie!
Denounce it in the Press, and oh *do* try
Your very best to have the thing replaced!
Never did bridge more absolutely spoil
With its vile girders, river, banks, and view,
Ne'er did my soul before so much recoil
(The river goes on gliding, it is true!)
By Jove! the very columns make me boil,
And worst of all they've just been painted, too!

The author of this delightful comment, W. H. B., is Mr. W. Hodgson Burnet, Lic.R.I.B.A., of Windsor.

GENERAL NEWS.

"Luxury" Building.

In recent Parliamentary papers the Minister of Health states he is refusing sanction to the raising of a loan of £67,000 by the Hastings B.C. for the part cost of a new music pavilion on the ground that skilled building labour would be diverted from work of a more urgent nature. Mr. Wheatley also states, for a similar reason, he cannot see his way to pass a scheme for the building of additional public baths at Stoke Newington.

Soane Museum.

The trustees of Sir John Soane's Fund will meet at the Museum, 13, Lincoln's-inn Fields, on March 10, to distribute the dividends (which have accrued since January, from the sum of £5,000 2¾ per cent. Bank Annuities, invested by Sir John Soane) among distressed architects and widows, and children of deceased architects left in distressed circumstances. Forms of application may be had at the Museum, and must be filled up and delivered there on or before March 4, after which no application can be received.

Sydney Harbour Contract.

The New South Wales Cabinet has recently been considering the tenders for the construction of the bridge over Sydney Harbour. Their controlling engineer, Mr. Bradfield, has recommended the acceptance of the tender of Messrs. Dorman, Long & Co., at £4,500,000. The work is expected to occupy about ten years. Messrs. Dorman, Long have branches at Sydney and Melbourne.

Downham Estate.

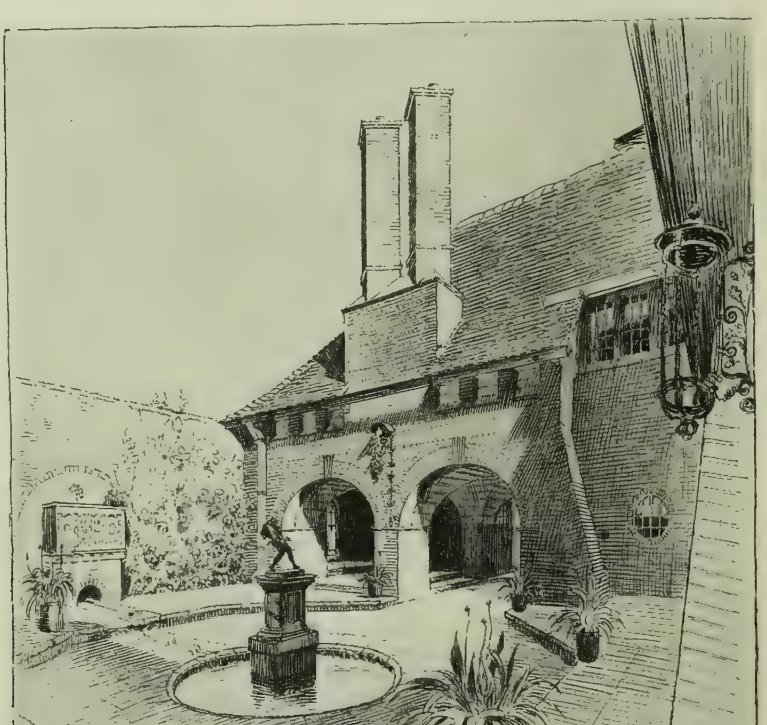
The L.C.C. is to make a start with the development of the Bromley-road section of the "Downham" Housing Estate at Grove Park, the erection of 2,000 houses having been sanctioned by the Ministry of Health. The Council has been recommended by the Housing Committee to accept the tender of Messrs. Holland & Hannen & Cubitts, Ltd. Allowing for certain charges, it is estimated the deficiency will be equivalent to £17 per house per annum.

In recommending sanction for the borrowing, by the Woolwich B.C., of £30,240 for the building of 60 houses at Eltham, the Finance Committee of the L.C.C. estimates the net deficiency for twenty years at approximately £16 6s. per house per year.

Bishop of Coventry on Housing.

The Bishop of Coventry, with regard to the City Council's proposal to erect 1,500 houses, writes in his *Diocesan Magazine* as follows:—

"Without hesitation, I call upon the clergy and Church-people of the city to support the Council in the bold step which they have taken. It will not provide all the houses that are necessary, and plenty of room will be left for private enterprise, but the conditions of life for something like 10,000 people, counting those who will live in the new houses and those who will benefit by the relief of the pressure on the present accommodation, are at stake. Individually we can do little to solve this problem, but when an outstanding proposal of this description is made, we can put our weight behind it and push with all our power."



From the Exhibition of Draughtsmanship at the Architectural Association.

The Fountain Court, Deanery Gardens, Sonning.

SIR EDWIN L. LUTYENS, R.A., Architect. Drawing by MR. T. RAFFLES DAVISON.

St. Leonard's Church, Newton Abbot.

The new pulpit at St. Leonard's Church, Newton Abbot, Devon, was dedicated recently. The pulpit takes the place of the old wooden structure, and the design was prepared by Messrs. Rowell, Locke & Son, of Newton Abbot, and the figures of St. Leonard, King Clovis and Bishop Remigius, which adorn the front, were carved by Mr. Herbert Read of Exeter. The pulpit has been executed in Beer stone, a limestone of a white cloour, which has been used extensively for work in many of the principal ecclesiastical buildings in the West Country, including the Cathedral of Exeter, in which it has been used from the Norman period downwards. The stone is specially noted for its agreeable appearance and its fitness for delicate carving.

This stone has also been used for the whole of the interior of the Hall of Memory, Birmingham, of which Messrs. S. N. Cooke and W. N. Twist, FF.R.I.B.A., are the architects.

COMPETITION NEWS

Leicester Fire Station.

THE design of Mr. Trevor Sawday has been accepted in the Leicester Fire Station Competition, and Mr. Sawday has been awarded the first premium of £100 and appointed architect for the building. The second premium (£50) has been awarded to Mr. Arthur J. Wood, and the third (£25) to Messrs. Moore & Morley.

Hereford Market Hall and Gravesend Housing Competitions.

The R.I.B.A. Competitions Committee calls the attention of members to the fact that the conditions of these competitions are not in accordance with the regulations of the R.I.B.A.

Proposed Lay-out Competition, Valletta, Malta

The President of the Royal Institute of British Architects has nominated Mr. Edward P. Warren, F.S.A., F.R.I.B.A., and Professor Patrick Abercrombie, A.R.I.B.A., as joint assessors in this competition.

Proposed Constantine Technical College, Middlesbrough.

The President of the Royal Institute of British Architects has nominated Mr. Percy Thomas, O.B.E., F.R.I.B.A., as assessor in this competition.

Masonic Peace Memorial.

For full particulars of this competition see our issue for February 8. No sending-in date has yet been fixed.

The President of the Royal Institute of British Architects has nominated Sir Edwin L. Lutyens, R.A., F.R.I.B.A., as one of the three assessors in this competition.

New Law Courts, Cairo.

The assessors have awarded the first prize in this competition to MM. Erlanger, Azema, Edrei & Hardy. The second, third and fourth prize have been awarded respectively to MM. Marc Alexandre, Brandon, and Radoslagof.

Freemasons' Hall.

The three assessors chosen to adjudicate in th competition are Sir Edwin Lutyens, Mr. Walt Cave, and Mr. A. Burnett-Brown.

Other Competitions.

Other competitions still open include t following (the dates given are, first the sendin in date, and second the issue of *The Builder* which full particulars were given):—Essa on Heating and Ventilating (Mar. 3 Nov. 9, 1923). Industrial Designs (Jun Dec. 21, 1923). National Theatre (April 2 Monument to Sir Wilfrid Laurier (April Dec. 14, 1923). Belfast Union Lighting (Marc Nov. 9, 1923). Dunfermline War Memor (March 8; Dec. 28, 1923). Newcastle Conc Hall (March 1; Oct. 26, 1923). Ross-Smi Memorial (Sept. 30; Feb. 1). Newcastle F Station (March 27; Feb. 1).

THE NEW RENT BILL.

It seems that legislation dealing with the property in houses is to become an annual development, regardless of the fact that Rent Restriction is one of the principal causes of the shortage of houses. We have always consistently maintained that the introduction of Rent Restriction in the form that was adopted was a very serious mistake even in the war, and our view has been abundantly justified by subsequent events. The sanctity of private property was attacked and housing and rents were made the subject of a political gamble just at a time when the production of houses was one of the most important questions of the day, and ever since the private owner, or builder of houses, has been treated as half criminal, half profiteer, whilst the tenants of his houses have been indulging in profitable speculations in subletting or letting furnished his premises.

It has been demonstrated that in the long run if houses are to be provided at economical rents, and not at the cost of the community, they must be provided by private enterprise, but far from encouraging private enterprise everything possible has already been done by successive Parliaments to make the building or owning of houses impossible, and rents have been the shuttlecock of legislation.

Private enterprise is the root upon which housing alone can flourish and it should be cultivated with care, but the Rent Restriction policy has killed it and the renting of houses at all has been made impossible; thus the policy adopted, to carry on the above simile, has been like the horticulture of children who every week dig up the roots of plants, or the seed they have sown, in order to see how the plant is going on or the seed germinating.

We have not the text of the Bill now introduced by a private member before us, but, as he described it when contrasted with the Act of 1923 as "a tenants' Bill," little more need be said about it, for we have as yet not seen any measure that could be described as a "landlords' Bill." Some concessions have been made to landlords in regard to their own property, as a gracious favour, but all the Rent Restriction Acts have been "tenants' Bills," and the tenant is now reaping the fruit of them in the shortage of houses and in finding that the leasing of houses has been rendered impracticable.

From the statement of the mover of the Bill we gather that it proposes that Rent Restriction is to be continued until 1928, that all the grounds enabling a landlord to obtain possession are to be swept away, except when he requires his house for his own occupation, and even then that he must find alternative accommodation for the statutory tenant, that the 15 per cent. allowance of increased rent is to be cut down to 10 per cent., and the allowance for repairs from 25 per cent. to 15 per cent., and, lastly, that all the houses included in the Act of 1920 are to be put back under control. This being a private member's Bill, it would appear unnecessary to notice it at all were it not for the fact that the Government has expressed approval of it, though not accepting responsibility for it, and that the Minister of Health, who is responsible for housing, supported it in a speech in which he attacked private enterprise.

That speech as reported it is a little difficult to follow, for he attributed the killing of private enterprise in housing not to the causes to which it is usually attributed, but to the competitive system and "private enterprise in fixing wages." Having thus diagnosed the cause of death of private enterprise in housing, as well as in some other departments of industry, he proceeded to point out that although one way of providing houses was to build them for the people who could afford to buy them, that only provided for a limited section of the community, and the subject to which he desired to call attention was that as the economic condition of probably three-fourths of the community was such that they had to depend for housing accommodation on their ability to rent houses, it was the provision of houses for that portion of the community which was to be desired.

He then stated that the days of the private capitalists investing their money in houses to be let to the working classes had gone for ever, but when asked to give a definition of what he intended by the "working classes" in this connection he is reported as having defined them as "people who could not afford to own the houses they lived in." This definition would embrace a large number of persons whom the Labour Party usually decline to consider as belonging to the "working classes," but the important point to observe is that the Minister of Health in this speech made no suggestion how the position made by the decease of private enterprise was to be overcome except by restricting the rents of the remaining owners of private property and making them maintain the "working classes" until subsidised houses under the housing schemes could be provided for the housing of the population.

We regret that the Minister imported a great deal of class prejudice into his observations, but, leaving that out of the question, we should like seriously to ask on what principle were the owners of one particular kind of property asked to bear the burden of housing the population at a loss, at their private expense, until national measures can be devised to house that population? This is not Socialism, nor is it Labour, it is nothing else but a kind of commandeering of private property for the benefit of a section of the community. These owners, moreover, contribute to the subsidies as well as entertain the statutory tenants as half-paying guests in houses which the owners must not themselves enter; so they are hit both ways.

The present Government is not solely to blame for this extraordinary position, the long-continued policy of Rent Restriction has put an end to the well-tried system of landlord and tenant, and now houses cannot be rented and capital is necessary for the purchase of houses the whole community is feeling the effects of an ill-thought-out, and far too extended, artificial interference with one class of private property. Rent Restriction is in the nature of a narcotic, the more of it the patient is compelled to take the worse does he grow, but the doctors of the patient "Housing," instead of seeing how the doses can gradually be diminished, not only increase their frequency but also add to their strength.

It is, perhaps, hardly necessary to comment on the inconsistency of the Minister of Health's speech on this Bill. He is reported as saying that the competitive system which brought down wages as the productivity of the workers increased made it more and more difficult for the worker to pay the rent of the kind of house which the medical profession believed to be necessary to afford a decent standard of life. This assertion is not borne out by the statistics as to wages at the present time, but is out of date by about half a century at the very least, but leaving that out of the question, how does it bear on a Bill which proposes cutting down the permissive increases of rent to meet repairs from 25 to 15 per cent? Who does the Minister imagine will do those repairs? If the working classes are employed what wages will the house owner be able to give them with a diminished increase allowed for repairs and his rent reduced by 5 per cent. at the same time? It is quite clear that either the repairs must be scamped or they must be performed at an inadequate wage, and the worker will have to thank the Minister of Health for a reduction in his wages if that follows. We only mention this as an example of how ill-thought-out speeches on such measures can be. The Rent Acts contain provisions by which the local authorities can enforce repairs being done adequately, but the money has to be found by the house owner, and how can he perform his obligations if he is deprived of the necessary rent besides being allowed no choice as to his tenant?

One of the most unfortunate features of the policy of the Rent Acts has been that it has appealed to the imagination of those who desire to see the population well housed to such an extent that they only see one side of the question and fail to trace its economic results. The private house owner, so long as he exists, is in the position of any other industrialist, he can only pay what his property will bear; if his profits are restricted his activities and expenses must also be restricted, and at the moment he is even more handicapped than most traders, as he is called upon to give his share of the subsidies given to municipalities in connection with his own trade, the letting and production of houses, yet he receives no consideration from the Legislature. Perhaps one of the most extraordinary features of the debate was that the advocates of drastic Rent Restriction spoke as though they were making demands on national funds to tide over a crisis, and failed to appreciate that they were, in fact, calling for further sacrifices to be made by one class of owners of property.

There was common assent that the law required amending in one particular, exposed in the recent decision of Strickland *v.* Palmer (see this issue, p. 345), and that where rates are lowered the increase made in respect of rates should also be abated.

CORRESPONDENCE.

Unification and Registration.

Sir,—I notice in your columns correspondence on the subject of a circular which emanated from the Defence League, and was signed by Mr. Cross and Mr. Perks.

During the past few years the Royal Institute of British Architects has been troubled with two parties, both of whom seem to be pro-registrationists and who only differ on point of view of method. The annual elections have been fought, very often in a somewhat undignified manner, and both parties have had the opportunity of placing their views before the members of the Institute whilst in power, and on each occasion have suffered defeat.

I venture to think that there must be many other members of the Institute, in common with myself, who would greatly prefer that this constant turmoil were avoided, and that the Institute should be carried on as a staid and dignified corporate body of the qualified members of the profession, as it has been for many years past, and as it is now recognised by the general public. There can be no doubt that any attempt at unification or registration will only lead to a decrease in the value of the Institute Diploma, and in time the Institute would become very little better than a trade union. There are many far better ways in which the Council could use their energy and money for the betterment of architecture.

John Harold Kennard.

A Century of Architectural Draughtsmanship.

Sir,—In your review of this exhibition (now at the Architectural Association in Bedford-square), my drawing of Blickling Hall, by a typographical error, is described as having been made in "1869," at which period I was hardly out of my teens. It was not till 1883 that I was engaged upon the renovations and alterations which were carried out during two years for the late Lady Lothian. I then made other drawings of the mansion, this being the first of the series. Its date is on the title. The view was reproduced in Vol. I of the "New Series" of the R.I.B.A. "Transactions" in 1885, among a famous selection illustrating my paper on "Architectural Drawings," which I contributed at the request of the Council and read at Conduit-street on February 2 that year, when Ewan Christian was President.

Maurice B. Adams.

Chiswick.

Road Breaking Ramp.

Sir,—As a concrete and Portland cement expert of thirty years' experience I would like to protest publicly against the wanton waste of the ratepayers' money by the universal procedure of breaking up the solid concrete foundations of existing paved roads, causing thereby untold inconvenience to traffic and loss of money for materials and labour, and stoppage of business.

I continually observe steel wire netting reinforcement being laid down on the bare soil and about a foot of concrete poured over it. The wire is approximately ¼ in. diameter square mesh. How can it possibly benefit in any way the solidity of the concrete?—for to do so it should be laid between the mass and not underneath; and, further, repairs to water-pipes, gas-pipes, electric light wiring, &c., are constantly being carried out, and the wire cut away on every occasion and rendered useless in those parts. This steel wire must cost the ratepayers thousands of pounds and should at once be dispensed with.

The concrete bed, after the paving has been stripped off, will undoubtedly show slight sinkings or hollows. These can be roughed up and special chemically-treated cement grout floated over to former true level, and the road will be as good or better than new concrete, as all settlement has already taken place and all sinking stopped and the roads quickly opened up for traffic.

When one considers the wages and materials bill now spent by this mistaken reconstruction, I think it is time that the suggestions I make should be given a fair trial, and I am certain it would meet with the strong approval of the police authorities, as it would bring down their increasing traffic troubles by at least 50 per cent., and the rates by about sixpence in the £, and be a blessing to shopkeepers in the areas affected. The same labour used by repairing as I advise, in proportion to the same number of men to take up and relay, would be equal to about six miles repaired to one mile taken up and relaid, and no better than the six miles, as the new work will again have settlements and dips.

The saving on Portland cement, sand, gravel, &c., would alone be prodigious and with its standing charges, haulage and supervision, again would reduce the bill by thousands of pounds, and be used for better purposes.

I shall be pleased to demonstrate my claims at any place and time if desired by the powers that be, and would simply ask for a fair but severe trial.

Lewisham. Arthur Kelway Bamber.



From a Sketch by Mr. T. Raffles Davison.

The Two Demands.

Sir,—With reference to Mr. Yerbury's enquiry in your issue of February 22 to define the suggested system of payment. Perhaps this can be done most easily by giving an example, taking the easiest case, namely, cottage building.

The contractor and the respective foremen should first agree a value for the brickwork, joiner work, plaster work, &c. Let us suppose that the brickwork labour is agreed to be of a value of £40, representing the average cost of carrying out the work on the present hourly basis, tradesmen's wage being 1s. 8d. per hour and the labourers' 1s. 3d. The workmen at once should draw a wage of 1s. 10d. and 1s. 4½d. per hour respectively, being an increase of 10 per cent. As soon as the work is completed, if it is found that the cost has only been, say, £33, let half the savings, in this case £3 10s., be distributed amongst the workmen in proportion to their wages already received for the work. In arriving at this figure of £33, the writer considers that what at present costs £40 could, if a bonus on output system were introduced, without serious effort, be done on the average in three-quarters of the time at present occupied, which at the same rate of pay would amount to £30 0 0

Add the extra 10 per cent. already paid	3	0	0
Add the further bonus on output, being half of the difference between £33 and £40	3	10	0
Total	£36	10	0

Thus approximately increasing the earnings of the operative by 20 per cent. and reducing the cost of the work by 10 per cent.

It may be asked what is there to prevent the employer from squeezing down the agreed sum, in this case £40, to an unreasonably low figure. The answer is that unless the operatives had confidence that the figure decided upon would leave them a bonus, they would not take the real interest in the work which is necessary, and the result would be that the work would cost the usual £40 plus the 10 per cent. extra which the operatives received during the progress of the work, making the total cost £44, being 10 per cent. higher instead of 10 per cent. lower, due to the employer having suggested an unreasonable figure.

The writer considers that: (*a*) A bonus on work actually done is better than any profit-sharing scheme, as each small gang receives the benefit of its own industry and skill. (*b*) The payment is made promptly, whereas the benefit of any profit-sharing scheme would not reach the operative for a considerable time, thus robbing the scheme of all interest.

A Building Contractor.

Academic Dress.

Sir,—Academic dress for architects. Why not? The nickname of the college cap, "mortar board," and the gown, a relic of the ancient smock frock, proves its antiquity. Then the matter of prestige. What an impression on the workmen as the gowned and hooded architect came on the job and especially as he went up the ladder. Then, again, the client. How different talking to a man in robes to one in a tweed suit or even cloth. The question of fees would be settled by the very dignity of the academic dress.

To come to the practical. For hard wear, bricks and mortar, dust, &c., a good corduroy is reliable, but its stiffness is hardly suited for gowns. Let the gaiters, cut to archdeacon pattern, be of this, but for the gown a good buff-coloured flannel, such as used for navvies' trench slops, is excellent. The stole could be of striped towelling, useful in washing hands after going the round. In lieu of the old-fashioned square board cap (not adapted for modern buildings), a conical hat of stout ruberoid would be a safeguard against falling bricks, and would look impressive when hung up in the office. "Dignity & Utility."

[Other Letters.]

Letters on apprenticeship in the building industry and estimating are given on p. 353. —Ed.

TOWERS AND SPIRES.

By SIDNEY TOY, F.S.A., A.R.I.B.A.

VII.—THE OLD CATHEDRAL, SALAMANCA.

In the Spanish kingdoms of Castile and Leon the development of Romanesque architecture followed a course peculiarly national which had its most distinctive and happy expression in the cimborio or lantern over the crossing. The early principles of design appear to have been taken from Aquitaine and Lombardy, but, having regard to the open and spacious treatment of the crossing and the general rudiments of the design of this part of the church, the inspiration was chiefly from Lombardy. At San Jaime de Frontmyá, for example, the lantern over the crossing is almost a replica, except for the additional stage, of that at S. Teodoro Pavia, described in the last article (*vide* Fig. 15). But the principles having once taken root the builders developed the work on their own particular lines and evolved a central tower, which is among the most successful productions of Romanesque Art.

Probably the finest example of the Spanish school of this period is the Torre del Gallo over the crossing of the old Cathedral at Salamanca (Fig. 18.) The old cathedral appears to have been built during the latter part of the twelfth century, and the tower itself in the last years of the twelfth or early in the thirteenth century. In the sixteenth century a new cathedral, of comparatively vast proportions, was built on the north of the older church, and at this time the north wall of the latter was taken down and the north arch of the crossing rebuilt. But the tower above the crossing remains substantially intact since its first erection, and, thanks to its bold and firm construction, is still structurally sound. The work here is of stone masonry throughout. Departing from the usual custom observed in Lombardy the circular lantern is supported on pendentives and not on squinch arches, and it is here and in similar details that the influence of Aquitaine, where stone was also largely used, is observable.

The construction throughout is generally substantial, and to this factor alone no doubt the stability and good condition of the fabric is largely due, but the various forces and pressures set up by the dome and the spire above are also well neutralised and balanced. The lantern rises two stages above the roof of the church and is closed internally by a dome. The dome, though not a groined vault, is divided into sixteen compartments by bold ribs, in a similar manner to that over the lantern at Chiaravalle (*vide* Fig. 15). These ribs spring from the capitals of shafts and die into a large foliated boss at the summit of the dome, the shafts themselves rising through both stages of the lantern from a string course immediately above the pendentives. Both stages are relieved by arcades of round arches with simple mouldings, the lower arcade being left plain while the upper is enriched by bold cusping. Long narrow windows are pierced on the cardinal faces, but even where there are no windows the continuity of the arcade is preserved in each case, and the effect of these two tiers of arcades, with their simple but bold mouldings and the well-lighted dome above, is most striking as seen from the crossing beneath.

A tower such as this, which has successfully withstood the destroying agencies of many centuries, will repay close examination as to its structure. The drum of the lantern is strengthened by four large round turrets, with conical finials, over the piers of the crossing, and in order that the cardinal faces should be similarly supported the central bay in each case is projected slightly forward and this part surmounted by a heavy gable. The inner dome is well encased in masonry from its base to its haunches, and this mass of material, reinforced by the heavy pinnacles and gables, is amply sufficient to neutralise the thrust of the dome. The outer dome or spire is also efficiently buttressed by the four gables which rise through about half its height and are incorporated in its material.

It is interesting here to observe this early instance of the construction of the roof of the lantern in two distinct shells, the one seen from the interior only and the other being the true roof exposed to the exterior, a principle of construction which was reintroduced and developed many centuries later by the Renaissance architects at Florence and Rome. In this case the outer shell is raised well above the dome and assumes the form of a spire with a pronounced entasis, a form well harmonising with the Romanesque work with which it was employed. As seen from without this tower is most successful in the grouping of its projections and the disposition of its ornament. The round turrets are more plain than the drum of the lantern itself and their openings have continuous mouldings. The windows of the lantern are embellished by shafts with carved capitals, and generally the richer ornament is reserved for the upper stage. Above the lantern the projections round the base of the spire are most effectively grouped with the pointed gables alternating with the conical pinnacles. The surface of the spire is decorated with a scale-like ornament, the scales of which point downwards and not upwards, as observed at St. Front and elsewhere in Aquitaine.



Fig. 19.—The Collegiate Church at Toro.

Another example of a cimborio of similar character and date, but much less elaborate and imposing than the Torre del Gallo, stands over the crossing of the Collegiate church at Toro, about forty miles to the north of Salamanca (Fig. 19.) Here the work is relatively plain both in character and ornament, but the relationship is unmistakable. The drum of the lantern is divided into sixteen panels with flat faces, four of which are covered by the circular turrets. The ornament is subdued and the windows are narrow and plain.

With the examination of the beautiful tower at Salamanca it is proposed to conclude the present series of articles, but it is hoped at a later date to pursue the subject through some of its later but no less instructive phases.

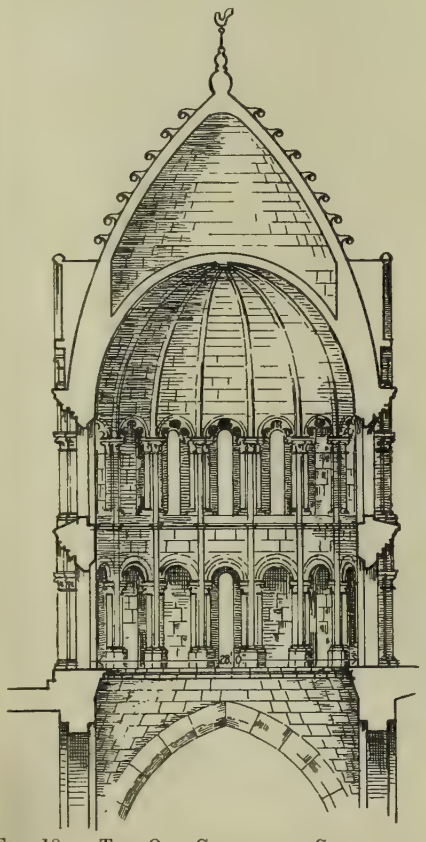


Fig. 18A.—The Old Cathedral, Salamanca.

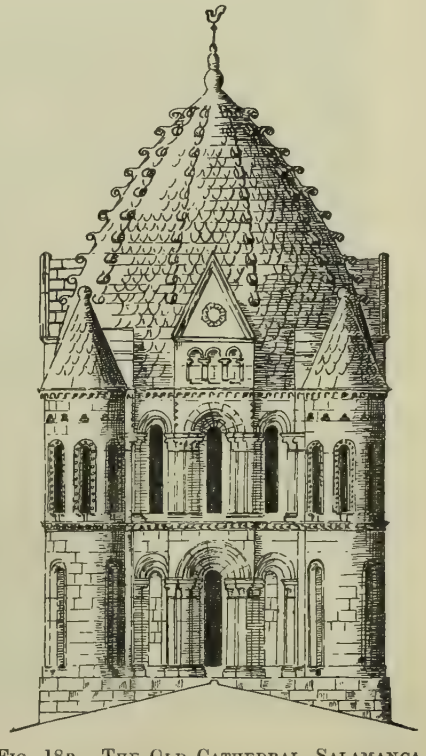


Fig. 18B.—The Old Cathedral, Salamanca.

THE TOWN HALL, STOCKHOLM.

By GEORG BROCHNER.

Sweden boasts a past of singular grandeur and glory, and the old Swedish spirit is still to the fore, with its high aims, always generously responding when called upon. Were this not so the city of Stockholm would hardly have become possessed of its magnificent new Town Hall, in which its architect, Professor Ragnar Östberg, has built himself a unique monument.

It has been a big undertaking, and it has taken time, its construction being decided upon on March 27, 1911. Since then the work has been steadily progressing, reaching its consummation on Midsummer Day, 1923, the 400th anniversary of King Gustaf Vasa, the maker of the Sweden of to-day, entering its liberated capital, and it was opened by King Gustaf V. Much eulogy was then bestowed upon the building, the architect, and his many helpers, and surely it was all fully deserved, for there is beauty and boldness and imagination and dignity in the lines of the town hall, as it raises its massive form and lofty tower over the broad sheet of water on the border of which it has been raised.



The Terrace, Stockholm Town Hall.

It is not an easy matter to describe this imposing edifice. If one asks whether the style is Swedish an affirmative answer would have to be very conditional, for Professor Östberg has in a subtle manner blended north and south, the past and the present. There is much, especially in the view from the water with its columned façade, which will recall the south, but the simple dignity which marks the building as a whole, its very material, red brick, give it a stamp of the north. Its architect, quite spontaneously, has discarded many accepted ideas, and has in his conception of the whole plan evidenced much courage and much imagination. It is also Swedish in its great dimensions, and more especially in the embellishment of its festive halls. It is also truly Swedish in its many ingenious decorative details, and above the simple but impressive tower the gilded "lantern" and three gilded crowns—the heraldic emblem of Sweden—stand brilliantly out against the northern sky. This tower and to some extent the smaller corner towers, the spires of which bear a highly decorative gilded sun and moon, the vast expanses of red brick beneath the copper roof, and more perhaps than all the rest the colonnade against the water, are the more striking features of the exterior. But there are also decorative features of less degree, some modestly hardly attracting the attention of the visitor, others, or one at least, furnishing a quaint and highly ornamental effect, viz., the open-air canopied sarcophagus, rich in gold and blue, of Birger Jare, the founder of Stockholm, placed against the base of the great tower—a peculiar but picturesque arrangement when viewed on approaching the town hall from the city, which the great Earl faces.

Between the building and the water, down to which lead monumental steps, is a formal garden, and flagged walks traverse the lawns in geometrical fashion; there are a couple of fountains free from unnecessary and unwanted elaboration, as is also the balustrade against the water. The western end of this ornamental garden is slightly elevated, and here are three much discussed nude statues of a famous author, poet and painter, all departed in comparatively recent years.

The courtyard is spacious and impressive with its decorative flights of steps, its balconies, and the enchanting view of the many columns to the water beyond.

If the exterior impresses by its dignified simplicity, no less impressive is the interior, with its suite of large elaborately decorated halls. There, as in other portions of the building, mediæval and Renaissance blend with more modern motifs. The town hall has been a very costly building, but Stockholm is not only a beauty-loving but also a rich city. There is the gilded hall, with a wonderfully handsome patterned floor of green Swedish marble, and the Blue Hall, a study of harmonies in blue, with a blue, silver-fringed baldaquin high up under the roof, a smaller hall, the Hall of the Three Crowns, and so on. The furniture has been all specially designed, table and chairs elaborate and stately, beautiful woven tapestries, rich blue glass bowls for flowers, clocks and volumes, all Swedish. A number of eminent Swedish artists and craftsmen have for years been engaged upon work for the town hall, as one distinguished writer said, like their fellows of Venice in the days of her glory. The only exception are the Oriental rugs, unique in quality and measurements, selected by special experts, and the nine bells which were cast in Holland, and a smaller replica, made in Denmark, of the famous ancient clock in the cathedral of Lund, West Sweden. Otherwise "Stadshuset," as it is called in Sweden, is truly all Swedish.



The Blue Hall, Stockholm Town Hall.

Weybridge Cottage Hospital Competition.

Scheme No. 4 was submitted in this competition by Messrs. P. J. Westwood & Emberton, and not as stated in our last issue.

DINNER TO SIR J. J. BURNET.

Sir John James Burnet, A.R.A., R.S.A., LL.D., was entertained at a dinner in the Trades House, Glasgow, recently, to celebrate the honour conferred on him last year by the award of the Royal Gold Medal for Architecture.

In reply to the Chairman, Sir John said his election as R.I.B.A. Medallist came to him as a great surprise. He had never thought of his name being added to that long list of men who had in one way or another advanced the cause of architecture, never thought that he might find himself alongside of his Professor in Paris (Monsieur Pascal), or follow the late Sir Rowand Anderson, the first "provincial architect" to receive the honour. That his work had seemed to his colleagues throughout the country worthy of such an honour was, he felt, a great reward, and that his colleagues in Scotland, who had known him almost from the beginning of his career, should have taken that way of showing their approval of his election, was a joy for which he felt he could not adequately thank them.

Sir Hugh Reid, Bart., in proposing the toast of "The Royal Institute of British Architects," said the Institute stood for all that was best in British architecture, ensuring as it did that utility and strength, and wherever possible beauty, would be found in the work for which its members were responsible. There were always problems in architecture to be solved, but of all the subjects engaging attention at the present time the housing problem was perhaps that which was exciting most interest. The best architectural knowledge and skill might help in the solution of such questions as to whether garden cities were the best or the only solution, or whether the provision of residential flats, now so much in demand, in larger and higher buildings well back from the main thoroughfares, and in open spaces, would not be equally satisfactory or even more satisfactory. While everyone would admit that in the country the garden city was the ideal solution, there were many who believed that larger and higher and isolated buildings, well placed on open sites, would be much more satisfactory in the large towns, as the buildings would not only be less costly in upkeep but would permit of provision for complete co-operative services, besides facilitating by concentration the important question of transit.

Mr. Ian MacAlister, who responded to the toast, expressed the regret of the President of the Royal Institute, Mr. John Alfred Gotch, that he was unable to be present to join in doing honour to Sir John Burnet. In the south, he said, they fully appreciated the services of Sir John Burnet to architecture and the wonderful efforts that were known by his name during the last 20 years.

Sir Robert Bruce then gave the toast of "The Sister Arts of Painting and Sculpture." He said there was no place in Scotland where the praises of these arts might be more appropriately sung than in Glasgow. He believed it to be a fact that within a radius of ten miles from that hall there were more treasures in painting and even sculpture than in any part of the British Empire outside London. If he were to say that painters and sculptors were upon a higher plane than architects he should provoke controversy, and he did not say it because he did not believe it was true. All were upon the same plane; each sought in different ways to reach the realm of the satisfying which was the beautiful.

Mr. G. Washington Browne, proposing "Our Friends and Patrons," remarked that much had been said and written lately about the paucity of the public who took any intelligent interest in modern architecture. But in this matter his sympathy was rather with the public. For had not modern architects much to blame themselves with for the alleged indifference of the public to them and their works. But with the emergence of the twentieth century one recognised a distinct disposition to shed exotics, and, influenced undoubtedly, whether consciously or unconsciously, by the new building material, ferro-concrete, to return to a more direct, simple, and, he should hope, national expression of their art in building. And in that return to a more direct and national expression of their art, he hoped they would succeed in recapturing the interest of their patrons the public. There was one direction in which they might assist in that recapture of the interest of their patrons He meant in the matter of exhibition of their works in the Royal Scottish Academy Exhibition. They had there a splendid gallery in which to exhibit their work, and he regarded it as a national misfortune and reproach that they should be annually under the necessity of making an appeal to England to sustain the interest of that gallery.

Mr. J. R. Richmond, in replying, said that as a community they in Glasgow were more alive to-day to the value of beauty and dignity in their surroundings than ever they were, and they were also beginning to realise that beauty and utility could be harmoniously wedded. As a layman it had struck him forcibly that architecture had shown less disturbance in its style, less tendency to be revolutionary, than any of the other arts, including painting, music, literature, and sculpture. He rejoiced to see that they were keeping away from some of those restless and bizarre examples to which Mr. Washington Browne had referred, and were returning to the solid foundation of the classic tradition.



The Town Hall, Stockholm. (*See p.* 334.)

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ILLUSTRATIONS.

Raffles College, Singapore.

In this scheme, which was one of the two designs placed second in the recent competition, it was felt the main essentials to be considered were as follows :—

(1) That all school buildings should face north.

(2) That the buildings and roads should be planned to the configuration of the site to avoid cutting as much as possible, and to ensure the roads having easy gradients.

(3) That the buildings should be kept as high up on the site as possible owing to the liability of flooding.

(4) That the residential quarters for the European staff should be segregated and approached by means of a private road.

The lay-out is the result of these considerations. The residential school buildings are placed facing the playing-fields ; parallel to these on the opposite side of the main avenue are the administrative block containing the great hall and library, flanked on each side by the arts and engineering blocks, immediately behind which are their respective extensions, and in the rear the science block with its extension completes the group.

Generally the buildings are one-room deep with a verandah on the south side ; by this means a blow through the rooms is obtained and cross lighting. The sanitary blocks are isolated throughout, and the servants' quarters and kitchens to their respective school houses are cut off from the students' quarters.

The design is by Mr. E. Vincent Harris, F.R.I.B.A. The design placed first by Mr. Cyril Farey, A.R.I.B.A., was given in our issue for January 25.

Royal Masonic Boys' School.

The design by Messrs. Gotch & Saunders, P. & F.R.I.B.A., was submitted in the competition for a Junior School for Boys at Bushey for the Royal Masonic Institution. Messrs. Davis & Emanuel and Henry C. Smart's design, which was placed first, was given last week.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

THE annual dinner of the Birmingham Architectural Association was held at Birmingham recently. Mr. Rupert Savage (President) presided, and was supported by the Lord Mayor of Birmingham (Alderman T. O. Williams) and the President R.I.B.A. (Mr. J. Alfred Gotch, F.S.A.).

The toast of "The City of Birmingham" was proposed by Mr. William Haywood, who said that outside the city Birmingham was credited with much civic idealism and activity ; perhaps those who lived within the city were the least cognisant of its aspirations and its advantages.

"The Royal Institute of British Architects" was proposed by Mr. Rupert Savage, who said the Institute recognised that if architects were to receive the public support and appreciation which was desired they must fit themselves to justify their claim, and there were now established schools of architecture directly under the control and largely supported by the Institute. He hoped the presence of the schools would tend to correct the ignorance of architectural matters which existed amongst the public.

Mr. Gotch replied, and said it was with the greatest satisfaction that he observed the large part now being played by the allied societies—more particularly by the Committee of Presidents of Allied Societies. There was no doubt that as a result the policy and scope of the Institute's activities were being considerably broadened and a new spirit of enterprise apparent. The Institute had done much in the last few years to awaken interest in architecture and he felt that its efforts were now beginning to bear fruit. It had on many occasions been able to offer profitable advice to the Government and Public Authorities who, he thought, were beginning to realise that it was wise to relegate matters architectural to those qualified to deal with them. This was a great advance from conditions existing not so very long ago.

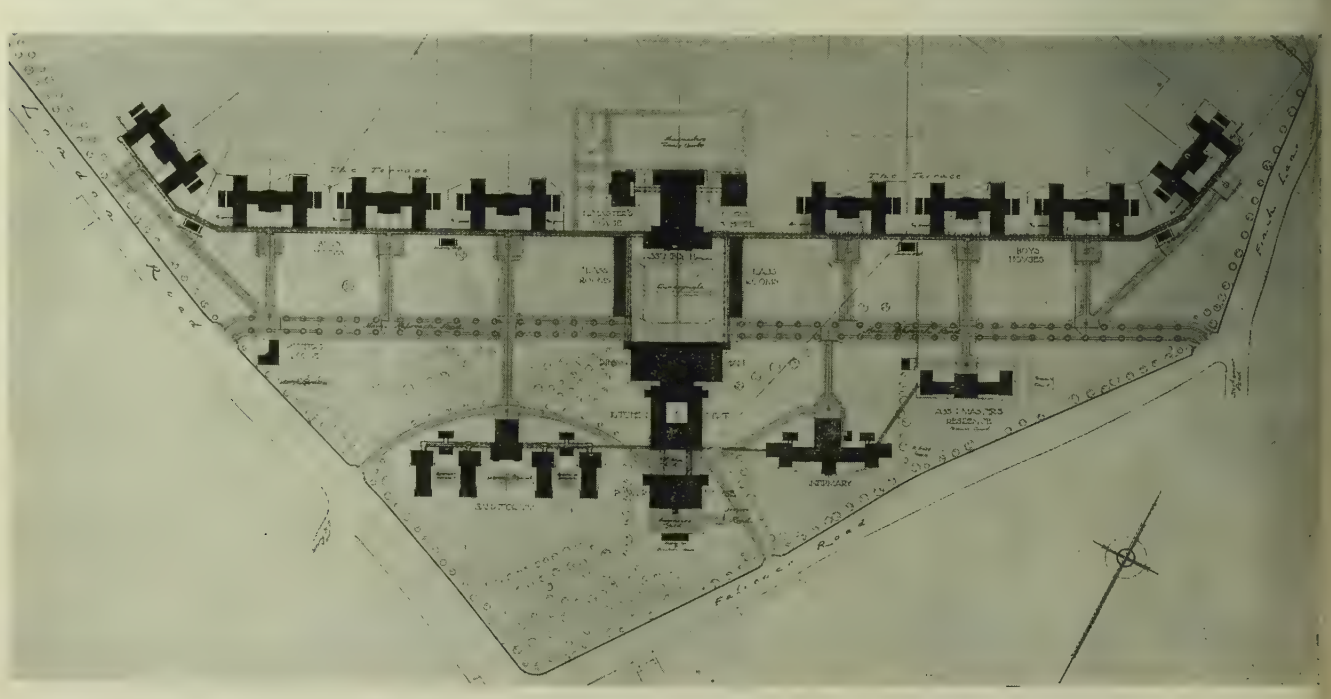
WHY ARE ARCHITECTS SELDOM ARTISTS ?

In opening a discussion on "Why are Architects Seldom Artists ?" at a recent meeting of the Birmingham Architectural Association, Mr. George Drysdale, F.R.I.B.A., said perhaps the easiest method of approach was to tabulate a list of reasons, as follows :—(1) Lack of understanding of human nature ; (2) lack of a sense of reality ; (3) the literary sense developed at the expense of the sensuous ; (4) lack of imagination ; (5) lack of the power of visualising things ; (6) lack of simplicity of thought ; (7) lack of sense of colour and of material ; (8) lack of nerve ; (9) lack of education and therefore of sound taste ; (10) lack of a sense of style ; (11) a conventional mind ; (12) the over-development of the commercial sense.

Mr. B. J. Fletcher, Principal of the Central School of Art, Birmingham, said a similar question might be asked of any group of artistic folk with equal pertinence, and with an obvious answer in each case. Why were so few painters or sculptors artists ? Of course, the answer was for the most part the same for all groups ; because nature did not produce artists as she produced gooseberries.

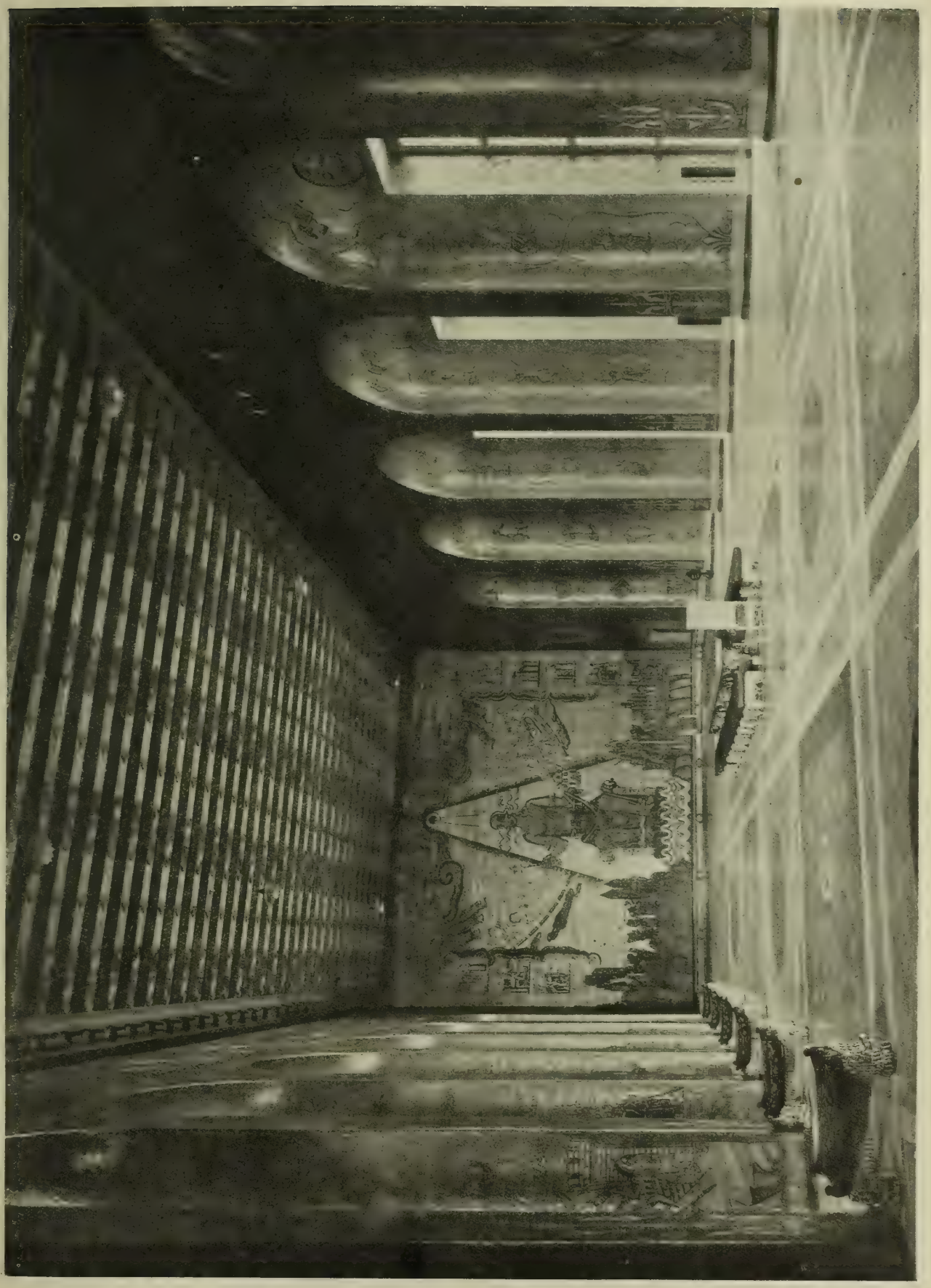
The extreme complication of modern buildings made it well-nigh impossible for an architect to unify and mould so many diverse and complex needs to a beautiful whole. It had been said that the finest things in many arts had been realised with the simplest technique and for the simplest needs, and some of the most impressive things in architecture bore that out. They seemed to be more and more driven to the position, freely taken by architects in America, of an association of experts. The calling-in of experts was no new thing in England, but it seemed desirable that their value should be more freely acknowledged and the creative atmosphere which came of free give-and-take among them exploited to the full. The separation of interests and departments could lead to no artistic unity ; new materials or fresh constructive methods were not combined or used expressively ; the strands remained separate. For that reason architects might be prevented from being artists.

One reason why architects were too seldom artistic was because of an ardent desire to be artistic first, rather than efficient builders first.



Royal Masonic Institution Junior School for Boys, Bushey, Competition.

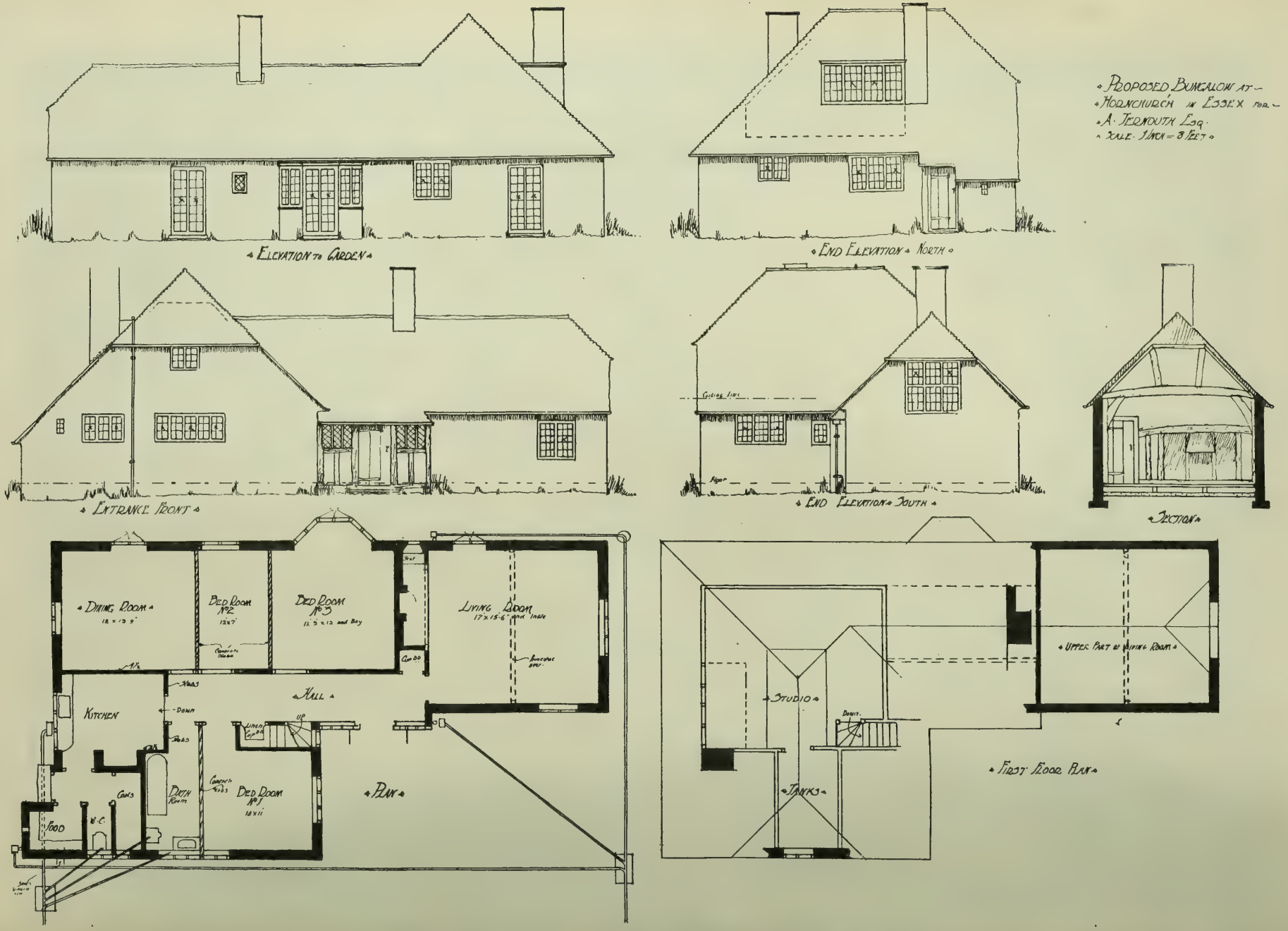
Design submitted by MESSRS. GOTCH & SAUNDERS, P. & F.R.I.B A.



The Golden Hall, Stockholm Town Hall. (*See p.* 334.)



The Southern Arcade, Stockholm Town Hall. (*See p.* 334.)



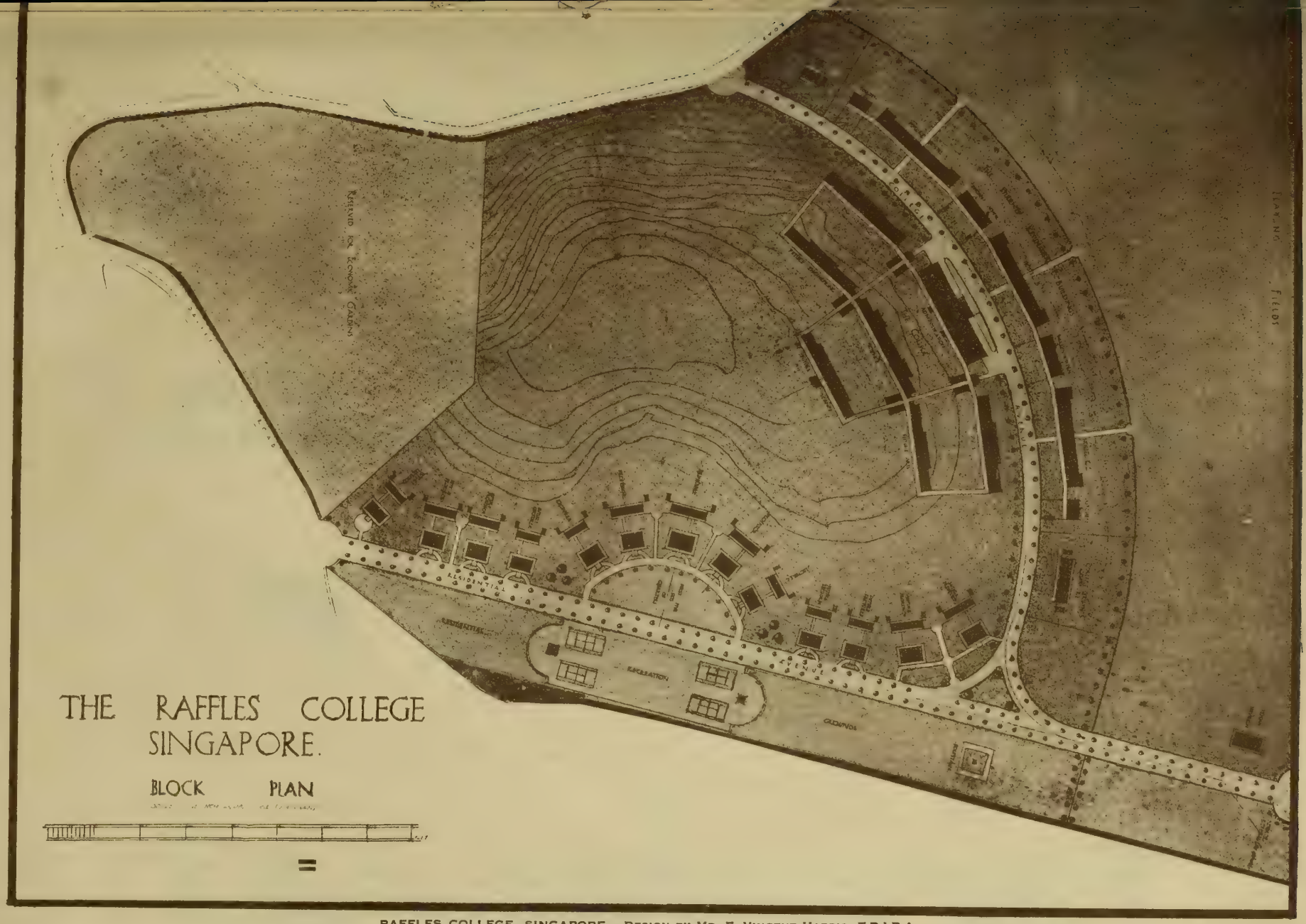
Bungalow at Hornchurch. Messrs. Baillie Scott & Beresford, Architects.



HALF INCH DETAIL OF PORTION OF SOUTH FRONT OF HOSTEL.

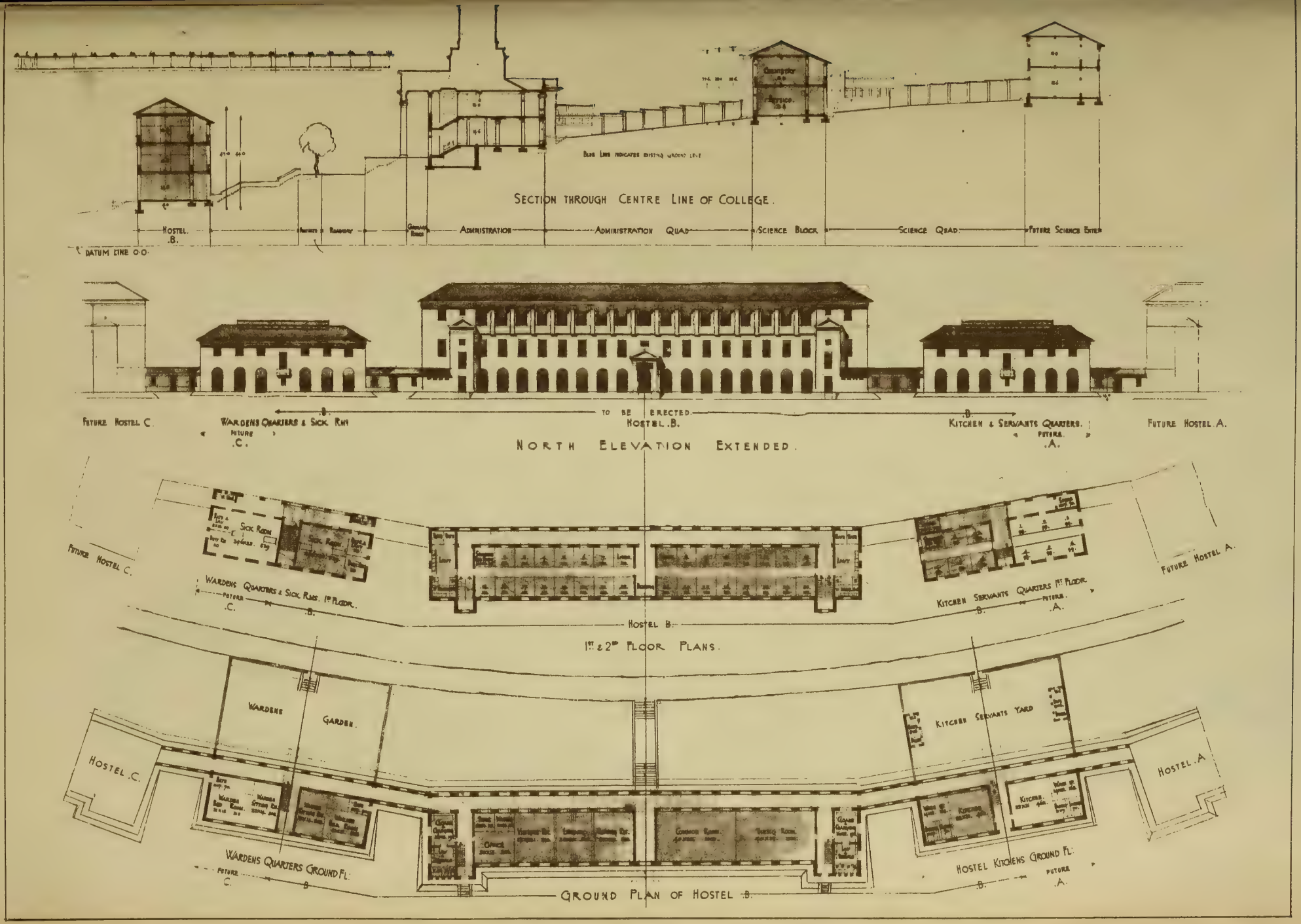
RAFFLES COLLEGE, SINGAPORE. DESIGN BY MR. E. VINCENT HARRIS, F.R.I.B.A.

ONE OF THE TWO DESIGNS PLACED SECOND IN THE RECENT COMPETITION.

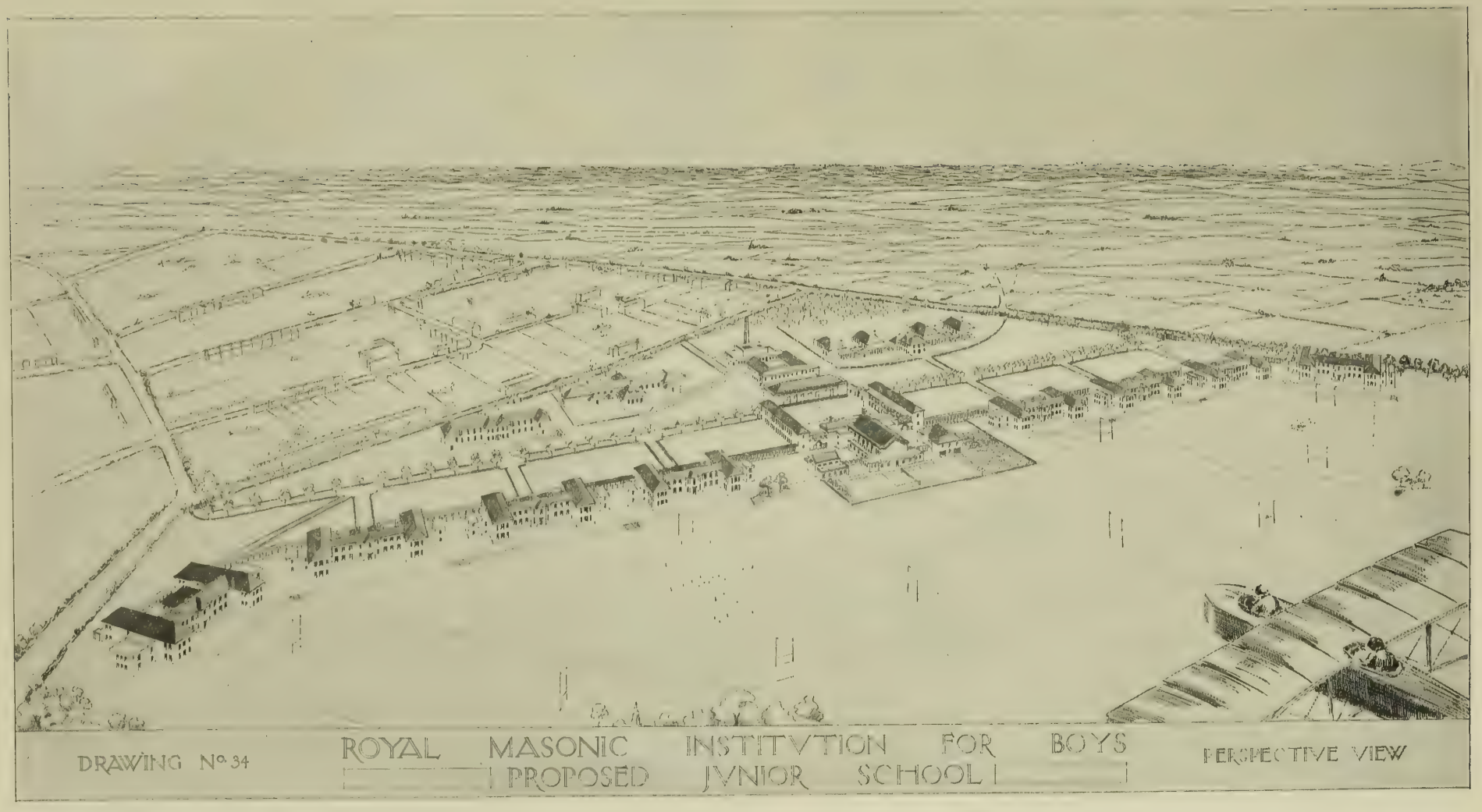


RAFFLES COLLEGE, SINGAPORE. DESIGN BY MR. E. VINCENT HARRIS, F.R.I.B.A.

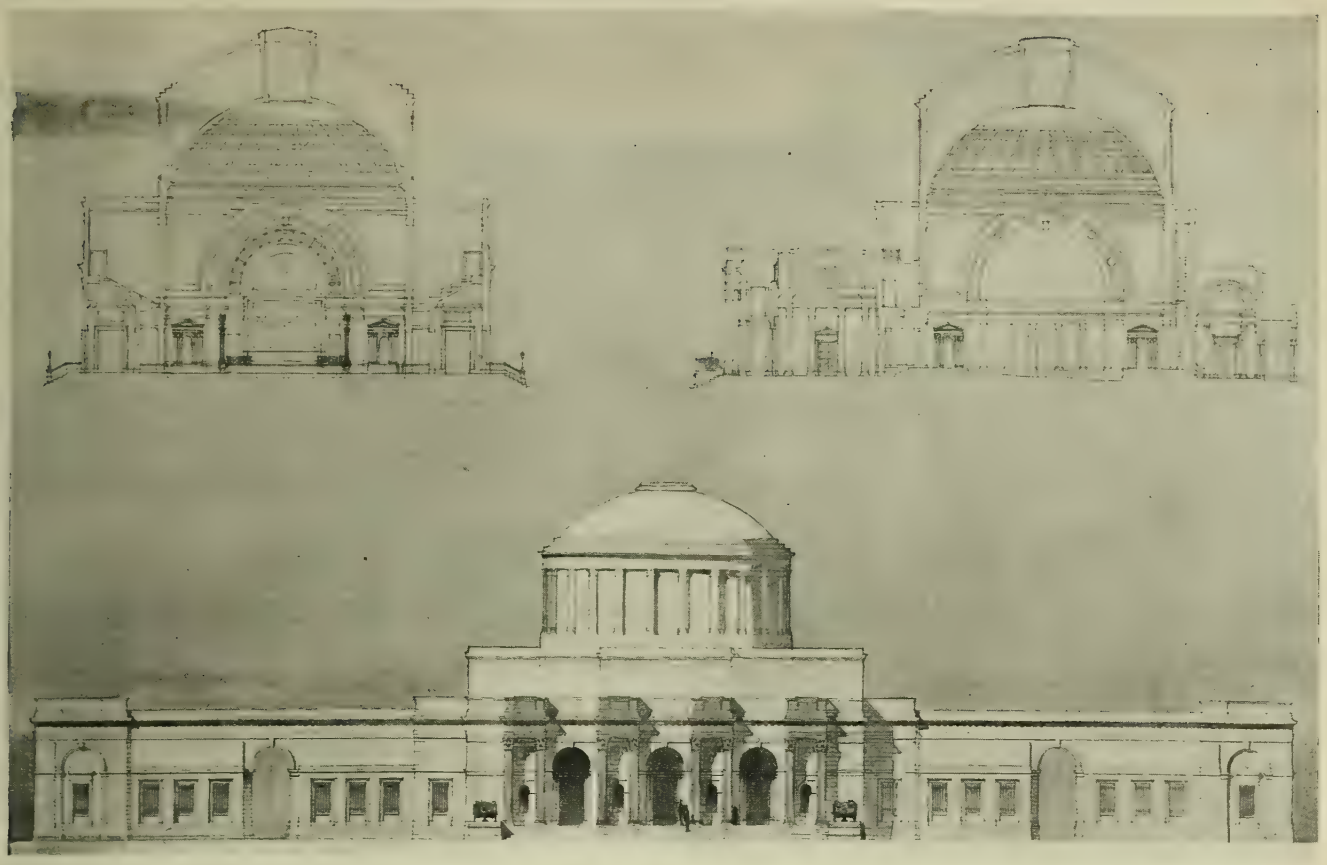
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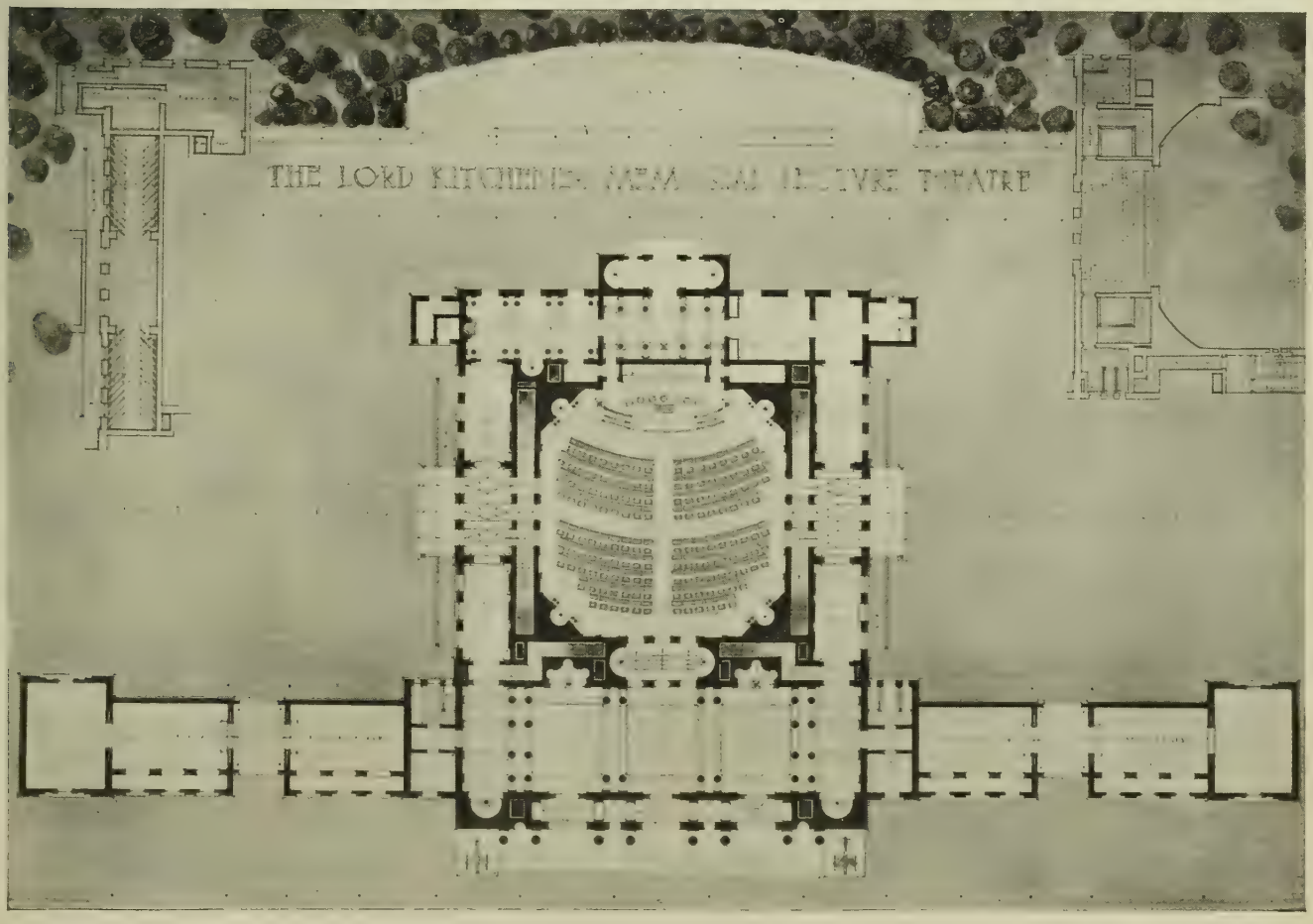


RAFFLES COLLEGE, SINGAPORE. DESIGN BY MR. E. VINCENT HARRIS, F.R.I.B.A.



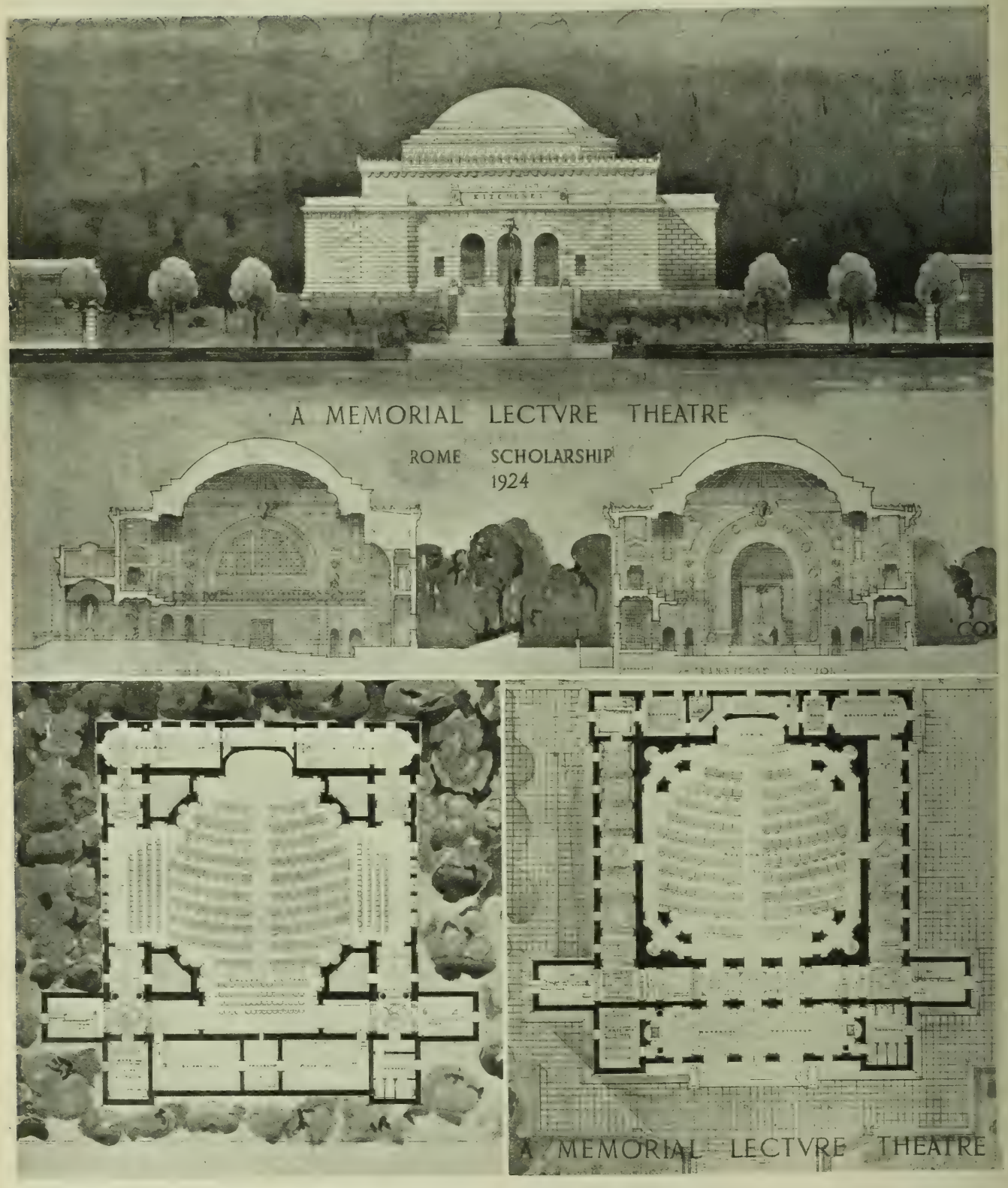
Royal Masonic Institution Junior School for Boys, Bushey, Competition.
Design submitted by Messrs. Gotch & Saunders, P. & F.R.I.B.A.





Rome Scholarship in Architecture, 1924—Preliminary Competition.

Design for a Memorial Lecture Theatre. By Mr. Donald Brooke (University of Liverpool)—Selected to compete in the Final Competition.



Rome Scholarship in Architecture, 1924—Preliminary Competition.

Design by MR. CHARLES T. BLOODWORTH (University of Liverpool)—Selected to compete in the Final Competition.

ROME SCHOLARSHIP IN ARCHITECTURE.

PRELIMINARY COMPETITION, 1924.

If the designs exhibited at the Royal Academy show certain qualities, they are undoubtedly more remarkable by their numerous mistakes. The standard of work submitted is disappointing, and obviously most of the competitors are quite unfitted to take full benefit of the opportunities the scholarship offers. None of the competitors seems to have any definite notion of design, expression and scale. One is surprised to see that no drawing has the right conception required by such a subject, nor the artistic emotion that a building erected to the memory of a great man should convey. Lack of imagination, lack of personal courage, and Emerson's "Nothing is more rare in any man than an act of his own" seems unfortunately true in this case. We have before us meaningless, colourless schemes of second-hand classic architecture, and Dame Architecture is a noble lady who resents being treated discourteously. "Art only begins where imitation ends," and "truth in art is the unity of a thing with itself; the outward rendered expressive of the inward." Nothing in these designs expresses the purpose of the building. Not one has the idealistic and true conception, for, after all, architecture is the conversion of an idea into a reality. Had the competitors read carefully the conditions, and digested them properly, certainly the solutions submitted would have been simpler and more appropriate. Had they asked themselves the question, "What is the difference between a lecture theatre, a military lecture theatre, and a memorial lecture theatre in a military college, perhaps they would have found what is missing in their designs, *i.e.*, the right interpretation. Most of the elevations are treated without character, and the architecture is quite insignificant. Some of them are reminiscent of old motifs treated by inexperienced hands. And what fitted the past does not always suit the present.

The set of drawings by No. 17 (Mr. Charles T. Bloodworth, see p. 340), show a lay-out which is not of a military character. The main approaches are somewhat muddled, and not wide enough, and the way from the parade grounds to the College is not large enough. The staircase leading to the galleries is hidden in a corner and seems to be added as an afterthought. The position of the reception room is not good. The elevation lacks expressive character. The crowning part of the centre of the front elevation is insufficient and its inscription would certainly never be seen. The section shows not sufficient sense of scale and the interior decoration misses the austerity which should be found here. The design has a marked resemblance to design No. 26.

Design No. 23 (Mr. Donald Brooke, see p. 339) presents a lay-out expressed with a military character which is in accordance with the programme. The plan is monumental, but not sufficiently studied, the stairs leading to the gallery dark and not properly placed. The halving of the museum of arms is a grave fault, and there is no direct access to the main building. The elevation is heavy and all the central superstructures useless, as clearly shown in section. The preliminary sketch is much better.

One might make the same reflections about the lay-out of the design No. 24 (Mr. Derek L. Bridgwater), which has nothing military, and the approach is encumbered. The plan is simple, but, entering by the main entrance, one is unable to find the staircase, which is hidden, and the shape of the lecture theatre is indefinite. The elevation has some military and even memorial character. It is one of the best elevations presented in the classic style, but one feels that the competitor has been unable to study properly the meaningless central motive which is a feature in the exterior, and does not express the section.

Design No. 25 (Mr. Francis X. Velardi) has a better lay-out in the preliminary sketch in which the shapes are definite and the quadrangle opposite the saluting point is more happily expressed than in the design produced after study. The plan is complicated, and had the elevation been treated with more severity, it would have had much character.

Drawing No. 26 (Mr. John H. L. Owen) presents a colourless lay-out. The plan has many qualities, but it is a pity that the rear portion has not been well studied. The elevation, simplified, would have had more character. The mouldings are badly designed, but the interior general character of the lecture theatre is pleasant.

Design No. 27 (Mr. Hubert S. Silcock) has the same faults as the others in the lay-out. As to the plan, its monotony might have given more results had it been studied more carefully. There is a memorial loggia, but no reserved space is to be found for an inscription or commemorative tablet. The section is simple, which is a quality, but lacks military character.

Design No. 28 (Mr. Marshall A. Sisson, see p. 345) presents a mediocre lay-out. The plan is simple, well-expressed, and severely treated, but it is a pity that the staircase is complicated, and the entrances to the vestibule badly arranged. The niches ought to be reversed in order to express the way in. The elevation has absolutely no character. One cannot define the purpose of the building, but the section shows that the author of the design is the only competitor who has a notion of human scale.

Design No. 29 (Mr. Herbert Thearle) has a lay-out well studied, but it does not exactly fit the programme. The acoustics of the lecture theatre are doubtful, unless infinite precautions are taken. There are three entrances to the building of equal importance, but they are treated in different ways. The elevation has a certain attractiveness, the Doric order being well treated; and it is to be regretted that the same character has not been observed throughout the elevation. The section is well treated, but the proportions should have been more studied.

The author of design No. 31 (Miss Elsie Rogers, see p. 343) has tried to find inspiration in Italian architecture, but has not been successful. The lay-out is complicated, and the plan unsatisfactory. There is no sense of proportion, neither is the importance of the relative value of volume understood. The two vestibules are almost as commanding as the main feature in the plan, viz., the lecture theatre. The access to the theatre is obviously on the wrong side of the room.

Among the designs which have not been selected, drawings No. 20 are interesting, and show the only competitor who realises the importance of inscriptions on a building of a certain type, and had the scheme been treated more austerely it would have been one of the best.

Considering the designs selected and the similarity of No. 30 to three or four of them, we wonder why it was not included.

The competitors do not seem to know that the expression of a building emanates from the purpose of the building, and its destination. All have tried the classic style, but why not study more the refinement of it, and its proper proportions instead of producing this sort of second-hand architecture. It is to be hoped that those who will go to the country of classicism will return with their store of architectural knowledge considerably increased. They need it.

Sculpture.

Certainly the most interesting of all these young artists are the sculptors. Their work is full of promise. No. 55 (Miss Pamela V. Harris) has most interesting pencil studies and her bas-relief has a wealth of character, and is simply treated. No. 53 (Miss Barbara Hepworth) presents a very decorative bas-relief, where the opposition of lines is very successful. The statue is well treated in a modern way, and the movement is well balanced. No. 56 (Mr. John R. V. Skeaping) shows serious studies, some of which need more finesse. He produces a beautiful statue which reminds one of the work of a famous sculptor. No. 54 (Mr. Frank P. Chambers) and No. 58 (Mr. Emile Jacot) produce decorative bas-reliefs most successfully treated.

ADVISORY ART COMMITTEES.

We have received from the R.I.B.A. the following memorandum:—

There has been, in recent years, encouraging signs of increased interest on the part of the general public in questions relating to the preservation and increase of the general artistic and natural amenities of towns and rural areas. Expression of this view is also shown in a desire to preserve the fine works of past ages, while the universal approval with which the recent appointment of the Fine Arts Commission has been received, and the formation of similar committees of taste which had preceded it in more than one provincial centre, clearly shows the increasing interest which is being taken in civic development generally and the desire for its treatment from the æsthetic as well as from the purely utilitarian standpoint.

The Royal Institute of British Architects is anxious to encourage these tendencies, and invites the co operation of those actively interested to secure that in the march of progress the claims of beauty are not forgotten. As a means to this end it suggests the formation of an Advisory Art Committee in towns and rural districts with the object of affording advice in a consultative capacity in all matters concerning the amenities of the district, including questions relating to the preservation of old buildings, the lay-out of new streets, open spaces, cemeteries, designs for proposed new public buildings, bridges, monuments or memorials, fountains, public means of lighting, fences, public conveniences, or other structures to be erected upon land belonging to or under the control of the local authority that may be referred to the committee, or as to which it may desire to give advice.

The constitution of the committee which is suggested will vary according to local circumstances, and will differ in urban and rural areas. In many towns, civic associations already exist, and the influence which those or similar organisations possess may suitably be employed to foster the establishment of an Advisory Art Committee. In smaller localities the machinery of the local Ratepayers' Association might be used. For example, there already exists in one London district such a committee of the Ratepayers' Association which is doing most useful work in safeguarding the amenities of its own district.

The findings of the Committee should be in the nature of recommendations only, and it may be necessary that all such matters as may be considered by it should be treated in strict confidence and not be divulged except by agreement with the local authority concerned.

It is essential that such a committee as is suggested should be representative of real artistic competence and judgment (though not necessarily of the purely professional kind), and that its members should be persons whose opinions are likely to command public respect. The cultivation and preservation of harmonious relations with the local authority is of the greatest importance, and the best means by which this end may be attained requires the most careful consideration.

The Royal Institute of British Architects, while not presuming to dictate upon the question of the constitution of Advisory Art Committees, will be glad to offer advice and such information on the subject as they possess, if required to do so.

THE MODERN MOVEMENT IN ARCHITECTURE.

Professor A. E. Richardson lectured at Manchester University on February 27 on this subject. Mr. A. A. G. Tulloch presided. In the course of his remarks Professor Richardson said that of recent years the theory of building has been subjected to closer scrutiny than at any other time. Many experiments and revivals had preceded the present stage; archæology had helped in the process; science had played its part; writers and critics had devoted their lives to a minute investigation of the principles underlying the concrete literature of the world. They now realised to some degree the value of all buildings worthy of the designation—architecture. The secrets of historical buildings were ready to hand, as were the designs most recently produced, which, in a few years, would in turn become famous. There could be no doubt regarding the advances made, especially in the field of theory and research. The architect of to-day, alive to the conditions of his own time, was asking: "Am I right in placing reliance entirely on my knowledge of the past?" Such an architect was confronted with the unprecedented development of costly buildings in America; he was aware of the scope of contemporary French architecture, especially planning; he viewed the struggles towards emancipation made by the Germans and the Dutch; and was spurred to further action by the activities of the people of Northern Europe. In this country, apart from the sphere of building, there were in progress a score of isolated movements; there were, for example, design and industry associations, town and regional developments, new schools of painting and applied art, new coteries of sculptors, as well as a group of scientists whose business it was to undertake the investigation of materials, old and new. Building, which a century since was the special province of the architect or the architect-engineer, was in these days regarded as a sort of Tom Tiddler's ground free to all and sundry.

To recount past history was a simple matter; even an analysis of old buildings with a description of their characteristics was comparatively easy. To define how the theory of building should advance was quite another line of country—it was almost impossible to forecast the future. The variety of buildings was so great, the expressions and emotions of the human race so diverse and complex, as to raise the question: "Was there any vitality of idea, any sequence and continuity within the works of builders produced during the past century throughout the world?"

To some extent there was, especially in Western Europe and America. The sequence, although slight, was in fact a legacy of the Renaissance. It had been maintained throughout the centuries after the dawn of the Renaissance, by the Greek spirit of perfection which all Europeans shared in common. If they carried investigation still further and began with Græco-Roman times, they would find that for over two thousand years building had enjoyed an intellectual status so far as the Occident was concerned. Building in its finer aspects during this cycle had responded to the emotions of peoples, to the autocracy of rulers, and the teachers of religion. The consistency had been due to a systematic study of planning, that was to say, from the structural nucleus of the plan had arisen definition, which, in turn, determined form, either Classic, Romanesque, Byzantine, Gothic, and later the works of the revival in Italy, and thence through Europe. There had, however, been many side-trackings and departures from the basic principles, because the tendency had been to subordinate use and function to decorative effect.

After the seventeenth century, the Renaissance in France, England, Spain, and other European countries, including Russia, more closely approximated in detail and ornament to the antique, and the theory of the structural nucleus became of secondary value to the passion for external splendour. The nineteenth century in every country brought into being a revivalist spirit, which endeavoured to employ known forms and historical motifs for especial buildings which, in so far as contemporary use was concerned, had no prototypes. Then ensued the struggle between fitness and polite expression, the latter a sort of rich mantle which enveloped the cramped structural lines. In most examples the structure was falsely conceived. Under this system the French developed planning, mainly as patterning on the grand scale, and in this were followed by their Continental neighbours.

It was now generally accepted that building was as much an affair of science as of art. In the abstract it was something that depended on logic and definite theories of scale, proportion and fitness, as well as strength of character and artistry to fit it for the concrete, when it left the crude stage and becomes architecture.

Investigation had proved that all building masterpieces, from the earliest times to the present day, followed certain uniform and fundamental laws of mass, horizontally and vertically. It was now possible, thanks to the labours of historians who took a delight in research, to follow the process of architectural evolution, and to estimate the several factors which had helped to bring about the development of stylistic expression. The curious thing was that the theory of structure had been partly, and in some quarters wholly, overlooked. It was obvious that the quest for external splendour and display had led to an unnatural regard for form, without sufficient inquiry into principles. They had studied effects, rather than causes.

All buildings had some characteristics in common, irrespective of size, of function, and of material. This was essentially the case in regard to their structure, and the components of structure. All buildings occupied certain definite spaces. In towns the structure was enclosed on two or more sides; and in the open the structure must have a silhouette.

They had met that night, continued the lecturer, to discuss building polity, in so far as the latter applied to the training of architects, the urgent need of interpreting present contingencies, as well as to gather ideas for future and improved development. It was their bounden duty to arrange the ground for the future, and to bring in to action views both retrospective and prospective.

First, let them consider the meaning of the term "modern." In so far as building was concerned it implied the latest expression of newness, and the gloss of novelty; it could be taken to mean recency of achievement and the present stage of advancement. In this sense, the modern could be said to represent the sum total of experience and known ideas. To bring about the present, in so far as the art of building was concerned, the intellectual scaffolding of the past had been used, not always with economy or due regard for prevalent conditions. The term "modern" in itself was ambiguous; did it refer to the past year or the past quarter of a century? Things changed day by day, and building in bulk, although vast in its scope, as one of the attributes of human expression, was in reality insignificant when considered in relation to the complexity of social conditions.

The past was a good servant but a bad master. It had its uses inasmuch as it offered explanations, but it was complete and could not be added to or altered.

Go where they would throughout the Kingdom, they were confronted with a vast assemblage of new buildings, some good, especially domestic works; some indifferent; and some beneath contempt. The majority of these buildings, especially in cities and towns, had been built without regard to cost; no economy had been exercised in the selection and placing of material. The buildings externally represented motifs culled from historical examples at home and abroad, the windows and doors lacked scale, and there was often a disregard for harmonic proportion between the components. The detail was a travesty and the ornament and sculptural interest despicable. Such works, even the best of them, were pale shadows, nay, caricatures, of the original models which might or might not have been used as exemplars. What was true of the external aspect was even more true of the internal arrangement. Far from being dominant and truthful, the structure—and by that was meant the plan—was often a confused juggling of the conditions, held together somewhat cunningly by steel props and obtrudent beams. It was this non-observance of principles, this adventitious display of archæology, that was causing thinkers to rebel against the rulings of coteries who would fetter the scientific art with illogical reasonings.

It was too often urged that architects were not practical, that they were prone to indulge in dreams and to follow fantastic motifs. This was a point that required explanation. To dub an architect practical was to class him with the plumber's mate. An architect, or chief builder, was a technician and a theorist, not a mechanic or manual worker. The term practical applied to an architect was nothing less than an insult. The man who was always proclaiming himself to the world as "above all things practical" generally had no other qualifications. He used the word practical as his stock phrase, and was in danger of immediate bankruptcy. The fact was that architects, builders, and artists were the people least prone to illusions; they had their limitations, and they made mistakes, but they were ever ready to acknowledge their shortcomings. Without advertising the fact, they were the most practical of men, for they aimed at the realisation of definite products.

The decadence of the art of building was bad, but the position was not hopeless, but until they reconstructed their theories regarding the wider issues of humanity and future conditions, it was useless to speak of a new style arising out of a readjustment of their preconceived notions of form. At the beginning of the eighteenth century, when taste in building on the big scale took on its definite bias towards the antique, there began the practice of collecting models, drawings, and data with which to increase the knowledge of classical form. There were fine essays in style and rare examples of scale and pattern planning, but no demonstration of a principle. It was the silver age of the Renaissance, when alloys were freely used in the hope of eking out the metal. The discourses of Sir Joshua Reynolds appeared reasonable enough to the young students of the Royal Academy when the master delivered them; their import was permanent enough to influence architects and artists through the last century. They counselled the observance of the known, and as far as the academic rulings of Composition were concerned were more than justified. But to apply these rulings and theories to the art of building, other than to the very narrow limits of obsolete classical form, was to obscure the finer vision of architects to the vital principles of building. The present revolutionary thought—it was not Bolshevik—aimed not so much at creating a new order of designing and fashioning, but a return to the structural principles of building, which alone could be used to express modern conditions. To the lecturer's way of thinking it was hopeless to be original by referring to past originality; it was an insult to one's intelligence to be told to go on copying form for form's sake. The good men copied old form well, and the bad ones copied it without inquiry. Hence the confusion. The searchlight of the present day had been turned upon the past most effectually. Everything was known; they could reconstruct old epochs, view the life of Egypt, Greece or Rome, live again amidst the idylls of the Renaissance, frisk as eighteenth-century Macaroni, American Colonists, French Revolutionists or Regency bucks, but such was our lust for the antique that they did not trouble to be natural.

Continuing, Professor Richardson said lately he had been watching very closely the application of the structural theory in quarters other than those of architecture, and the honesty and directness of the result had convinced him of the necessity of changing his ideas regarding fitness of purpose and adequate expression.

The issue before them was: Were they to blunder into novelty of form and massing by flights of fancy, or were they to achieve style continuity, and thereby originality, by pursuing the analytical theory, in so far as archæology was concerned, endeavouring mainly to re-establish basic truths, rather than attempt to exploit specious forms?

Commonsense pointed to the re-establishment of basic principles—that was to say, a return to the primary theory that use and function determined structure, and that good structure would give originality of form. This was the only sane method to pursue if a style of building consistent with the early twentieth century was earnestly desired. It was logical, it was sane it was true. Professors and writers gloried in teaching that which they had acquired by pains and study. To minds accustomed to ascertainable facts, adventure was anathema. Thus it had come about that form and ascertained beauty and character had been given predominance over principles about which few inquiries had been made. If they applied their minds to the whole body of past architecture or building they found that certain definite laws existed regarding massing and grouping, both for main parts and minor parts, but in every case it was possible to attribute these results and effects to the primary cause of structure, which was both building and architecture, according to the specific purpose of the building so raised.

The subject of architecture was vast in its scope. It was impossible to define all the laws. In the main the scientific art was an abstract one, bound up, moreover, with the conditions of communal life. When they realised that the very complexity of present conditions demanded a return to simpler and more fundamental truths, they should be the more eager to throw off the trammels of convention. He hoped he had made it clear that study of the past, fine as it was, afforded no more evidence of what they desired for the present day, other than to show a few elementary principles developed through the centuries, with a certain logic and consistency. Future architecture would, it was true, be dependent on certain general laws and rulings, deduced from past achievement, but it would not brook literal transcription of historical models. All the previous teaching of writers and executants regarding tradition, qualities of materials, geometrical form, and association of components, as well as character and articulate expression, including combinations of colour and ornamental interest, which they regarded as decoration, would be referred to. But it was unreasonable not to expect that present-day views regarding domestic life, work, recreation and culture, as well as the preservation of natural and conventional amenities, would not play their part in aiding matters. There was one dominant principle, and to that he again referred. It was the philosophy of structure, bearing in mind such essentials as geometry and mathematics. The artistic intentions of the true builder would ever dominate the structural theory; the need of the moment was to check the craze for the discovery of a new old style, and to restore the scientific art to its once proud status, when the architectural forms arose from structural necessity, and were in sympathy with the conditions of the period that witnessed their production.

R.I.B.A. MINUTES.

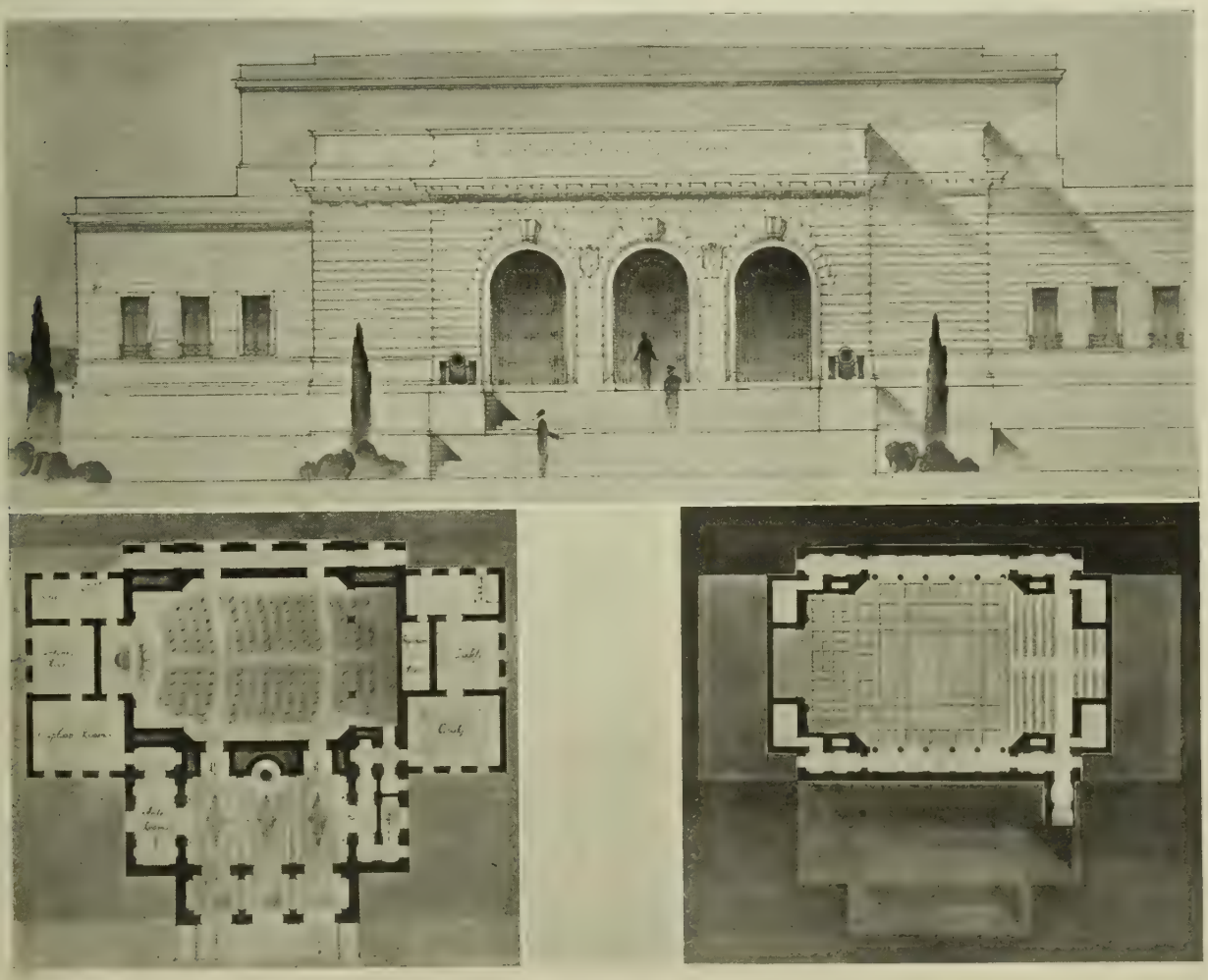
We take the following notes from the Minutes of the Council Meeting held on February 18:—

Advisory Art Committees.—On the recommendation of the Art Standing Committee, it was decided to circulate to the allied societies an advisory memorandum on the formation of advsiory art committees for cities, towns and rural areas.

Wage Slips on Tenders.—On the recommendation of the Practice Standing Committee it was decided to inform the London Master Builders' Association that strong exception is taken to their action in issuing a notice stating that slips would in future be affixed to tenders providing for adjustments in the event of variations in wage rates, in view of the fact that the point is at present under discussion with the National Federation of Building Trades' Employers (which includes the London [Master Builders' Association).

International Cement Congress.—Mr. Max Clarke was appointed to represent the R.I.B.A. at the International Cement Congress.

The Royal Sanitary Institute Congress, 1924.—Mr. W. Glen Dobie, President of the Liverpool Architectural Society, was appointed to represent the R.I.B.A. at the Congress of the Royal Sanitary Institute.



Rome Scholarship in Architecture, 1924—Preliminary Competition.

Design for a Memorial Lecture Theatre and Approaches. By Miss Elsie Rogers (University of Manchester)—selected to compete in the Final Competition.

COUNTY HALL PANELS AND MURAL ART.

BY REGINALD HALLWARD.

WE have both through personal acquaintance and general knowledge so much appreciation of the qualities of the young artists—or young students, whichever we decide to call them—that it is hardly fair that their efforts should be dragged into a somewhat unfortunate publicity owing to the sentimental and misguided zeal of those who directed them. It is unjust to the merit in the work of these young men not to carry the matter a little further. The rejection of these so-called mural paintings is primarily due to the fact that they were carried out under quite the wrong conditions, and the blame for the failure of the scheme is not to be charged upon the students themselves, or is there necessarily any reflection on the ability of the students in the rejection of their panels.

But this is not all. It will be recalled that on the occasion of the first exhibition held at the Royal Academy by the Arts and Crafts Society, the third large room was devoted to an exhibition of so-called mural art. As was pointed out in these columns, there was a complete lack of co-ordination between the panels, due to the absence of any agreed scheme which would have united them as a whole in their general treatment, and led to a result which was wholly fragmentary and opposed to the first principles of mural decoration, though some very able work was shown. The prospect for mural art, therefore, was much more likely to be hindered than furthered by such a display, and it appeared extraordinary that a movement to encourage wall painting should have been directed with such complete disregard of its requirements. All this is indisputable, and it seems almost incredible that the very same blunders should now have capsized the present County Hall scheme, in which the same neglect is seen to operate, no adequate preliminary scheme to co-ordinate the work having been considered beforehand, with the result that the different panels have been left to battle it out for themselves. The failure is to be regretted, (but it was none the less inevitable), and still more that the cause of mural art should have been promoted in such a way. It appears that there has been a tendency to usurp the position of representing mural art, and to forward it more through the methods of the publicity agents than in becoming ways. Mural decoration is better represented and its cause more truly furthered by artists working quietly in the right way, and without the kind of boosting that has accompanied the present movement, which, if intended to secure employment for young artists, should seek it in better ways.

The subject of mural painting is beset by so many obstinate heresies (coming chiefly from those without practical experience of the work) that a student may well be confused on the matter—which is really rather a simple one. Mural painting—that is, painting which is to occupy a particular wall space in a building—is governed by the conditions which the building sets up, and must be executed under those conditions—of lighting, distance from the eye, conditions of view, &c. To reach a result that can be satisfactory these primary conditions must be fulfilled, and they can obviously only be fulfilled when the painting is executed on the wall itself. Any alternative—the "studio" substitute of paintings done on canvas away from the site and afterwards stuck up—is a contradiction in terms of mural art. Anyone who has painted on the walls of an actual building knows that the influence of these conditions governs every touch. One writer, who has taken part in the correspondence on the subject, was enormously impressed by "the extremely inexpensive rate" of the cost of these panels. Surely this is putting the emphasis in the wrong place. Would not the Committee of the County Hall be more impressed with arguments which laid stress on the quality of the work itself? It is certainly curious to think that while this correspondent is so anxious that students should be encouraged to experiment on actual walls, he should not be more concerned with the methods through which they propose to do so. What is noticeable is the atmosphere of sentimentality and absence of practical sound judgment actuating the promoters, who, desiring to encourage mural art, neglected to apply sound principles to its approach.

But there is another aspect of the matter which concerns not a little artists themselves. It has been found very astonishing to some of them that it should have been thought necessary to depreciate the qualifications of older artists in order to make a case for the employment of students of the art schools on our public buildings. This challenge to experience and to the value of proved ability has been advanced by artists themselves. All sorts of suggestions and implications were made, such as "This particular talent is more likely among the young painters"—a comment of pure fustian to those who know the facts. I have no doubt that plenty of talent is to be found amongst the students, but why this desire by one set of artists to belittle the work of other artists? Surely a most regrettable feature, and a sign only of the want of any cohesion or proper loyalty between them such as would become the members of a great profession.

The cause of mural art has been much retarded in recent years by a great deal of very theoretic talk about it, laying down rules for its practice quite apart from those growing out of actual experience, rules which artists with better knowledge know to be very theoretic and away from the facts. It is not too much to say that there are no rules for mural decoration other than those which the equipment of any good artist includes, and the most important are the least communicable, as we do not make artists this way. Unfortunately the talker reaches the public much more easily than the doer, so that rather dry preconceptions detached from actual experience have secured a certain amount of attention with the public at the cost of the real interests of mural decoration. One dominating fallacy on the subject is that which would tie to a particular treatment, and invest mural painting with a mystery which does not belong to it. When we add to these theoretic views a practice which is satisfied with an approach leaving out of view the primary condition of mural painting, that it should be executed on the wall itself, we shall understand how desirable it is to test the truth of the matter against more real and riper experience, and the example of the past. I hope that young artists may find every opportunity to extend their practice, but it is not inaccurate to suppose that at the threshold of life there are not the resources of experience which enrich a nature for the adequate expression of the highest sort of art, for this epic form of painting, and it seems to me that the trouble lies in our estimate of the nature of art itself. Many of the exponents of this new mural art publicity propaganda are in closer touch with the art of the poster, so definitely improved in recent years. Let us retain the walls of our great public buildings plain until a conception of wall painting better than that, either of the Royal Exchange, for example, or the present effort directs us to find a treatment and approach more consistent with its needs.

But the situation is better than this if we look in the right direction, which brings me to a consideration most important of all. Are there no painters then of proved ability able to execute a mural decoration that we must depend on the students of the art schools? Such an idea will appear so ridiculous to anyone acquainted with the facts of the position that it is difficult to speak with becoming reticence on the matter. Is there no choice but that between "the stodgier and more nobly conscientious works by mature and eminent artists" and the experiments of the art schools—though the very form of the phrase is redolent of the cheapest journalese. There are quite a number of good artists I could name, some who have, and others who have not, before executed mural paintings—and, in spite of the experts, this really does not matter so very much—quite able to do significant and beautiful work in the way of mural painting, who have little or no opportunity of doing so, and who find that opportunity still further diminished by the intervention of popular and superficial interpretations which deprecate these sounder views on the matter. Above all let us be very slow to trust to any theories which separate into water-tight compartments, or make a mystery of one application of art over another, as though there was something sacrosanct, a rule of mural painting which needed its inspired devotees—some special preparatory approach and installation—on what is really a plain matter. Did these promoters of mural art understand the subject better, they would know that it is not on the practical, technical side that this is the case, and that the progress through painting to mural decoration is no more than the difference of form between lyric and epic in poetry—a form directed by the subject—much more a direction and inspiration of the mind than one for the text book, or for "botanising" over. We know there are among students themselves those who strongly support the view I am trying to express, and the idea that "crude forms" and gay colour are the only alternatives to "academic rhetoric," &c., begs the whole question. It does not lie between these, nor are the sneers at the work of older men at all becoming. Mural art will not be fostered in any such way, in that it does not lie in these extremes but in a spirit big enough to project through the mural form of painting themes which express the national life at its best and noblest. We shall be nearer to doing this when the mysteries invented by professionalism yield to a wider, more human point of view.

If we could only discount the plausible phrases of professionalism, which really mean so little to the artist, and which are yet so attractive to certain minds, we should be so much nearer the goal. Unfortunately, the proper background of the arts, which is one of quietness and study, and which justifies itself through deeds—in which sense it is only the artist can encourage art—finds now so much of its advocacy through those living more in the public eye, but outside its more properly secluded atmosphere, and suffers from such friends. I am not without hope, however, that public opinion, awakening to the realities of art, as to much else, is directed to seeking for its art where it may be found, trusting the artist to give him out of the treasury of his experience what will express their own best selves. There is a better prospect for mural decoration in this attitude than in any artificial fostering away from the facts of life. As we look deeper into ourselves and towards the new projections of the national life, which the new era foreshadows, we shall need the artist to interpret them, and the walls of our public buildings will then be the natural home of those themes which through form and beauty record and exalt its aspirations and achievements.

Town-planning Conference and Exhibition.

In connection with the Department of Town Planning at University College, London, a Town-planning Conference and Exhibition will be held in the Bartlett School of Architecture, from March 31 to April 5. The exhibition will be open all day, and the sessions of the conference will take place in the evenings. The programme will include addresses by Dr. Raymond Unwin, Mr. Geo. Pepler, Dr. I. G. Gibbon, and Mr. G. Topham Forrest. The exhibition will include the work of past and present students of the Department, and models and plans illustrating recent improvements and proposals relating to the planning of Greater London.

LEGAL SECTION.

NOTES ON CURRENT CASES.

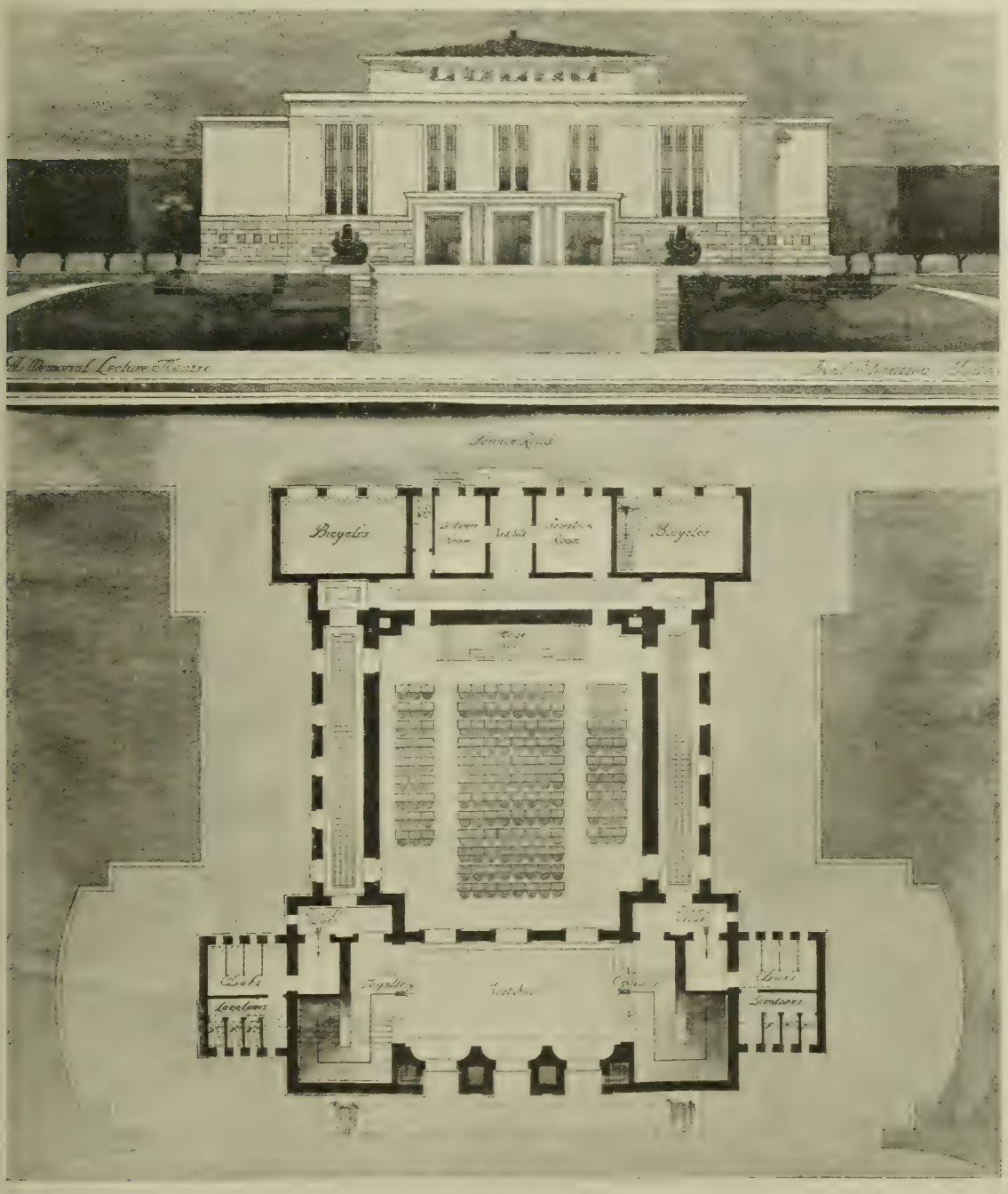
Increase of Rent—Decrease of Rates.

A new and important point was raised in the case Strickland *v.* Palmer, upon which the Court said there was no reported decision.

The plaintiff was the landlord of a dwelling-house within the Rent Act at Upper Tooting, and he had sued the defendant, his tenant, in the County Court for £4 7s. 6d. arrears of rent. It appears that in June, 1921, the rent had been validly increased in part to meet an increase in the rates and that the defence to the action was that as the rates had since been reduced the tenant was no longer liable to pay this increase. The Court held that there was no provision in the Act enabling the tenant, when once the rent was increased, to come again to the Court or to show that when once the rent had been increased it should automatically fall. Under the Act the landlord had to give notice to determine the tenancy and then under stringent conditions he was permitted to make certain increases of rent and became the landlord under a new implied tenancy, and there was nothing in the Act to show that this tenancy was for a limited time or came to an end on any contingency.

The argument really turned on section 2 subsection (1) of the Act of 1920, which provides "The amount by which the increased rent of a dwelling-house to which this Act applies may exceed the standard rent shall subject to the provisions of this Act be as follows (b) An amount not exceeding any increase in the amount for the time being payable by the landlord in respect of rates over the corresponding amount paid in respect of the yearly, half-yearly or other period which included August 3, 1914. . . ." It was contended that these words "for the time being" denoted the sum actually payable in rents by the landlord, and if the increase in rent was to continue the expression should have been "the time being," so as to continue the increase, but the Court intimated it was unable so to distinguish the two phrases as to find in the distinction a scheme for reducing the rent.

Before the Court heard this appeal a point



Rome Scholarship in Architecture, 1924—Preliminary Competition.

Design for a Memorial Lecture Theatre and Approaches. By Mr. Marshall A. Sisson (University of London) selected to compete in the Final Competition.

was taken that an appeal would not lie at all, but that the decision given in the County Court for the defendant was final and conclusive. It was argued that this question arose under those portions of section 2 subsection (1) which we have quoted above, and that it was provided by subsection (6) of the same section, "Any question arising under subsection (1), (2) or (3) of this section shall be determined on the application either of the landlord or the tenant by the County Court and the decision of the Court shall be final and conclusive."

The Court intimated that this was also a point of difficulty, but that the conclusion it had come to was that this was an ordinary action to recover arrears of rent to which the Rent Acts might afford a defence, but the Rent Acts did not interfere with the ordinary right of appeal from the County Court in its ordinary jurisdiction, but only made the decision of the Court final and conclusive where under the Acts the parties apply to the County Court Judge as arbitrator in matters of administration.

It would appear from this judgment that the administrative matters referred to include such questions as what increases are valid under section 2, the state of repair of the premises, and under section 12 (3) an apportionment to arrive at the standard rent, also under the Rent Restrictions (Notices of Increase) Act, 1923, under section 2 subsection (4) questions as to arrears of rent and deductions under that Act, but that when a legal increase is once in force it becomes recoverable by the landlord as rent in an ordinary action and a change in circumstances does not permit a review being demanded.

The question is, as the Court said, one of difficulty and it is somewhat complicated by a section in the Rent Act, 1923, which was not referred to in the report of this case, that is section 11 subsection (1), which provides "The County Court shall have power on the application of a landlord or tenant to determine summarily any questions as to the amount of rent, standard rent, or net rent of any dwelling-house to which the principal Act applies, or as to the increase of rent permitted under that Act or this part of this Act," but here again something in the nature of arbitration seems suggested, for subsection (2) of this same section refers to Rules to be made providing for any questions arising under or in connection with the principal Act, or this part of this Act, being referred by the consent of the parties interested for final determination by the Judge or Registrar of a County Court sitting as an arbitrator or by an arbitrator appointed by the Judge.

The decision as it stands is very important as had the contention of the defendant succeeded it would have deprived landlords of the ordinary right of appeal from the County Court in all cases where the amount of the rent due in respect of houses under the Rent Acts was in question.

Action By One of Two Joint Contractors.

We may refer to the case, Johnson *v.* Stephens & Carter, Ltd., and Golding (1923, 2 K.B., 857), but in doing so we must point out that it involved a point of practice only which was tried on the pleadings in the action, and therefore the allegations in the pleadings were not proved nor any facts substantiated.

The plaintiff in the statement of claim alleged that he was in partnership with the second defendant, Golding, carrying on business as painters and cleaners of glazed building-surfaces, and that in March, 1915, the defendants, Stephens & Carter, had entered into an agreement with him and Golding that upon Johnson & Co. receiving any orders for work of the description of that done by the firm, Johnson & Golding, they would give that firm the necessary particulars to enable the firm to tender for the execution of the work, and that they would do their best to obtain a contract with the ultimate principals and upon obtaining it would employ the firm to do the work.

Then it was alleged that in breach of that agreement in September, 1922, the defendants had repudiated that agreement and refused to perform it any further, and that in breach of the agreement they had employed other persons than the said firm, including Golding personally, to execute work of the above description without giving the firm an opportunity of tendering for it.

The pleadings also alleged that the defendants had conspired with Golding that he should commit a breach of the partnership agreement, and that they should commit breaches of the agreement of March, 1915, in pursuance of which the defendant company gave all the work to Golding personally or to other firms with intent to deprive the plaintiff of his interest under that agreement.

The statement of claim then alleged that the plaintiff had requested Golding to join as paintiff in the action, and upon his refusing to do so he had been made a defendant as a necessary party.

Golding had applied to the Court to have his name struck out of the action on the ground that the plaintiff had not offered him an indemnity against costs if he had consented to be joined as a plaintiff, and he asserted there was no valid cause of action against the defendant company, and the Judge at Chambers had ordered his name to be struck out, being of opinion that the offer of such an indemnity was a condition precedent to the right of one of two co-contractors to join the other as defendant against his will in an action for a breach of contract.

The case was carried to the Court of Appeal and the order of the Court below was discharged, and it appears from the judgments that the Court of Appeal laid it down that the general rule is that where one of two joint contractors refuses to join as plaintiff in an action for a breach of contract the party seeking to sue should offer the other an indemnity against costs, or, as Lord Justice Younger put it: "Exhaust all reasonable means of obtaining his consent"; and then if he still refuses he can be joined as a defendant; but the Court intimated there might be an exception to this rule and this case formed an exception for the allegation was that one of the co-contractors had procured the breach himself or had acted in some way in fraud or in wrong of the other contractor, and in such circumstances it would be wrong to hold that the plaintiff had no right to join the other co-contractor without having offered him an indemnity against costs. It was therefore decided that the action must proceed, with Golding joined as a defendant; but apparently, should the allegation made as to collusion and conspiracy fail at the trial and judgment be given merely against the other defendants, the company, for breach of contract, then Golding's position as to costs would be taken into consideration, for, as we have shown, for an ordinary action for breach of contract, he could only be joined as a party against his will on an offer of indemnity against costs.

Workmen's Compensation: Onus of Proof.

In our issue September 28 we briefly referred to the case Moore & Company *v.* Barkey, decided in the House of Lords. This case is now fully reported (1923, A.C. 790), and we may amplify our former note.

Barkey was an oncost worker in a colliery and at the time of the accident he was down the colliery with a night shift fireman, Gillespie. On the previous afternoon it had been reported to Gillespie that there was some gas in a section of the pit and it was Gillespie's duty to clear the gas away, and he was entitled to call upon Barkey to assist him and Barkey was bound to comply.

Gillespie had a Glennie safety oil lamp which discloses the presence of gas by burning low or going out, but Barkey had an electric lamp which gives no such indication.

An explosion occurred and a rescue party went down the pit and the safety lamp was found in two pieces. This could not have been caused by the explosion because the lead rivet had been removed and the bottom of the lamp had been unscrewed from the top; and as is stated in the judgment, the natural inference was that the lamp had gone out and someone must have taken it apart with the intention of re-lighting it. Barkey's electric lamp was found still alight near the coal face, the top of the Glennie lamp fifteen feet farther away from the coal face, the bottom of the lamp 18 ft. from the face, Barkey's body 30 ft. and Gillespie's 50 ft. from the coal face, their heads turned away from it. These objects and the two bodies were nearly in a straight line. On the following day a small tin box with matches was found between the two portions of the Glennie lamp, but evidence was given by the lamp man that Gillespie left a wooden pipe and a box of matches in the lamp-room and Gillespie's son stated that he had never known his father to carry such a tin box for any purpose.

It would be a breach of section 34 of the Coal Mines Act, 1911, subsection (1) (iii) to unlock a safety lamp except at an appointed lamp station, and it must be unlocked or relighted only by a competent person appointed in writing by the manager.

The Sheriff Substitute in Scotland had held that there was no doubt that the accident arose "in the course of" the employment but that Barkey's dependants were bound to prove that it "arose out of" the employment, and they had not discharged the onus of proof put upon them and therefore compensation could not be recovered. The Second Division of the Scotch Court of Session reversed this decision and on appeal the House of Lords affirmed the Court of Session.

The House of Lords held that there was *prima facie* evidence that Barkey was acting in the course of his employment and that the accident arose out of the employment as he was doing the work he was engaged to do, "driving out gas," and that being the case it was for the employers to prove that Barkey had added a peril or done something which took his action outside the scope of his employment.

Under the new Act, which comes into force January 1, 1924, by section 7 the fact that a man at the time when the accident happened was acting in crontravention of any statutory or other regulation applicable to his employment, or of any orders given by or on behalf of his employer, or that he was acting without instructions from his employer, will no longer be a defence to a claim for compensation "if such act was done by the workman for the purposes of and in connection with his employer's trade or business," where the accident results in the death or serious and permanent disablement of the workman.

The section provides that notwithstanding that the workman was so acting such an accident "shall be deemed to arise out of and in the course of the employment." It will thus be easier for a *prima facie* case to be established on the part of the workman and the onus of disproving it which is laid upon the employer will be increased. The onus of proving serious and wilful misconduct has always been laid upon the employer (Johnson *v.* Marshall, 1906, A.C. 409, *The Builder*, May 26, 1906), and as we have shown in our note to Johnson *v.* Marshall and in subsequent cases in the House of Lords (Bourton *v.* Beauchamp, *The Builder*, June 25, 1920, and Moore *v.* Donelly, *The Builder*, May 27, 1921) the question of misconduct can only be raised where the man is acting within the scope of his employment. The case now decided in the House of Lords adopts the same principle to cases where it is desired to be proved that the accident did not arise out of and in the couse of the employment; when once a *prima facie* case has been established on behalf of the workman it is for the employer to prove circumstances furnishing a defence, and under this section of the new Act it would almost appear that serious and wilful misconduct will be the only available defence, for although it was possible heretofore definitely to prove a disobedience to orders, the onus now laid upon the employer under section 7 of the new Act seems to go to the extent of disproving that an act done in contravention of orders was done by the workman for the purposes of the employer's trade or business.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

*** We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.*

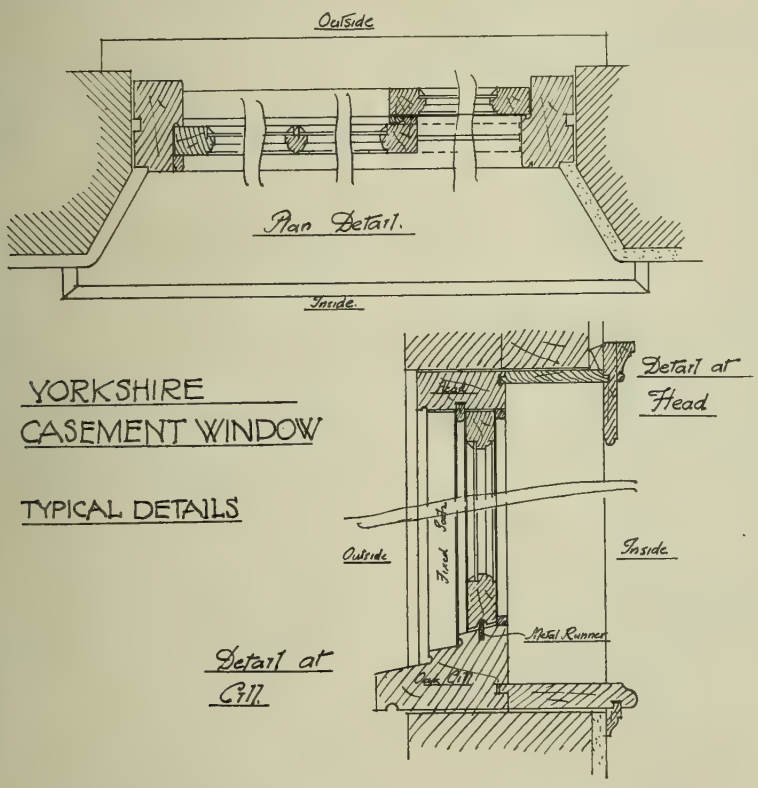
"Yorkshire Slides."

SIR,—Will any architect who has had experience with "Yorkshire Slides" kindly say whether they are weather-tight? A sketch detail would be appreciated.

G. HOLLINS.

[REPLY.]

We take it that our correspondent refers to the more generally known "Yorkshire Casement" or "Yorkshire Sash Window." The accompanying sketch illustrates a good weather-tight variety of this form of window, and we think explains itself. The main points to remember are that the fixed sash must be the outer one, and the sill must be properly weathered. A good modern improvement on this type of window would be to form an interlocking "hook" joint at the meeting stiles, similar to the meeting rails of a sash window, and to slide the window on ball runners.



Well-made, this window can be as weather-tight as any other form of wood window, but the old varieties are seldom sweet running and are liable to bind, and we seldom find them used in modern work.

It is interesting to note that Mr. J. Grieve, of Liverpool, writes in the February 9 issue of the R.I.B.A. *Journal* in very high terms of the "Yorkshire Sash Window," which letter Mr. Hollins will, no doubt, be interested to read if he has not already done so.

Provisional Amounts.

We understand from a correspondent the case Young & Co. *v.* White (1911) was overruled in the Court of Appeal in Hampton *v.* Glamorgan County Council (*The Builder*, June 2, 1916), and the decision of the Court of Appeal was affirmed by the House of Lords (*The Builder*, March 2, 1917).

Walls of a Small House.

SIR,—I should be glad to have opinions as to the following proposal for the outer walls of a small house to be built in an exposed position. Squared stone rubble walling 12 in. thick, built, or at any rate pointed, in cement, 2 in. or 2½ in. cavity and 4½ in. clinker breeze blocks, 32 in. or 16 in. by 9 in. by 4½ in. It may be doubtful as to wet penetrating through the 12 in. walling. Would it be possible that damp should appear through the clinker breeze by reason of condensation? Should the cavity be ventilated? Is this ever done? If not, would the inner lining be likely to be charged by more moisture than could be absorbed without showing itself on the inside?

The roof is of stone slate. There should be no question about the foundation, as the walls would be practically upon the rock, but presumably there would be a tendency to unequal settlement of the outer and inner walls. Would it be better to put the plate on the inside of the outer walls?

J. A. E.

MEETINGS.

MONDAY, *March* 3.

Royal Institute of British Architects.—Election Royal Gold Medallist. At 9, Conduit-street, W.1. 8 p.m.

WEDNESDAY, *March* 5.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Roman Architecture." At Southampton-row, W.C.1. 6 p.m.

Royal Society of Arts.—Major-General Sir F. Ware on "Building and Decoration of the War Cemeteries." At 18, John-street, Adelphi, W.C.2. 8 p.m.

Institution of Heating and Ventilating Engineers.—Mr. A. A. H. Scott on "Heating and Ventilating applied to Ferro-Concrete Buildings." At 38, Victoria-street, S.W.1 7 p.m.

THURSDAY, *March* 6.

Liverpool Architectural Society.—Mr. W. Milburn, jun., on "Hospitals." At 13, Harrington-street.

Incorporated Institute of British Decorators.—Mr. W. H. Cantrill on "A Pilgrimage to the Hill Towns of Umbria." At Painters' Hall, E.C.4. 7.30 p.m.

YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY.

THE York and East Yorkshire Architectural Society held their annual dinner at York on February 15. Amongst those present were Mr. Stephen Wilkinson (President), Mr. J. Alfred Gotch (President of the Royal Institute of British Architects), Mr. W. T. Jones (President of the Northern Architectural Association), Mr. Ian MacAlister (Secretary of the R.I.B.A.), Dr. Evelyn, Dr. Collinge, D.Sc. (Keeper of the Museum, York), Mr. J. E. Reid (Hon. Sec., York Society), Mr. E. A. Pollard (Hon. Treasurer, York Society), Mr. George Benson, Mr. F. T. Penty, Mr. J. Oldham, Mr. J. M. Dossor (Hull), Mr. S. R. Kirby, Mr. L. Kitchen (Hull), Mr. Dudley Harbron (Hull), Mr. A. B. Burleigh, Mr. J. S. Syme, Mr. S. C. Highmoor, Mr. A. Cowman, Mr. S. Needham, Mr. C. W. C. Needham, Mr. W. E. Parkinson, Mr. R. Jackson, Mr. C. Leckenby, Mr. J. Vause, Mr. H. Monkman, Mr. T. Snowden (Hull), and Mr. T. E. Cliffe.

Mr. Stephen Wilkinson, in proposing the toast of the R.I.B.A., extended a cordial welcome to Mr. Gotch.

Mr. Gotch, outlining points which might possibly be considered by the Institute in the near future, hinted at the possibility of fusion with the Society of Architects. Personally, he saw no reason why the two bodies should not work as one for the benefit of architecture. The Institute was not run by architectural politics, the members were really striving single-heartedly for the benefit of the profession. United and widespread action would vastly advance the interests of architecture and architects.

Mr. L. Kitchen, welcoming the suggestion that fusion might be possible in the near future, pointed out that when the profession was absolutely united it would be able to go before Parliament with a reasonable chance of its demands being accepted.

ROMAN DECADENCE.

SIR BANISTER FLETCHER lectured at the Central School of Arts and Crafts recently on the construction and equipment of the great Roman thermæ, or baths, and revealed the love of luxury which gradually gnawed at the vitals of Roman power and progress.

These gigantic thermal establishments showed those old Romans as past-masters in matters of water supply, central heating, and complicated planning of baths designed to minister to the pleasure needs of a population that emperors sought to placate. The old spirit which had made Rome the mistress of the world was flickering out, and men's minds were turned from arms and war in distant provinces to the pursuit of pleasure and personal indulgence, and these magnificent and monumental buildings were the last word in luxurious living, providing as they did not only for bathing and its attendant services, but also for amusement, exercise, lounging, gossip, and even lecturing; and in these marble halls and colonnades the gilded youth of Rome chatted over the news from the front and criticised the Government at home.

Buildings designed to meet such complicated requirements involved a fresh development in architectural planning, and they could only be carried out by using slaves for labour and concrete for material. The Thermæ of Caracalla formed the first great Roman structure which resembled in its complicated character a modern architectural plan. The central block, with its central tepidarium, flanked by the frigidarium, calidarium, and countless chambers and corridors, was as vast as that of Westminster Palace, including the Great Hall itself.

Similar baths were erected throughout the Roman Empire, at Pompeii, Italy, Timgad, Africa, even Bath itself, in our own country; and substantial remains existed at the present day to remind us of their former magnificence.

EXHIBITION NOTES.

THE ERICKSEN DRAWINGS.

THERE was something refreshingly dainty and charming in the drawings by Kay Ericksen, at the Leicester Galleries. What we like most about them is their delightful colour and decorative quality—a wonderful variety of delicate colour and drawing is at the artist's ready command. The fantastic and weird presentment of the themes will probably find many admirers, but no architect or decorative artist could fail to appreciate the singular charm of refined drawing and colour which is to be found in all the subjects : especially delightful are Nos. 1, 8, 30 and 37. Even where the subject is as gruesome as in No. 12, the beauty of the colour and the drawing redeem the sorrowful tale that is told, where even the nightingale cannot wake the dead, though it charms death.

PRINTS AND DRAWINGS.

We found real pleasure in looking over the drawings and prints by Francis Unwin, at the St. George's Gallery. It would be impossible to find anything better in its way than the monochrome of "The Ambulatory, Groote Kerke, Dordrecht"; its delicacy and breadth and its distinction of emphasis are noteworthy. An excellent colour drawing of "King's Lynn" (No. 7), a masterly monochrome drawing of "Wilderswil Bridge" (No. 6), and two fine telling interiors of "Hertford House" (Nos. 18 & 19), show the capacity and range of the artist's power. When we come to his clever drawings of mountains, we find it difficult to understand why he places such insistence on the volcanic, terrible features which nature produces, when he can depict with such value the quiet charms which make pictures a delight instead of a menace.

FINE ART SOCIETY.

The ably-executed water-colour drawings by Cecil A. Hunt at the Fine Art Society's offered some strong contrasts of treatment as between the delicacy of "The Island on the Tiber, Rome" (17) and the fine drawing of "The Castle Ascoli-Picens" (12), which is very impressive and excellent in its colour and composition. "The Cliffs near Narne" (47) is also a fine drawing. There is great force of effect in several of the drawings of hill outlines, one of the best being "Apennines near Fabriano" (32); but the hard definition is often a little repellant, and one rather feels that in all the drawings the artist is rather more in evidence than his subject.

WALKER GALLERIES.

The late Edwin J. Bale's work was conspicuous for its delicacy and refinement and a certain ideality of treatment. The large collection of his water-colours at Walker's Galleries affords a pleasant reminiscence of his work; now, alas! ended. Two of his very best pieces are amongst the collection and rank high in the achievements of modern water-colour art. Two other collections of water-colour drawings are now on view at these galleries. Those by J. S. C. McEwan Brown are largely from North Wales and exhibit some skill in effects, but the colour is not very attractive, and most of the drawings suffer from hardness and over-definition. The studies from the Riviera, &c., by Ella M. Fraser show a vigorous broad handling, and some, as Nos. 23 and 26. have a definite colour value.

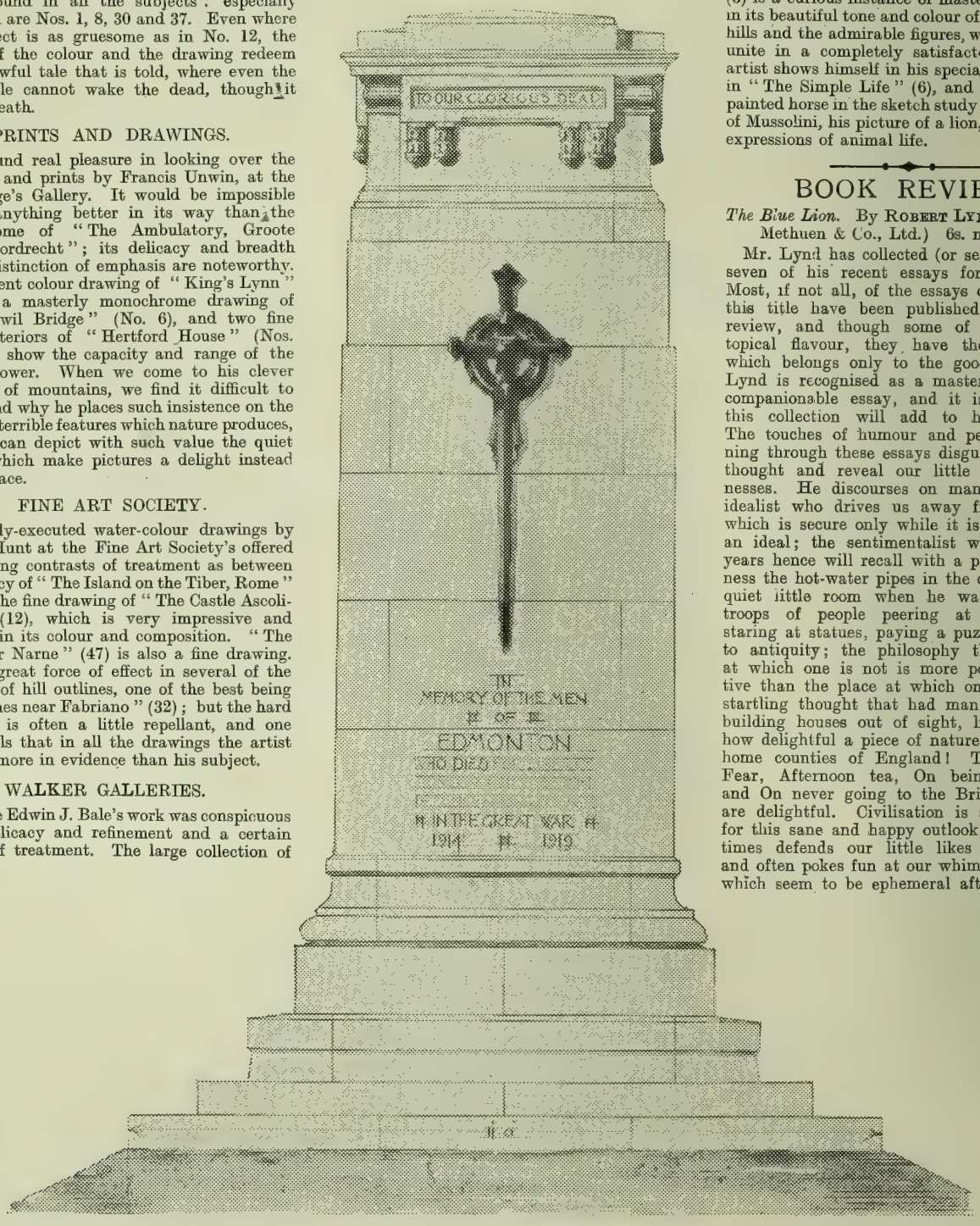
VACCARI'S PICTURES.

The real character of animals is rarely depicted so well as we see in the small collection of paintings by Signor Vaccari at the Fine Art Gallery, 18, Cork-street. The figures of animals are the strong objective, though the character of landscape is often very vividly and truthfully expressed, as in the picture of sunny meadows with a background of blue hills (5), where the whole effect of light, atmosphere, colour and texture is a somewhat rare combination of values. In many of his paintings we do not find the colour quite to our liking, but the picture here referred to shows what the Signor can do at his best. "The Wandering Minstrel" (3) is a curious instance of masterly work, both in its beautiful tone and colour of the mysterious hills and the admirable figures, which yet fail to unite in a completely satisfactory way. The artist shows himself in his special vein of talent in "The Simple Life" (6), and the brilliantly-painted horse in the sketch study for the portrait of Mussolini, his picture of a lion, and other fine expressions of animal life.

BOOK REVIEW.

The Blue Lion. By ROBERT LYND. (London: Methuen & Co., Ltd.) 6s. net.

Mr. Lynd has collected (or selected) twenty-seven of his recent essays for this volume. Most, if not all, of the essays collected under this title have been published in a weekly review, and though some of them have a topical flavour, they have the rare charm which belongs only to the good essay. Mr. Lynd is recognised as a master of the light, companionable essay, and it is certain that this collection will add to his reputation. The touches of humour and personality running through these essays disguise the serious thought and reveal our little human weaknesses. He discourses on many things: the idealist who drives us away from the ideal which is secure only while it is recognised as an ideal; the sentimentalist who a hundred years hence will recall with a pang of tenderness the hot-water pipes in the corner of some quiet little room when he was a boy; the troops of people peering at pictures and staring at statues, paying a puzzled reverence to antiquity; the philosophy that the place at which one is not is more potently attractive than the place at which one is; and the startling thought that had man the power of building houses out of sight, like the birds, how delightful a piece of nature would be the home counties of England! The essays on Fear, Afternoon tea, On being rather ill, and On never going to the British Museum, are delightful. Civilisation is all the better for this sane and happy outlook, which sometimes defends our little likes and dislikes, and often pokes fun at our whims and fancies, which seem to be ephemeral after all.



Edmonton War Memorial Competition.

[This memorial will be executed in Cornish grey granite with bronze sword on the front. It will be 17 ft. high, and weigh about 25 tons. This design, by MESSRS. GRIFFITHS & CO., LTD., together with a tender for the erection of the memorial, was recently accepted by the War Memorial Committee. Our illustration is from the *Tottenham and Edmonton Herald.*]

THE WEEK IN PARLIAMENT.

Westminster, *Wednesday.*

Private Enterprise.

In connection with the Supplementary Estimates for the Ministry of Health, required to make good a loss suffered by the Public Works Loan Commissioners, Mr. Wheatley said that the Ministry advanced money for housing purposes when the rate of interest was six per cent. The houses were sold by the societies, and the money advanced was repaid at a time when the rate of interest on re-investment was only four per cent. Part of the money was required to meet expenses under the Housing Act of 1923.

Replying to criticisms, Mr. Wheatley pointed out that the late Government wished to encourage the sale of houses, and gave special terms to public utility societies under the Act of 1923. There had been a larger sale than had been anticipated. As to the housing position under the Act, the Ministry had issued up to date certificates for the building of 98,349 houses, and of that number 63,870 had been granted to private enterprise and 34,479 to local authorities. The issue of certificates to private enterprise meant merely that the local authorities represented that they believed they could place certificates with the right builders to secure the erection of, say, 10,000 houses in a particular district, and as 10,000 houses were wanted there the Ministry gave approval. The number of certificates actually taken out up to the present by private builders was only 33,044. In regard to the 34,479 certificates taken out by local authorities, the plans of only 18,687 houses had been approved. It did not rest with him to define who formed the working class and who should be assisted in regard to housing, but obviously the limited sum available should be spent in assisting those who most needed help. The Government had been asked to extend public aid to housing for the middle class. At present the State might leave that task to private enterprise, which should be ashamed to ask for State aid. Private enterprise subsidised showed the failure of private enterprise. Apart from the comparatively small numbers of houses being built in connection with factories, practically all the houses to be erected by private enterprise and helped by the State to be let when completed was only about 20,000. The total number of houses on which work had been started was 22,600, and the number completed was only 4,608. As to the question of density, Mr. Wheatley said he would never dream of approving a density of even 30 houses to the acre. He had been asked to pledge himself to a density of 16 houses to the acre, but all he said was that hon. Members would find him sympathetic on that question.

The Director of Housing.

In reply to Mr. Costello, who asked whether Sir Charles Ruthen was still honorary director of housing, Mr. Wheatley said that the answer was in the affirmative. Sir Charles Ruthen was appointed Director-General of Housing in a voluntary capacity by the then Minister of Health on April 20, 1921. He received an allowance of £500 a year to cover his out-of-pocket expenses while living in London, and the cost of a season ticket between London and Swansea. The total amount so paid to him since his appointment was £1,796 15s. He was at present responsible for the general control of the arrangements for the approval of housing schemes carried out by local authorities and for advising the Minister on technical matters arising in connection with housing administration.

Unfit Houses.

Mr. Wheatley informed Mr. C. Wilson that, according to statistics obtained from the reports of Medical Officers of Health for the year 1922, 15,867 houses in England and Wales were found to be unfit for human habitation.

Size of Houses.

Mr. E. Brown asked whether any municipal authorities had made representations as to the desirability of increasing the size of houses to which the Government subsidy applied.

Mr. Wheatley said that in a few cases representations to this effect had been made by local authorities.

The 1923 Act.

Mr. Wheatley informed Mr. D. Millar that up to December 31, 1923, local authorities had issued certificates authorising the erection of 25,188 houses by private enterprise under the Housing, &c., Act, 1923; 1,110 houses had been completed, and a further 6,657 were under construction. At the same date, 31,434 houses had been authorised in schemes to be carried out by local authorities under the Act; 1,998 had been completed, and a further 6,606 were under construction. Those figures did not include houses erected to replace dwellings included in slum clearances. Tenders for the erection of 1,108 houses or tenements had been approved since the beginning of 1923 in connection with slum clearance schemes.

Consolidation Acts.

Mr. Wheatley stated that a Bill to consolidate the Housing Acts was in course of preparation.

The New Rent Bill.

The new Rent Restriction Bill, introduced by Mr. B. W. Gardner, a Labour Member, has been read a second time in the House of Commons by 248 votes to 101. Mr. Gardner explained that the measure was frankly a tenants' Bill, just as the 1923 Bill was frankly a landlords' Bill. It proposed to extend control to 1928. The 1923 Act expired next year, but there was still a great shortage of houses. Even a Labour Government could not hope to catch up with that shortage by 1925. The Bill proposed to lay down the grounds on which a landlord could obtain possession. Under the present Act landlords were doing almost anything they liked, and evictions were going on all over the country. The Bill proposed to take away all the grounds for obtaining possession except where a landlord wanted the house for his own occupation, and in that case the landlord had to provide alternative accommodation. Under the present Act, a 15 per cent. increase on standard rents was allowed; this would be reduced to 10 per cent. in accordance with the fall in the cost of living. At present the landlord was allowed 25 per cent. for repairs; the Bill proposed to reduce this to 15 per cent., because it was notorious that the landlords drew their 25 per cent. and did not carry out their repairs. The Bill proposed to put back into control all the houses included in the 1920 Act. He alleged that there was a hold-up of cottage property all over the country.

The Unionists moved an amendment, urging that the Bill should be rejected until a full inquiry had been held into the working of the 1923 Act, and the nature and extent of any alterations that might be advisable. Part 2 of that Act, it was stated, had been ignored. Mr. N. Chamberlain (a former Minister of Health) and Sir Thomas Inskip supported the amendment, the latter stating that the Unionists would do their best to make it possible for private persons to build and own houses.

Mr. Wheatley, in strongly supporting the Bill, said the days of private owners investing capital in houses to be rented by the working class had gone for ever. But the economic circumstances of probably three-fourths of the community were such that they had to depend for housing accommodation on their ability to rent, and it was the provision of houses for that section that he wished to direct attention. The amendment which had been proposed was not honest. Of all the defects of the Bill, there was only one from the tenants' point of view, and that was that it would reduce the rents of working-class houses. He advised the Unionists that to make a slight concession would be good business for them. The Government took no responsibility for the measure beyond the second reading stage.

The amendment was rejected and the Bill read a second time.

Building Material Prices

Sir Kingsley Wood asked the Minister of Health whether he proposed to continue the inter-departmental committee appointed to survey the prices of building materials.

Mr. Wheatley said the question whether this Committee should be continued in its present form or whether there should be an extension of its scope and powers was under consideration. The arrangements made by the Committee for the collection of information as to prices were being continued.

Working Class Houses.

Mr. Wheatley informed Sir H. Cautley that detailed statistics were not available of the number or cost of working class houses built last year by private enterprise without subsidy. A return obtained from the local authorities for the six months ended September 30 last showed that in that period 20,982 houses had been completed of not more than £26 rateable value in the provinces, and not more than £35 in the Metropolitan Police District. A similar return obtained in March, 1923, showed that 9,971 similar houses had been completed by private enterprise in the period from October 1, 1922, to March 1, 1923. This return did not include building in the areas of rural district councils. From these returns it appeared that in the year ended September 30, 1923, the number of small houses of the type described which were completed within the year was not less than 31,000.

Apprentices.

Mr. D. G. Somerville asked the Minister of Labour whether, seeing that hitherto there had been a limitation of apprentices bound to craftsmen of one in seven, with a maximum of eight to any craft in any firm, and such regulations hampered the rapid construction of houses, he was using his influence to induce the unions concerned to modify in the public interest these restrictions.

Mr. T. Shaw said he could not accept the statements in the question, but as the hon. member was probably referring to the building trades, he might explain that the number of apprentices was much below the number permitted by the agreements between the employers' and operatives' organisations. These organisations had assured him of their co operation in the formulation of proposals by which the number of apprentices might be increased in accordance with the requirements of the industry, and he hoped to receive these proposals in the near future.

Indoor Painting.

Mr. T. Shaw informed Mr. Raffety that the Unemployment Grants Committee had given grants to public authorities to enable them to undertake during the winter indoor painting and other decorative work which ordinarily would not be carried out until the spring or summer. No form of assistance in this connection was, however, available for private employers. He agreed that if work of this character could be spread throughout the year it would be to the advantage of a number of workmen at the moment unemployed, but as regarded private employers he could do no more than call attention to the point.

Refuse for Bricks.

Commander Bellairs asked the Minister of Health whether he was aware that clinker refuse from destructors and electric light works was worked up abroad successfully and cheaply into bricks for building; and whether he would consider this method of relieving the brick shortage and obtaining cheaper houses.

Mr. Wheatley said he was aware that good clinker might be used successfully as aggregate for concrete, though it was difficult to form a judgment of relative cheapness of the process without reference to local conditions in the particular case. He had every hope that the brick industry would succeed in producing sufficient bricks to meet the housing needs, and he would welcome all action to that end on the part of the industry. Attention would, of course, be given to all promising methods of alternative construction.

THE BUILDING TRADE.

UNEMPLOYMENT INSURANCE.

An extremely important report has been made on the subject of Unemployment Insurance by the National Confederation of Employers' Organisations in reply to an invitation which was issued in 1922 by the then Minister of Labour, Sir Montague Barlow, to that organisation and the Trades Union Congress General Council to co-operate in considering the steps which might be taken with a view to establishing an improved system of Unemployment Insurance. It has been submitted to the present Minister of Labour. According to a digest of the report, published in the *Times*, February 5, after referring to the Royal Commission of 1905-9, it points out that the broader problems of reorganisation of Poor Law relief and its administration as well as the co-ordination of all forms of relief of distress, still remain to be undertaken in the light of the Royal Commission's report, and much of the unsatisfactory conditions for the relief of unemployment arises primarily from the absence of any well-defined co-ordination between Unemployment Insurance and Poor Law relief. In respect of both there have been, to meet admittedly unprecedented emergencies, hasty improvisations, based unfortunately on no common or settled principles, but whatever be the defects of the emergency measures, the experiment of Unemployment Insurance as initiated in 1911 cannot be adjudged a failure in itself, but on the contrary it has been proved that it is practicable in normal times to make provision for assisting the bona-fide workman over periods of temporary and unavoidable unemployment.

After these somewhat general observations the report turns to the question of

Insurance by Industries.

The report is strongly against any such system for the following amongst other reasons:

(1) A single administration of a uniform and general scheme ought to be more economical than the cost, direct and indirect, of the administration of schemes for separate industries;

(2) Compulsory insurance by industries is quite impracticable on any comprehensive scale: there would be considerable difficulty, in very many instances insurmountable, in the strict demarcation between industry and industry: a substantial proportion of workers move from industry to industry, there is also a substantial proportion of workers in respect of which there is no trade organisation, either on the men's side or the employers', and there are large numbers of workers in seasonal and casual employments;

(3) From a financial point of view it would not be practicable for even every well-organised industry to have a workable scheme. The industries which depend upon world markets suffer severer fluctuations than home trades: an industry having severe fluctuations could not offer the advantages given in an industry with low fluctuations, and disparity between contributions or benefits would create unrest: the segregation of industries has grave objections on the ground of general principle, for insurance is founded on the principle of averaging: Unemployment Insurance, if it is to be compulsory, should be universal and uniform: employers and workers in high-risk industries should not be saddled with the heavy burden it would involve unaided by the low-risk industries.

In connection with the question of insurance by industries, the report also points out that the question has been raised in another form, that is, whether unemployed insurance should be on the basis of like contribution and benefits for all workers, or of higher contributions and benefits for the higher paid workers. The reply to this question is that the compulsory scheme should not discriminate between the workers: it is the lack of opportunity of the unskilled and low-paid workers to make provision for themselves which makes a call on the State and the employer necessary: the higher paid worker has other opportunities of making provision of his own against the risk of unemployment, and if additional benefits are to be provided for him it should be by supplementary schemes.

Finance.

The report suggests that the State contribution should be increased and should be the same rate as that paid by the employer and worker, and this increase would allow of improvement in the number of weeks for which benefit would be paid. It is also suggested that the refund system should be abolished, and vested interests should be met by some other compensatory advantage.

Labour Exchanges.

The report points out that when a national system of Labour Exchanges was inaugurated in 1909, it was contemplated that through their machinery there would be accurate contemporary information about demands for labour, and that the labour department would act as a sort of intelligence bureau, co-ordinating and distributing Government contracts and municipal work, so as to act as a counterpoise to the unemployment in the labour market, and that schemes of utility would be examined beforehand so as to be set on foot at any time, knowledge and consideration having been applied beforehand, but much of the weakness in the employment exchange administration of Unemployment Insurance has arisen from the fact that the larger policy has never been developed and matured.

The report observes that the results of allowing the trade unions to administer the insurance fund is that skilled men are kept aloof from the employment exchanges, and thus the exchange system had been prejudiced and brought into disrepute, and it recommends that both on financial grounds and in the interests of the efficiency and usefulness of the employment exchanges they should be the sole administrative authorities.

The report suggests that even if industry is not as yet prepared for the compulsory registration of vacancies or the compulsory registration of workers at the exchanges, there can be no reason why firms should not be obliged to intimate to the employment exchange within a certain number of days the engagement of any workers, and we may add to this suggestion that equally the dismissal of employees might also well be notified.

The Younger Generation.

At a time when the unemployment of the youth of the nation is a cause of anxiety, we may note that the report on this question suggests that jurisdiction over juveniles should not be divorced from the general scheme of unemployment machinery, and it appears to consider that the present conflict of jurisdiction between the education authorities and the employment exchanges has an injurious influence on the efficiency of the exchanges.

Amalgamation of Social Services.

In conclusion the report deals with a suggestion that Unemployment Insurance might be amalgamated with one or more of the social services, but it points out that Unemployment Insurance is not so related either in principle or in substance to Health Insurance, Workmen's Compensation, or Old Age Pensions as to make an amalgamation desirable, but what is really needed is such co-ordination between Unemployed Insurance and Poor Law Relief as will prevent overlapping and confusion, and will ensure that both thrift and charitable aid are preserved as part of the general scheme.

This is only a very brief summary of some of the points raised in this very instructive report, but it will suffice to show it is well worthy of very careful consideration at this time when unemployment is to be one of the chief questions dealt with by the Government.

SOUTH WALES BUILDING TRADES FEDERATION.

The annual dinner of the South Wales (Regional) Federation of Building Trades' Employers was held at Cardiff recently. Mr. T. J. Chorley, the newly-elected president, was in the chair, supported by the Lord Mayor of Cardiff (Ald. S. Jenkins) and Messrs. W. H. Nicholls (president of the National Federation), W. J. Nash, Ivor P. Jones, W. S. Purcheon, W. Douglass May, S. E. Clutterbuck, D. Pugh Jones, G. A. Phillips, F. C. Swash, A. Bennett, C. S. Thomas, and Principal Charles Coles.

"The City and Trade of Cardiff" was proposed by Mr. W. E. Goodridge (Neath) and responded to by the Lord Mayor of Cardiff.

Mr. C. S. Thomas proposed the "National Federation of Building Trades' Employers," to which Mr. W. H. Nicholls responded.

Mr. Nicholls said that whilst the trade recognised the acute scarcity of skilled craftsmen that existed, it found it a difficult matter to decide whence this labour was to be obtained. The necessary number of apprentices would not be able to be trained until there was stability in the industry. The whole trouble lay in the non-stability of the industry. The Federation was working to bring about stabilised conditions, for unless skilled craftsmen were produced in large numbers the building industry must go under. On the shoulders of the builders rested the responsibility for their production. Some of them had misgivings when the Government change came about, but it was only fair to say that these had been tempered by the wisdom that the Government had shown in approaching the problems with which it was faced. Everyone would admire the tact shown and he asked the builders to approach the problem with sympathy and not in a spirit of interference.

The Government, continued Mr. Nicholls, realised they could not give the opportunity to industry to go forward without the aid of the builders. The Government intention was to provide houses, and they could not do so unless the builders helped them. Would they help or hinder? He addressed his appeal equally to both sides, and that meant placing on the shoulders of the operatives and the employers the responsibility of the present housing position. The building trade could not go forward without increased personnel. He saw in the newspapers that they were asked for 200,000 houses, and they could take it that for every house required per annum the additional men required to be employed would be equal to that number, and that 200,000 houses would mean that 200,000 additional men would be required. By reason of many years of hard work and organisation the trade unions were in a position to hold a monopoly and they did not desire to give up that monopoly unless their members were protected. They were afraid of the menace of unemployment. The present problem, he continued, would require sincerity and determination to overcome it. They wanted bricklayers, plasterers, painters, carpenters and plumbers, &c. If it was solved it would greatly relieve the unemployment position and result in demand for increased coal and every material used in building and be of advantage generally to the country. If labour took the opportunity presented to raise the prices of labour because of their monopoly houses could not be obtained, and he appealed to wise labour leaders to stay their hand for the present, and appealed to employers knowing the need of the country not to create corners or form rings, but to jointly make every effort to solve the present building problem.

MODERN BUILDERS' MACHINERY.

By STAFFORD RANSOME.

No. V.—THE SCOPE AND LIMITATIONS OF THE "GENERAL JOINER."

The "General Joiner" is not always the first machine that a builder puts down, although such is very often the case. It must, however, be given precedence over the individual machines, not because it is better than they, for in no circumstances can it be as good, but because it claims to be a complete small builder's plant in itself. In a measure, except for curve sawing, it may be said to justify that claim, but it should be clearly understood that the best general joiner ever made cannot possibly be as efficient or as convenient to work as are separate machines. There is another reason why we must give the joiner the first place in describing builders' plant, and that is because the builder has made this versatile tool essentially his own. It is he who is the purchaser of nine-tenths of those that are made and, although sometimes he has been ill-advised to put one down at all, even in the very early days, he often develops such an unshakeable affection for it that he clings to it long after he ought to have discarded it in favour of individual machines

Devotion to the "Joiner."

I remember one very accentuated case of such staunch devotion to the general joiner. This was a builder who began with one of these machines when he was in a small way, and, as he grew larger, he kept on adding others until he had quite a large saw-mill full of them. If I remember rightly there were more than a dozen in the same mill. In vain I endeavoured to persuade him to throw them out and adopt a much smaller plant of efficient individual machines for the different operations. He could have done twice the work with two-thirds of the horse power, with far less labour and with an immense saving in floor space. For many years he went on with that policy. He went on—and prospered. His business, as he very truly stated, "had been built up on the general joiner," but it would have been built up far more rapidly had he adopted more efficient machines after the joiner had given him his start.

There are distinct "fashions" in wood-working machinery just as there are in hats. The frame saw, which for a long time was virtually killed in America by the band mill, has suddenly come to life again. The chain mortiser, which gained but little favour for twenty years after its invention, is all the rage to-day. But, no matter what changes in fashion may occur, nothing seems to kill the general joiner, just as nothing kills altogether the top hat. Both are admittedly clumsy and technically unsound, but still they are with us and cannot be ignored. Further than this, they are made as a regular line and in fairly large quantities by several of the best known British manufacturers, and are bought by men who presumably know what they want and who find them profitable.

The Inception of the "Joiner."

It is a curious fact that, although the general joiner has for nearly seventy years had a highly prosperous life in Britain, it has never been taken up on any very large scale by the makers in other countries. Literally hundreds of different designs of general joiners have been put upon the market since Samuel Worssam & Co. brought out the first successful one in 1858, and they have been called "general," "complete," "universal," and all sorts of other "joiners" or "wood-workers" or "carpenters." Some of them have been a mere jumble of complicated mechanisms, awkwardly fitted to one ungainly central casting. Some are little more than a saw bench with an elongated spindle to take a cutter-block for planing and beyond that a slot-mortising arrangement, and possibly a vertical spindle for curved mouldings.

The Popular Type.

It is the joiner of this latter type which has survived and remains popular to-day as the simpler the design the more practically useful the machine will be, for the simpler machines are less inefficient and less inconvenient to work and adjust than the others.

Let us briefly run through the genesis of the joiner. All the earlier joiners were evolved primarily out of a plain saw bench, and they owe their inception to a desire to make a saw do more than it is legitimately entitled to do. Now, on a saw bench with a rising and falling table you can not only do any sort of ripping, flatting and cross-cutting, but you can also cut tenons, tongues, grooves, etc., and, at a pinch, if the spindle runs sufficiently fast, ordinary mouldings to a limited extent. But the man who has a saw bench as his first machine, especially if he is a builder, requires to do boring and mortising as well as tenons. So the saw spindle is prolonged and a slot mortising, or routing, tool is placed in it and a bracket with the necessary adjustments is added to complete this mortising apparatus. This is the first step towards the general joiner. So far no harm has been done, as the speed of the spindle may be arranged to suit both the saw and the routing tool, and both can be used independently of each other or simultaneously by two men working one on each side of the machine. They do not interfere with each other in any way except that one may want to change the saw or the routing tool when the other would be getting on with his work. So even here there may be a certain loss of time.

A Makeshift Mortiser.

We must, however, bear in mind that as a general rule a builder does not want to do slot mortises, *i.e.*, mortises with rounded ends. Thus this slot mortising attachment, though it saves a good deal of hand labour, is far less efficient than a suitable independent mortising machine of a better type. As a matter of fact, there are three types of mortising machines, any one of which would be better for his purpose than the slot mortiser; notably the chain, the hollow chisel, and the reciprocating chisel machines. Thus, with the general joiner the user possesses, first of all, an efficient saw bench and boring machine and a comparatively inefficient mortising machine. It is, however, when we go in for further elaboration, when we introduce planing into the system of the joiner, that efficiency begins to run down rapidly.

The Planing Section.

The simplest way of effecting the introduction of the planer is to prolong the saw spindle still further, so that between the sawing and mortising ends of the spindle we can place a long cutter block. Whether that block is destined to be used as a hand feed planer, a panel planer, or an over-and-under planer depends on the design of the joiner. But, whichever it may be, the necessary structure is built up under it to fit it for the purpose, and this is done virtually as would be the case if the planing were to be done on a separate machine.

There are two very weak factors in this arrangement. The first is that when sawing and planing are done on one spindle the spindle must either run much too fast for the saw or much too slow for the planer. A compromise between the two renders both inefficient. If this point is overcome by a provision for varying the speed of the spindle to suit either the one or the other then the two cannot be worked simultaneously. The other bad feature is the inconvenience of the position of the planer, sandwiched in between the saw and the mortising attachment. Both from the point of view of working it and for adjusting the cutters this is bad. When the planing section is built on the hand-feed planer principle, as is most often the case in the more popular joiners of to-day, it is impossible for the man to stand in the most effective position for doing his work, which, as a rule, should be close to the spindle near the centre of one side of the table.

Four Side Planing.

When the planing section is arranged on the four-spindle principle the best that can be said of it is that it may do good work, but with great loss of time and inconvenience and at very moderate speeds. It is very difficult to fit such a planer with appliances for "tracking" the cutters on all its spindles, so anything in the way of high-speed planing is out of the question. It is also impossible to remove the under spindle for replacing the cutters, and so much time is lost.

Reverting to the simpler type of joiner, that with one spindle for sawing, planing and mortising, the difficulty of spindle speed is sometimes overcome by having two spindles, one for the sawing and the other for the planing and mortising sections. When such is the case the difficulty as to speeds is overcome, but it virtually means that there are two complete machines on the one bed plate, and it would be far better and more effective if they were totally independent so that they could be more conveniently placed and worked.

The Vertical Spindle.

The crowning feature of the general joiner is the addition of a vertical spindle for irregular and other mouldings. This projects upwards usually through the saw table, but in some designs through the planing table. In either case, although it may answer its purpose, it is purely an inconvenient makeshift, as neither of the tables is shaped ideally for the purpose, and the utilisation of the vertical spindle must throw out of use either the saw or the planer, as the case may be, for the time being. When joiners possess this vertical spindle it is usual to transfer the tenoning from the saw spindle to the vertical one. On this spindle dovetails also can be cut. This is a better arrangement, still it is not to be compared for efficiency with a proper tenoning machine.

The Functions Enumerated.

To catalogue the different work that can be done on a general joiner gives us a formidable list of capabilities. It is usually claimed for it, and perfectly truly, that, except for curve cutting, it will do any ordinary sawing which is required by the builder up to possibly 12 in. deep, also flatting and edging. It will cross-cut material up to perhaps 6 or 8 in. deep, and do mitre cutting. It will also cut any sort of groove or tongue and also do rebating, beading, and chamfering. In planing, it will either surface only, or both surface and thickness, or plane all four sides simultaneously, according to the design of the machine, up to possibly 12 by 4, and it will do all sorts of mouldings, straight and curvilinear. It will do single and double tenons, either rectangular or diagonal. It will bore holes of any diameter up to, say, 2 in., and mortise to any ordinary lengths up to 2 in. wide, and it will dovetail and do a variety of odd jobs. Thus the joiner is by far the most versatile of any wood-working machine, and it is ingenious to the last degree. It is its great versatility which makes so strong an appeal to the beginner, just as the many-bladed knife with a corkscrew, gimlet, punch, tweezers, scissors, and a file, inconveniently placed as they are, appeals to the schoolboy.

As a Pioneer Machine.

The joiner is not a bad machine for the novice to cut his mechanical wisdom teeth on, for when he has mastered all its adjustments and intricacies, he will be able to work perfectly easily virtually any other machine in a builder's shop. It is a good machine in an odd job shop where there is no more work than will keep one skilled machinist fully em-

ployed, because, although a single machinist would get through far more work by going from one machine to another with separate machines, there is a certain saving of space in employing a general joiner instead of separate machines.

There is not, however, much saving in effective space, because the individual machines can be so adjusted as to permit of every facility in the way of handling the material to the best advantage and ensuring that uninterrupted even passage of the planks from machine to machine without which an immense amount of time and labour is wasted. Thus the extra space required by the separate machines is actually a valuable asset. With a general joiner it is impossible to attain anything like the ideal in this respect because the material is presented to it on various sides, and there is, of necessity, a littering of material in different stages of completion around the machine, while waiting for further operations to be carried out.

For Estate Work.

The natural home of the general joiner is on an estate where the work is desultory and very mixed, where a five-barred gate has to be made to-day, some fencing to-morrow, and on another day a cowshed or a barn-door or some internal repairs for the house, where local timber is used, and a single all-round handy-man mechanic is employed. There its versatility is of great advantage, as it may also be in a very small builder's shop. In the latter, however, its slowness tells against it for it is impossible to hustle the general joiner. The number of operations that can be carried on simultaneously is naturally limited, and, were it not so, the operatives would often be in each other's way, and they could not work to advantage. It is quite possible, and it is usually the case, that most of the processes on a joiner can be performed individually in as short a time as would be required on the separate machines, but the day's output as a rule is much below the other method on account of the inconvenience in operating and the frequent readjustments.

For Temporary Work.

The general joiner had one great advantage over the separate machines when, for instance, it was a question of a temporary job, and it was undesirable to go to the expense of line shafting and other transmissions. In such a case a general joiner was easily fixed and, except for its countershaft, which was bolted to the floor, was self-contained. One foundation or, if the floor was good, no foundation, did for the lot, and the whole was driven by a belt to the countershaft from a portable engine or any other motive power that was handy.

I have used the past tense in the above paragraph although these conditions hold good to-day in cases where no electrical current is available for driving the machines. These occasions, however, are less frequent than they used to be owing to the increasing prevalence of electrical current for power purposes.

Electricity and The Joiner.

When current is available there is but little excuse for using a complicated combination machine of the joiner type for, although the countershaft of the joiner can be as easily driven by a motor as by an engine, we can with electricity do away with everything, or nearly everything in the way of countershafting, as explained in a previous article. The power consumption, too, will be much reduced for a given output. These advantages, coupled with that of facility in working and handling material, put the joiner out of court, in my opinion, when electrical current is available. We must bear in mind, too, that, although the price of a general joiner may be somewhat less than that of the several machines, the total cost of a joiner, plus the motive power, unless electricity is used, will be far more than that of the separate machines plus their motors.

The Separate Machines.

And what are the separate machines that would be required to do the work that the general joiner can do? In spite of the long catalogue of the joiner's capabilities, these machines are not many or formidable. They are:—(1) A saw bench with rising and falling table and boring and mortising attachment. (2) A vertical spindle moulder with tenoning and dovetailing attachment; and (3) one or other of the following planing machines, according to the design of the joiner. (*a*) A hand-feed planer, (*b*) a panel planer, (*c*) an over-and-under planer or (*d*) a 4-cutter planer. The above machines would do all that a general joiner can do and in precisely the same manner, but much more conveniently and as a rule more rapidly. They are not, however, in each case what I would recommend as substitutes for the joiner, because both the mortising and the tenoning as carried out on a general joiner are merely makeshifts and are not the best thing for builders' work. Thus, I should knock out the mortising apparatus attached to the saw bench and the tenoning apparatus from the vertical spindle machine and adopt a proper mortising machine and a tenoning machine according to approved lines, unless my output were very small.

A Useful Tool.

In spite of the many undoubted shortcomings of the general joiner, when compared with the separate machines, it has not been my wish to suggest that it is in any sense of the word a worthless machine. There are many extremely well made joiners in which the designs have been simplified as far as is humanly possible, and it is a notable fact, as already stated, that the joiners which meet with a sale to-day are nearly all of the simplest types, a combination of the saw, the hand feed planer, the slot mortiser, and the vertical spindle moulder. The complicated and fearsome structures that once were popular, some of which even embodied a band saw in their composition, are largely things of the past, and to-day it is generally recognised that to attempt to embody a four-cutter planer in a composite machine of the "joiner" class is a great mistake. The small builder who is bent on starting with a general joiner will undoubtedly find a well-made and properly designed machine of the simpler type a very valuable assistant to his hand labour, reducing his cost immensely and enabling him to do all sorts of operations that are essential to his work. And it will do them well though not as economically as would be the case with separate machines.

A Useful Experience.

By all means let such a man, if he wishes to put down a joiner for his early tentative steps do so. It will, if nothing else, be a useful experience for him as already explained. But let him look upon his joiner purely as a means to an end, a stepping stone to something better, and let him look forward to the day when he can discard it for something more efficient. That day will announce itself very clearly when he finds that his work has increased to such an extent that it irks him not to be able to carry on all or several of the operations simultaneously. Then let him take his courage in both hands and put down separate machines. He may possibly keep his general joiner as a standby, but he must not make the mistake of doubling his output by putting down a second joiner in the same shop. That would be fatal, for he would then merely have two relatively inefficient machines instead of one. A single plant of separate machines, with a man at each, would probably give him a bigger output for less labour and horse power than would three or four general joiners.

McGill University.

McGill University, Montreal (Department of Architecture), has been recognised as a school by the Royal Institute of British Architects. This recognition has only been granted to three other architectural schools outside Great Britain.

NORTHAMPTON MASTER BUILDERS' ASSOCIATION

The annual dinner of the Northampton Master Builders' Association was held at Northampton, on February 8. The President (Mr. Charles A. Sharman) was in the chair, and he was supported by Mr. H. E. Archer (Vice-President), and Mr. A. L. Airs (Secretary).

Replying to the toast of The Corporation, proposed by Mr. J. F. Stops, the Mayor of Northampton said they had all felt the urgent need for houses, and it had caused great uneasiness and concern, for no matter how they tried, or what expedients the Government had introduced, the houses had not been built as quickly as required. He was not uttering any complaints to the Association. His experience on the Housing Committee had been most depressing. When they thought they were getting on and had the shells of the houses up they found they could not finish them owing to the lack of plasterers. Whatever their politics he was sure all present hoped the efforts of the new Minister of Health to provide houses for the working classes at a reasonable price would be successful. They had had enough of £1,000 houses. He hoped those present would look at the question of housing not only from the point of view of their business, but also as a public duty resting on them to help to solve the problem of the provision of houses.

In proposing "Success to the Northampton Master Builders' Association," Mr. Hewitt said that as employers the builders had always welcomed dilution, but the Government had let them down. If the Government had seen them through there would undoubtedly have been dilution. As things were it was impossible for a bricklayer's labourer to be anything else but a labourer, owing to trade union law. He suggested they should build twenty houses to the acre in the form of rows. Why did they want cake when they could not get bread?

Other toasts were proposed by Mr. F. W. Smith, Councillor J. J. Martin and Mr. W. W. Webster.

EXPANSION OF BUILDING & CONSTRUCTION IN INDIA.

(From a Special Correspondent.)

Indian Topics.

The Burma Government Retrenchment Committee recommend, *inter alia*, a periodical examination of Civil Secretariat Procedure, and for the Chief Engineer of Public Works Department to place orders direct with firms in England, &c.

The Madras Fine Arts Society, Madras, will hold the Annual Exhibition, February 23–March 2, 1924.

The Government Glue Factory, Washermanpet, Madras, contemplate experiments by applying liquid glue in the laying of tarred macadam roads.

The Local Builder.—Well-known English builders and contractors, with branches in Bombay and Madras, have agencies for London sanitary appliances, English incandescent oil lamps, Scotch oils and paints, Sheffield steel, London leather belting, London drain-cleaning appliances, English wire ropes, hydraulic plant, &c.

Mechanical Appliances. — The Bombay Government has decided to extend the use of mechanical appliances with a view to increasing production and saving human and animal labour. Machinery must be adapted to local conditions.

Local Activity.—English electric lifts are being distributed from Calcutta, Bombay and Delhi. English stone-breakers are in request. English wire fencing, 40 in. and 48 in. high, at Delhi, Bombay, and Calcutta. Portable saw outfits.

Indian Projects.—Hyderabad has vast development schemes. The City Improvement Board is active with cleansing, clearing slums, sanitation, road widening, &c.

APPRENTICESHIP IN THE LONDON BUILDING TRADE.

Mr. Ernest Lesser (Chairman of the London Building Trades Apprenticeship Committee) writes:—

Sir,—Mr. Shaw, in his reply to Mr. Somerville, is substantially right, so far at any rate as the London area is concerned, in suggesting that the present serious shortage of apprentices in the building trade is not due to any restrictions imposed by the craft unions.

It is undoubtedly the fact that neither the relevant provisions of the present working rules agreement governing the London area, nor the rules of individual unions, can be held responsible for more than a small fraction of the shortage.

The working rules agreement now in force provides as follows: "No employer shall engage any additional apprentices to each trade whilst the number of his apprentices should exceed one-seventh of the number of journeymen then employed by him, with a maximum of eight in each trade, unless otherwise decided by the London Apprenticeship Committee, and all such apprentices shall be legally bound."

It is true that the imposition of a maximum limit for individual firms, irrespective of the number of journeymen employed, may operate, in the case of the large firms, to restrict unduly the number of apprentices in a particular craft. But, even making allowance for this, it is notorious that the majority of London master builders have not taken anything like the number of apprentices permitted by the agreement and the Trade Union rules.

The aggregate of London building trade apprentices should run into some thousands. Although it is difficult to obtain reliable figures, I am probably not far wrong in estimating the actual total number at a figure in the neighbourhood of one thousand.

I am, of course, now dealing only with apprentices, *i.e.*, lads, whether strictly indentured or not, who are receiving a systematic and progressive course of training spread over a term of years.

As regards the real causes of the present grave shortage of apprentices, your columns have of late had several letters on the subject, and Mr. Bennett's, in particular, was a very valuable contribution. I hesitate, therefore, to encroach on your space in order to go over the ground again in any detail. It seems to me that the main operative causes may be briefly summarised as follows:—

(1) The facility with which the London employer has until recently been able to recruit trained journeymen from the provinces. As a result of the tendency for provincial rates of pay to approximate more and more to those of London the constant drift of provincial craftsmen to London has now largely ceased, and many master builders are now for the first time faced with the necessity of finding skilled craftsmen in some other and less easy way.

(2) The shortening of the working day, coupled with a speeding up of work generally, tends to make both masters and foremen grudge the time required for the instruction of lads. And they are naturally still more reluctant to allow the apprentice time off to attend technical classes.

(3) Owing to the fluctuating state of the trade the smaller builder hesitates to indenture lads, with the attendant liabilities, for fear of not being able to perform his covenants adequately.

(4) Many employers are hostile to the whole system of apprenticeship and the responsibilities involved. They prefer to be able to take on and dismiss lads as and when they please.

(5) It is more difficult since the war to induce lads to become indentured, partly because of the length of the term and the resulting restraint on their freedom of movement, and partly because they can now earn in an unskilled or semi-skilled trade almost as good wages—and that at a much earlier date—as in a skilled trade. The remedy for this would appear to lie in a shortening of the term of apprenticeship and the reduction of the rates paid to juvenile unskilled labour.

(6) The present curriculum of the average elementary school is calculated to give a bias in favour of clerical work. In so far as it may tend to prepare a lad for entering the building trade it would be only for the woodworking branches.

(7) The seasonal and fluctuating nature of much of the work and the general lack of amenities naturally operate to deter many intelligent lads—not to speak of their parents.

ESTIMATING.

We have received the following from Mr. T. Sumner Smith:—

Sir,—Judging by "W. S.'s" letter in your issue of the 8th inst., it would seem that he had been placed at a disadvantage in not having recourse to my tables when reading my paper. In arriving at the cost of a yard cube of concrete he proceeds, up to a point, precisely in the same way as outlined in my paper—by the ascertainment of the weight of the materials for a given volume. From that point we part company.

He apparently takes his arbitrary mix, namely, 4 parts broken granite, 2 parts sand, and 1 part cement, then proceeds to ascertain what the sum of these parts (4+2+1=7) by volume in cub. ft. after mixing with water will produce in volume of finished concrete, and he says 7 cub. ft. of materials plus water used in mixing will produce 4 2-3 cub. ft. This, he says, will vary with the different materials used, which, I presume, he means will vary according to the size and grading of the aggregate, and the fineness or otherwise of the sand.

It will be obvious, seeing that his 7 cub. ft. of materials plus water plus entrained air produce only 4 2-3 cub. ft. of finished concrete, that the sand goes to fill the voids or spaces in the 4 cub. ft. of his aggregate, and the cement goes to fill the voids or spaces in the sand, which, together with the water used in the mix and the entrained air give 2-3 cub. ft. in excess of the aggregate. Whatever be the amount of water he used in the mix, and whether this combined chemically with the cement or remained a separate entity, and whatever were the spaces of the entrained air, we may, as he says it was thoroughly rammed, conclude that he obtained a compact mass. We derive from this the quantities of his solid materials used in a cub. yard of finished concrete. Thus, for aggregate, by dividing 27 by 4 2-3 and multiplying the quotient by 4; for sand, by dividing 27 by 4 2-3 and multiplying the quotient by 2; and for cement, by dividing 27 by 4 2-3. This gives the following results:—

Aggregate	..	23.14	cub. ft. per cub. yd.
Sand	..	11.57	,, ,,
Cement	..	5.78	,, ,,
Total	..	40.49	

We will assume his weights of materials by volume to be as follows:—

Aggregate per cub. ft.	..	85 lbs.
Sand ,,	..	95 lbs.
Cement ,,	..	90 lbs.

And these, multiplied by the number of cub. ft. respectively in each case that it takes to make a cub. yd. of concrete, will give the weight of each kind of material for a finished cub. yard of concrete, and then these priced at the rate value of each will give the cost of the materials, thus:—

Aggregate $85 \times 23.14 = 17.5$ cwts., at .. £
Sand, $95 \times 11.57 = 9.8$ cwts., at ..
(Or if sand is bought per yard cube, then
$\frac{11.57}{27} = .436$ cub. yards at) ..
Cement, $90 \times 5.78 = 4.64$ cwts., at ..

Cost of materials per cub. yard .. £

I have taken this example of "W. S.," and dealt with it at length with the hope that it may be of service to him as well as to others, and I think "W. S." will agree that it is a much simpler, more accurate, more reliable, and a far better method of arriving at the cost than that given by him; and, further, that it is not necessary to evolve a formula in cwts. of materials, as the same may be obtained by direct calculation as I have shown.

"W. S." would seem to have a grievance against me because after having read extracts of my paper, it had not added to his knowledge. However, be that as it may, I suggest that if he does not prefer to obtain the quantities of materials by the scientific method I enumerated, based upon the ascertainment of the density of materials, he should use in future my formula for arriving at the approximate quantities of materials it takes to make a cub. yard of cement concrete, when ordinary average crushed aggregate is used and the cement is expressed as one part. Taking his proportions 4 : 2 : 1, he could "cut out" his tests, which result in waste, avoid his cumbersome calculations, and yet obtain practically the same result within 10 seconds, thus:—

Aggregate	..	..	23.88
Sand	..	..	11.94
Cement	..	..	5.97
Total	..	..	41.79

And then obtain the cost in the manner I have shown.

I am grateful to "W. S." for his example, as it affords a comparison with my formula for approximate quantities.

With your permission, Sir, I will now state this rule, as the same was omitted in your extracts.

The simplest rule for ascertaining the approximate quantities of materials for a cubic yard of cement concrete is obtained by dividing the constant 41.8 by the sum of the parts of all the ingredients (when the cement is expressed as one part) and the quotient will be the number of cubic feet of cement for one cubic yard of concrete; for sand, multiply the quotient by the number of parts of sand, which will give the number of cubic feet of sand for one cubic yard of concrete, and for aggregate multiply the quotient by the number of parts of the aggregate, which will give the number of cubic feet of aggregate for one cubic yard of concrete.

Let C = one part cement.
Let S = number of parts of sand.
Let A = number of parts of aggregate.
And taking "W. S.'s" proportions, 4 : 2 : 1, then,

$$\frac{41.8}{C+S+A} = \frac{41.8}{7} = 5.97 \text{ cement.}$$

$C \times S = 5.97 \times 2 = 11.94$ sand.
$C \times Ag. = 5.97 \times 4 = 23.88$ aggregate.

In using this rule, about 5 per cent. should be added to all the materials when the coarse material is screened to uniform size, as it contains less solid matter in a given volume than an average size. When the coarse material contains a large variety of sizes, as to be quite dense, about 5 per cent. may be deducted from all the quantities.

This rule gives results for all practical purposes to within 5 per cent. either way.

But if we desire, among other things, to find the proper proportions of mix for concrete in relation to its strength, costs and compactness, then the only way is by the ascertainment of the density of the materials.

With reference to "W. S.'s" point regarding payment for water at a rate fixed by the amount of the contract and not by the gallon, this is only another way (a rough-and-ready way) of estimating the amount likely to be consumed and whose price has been based upon its measure by the gallon. One might just as well argue that because the Scotchman buys his "food" by the bottle, it has no relation to measure.

Builders' Estates.

Mr. Robert Price, Abergavenny, builder, left estate of gross £8,732, net personalty £4,989.

Mr. Alfred Davis, of Hill Crest, Burnopfield, Durham, builder (net personalty £2,762), £6,481.

Mr. Frederick Stanley Webb, of Broad-street, Wells, Somerset, builder (net personalty £4,293), £6,438.

THE ROMANCE OF BUILDING THROUGHOUT THE AGES.—III.

IN his third lecture* to the junior members of the Amalgamated Society of Woodworkers, at Liverpool, Mr. George W. Thompson dealt with Greece from the eighth century B.C. to the second century B.C.

Greece, he said, was surrounded on three sides by the sea, and there were many natural

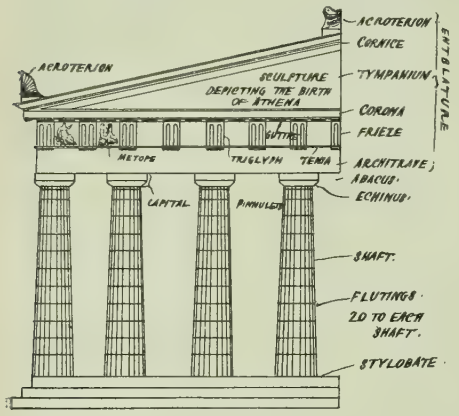


FIG. 1.

harbours. Commerce was, therefore, capable of being easily developed.

The principal building material in Greece was marble, the most monumental stone in existence, and one which enabled purity of line and refined detail to be secured. Crude bricks were also used for building; these were often coated with

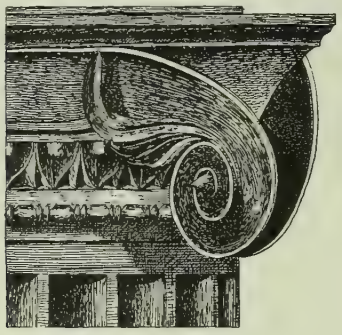


FIG. 2.

a cement made of marble dust and lime. The country contained rich deposits of iron, copper, and silver.

Hot suns and heavy rains prevailed in Greece, and these factors might account for the porticoes which formed a feature of the temples. The climate was not rigorous, as in the north, nor



FIG. 4.

relaxing as in the east and certain southern countries, and that might, in a high degree, be responsible for the unique qualities of ancient Greeks.

The Greek religion was largely a worship of natural phenomena, the gods being personifications of nature. It was of interest to note that both men and women officiated in the temples.

The national games of the Greeks and their religious festivals united them in reverence for their religion, and gave them that love for music, the drama and the fine arts, and that participation in manly sports and contests, for which they were so distinguished. National joy, caused by the defeats of the Persians, was largely responsible for the fact that all the



FIG. 3.

important temples now found in Greece were built in the fifty years which succeeded the battle of Salamis. The rule of Pericles (444–429 B.C.), known as the "Golden Age," marked the climax of Athenian prosperity.

The Greeks built in the trabeated style (*trabs*=beam); that was to say, their buildings looked at from a mechanic's viewpoint, consisted of arrangements of columns supporting beams. The arcuated style, a combination of beam and arch, was practised later by the Romans. Mortar was not used, the beds of adjacent blocks of marble being made to fit perfectly and in close contact. The blocks were connected by means of metal cramps. Greek buildings possessed the qualities of harmony, simplicity, and unity because of the accuracy of their proportions, their truthful and undisguised construction, and the employment of uniform constructive principles. The long lines in pediments, columns and architraves, which, if built straight in reality, would appear to bulge or droop in the middle of their length, were formed with convex lines. Colour and gilding were used by Greeks, and some of the remains still showed traces of colour.

The Greeks developed the orders of architecture, the Doric, the Ionic, and the Corinthian being used by them. An "order" consisted of the column, including base and capital, and the part supported called the entablature. The entablature was composed of architrave, or lowest member; the frieze, or middle member; and the cornice, or uppermost member. The sequence of the "orders" was well expressed by Thomson in the following lines:—

"First, unadorned,
And nobly plain, the manly Doric rose;
The Ionic, then, with decent matron grace,
Her airy pillar heaved; luxuriant last,
The rich Corinthian spread her wanton wreath."

The Doric Order was the oldest, plainest, and most sturdy. It was thought to be derived from wooden built structures, but many authorities rejected this theory. The column had no base, and a circular shaft diminishing towards the top, with about twenty shallow flutes divided by sharp arrises. The shaft was given an outward curvature, called "entasis," which corrected the hollow appearance of straight-sided columns. The capital was composed of abacus, echinus, and annulets. The architrave had one face, and was separated from the frieze by a flat moulding called tenia, and underneath this at intervals was a narrow band called the regula, having six guttae. The frieze had triglyphs ornamented with channels and metopes, or square spaces between them, which were often filled with sculpture. The cornice had an upper part of cymatium and bird's beak mouldings beneath which was the vertical face called the

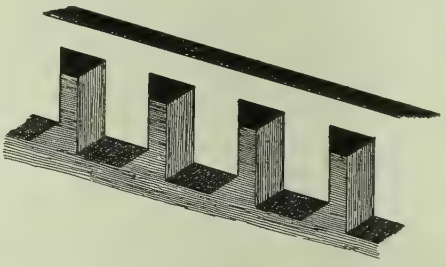


FIG. 5.



FIG. 6.



FIG. 7.

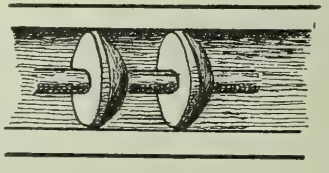


FIG. 8.

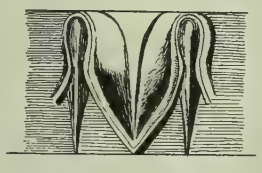


FIG. 9.



FIG. 10.

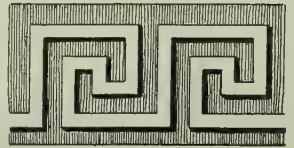


FIG. 11.



FIG. 12.

* The first of this series of lectures was given in our issue for February 1 and the second on February 15.

corona. The soffit of the cornice had flat projecting blocks called mutules. The Parthenon was the finest Doric example.

The Ionic order was remarkable for the scroll or volute capital, which might be derived from the spiral as found in the ram's horn, snail or other shell. The shafts of columns were fluted, but the flutes were separated by fillets and not by arrises. The base was moulded with torus and scotia. The capital had a pair of volutes separated by a cushion, which was sometimes plain and sometimes echinus carved with egg and dart, and a bead under. The Erechtheum (420–393 B.C.) was a fine example of the Ionic order.

The Corinthian Order was more ornate than Ionic and only little used by the Greeks. The base and shaft of the column resembled Ionic. The capital was of acanthus leaves, from which sprang volutes supporting angles of abacus. Small central volutes supported the foliated central ornament. The abacus was curved in plan on each face. The Temple of Jupiter at Athens was a good example of Grecian Corinthian.

The Grecian Doric order possessed no base. An order consisted of the column and entablature, which when subdivided into their component parts gave cornice, pediment, frieze, and architrave; these forming the entablature. The column was divided into capital, shaft, and base. When there was no base the shaft rested upon the stylobate. The column of the Ionic order always rested upon a base.

The origin of the Corinthian capital was not known with certainty, but a legend told that Callimachus, of Corinth, a clever worker in bronze, was its author. It was said that he was impressed by the beauty and elegance of the leaves of an acanthus plant which he observed growing around a vase or a basket, and seizing upon the idea he made columns for the Corinthians with capitals in imitation of the growing plant and vase.

The contours of Greek buildings were never composed of arcs of circles, but of arcs of ellipses, parabolas, and hyperbolas. Refinement and delicacy were their chief characteristics, achieved by an almost continuous sunshine, a clear atmosphere, and the hard marble in which they were formed.

Fig. 1 is a half elevation of the portico of the Parthenon (Doric order); Fig. 2 is a column capital of the Ionic order; Fig. 3 is a half-elevation of a Corinthian capital; Fig. 4 is an example of the Greek acanthus leaf; Figs. 5 to 11 are examples of Greek ornament—Fig. 5, dentil; Fig. 6, pearl; Fig 7, fillet bead; Fig. 8, fillet; Fig. 9, leaf and dart; Fig. 10, fret; Fig. 11, key; Fig. 12 shows Greek mouldings.

RATING.

Mr. C. Dalgliesh, F.S.I., recently gave the first of three lectures on "Rating" at the College of Estate Management.

The lecturer dealt with the part of the subject with which surveyors were more nearly concerned—the ascertainment of gross and rateable values. He pointed out that, with one unimportant exception, all rateable values were the ascertainment of the reasonable expectation of letting value, and that a surveyor in making a valuation for rating purposes was expressing a trained expert opinion based on evidence. It was the skill, knowledge and experience of the surveyor which enabled him to decide what was material evidence, and what deductions he should make from it.

Mr. Dalgliesh then subjected the statutory definitions of value to critical examination, pointing out that it was basically important to bear in mind that, amongst the probable tenants for a property, must be included the tenant himself.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/6	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam.(Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/3½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 362).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

MARCH 1.—**Abersychan.**—HOUSES, &C.—For erecting for the Abersychan U.D.C., 54 dwelling-houses on the Manor-road site, and for construction of necessary roads and sewers. Mr. W. T. Springall, Co-operative Wholesale Society, Ltd., St. Mary-street, Cardiff.

MARCH 1.—**Builth.**—BRIDGE.—For widening and strengthening six-arch masonry bridge and approaches, for the Breconshire and Radnorshire County Councils. Mr. W. L. Harpur, County Surveyor, County Offices, Brecon. Deposit £2 2s.

MARCH 1.—**Cardiff.**—MORTUARY.—For erection of a mortuary at Ely Lodge Institution, for the Board of Guardians. Messrs. Willmott & Smith, architects, 4, Park-place, Cardiff. Deposit £2 2s.

MARCH 1.—**Denbigh.**—ALTERATIONS.—For alterations at Green Congregational Church, near Denbigh. Specifications at Voel Gaer, Fron, Denbigh.

MARCH 1.—**Llanharan (Glam).**—ALTERATIONS.—For alterations to the Llanharan Constitutional Club. Secretary at the Club.

MARCH 1.—**Lostwithiel.**—COTTAGES.—For the erection of four pairs of cottages, for the Lostwithiel Building Syndicate. Mr. E. Brown, Secretary, Pentillie, Lostwithiel.

MARCH 1.—**Romsey.**—HOUSE.—For building small house, at Whitenap, near Romsey. Mr. George Symes, Lond View, Winchester-road, Romsey.

MARCH 3—**Biggleswade.**—PUBLIC CONVENIENCE.—For erection of a semi-underground public convenience for U.D.C. Mr. H. Chaundler, Clerk to the Council, Biggleswade. Deposit £2 2s.

MARCH 3.—**Carlisle.**—DEMOLITIONS.—For the pulling down and removing of the whole of block of property situate in Rickergate and Drovers-lane for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle.

MARCH 3.—**Eastbourne.**—CHALET &C.—For the erection of a tea chalet and shelter at Holywell, for the C.B. Borough Engineer's Office, Town Hall, Eastbourne. Deposit £1 1s.

MARCH 3.—**Edinburgh.**—WASHHOUSE.—For the erection of public washhouses, Abbeymount, for the T.C. Mr. James A. Williamson, City Architect, City Chambers, Edinburgh.

MARCH 3.—**Erpingham.**—COTTAGES.—Erection of cottages in the following parishes:—Knapton 6, Northrepps 6, Gimingham 4, East Runton 2, for the R.D.C. Mr. A. R. Tuddenham, St. Peter's-road, Sheringham.

MARCH 3.—**Gateshead.**—PAINTING.—For painting works at the Poor Law Institution, for the Board of Guardians. Mr. George Craighill, Clerk, Offices, Gateshead.

MARCH 3.—**Hendon.**—HOUSES.—Erection of 44 houses and 8 flats at Kingsbury-road, West Hendon, for the U.D.C. Mr. A. O. Knight, A.M.I.C.E., Engineer to the Council, Town Hall, Hendon, N.W.4. Deposit £3 3s.

MARCH 3.—**London, S.W.1.**—DECORATIONS AND REPAIRS.—Painting internal woodwork, papering walls, whitening ceilings, &c., and repairs to four cottages, situated at the Council's western pumping station, Grosvenor-road, Pimlico, S.W.1, for the L.C.C. Chief Engineer, the Old County Hall, Spring Gardens, S.W.1. Deposit £1.

MARCH 3.—**Newcastle-on-Tyne.**—For Contract No. 2, in connection with banqueting hall and additional bedroom, Station Hotel, being all trades except steelwork, for the L. & N.E. Railway. Mr. Stephen Wilkinson, architect, North-Eastern Area, Newcastle-on-Tyne.

MARCH 3.—**Plymouth.**—Erection of 27 houses, containing 54 flats, at Prince Rock. Form of tender, copy of bills of quantities, block plan, may be obtained, and conditions of contract, plans, and specification seen at the office of the undersigned, on and after 19th inst. Tenders sealed and endorsed "Tenders for erection of flats, Prince Rock," together with all documents, &c., be delivered to Town Clerk, Municipal Offices, Plymouth, not later than 10 a.m. on March 3 next. A deposit of £2 2s. will be required to be refunded on receipt of bona fide tender and return of plan and all documents. The Council do not bind themselves to accept the lowest, or any, tender. Mr. J. Wibberley, Borough Engineer and Surveyor, Municipal Offices, Plymouth.

MARCH 3.—**St. Andrews.**—HOUSES.—Erection of 50 houses at St. Mary's-street site, for the T.C. Mr. Wm. Watson, Burgh Surveyor, Town Hall, St. Andrews. Deposit £1 1s.

MARCH 3.—**Sheffield.**—SUB-STATIONS.—Erection of (*a*) transformer sub-station in Greystones-road, and (*b*) transformer sub-station in Sheldon-road, for the T.C. Mr. S. E. Fedden, General Manager, Commercial-street, Sheffield. Deposit £1 1s. each contract.

MARCH 3.—**Truro.**—ALTERATIONS.—For proposed additions and alterations to Truro Wesleyan College Mr. A. J. Cornelius, architect, Truro.

MARCH 3.—**West Ham.**—PAINTING, &C.—For repairing and painting the exteriors of various schools for County Borough of West Ham Education Committee. Mr. John H. Jacques, Lic.R.I.B.A., architect, 61, West Ham-lane, Stratford, E.15. Deposit £1.

MARCH 4.—**Aldershot.**—HOUSES.—Erection of eight blocks of four houses, thirty-two in all, at Aldershot Park Housing Scheme No. 2, for the Borough of Aldershot. Borough Surveyor's Office, Municipal Buildings, Aldershot. Deposit £5.

MARCH 4.—**Barking.**—HOUSES.—Erection of about 59 houses on the Eastbury Estate, Ripple-road, Barking, for the Barking U.D.C. Council's Architect, Mr. C. J. Dawson, F.R.I.B.A., Clock House Chambers, East-street, Barking. Deposit £5.

MARCH 4.—**Batley.**—SCHOOL.—For erection of a Primary Sunday School at Purlwell Wesleyan Chapel. Messrs. Firth, Son & Blackburn, architects, 22, Wellington-road, Dewsbury.

MARCH 4.—**Halifax.**—HOUSES.—Erection of 48 houses in Nursery-lane, and 62 houses at Boothtown, for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £2 2s.

MARCH 4.—**Hornsey, N.6.**—BUILDING EXTENSION.—Erection of an extension to the Electricity Works, Hornsey, comprising new converter house, switch room, offices, &c., for the T.C. of the Borough of Hornsey. Mr. E. J. Lovegrove, Borough Engineer and Surveyor, Town Hall, Highgate, N.6, on any morning between 10 and 12 o'clock.

MARCH 4.—**Manchester.**—ALTERATIONS.—For alterations and supply of furniture to Children's Rooms at the Ancoats and Hulme Branch Libraries, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

MARCH 4.—**Poulton-le-Fylde.**—HOUSES.—For erection of 12 houses in pairs on the Big Field Housing Site, for U.D.C. Mr. E. Prescott, Surveyor, Council Offices, Poulton-le-Fylde. Deposit £1 1s.

MARCH 4.—**Shoeburyness.**—COTTAGES.—Erection of a pair of semi-detached cottages at gasworks, for the U.D.C. Mr. E. Read, Offices, High-street, Shoeburyness.

MARCH 4.—**Wombwell.**—FLOORS.—Construction and erection of movable floors over the swimming ponds at the Public Baths, for the U.D.C. Surveyor, Town Hall, Wombwell. Deposit £1 1s.

MARCH 4.—**Woolwich.**—WAR DEPT. CONTRACT FOR REPAIRS AND MATERIALS.—For Artificers' Works Contract from April 1, 1924, for 1st and 2nd Divisions in Woolwich R.E. District, Commanding Royal Engineer, Woolwich District, Royal Engineer Office, New-road, Woolwich, S.E. 18.

MARCH 5.—**Blackrock.**—LAVATORY.—For the erection of a public lavatory at Booterstown, for the U.D.C. Surveyor, Town Hall, Blackrock.

MARCH 5.—**Bletchley.**—COTTAGES.—For the erection of 20 cottages in Western-road, for the U.D.C. Mr. John Chadwick, architect, Bletchley, Bucks. Deposit £2 2s.

MARCH 5.—**Hindley.** — PUBLIC ELEMENTARY SCHOOL.—Architects and surveyors are invited to submit terms for the preparation of plans, specifications, quantities, &c., for the erection of a public elementary school (approximate accommodation, 450) at Hindley Green. Mr. I. C. Pharaoh, Secretary for Education, Education Dept., Council Offices, Hindley, endorsed "Architect."

MARCH 5.—**Hove.**—JOBBING WORK.—For steel masonry and jobbing work for one year, for the T.C. Mr. H. H. Scott, Borough Surveyor, Hove.

MARCH 5.—**London, S.E.**—FLAG STAFF.—Provision and fixing of a new 40 ft. flag staff complete at the Chief Station of the London Fire Brigade, Southwark Bridge-road, S.E., for the L.C.C. Architect, County Hall (Room No. 3), Westminster Bridge, S.E. 1.

MARCH 5.—**Manchester.**—REFLOORING.—For reflooring with wood blocks portion of Ward No. 5 of the Baguley Sanatorium, Baguley, for the T.C. Housing Department, Civic-buildings, 1, Mount-street, Manchester. Deposit 10s. 6d.

MARCH 5.—**Salford.**—OLD PEOPLE'S HOMES.—Erection of old people's homes at Hope, Pendleton, near Manchester. Comprising administrative block, receiving wards, &c., and six pavilions to accommodate 500 persons, for the Salford B.G. Mr. E. H. Inchley, Clerk to the Guardians, Poor Law Offices, Eccles New-road, Salford. Deposit £2 2s.

MARCH 5.—**Wolsingham.**—HOUSE.—Erection of a house for the Medical Superintendent at Holywood Hall Sanatorium, Wolsingham, for the Durham C.C. Mr. Albert E. Brookes, County Engineer, Shire Hall, Durham.

MARCH 6.—**Blackpool.**—SHOPS.—Erection of two shops in Warbreck-road, for T.C. Mr. F. Wood, Borough Surveyor, Municipal Buildings, Blackpool. Deposit £2.

MARCH 6.—**Dewsbury.**—SHOP PREMISES.—For erection of shop premises in Queensway and Foundry-street. Messrs. Kirk, Sons, & Ridgway, architects, Market-place, Dewsbury.

MARCH 6.—**Edinburgh.**—HOUSES.—Proposals from building firms for the erection of from 800 to 1,000 houses, mainly of three apartments with scullery, bath, and all other usual appointments. Director of Housing, City Chambers, Edinburgh. Deposit cheque for five guineas sterling.

MARCH 6.—**Epsom.**—COTTAGES.—Erection of cottages on the following sites: Scheme 1, Winkworth Farm, Banstead, 20 cottages; Scheme 2, Canons-lane, Burgh Heath, 20 cottages; Scheme 3, Pound Meadow, Fetcham, 10 cottages, for the Epsom R.D.C. Housing Act, 1923.

MARCH 6.—**Great Driffield.**—PUBLIC CONVENIENCE.—For conversion of existing buildings to a public convenience, for the U.D.C. Mr. P. Kershaw, Surveyor, Exchange-street, Driffield. Deposit £1 1s.

MARCH 6.—**Jedburgh.**—TELEPHONE STATION.—For the erection of a new telephone repeater station at Jedburgh, for H.M. Commissioners of Works. The Architect, H.M. Office of Works, 4–5, Drumsheugh Gardens, Edinburgh. Deposit £1 1s.

MARCH 6.—**Lanchester.**—CONVENIENCES.—Erection of public conveniences at Craighead and Burnhope, for the R.D.C. Mr. J. R. Lupton, Surveyor, Council Offices, Lanchester.

MARCH 6.—**Netherton.**—HOUSES.—Erection of eight dwelling-houses in Bankfoot-lane, Netherton. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield.

MARCH 6.—**Nottingham.**—CHIMNEY SHAFT.—Erection of a chimney shaft at Radford Gas Works, for the T.C. Mr. J. Wilkinson, 6, George-street, Nottingham.

MARCH 6.—**Truro.**—HOUSES.—Erection of 18 non-parlour type houses at Newham-road, for the T.C. Mr. F. A. Barnes, City Surveyor, Municipal Buildings, Truro. Deposit £1 1s.

MARCH 7.—**Bridlington.**—HOUSES.—For erection of 28 houses on the Postell's Estate, for T.C. Borough Engineer, No. 1, The Crescent, Bridlington.

MARCH 7.—**Canterbury.**—ADDITIONS.—For the completion of two new blocks of buildings and other works in connection therewith at the Mental Hospital, Chartham Downs, near Canterbury, for the Kent County Mental Hospitals' Committee. Mr. W. J. Jennings, architect, 4, St. Margaret's-street, Canterbury. Deposit £10.

MARCH 7.—**Hull.**—ALTERATIONS.—For alterations and additions to the temporary administrative block and new temporary mortuary on the Cottingham Castle Estate, for the T.C. City Architect, Hull. Deposit £2 2s.

MARCH 7.—**Manchester.**—CONVERSION.—For the conversion of the Isolation Ward into a Discharge Ward at Monsall Hospital, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

MARCH 7.—**Manchester.**—EXTENSION.—For extension to kitchen block, Baguley Sanatorium, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

MARCH 7.—**Sutton.**—EXTENSION.—For the extension of United Services Club, Carshalton-road, Sutton. Steward, at Club. Deposit £1 1s.

MARCH 8.—**Carmarthen.**—FOUNDATIONS.—For laying of the foundations and carrying out the stonework in connection with the County War Memorial at Carmarthen. Mr. Ernest V. Collier, architect, 4, Quay-street Carmarthen.

MARCH 8.—**Carmarthenshire.**—NEW SCHOOL.—For erection of a new elementary school to accommodate 300 pupils at Gorslas, for the Carmarthenshire Education Committee. Mr. W. Vincent Morgan, Architect, County Offices, Carmarthen. [Note.—Names of intending tenders to be submitted by February 23; quotations to be returned by March 8.]

MARCH 8.—**Charminster.**—COTTAGES.—Erection of six bungalow cottages at Charminster, near Dorchester, for the Dorchester R.D.C. Mr. F. T. Maltby, architect, Dorchester.

MARCH 8.—**Derbyshire.**—THE WILLIAM HOLMES' ALMSHOUSES.—Erection and completion of six almshouses at Greenwich, Ripley, Derbyshire, for the Ripley U.D.C. Mr. G. W. Bird, C.E., Town Hall, Ripley, Derbyshire. Deposit 10s. 6d.

MARCH 8.—**Pontypool (Mon.).**—VARIOUS WORKS.—For supply to the Pontypool R.D.C. of the following:—(1) Haulage, for one year, at per ton rate with rubber tyre lorries; (2) team labour (day work); (3) steam rolling (hire of and scarifying); (4) supply of steam coal. Mr. R. O. Roberts, Surveyor, Usk (Mon.).

MARCH 8.—**Reading.**—HOUSES.—Erection of 26 houses on the Shinfield-road Housing Site, for the Town-Planning Committee of the County Borough of Reading. Housing Architect, Old College Buildings, St. Laurence's Churchyard, Reading.

MARCH 10.—**Eccles.**—HOUSES.—For erection of 176 houses on the Peel Green Estate, for T.C. Mr. T. S. Picton, Borough Surveyor, Town Hall, Eccles. Deposit £3 3s.

MARCH 10.—**Glendale.**—PUBLIC CONVENIENCE.—For erection of a public convenience at Wooler, for the R.D.C. Mr. A. H. Greathead, Sanitary Inspector, Wooler.

MARCH 10.—**Grimsby.**—HOUSES.—Erection of 52 houses in Laceby-road, for T.C. Mr. H. G. Whyatt, Borough Engineer, Municipal Buildings, 170, Victoria-street, Grimsby. Deposit £2 2s.

MARCH 10.—**Letterston (Pemb).**—WALL.—For building boundary wall to Letterston Green for the Parish Council. Mr. Thomas John, Clerk, Letterston (Pemb).

MARCH 10. — **London, S.W.** — BUILDINGS AND COTTAGES.—Erection of administrative buildings and 12 cottages in Pleasance-road, on the Roehampton Estate, Putney, S.W.15, for the L.C.C. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £2, to Cashier.

MARCH 10.—**Pyle.**—HOUSES.—For the erection of 44 houses on Collwyn-road, Tremarlas-road, Pyle, for the Pyle Building Club. Mr. W. J. Hopkins, 51, North-avenue, Kenfig-hill, Pyle.

MARCH 10.—**St. Albans.**—CASUAL WARDS.—Erection of casual wards, porters' quarters, &c., at St. Albans Union Workhouse, for the Board of Guardians. Mr. H. F. Mence, 11, St. Peter's-street, St. Albans. Deposit £3 3s.

MARCH 10.—**Wallasey.**—PAINTING.—For the painting of the interior of the roof of the Seacombe Ferry Vestibule, for the T.C. Ferry Manager, Seacombe.

MARCH 10.—**Walsingham, Norfolk.**—COTTAGES.—Erection of 20 cottages at Briston, Norfolk, for the Walsingham R.D.C. Mr. W. O. Humphery, Surveyor, Fakenham, Norfolk.

MARCH 11.—**Bingley.**—FLOORING.—For re-boarding floors at Mornington-road School, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Bognor.**—P.O., &C.—For the erection of a Post Office and Telephone Exchange at Bognor, Sussex, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

MARCH 11.—**Ecclesfield Lound.**—HUT.—Erection and adaptation of Army hut at Ecclesfield Lound Council School, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Kirkburton.**—HOUSE.—Erection of a detached residence at the Storthes Hall Mental Hospital, Kirkburton, near Huddersfield, for the West Riding Mental Hospitals Board. Mr. W. E. H. Burton, Architect, Wakefield. Deposit £1.

MARCH 11.—**Leeds.**—PAINTING, &C.—For painting and cleaning the Infectious Diseases Hospital, Seacroft, and the Tuberculosis Sanatorium, Killingbeck, for the T.C. Steward, Seacroft Hospital, Leeds.

MARCH 11.—**Maltby.**—SCHOOL.—Erection of school for 800 children, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Stanley Outwood.**—BATHROOM.—Erection of bathroom for teacher's house, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 12.—**Bedford.**—TELEPHONE EXCHANGE.—For the erection of a Telephone Exchange at Bedford, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

★MARCH 12.—**Cuckfield, Sussex.**—NURSES' HOME.—Alterations and additions to the Nurses' Home at the West Hylands Institution at Cuckfield, Sussex, for the Guardians of the Poor-Law Union of Cuckfield, Sussex. Office of the Board's Architect, Mr. Wm. H. Overton, 22, Ship-street, Brighton.

MARCH 12.—**Manchester.**—SCHOOL.—Erection of high school for girls in Church-lane, Harpurhey, for the T.C. Clerk, Education Offices, Deansgate, Manchester. Deposit £2 2s.

MARCH 13.—**Ashton-in-Makerfield.**—SCHOOL.—For the erection of a Council School of semi-permanent construction, for 500 scholars, at Ashton-in-Makerfield, near Wigan, for the Lancashire E.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

MARCH 13.—**Willenhall.**—ALTERATIONS, &C.—For alterations and extensions to Willenhall Post Office, Staffs, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

★MARCH 13.—**Woolwich, S.E.18.**—HOUSES.—Erection of 100 houses on the Housing Estate at Eltham, for the Metropolitan Borough of Woolwich. Mr. John Sutcliffe, Assoc.M.Inst.C.E., Borough Engineer, Town Hall, Woolwich. Deposit £3 3s.

MARCH 14.—**Crompton.**—SCHOOL.—For the erection of a Council school for 350 scholars at Crompton, near Oldham, for the Lancashire E.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

★MARCH 14.—**London, N.1.**—EXTENSIONS.—For the erection of extensions to the Municipal Offices in Tyndale-place, Upper-street, for the Metropolitan Borough of Islington. Mr. E. C. P. Monson, Finsbury Pavement House, 120, Moorgate, E.C.2. Deposit, £10.

MARCH 15.—**Lytham St. Annes.**—HOUSES.—Erection of 72 houses on various sites within the Borough, for the T.C. Borough Surveyor, Town Hall, St. Annes-on-the-Sea.

★MARCH 15.—**Shoeburyness, Essex.**—HOUSES.—Erection of 34 working class houses on the Housing Site at Dangers, Shoeburyness, Essex, for the Shoeburyness U.D.C. Mr. E. Read, Council's Surveyor, High street, Shoeburyness.

MARCH 15.—**Swillington.**—HOUSES.—Erection of 50 houses, for Messrs. T. & R. W. Bower, Ltd. General Manager, Allerton Main Collieries, Woodlesford, near Leeds.

MARCH 18.—**Bangor.**—ALTERATIONS.—For alterations to Maesgarnedd Children's Home, Llanfair P.G., for the Bangor and Beaumaris Board of Guardians. Mr. Robert Pierce, Insurance Chambers, Carnarvon.

★MARCH 18.—**Bethnal Green, E.2.**—REDECORATIONS AND REPAIRS.—Internal redecoration, repair and alteration of the Schools, High-road, Leytonstone, E.11, for the Bethnal Green B.G. Mr. C. Faulkner Jones, Clerk to the Guardians, Administrative Offices, 79A, Bishop's-road, Bethnal Green, E.2. Deposit £2 2s.

MARCH 18.—**Glossop.**—HOUSES.—Erection of 12 houses on Sheffield-road Site, for the T.C. Borough Surveyor, Town Hall, Glossop. Deposit £2 2s.

MARCH 18.—**Sunderland.**—FENCING.—Provision and erection at Ryhope of approximately 430 lin. yds. of creosoted military pale fencing, 5 ft. 6 in. high, for the R.D.C. Mr. Thomas Young, surveyor, 17, John-street, Sunderland.

★MARCH 19.—**Barnet.**—COTTAGES.—For the erection of three pairs of cottages at Bells Hill, for the Guardians of the Barnet Union. Messrs. White, Son, & Pill, 13 & 15, High-street, Barnet.

MARCH 19.—**Evesham.**—HOUSES.—Erection of 26 houses (with other work incidental thereto) on their site near King's-road, Bengeworth, Evesham, under the provisions of the Housing Acts, for the T.C. of the Borough of Evesham. Borough Surveyor (Mr. J. Abbott) Town Hall, Evesham. Deposit £2 2s.

★MARCH 24.—**Brierley Hill (Staffs).**—HOUSES, ROADS AND SEWERS.—Erection of thirty houses, together with the necessary roads and sewers, on the Mill-street Housing Estate, for the Brierley Hil U.D.C. Mr. John Yorke, Surveyor, Town Hall, Brierley Hill, Staffs.

MARCH 29.—**Navan.**—VARIOUS WORKS.—For structural alterations, additions, repairs, plumbing and extension of drainage, roads and pathways, at the Navan County Hospital, for the County Meath Board of Health. Mr. A. Edward Smith, quantity surveyor, 5, St. Andrew-street, Dublin. Deposit £2 2s.

★MARCH 31.—**Ripon (Yorks).**—DISMANTLING, &C.—For following services at nine camps: (1) For the purchase of hutted camps and remove all buildings and debris; (2) purchase of materials resulting from dismantling; (3) for dismantling only; (4) for removal of concrete and other materials left on camps. Roads and Communication Officer, Ripon Camp.

MARCH 31.—**Sligo.**—STATION BUILDINGS.—For reconstruction of station buildings at Sligo, for the Midland Great Western Railway Co. Chief Engineer, Broadstone Station, Dublin. Deposit £4.

NO DATE.—**Aberkenfig (Glam).**—RENOVATIONS AND PAINTING.—For painting and renovating the Ebenezer Congregational Church, Aberkenfig. The Secretary, 6, Rock-street, Aberkenfig.

NO DATE.—**Batley.**—SCHOOL EXTENSION.—For extension of Batley Girls' Grammar School. Messrs. W. Hanstock & Son, architects, Batley.

★NO DATE.—**Becontree, Essex.**—PLASTERING, PAINTING, GLAZING.—L.C.C. Becontree Housing Contract, Additional Sections—Work in approximately 1,000 houses in the following trades: (1) Plastering; (2) Painting; (3) Glazing. Messrs. C. J. Wills & Sons, Ltd., Mayfair-road, Chadwell Heath, Essex.

NO DATE.—**Brampton.**—HOUSE.—Erection of a detached residence at Brampton. Mr. T. Taylor Scott, 36, Lowther-street, Carlisle.

NO DATE.—**Corstophine.**—SEED-TESTING STATION.—For erection of seed-testing station at East Craigs, for the Board of Agriculture for Scotland. Chief Surveyor to the Board, York Buildings, Queen-street, Edinburgh. Deposit £2 2s.

NO DATE.—**Featherstone.**—HOUSES.—Erection of two semi-detached villas in Pontefract-road, Purston. Mr. H. P. Maxwell, architect, 43, Lambert-street, Hull.

NO DATE.—**Handsworth.**—PITHEAD BATH-HOUSE.—For erection of pit head bath-house at Orgreave Colliery. Secretary, Orgreave Welfare Scheme, Orgreave Colliery, Handsworth. Deposit £1 1s.

NO DATE.—**Leeds.**—HOUSES.—Erection of a pair of semi-detached houses at West Park, Leeds. Mr. F. Mitchell & Sons, architects, 9, Upper Fountaine-street, Albion-street, Leeds.

★NO DATE.—**Monmouth.**—HOUSES.—Erection of 30 houses at Seven Tunnel Junction, Mon, together with roads and sewers, for the Great Western (Severn Tunnel Junction) Garden Village Society, Ltd. Mr. T. Alwyn Lloyd, F.R.I.B.A., 6, Cathedral-road, Cardiff. Deposit £2 2s.

NO DATE.—**Pontypool.**—HOUSES.—For erecting ten houses on the Turnpath Estate, for the Turnpath Estate Co., Ltd. Messrs. Fisher & Son, Albion-chambers, Pontypool.

NO DATE.—**Shipley.**—CHAPEL AND COTTAGE.—Erection of school chapel and cottage at Baildon Green. Mr. G. Airey, 9, Glenhurst-road, Shipley.

FURNITURE, MATERIALS, etc.

MARCH 1.—**Cardiff.**—MATERIALS.—Supply of road materials, tools, castings, and general ironmongery, to the R.D.C. Mr. William Farrow, Surveyor, 20, Park-place, Cardiff.

MARCH 1.—**Chailey.**—MATERIALS.—Supply of granite, flints, tar, &c., to R.D.C. Mr. R. P. Cheale, Surveyor, West-street, Lewes.

MARCH 1.—**East Retford.**—MATERIALS.—Supply of broken slag, screenings and tar to R.D.C. Clerk, 1, Leverton-road, Retford.

MARCH 1.—**Glamorgan.**—MOUNTAIN LIMESTONE.—For supply of (1) mountain limestone and team labour to the Cardiff R.D.C. during the year ending March 31, 1925, in the following parishes: Bonvilstone, Lavernock, Leckwith, Lisvane, Llancarfan, Llanedarne, Llanilterne, Llanfedu, Llantrithyd, Michaelston-le-Pit, Pendoylan, Penmark, Peterstone-super-Ely, Porthkerry, Radyr, Rhydygwern, Rudry, St. Andrews, St. Brides, St. Fagans, St. Georges, St. Lythans, St. Nicholas, Sully, Van, Welsh St. Donatts, Wenvoe, Whitchurch; limestone to be delivered direct to roller or to depots as prescribed; (2) supply of tarred nut gravel and stone delivered to depots in the various parishes; and (3) supply of tools, castings and general ironmongery. Mr. William Farrow, 20, Park-place, Cardiff.

MARCH 1.—**Goole.**—MATERIALS.—Supply to the R.D.C. of whinstone, slag tarmacadam refined tar, &c. Mr. R. Plewes, Surveyor, 4, Belgravia, Goole.

MARCH 1.—**Hampton Wick.**—MATERIALS.—Supply of road materials and tar to the U.D.C. Mr. Harold Fawssett, Clerk, Council Offices, High-street, Hampton Wick.

MARCH 1—**Ormskirk.**—MATERIALS.—Supply of highway materials to the West Lancashire. R.D.C. Mr. R. Rosbotham, Surveyor, Town End, Ormskirk.

MARCH 1.—**Rochford.**—MATERIALS.—Supply of hoggin, sand and pea gravel to the R.D.C. Mr. A. C. Madge, Surveyor, Rayleigh, Essex.

MARCH 1.—**Rochford.**—TAR.—Supply of 50,000 gallons of tar, for the R.D.C. Mr. A. C. Madge, Rayleigh, Essex.

MARCH 1.—**South Shields.**—MATERIALS.—For the supply of various materials to the T.C., for six or nine months. Mr. F. P. Sissons, Borough Engineer, Town Hall, South Shields.

MARCH 1.—**Weymouth.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. A. J. Haxworth, Surveyor, Wyke Regis.

MARCH 3.—**Barrow-in-Furness.**—MATERIALS.—Stores for electricity department. Borough Electrical Engineer, Barrow.

MARCH 3.—**Bognor.**—MATERIALS.—Supply of tar, slag, granite chips, concrete, kerbs and slabs, to the U.D.C. Surveyor, Bognor.

MARCH 3.—**Bulkington.**—MATERIALS.—Supply of broken granite to the U.D.C. Surveyor, Offices, Bulkington.

MARCH 3.—**Dublin.**—FLUXING OIL.—Supply of 30 tons of fluxing oil, to the T.C. Mr. John J. Murphy, Town Clerk, Exchange-buildings, Lord Edward-street, Dublin.

MARCH 3.—**Dunstable.**—MATERIALS.—Supply of tarred slag, dry slag, and tar, to the T.C. Mr. S. F. Wilkins, Borough Surveyor, Town Hall, Dunstable.

MARCH 3.—**Ealing.**—MATERIALS.—Supply of various materials for the public services, for the T.C. Mr. W. R. Hicks, Borough Surveyor, Town Hall, Ealing.

MARCH 3.—**East Ham.**—MATERIALS.—For supply of various materials to the T.C. Town Clerk, Town Hall, East Ham.

MARCH 3.—**Hebburn.**—MATERIALS.—Supply of pipes, road stone, tarred stone, &c., to the U.D.C. Surveyor, Council Offices, Hebburn.

MARCH 3.—**Middlesbrough.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. S. E. Burgess, Borough Engineer, Middlesbrough.

MARCH 3.—**Rhondda.**—MATERIALS.—Supply of white lump lime, acid, firebricks and retorts, silica bricks, oils, &c., to Gas Dept. Mr. O. Thomas, Manager, Gas Offices, Pentre, Rhondda.

MARCH 3.—**Shoreham.**—TIMBER.—For the supply of oak or jarrah timber and planking for groynes, for the Harbour Trustees. Mr. A. J. Catt, Harbour Master Southwick.

MARCH 3.—**Stoke-on-Trent.**—MATERIALS.—Supply of stores to Gas Dept. Gas Engineer, Stoke-on-Trent.

MARCH 3.—**Teddington.**—MATERIALS.—Supply of various materials to the U.D.C. Mr. Marshall Hainsworth, Surveyor, Council Offices, Teddington.

MARCH 3.—**Westhoughton.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. G. Hayes, Surveyor, Town Hall, Westhoughton.

MARCH 4.—**Belfast.**—STORES.—Supply of stores for one year to the Tramways Department. General Manager, Belfast.

MARCH 4.—**Chelmsford.**—CEMENT.—Supply to the Joint Sewerage Committee of the Chelmsford Urban and R.D. Councils of 1,500 tons of best English Portland cement. Borough Engineer, Chelmsford.

MARCH 4.—**Leeds.**—MATERIALS.—Supply of materials, to the Tramways and Highways Dept., for one year. Mr. G. B. Hamilton, Commercial Manager, 1, Swinegate, Leeds.

MARCH 4.—**Littleborough.**—MATERIALS.—For supply of road material, for one year, for U.D.C. Mr. G. H. Wild, Surveyor, Council Offices, Littleborough.

MARCH 4.—**Liverpool.**—MATERIALS.—Supply of materials, &c., to the Water Dept. Water Engineer, Alexandra-buildings, 55, Dale-street, Liverpool.

MARCH 4.—**Padiham.**—MATERIALS.—Supply of road and other materials to the U.D.C. Mr. R. Radcliffe, Surveyor, Council Offices, Padiham.

MARCH 5.—**Blackrock.**—MATERIALS.—Supply of road materials, cast-iron goods, sewer pipes, oils, paints, &c., to the U.D.C. Mr. John Mooney, Town Clerk, Town Hall, Blackrock, co. Dublin.

MARCH 5.—**Cardiff District.**—REFUSE REMOVAL, &C.—For hire of horses to the Cardiff R.D.C. for scavenging wagons in the district of Whitchurch and removal of refuse, &c., in 15 different districts specified; whole or part of work may be contracted for. Contracts 1 to 6 Mr. Evan Jones, "Cartref," Mill road, Tongwynlais, Nos. 7 to 11 Mr. William Lewis, 8, Palace road, Llandaff; and Nos. 12 to 16 Mr. William Morgan, Cwm, Millbrook-road, Dinas Powis.

MARCH 5.—**Cranbrook.**—MATERIALS.—Supply of granite and ragstone, for the R.D.C. Mr. E. Clark, Clerk, Cranbrook.

MARCH 5.—**Dolgelly.**—MATERIALS.—Supply of refined tar and bitumen to the Merioneth C.C. Mr. W. O. Jones, County Surveyor, Dolgelly.

MARCH 5.—**Doncaster.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. W. R. Crabtree, Surveyor, Nether Hall, Doncaster.

MARCH 5.—**Dunblane.**—MATERIALS.—Supply of road and other materials, general stores and ironmongery, to the Perthshire C.C. Mr. W. L. Gibson, Road Surveyor, Dunblane.

MARCH 5.—**Goole.**—MATERIALS.—For supply of road and other materials for one year for U.D.C. Mr. J. H. Castle, Surveyor, Council Office, Goole.

MARCH 5.—**Hartlepool.**—ROAD MATERIALS.—Supply of road materials to the R.D.C. Mr. C. N. Edwards, Surveyor, Hart-road, West Hartlepool.

MARCH 5.—**Hove.**—SUPPLY OF STORES, &C.—Supply of various stores and execution of various works, hire of horses, carts and drivers, &c., during the year commencing April 1 next. Borough Surveyor (Mr. H. H. Scott), Town Hall, Hove.

MARCH 5.—**King's Lynn.**—MATERIALS.—Supply of ironmongery, oils, colours, packing, brushes, &c., to the T.C. Mr. J. C. Matthew, Borough Surveyor, King's Lynn.

MARCH 5.—**King's Lynn.**—MATERIALS.—Supply of road materials to the T.C. Mr. J. C. Matthew, Borough Surveyor, Town Hall, King's Lynn.

MARCH 5.—**London, S.W. 11.**—MATERIALS, &C.—Tenders are invited for the following from April 1 next, for three, six and twelve months: (1) Supply of paints, &c.; (2) supply of special paints, enamels, &c.; (3) supply of painters' sundries; (4) supply of varnish, &c.; (5) supply of bricks, cement, lime, &c. For twelve months: horse hire for the Battersea B.C. Mr. Edwin Austin, Town Clerk, Town Hall, Battersea, S.W. 11.

MARCH 5.—**Manchester.**—MATERIALS.—For supply of road-making material, for the B.G. Mr. E. Hargreaves, Union Offices, All Saints', Manchester.

MARCH 5.—**Melford.**—MATERIALS.—Supply to the R.D.C. of (1) broken and unbroken flints, (2) gravel and chalk. Mr. Raymond A. Newstead, Surveyor, 7, Gainsborough-street, Sudbury, Suffolk.

MARCH 5.—**Smallburgh.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. W. L. Lewis, Surveyor, Stalham.

MARCH 5.—**Stockton-on-Tees.**—STORES.—Supply of stores for various public services for six months for T.C. Borough Engineer, and Gas Engineer, Borough Hall, Stockton-on-Tees.

MARCH 5.—**Ticehurst.**—MATERIALS.—For broken granite and roadstone, for the R.D.C. Mr. F. Laurens, Surveyor, Wadhurst.

MARCH 6.—**Brighton.**—STORES.—Supply of stores, to the Tramways' Department. Tramways' Engineer, Lewes-road, Brighton.

MARCH 6.—**Dewsbury.**—MATERIALS.—For supply of piping and fitting, for B.G. Mr. E. J. Tunnicliffe, Clerk to the Guardians, Union Offices, Wellington-street, Dewsbury.

MARCH 6.—**Dover.**—MATERIALS.—For supply of stores and materials, for one year, for Dover Harbour Board. Mr. R. Mowell, Castle-street, Dover. Charge 2s. 6d.

MARCH 6.—**Epsom.**—MATERIALS.—Supply of road and other materials to the R.D.C. Mr. T. E. Ware, Surveyor, Waterloo, Epsom.

MARCH 6.—**Hendon.**—MATERIALS.—Supply of road and other materials to the R.D.C. Mr. H. W. Rackham, Surveyor, Council Offices, Stanmore.

MARCH 6.—**Heston and Isleworth.**—ROAD MATERIALS.—Supply of granite, 93,000 gallons of refined tar, granite chippings, and Kentish pit flints, to the U.D.C. Mr. J. G. Carey, Surveyor, Council House, Hounslow.

MARCH 6.—**Nottingham.**—MATERIALS.—Supply of stores and materials to the Works Committee of the T.C. Mr. T. Wallis Gordon, City Engineer, Guildhall, Nottingham. Deposit 5s. per section.

MARCH 6.—**Thakeham.**—ROAD MATERIALS.—Supply of basalt, granite, flints and tar to the R.D.C. Mr. Wm. Forrester, Surveyor, Storrington, Pulborough.

MARCH 7.—**Chester-le-Street.**—ROAD MATERIALS.—For supply of whinstone, slag and tarred slag, for six months, for R.D.C. Mr. G. W. Ayton, Highway Surveyor, Union Offices, Chester-le-Street.

MARCH 7.—**Leek.**—MATERIALS.—For supply of road and other materials for six months for U.D.C. Mr. W. E. Beacham, Surveyor, Town Hall, Leek.

MARCH 7.—**London.**—MATERIALS.—Supply to the South Indian Railway Company, Ltd., of (1) Bolts, nuts, rivets, &c.; (2) Sheffield tools, &c.; (3) carriage door handles, hinges, &c.; (4) steel cranked fish-plates; (5) locks. Offices, 91, Petty France, Westminster, S.W.1. Charges: 10s. for No. 1; 5s. for Nos. 2, 3 and 4; and 2s. 6d. for No. 5.

MARCH 7.—**York.**—MATERIALS.—Supply of stoneware pipes, paving, lime, &c., for six months to T.C. Mr. F. W. Spurr, City Engineer, York.

MARCH 8.—**Colne.**—MATERIALS.—Supply of highway and other materials to the T.C. Mr. T. H. Hartley, Borough Engineer, Colne.

MARCH 8.—**Denbighshire.**—MATERIALS.—For supply of road material, &c., for one year for C.C. Mr. E. W. Jones, County Surveyor, Wrexham.

MARCH 8.—**Morley.**—MATERIALS.—For supply of road and other materials for one year for T.C. Mr. F. Turner, Borough Engineer, Town Hall, Morley.

MARCH 10.—**Bingham.**—ROAD MATERIAL.—Supply of slag to the R.D.C. Mr. D. W. Mason, Clerk, Bingham.

MARCH 10.—**Derby.**—MATERIALS.—Supply of bricks, cement, paints and oils, road materials, &c., for the T.C. Mr. C. A. Clews, Borough Surveyor, Derby.

MARCH 10.—**Hemel Hempstead.**—MATERIALS.—For supply of materials for various public services for T.C. Mr. A. E. Usher, Town Clerk, Town Hall, Hemel Hempstead.

MARCH 10.—**Hoo.**—ROAD MATERIALS.—For supply of road maintenance requisites, for one year, for R.D.C. Mr. M. J. Harvey, District Surveyor, 12, Haig-villas, Hoo, Rochester.

MARCH 10.—**Nelson.**—ANNUAL CONTRACTS.—Supply and delivery of materials for roads, &c., for the year ending March 31, 1925, for the B.C. of Nelson. Mr. W. Shackleton, A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Nelson.

MARCH 10.—**Stoke-on-Trent.**—MATERIALS.—Supply of various materials to the T.C. for six months. Borough Surveyor, Town Hall, Stoke.

MARCH 10.—**Thingoe.**—GRANITE.—For supply of broken granite for one year for R.D.C. Mr. C. D. Bright, Surveyor, College-street, Bury St. Edmunds.

MARCH 10.—**Wallasey.**—MATERIALS.—Supply of granite, macadam and chippings, Portland cement, granite concrete flags, to the T.C. Mr. L. St. G. Wilkinson, Borough Engineer, Town Hall, Wallasey.

MARCH 11.—**Caerphilly.**—SUPPLIES.—For supply to the U.D.C., for a period of twelve months, of following stores:—(5) Ironmongery sundries; (6) linen and drapery sundries; (8) chemist's and druggist's sundries; (9) hospital coke, coal and firewood. Mr. J. Tomkinson, Council Offices, Caerphilly.

MARCH 11.—**Liverpool.**—MATERIALS.—For the supply of various materials required for City Engineer's Dept. City Engineer, Municipal Buildings, Dale-street, Liverpool.

MARCH 12.—**Birmingham.**—MATERIALS.—Supply to the Birmingham Tame and Rea District Drainage Board of paints and drysaltery, and timber. Engineer, The Rookery, Erdington Park, Birmingham.

MARCH 12.—**Fulham.**—MATERIALS.—For supply of materials for various public services, for B.C. Mr. J. P. Shuter, Town Clerk, Town Hall, Fulham, S.W.6.

MARCH 12.—**Manchester.**—RED TERRA COTTA.—For supply of red terra cotta for the Municipal High School for Girls, Church-lane, Harpurhey, for T.C. Clerk, Education Offices, Deansgate, Manchester. Deposit £1 1s.

MARCH 12.—**Rye.**—MATERIALS.—Supply of material for one year to the R.D.C. Mr. H. J. Elliot, Surveyor, Winchelsea, Sussex.

MARCH 12.—**Shoreditch.**—MATERIALS.—Supply of road materials, brooms, &c., for one year, to the B.C. Borough Surveyor's Department, Town Hall, Old-street, E.C.2.

MARCH 13.—**Strood.**—MATERIALS.—For supply of road materials for one year, for R.D.C. Mr. L. Randerson, District Surveyor, Meopham, near Gravesend.

MARCH 14.—**Bishopthorpe.**—MATERIALS.—For supply of whinstone, slag and slag chippings, for R.D.C. Mr. C. C. Lucas, Clerk to the Council, 6, New-street, York.

MARCH 15.—**Marple.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. D. J. Driver, Surveyor, Council Offices, Marple.

MARCH 15.—**Riccall.**—ROAD MATERIALS.—For supply of road materials, for one year, for R.D.C. Mr. J. Townend, Clerk, Council Offices, Selby.

MARCH 17.—**Merthyr Tydfil.**—SUPPLIES.—For supply to the Board of Guardians for (1) Poor-Law Institution, Merthyr Tydfil; (2) Subsidiary Institution, Trecynon, Aberdare; (3) Central Homes, Llwydcoed, Aberdare, in bulk, of straw, haulage, boots and shoes, officers' uniforms, oils, paints, ironmongery, boot-making materials, leather, drugs, medical accessories, &c. Mr. F. T. James, Union Offices, High-street, Merthyr Tydfil.

MARCH 19.—**Hollingbourn.**—GRANITE, &C.—For supply of 400 tons of granite and 1,500 tons of tar-macadam, for R.D.C. Mr. F. Miskin, 33, Earl-street, Maidstone.

MARCH 25.—**Penarth.**—STORES.—For supply to U.D.C. of general stores, ironmongery and brushes, &c. Mr. J. W. Morris, Clerk, Council Offices, Penarth.

MARCH 31.—**Barnsley.**—FURNITURE.—Supply of school furniture for a new Central School, for the T.C. Mr. Evan Davies, Director of Education, Education Office, Barnsley.

ENGINEERING, IRON AND STEEL.

MARCH 1.—**Blackburn.**—ELECTRIC INSTALLATION.—For electric light and power installation in Institution laundry, for the Board of Guardians. Mr. C. E. Bygrave, Clerk, Blackburn. Deposit £1.

MARCH 1.—**Jamaica.**—DAM.—For the construction of a cyclopean masonry dam and contingent works required in connection with the extension of the Kingston and St. Andrews Water Works. Crown Agents for the Colonies, 4, Millbank, London, S.W.1.

MARCH 1.—**Skipton.**—BRIDGE.—For widening and strengthening Pickhill Bridge, Skipton, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

MARCH 1.—**Urmston.**—FENCING.—For the supply of about 470 lineal yards of wrought-iron fencing and gates to the U.D.C. Surveyor, Council Offices, Urmston. Deposit £1 1s.

MARCH 1.—**Wakefield.**—BRIDGES.—(*a*) Reconstruction of Bonny Bridge (6 ft. span), at Thurlstone; (*b*) reconstruction of new Dyke Bridge (7 ft. span), at Great Ouseburn; (*c*) re-building of a masonry retaining wall and part of Upperfoot Bridge (10 ft. span), at Luddendenfoot, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1 each contract.

MARCH 3.—**Coulsdon.**—FIRE ALARM SYSTEM.—For (1) A closed circuit fire alarm system; (2) a closed circuit fire alarm system combined with an ambulance call system, for the U.D.C. Chief Officer, Fire Station, Purley.

MARCH 3.—**Grimsby.**—PIPEWORK.—For steam and other pipework, for the T.C. Mr. W. A. Vignoles, Corporation Electricity Works, Grimsby.

MARCH 3.—**York.**—BRIDGE.—For the widening of Layerthorpe Bridge over the River Foss, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

MARCH 4.—**Sheffield.**—BRIDGE.—For reconstruction and widening of bridge over the Sheffield and Tinsley Canal at Staniforth-road, for the T.C. Mr. E. Partington, Improvement Surveyor, Town Hall, Sheffield. Deposit £5.

MARCH 4.—**Woolwich.**—ARTIFICER'S WORK.—War Department contract for repairs and materials (Artificers' work)—(1) Woolwich, 1st and 2nd Divisions. Lieut.-Colonel R.E., Commanding Royal Engineer, Woolwich District, Royal Engineer Office, New-road, Woolwich, S.E.18. Charge 15s.

MARCH 5.—**Stoke-on-Trent.**—HOT WATER AND HEATING INSTALLATION.—For installation of heating and hot water services in a tuberculosis pavilion at the London-road Institution, for the Board of Guardians. Messrs. Edwards & Shaw, Colmore-road Birmingham. Deposit £2.

MARCH 6.—**Calverley.**—BRIDGE.—Construction of a temporary steel bridge to carry a light railway over the line of the London, Midland & Scottish Railway, near the Calverley and Rodley Station, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

MARCH 6.—**Colwyn Bay**—MACHINERY.—For sewerage pumping machinery, for the U.D.C. Mr Robert Green, engineer, 37, Bennetts-hill, Birmingham. Deposit £5 5s.

MARCH 6.—**Manchester.**—HEATING APPARATUS.—For fixing a low pressure heating apparatus at the Seymour-road Municipal Infants' School, Clayton, for T.C. Clerk, Education Offices, Deansgate, Manchester. Deposit £1 1s.

MARCH 7.—**Carlisle.**—BRIDGES.—Construction of new concrete arched bridges over the River Caldew and the Little Caldew, also retaining walls, filling and masonry work, &c., for the T.C. Mr. Henry C. Marks, City Engineer, 18, Fisher-street, Carlisle. Deposit £2 2s.

MARCH 7.—**London.**—STEAM TUBES.—For supply of steam tubes and fittings, for Commissioners of H.M. Works. Controller of Supplies, H.M. Office of Works, King Charles-street, Westminster, S.W.1.

MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £10 10s.

MARCH 8.—**Wrexham.**—FENCING.—For supply of 500 yds. of unclimbable iron or steel fencing, 6 ft. high, for Wrexham and East Denbighshire Water Co. Mr. F. Storr, Engineer, Waterworks Offices, 21, Egerton-street, Wrexham.

MARCH 10.—**Kirkcudbrightshire.**—BRIDGE.—For the construction in ferro-concrete on the Hennebique system of a new bridge over the river Dee at Kirkcudbright, and the removal of the existing iron bridge, for the C.C. Messrs. Blyth & Blyth, civil engineers, 135, George-street, Edinburgh. Deposit £3 3s.

MARCH 12.—**Blackburn.**—ELECTRIC LIGHTING.—For electric lighting installation at Orphanage. Secretary, Orphanage, Wilpshire.

MARCH 12.—**Madras.**—PUMPING PLANT.—Supply of sewage pumping machinery to the T.C. Messrs. J. Mansergh & Sons, agents, 5, Victoria-street, S.W. Deposit 10s. each of two contracts.

MARCH 20.—**Congresbury.**—BRIDGE.—For the diversion of the main road and the River Yeo, and construction of reinforced concrete bridge at Congresbury, for the Somerset C.C. Mr. E. Stead, County Surveyor, 49, High-street, Weston-super-Mare. Deposit £2 2s.

MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W.1.

MAY 1.—**China.**—BRIDGE.—**The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.**

MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.

JULY 1.—**Chili.**—HARBOUR WORKS.—For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.

NO DATE.—**Kidderminster.**—HEATING, &C.—For modernising the heating and ventilation of the Music Hall, Corn Exchange, Council Chamber, Municipal Buildings, &c., for the T.C. Mr. J. Hawcroft, Borough Engineer, Kidderminster.

NO DATE.—**Liverpool.**—ELECTRICAL INSTALLATIONS.—For electric light installation for St. Faith's Parish Hall, Waterloo. Mr. S. R. Taylor, 48, Stanley-street, Liverpool.

ROAD, SANITARY, AND WATER WORKS.

MARCH 1.—**Montgomeryshire.**—STORAGE RESERVOIR AND WATER MAINS.—**Construction of a small storage reservoir, and the laying of a main in connection with an additional water supply, for the T.C. of Llanidloes. Mr. James Grant, Surveyor, Llanidloes, Montgomeryshire.**

MARCH 1.—**St. Andrews.**—ROADS.—Construction of new streets, footpaths, sewers, at their housing scheme, St. Mary-street site, for the T.C. Burgh Engineer, Town Hall, St. Andrews.

MARCH 1.—**Stanley.**—SEWER.—Construction of Ferry lane outfall sewer and branch sewers in Ferry-lane, etc., for the U.D.C. Mr. Frank Massie, M.Inst.C.E., Tetley House, Wakefield. Deposit £2 2s.

MARCH 3.—**Barnsley.**—SANITARY.—For the conversion of privies into water closets at Long-row, Smithies, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

MARCH 3.—**Bridgend.**—WATER MAINS.—Providing and laying: (1) 430 lin. yds. of 3 in. dia. cast iron mains at Pyle Housing Scheme; (2) 180 lin. yds. of 3 in. dia. cast iron mains at St. Marie-street, Bridgend; (3) 415 lin. yds. of 3 in. dia. cast iron mains near General Hospital, Maesteg; (4) 295 lin. yds. of 3 in. dia. cast iron mains at Brynteg Field, Bridgend, for the Mid-Glamorgan Water Board. Mr. E. W. Davies, Manager, Water Board Offices, Bridgend. Deposit £1 1s.

MARCH 3.—**Burton-in-Lonsdale.**—ROADS.—Improvement of the Lancaster and Richmond main road at Burton-in-Lonsdale, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

MARCH 3.—**Cumberland.**—TAR SPRAYING.—For tar-spraying 300,000 sq. yds. of main roads, for C.C. Mr. G. O. Lockwood, County Surveyor, The Courts, Carlisle.

MARCH 3.—**Hendon.**—SEWAGE WORKS.—For the construction of sewage disposal works and sewerage and drainage works, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W.4. Deposit £5 5s.

MARCH 3.—**Middlesex.**—ROADS.—For the construction of approximately 3¾ miles, commencing at Lawrence-street (Mill Hill Urban District, Hendon) and terminating at Elstree (in the Rural District of Hendon), for Middlesex C.C. Mr. A. Dryland, County Engineer, Guildhall, Westminster, S.W.1. Deposit 20 guineas.

MARCH 3.—**Mid-Glamorgan.**—LAYING OF WATER MAINS.—For supply and laying, in each case with all necessary valves, fittings, &c., for the Mid-Glamorgan Water Board of (1) about 430 lineal yds. of 3-in. dia. cast-iron mains at Pyle Housing Scheme; (2) about 180 lineal yds. of 3 in. dia. cast-iron mains at St. Marie-street, Bridgend; (3) about 415 lineal yds. of 3-in. dia. cast-iron mains near General Hospital, Maesteg; (4) about 295 yds. 3-in. dia. cast-iron mains at Brynteg Field, Bridgend. Mr. Eiryn W. Davies, Manager, Water Board Offices, Bridgend. Deposit £1 1s.

MARCH 3.—**Newton Abbot.**—WATER MAINS.—Providing and laying about 2,300 yds. of galvanised water mains of various sizes, for the Committee of the Devon County Show. Mr. R. A. Rogers, surveyor, Union-street, Newton Abbot.

MARCH 3.—**Sunbury.**—SEWER.—Construction of 600 yds. of 8 in. cast-iron pipe intercepting sewer and 280 yds. of 8 in. glazed stoneware pipe sewer, in Manor-lane, for the U.D.C. Mr. H. F. Coales, Surveyor Council Offices, Sunbury-on-Thames.

MARCH 3.—**Sunbury.**—SEWER.—Construction of 1,392 yds. of 8 in. glazed stoneware pipe sewer in the Avenue, for the U.D.C. Mr. H. F. Coales, Surveyor, Council Offices, Sunbury-on-Thames.

MARCH 3.—**Westhoughton.**—ROADS.—For reconstruction of Bolton-road, for the U.D.C. Mr. George Hayes, Surveyor, Town Hall, Westhoughton. Deposit £3 3s.

MARCH 4.—**Chipping Norton.**—WATER WORKS.—For providing and laying about 544 lineal yds. of 2 in. wrought-iron galvanised screwed and socketed water pipe and specials on the Burford main-road, for the T.C. Mr. R. Stanton, Borough Surveyor, Chipping Norton.

MARCH 4.—**Clacton.**—SEWER.—For repairs to 12-in. cast-iron west sewer outfall, for the U.D.C. Surveyor, Clacton.

MARCH 4.—**Ealing.**—ROADS.—For making up part of Bramley-road, Cairn-avenue, Nicholas Gardens, and West-road, for B.C. Mr. W. R. Hicks, Borough Engineer, Town Hall, Ealing. Deposit 10s. 6d.

MARCH 4.—**Gellygaer.**—TARSPRAYING OF ROADS.—For undertaking for the Gellygaer U.D.C. the tar-spraying of certain roads in the area, during the current year. The area will be approximately 80,000 super yards and work may be let wholly or in several contracts by the Council. Mr. F. Read, Surveyor, Council Offices, Hengoed.

MARCH 4.—**Hendon.**—ROADS.—For making up Somerset, Sussex, Surrey, Norfolk and part of Durham roads, for the R.D.C. Mr. H. W. Rackham, surveyor, Stanmore. Deposit £3 3s.

MARCH 4.—**Tring.**—SEWERS.—For construction of sewers in Grove and Station-roads, for the U.D.C. Mr. H. N. Hedges, Surveyor, Tring. Deposit £2 2s.

★MARCH 5.—**Derby.**—ROADS.—Construction of Manor-road and Louvain-road, Rykneld Estate, Derby. Messrs. Naylor, Sale & Woore, Surveyors, Market-place, Derby. Deposit £1

MARCH 5.—**Doncaster.**—ROADS.—For finishing certain roads, construction of small recreation grounds, &c., on the Carr House-road site, for the T.C. Mr. R. E. Ford, Housing Surveyor, 3, Priory-place, Doncaster. Deposit £1 1s.

MARCH 5.—**King's Lynn.**—ROADS.—For road rolling and scarifying, for the T.C. Mr. J. C. Matthew, Borough Engineer, Town Hall, King's Lynn.

MARCH 5.—**King's Lynn.**—TAR SPRAYING.—For tar-spraying of roads, for the T.C. Mr. J. C. Matthew, Borough Surveyor, Town Hall, King's Lynn.

MARCH 6.—**Arnold.**—SEWER.—Construction of about 700 yds. 9 in. stoneware foul sewer, and 735 yds. 9 in. surface water sewer, for the U.D.C. Mr. R. E. Clarke, Surveyor, Arnot-hill House, Arnold.

MARCH 6.—**Londonderry.**—ROADS.—For strengthening and resurfacing about 50 miles of road, for the C.C. Mr. T. B. Adams, Secretary, County Courthouse Londonderry.

MARCH 6.—**Manchester.**—ASPHALTING.—For repairing playground asphalting at various Municipal Schools, for the T.C. Education Offices, Deansgate, Manchester. Deposit £1 1s.

MARCH 6.—**Pontllanfraith.**—ROADS.—For the completion of roads and paths at the Pontllanfraith Housing Scheme (Bryn site), for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

MARCH 6.—**St. Mellon's (Mon).**—SUPPLY OF STONE, &c.—For supply to R.D.C. of broken limestone and gravel in specified quantities; and (2) carrying out the scavenging in the parishes of Duffryn (part of), Graig, Malpas, Rogerstone, Rumney, and St. Woolos. Mr. William Dowler, Clerk to R.D.C., Union Offices, Queen's-hill, Newport (Mon).

MARCH 6.—**Whiston.**—ROADS.—For road widening' for the R.D.C. Mr. R. J. Knapman, Surveyor, Council Offices, Whiston, Prescot.

MARCH 7.—**Bexhill.**—TARMACADAM.—For surfacing with tarmacadam De la Warr-parade, for T.C. Mr. G. Ball, Borough Surveyor, Town Hall, Bexhill.

MARCH 7.—**Castle Donington.**—SEWAGE WORKS.—Extensions to Kegworth sewage Works, for the R.D.C. Messrs. Elliott & Brown, Burton-buildings, Parliament-street, Nottingham. Deposit £3 3s.

MARCH 7.—**Haywards Heath.**—WATER MAINS.—For laying and jointing about seven miles of 12 in. dia. and about four miles of 9-in. dia. cast-iron water mains, for the Mid-Sussex Joint Water Board. Mr. Francis Martin, Waterworks Offices, Haywards Heath, Sussex. Deposit £2 2s.

MARCH 7.—**Leicester.**—ROADS.—For reconstruction of main roads in bituminous materials, for the C.C. Mr. J. E. Blackwall, County Surveyor, Leicester.

MARCH 7.—**Stanley.**—ROADS.—For the completion of roads and paths at Stanley Housing Scheme, Co. Durham, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

MARCH 8.—**Doncaster.**—WATER MAINS.—For the extension of water mains at Edlington, for the R.D.C. Mr. W. R. Crabtree, Surveyor, Nether Hall, Doncaster.

MARCH 8.—**East Dean.**—WATER MAINS.—For work of laying water mains over Soudley Brains Green and Blakeney Hill, on the south side of East Dean, and over Plump Hill, for R.D.C. Mr. W. Whitehouse, surveyor, Cinderford, Glos. Deposit £2 2s.

MARCH 8.—**Heysham.**—ROADS.—For the widening of Longlands-lane and Crimewell-lane, for the U.D.C. Mr. H. Miller, Surveyor, Council Offices, Heysham. Deposit £1 1s.

MARCH 8.—**Northallerton.**—ROADS.—For surface treatment of 400 miles of main roads, for the North Riding of Yorkshire C.C. County Surveyor, Northallerton.

MARCH 10.—**Bradfield.**—ROADS.—For the repair of the district roads, for the R.D.C. Mr. C. Ford, Highway Surveyor. Station-road. Theale.

★MARCH 10.—**Cambridge.**—SEWERS.—Construction of a sewer consisting of 500 yds. of 12 in. pipes and 1,828 yds. of 9 in. pipes, together with the necessary manholes, &c., from Cherry Hinton-road to Long-road, for the Corporation of the Borough of Cambridge. Borough Surveyor, Guildhall, Cambridge. Deposit, £2.

MARCH 10.—**Clutton.**—ROADS.—For steam rolling, for the R.D.C. Surveyor, Hallatrow, near Bristol.

MARCH 10.—**Todmorden.**—ROADS.—For three road-widening schemes, for T.C. Mr. H. Crabtree, Borough Surveyor, Municipal Offices, Todmorden. Deposit £2 2s.

MARCH 10.—**Wallingford.**—SEWAGE WORKS.—For construction of (1) engine house, pump well, filters, &c.; and (2) reinforced high level tank, at Didcot, for the R.D.C. Messrs. Howard Humphreys & Sons, 28, Victoria-street, S.W. Deposit £3 3s.

★MARCH 11.—**Deal.**—ROAD WORK.—Widening Beach street, road, footways and parade, and constructing retaining walls for same, for the Corporation of the Borough of Deal. Borough Engineer and Surveyor's Office, 18, Queen street, Deal.

MARCH 11.—**Glasgow.**—ROADS.—Reconstruction of main road from Langloan to Airdrie, for the T.C. Mr. James Dalrymple, 44, Bath-street, Glasgow. Deposit £2 2s.

MARCH 11.—**Rochdale.**—SEWER.—For construction of 780 yds. of 36 in. and 30 in. diam. outfall sewer, with cast-iron and reinforced concrete pipes, together with 30 yds. of brick sewer 9 ft. diam., and an overflow chamber, for T.C. Mr. S. H. Morgan, Borough Engineer, Town Hall, Rochdale. Deposit £5 5s.

MARCH 12.—**Birmingham.**—DEEPENING BROOK.—For deepening brook of a length of about 1,184 yds. of the Hockley Brook, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

MARCH 12.—**Fulham.**—ROADS.—For making up and paving Colwith-road for B.C. Mr. A. F. Holden, Borough Surveyor, Town Hall, Fulham. S.W.6.

MARCH 15.—**Ashbourne.**—SEWERS.—For construction of 650 lineal yds. of 9 in., and 170 yds. of 6 in. glazed stoneware sewer, &c., for the U.D.C. Mr. D. Powell, Surveyor, Council Offices, Ashbourne.

MARCH 15.—**Inverness.**—ROADS.—For the resurfacing of about four miles of the Perth-Inverness main road, for the Inverness C.C. Mr. Robert L. Shinnie, District Clerk, Kingussie. Deposit £2 2s.

★MARCH 15.—**Shoeburyness, Essex.**—ROADS AND SEWERS.—Making up, sewering, &c., a road across a portion of their housing site at Dangers, Shoeburyness, Essex, for the Shoeburyness U.D.C. Mr. E. Read, Council's Surveyor, High street, Shoeburyness.

MARCH 17.—**Hale.**—SEWAGE WORKS.—Construction of activated sludge treatment works, for the U.D.C. Mr. G. Midgley Taylor, 36, Victoria-street, Westminster, S.W. 1. Deposit £5.

★MARCH 17.—**Hampstead.**—PUBLIC CONVENIENCES.—(1) Grangeway, Kilburn, (2) West-End Green, and (3) Fortune Green, for the Borough of Hampstead. Borough Engineers Office, Town Hall, Hampstead. Deposit £1 1s.

MARCH 19.—**Aspatria.**—WATER WORKS.—For (1) laying of 385 yds. of 4 in. and 5 in. diameter cast-iron pipes; (2) construction of a water tower in Hennebique ferro-concrete, at Prospect, for Water Board. Mr. J. J. Davison, 6, King-street, Wigton, Cumberland. Deposit £2 2s.

MARCH 19.—**Hollingbourn.**—TAR SPRAYING.—For tar spraying or surface dressing 28,500 super yds. of roads, for R.D.C. Mr. F. Miskin, 33, Earl street, Maidstone.

MARCH 20.—**Egypt.**—WATER INSTALLATION.—For water installation at Fayoum. Dept. of Overseas Trade, 35, Old Queen-street, S.W.1. Reference, D.O.T., 12472/F.E./E.C.(2).

NO DATE.—**Hunsworth.**—WATER MAIN.—Supply and laying of about 550 yds. of 6 in. water main, for the U.D.C. Mr. P. O. Ashworth, Clerk, 5, Greek-street, Leeds.

Competitions.

(See Competition News, page 330.)

Auction Sales, Tenders, etc.

MARCH 4.—**Cambs.**—Messrs. Joseph Hibbard & Sons, in conjunction with Messrs. F. W. Seward & Son, will sell, without reserve, by order of F. W. Shanks, who is relinquishing this branch of his business at Station-street, Chatteris, Cambs, builders' stock and plant, timber, sanitary goods, five-bay grand stand, rolling stock, &c. Auctioneers, 15, Newington-green, Islington, London, N.16.

MARCH 4, AND TWO FOLLOWING DAYS.—**London, S.E.**—Messrs. Henry Butcher & Co. will sell by order of the Hamilton Trading Company, Hamilton-road, West Norwood, S.E., large quantities of miscellaneous tools and stores, &c., including 1-ton crane, electric motors, marine engines, &c. Auctioneers, 63 and 64, Chancery-lane, London, W.C.

MARCH 4.—**Woolwich, S.E. 18.**—ARTIFICERS' WORKS.—Artificers' works contract from April 1 at the Station and Divisions in the Woolwich Royal Engineer District. Contract 1. Woolwich, 1st and 2nd Divisions: Commanding Royal Engineer, Royal Engineer Office, New-road, Woolwich, S.E. 18.

MARCH 6.—**East Sheen.**—Messrs. C. & E. Melville will sell at the Mart, 155, Queen Victoria-street, E.C.4, unless previously disposed of, a freehold building site of over 23 acres. Auctioneers, 233, Upper Richmond-road, East Sheen, S.W.14.

★MARCH 11 AND 12.—**Banbury, Oxon.**—Mr. F. H. Clark will sell without reserve at Banbury Filling Factory, Central Stores Depot, 423 (fourth section) of timber and building materials accruing from the demolition of the Filling Factory, Banbury, Oxon. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

★MARCH 13.—**Bloomsbury.**—Messrs. Veryard & Yates will sell, without reserve, at one o'clock, building material arising from demolition of Y.M.C.A. "Shakespeare" Hut. Auctioneers, 365, Norwood-road, S.E. 27

★MARCH 13.—**Dagenham Dock, Essex.**—Mr. F. H. Clark will sell in conjunction with Hubert F. Finn-Kelsey, F.S.I., F.A.I., without reserve at Dagenham Dock, Essex. Central stores Depot No. 95, buildings, timbers, and materials contained in the National Box Factory, Dagenham Dock. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18, and Lyminge, Folkestone, Kent.

MARCH 18 AND FOLLOWING DAYS.—**Aldershot.**—Messrs. Joseph Hibbard & Sons will sell, without reserve, on the premises, Elms-road and Boxalls-lane (two minutes from Station), Aldershot, surplus stock of Messrs. George Kemp & Co., owing to amalgamation with A. H. Stroud, Esq., stock, plant, scaffolding, ironmongery, and sanitary goods, blacksmiths' material, concrete mixer, timber stocks, rolling stock. Auctioneers, 15, Newington-green, Islington, N.16.

MAY 6.—London, W.1.—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

★MARCH 1.—**East Ham.**—Supervisor of Building Trades, &c., required by the East Ham B.C. in the Engineer and Surveyors' Department, under the Borough Engineer (age 40 to 45 years). Borough Engineer, Town Hall, East Ham, E.6.

MARCH 3.—**Newport (Mon).**—The B.C. is to appoint a fully-qualified building inspector. Experience in supervising the erection of buildings, &c., in accordance with local authority by-laws the essential qualification. State age, experience and qualifications, &c., in own handwriting, and forward, with not more than three recent testimonials, to Mr. W. Lionel Jenkins, Borough Engineer, Newport (Mon.).

MARCH 3.—**Wandsworth, S.W.17.**—First-class Architectural Assistant and Quantity Surveyor, experienced in reinforced concrete construction, for a period of not less than six months. Mr. Ernest J. Elford, Borough Engineer, Borough Engineer's Office, 215, Balham High-road, S.W.17, endorsed "Architectural Assistant."

MARCH 4.—**Carlisle.**—Architectural Assistant in the City Engineer's Department. The appointment is a temporary one, but is likely to last for at least eighteen months. Mr. Henry E. Marks, M.Inst.C.E., City Engineer and Surveyor, 18, Fisher-street, Carlisle.

★MARCH 11.—**Mountain Ash (Glam.).**—ARCHITECTURAL ASSISTANT.—Architectural assistant required in the Architect's Department by the Mountain Ash U.D.C. Education Committee. Mr. A. Morgan, Director of Education. Town Hall, Mountain Ash, Glamorgan.

★MARCH 11.—**Southend-on-Sea.**—TOWN-PLANNING ASSISTANT.—Town-planning assistant required in the office of the Borough Engineer and Surveyor Mr. Robert H. Dyer, Borough Engineer and Surveyor, Southend-on-Sea.

★MARCH 14.—**Islington, N.1.**—CLERK OF WORKS.—Clerk of works in connection with the erection of extensions to tce Municipal Offices of steel-framed construction with reinforced concrete floors, for the Metropolitan Borough Council of Islington. Mr. C. G. E. Fletcher, Town Clerk, Municipal Offices, Upper-street, N.1, enclosed "Clerk of Works."

★NO DATE.—EX-SERVICE DRAUGHTSMEN.—Two draughtsmen for heating system and two steelwork draughtsmen required temporarily in Government Departments. The Joint Substitution Board (Treasury and Ministry of Labour), Montague House, Whitehall, S.W.1.

Portland Cement.

Mr. Sidney Webb, President of the Board of Trade, informed Mr. T. Thomson in the House of Commons that the following prices of British cement were quoted in the columns of the *Builder*, and related to "Best Portland Cement delivered in London area":—

Year.	Highest per ton.	Lowest per ton.
1st half 1919	.. 70/6— 73/6	.. 68/—71/-
2nd ,, ,,	.. 73/6— 76/6	.. 70/6—73/6
1st ,, 1920	.. 84/6— 90/-	.. 73/6—76/6
2nd ,, ,,	.. 87/6— 93/-	.. 84/6—90/-
1st ,, 1921	..107/6—113/-	.. 87/6—93/-
2nd ,, ,,	..107/6—113/-	.. 77/6—83/-
1st ,, 1922	.. 77/6— 80/3	.. 70/6—76/-
2nd ,, ,,	.. 63/— 68/6	.. 63/—68/6
1st ,, 1923	.. 63/— 68/6	.. 58/—63/6
2nd ,, ,,	.. 58/— 63/6	.. 58/—63/6

National Committee of Manufacturers.

Following the Conference last week between the Minister of Health and the manufacturers and suppliers of building materials, a National Committee of Manufacturers and Merchants has been appointed to act with the joint committee of builders and operatives in connection with the housing schemes.

The Committee of Manufacturers and Suppliers is as follows:—

Brick and Clay Industries.—Mr. George Andrews, Sittingbourne; Mr. George Barlow, Accrington; Mr. H. J. C. Johnston, Leeds; Mr. C. E. Morris, London; Mr. E. G. Vevers, Bristol; Mr. W. H. Wright, Loughborough.

Cement and Lime.—Mr. F. G. Foster, Doncaster; Mr. P. M. Stewart, London.

Lead.—Col. A. J. Foster, C.M.G., London.

Light Castings.—Mr. John King, Glasgow.

Slates.—Mr. Jas. J. Greenwood, London.

Timber.—Mr. E. Howard May, London.

Builders' Merchants.—Mr. J. Alfred Pratt, Watford; Mr. H. W. Rogers, London.

Mr. H. J. C. Johnston has been appointed Chairman.

LONDON MASTER BUILDERS' SPORTS' ASSOCIATION.

Football Section.

LEAGUE TABLE UP TO AND INCLUDING FEB. 23.

	P.	W.	L.	D.	Goals F.	Goals A.	Pts.
Perrycobow	13	10	1	2	46	13	24*
Trocoll	11	7	2	2	63	11	16
Holancube	12	5	3	4	30	16	14
Minter	11	6	5	0	34	21	12
Holloway A. A.	9	5	3	1	14	9	11
Whitehead	13	4	7	2	24	76	10
Higgs	12	3	8	1	21	35	7
Higadillo	12	3	8	1	19	58	7
Vigor	9	1	7	1	16	37	3

*Two points awarded Perrycobow owing to non-fulfilment of fixture by Higadillo, December 26, 1923.

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations:—T.C. for Town Council; U.D.C. for Urban District Council; R.D.C for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; L.C.C. for London County Council; B.C for Borough Council; and P.C. for Parish Council.

ACCRINGTON.—The Borough Surveyor has been instructed to prepare plans for a structure giving shelter and providing separate accommodation for bowlers and tennis players, with lavatory, wash basins, and sanitary convenience, and submit estimates of the cost.

ASHTON-UNDER-LYNE.—It is reported that during the coming summer operations would be commenced for the erection of a nurses' home for the Ashton District Infirmary.—The Managers of Christ Church School, Littlemoss, are intending to enlarge the school premises for the additional accommodation of 80 scholars.

ALTRINCHAM.—The Managers of the Bradbury Central School are applying for permission to erect an extension with provision for 120 scholars.

BACUP.—The T.C. is applying to the M.H. for the erection of a further 50 houses under the subsidy scheme.

BALLYMONEY.—The U.D.C. has decided to proceed at once with the scheme for the erection of 22 cottages.

BARNES.—Plans passed by U.D.C.: Shop and residence, 349, Upper Richmond-road, by Mr. Ed. Monson; three shops and residences, Upper Richmond-road, by Mr. Geo. Heath; house, Sheen Common-drive, by Mr. G. A. Gale; house, Christ Church-road, by Dix (Decorators), Ltd.; four houses, Lower Richmond-road, by Mr. G. W. F. Bates; new cold store and tun room, Mortlake Brewery, by Messrs. Watney, Combe, Reid & Co., Ltd.; 14 houses, "Clare Lawn" Estate, Sheen-lane, by Messrs. Rosevears.

BARROWFORD.—The Council has approved plans of dwelling-houses in Carr Hall-road, for Mr. D. Tattersall, Mr. F. Dyson, and Mr. R. Jacques, and for a bungalow in Colne-lane, for Mr. W. Blamire.

BATTLE.—Plan passed by R.D.C.: Additions to Royal Oak Hotel, Whatlington.

BELFAST.—Plans passed: Two shops and stores, Mill-street, for Mr. S. Gibson, architect, Mr. D. W. Boyd; eight villas, Salisbury-avenue, for Mr. D. McCune, architects, Messrs. Young & Mackenzie; four villas, Bawnmore-road, for Mr. Francis Curley, architect, Mr. C. McAlister; villa on Antrim-road, for Mr. S. R. Boyd, architect Mr. F. W. Shaw; shop and house, Cilvio-street, for Mr. T. E. Carlisle, architect Mr. Hugh Gault; villa, Balmoral-avenue, for Mr. H. J. Titterington, architects, Messrs. Tulloch & Fitzsimons; two houses, Luxor-gardens, for Mr. Thomas Dalzell.

BEXHILL.—Plans passed by T.C.: House, Cooden drive, Mr. G. E. Clare, for Mr. H. J. Stanbury; house, Terminus-avenue, Mr. A. H. Burton, for Mr. J. S. Malings; house, Richmond-avenue, Mr. A. E. Barker, for himself; house, Clavering-walk, Mr. E. H. Gandy, for Mrs. Williams; three cottages, Clinch Green, for Major Lomer; house, garage and workshop, Ninfield-road, Mr. D. B. Sceats, for Mr. F. Metcalfe; pair of semi-detached houses, Knebworth-road, Mr. D. B. Sceats, for Messrs. Sceats & Bates; house, Cranston-avenue, Mr. J. E. Maynard, for Mr. W. S. Bemi; four cottages and shop, St. James'-road, Messrs. Wall, Callow & Callow, for Mr. S. Carey; block of three flats, West-parade, Messrs. Wall, Callow & Callow, for Mr. G. Ravenshear; houses in Cooden-drive, Mr. A. C. S. Wheeler, for Messrs. Miroads, Ltd.; converting out-buildings into a bungalow at "The Thorne," Ninfield-road, Mr. J. H. Lye, for Mr. Gibbons.

BILLINGE.—Applications for a subsidy to assist in the erection of 15 houses have been granted. Plans of houses to be erected by Miss E. Milling, of two houses by Messrs. R. & F. Milling in Upholland-road, of four houses in Moss-road by Mr. W. Winstanley, of two houses in Greenslate-road by Messrs. Gaskell & Co., and of four in Orrell-road by Messrs. Gaskell Bros., were passed.

BIRKENHEAD.—The T.C. has agreed to the erection of 453 houses on the Tranmere Hall Estate, at a cost of about £300,000.

BISHOPS STORTFORD.—Plans passed by U.D.C.: Bungalow, Elm-road, for Miss Hills; two cottages, Manor-road, for Messrs. Cannon & Sons; four cottages, Stansted-road, for Mr. E. Markwell; cottage, Hadham-road, for Major Neilson.

BLACKBURN.—The Library Committee has approved a plan for converting the lending library into the open-access system. The scheme includes the making of a new entrance in Richmond-terrace, and the provision of shelving for about 24,000 volumes.

BLACKPOOL.—The Blackpool Corporation has made application for permission to introduce a hostel for destitute women and girls. The Plans Committee approved plans for the building of about 150 houses.

BLAYDON.—The U.D.C. has approved the following plans: 20 bungalows at Rowlands Gill, for Mr. Henry Bowers; 7 houses at High Spen, for Mr. G. C. Johnson; 10 semi-detached houses on the Burnopfield Co-operative Society's land at Highfield, Rowlands Gill, and for a number of semi-detached houses at the Axwell Estate, for Messrs. Mauchlen & Weightman, Newcastle. ——The Council decided to erect 25 houses at Chopwell, for private purchasers, conditionally.

BOURNEMOUTH.—The T.C. has applied to the M.H. for a loan of £6,000 for extensions to the Bournemouth Police Station.——Tenders are being invited for a beach superintendent's office, shelters, and bungalows. ——New concrete bridges are to replace the present rustic bridges at Boscombe and Alum Chines, and the M.H. has been asked to sanction the expenditure as also an expenditure of £2,326 for the purchase of land to erect public baths on the Northwood Estate. ——The T.C. is being recommended to provide a branch library at Southbourne.——The T.C. has had under consideration the erection of another 100 houses under the Housing Act of 1923, and a scheme is to be drawn up by the Housing Committee.

BOWLAND.—The Education Sub-Committee has recommended the West Riding authority to extend the accommodation at Grindleton-lane End School.—— The Licensing Justices have approved plans of proposed alterations to the "New Inn," Gisburne, submitted by the Blackburn Brewery Co., Ltd.

BRADFORD.—The Headquarters of the Bradford Permanent Benefit Building Society in Town Hall-square are to be reconstructed. Plans have been prepared, and tenders are about to be invited by the architects, Messrs. James Young & Co., Market-street, Bradford.

BRIDGEND.—The Bridgend U.D.C. has passed plans as follows: Two houses in Hernstone-lane, for Messrs. Romans & Barber; two houses in Grove-road, for Messrs. Howells & Durant; two houses in Grove-road, for Mr. J. W. Robbins; bungalow at Tondu-road, near Cwm Bridge, for Mr. R. P. Williams; bungalow in Jenkins-street, for Mr. Bruce Randall; three houses in Jenkins-street, for Messrs. Isaac, Fitzgerald & Williams; house at Brynteg, for Messrs. Williams & Thomas; house in Jenkins-street, for Mr. Fred Gronow; twenty-four houses in Grove-road, for Mr. P. Gaylord.

BRIGHTON.—Plans passed by T.C.: Two self-contained flats, Down-terrace, W. J. Burstow, for T. J. Braybon; terrace house, Princes-crescent, H. W. Sanders, for J. Levick; alterations, Railway Hotel, Surrey-street, A. B. Packham for Tamplin & Sons' Brewery, Brighton, Ltd.; An inquiry has been held by the M.H. in regard to the Provisional Order which the Council is applying for to enable the town to acquire compulsorily certain property required for widening Western-road and West-street, and creating a square between Surrey-street and Queen's-road; also for the creation of an open market between Baker-street and Francis-street. The estimated cost of the scheme is between £280,000 and £300,000.

BURY.—The Sewering, Paving and Streets Committee have approved plans for 42 houses.——It is proposed that a new mortuary be erected at the Fire Brigade Station.——The Baths Committee has recommended the T.C. to borrow £10,985 for open-air baths adjoining Clarence reservoir.

CARLISLE.—Plans approved: Mr. J. H. Martindale, Architect, on behalf of the Building Committee, Crosby-on-Eden, memorial hall for a public hall at Crosby; by Mr. H. H. Hodgkinson, bungalow at Wheelbarrow Hall-road; two houses on the same road; by Mr. H. Irving Graham, Silloth, for a cottage at Harker.

CHESTER.—Plans passed by T.C.: Shop and warehouse, for Dickson's Seeds, Ltd.; four houses, Lache-lane, for Brown & Co. (Chester), Ltd.

CHESTERFIELD.—The E.C.'s estimated expenditure for the coming financial year includes for two new schools in the Baden Powell-road district. The C.C. (Derbyshire) propose to erect a new bridge of reinforced concrete over the River Derwent, between Sheffield and Bakewell. The bridge is to be 40 ft. wide, and is estimated to cost £24,000.

CLYDEBANK.—Plans have been approved by the Dean of Guild Court for the erection by Clydebank Co-operative Society of a large creamery on a site at Chalmers-street.

COATBRIDGE.—The Dean of Guild Court has granted lining for extensions to R. B. Tennent's foundry, Whifflet, to cost £3,000.

DARLINGTON.—The T.C. have received intimation from the M.H. that certificates will be granted to the Coropration for another 150 houses.——The Streets Committee have approved the lay-out plan for the "Dog and Gun" estate, Neasham-road.

DRIGLINGTON.—Plans passed:—Two houses at Adwalton, for Mr. George Johnson.

DUBLIN.—Plans passed:—Gardiner-street, Lower, 71–73, rebuilding hotel, Mr. F. A. Moran; Wellington Quay, 42–43, and Temple Bar, 17, new premises, Messrs. Clarke & Costello.

EARSDON.—The Surveyor of the U.D.C. stated that an estate plan had been submitted, showing 336 houses proposed to be erected on the Park House Estate.

HESTON AND ISLEWORTH.—Plans passed by U.D.C.: P. Chase Gardener & Co., house, Hounslow-gardens; Roper, Son & Chapman, 21 houses, Sutton-road and Heston-road; R. Emmett & Son, house, Grove-road; Dodge & Reid, bungalow, Jersey-road; S. L. M. Avery, five houses, New Heston-road and Smoky-lane; J. R. Pettifer, house, Wood-lane; R. Emmett & Son, garage, 100, Hibernia-road; Glenister Woodger, 16 houses, Pear Tree Estate; Building Enterprises, Ltd., 16 houses, Jersey-road; Silwood Construction Co., Ltd., six houses, Granville-avenue; P. Chase Gardener & Co., four houses, Tiverton-road, and two houses, Bulstrode-road.

EDINBURGH.—The Dean of Guild Court, at its last meeting, granted warrant to the Edinburgh Hippodrome, Ltd., to erect a picture house at the Leith-walk corner of Annandale-street. Forty-three cases were before the Court, 27 of which were full petitions, and 21 were granted. Included in this number was a warrant to James Roy and others to erect 61 houses at Clark-avenue, under Councillor Baxter's housing scheme, and will cost the purchaser under £500. Among the other warrants granted were the following:—A. W. Bell, villa at Grant-avenue, Colinton; the Corporation, bench walls at Greyfriars' Churchyard; the Corporation, lairages for imported cattle at the Cattle Market, Gorgie; Colville & Kennedy and others, three-story tenement at 20, Mayfield-road (the tenement will contain six houses); Sir Robert Maule, four-story building, to be used as stores, &c., at Caledonian-crescent; Mrs. M. I. Reid, house and offices at Belmont Estate, north-west of Murrayfield-road; Thomas Scoon, two semi-detached villas at Dovecote-road, Corstorphine; Gardners' Hall Trustees, house at 29, Gardners'-crescent, Elder & Watson, villa at Afton-terrace; David Waddell, shops and dwelling-houses at Spylaw-street, Colinton.

EDMONTON.—Sanction of the M.H. has been received by the Board of Guardians for the expenditure of not more than £5,230 upon alterations and additions to the laundry at Edmonton House.

FARSLEY.—Plans passed:—Sanitary conveniences and bathroom in Andrew-street, for Mr. Shuttleworth; sanitary conveniences and bathroom in Land-street, for Mr. E. Parkinson.

FLEETWOOD.—Plans passed by U.D.C.: Three houses in Darbishire-road, for Mr R. Eaves; six houses, Park-avenue, for Mr. R. Lancaster; two houses, Fleetwood-road, for Mr. E. F. Logan; house and shop, Shakespeare-road, for Mr. H. F. Elliott.

FLINT.—House, Chester-road, for Mr. J. Williams.

FRODINGHAM.—The L. & N.E. R. Co. are seeking powers in a Bill now before Parliament to carry out new works and extensions to present tracks at an estimated cost of £188,726. This expenditure includes for the construction of a new passenger station.

GELLYGAER.—The U.D.C. has decided to erect 50 houses at Bargoed, and will shortly invite tenders for the work.——The Council has agreed to a proposal of a Building Corporation to erect 100 houses at Penallta.

GLAMORGAN.—The Pontypridd B.G. has received Ministry sanction to its proposal to convert the Llynipia branch institution into a hospital or infirmary.—— The Cardiff R.D.C. is to carry out private street works at Tongwynlais.

GLASGOW.—Two important schemes for the provision of dwelling-houses in the city received the consent of Dean of Guild Court at its last sitting. One was the Corporation project at Crossmyloof. The Corporation will build three tenements comprising 276 houses of three and four apartments at an estimated cost of £123,831. The other venture marks the first scheme to be promoted in Glasgow under the conditions of subsidy to private builders. The Corporation approved plans submitted to them by Mr. James Downs, builder, Crow-road, for the erection of 45 houses at Jordanhill. The principal linings granted were:—John Chisholm, 34, Ancaster-drive, villa at Langlands-road, Newlands; James W. G. Oswald, of Scotstoun, lane between York-avenue and Kent-avenue, Jordanhill; Corporation Parks Department, bandstand at Alexandra Park; Kirklee Tennis Club, tennis pavilion and fencing at corner of Gower street and Kelburne-street, North Kelvinside; James Downs, 620, Crow-road, Jordanhill, 100 terrace houses and form lanes and sewers at Munro-road, Austen-road, and Chamberlain-road, Jordanhill; John H. Campbell, 135, Buchanan-street, two dwelling-houses, garages, &c., at Percy-street, Maryhill; Corporation Housing Department, streets and sewers at Possilpark, with a view to the extension of the Hamiltonhill housing scheme; Mrs. Agnes B. M'Donald, 149, Easterhill-street, Tollcross, cottage at Hillview-street, Shettleston; John M. Robertson, 2, Lancaster-crescent, Kelvinside, drill and recreation hall off Whitefield-road, Govan; Corporation Housing Department, houses and form streets and sewers at Norham-street, Frankfort-street, Dinmont-road, and Durward-avenue; Corporation Parks Department, bandstand at Kelvingrove Park; William Miller, joiner, 186, Trongate, bungalow at 50, Fernleigh-road; Bank of Scotland, alterations and additions to subjects at south-east corner of Renfield and St. Vincent-streets. The cost is estimated at £43,000.

GOSFORTH.—The M.H. have sanctioned the application of the U.D.C. to borrow money for the contract for 30 houses on the Coxlodge Estate, the sums being £11,340 for erection of 30 houses, £702 for street works and gas mains, and £155 for sewer works.

GREAT HARWOOD.—Land at Lidgett has been secured as a site for a new Spiritualist church.

GUILDFORD.—Plans passed by T.C.: House, Bray-road, by C. J. Mitchell, for E. Sibbald; house, Madrid-road, by T. Martin, jun.; two houses, Stockton-road, by Mr. A. J. Grove; house, Ennismore-avenue, by A. C. Burlingham, for V. Ellis; house, Mountside, by L. R. Hiscock, for B. Hardy; house, Avonmore-avenue, by H. W. Frampton & Co.; pair of houses, Madrid-road, by W. J. Grove; bungalow, Harvey-road, by H. Ascroft, for Mrs. L. N. Searle; pair of houses, Bray-road, by Hodgson, Lunn & Co., for S. Battersby; pair of houses, Grange-road, by W. G. Sheppard for Mr. Warrener and Mr. Waltham; house, Worplesdon-road, by W. G. Sheppard; new road and lay-out, Pewley Hill, Poyle Charity Estate, by F. J. Hodgson.

HEYWOOD.—A proposal has been made to erect a market building on the Hind Hill.

HIPPERHOLME.—Plans passed by U.D.C.:—Two houses for the Rev. George Watkinson.

HOLMES CHAPEL.—A new social club is to be erected in Station-road by the Wall-paper Manufacturing Co.

INCE.—The Board of Education has sanctioned the erection by the D.C. of clinic adjacent to the Council offices.

IMMINGHAM.—The Wesleyan Methodist Church Council propose to erect a new church, with seating accommodation for 350, at an estimated cost of £4,130.

KENILWORTH.—Plans have been approved of a house in Warwick-road for Mr. Vaughan.

KEIGHLEY.—Plans passed by R.D.C.:—Four houses near Scott-lane, Riddlesden, for Mr. A. Smith; 10 houses in Banks-lane, Riddlesden, for Mr. T. Moore; two houses in Carr-lane, Riddlesden, for Messrs. Barker & Gledhill; bungalow at Sandbeds, Bradford-road,

(Continued on page 364)

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by Inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire bricks—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
Headers	21 10 0	One Side and two Ends	31 10 0
Quoins. Bullnose and 4½ in. Flats	28 10 0	Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 0	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
¼ in. "	15 0	" "
¾ in. Broken Brick	10 6	" "
Lan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6

51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 5 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7 -
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1¼ in. to 2 in. ditto, ditto "	1 3

HARD YORK—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£5 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
¾	17/6
⅞	22/-
1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 4 per 100 ft.

SAWN LATHS.

Per bundle				0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2	0 to	0	2 6
¾ in. do. do.	0	1	6 to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9 to	0	2 6
Cuba Mahogany	0	3	0 to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0	0 to	50	0 0
American Whitewood planks, per ft. cube	0	14	0 to	0	16 0
Best Scotch Glue, per cwt.	4	10	0 to	—	
Liquid Glue, per cwt.	4	7	0 to	5	10 0

SLATES

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	27 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work "	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Angles and Gutters.	Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoopiron, basis price	16 10 0	..	17 10 0
Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16 0 0
" " 24 g.	16 0 0	..	17 0 0
" " 26 g.	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
	20 10 0	..	22 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)			

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	45 0 0
Pipe in coils	45 10 0
Soil Pipe	48 10 0
Compo pipe	51 0 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

	£ s. d.		
Old lead, ex London area, at Mills per ton	32 10 0	..	—
Do., ex country, carriage forward per ton	33 10 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/-	per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/-	"

COPPER—	£ s. d.		
Strong Sheet per lb.	0 2 3	..	—
Thin " "	0 2 4	..	—
Copper nails " "	0 2 3	..	—
Copper wire " "	0 2 4	..	—
TIN—English Ingots "	0 2 7	..	—
SOLDER—Plumbers' "	0 1 2	..	—
Tinmen's "	0 1 4	..	—
Blowpipe "	0 1 6	..	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 5 0
" " " in barrels "	0 5 2
" " " in drums "	0 5 5
Boiled " " in barrels "	0 5 5
" " " in drums "	0 5 8
Turpentine in barrels "	0 6 11
" in drums (10 gall.) "	0 7 2
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	60 0 0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 1¼ lb. tins) not less than 5 cwt lots per ton delivered 84 0 0

Red Lead, Dry (packages extra) per ton	47 10 0
Best Linseed Oil Putty per cwt	0 16 0
Filocol per cwt	0 15 6
Size, XD Quality per ikn	0 3 0

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

Per Ft.		Per Ft.	
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ 21 „	5½d.
26 „ fourths	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft

¼ Rolled plate	4½d
⅜ Rough rolled	5½d.
½ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cutrass Black Enamel		0 7 0

Messrs. Robert Ingham Clark & Co., Ltd., of West Ham Abbey, London, have added to the number of their branch factories by the formation recently of Robert Ingham Clark & Co. (Scotland), Ltd. The new company with which is incorporated Messrs. Dowie & Smith, of Renfrew, has taken over that firm's works, which have been reorganised and brought up-to-date. Mr. R. H. Ingham Clark is chairman of the board, Mr. P. G. Dowie managing director and Messrs. F. W. F. Clark, Hugh Smith, J. M. Christie and F. R. Forfar directors.

THE SCOTTISH BUILDER

BUILDING FROM WASTE MATERIALS

Mr. W. HANSEN RAWLES, of Belmont, in a letter to the *Times*, commented on the suggestion by the Health Ministry to open derelict brickyards in various parts of the country to ease the present brick shortage. He asked if it would not be more advantageous in many cases to follow the example set in America and on the Continent to make the clinker, the waste product obtained from the municipal refuse destructors and from electric power stations, into good hard concrete bricks? These, if properly made, are equal to, and in several characteristics superior to, ordinary clay bricks. This waste material thus becomes a useful building material produced at a lower cost than burnt clay. Millions of clinker concrete bricks are produced annually on the Continent and in the United States.

Professor A. T. Laurie, of the Heriot Watt College, Edinburgh, had, in lecturing on the same subject, drawn attention to the utilisation for this purpose of blast furnace slag, cinders, and clinker, and burnt shale from the stills of the oil industry. He mentioned three ways in which these could be utilised—for the production of bricks, for the production of cement, and as aggregate mixed with Portland cement or plaster of Paris. The general method of produring bricks by the sand lime process consisted of mixing the aggregate with a certain proportion of lime and water, squeezing it into a brick of some 200 tons to the area of the brick, and then steaming under high pressure. Bricks were now being manufactured by this process from sand, blastfurnace slag, granulated by being run while hot into water, clinker, town refuse, slate dust, and burnt shale. Cement was being manufactured by two of the Scottish steel companies from blast furnace slag granulated, mixed with lime, and then raised to a high temperature, so as to form a clinker in the same way as ordinary Portland cement was manufactured. Professor Laurie had made the suggestion that a very useful cement could be made of the burnt shale of the Scottish oil shale dumps, grounding with a certain proportion of slaked lime. These shale dumps were an eyesore at Broxburn, Straiton, Oakbank, Dalmeny, and wherever oil works had been established west of Edinburgh. There were two methods of manufacture—the "Crozite," or common American; and that of the Triangular Construction Co. In America, all kinds of materials required by the builder had been turned out made from plaster of Paris as the cement.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7	1/7	1/4½	1/0½		
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Arbroath	1/6½	1/6½	1/7½	1/7½	1/6½	1/6½	1/5½	1/1½		
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2¾		
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½		
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—		
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½		
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2¾		
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2¾		
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2		
Galashiels	1/6½	1/5½	1/6½	1/6	1/5½	1/5½	1/5½	1/1½		
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Greenock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/1½ to 1/2¾		
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2		
Helensburgh	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/½		
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2¾		
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1 0		
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2¾		
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 355.

NEW BUILDINGS IN SCOTLAND.

Fraserburgh.—PAVILION.—The T.C. has decided to adopt the Burgh Surveyor's plan for a pavilion on the Esplanade, the estimated cost of which is £700.

East Wemyss.—CHURCH.—At a meeting of the Kirkcaldy United Free Presbytery held recently it was stated that an early start was proposed with the erection of a new church at East Wemyss.

Windygates.—CHURCH.—It was stated at the recent meeting of the Kirkcaldy United Free Presbytery that a gift of £2,000 has been received towards the cost of a proposed church at Windygates.

Saltcoats.—CONVERSION.—The T.C. proposes to convert their milk depot into a tenement building containing eight houses.

Aberdeen.—INFIRMARY.—It was stated at a recent meeting of the Royal Infirmary Board that a site had been approved, at Foresthill, and that an offer had been made to purchase the portion of the site required for the Infirmary at a cost of £11,000. The Links and Parks Committee propose to carry out painter work and repairs at the bathing station, at an estimated cost of £584.

Rutherglen.—HOUSES.—Authority has been given to the T.C. to accept tenders, which amount to £15,000, for the erection of 32 houses, which comprise the third instalment of its housing scheme.

Alloa.—HOUSE.—The Dean of Guild Court has passed plans for a house off Tullibody-road, submitted by Mr. James Miller, Shaftesbury-street.

Ayr.—HOUSES.—The Dean of Guild Court has passed the following plans:—R. W. Hutchinson, two houses at Falkland Park-road, at a cost of £1,200; J. Leggat & Sons, four houses at Hawkhill-avenue, at a cost of £3,400; H. H. Mills, Ayr, a house in Doonfoot-road, to cost £1,600; and Quinton Clark, two houses in Bellesleyhill-road, to cost £1,490.

Girvan.—HOUSES.—The T.C. propose to borrow £12,000 for the erection of 28 houses in Back-road.

Ban on Bonus System.

At a recent meeting of the Glasgow Town Council, discussion arose as to whether payment by results should be prohibited. The bonus system was opposed, and the Labour members also supported this view on the ground that "rush" work would lead to jerry building. On a vote the minute containing the ban on piece work and the bonus system was carried by 47 votes, against 46 votes for the deletion of this proviso.

Kirkcudbright.—MARCH 1.—POST OFFICE.—New post office at Kirkcudbright. Tenders for whole trades and not separately. Schedules from the Architect, H.M. Office of Works, 4–5, Drumsheugh Gardens, Edinburgh. Deposit £1 1s. Drawings can be seen along with conditions of contract, &c., at the above address, or at the Post Office, Kirkcudbright.

CURRENT PRICES FOR BUILDING WORK IN LONDON.

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1¼"	1½"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d	2d

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	59	0
Do. Do. in flats	"	57	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	"	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/1	1/9	2/0	3/6	4/2	
Do. service	"	1/8	2/2	2/7	3/10		6/10
Do. soil	"					3/3	8/2
Bends in lead pipe	each						
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1¾
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PROPOSED NEW BUILDINGS.

(*Continued from page* 360.)

Riddlesden, for Mr. J. Waddington; two houses in Holme-lane, Sutton, for Messrs. E. Greenwood & E. Harrison; two houses at Sandbeds, Bradford-road, Riddlesden, for Mr. J. Waddington; shop in Holme-lane, Sutton, for Mr. H. Fort.—The R.D.C. has accepted tenders for the erection of 12 houses at Morton Banks, amounting to £5,959, exclusive of street works and cost of land.—Plans passed by T.C.:—Two houses in View-road, for Ernest Turner, Ltd.

KING'S LYNN.—Plans passed by T.C.: Four houses, Loke-road, for Messrs. Fayers & Sons; three houses, Sedgeford-lane, for Mr. F. G. Brown; two houses, Tennyson-avenue, for Messrs. J. Medwell & Son; house, Chase Estate, for Mr. J. A. L. Gage; four pairs of houses, Loke-road, for Mr. J. Medwell; house, Loke-road, for Mrs. E. A. Howard; house, Loke-road, for Mr. A. C. Curtis; house, Chase Estate, for Mr. A. E. Bray; four pairs of houses, Homelands-road and Gaywood-road, for Mr. F. E. Hares.

LEADGATE.—The U.D.C. have approved plans for the erection at Crookhall of 51 cottages, mission hall, and an institute.

LEVENSHULME.—Funds are being raised by the parish of St. Andrew's to provide additional accommodation for the Sunday school.

LONDON (LEWISHAM).—Plans passed by B.C.: C. Engram & Co., 20 houses, Como-road; Arthur J. Glock, nine houses, Rushford-road; W. Reynolds & Co., six houses, Coniston-road; E. A. Stone, four houses, Marler-road; M. & W. Godsmark, addition to 7, Tannsfeld-road; C. Cutler & Sons, house, Chinbrook-road; R. Jenner & Son, house, Thorpewood-avenue; Edmonds & Beale, warehouse, Cibber-road; Ernest Collins, house, Bellingham-road; W. J. Scudamore, Ltd., house, Marvels-lane.

LONDON (HACKNEY).—Plans passed by B.C.: Office and canteen buildings at Messrs. Gliksten's premises, Waterden-road, for J. & J. Dean; rebuilding of "Anchor & Hope" public-house, 15, High Hill Ferry, for Johnson Bros.; factory, Belfast-road, for T. J. Marshall & Co.; employment exchange premises, Mare-street and London-lane, for Wister & Ward; factory premises, Theydon-road, for T. D'Amery; 27 lock-up shops, Ridley-road, for H. M. Munro, & Partners; factory premises, 41 and 43, Hackney-grove, for J. S. Jarvis & Sons.

LONDON (STOKE NEWINGTON).—It is proposed to carry out extensions and alterations at the Library, at cost of £4,350.

LONDON (WANDSWORTH).—Plans passed by B.C.: G. Easton, building, Little Manor-street, Clapham North; H. S. Tydeman, billiard-room to Derwent Mount, 15, Streatham High-road; Swan Bros., house, Kersfield-road, Putney; E. J. Logan, four shops with flats over, Wimbledon Park-road, Southfield; H. S. Goult, two houses, Wimbledon Park-road, Southfield; F. T. Wooding & Sons, house and garage, Abbotsleigh-road, Streatham; Wandsworth B.C., depot stores and swimming-bath, 380, Streatham High-road; H. E. Wates, two houses, Green-lane, Streatham; Chapple & Utting, 59 houses, Leithcote-gardens, Streatham; Chapple & Fulford, 19 houses, Broadview-road, 30 in Carnforth-road, and 39 in Abercairn-road, Streatham; G. W. Beattie, conversion into flats, 317, Upper Richmond-road, Putney; Humphreys & Allen, four houses, Gateside-road; A. E. Peacock, printing-room and office, 37 and 37, Park-crescent, Clapham South; E. J. Peacock, five houses, Stockfield-road, and seven houses in Rosedene-avenue, Streatham.

LOWER TOOTING.—The Wesleyan Methodist Church Council propose to erect a new mission church at Southfield, to seat 1,850 persons, at an estimated cost of £54,300.

LOWESTOFT.—Plans passed by T.C.: Metropolitan Asylums Board, Gate Lodge, St. Luke's Hospital; Mrs. Meadows, dining-room, "Kingswear," Rectory-road; Mr. D. F. Fuller, bungalow, Yarmouth-road, Oulton Broad; Mr. R. Low, two houses, Clapham-road; Mr. T. Head, house, Beccles-road.

MARGATE.—Plans passed by T.C.: House, Pembroke-avenue, H. J. Taylor; heating chamber, St. James' Church, Garlinge, T. Wells; house, Leslie-avenue, Garlinge, A. C. Belcher; house, Hartsdown-road, R. Messenger; 14 houses, All Saints'-avenue, P. Levett; saloon, Clifton Baths, C. S. F. Palmer; additions, 21, Sweyn-road, Wood & Co.; house, Arundel-road, R. A. Harris; house and garage, road near Kingsgate, F. Sutton Smith; two houses, Westcliff-gardens, W. R. H. Gardner.

MIDDLESBROUGH.—The T.C. have approved 17 sets of plans, submitted by its Plans Committee, including 15 houses.

MIDDLETON.—Plans for the erection of new public baths in Suffield-street and Corporation-street have been submitted to the Corporation by the Borough Surveyor.

MIRFIELD.—A new club is to be erected as a permanent place of recreation for the local Ex-Service Men. A site has been acquired and plans are being prepared.

MONMOUTHSHIRE.—The Mynyddislwyn U.D.C. has applied for sanction to proceed with the Blackwood-road widening scheme.——Schemes, under Miners' Welfare Fund Committee auspices, for lay-out of recreation grounds, &c., are to be put in hand at New Tredegar, Pengam, Fleur-de-lis, Aberbargoed, Ystrad Mynach, Pontlottyn, Rhymney, Bargoed and Nelson. A grant of £2,500 has already been received by the Bargoed and District Local Welfare Committee (Secretary, Mr. J. Edwards), for the district scheme, from Central Fund.——Further large scale works extensions are to be put in hand by Messrs. Whitehead Iron and Steel Co., Ltd., at Newport.

NELSON.—The Borough Surveyor has been instructed to prepare a scheme for the erection of 50 additional houses. Tenders have been accepted for the erection of 19 houses on the Marsden Hall-road site.

NEWCASTLE.—The Town Improvement and Streets Committee have approved plans for the erection of a further 24 houses.

NEWMARKET.—The U.D.C. has granted housing subsidies to T. Allen (Soham), Lionel Dawson, Lowther-street; E. H. Southgate, 21, St. Philip's-road; E. C. B. Pilgrim, Falmouth-street, and the Exning Unionist Club.

NORWICH.—The T.C. has approved of a scheme for the erection of 1,000 houses.

NOTTINGHAM.—The C.E.C. propose to approach the B. of E. for their sanction for the erection of three new Elementary Schools at Bulwell, Old Rasford and Hyson Green.

OLDHAM.—The Buildings Committee has approved plans for eight houses to be erected in Melling-road.

OKEHAMPTON.—Subsidies have been granted by the T.C. to Mr. J. Avery for 24 houses in Barton-road, and J. J. Sleeman for six houses in Mill-road.

PEMBROKESHIRE.—The County Small Holdings Committee has agreed to the erection of buildings at Chapel Farm, Ford; at Good Hope, Llysfran, Pallau, East Johnstone, Croft Holding (Llysfran); new house or bungalow at Hubberston; repairs at Chapel Farm, Castlemartin; conversion of buildings at Tre Gynon; repairs at Trefwynt, Trebeorth, and East Johnstone.——The Goodwick U.D.C. has in consideration erection of public slaughterhouse.

PORTADOWN.—The U.D.C. has approved of plans from Messrs. Thomas Hyde & Sons, Portadown, for the erection of 14 houses in Cecil-street, four houses in Queen-street, for Mr. R. McKeown, and a villa in Thomas-street, for Mrs. Rountree.

POOLE.—The T.C. has decided to ask the M.H. to allow subsidies for a further 150 houses and to proceed with the erection of a further 74 houses. Loan sanctions have been issued by the M.H. in respect of £11,861 for the erection of 26 houses by the Council, and for sums of £13,300 and £22,111 in respect to housing assistance.

RAWTENSTALL.—The General Purposes Committee has decided to erect eight houses at Cloughfold.

REDCAR.—The T.C. is to apply for permission to borrow £10,000 for water main extensions in anticipation of building developments.

RICHMOND (YORKS).—The T.C. has approved plans, submitted through its Sanitary and Housing Committee, for the erection of 10 houses in Queen's-road, and 22 in the Garden City.

ROCHDALE.—Provision is being made for the erection of public conveniences in connection with the covering of Wellington Bridge to Weir-street.—The members of the Rochdale Motor Club are considering the question of the provision of a club-house.——The Wesleyan Methodist Church Council propose to erect a new church with seating accommodation for 2,000 persons, at an estimated cost of £6,9788.

SOUTHAMPTON.—A movement is on foot to obtain a permanent site for a new church of St. John at Shirley.

SOUTHEND-ON-SEA.—In connection with Cliff Town Congregational Church, efforts are being made to collect £10,000 towards the cost of a new lecture hall, and it was announced recently that over £80,000 was in hand.——The church of St. Michael's, Leigh, is appealing for funds to enable the building of a parish church to be commenced. Plans have been prepared by Sir Charles Nicholson, and the cost is estimated at £10,000.——Club premises are to be established in connection with the Ambassador's Theatre, and it has been decided to acquire premises on the Westcliff-parade.——The Education Committee has submitted its revised programme of school building, and this includes a senior elementary school for 450 boys and girls to be erected on Coleman's Estate site; and open-air school on the same site for 100 children; and two additional class-rooms are also to be provided at West Leigh School.

SPALDING.—The R.D.C. who have had some houses built at £388 each, have instructed their architects to prepare plans for the erection of houses at £300 each.

STALYBRIDGE.—The E.C. is preparing to convert West Hill into a school.

THORNABY-ON-TEES.—The T.C. has passed plans for 17 houses on the Cobden-street Estate, for Stockton Co-operative Society, and a cinema in Mandale-road, for Mr. G. T. Alderson.

THORNE.—The R.D.C. has approved the lay-out of the Hatfield Parks Estate. It contains some 400 acres of well-wooded land, a first section fronting Station-road having been purchased by the Hatfield Main Colliery for the erection of 160 workmen's dwellings, while they have secured an option on a further section upon which there is space to build 250 more. The higher ground adjoining Thorne-Doncaster main road is to be laid out for the provision of detached and semi-detached houses of the "country suburb" type.

THORNTON.—A banking company has purchased the cottage on the south side of Four Ends, on the site of which it is proposed to erect a bank.

WALTON-LE-DALE.—The Highways Committee has instructed the Surveyor to ascertain the cost of the removal and re-erection of the building at the corner of Belle-lane and Hoghton-lane.

WALSALL.—The E.C. has decided to immediately invite tenders for the erection of a new Junior School at Willington-square.

WALTON (SURREY).—James Burns & Co. have applied for a subsidy for 50 houses which it is proposed to erect in the Molesey-road.

YARMOUTH.—Plans passed by T.C.: House, Heathcote, Marine-parade North, for Mr. E. Taplin; house, Alexandra-avenue, J. Balls & Sons, and another for Mr. Cole; house, Elm Grove-road, Gorleston, Mr. C. J. Wiltshire; house, John-road, Gorleston, Mr. D. Green; nurses' quarters, Yarmouth Infirmary, for the B.G.; alterations, 175, King-street, Mr. David Grig; house, Bernard-road, Gorleston, the Gorleston Cliff Estate; five flats, South Quay, Mr. R. W. Clarke; house, Hamilton-road, Mr. J. E. Pestell; two, same road, Mr. H. A. Holmes; four houses, Balmoral-avenue, Messrs. Ames & Leach; four houses, Albemarle-road, Gorleston, Mr. H. C. Downing; bungalow, Colomb-road, Gorleston, Messrs. Crow & Palmer; eight houses, Clarke's-road, Gorleston (Pound-lane Building Estate), Mr. H. R. Middleton.

FIRE.

BARRY (GLAM.).—The Wyndham Conservative Club and Institute, Harbour-road, Barry, has been destroyed by fire. The damage is placed at £10,000.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

*** Denotes *accepted*. † Denotes *provisionally accepted*.**
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BARNES.—For construction of underground conveniences, for the U.D.C. Mr. G. B. Tomes, Engineer and Surveyor, Council House, Mortlake, S.W.:—

Wm. Lowe, Barnes	£3,986 0
John Garrett & Son, Balham Hill	3,946 0
Jarman & Co., Richmond	3,924 0
Speechley & Smith, Richmond	3,860 0
Perry Bros., Ealing	3,700 0
E. J. Logan, London	3,298 0
*A. E. Farr, London	3,167 6

BEXHILL.—For the construction of 35 houses for the T.C.:—

Ching, Ltd., Bexhill	£20,475 0
E. Godwin & Sons, Bexhill	19,200 0
T. Shillitoe, London	18,550 0
H. Cockett, Bexhill	18,480 0
A. J. Eldridge, Watford	17,847 5
White Bros., Bexhill	16,865 0
J. W. Woolnough, Ltd., Eastbourne	16,800 0
James Bodle, Ltd., Bexhill	16,398 0
*W. J. Simms, Sons & Cooke, Ltd., Nottingham	14,975 0

(Or alternatively to erect houses according to plans and specifications at cost of materials, labour and supervision, plus 15 per cent.)

F. Metcalf, Bexhill—16 or 18 houses at £600 each.
W. H. Sanders, Bexhill—£2,811 (for five houses only).

BEXHILL.—For extension of roads and sewers on the London-road housing site in relation to the Council's new scheme:—

J. W. Woolnough, Ltd.	£1,116 0 0
Gunn MacNeill, Ltd.	951 5 10
G. Shoesmith	862 0 0
Hutchinson & Son	802 0 0
*S. Carey	765 0 0

BIRMINGHAM.—For erection of premises, for Messrs. Lewis, Ltd. Messrs. G. de C. Fraser & Ainley architects:—

F. G. Minter, London	£265,825
H. Willcock & Co., Wolverhampton	255,800
F. & H. F. Higgs, London	249,998
J. Moffat & Sons, Birmingham	248,970
W. F. Blay, London	247,867
W. J. Whittall & Sons, London	242,998
Thos. Rowbotham, London	242,853
J. Barnsley & Sons, London	242,495
A. H. Guest, Stourbridge	241,721
Maddocks & Walford, Stourbridge	239,946
W. Sapcote & Sons, Stourbridge	239,845
J. Bowen & Sons, Stourbridge	237,779
H. Matthews & Sons, Manchester	235,000
Holland, Hannen & Cubitts, London	232,000
R. Carlyle & Co., Manchester	231,914
Gerrard & Sons, Manchester	230,000
Wilson, Lovatt & Sons, Ltd. (Wolverhampton)	227,879
W. Tomkinson & Sons, Liverpool	226,886
T. Elvins & Sons, Birmingham	225,770
Hughes & Stirling, Liverpool	221,613
J. G. Gray, Coventry	221,531
F. D. Huntington, London	221,400
W. Thornton & Sons, Liverpool	219,000
T. Johnson, Birmingham	217,987
*W. Moss & Sons, Liverpool	215,000

BOLTON.—For the asphalter's work to the roofs and floors of new super-shop premises at the corner of Deansgate and Market-street, Bolton, for Messrs. Montagu Burton, Ltd., gentlemen's tailors. Architect: Mr. Harry Wilson, Leeds:—

*Messrs. The Limmer & Trinidad Asphalte Co., Ltd., Sackville-street, Manchester.

BRIGHTLINGSEA.—For walling eastern section of West Marsh, for the U.D.C.:—

*F. Mitchell & Sons £3,889 3 9

ENFIELD.—For repairs at cottage, Bycullah pumping station, for the Metropolitan Water Board:—

Holmes & Co.	£257 15 0
Kelland & Sons, Ltd.	185 0 0
H. Almond	140 0 0
*W. Young	118 10 0

ENFIELD.—For construction of 700 yds. of 9 in. stoneware surface water sewer, and laying 680 yds. of granite kerb, for the U.D.C. Mr. H. R. Crabb, Surveyor, Public Offices, Enfield:—

G. Bell & Son, Tottenham.

GLASGOW.—For the various works in connection with the construction of the Parkhead Sub-station, for the T.C.:—

Excavator, concrete, brick, and mason works—	
*William Taylor & Son (Glasgow), Ltd.	£2,601 0 0
Wright, &c., works—	
*Bremner & Co. (Glasgow), Ltd.	510 4 2
Steel works—	
*Fleming Brothers	286 19 4
Plumber work—	
*James Anderson & Co.	166 19 1
Slater work—	
*William Reid & Son	174 15 7
Total	£3,739 18 2

GLASGOW.—For cleaning and painting the roof of the sculpture hall at the Kelvin grove Art Galleries, for the T.C. :—

*C. T. Bowie, Fisher & Co..... £3,274 17 4

GLASGOW.—For erection of iron railings and gates at the Elder Library, for the T.C. :—

*P. & R. Fleming & Co..... £196

GLASGOW.—For front railings and gates at Logan-street, for the T.C. :—

*Russell & Sons..... £196 13 10

GLASGOW.—For painter work at Copland-hill Housing Scheme, for the T.C. :—

*Logan & Grey..... £720

GLASGOW.—For iron railings at Coplaw-hill Housing Scheme, for the T.C. :—

*W. Gratrix & Sons..... £870 8 6

GLASGOW.—For carrying out the Housing Scheme at Crossmyloof, for the T.C. :—

Carpenter work—
*Ritchie & Anderson..... £35,156 10 1

Slater work—
*W. Walker & Sons..... 5,767 0 0

Plumber work—
*Hugh Twaddell & Sons..... 16,907 3 10

Plaster work—
*David H. M'Kellar..... 7,455 11 8

Glazier work—
*George G. Kirk, Ltd..... 698 7 8

Iron railings and gates—
*Alex. Peters, Ltd..... 1,271 12 3

GLASGOW.—For brick and mason work at Scotstown Housing Scheme, for the T.C. (Tender previously recommended withdrawn) :—

*J. Crawford..... £38,039 4 7

GOSFORTH.—For erection of 24 semi-detached houses in Farndon-road, and 6 semi-detached houses in Coxlodge-road, for the U.D.C. Mr. G. Nelson, Engineer & Surveyor, Council Chambers, High-street, Gosforth :—

Gunning & Co., Newcastle-on-Tyne	£15,725 0
J. T. Lunn & Co., Gateshead-on-Tyne	13,000 0
J. W. Dodd, Newcastle-on-Tyne	12,945 0
J. T. Maiu, Newcastle-on-Tyne	12,910 0
Wm. C. Fleck, Gosforth	12,775 10
T. Collinson, Gosforth	12,630 0
Blacketts Construction, Thornaby-on-Tees	12,250 0
Stanley Millar, Newcastle-on-Tyne	12,340 0
Wm. Tulip, Gosforth	11,670 0
H. Kindred, Swalwell	11,400 0
W. W. Franklin, Jnr., Newcastle-on-Tyne	10,953 0
*W. Spitch, Gosforth	10,800 0

GUILDFORD.—For erection of 29 pairs of three-bedroom non parlour houses, for the Borough. Borough Surveyor, Tun's Gate, Guildford :—

	Per pair.
E. Ewins, Farnborough	£599
W. G. Tarrant, Ltd., Byfleet	472
‡Perry Bros., Ealing	415

HAMPTON.—For relaying 380 yds. of tiled flooring at the Riverdale engine-house, for the Metropolitan Water Board :—

*Carter & Co..... £313 10

HEREFORD.—For erection of 12 "A" type, houses in three blocks of four, for the Housing Committee. The Hereford Architects, Ltd., Palace Chambers, King-street, Hereford :—

W. Bowers & Co., Hereford	£5,496
Powell & Sons, Hereford	5,412
Byrom, Ltd., Bury	5,340
*Wilks, Son, & Peake, Hereford	5,340

HIPPERHOLME.—For erection of wall at Tennyson-place, Denholmgate-road, for the U.D.C. :—

*Messrs. Oates & Lee, Hipperholme.

IBSTOCK.—For construction of sewerage works for the Market Bosworth R.D.C. Messrs. Elliott & Brown, engineers, Burton Buildings, Nottingham :—

MacDonald, Wilson & Co., Birmingham	£8,620 0 0
Hodsons, Ltd., Nottingham	7,997 7 0
G. P. Trentham, Ltd., Birmingham	7,894 1 4
H. H. Barry, Radcliffe-on-Trent	7,850 0 0
Moss & Sons, Loughborough	7,800 0 0
A. Graham & Sons, Huddersfield	7,538 0 0
Buckley Bros., Dorchester	7,535 0 8
Lane Bros., Mansfield	7,550 15 2
Crawford Bros., Havant	6,500 0 0
*G. H. Greasley, Leicester	5,805 0 0

KIDWELLY.—For converting Arlas outbuildings to two houses, for the R.D.C. :—

Brown, Thomas & John, Llanelly	£667 10
Charles Copp, Pendre	627 10
Reginald Price, Sea View	530 0
*W. H. Phillips, Llandefaelog	400 0

LEEDS.—For the asphalter's work to the roofs at Stanningley Telephone Exchange and at Chapeltown Telephone Exchange, for H.M.O.W. :—

*Val de Travers Asphalte Co., Ltd.

LEEDS.—For the erection and sinking of reinforced concrete cylinders required for the foundations of new sewage tanks, at the Low Level Works of Knostrop Sewage Works, for the Corporation :—

*Hy. Atkinson & Sons, Ltd., Carlton-hill, Leeds..... £24,018

LEWIS.—For mason, joiner and plaster work in connection with erection of 28 nurses' houses on the Island of Lewis, for the Lewis District Committee :—

*R. Pert & Sons, Montrose..... £12,640

LONDON.—For laying 5 ins. of bituminous macadam in Brook-street and Priory-road, for the Lambeth B.C. :—

*Limmer & Trinidad Lake Asphalte Co., 14s. 6d. per yd., one year's free maintenance, and four years' maintenance at 1s. per yd. super, and a further five years at 2s. per yd. super.

LONDON.—For repairs and decorations at Librarian's residence, Tate Library, for the Lambeth B.C. :—

B. Harding & Son	£498 14 0
Edwards Construction Co., Ltd.	470 0 0
Thomas Carr	457 0 0
Bradshaw & Bradshaw	405 0 0
H. Parkinson & Co.	401 10 0
Matthews & Sons	368 10 0
Cole, Loasby & Co.	368 0 0
J. Potterton & Sons	349 0 0
Barnett & Bellew	333 13 2
W. Bailey	329 0 0
C. R. Harding	322 13 10
P. G. Houghton	318 10 0
Antill, Ltd.	309 0 0
R. J. Rowley	287 10 0
The Economic Building & House Repairing Co.	281 19 5
H. A. Thomas & Son	256 0 0
G. E. Scutt	247 0 0
*H. J. Goodman	244 0 0

LONDON.—For the completion of certain houses on Wormholt Estate, for the Hammersmith B.C. :—

*John McManus, Ltd..... £7,399

LONDON.—For providing sanitary accommodation and extending office accommodation at the Generating Station, for the Hammersmith B.C. :—

G. W. Clarke & Co.	£880
H. A. Murphy & Co.	807
H. Roffey & Co.	789
F. G. Minter	752
W. R. & A. Hide	730
J. McManus, Ltd.	710
*Pioneer Works, Ltd.	610

LONDON.—For repairs at 80, Tubbs-road, Harlesden, for the Metropolitan Water Board :—

Chapman & Sons	£168 10
H. & E. Lea, Ltd.	153 0
*White & Anstey	100 0

LONDON.—For erection of new building, for the Myddelton & Alexandra Park Laundries, Hornsey :—

*Sydney Goulding, Hornsey.

LONDON.—For erection of County School for Girls, at Ealing, for the E.C. of the Middlesex C.C. Mr. H. G. Crothall, County Architect, Guildhall, Westminster, S.W. :—

E. Plaistowe & Sons, Ltd., Southall	£24,628
H. Knight & Son, Tottenham	23,608
Wm. Daley & Co., Acton	23,300
W. Lawrence & Sons, Ltd., London	23,126
Miskin & Sons, Ltd., St. Albans	23,000
W. S. Try, Cowley	22,780
W. J. Dickens, Ealing	22,750
W. Lacey, Hounslow	22,297
Woollard & Sons, Ltd., Acton	22,098
Ferris Bros., Acton	22,082
G. Godson & Sons, Ltd., London	21,940
G. Bollom, Acton	21,877
C. J. Newby & Bros., Southgate	21,836
F. D. Hidden & Co., Ltd., Brentford	21,744
G. Challis, Brentford	21,610
‡A. Monk, Lower Edmonton	20,930

LONDON.—For the paving, kerbing and channelling of the roadways and footways of Rushford-road, Brockley, for the Lewisham B.C. :—

Henry Woodham & Sons, Ltd.	£1,567
Gunn, MacNeill, Ltd.	1,500
*John Mowlem & Co., Ltd.	1,425

LONDON.—For external painting at the baths, Hackney, for the B.C. :—

Henson & Co.	£618 10 0
A. C. Walder & Co.	436 16 0
Stoneley & Co.	309 4 6
C. J. Kemp & Son	299 7 10
W. Dennison & Son	291 15 0
W. Palmer & Sons	286 5 10
Clements (Grays), Ltd.	275 6 0
G. Steddart	267 7 10
W. T. Ricketts & Sons	259 18 0
R. Woolaston & Co.	242 0 5
M. Greenwood & Son, Ltd.	241 5 6
*Fred Cousins, Holloway	189 0 0

LONDON.—For the erection of 500 houses on the Downham Estate, for the L.C.C. :—

*Holland & Hannen & Cubitts, Ltd.

[A total of 33 tenders were received for this work which will be given in full in our next issue.]

LONDON.—For the erection of a second block of dwellings on the Collingwood Estate, Bethnal Green, for the L.C.C. :—

W. H. Gaze & Sons, Ltd.	£24,563 0 0
Thomas & Edge	24,519 0 0
W. Lawrence & Son, Ltd.	24,249 0 0
J. Garrett & Son	23,983 0 0
C. Miskin & Sons, Ltd.	22,650 0 0
Albert Monk	22,330 0 0
Prestige & Co., Ltd.	21,530 0 0
Fred & T. Thorne	21,450 1 4
Allen Fairhead & Sons, Ltd.	20,975 0 0
J. E. Billings & Co., Ltd.	20,937 0 0
*Rowley Bros., Tower Works, Dunloe-avenue, West Green, N.	20,474 0 0

MALDON.—For laying 861 lin. yds. of 3 in. cast-iron water main in Goldhanger-road, for the R.D.C. Mr. W. Almond, engineer, 6, Market Hill, Maldon, Essex :—

Emery & Co., Birmingham	£191 0 5
D. F. Soundy, Ealing	160 0 0
*J. James Furlong, Maldon	140 0 0

MARGATE.—For the erection of a new stage at the Westbrook Concert Pavilion, for the T.C. :—

*Ross & Co..... £1,996

MARGATE.—For (*a*) extension of platform at Palm Bay, &c., and (*b*) renewing and caulking of existing decking, for the T.C. :—

*Lester.....(*a*) £2,995, and (*b*) £1,000

MUSWELL HILL.—Garage, for Mr. W. Hutton :—

*Sydney Goulding, Hornsey.

PRESTWICH.—For construction of 10 houses on the Bent Hill site, for the U.D.C. Surveyor, Town Hall, Prestwich :—

*Titherington Bros., Prestwich.

SOUTHEND-ON-SEA.—For making up streets, for the T.C. :—

*W. Iles, Acacia-drive and Station-road (Sec. 1)	£2,435
*W. Iles, Northumberland-avenue (Sec. 1)	2,130
*Abbott & Hadingham, Brook-road	3,070

SOUTHEND-ON-SEA.—For the erection of 66 houses at Sutton road Site, for the T.C. :—

*Johns Bros., North Woolwich £27,057 10 6

STEPNEY.—For alterations to Baths, for the Metropolitan Borough. Mr. Bernard J. Belsher, Borough Engineer and Surveyor, Stepney :—

Turnbull & Son, Limehouse	£1,096
Patman & Fotheringham, Islington	1,084
Ashby & Horner, Shadwell	1,079
J. Jarvis & Sons, Hackeny	1,075
Geo. Barker, London	1,037
W. Gladding & Co., Whitechapel	915
‡Harris & Wardrop, London	909

LONDON.—For the making-up and paving of Casimir and Cleveleys-roads and Leagrave-street, for the Hackney B.C. :—

	Casimir-road.	*Cleveleys-road.*	*Leagrave-street.*
L. J. Speight, Ltd.	£5,338 17 7	£4,496 13 11	£1,731 13 11
Mears Bros.	4,972 0 0	4,186 0 0	1,577 0 0
George Hodge	4,792 0 8	3,699 0 0	1,463 13 7
Fitzpatrick & Son	4,457 18 9	3,561 4 4	1,360 1 7
Gunn, MacNeill, Ltd.	4,337 0 0	3,525 11 6	1,322 7 6
London & County Public Works, Ltd.	4,285 10 0	3,485 16 6	1,341 0 6
G. J. Anderson	4,145 16 2	3,399 0 1	1,273 7 9
*Wm. Griffiths & Co., Ltd., Hamilton House, Bishopsgate, E.C.	3,910 14 1	3,260 1 6	1,228 7 5

WREXHAM.—For (1) erection of 10 houses, Penycae : (2) 20 at Coedpoeth ; (3) 20 at Stansty : (4) construction of street and sewer, Stansty, for the R.D.C. Mr. J. H. Edwards, surveyor, Argyle Chambers, Wrexham :—

Contractors.	Coedpoeth. 20 Houses.	Penycae. 10 Houses.	Stansty. 20 Houses.	Stansty. Streets.
*S. & J. Davies	—	£3,845	*£7,775 0	*£366 10 6
Robert Roberts	£8,501	—	—	—
*Griffiths Bros.	*7,846	*3,673	7,447 10	270 12 3
Vaughan	8,108	4,054	—	—
H. A. Jones	—	—	8,780 0	419 0 0
Powell & Hughes	8,600	4,132	8,250 0	388 15 0
Bellis & Bowers	—	—	8,700 0	360 0 0
H. C. Davies & Co.	10,150	—	9,500 0	590 0 0
Peter Henry	—	—	8,850 0	297 11 9
E. Gittins	—	4,574	—	—
W. F. Humphreys	—	3,785	7,325 0	195 0 0
Wall Bank Griffiths	—	—	12,000 0	415 0 0
W. E. Samuels	—	—	9,675 0	342 18 6
Rob. Williams	—	—	8,360 0	—

STEYNING.—For construction of about 5 miles of stoneware and concrete sewers, from 6 in. to 12 in. in diam., &c., for the R.D.C. Mr. George Warr, Engineer, Town Hall, Southwick :—

C. E. Buchan & Co., Ltd., Brighton	£26,588	17	8
C. M. D. Davidson, Chiswick	25,786	5	10
J. Parsons & Sons, Hove	23,010	0	0
Gunn Macneill, Ltd., Westminster	21,803	7	0
Playfair Toole, Ltd., Southampton	21,393	0	0
Crawford Bros., Largs	21,208	10	0
Alfred Hardy & Co., Woking	18,366	4	2
‡H. Farrow, Golders Green	16,899	15	7

THAXTED.—For relaying drainage system at Council School, for the Essex C.C. :—

*P. Radcliff £163

WARMLEY.—For the erection of 10 houses at Parkwell, for the R.D.C. :—

*J. Gunning £4,975

WIBSEY.—For erection of nine houses on the Harbour-road site :—

R. J. Patchett, Ltd., Clayton, Bradford.

WORCESTER.—For erection of 32 houses off Broomsgrove-road, for the City Council :—

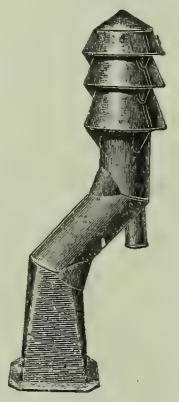
F. T. Surman, Evesham—£317 per house.

WORCESTER.—For (1) the removal of Market Fountain to Cripplegate Park, and (2) the erection of arch and railings at Gheluvelt Park, for the City Council :—

*Messrs. Stoke Bros & Ward—(1) £257, (2) £538.

TRADE NEWS.

The "Whitehall" cowl, illustrated herewith, has been put on the market by Mr. C. White, of 46, Parliament-street, S.W. 1, as a positive preventive or cure for down-draught and smoky chimneys. There are no mechanical movements and there is thus no fear of disarrangement,



and it is silent; it is claimed that this cowl does not obstruct the brush when sweeping, that it is equally effective with any fuel, that it aids ventilation, that it can be applied to any chimney, and that as it can be produced in two parts it is adaptable to high chimneys which are swept from the top with ball and rope.

Colour Schemes at Wembley.

The great possibilities of colour contrast as applied to house decoration will be shown in the Palace of Arts at the British Empire Exhibition. A model dining-room and hall, the designs for which Lord Gerald Wellesley and Mr. Trentwith Wills are responsible, represent the domestic arts of Great Britain, as decided in competition by a selecting committee of artists, architects, and designers. Messrs. Gaze, of Conduit-street and Kingston-on-Thames, have been selected to carry out the work.

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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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POSTERS AND RAILWAY STATIONS.

THE announcement that seventeen members of the Royal Academy have been commissioned to design posters for the London Midland and Scottish Railway Company, opens up a new chapter in the history of British art, though we must not forget the excellent work in this direction which has been done by the Underground Railways. The incident has been hailed everywhere by the public Press as a distinct advance in the progress of public taste. We need not humbug ourselves about the dual role of the poster primarily designed to advertise and at the same time inculcate a love for the beautiful; nor need we waste any time discussing the philosophy of public taste in relation to an art which has been thrust upon it. So far as we are aware the public has had small choice in the matter, but apart from any question of motive we think nothing but good can come from this new development.

The significant facts to us—in what the newspapers rightly term an enterprise—are that artists have bridged the gap between commerce and art, and that the alliance has been met everywhere with approval. The policy of the Railway Company is not, we assume, to convert its stations into "outdoor galleries" for the sheer love of art; nor can we assume any difference in principle between posters of places and posters to advertise nerve tonics. The simple truth is that we have found the theory of art for art's sake to be difficult to maintain (if we ever really believed in it) in a world which has steadily refused to believe in fine art relegated to a spare-time hobby. On the other hand, the conventional view of fine art has been responsible for the limited sphere which art has occupied, regardless of any social responsibilities.

There are many directions in which we would like to see an alliance between commerce and art, but there is something ironical in the fact that distinguished artists should come to an important decision and lend their aid in the most extreme development of a commercial age. We have no objection to the theory that if we must have posters let us have the best; we merely record it and leave the philosophy to future historians.

In our opinion the two important points which should be of interest to all architects are these: that the art of painting has not only given a definite lead in the relations between art and commerce, but it has indirectly encouraged advertising by assisting to raise the artistic level of the poster. As we have indicated, we are not impressed with the poetic ideals which would convert railway stations into picture galleries and provide opportunities for educating public taste. Nor do we see why our railway stations should be the dreary and depressing places in which we are compelled to while away a certain amount of our time. We can only conclude that if railway companies believed there were anything to be gained financially by giving us better designed and less ugly stations we would see a desire to improve them, with or without the posters. We assert that any architect of moderate attainments could design railway stations which would give an added joy to railway travelling. It is difficult to conceive anything more depressing than the monotonous stations throughout the country, all designed at headquarters and all alike in standardised materials. Not the slightest attempt is made to consider local materials or traditions characteristic of the country, and the presence of a refreshment bar is the sole distinguishing mark for railway travellers.

We raise the questions whether railway companies will now consider the architectural appearance of their stations, and whether architects would see their way to enter into the spirit of this popular movement to raise the standard of public taste!

We bear in mind that there is a world of difference between painting and architecture, and that the artist's objective is not always easy to define. Painting is a conventional art, or, as Hazlitt puts it, "In writing, you have to contend with the world; in painting, you have only to carry on a friendly strife with Nature." Architecture, on the other hand, is perpetually engaged at every point with the practical and utilitarian things of life. It is a structural art, and for these reasons the attitude of the architect, as an artist, is infinitely more complicated than that of the painter. The painter may adhere to any exclusive theory without disturbing the public; the architect, lacking the unfettered freedom of the painter, may, and frequently does, try to adhere to some æsthetic philosophy, and the public may suffer (or may not) if the elusive ends of civilisation do not compel him to adjust his outlook.

We are back again at the position we have been discussing in these columns for several months—the relation of architecture to commerce. It would be more accurate perhaps to state the problem in terms of the architect in relation to commercial values. There is no subject which opens up a wider vision to the architect than this search for the true interpretation of commercial architecture, and there is no subject so deserving of attention. There are many subjects of which it might be said that it does not matter what we think, and we know that this view is held by many thoughtful people in regard to architecture. The inference, as we gather it, is that architecture does conform to life whether architects are aware of it or not, or whether they approve or disapprove of our social development. We have been told that it does not matter what architects think; it is what they do. We have always preferred to invert this thought in our minds, believing that the only approach to living architecture must be based upon logical reasoning.

We recommend the young architectural student to work out for himself a working philosophy dealing with commerce and art. If he begins on the assumption that commerce is wrong he will get no farther, but, taking a lead from the recent attitude of the painter, he may be able to outline what he thinks should be the true architectural expression of commerce. We know what commerce can express at its worst; we think we know what a civilised people would try to express. If commerce must be kept in its place, he must define what that place is, and still be able to show a fine reserve of power.

The student must learn to deal fairly with many buildings he has come to regard as "commercial" because they are failures. The fault does not lie with commerce because of the assumption that it is incapable of any decent architectural expression; on the contrary, the architect in the past has failed partly through inability and partly through unfortunate compromises. An impartial historian may not consider our commercial architecture to be full of inspiration, but we can hardly expect him to analyse whether it was as good and no better than the commodities which the buildings were designed to sell.

It is a characteristic touch that just when the public is promised more artistic posters, certain companies should wisely decide to remove their roadside signs from rural districts. And so the day is coming when it will be a better advertisement to refrain from advertising on buildings, when the architect will realise that fine architecture is its own advertisement when it has need of none.

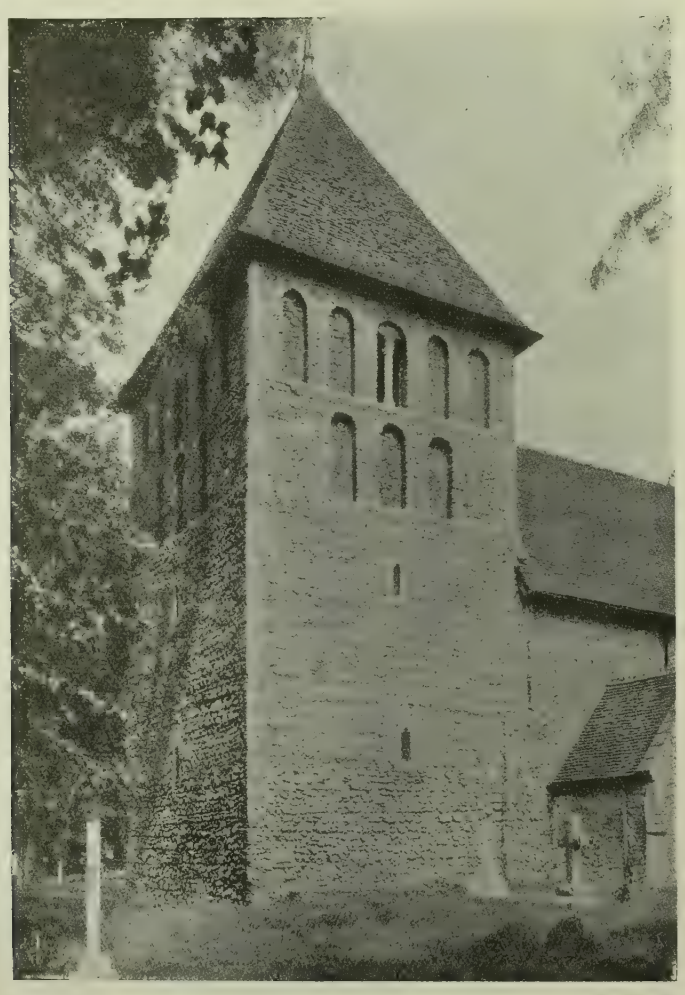
NOTES.

The R.I.B.A. Gold Medal.

Professor Lethaby's inability to accept the Royal Gold Medal which the Council of the Royal Institute of British Architects proposed to award him has already been the subject of a good deal of inevitable comment, as no doubt it will be for some time to come. It recalls the similar action of Ruskin, but whereas he declined the honour as a protest "against the artistic vices of the age," the only explanation we have of Professor Lethaby's refusal is contained in the announcement by the President of the Institute at the meeting on Monday: "I am not able to-night," said Mr. Gotch, "to follow the usual formula suitable for the occasion, because Professor Lethaby, owing to certain personal scruples and his extreme modesty, feels it entirely out of his power to accept the medal; that being the case, it is needless to go on with the election, and the Council have decided that no further steps be taken with regard to the Royal Gold Medal this year." While we regret Professor Lethaby's decision, we are bound to respect the scruples of any distinguished man who declines a well-merited and unanimously proposed honour; but at the same time we do not understand why any such nomination should be made public until some preliminary assurance of acceptance is obtained. Failure to do so creates general embarrassment, and may lead to much misunderstanding. As it is, no one will think the worse of the distinguished Professor for his refusal of the honour, nor of the Council of the Institute for its desire to bestow it.

The Bestowal of Honours.

A correspondent writes:—"Whatever the reasons which may have decided Mr. Lethaby to decline the Gold Medal of the R.I.B.A., and we are in no position to assume what they may have been, his decision is not without significance. The bestowal of honours has been so much at random, and so much the endowment of those who sought them, rather than those who sustained them, that their value has become much discounted. The influence of such honours varies according to the qualities of the recipients; in some cases, no doubt the majority, the society honours the individual; in a very few, and perhaps the only important cases, the recipient confers an honour on the Society in accepting it. But if it is seen in a majority of cases that the bestowal of an honour is the reward of much self-seeking for it, and that this influence clouds the lustre which should belong to the bestowal of honours, the really best men will look askance at the whole thing, feeling, like the classic example, it more likely they will be remembered without a statue! And such is the case to-day. A generation or two has to pass before, as the result of the lapse through time of so many of the indiscriminately bestowed honours, the atmosphere is once more clear enough to distinguish more truly, and the bestowal of honours justified again as given only, not to those who seek them, but to the best, who deserve them. And we have had to notice of late that this has seldom been the case."



Late Eleventh-Century Tower, St. Mary's, Corringham, Essex.

The Fine Arts Commission.

The appointment of Mr. H. Chalton Bradshaw as secretary to the recently-appointed Fine Arts Commission is another tribute to youth; but, though a young man, Mr. Bradshaw has had many notable successes as an architectural student, while as a practising architect he won, in collaboration with Mr. G. Ledward, sculptor, the open competition for the Guards' Memorial. Mr. Bradshaw received his architectural training at the Liverpool School of Architecture, under Professor Reilly, and besides securing the Lever prize he won the Rome Scholarship in Architecture. During the war he served in the Somme battle, at Vimy Ridge, and Passchendaele, and afterwards went to Italy, where he distinguished himself, was promoted to the rank of captain, and was awarded the Croix de Guerre. Such an appointment carries with it great possibilities, and we must all hope Mr. Bradshaw will fulfil them.

The Chaos of Traffic.

The streets of London are rapidly approaching a condition of chaos, writes Mr. H. V. Lanchester, and when we consider what an important feature of the daily life and well-being of our cities this matter of transport is we could suppose that it should be one of the most vital of all our problems. That the building of St. Paul's Bridge will affect it goes without saying, but—how will it affect it? Can anyone, whether inclined for the bridge or against it, pretend to forecast with any close approach to accuracy the result of such a new bridge? No one can have noted the congestion at Oxford-circus without regrets for the present state or apprehension for the future. When will the state of things become quite intolerable? Mr. Lanchester's article in the *Daily News* is very pertinent and timely, and it is only one of numerous calls from experts for some drastic remedy.

A Conference on Suburban Traffic.

The Traffic Board to be set up if the Bill shortly to come before Parliament becomes law will certainly be more of a critical than an imaginative character,

says Mr. Lanchester, who finds the main difficulty in suburban traffic to lie in the position of the termini which leave passengers in the condition of a half-finished journey which they have to resume by 'bus or tube. Amongst the suggestions he offers is a dive down by a spiral tunnel where the terminus is a large one. The gist of Mr. Lanchester's criticism lies in the suggestion that the various railways should confer together on this important matter and lay certain proposals before the Traffic Board. Here, at any rate, is a practical suggestion—not something to argue about in a detached and platonic way, but to set about immediately. Here we have an admittedly great evil and a sensible suggestion for its remedy. Will anything be done?

London as a "Corridor."

THINKING for fifty years hence, a writer in *The Times*, Mr. Rees Jefferys asks if London is to be made a "corridor" for traffic passing through it from north to south. If the City of London is a natural and proper "corridor" for the daily increasing traffic of Greater London, then build St. Paul's Bridge and face the large expenditure in street widenings and loss of rateable value which it will entail, says the Roads Improvement Association.

The Rural Industries' Bureau.

THE series of leaflets issued by the Rural Industries' Intelligence Bureau, from whom we have received copies and to which we propose later to refer at greater length, contain much that is very helpful and encouraging, as showing the awakening to the need of restoring village life and country industries. These leaflets, which are reprinted from the *Journal of the Ministry of Agriculture*, deal not only in general terms with the subject, but make suggestions and offer instruction on various definite industries connected with country life, such as metal work, wood work, basket-making, hand weaving, and spinning; also other industries, which, it is hoped, may be fostered, such as the utilisation of straw, peat, and waste products. The Committee of the Bureau is a large one, and includes various names well known for their association with home and country interests. The aim, so important, is one of too much complexity for organisation alone to achieve, and the Committee seems rather overweighted on this side, as if the economic and administrative sides were regarded as sufficient in themselves; while there is a regrettable absence from the Committee of the names of well-known craftsmen or men with first-hand practical acquaintance with materials.



"Great Sir Hughes": Early Seventeenth-Century Building at Great Baddow, Essex. (*See p.* 373.)

Lord Curzon and St. Helena.

THE Marquess Curzon of Kedleston, in his "Tales of Travel," just issued, says that before going to St. Helena in 1908 he made a careful study of every available book about Napoleon's residence in that island. Consequently, when he entered "Longwood," the scene of the Emperor's five years' exile and ultimate death, he "was familiar with the identity and history of every room in the building as though he had lived in the house himself." This knowledge was put to an unexpected test. On his entering the building for the first time the French Consul was about to conduct a party of French visitors round the premises. In the entrance room, upon the walls a notice was hung, "Salle d'Attente." Here the uses of the apartment were being expatiated upon as having happened during the days of Napoleon. "This," said the Consul, "was the reception room where His Majesty received his guests." "Excuse me," interjected Lord Curzon, "this was, at any rate, in the first few years of the Emperor's residence, the billiard room, and the room was always known and described as such." The Consul had never heard of this and observed that as the gentleman who had spoken seemed to have a greater acquaintance with the contents of "Longwood" than himself, "perhaps he would take the company round." Thus Lord Curzon acted as guide in a house he had never previously seen.

Academic Dress.

AT a meeting of the R.I.B.A. on Monday, Mr. C. Ernest Elcock's resolution, "That the resolutions on the subject of Academic Dress passed at the general meetings on April 30, 1923, and on January 7, 1924, be rescinded, and that no further action be taken in the matter of the proposed Academic Dress," was passed by 45 votes to 22. With such a big majority in favour of this resolution, we hope the matter will now be allowed to rest.

GENERAL NEWS.

Professional Announcement.

Mr. Henry F. Mence, Surveyor to the St. Albans Rural District Council, has taken into partnership Mr. Leslie Ross, A.R.I.B.A., as from March 1. The firm will continue to practise as architects and surveyors, under the title of "Mence & Ross, A.R.I.B.A.," at 11, St. Peter's-street, St. Albans, Herts.

Liverpool University.

At a meeting of the Council of the University, held recently, it was agreed that the title of Associate Professor be conferred on Mr. L. B. Budden, M.A., A.R.I.B.A., Senior Lecturer in the Theory and Practice of Architectural Design in the School of Architecture.

Architects' Estates.

Lieut.-Col. Stephen Leonard Tennant, R.E. (T.F.), of Ballidon, Wilbraham-road, Alexandra Park, Manchester, architect (net personalty, £67,714), £69,819.

Mr. Charles Edward Clayton (50), of Prince Albert-street, Brighton, and Holmbush Lodge, near Henfield, architect and surveyor (net personalty £10,155), £29,221.

Mr. Edwin Rutherford, of Rector View, Shincliffe, Durham, formerly of Durham, architect's assistant (net personalty £3,262), £5,501.

University of London.

We take the following extracts from the annual report of the University of London :—During the Session 1922–23, the total number of students enrolled was 3,005. Of the total, 2,490 students came from homes in the United Kingdom; 206, including 75 post-graduate and research, came from various parts of the Empire. The report also includes a summary of the work of the two special Schools of Architecture and Librarianship, showing that these two schools are working effectively. The Bartlett School of Architecture, which combines the work at one time carried on separately at King's College and University College, is now housed in the building provided by the late Sir Herbert Bartlett, and is under the direction of Professor A. E. Richardson. It includes a day school, an evening school, and a post-graduate atelier. There is also a Town-Planning Department, under the direction of Professor S. D. Adshead.

Soane Museum.

Sir John Soane's Museum reopened on March 4. It is open free to the public, 10.30–5, on Tuesdays, Wednesdays, Thursdays, and Fridays, during March, April, May, June, July, and August. At other times by cards obtained from the Curator.

Lincoln Cathedral.

At a recent lecture at Lincoln Sir Francis Fox referred to the work which had been done at St. Paul's, Winchester, Exeter, and Lincoln. The damage at St. Paul's was due, he considered, to mistakes in design and bad foundations; at Winchester to the cathedral being built on a bog; at Exeter to the roof having slipped during erection; and at Lincoln to an earthquake.

During the course of his lecture Sir Francis Fox complimented those responsible for the scaffolding on the north-west tower at Lincoln, which, he said, was a monument of skill and ability.

Architecture Club Exhibition.

The Architecture Club's second exhibition at Grosvenor House, which the Duke of Westminster has again placed at the disposal of the Committee, will be opened by the Marquis Curzon of Kedleston on March 11, and will be open to the public from March 12 to April 17 inclusive. The exhibition this year, under the title of "British Architecture of To-day," will comprise four sections—"Recent Architecture" (since the war), "Gardens" (of the last 20 years), "Housing" (since 1913), and "Memorials." The exhibits will consist of large photographs and models, and in addition to models of modern buildings there will be a display of garden statues and pottery by Mr. and Mrs. Harold Stabler, Mr. Percy Bentham, Miss Anne Acheson, Miss Phyllis Clay, Mr. Alec Miller and others. Lady Constance Hatch has made another collection of "Old Models," which includes a series of twenty-seven models of English and French cathedrals, lent by the Dean and Chapter of Canterbury, and Barry's models for the three towers of the Houses of Parliament, lent by H.M. Office of Works. A continuous lantern show will again be provided, and a special rota of lecturers will supply informal afternoon talks with the lantern views.

COMPETITION NEWS

Truro Public Hall.

The assessor, Sir A. Brumwell Thomas, F.R.I.B.A., has made the following award in this competition :—

First (£100): Messrs. Thornely & Rooke, of Prince's-square, Plymouth.

Second (£50): Mr. F. G. Drewitt, of Messrs. Cowell, Drewitt & Wheatley, of Penzance.

Ebbw Vale Memorial.

The design of Mr. R. Evans, the Craftsmens' Guild, 64, The Oval, London, has been selected in this competition.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given) :—Essays on Heating and Ventilating (Mar. 31; Nov. 9, 1923). Industrial Designs (June; Dec. 21, 1923). National Theatre (April 26). Monument to Sir Wilfrid Laurier (April 3; Dec. 14, 1923). Belfast Union Lighting (March; Nov. 9, 1923). Dunfermline War Memorial (March 8; Dec. 28, 1923). Ross-Smith Memorial (Sept. 30; Feb. 1). Newcastle Fire Station (March 27; Feb. 1).



Little Warley Hall: Early Sixteenth-Century Building at Little Warley, Essex. (*See p.* 373.)

ITALIAN TRAVEL NOTES.

BY THEODORE FYFE.

III.—VERONA, VICENZA, PADUA AND VENICE.

There are surely very few towns in the world that have so much charm as Verona. There are really several towns in it, each with its separate atmosphere, but all merged into what we know as "Old Verona." Strategically, it has an important position, as the Brenner Pass leads almost directly from it, northwards, to Trent and Innsbruck in the heart of the Austrian Tyrol. The ancient part of the town lies in the hollow of a great bend in the swiftly flowing river Adige, so that two sides of it are river; and the third, or land side, is bounded by the mediæval wall which connected the two river points. San Michele's walls, with their great gates, mark the limit of expansion of this land side. There is also a little town-annexe (Veronetta), on the further bank of the river.

Verona is of first-class importance to the student in three aspects—Roman, Mediæval, and Renaissance. The Roman remains include the finest amphitheatre outside of Rome, in a wonderful state of preservation. The mediæval work is important in a dual aspect; on the one hand the Romanesque element, culminating in one of the finest churches in Italy—San Zeno Maggiore—and on the other hand, the Gothic element, in Sant' Anastasia, and the tombs of the family of della Scala (the Scaligeri); for it must not be forgotten that Verona is the western outpost of the province of Venetia, and the Venetian Gothic element is everywhere apparent. For Renaissance it is enough to mention San Michele, who can be studied at Verona as nowhere else. There are two important palaces by him—the Palazzo Bevilacqna and the Palazzo Pompeii—and the great gateways, the Porta del Palio and the Porta Nuova. Another notable piece of Renaissance work is the building known as the "Gran Guardia Vecchia," built after San Michele's time, early in the seventeenth century.

Though San Zeno and the Duomo are both wonderful buildings, and San Fermo Maggiore should not be missed, the most impressive mediæval building in Verona is its great church of Sant' Anastasia, a peculiarly fine building of the late thirteenth century, with a most complete scheme of colour decoration of the fifteenth century in its vaulting. The campaniles of these Veronese churches are most effective in the changing views one gets from the noble bend of the river. From this openness one can pass quickly into the crowded part of the town—the Piazza dei Signori, with its celebrated early Renaissance Palazzo del Consiglio or town hall. The whole of this region is dominated by the fine tall tower of the Municipio, and near by we can see the warrior tombs of the Scalas, with that strong Venetian influence that is so prevalent at Verona.

It is not easy to speak of the gateways of San Michele, but they are superb pieces of semi-military architecture by a man who was as much a great engineer as a great architect. Their approaches are excellent, particularly that to the Porta Nuova, with its avenues of lime trees. Between these imposing roadways and their gates and the market part of the town is the spacious atmosphere of the Piazza del' Arena. And so one has the whole content—the riverside churches, the picturesque mediæval centre, the Roman spaciousness, and the finely conceived outskirts—that makes up the unapproachable charm of Verona.

Vicenza is the next important town on the line to Venice. It is undeniably an old-world town with a flavour that is all its own, though it is rather dirty; and it must be seen for Palladio's work, if for nothing else. Even more than San Michele at Verona, Palladio is in complete evidence at Vicenza; and his work is always beautifully detailed, and often boldly and finely conceived. The important building known as the "Basilica Palladiana," the "Casa del' Diavolo" (a fragment), the Palazzo Prefettizio (designed as a triumphal monument after the victory at Lepanto), and the Museo Civico (in the Palazzo Chiericati), all deserve the most careful study. Nor should two others of Palladio's buildings be neglected. One of these is the curious little theatre—almost a toy theatre, it is so small in scale—called the Teatro Olimpico; the other is the more famous Rotunda—the prototype of Lord Burlington's villa at Chiswick—which is outside Vicenza, but should on no account be missed. Vicenza also contains an interesting Duomo, chiefly in Gothic, with some fine moulded brick cornices; and some good old bits of houses here and there, which give one plenty of sketching material in a morning ramble. There are two good columns in the Piazza dei Signori.

In Padua, which is quite near to Venice, the traveller will find many things of outstanding excellence, and one of them, the Café Pedrocchi, may be mentioned here, and it will certainly cheer his bodily man. But Padua, like Milan, contains a world's masterpiece in the Gattemalata equestrian bronze, by Donatello, and therefore must be considered as a place of pilgrimage. We can add to these a really great church—Sant' Antonio—some wonderful early Titians in the Scuola del' Santo, some equally great Mantegnas in the Church of the Eremetani, and the Aerna Chapel with its Giotto frescoes. There is also a spacious dignity about Padua, as we should expect in one of the most renowned seats of learning in Italy.

Sant' Antonio is the patron saint of Padua, and he seems to dominate the whole town. His Church certainly dominates the mind of the visitor. It is of great size and the grouping of the exterior is extremely picturesque and interesting. In its main lines the interior is one of the grandest in Italy, or, in fact, anywhere. The domes over the nave compartments, with their extreme simplicity of treatment, give one the effect of a Byzantine basilica. Completely decorated in colour (as one can see it ought to have been, from the fragment in the westernmost dome), it would have been splendid as well as imposing. The details of accessories are beautiful and the student could easily spend a week in such a place. The fine pulpit has been drawn by Nesfield, but there are bronze gates and massive candelabra, and an early Renaissance chapel of Sant' Antonio, which is full of feeling.

One could write at length about the other excellencies of Padua that have been mentioned, but they are too well-known to need description. The roof of the Eremetani Church is of wood, coved in tiers and coloured in blue and gold, an original and fine treatment. It can be compared to the somewhat similar one in San Stefano at Venice. The Church of Sta. Guistina has a very interesting Renaissance interior, the roofing especially being a fine study in vaulted and domical treatment. Mr. Bolton gives plan and sections in his valuable article on domical churches.

Finally, Venice. It is surely too great a subject to write much about in an obvious way. Be it pictures, or decorative schemes, or statuary, or bridges, or buildings, the student will find a wealth of example which is astounding. There are by-ways, of course, which might be missed, lesser but still beautiful things which would risk being crowded out, and there is also Torcello. A few of these by-ways might be mentioned. Venice is full of interesting Renaissance treatments in many of its smaller churches. There are, for example, San Salvatore, which has a fine interior by Sansovino. It is perfectly lit by lanterns and by high clerestory windows. The nave compartments are domed and the piers are double, carrying arches to the front as well as to the aisles. A somewhat similar church is San Fantino, but the nave is vaulted with a dome at the crossing only. The choir is also domed and is as satisfactory as anything in Venice after Sta. Maria dei Miracoli. Both San Salvatore and San Fantino are well worth making careful surveys of. Mr. Bolton has recorded the main lines of the former. The wood roof of San Stefano is interesting, a triple cove, decorated in colour and with carved and painted tiebeams. Another good interior in Venice is S. Francesco della Vigna, and it has also a fine façade.

The great church of San Giovanni e Paolo, forming a picturesque group with the Colleoni Statue, is in Lombard Gothic, and has some really splendid early Renaissance wall tombs in the interior. San Georgio dei Greci has a good and rather severe baroque façade, with a dome like the Miracoli.

The churches of Venice are legion, and they are full of interesting pictures, or rather, masterpieces. It is exceedingly difficult for the student to concentrate in such a place; and, in fact, unless one definitely goes there with a set purpose the chances are that little will be done; but there is always the consolation that wonderful places like St. Mark's or S. Maria dei Miracoli, or the Loggietta by Sansovino, are full of such beautiful detail that a great deal of smaller work can be done with ease. If the student has a camera it is very valuable in a place like Venice, as there is so much that he wants some record of and that he cannot overtake. On some quiet morning he should take a sandolo from the Riva and get ferried across the lagoon to Torcello. The great lonely basilica, with its simple tower, grouping finely with the domed church of Sta. Fosca, is full of charm both inside and out. There is a quietness and repose about the interior, enhanced by the perfect lighting of the small clerestory windows, that is not easily forgotten, and the apse arrangements are unique.

Sta. Fosca has a beautiful interior which is absolutely in scale, and with most interesting vaulting and domical arrangements. The marble columns and Corinthianised Byzantine capitals are just as good as those of St. Mark's.

R.I.B.A. ELECTIONS, MARCH 3.

At a business meeting of the Royal Institute of British Architects, held on March 3, the following new members were elected:—

Fellows.

A. S. G. Butler, London
B. Chaikin, Jerusalem.
J. B. F. Cowper, Hampstead.
S. J. Edwards, Colombo.
N. Jones, Southport.
H. L. Paterson, Sheffield.
W. T. Sadler, Streatham.

Associates.

H. R. H. Bath, Nairobi.
G. A. Beech, Victoria.
D. Brooke, Barnes.
E. H. Button, Bristol.
I. M. Chambers, Roehampton.
L. M. Chitale, London.
J. A. Coia, Glasgow.
G. H. Crickmay, London.
J. S. Curwen, Kendal.
J. D. Ferguson, Cambuslang.
E. C. M. Fillmore, West Bromwich.
E. M. Fry, London.
J. D. Grant, Ipswich.
T. Greenfield, Midhurst.
Edith G. Harrison, London.
E. H. H. Higham, London.
H. Hirst, Liverpool.
C. H. Hutton, Rock Ferry.
C. G. C. Hyslop, Kingston-on-Thames.
F. W. Knewstubb, Penrith.
C. R. Knight, Liverpool.
A. F. Lawrie, Johannesburg.
S. T. Parkes, Melbourne.
A. H. Powell, Reading.
T. S. Sutherland, Aberdeen.
R. W. H. Vallis, Frome.

MEETINGS.

Monday, *March* 10.

Surveyors' Institution.—Mr. J. C. Spensley on "Economic Effects of the Housing Subsidy and the Rent Restriction Acts." At 12, Gt. George-street, S.W. 1. 8 p.m.

Architectural Association.—Mr. Goodhart Rendel on "Gothic Survival." At 34, Bedford-square, W.C. 1. 7 p.m.

Wednesday, March 12.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Early Christian Architecture." At Southampton-row, W.C. 1. 6 p.m.

CORRESPONDENCE.

R.I.B.A. Defence League.

SIR,—At a recent committee meeting attention was called to a letter signed by Mr. Maurice E. Webb, in which he refers to registration.

We beg to enclose a copy of the circular letter signed by us and dated January 31, 1924; you will see that the only reference in it to registration is as follows:—

"Our Committee wonders what reason is to be given now for the admission of several hundred men without examination. Surely the promoters of this foolish scheme will not attempt again to throw dust in our eyes by saying, 'If you admit these men, then you will get registration,' or words to that effect, for our Parliamentary Agents have shown how ridiculous and misleading such an assumption may prove to be. If every architect in England belonged to the Institute, the great difficulty would still be before us, namely, how to make out what is known as a 'public case.' For example, a kindred society of another great profession wanted registration, but ultimately had to abandon the idea, not on account of any opposition from its members or from any rival society, but because the society in question could not make a 'public case.'"

Mr. Webb writes that our circular letter "indicates clearly that the policy of this League is now definitely anti-registrationist for reasons set out in the circular." This entirely misrepresents our views; but Mr. Webb gives us another opportunity to remind your readers that the R.I.B.A. Defence League has always been and is still in favour of registration. In our letter of January 31st we gave the principal reason why we consider it will be so hard to obtain, and we did so at greater length in our letter of January, 1922, when we printed *in extenso* the opinion of the Parliamentary Agents of the R.I.B.A.

Whatever views your readers may have in favour of or against unification, or amalgamation with any society or societies, we feel convinced that a very large majority of the members of the R.I.B.A. are satiated with these constant attempts to undermine the status of the Institute. And the usual result of the initiation of such schemes is to stir up strife and resentment, and create bad feeling at the R.I.B.A.

The Defence League was founded to protect the interests of those who have entered the Institute in accordance with our charters and by-laws and has no other object.

ALFRED W. S. CROSS,
Chairman.
SYDNEY PERKS,
Hon. Secretary.

Mural Decoration.

SIR,—The article in your last number on "County Hall Panels and Mural Art," by Mr. Reginald Hallward, expresses most ably the present situation in regard to mural decoration. The present, almost universal, system of educating artists as mere easel picture painters and then turning them on to wall decoration could only end disastrously. It certainly seems strange that with so much notable work done by past generations of artists, in this particular sphere, the essential principles which govern this greatly neglected branch of art are so little understood.

Would it not be wise in the case of pupils showing a natural aptitude for this branch of art (I have had such pupils) to direct them to study the work of such men as Bennozzo Gozzoli, Perugino, Botticelli, Ghirlandaijo, Michael Angelo, Titian, Tintoretto, and Puvis de Chavannes, and the fine old English examples of the late fifteenth-century Gothic decorative art found on the rood-screens at Ranworth, Barton Turf and Cawston, in Norfolk. These works show a true understanding of the essential qualities necessary for all art associated with architecture as decoration. Mr. Hallward puts the whole thing in a word when he says:—"Mural art will not be fostered in any such way, but in a spirit big enough to project through the mural form of painting themes which express the national life at its noblest and best." Even if we admit (as a well-known artist once said to me) that fifteenth-century decorative art was art in its infancy, it was a robust and healthy infancy and much to be preferred to many of the specimens of decorative art of to-day which might be described as art suffering from senile decay. Mere realism, anatomy and draughtsmanship will never give us great decorative art. Greatness in this department is never found without a fanciful idealism combined with a spiritual and intellectual perception of the abstract beauty which must underlie all combinations of the arts of architecture, sculpture and decorative painting. The preconceived idea is the curse of all art of to-day. As Mr. Hallward has so ably stated, the "subject and treatment must be inspired by the site and environment." Anyone who has worked direct on the wall will understand what this means. The whole conception seems to be a growth almost independent of the conscious working of the mind of the artist. Questions of composition, scale, balance and grouping are suggested naturally without any effect of posing and models. Think of what Titian would have made of such a subject as, say, "The Lord Mayor's Banquet"; or Bennozzo Gozzoli of a "Coronation Procession"; or Ghirlandaijo of the funeral procession of a great soldier, sailor or statesman; or Botticelli of a religious festival; or Michael Angelo of a great earthquake. There is great hope for the future if we only perceive and admit our errors.

WILLIAM DAVIDSON.

Edinburgh.

The R.I.B.A. and Education in India.

SIR,—I was glad to read in *The Builder* that the R.I.B.A. is holding an International Congress on Architectural Education during the summer while the British Empire Exhibition is in full swing. It is a very good idea indeed to exchange thoughts and ideals with the representatives of the allied societies, and to set some scheme for the proper education of young architects on sound lines. Not only will this idea help our brother architects, but also a very comprehensive exhibition of designs of the various schools arranged by the R.I.B.A. will show the intellectual methods of designing and practice of the varied cultures, and consequently I am quite sure the creative force of the International Congress will produce the best results.

From the public realisation of Indian art and architecture in Great Britain, France and America, it looks as if it is a very great problem and of utmost importance for the R.I.B.A. to consider the appropriate methods for education in India suitable to the economic conditions and the requirements of the country, and it is desirable to know how the R.I.B.A is going to solve this problem at the next congress.

India possesses some buildings which are included in the seven pearls of the world, and by this fact the people of Europe and America know India has produced some of the best buildings in past years. Its arts and crafts have attained the poetic height and appear absolutely perfect creations of the mind of men expressed in buildings. The ancient civilisation in culture attaining the most wonderful effect in material, the intellectual and creative force in master builders of the ancient India, show the production of most successful results. They solved the problem of construction in varied materials suitable to the country of their time, and the monuments still standing illustrate the ideals of the people and to what extent they were developed and cultivated. The architectural question then for India's intellectual and economic interests is so great that it cannot be regarded as a mere technical matter which can be decided at sight.

India being a vast country, having a population of about 330 millions, it is rather surprising there is only one architectural school. This school has a five-years' course after matriculation examination of the Indian universities, working only for about two hours every morning. This is obviously not enough time for education, especially in a subject like architecture; the students cannot compress the necessary study into this short period.

The main difficulty before the authorities concerned is to organise full time studies, and unless this is practicable the system of educational methods cannot be changed for the better. Again, the standard of education at the present time and the facilities to the students for freedom in thought as the most essential part of architecture is lower than in the architectural schools in Great Britain or any other country.

After taking the five years' training in the school, the students enter their professional career (they are always draughtsmen when starting their career), and under some rules only recently have they been qualified for municipal licences to practise independently. Architects have to design buildings in accord with their thoughts, ideals and traditions, and it is only architects who can do this creative work. But the fact is ignored, and, in spite of it, trained men in the status of draughtsmen are made to work under engineers, and, in consequence, they are unable to develop their ideals for solving the practical methods on which architecture is based, and thus improve the standard of design relating to conditions of the country as are the architects of the other countries. Young architects in India must be taught on sound foundations, and ought to be given opportunities to know their ancient buildings in India and the traditional methods and constructions to carry on research on these lines, and then to think out the methods to be adopted in practice. They should also be given opportunities to solve the question of domestic buildings on sound lines.

I feel that these questions ought inevitably to come before the Congress, and therefore I hope the R.I.B.A. will appoint a representative of India to bring forward the facts and present needs of education, and to discuss the question with a view to finding some method of improving methods in architectural education, and raising the status of the architectural schools to the same level as those of Great Britain, so that the influence of the R.I.B.A. qualification be felt in India as in the Dominions.

L. M. CHITALE.

Oxford-circus Improvement.

SIR,—In considering Sir A. Yarrow's proposed obstruction, it ought to be recalled that the report of the Royal Commission on London Traffic contained a similar suggestion, but at two different points, and those probably the most congested in the whole Metropolis. It proposed what might be termed a "hogsback" from the summit of Blackfriars Bridge over Queen Victoria-street crossing, and Ludgate-circus to Farringdon-street.

Many other recommendations by that most important body still stand to be considered by any new Government proposing to take action in traffic improvement. In fact, as proposed recently, the best course would be to reconstitute the Commission to reconsider its findings of twenty years ago, with the view of bringing them up to date, and also of formulating "the well-considered plan" it considered essential, in the light of the changes that have occurred since. It is only fair that it should be allowed to do so, the entire venue and the whole situation having radically altered. Besides, there is a mass of new data and suggestions *en gros* to be considered whilst powers have been obtained and others are sought for projects regarding which great difference of opinion exists.

Moreover, the community has a right to expect that when action is taken this very costly report (£80,000), now in danger of being ignored, which took two and a-half years to prepare, should be dealt with in a fair and exhaustive manner, as it would be were the Commission itself reconstructed with some additional powers.

"O. B. I. T."

HISTORICAL MONUMENTS IN ESSEX.*

There can be no subject of more general interest than that presented by the attractive volume before us. Since it is of the first importance that we should all have a general knowledge of the priceless works of art and utility that have been bequeathed to us by past generations, so it is desirable that this knowledge should be imparted in as succinct, clear, and pleasant a manner as possible. The productions of the Royal Commission on Historical Monuments go a long way to achieve that end. That England is rich in historical buildings is not too widely known, and it is a pleasant revelation that so great a wealth of architectural beauty is contained within about one quarter of the area of a single county. The volume, the fourth and concluding volume of Essex, contains, in addition to the inventory proper, a preface by the chairman of the Commission, Lord Crawford and Balcarres; a sectional report with a list of those monuments especially recommended for preservation; a general survey of the whole county under the headings of Prehistoric and Roman, Anglo-Saxon and Danish, and Architecture (comparative review); a section survey; an armorial of the county; plates of illustrations of mouldings and masons' marks; a glossary of architectural terms; an index to all four volumes; and a map of the section. The work is copiously illustrated throughout by photographs, plans, sections and diagrams.

The volume contains an inventory of the monuments in 104 parishes in the south-east of Essex, or a district lying between the Blackwater and the Thames, and extending westwards from the sea to the river Beam and the outskirts of Romford. Within this area 658 monuments have been examined and reported on as to their date, materials of construction, general character, and their present condition, and the Commissioners recommend 43 of them as "especially worthy of preservation."

A building of particular interest described in the inventory is the chapel of St. Peter-on-the-Wall in the parish of Bradwell-juxta-Mare at the extreme north-east of the section. This is built across the foundations of the wall of a Roman Fort which is also described and illustrated. "The chapel," says the report, "is almost certainly that built by Bishop Cedd in *c.* 654 at Ithancester. It stands astride the former W. wall of the Roman station and originally consisted of an apse, nave, and W. porch, and possibly 'porticus' on the N. and S. A tower was subsequently added above the porch. It was a chapel-of-ease to Bradwell in the Middle Ages, but was eventually desecrated and used as a barn; the apse and tower were destroyed. It has recently been restored and is now again used as a chapel. The building is of extreme interest as one of the earliest surviving churches in England." This church is built almost entirely of reused Roman material, including ashlar, brick, and nodules of hardened clay, and has the lofty character typical of the period. There are indications in the masonry of the east wall that the original communication between the nave and apse was by three arches, as at Reculver. All the windows are placed at a great height above the floor, and retain much of their original work. The Commission describes the condition of the building as "Good." Another building of exceptional interest is the tower of the church at Corringham, dating from the latter part of the eleventh century. This is a bold square structure without buttresses, and consists of a lofty lower stage, quite plain except for small loop lights, and two low upper stages relieved by blind arcades and small belfry windows. It has a pyramidal roof.

Since the absence of freestone within the county itself rendered stone a relatively expensive material, there has been always in Essex an extensive use of brick and timber. The result is that the county contains some very charming buildings constructed of these materials. Little Warley Hall, in the parish of Little Warley, is an agreeable example of brickwork of the early part of the sixteenth century, with a corbie-stepped gable and a projecting chimney decorated with diaper work. Of the wealth of timber houses in this part of the county described and illustrated Great Sir Hughes, in the parish of Great Baddow, is a conspicuous example. It was built in the first part of the seventeenth century in the early Renaissance manner. The county generally is rich in examples of good timber belfries, and a large number of them is contained in the south-east division. That at Stock, rising from the centre of a timber narthex, is a fine example. A photograph of the Renaissance gateway of Tilbury Fort, built about 1682, is chosen for the frontispiece to the volume. This is a stone structure of two stages, the lower of the Ionic Order with two columns on either side of the gateway, and the upper of the Corinthian Order surmounted by a segmental pediment containing the royal Stuart arms and flanked by carvings of war trophies.

In the inventory of the several parishes the churches with their fittings, the secular buildings, and the earthworks are examined in succession. Most of the churches of prominent importance are illustrated by hatched plans, and all the ancient churches are accompanied with key-plans drawn to a uniform scale. This arrangement, while it materially increases the value of the work as a record, greatly assists the reader's comprehension of the text. It is obviously impossible to treat the secular buildings, even of the larger houses, on so liberal a scale. During the course of their existence the advance of civilisation and the change of customs and aspirations of their owners have resulted in additions, alterations and even destruction of parts of them to an extent that in some cases the original disposition is unrecognisable. We understand that for this reason the few plans of houses given in this volume are not lettered as to disposition of parts. Where this can be done, however, it would greatly assist the comprehension of the text, which we find in the long descriptions none too lucid. We venture to suggest that a greater freedom in the accounts of the larger houses would give a more definite conception of them. The result would be a more useful and valuable inventory.

The photographic illustrations are profuse throughout the volume and attain a high order of merit. Many of these are full page or half-page illustrations, while others are grouped together on plates and arranged in series illustrative of church towers, timber belfries, timber houses, &c., or of church furniture, painted glass, church plate, and similar details. Two pages of mouldings with their dates and the names of the churches in which they are to be found are appended. Another welcome item is the inclusion in this volume of an armorial of the county families of Essex before 1550.

The general survey of the whole county, in which each especial subject is written by an eminent expert, is a most valuable part of the report. Particularly interesting to architects is the section under the sub-heading, "Architecture: Comparative Review." The results of the investigation under this section are here summarised and the characteristics of construction and embellishment distinguishing the various periods described. Various types found throughout the county are analysed and compared with each other and with examples existing elsewhere. Note is also made of the materials and other influences which directed the course of architectural development in the county.

Having regard to the value of the work of the Commission, a value as much practical as historical, it is to be regretted that the Treasury refuses to entertain proposals for its adequate development or to provide sufficient means for its operations, for the present, beyond the counties of London and Middlesex. These volumes provide, in an attractive form, that intimate and intelligent knowledge of England's priceless possessions which cannot but result in an incitement to the development of art on national lines, and *pari passu* to an encouragement of industry. We trust, therefore, that the Treasury will see its way to revise its policy in this respect. The value of these volumes to the architectural profession is considerable. It is not without reason that architecture has developed on national and even on local lines. The influences of climate and available materials and of customs and temperament have impressed themselves upon our predecessors. Their works are often the result of improvements step by step as they have developed under the conditions imposed upon them. Therefore, all who are responsible for the restoration of old or the erection of new buildings in a particular neighbourhood should familiarise themselves with local traditions, and to this end we know of no better complement to personal acquaintance with the locality than one of these volumes.

[The illustrations of ancient buildings in Essex in this issue are reproduced from this book by permission of H.M. Stationery Office.]



Chapel of St. Peter-on-the-Wall (c. 654), Bradwell-juxta-Mare.

* An Inventory of the Historical Monuments in Essex. (London: H.M. Stationery Office. Price 25s.)

THE LIGHTING OF PICTURE GALLERIES.

By G. MAXWELL AYLWIN.

So much has been written about the correct lighting of picture galleries that very little can be added to the devoted thought that has been expended upon this very interesting and important subject. The excuse for again touching upon it at all must be that the prominence recently given to this branch of architectural design may make it desirable to give access, for the benefit of those interested, to a concise summary of some of the most important results of others' study. Such an authority as Mr. Hurst Seager, F.R.I.B.A., leaves little for the casual student to add, but rather provides enough, and still more from which to build. His exhaustive works upon the subject of "Top-side Lighting," for which system he makes out a convincing case, are such that the student thereof can hardly fail to be at any rate much influenced by his views.

The design of art galleries depends upon many factors of which that of correct lighting is only one, though one of vital importance. The particular requirements of each individual problem, easy circulation on plan, dignified expression in elevation, the effect of a quiet setting in interior treatment, and the eternal bugbear of cost, must each and all make an imprint upon the complete conception. Yet a little reflection must show that correct lighting, even when considered as a separate factor, is also dependent upon each of the others, and no other factor can be deemed to be adequately satisfied unless contributing to the all important lighting. For instance, the most correct section of a single gallery may have its benefits entirely neutralised by the unwise grouping of surrounding buildings. Actually it has been found that the converse also holds good, viz., that an incorrect section may, on occasion, be corrected by the accident of surroundings. Mr. Seager particularly refers to the Soane Museum, where, in one instance, a room top-lit by a pitch-roof skylight becomes a perfectly lighted gallery owing to the fact that one slope receives the direct light from the sky while the other is muffled by the reflected light from a high dull brick wall. The spectator stands in shade, and the whole effect is that of a perfectly lighted gallery, the principal picture (glazed) being entirely free from reflections and seen to perfect advantage, as Londoners will probably remember, though perhaps without considering the cause.

The picture lover is well acquainted with the difficulties and strain experienced during a protracted visit to our best known art galleries. Some pictures are almost entirely obliterated, while others—and the majority—are much confused. Just one here and there is seen to perfect advantage as the result of a happy sequence of accidents. It is, of course, the glazed pictures, and, of these, those that have the largest and darkest grounds, that suffer the most. Such pictures become mirrors eager to catch and reflect all the light they can reach. They must, therefore, be given a peculiar function, in that they must be themselves well fed with light, which must, however, be reflected out of the range of vision of the spectator as far as possible. Such reflections as are inevitable must be so subdued in tone as to subordinate themselves to the picture beneath the glass. The actual original source of light will, of course, throw the most brilliant, and consequently most disturbing, reflection in the glass of the picture. It is a comparatively simple matter to design the gallery so that the source of light is reflected out of harm's way, and a very elementary knowledge of the laws of reflection will suffice.

From an early date in the history of art galleries this was a primary consideration which was well recognised, and few of our art galleries fail in this respect. The National Portrait Gallery affords one or two instances where this is not the case and with disastrous results. Even where this elementary law is maintained it will be found that in most picture galleries the majority of the pictures are full of reflections—perhaps most annoying of all that of the spectator himself dominating whatever picture he is most anxious to appreciate. The brightest reflections are those of the most brightly illuminated objects.

The old top-lighted system naturally illuminates the whole room first and the pictures next, so that the reflections overpower the picture, and the system has therefore been condemned by many authorities, of whom Mr. Seager is the best known. The late Mr. C. C. Brewer was equally emphatic upon the subject in his report upon the American Museum Buildings in 1913. Mr. Benjamin Gilman also rejected the top-lighted system, preferring attic lighting, *i.e*, windows in the side walls close to the ceiling.

Various modifications of the top lighting system have been tried with good or bad effect. In some cases the central portion of the flat top light has been blanked with the object of shading the spectator and of concentrating the light near the pictures. The result has been in effect the direct opposite of the intention, as the near spectator receives a concentrated illumination which serves merely to accentuate his reflection. Another method was to form a top light of three surfaces, in section like a truncated triangle, the flat central portion being blanked, the side slopes only being glazed to throw a direct light on the picture. Some such system has been adopted at the Wallace collection, where the result is hardly a success. The pictures are certainly well illuminated, but the sloping light above the picture tends to over-illuminate the front of the spectator, though proportionately less than in the case of the flat top light near the walls. Yet another improved method is to be found in the later rooms at the National Gallery, where the roof, designed much as in the last described method, springs not direct from the side walls but from deep coves, which arrangement brings the springing some feet out in advance of the walls. The result is not completely successful, as the light upon the pictures strikes also the back of the spectator, defining an illuminated halo round his dark form with confusing effect. It is, however, impossible to pass from the old full-blooded top-lighted galleries into these later and improved ones without becoming conscious of a relatively restful effect. There can be little doubt that a distinct advance was made when this system was adopted, after much scientific research under the direction of the Office of Works.

To summarise the requirements of a well-lighted gallery, from observations which will be apparent to every student of perception, we find:—

(1) That the source of light must be reflected out of the range of vision of the spectator.

(2) That the picture must receive ample direct light.

(3) That the spectator must stand in a relatively subdued light.

(4) That the spectator must not intercept any light passing from the source towards the picture.

This brings us to the subject of the top-side light system as advocated by Mr. Seager, and which appears to satisfy all the above requirements. In this system the spectator passes down a central corridor which receives no direct light and is covered with a flat ceiling. From this are opened up a series of side bays roofed with pitch roofs parallel with the central corridor, the slope next the corridor being glazed to throw a direct light on the back wall of the bay. The pictures are hung on the back walls, and, to a limited extent, upon the side divisional screens. (Mr. Seager advises within six or seven feet from the inner edge.) Seats are provided just inside the bays off the corridor, but not sufficiently forward to catch the light from above. The result is a good direct light on the picture with the source hidden and *in front* of the spectator.

The Ryks Museum at Amsterdam seems to indicate an early attempt in this direction. The central corridor is vaulted, and the opening to the bays are heavily curtained, but injudiciously lighted from the top, and reflections are not eliminated. The effect in the corridor is also very gloomy and unsatisfactory.

Probably the most complete example of an existing art gallery on the top-side light system is the comparatively recent Sargeant Art Gallery at Wanganui, New Zealand, in the competition for which Mr. Seager himself acted as assessor. The assessor's report is published and on sale to the public, and is a very instructive document to read. It is of interest to see that in the assessment of the preliminary competition in the Wanganui competition the assessor awards only 30 marks out of a possible 168 for lighting. This seems to suggest that, in any similar competition, while the lighting of the premiated designs might be considered unsatisfactory, the assessor might feel justified by the relative excellence in other directions in so awarding the premiums as apparently to ignore the lighting arrangements. Yet, as has been seen, the lighting factor is indivisibly bound up in many others. The top-side light

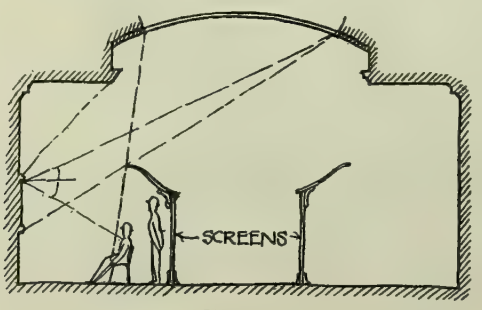


FIG. 1.

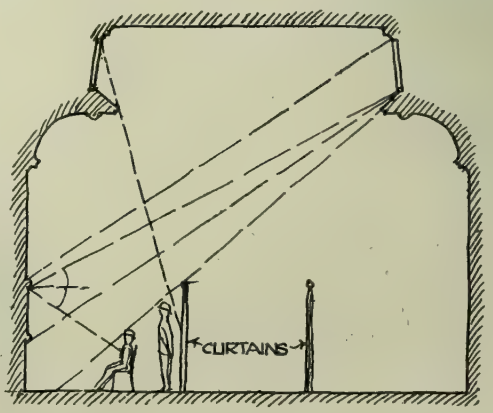


FIG. 2.

Lighting of Picture Galleries.

method to some extent imposes a certain type of plan, and in awarding marks for a plan of that type an assessor is also, in a way, giving votes for a particular system of lighting. The same applies to the interior treatment.

It is well to remember that the study of one particular branch of design is apt to develop a bias and to exaggerate in the mind of the student the relative importance of the branch in question. It might be urged, with some justice, that the top-side lighting method does tend to eliminate an air of architectural spaciousness, and that it does tend to add to first cost by multiplying internal supports and eliminating large open spaces. These considerations must weigh very heavily in the mind of an assessor if he is of opinion that correct lighting can be obtained in any other way.

One possible method of modifying top light may be suggested. Light, low screens, designed as furnishings in some dull-toned material, might be arranged in front of the pictures at such a distance as to allow of seats between screen and picture, at the correct viewing distance, and with a narrow walking space behind the seats, and forming a continuous corridor down the centre of the gallery. The top of the screens would be designed to overhang towards the pictures, somewhat after the arrangement of a gantry-fan, in order to throw the spectator into shadow. The screens would be frequently broken to allow of ready access between the corridor and the viewing space, and where such gaps occurred a judicious choice of pictures to hang would be necessary, such as the unglazed, and those of a light ground and the least susceptible to reflection. Such an arrangement would seem to meet most of the requirements of correct lighting, while maintaining the air of spaciousness in the gallery, and the screened-off viewing-space would induce that intimate atmosphere which seems desirable for the happy enjoyment of good art. The reflections from the brightly illuminated wall opposite would be entirely intercepted, and the spectator himself would be standing in the most subdued shade, and it is believed that the result would be entirely satisfactory. The suggestion is roughly illustrated by the sketch section (fig. 1). Similar steps might with advantage be taken to improve the lighting effects in such places as the later rooms at the National Gallery before referred to. In this case the screens would need no "fan" at the top, as the cove of the ceiling would (or could be made to) shield the viewing space from top light. They might well take the form of a series of sombre curtains, the neutral folds of which should form an admirable medium for inducing shade (fig. 2). Mr. Seager himself hints at some such subterfuge for correcting the gallery at the Tate, in which the largest Watts picture presents such a problem to those who would study it as a whole, rather than a square foot at a time. He suggests the hanging of a curtain down the centre of the room to eradicate the impossible reflections.

Means such as these seem to be applicable to almost any existing or intended systems of top-lighting, except where there are flat top-lights near the wall. Mr. Seager suggests that existing top-lighted galleries might be rendered tolerable by shutting off the light one side at a time by means of opaque blinds, thus alternately displaying one side or the other in correct top-side light. This appears to be an admirable half-measure, though it does not eliminate the "halo" round the spectator, and it has the disadvantage that visitors from a distance may be disappointed to find that the particular picture for which they came specially to see is not on view, as those on the darkened sides would be quite invisible owing to reflections worse than the normal.

Beyond these first considerations there are others of importance in designing the best setting for the display of fine pictures. Mr. Seager refers to most of these in his papers. It is essential to avoid highly coloured walls which tend to cast their tones upon the whole of the pictures displayed and entirely alter the colour values. A darkish neutral tint would seem the wisest choice, and with a rough stippled surface. The floor covering, if of a light reflecting nature, throws a most irritating reflection upon the lower part of pictures on the line. Light polished oak is particularly bad in this respect. Some darkish matt surface, such as dull black and grey rubber paving, should do well, and would also serve to maintain silence in the gallery.

Finally, a perfectly designed gallery should be arranged so that no picture is exposed opposite the doorway leading to another well-lighted gallery, or the clear-cut reflection of the latter will be obtrusively displayed in the glass of such an unfortunate picture, as to render it quite indiscernible. A little judicious screening will correct such an arrangement.

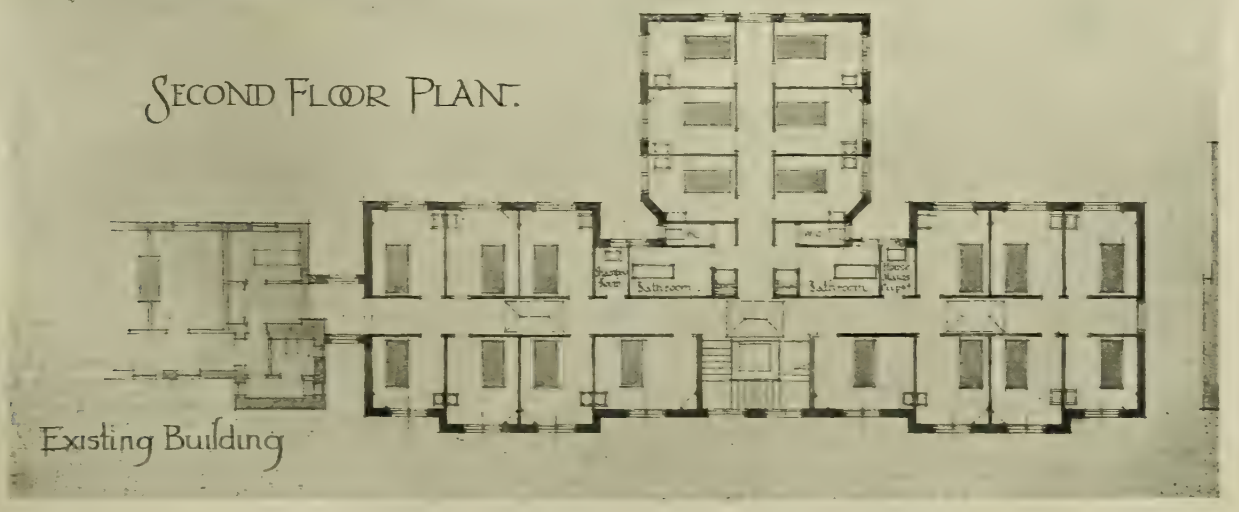
As has been previously pointed out, these notes are mainly intended as a resumé of the results of others' faithful study and research, supplemented by a little personal observation and thought. They seem to indicate that the top-side light system, as advocated by Mr. Seager, is the ideal at which to aim in the setting for pictures, and that the majority of our galleries at present violate nearly all the first principles of correct lighting. They do not, perhaps, present a complete answer to those who feel the loss of a certain amount of architectural effect, or who are a little nervous of mounting cost. Some will also say that a gallery so designed to house adequately a collection of pictures may soon become overcrowded, tempting the authorities to utilise all the wall space of the side-screens to the bays, thus leading the public right into the bays, to the confusion of all original intentions.

In conclusion, a final general appreciation of those members of the profession who, like Mr. Seager, have devoted their life efforts to the solution of scientific problems in which the rank and file find themselves sadly out of their depth if unaided. We are a little apt to look askance at science as a rather cold companion, but we greet her thankfully after academism has failed us, and the more thankfully when we find her within the sympathetic bounds of the profession.

ROME SCHOLARSHIP IN ARCHITECTURE.

In reference to the preliminary competition for this scholarship, a critique of which we gave in the last issue of *The Builder*, the following is a complete list of the students who competed. Those starred were the selected for the final competition. It will be noticed that seven of the successful students are from Liverpool University,

*Charles T. Bloodworth (University of Liverpool).
Richard W. Briggs (University of Manchester).
Leo Durnin (School of Architecture, Aberdeen).
A. Muriel Hargroves (University of London).
Frances T. Silcock (University of Liverpool).
Alexander M. Stewart (School of Architecture, Aberdeen).
*Donald Brooke (University of Liverpool).
*D. L. Bridgwater (University of Liverpool).
*Francis X. Velarde (University of Liverpool).
*John H. L. Owen (University of Liverpool).
*Hubert S. Silcock (University of Liverpool).
*Marshall A. Sisson (University of London).
*Herbert Thearle (University of Liverpool).
Leonard C. Howitt (University of Liverpool).
*Elsie Rogers (University of Manchester).
Fred E. Towndrow (University of London).



Additional Sleeping Accommodation at St. Marylebone Hospital.

Messrs. Constantine & Vernon, F. & A.R.I.B.A., Architects. (*See p.* 377.)

THE SHEFFIELD SOCIETY OF ARCHITECTS AND SURVEYORS.

THE GUILDHALL, LONDON.

On February 21 Mr. Sydney Perks lectured before this Society on "The Guildhall, London." In the course of his remarks he said it would be no idle boast to claim that the Guildhall was a unique building, for although it was formerly the scene of historical events of greater importance than to-day, it was still the centre of great civic movements, and its usefulness had increased in many ways. It might be said that Westminster Hall had a history to rival it, but Westminster had lost even its courts of law, and lived almost as a monument of the past; whereas the work and importance of the Guildhall increased from day to day. Little was known of any Guildhall erected before the present building; there was a previous structure apparently with a frontage to Aldermanbury, and the lecturer had heard it suggested that the west portion of the existing crypt was part of that Guildhall. Maitland, in his book of "The History of London," wrote: "The Mayor and Court of Aldermen considering the many inconveniences arising from, and great obstructions given to, the public business of the City, which daily increased with inhabitants, occasioned by the want of room in that despicable Cottage, the Guildhall in Aldermanbury, set about erecting the present Guildhall, which is a spacious structure, well accommodated for the transacting of all Publick Affairs belonging to the City." This extract was certainly in keeping with the idea that the old Guildhall had a frontage in Aldermanbury, and that the present building was erected independent of the old structure. The old views of the exterior showed that the appearance was roughly similar to its appearance to-day. After the Great Fire Wren added a story and provided the hall with a flat ceiling, and there were many views, both of the interior and exterior, showing the appearance of the building until the present open roof was built by Sir Horace Jones in 1864. He followed, as far as possible, old traditions, but in place of two small ventilators he fixed one large fleche. Although this was very effective from a distance, it was open to criticism in that it has the effect of somewhat dwarfing the appearance of the front from the Guildhall Yard.

With regard to the crypt, the eastern half, by far the most elaborate portion, varied very little from what it was nearly 500 years ago. The crypt had quite recently been restored; until then the walls and vaulting were covered with dirt and grease, the shafts supporting the vaulting were quite black, and it was only after the removal of the grease and dirt that the colour of the blue Purbeck stone shafts could be seen. This eastern crypt was more expensively constructed than the western portion; it was probably used for certain meetings, and its importance was emphasised by the fine entrance, which was quite as elaborate as the fifteenth-century porch. It was often suggested that the cross wall, which divided the crypt in two parts, was not built at the same time as the vaulting constructed in one of the two halves. This had been used as an argument by those who had advocated the theory that a part of the crypt formerly belonged to a previous building. The western half of the crypt was supposed to have collapsed during the Great Fire, and Wren was credited with the restoration. This theory was no doubt correct. The architect, whoever he was, proceeded to rebuild the vaulting necessary to support the floor of the hall. He did it in the quickest way possible; he did not replace the old stone vaulting, but simply built a brick wall at each end of the space to be covered, and just inside the old stone walls, one being the cross wall and the other the west external wall, and in doing so he built up all the old stone responds, and they had been hidden from 1666 until a few weeks ago. Wren built a series of brick arches, similar to a range of railway arches. He filled up the haunches and replaced the floor. The workmen filled in with any stone or brick debris handy, and hundreds of beautiful Gothic fragments existed to-day in these brick walls. While removing the brickwork to uncover the Gothic work a very large number of the fragments had been carefully removed and labelled, and were ready for depositing in the museum. Of course it was a great pity the Gothic work was bricked up, but in a certain sense it was to their advantage to-day now that these links with the past had been brought to light, for the bricking-up process had preserved the stone and also the ironwork of the windows; the work was now exposed after a lapse of 240 years.

With regard to the western half of the crypt; from the time of the Great Fire onwards this portion of the building had not been treated with the kindness it had a right to expect. It was always evident, from the responds along the side wall, that this portion of the crypt was vaulted. There was a very interesting staircase from the crypt to the side of the porch, which was almost entire. The entrance at the crypt level still had stout hooks, and the ceiling was simply vaulted by stones leaning against one another; a straight joint running from end to end. The whole of the western half of the crypt was constructed in a much less expensive manner than the eastern half. The windows had simpler heads, and were not glazed—glass was a luxury in those days; the piers of the vaulting were in ordinary stone, and not Purbeck, as in the eastern half, and there were no caps. A possible reason for the difference was that the eastern half was constructed for ceremonial purposes, and the western half for muniment purposes or domestic work. This might or might not be so, but the lecturer advanced the theory as a practical solution of a difficulty. Later on the western end of the crypt was used for stables, for they read in 1683 that two Aldermen were requested to report upon the "mischiefs arising from the keeping of a stable and a coach-house under the Guildhall." The vaulting in the western half of the crypt was not planned conveniently for the main shafts above; in other words, the responds for the vaulting were not under the piers in the hall, but along each side wall there were other responds which were immediately under the piers of the great hall. It had been suggested that this part of the crypt, being a portion of an earlier building, was retained when the great hall was erected; consequently it was necessary to add responds to support the piers above, cutting through the vaulting of an earlier date. That theory was, he thought, incorrect. It was quite clear that the wall rib of the vaulting and a portion of the additional pier adjoining had been cut out of one stone; in fact, the vaulting and all responds were built at the same time.

The lecturer then dealt with what could be seen to-day. The east end and two return sides on the hustings were pannelled in oak. This panelling was copied from a screen in Newark. Church, and he thought it a great mistake to destroy Montague's design in stone and erect a copy of work which, although excellent, was erected under entirely different conditions. Again, the proportions of the panels, &c., had been altered to make it fit in, and the effect was much inferior to the original screen at Newark, The woodwork had a heavy projecting canopy, and this was immediately under the stone canopy. The result was not only did the wood canopy prevent anyone near the east end from seeing the stonework above, but they got two heavy horizontal lines immediately under the window, which had the unpleasant effect of dwarfing the end of the hall. It was apparent to the most casual observer that the woodwork formed no part of the original design, for they saw one canopy immediately under another, a senseless arrangement very detrimental to the dignity of the hall. At present the space at the back of the panelling was a receptacle for an enormous amount of dirt and dust, which could not be cleared away without taking down the screen. Last autumn the lecturer had a small portion of the panelling removed and some hangings submitted to members of the City Lands Committee, and the result was favourably received. The work of restoring the porch to the Guildhall was now well in hand. The original porch, known as "The Guildhall Gate," was erected in 1425, and was very different from what they understood as an ordinary porch, for it was the full width of the Guildhall yard, about 63 ft. wide; it had two doorways in it, and was in part certainly three stories high. The original porch, with Wren's alterations, was pulled down in 1788, a fact which was ever to be regretted.

Until recently almost the entire wall surface of the Guildhall was covered with a preparation of cement about one-sixteenth of an inch thick. This had been painted and distempered, with the result that the sharpness of the mouldings had disappeared, and it was very difficult to distinguish between the original Gothic and the imitation work which had been carried out from time to time. This plaster and paint work was said to have been started in Wren's time, the object being to paint the new stone used in restoration work after the Fire, and also the stone blackened by the flames, so that the whole should have what was considered a pleasing and uniform appearance.

Considerable interest was taken recently in the discovery of the one and only original and complete window in the great hall. It had been stated that the discovery was accidental, but there was nothing in the slightest degree accidental about it. The hall had just been cleaned, and it was possible to distinguish between old stone, new stone and cement with the greatest ease. The window in question was next to a bay, which had a blind arcade into which a bronze memorial had been fitted. The bay, at the back of which existed the window, presented an almost identical appearance; the centre portion was divided into three parts, but there was this difference, the mullions of the bay in front of the old window were of cement and those of the bay containing the statuary were of stone. With regard to the south window this had received further attention, and the brick wall on the outer side had been removed.

Cut-Throat Alley. — There was formerly a footway from the Guildhall-yard to Basinghall-street. In the fifteenth century the entrance was through the smaller gateway of the south front. Maitland states there were steps up from the alley into Guildhall-yard. It was clear that must have been so when they compared the level of the crypt doorway with the yard; the old views of the front showed one step up to the end of the porch, which was the same to-day as it was when first built, and the threshold of the crypt doorway also existed now. Cut-Throat-alley, no doubt, entered Basinghall-street through one of the footways shown on the old plans. As time went on it seemed that light was not considered of so much importance in the crypt, and the steps were found inconvenient. The Guildhall-yard to-day was 5 ft. above the level of the roadway in Basinghall-street, the descent of the steps was required to form a sinking in the ground, or continuous area to allow good light in the crypt. The necessity for ample light was also shown by the sloping of the soffits of the window recesses on the inner side of the wall of the crypt. It was clear that the descent of about sixteen steps down from the Guildhall-yard necessitated a rise of about 3 ft., or six steps, to Basinghall-street. Traffic, of course, increased, and no doubt the importance of the crypt decreased, for they knew that additional buildings were constructed. The result was what one might expect, the level of Cut-Throat-alley was raised and the sunk portion was filled in.

In conclusion, the lecturer stated the members of the Corporation took the greatest interest in the building, and in the opening up of old portions. The Committee dealing with the structure was known as the City Lands Committee, and was the premier committee of the Corporation.

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ILLUSTRATIONS.

Marylebone Hospital, Nurses' Home.

The drawings illustrated show an extension of the existing Nurses' Home at this Hospital, and the scheme was accepted in a limited competition.

In order that the building externally should conform as far as possible with the existing buildings, it will be faced in stock bricks with stone dressings. The windows will be in wood frames with iron casements. The building is designed on three floors and economy in design was the first consideration. As much natural light as possible has been introduced into the staircase and corridors.

Internally, the building will be finished in a simple manner, the floors covered with jointless flooring, walls plastered and distempered. In order to eliminate noise, the corridors will be covered with a rubber carpet. The staircase will be constructed in oak to give a more home-like effect than is obtained in a concrete or stone staircase.

The building will be constructed without internal structural walls, so as to avoid complications should it be desirable to use it for other purposes. The whole of the internal joinery is in pine. The corridors will be heated by radiators with low pressure hot water. Constant hot water will be provided to the bath-rooms and shampoo rooms on all floors.

The contract for the work has not yet been placed, but the estimated cost is approximately £12,800.

The architects are Messrs. H. Courtenay Constantine, F.R.I.B.A., and Austin Vernon, A.R.I.B.A., of 82, Mortimer-street, London, W.1.

Messrs. Woolworth's New Premises, Oxford-street, W.

This new block of buildings is now in course of erection. Messrs. Woolworth's are carrying out their own building operations under the superintendence of their architect, Mr. Wm. Priddle. The front is of white glazed terra-cotta, supplied by the Shaw Glazed Brick Co., Darwin; and the steel work by Messrs. Banister Walton & Co., of Manchester.

Wandsworth Town Hall—Proposed New Buildings.

The present Town Hall is situate in High-street, Wandsworth, and in 1920 this road was widened considerably, the front of the Town Hall removed, the size of the Hall curtailed, and a temporary front erected to the new line of road.

The Wandsworth Borough Council owns land adjoining the present Town Hall on the east side, and it is upon this land that the new Town Hall is to be erected. It is proposed to remodel the old hall and adapt it so that if required it may be used *en suite* with the new hall by means of connecting lobbies. The temporary front of the old hall will be taken down and the design shown on the accompanying sketch is the proposed elevation combining the new front of the two halls. It will be a steel-framed building encased in brickwork and the elevations will be of brick and stonework, with metal casements to all windows.

The ground floor of the present building will consist of club rooms and small halls, with a large hall to accommodate about 420 persons, on the first floor. The new building will include municipal offices on the ground floor and a large hall to accommodate about 800 persons on the first floor. Each hall will have a stage and the usual appurtenances.

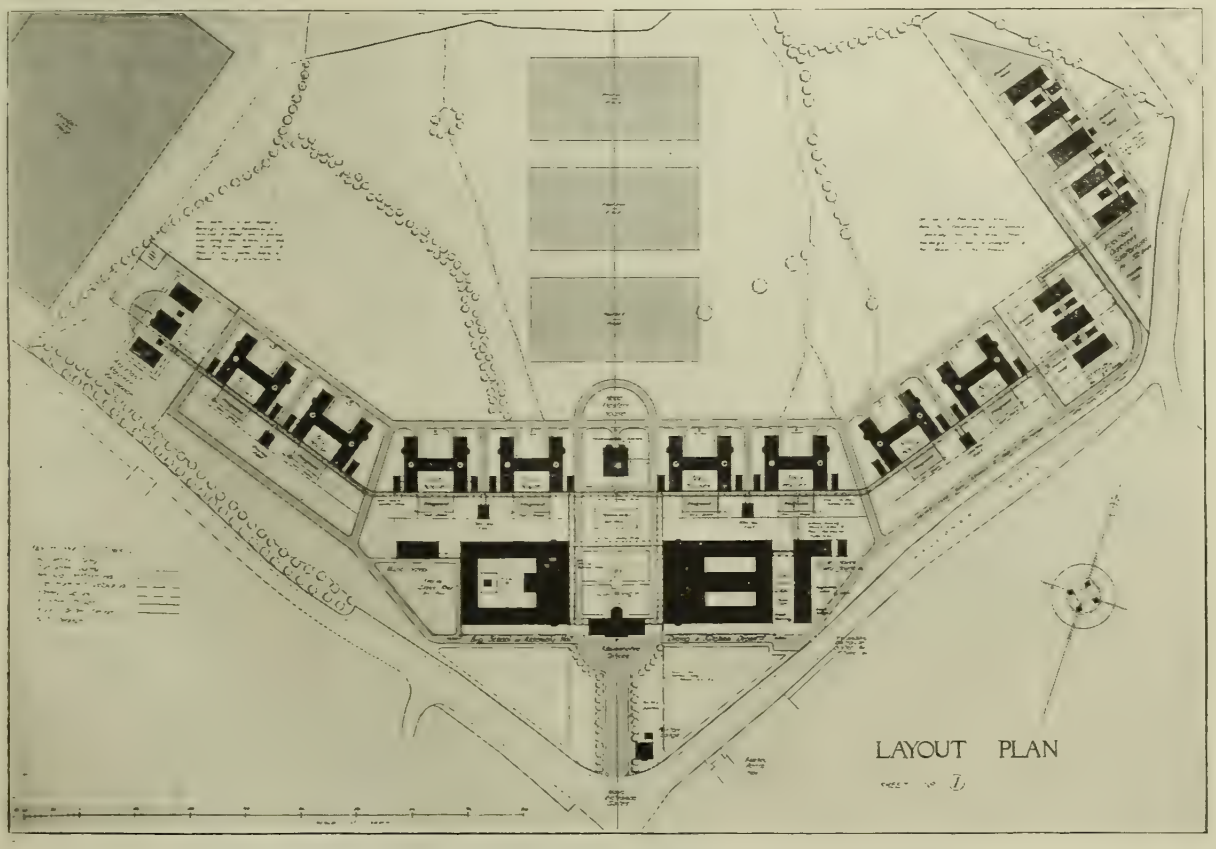
The interior decoration of the halls will be a high oak panelled dado, plastered panelled walls, and plastered panelled elliptical ceiling.

The designs are by Mr. Ernest J. Elford, the Borough Engineer.

Royal Masonic Institution Junior School for Boys.

We give this week one of the designs submitted in this competition, by Messrs. W. & T. R. Milburn, FF.R.I.B.A. The block plan shows the buildings have been planned about a main axis, which bisects the angle formed at the junction of London and Falconer-roads. The great quadrangle forms the central feature of the scheme with the big school, dining hall, administrative offices and headmaster's house grouped round it. The estimated cost was £239,653.

The design placed first, by Messrs. Davis & Emanuel and Henry C. Smart was given in our issue for February 22, and part of the design submitted by Messrs. Gotch & Saunders in our last issue.



Royal Masonic Institution School for Boys, Bushey, Competition.
Design submitted by Messrs. W. & T. R. Milburn, FF.R.I.B.A.

Fifteenth-Century Belfry at All Saints', Stock.

(See p. 373.)

Historical Monuments in Essex.

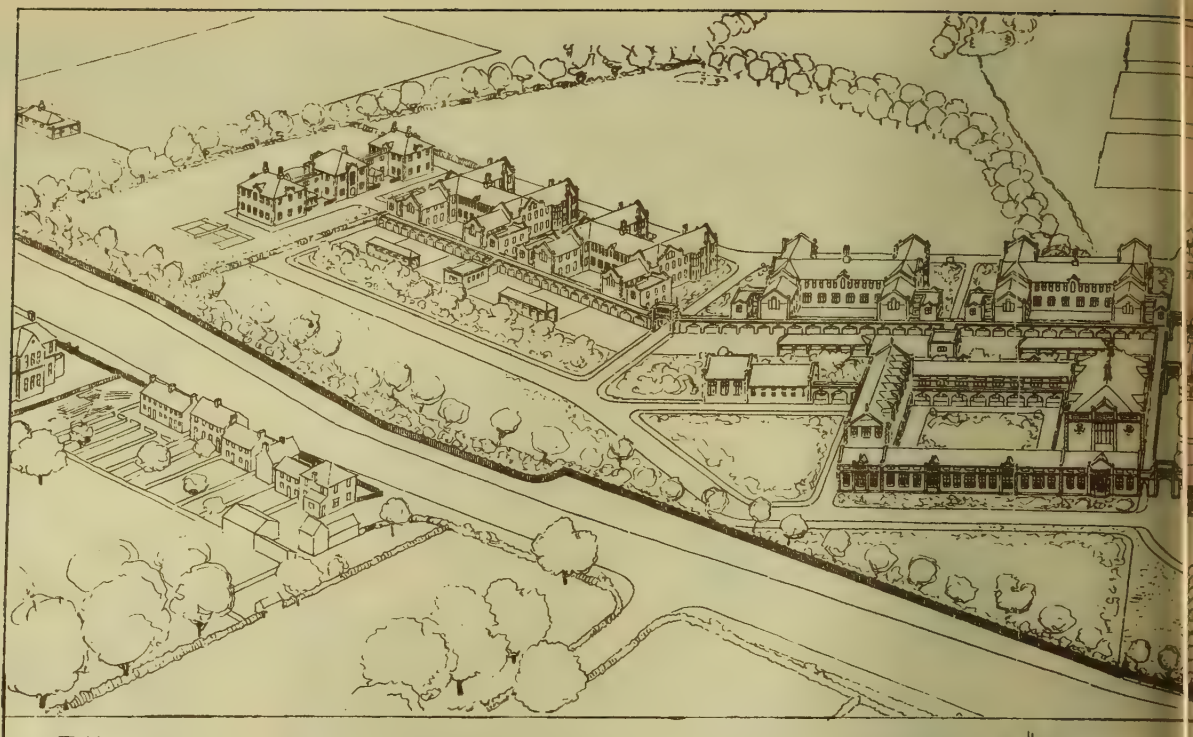
Tilbury Fort and Gatehouse (c. 1682).

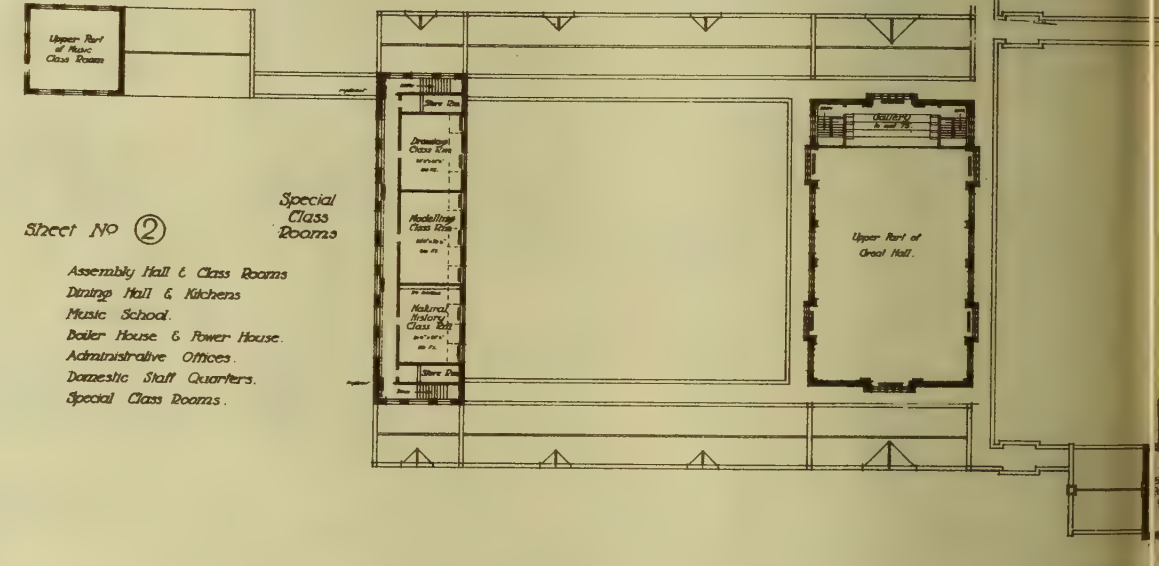
By permission of H.M. Stationery Office.



New Premises for Messrs. Woolworth, Oxford Street, W.

Mr. Wm. Priddle, Architect.



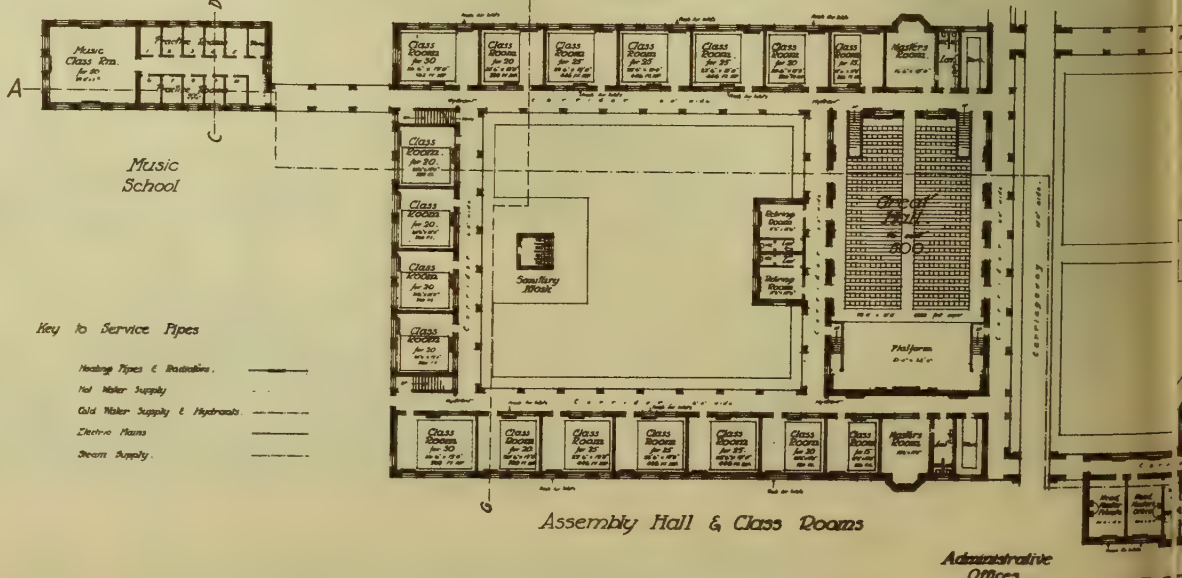


Sheet No (2)

Special Class Rooms

Assembly Hall & Class Rooms
Dining Hall & Kitchens
Music School.
Boiler House & Power House.
Administrative Offices.
Domestic Staff Quarters.
Special Class Rooms.

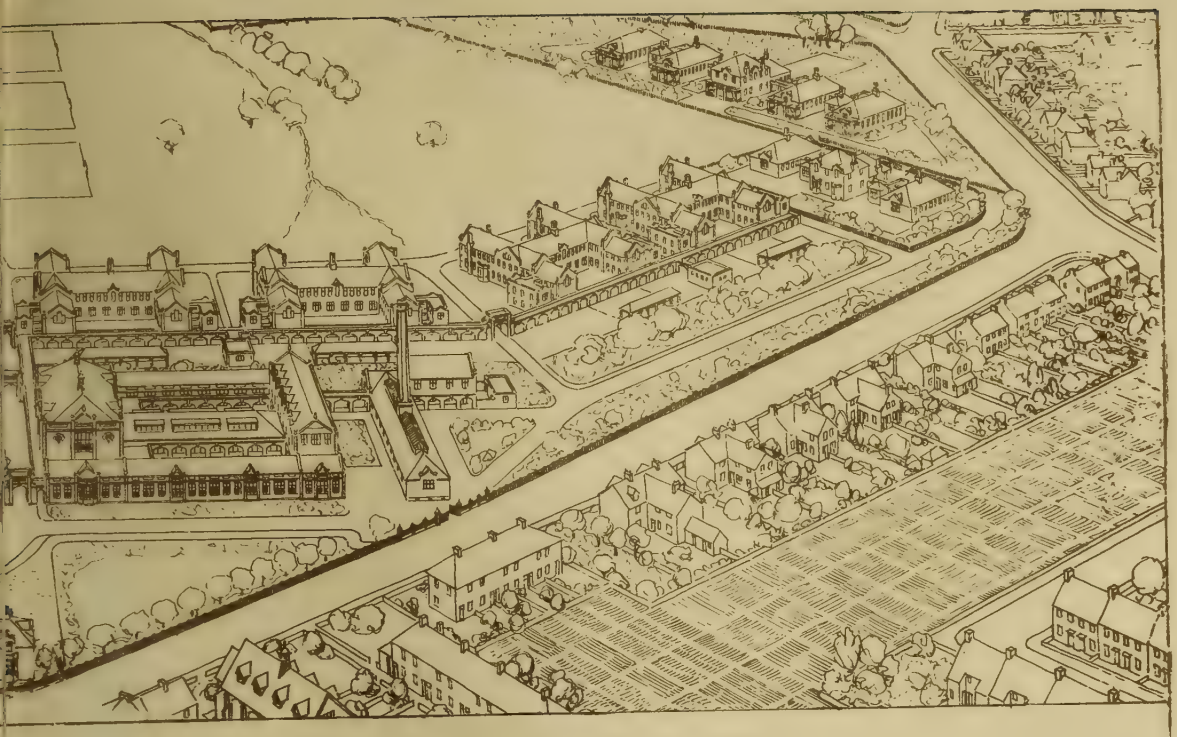
FIRST

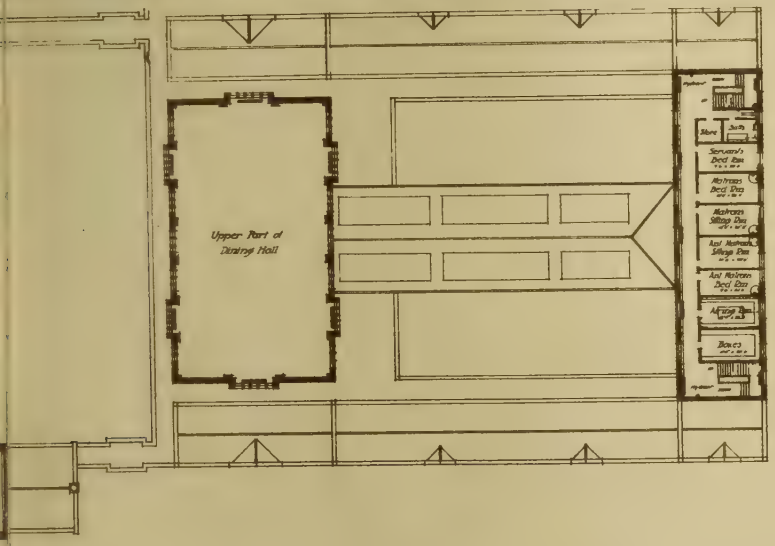


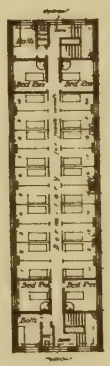
Assembly Hall & Class Rooms

Administrative Offices

GRO





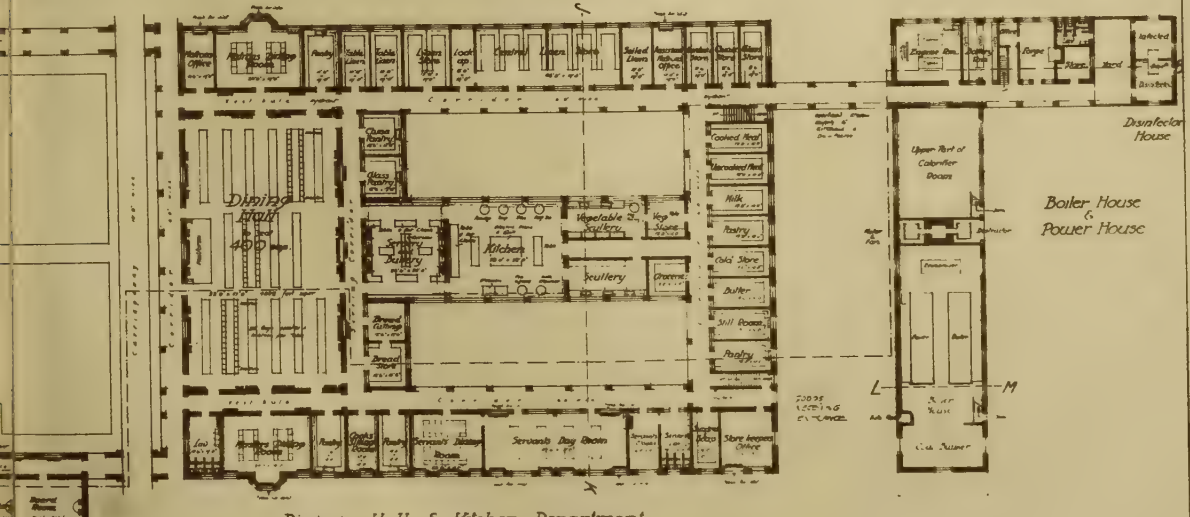


Second Floor Plan
(Outer Matrons Quarters)



First Floor Plan
(over Range)

LAN



Dining Hall & Kitchen Department

PLAN

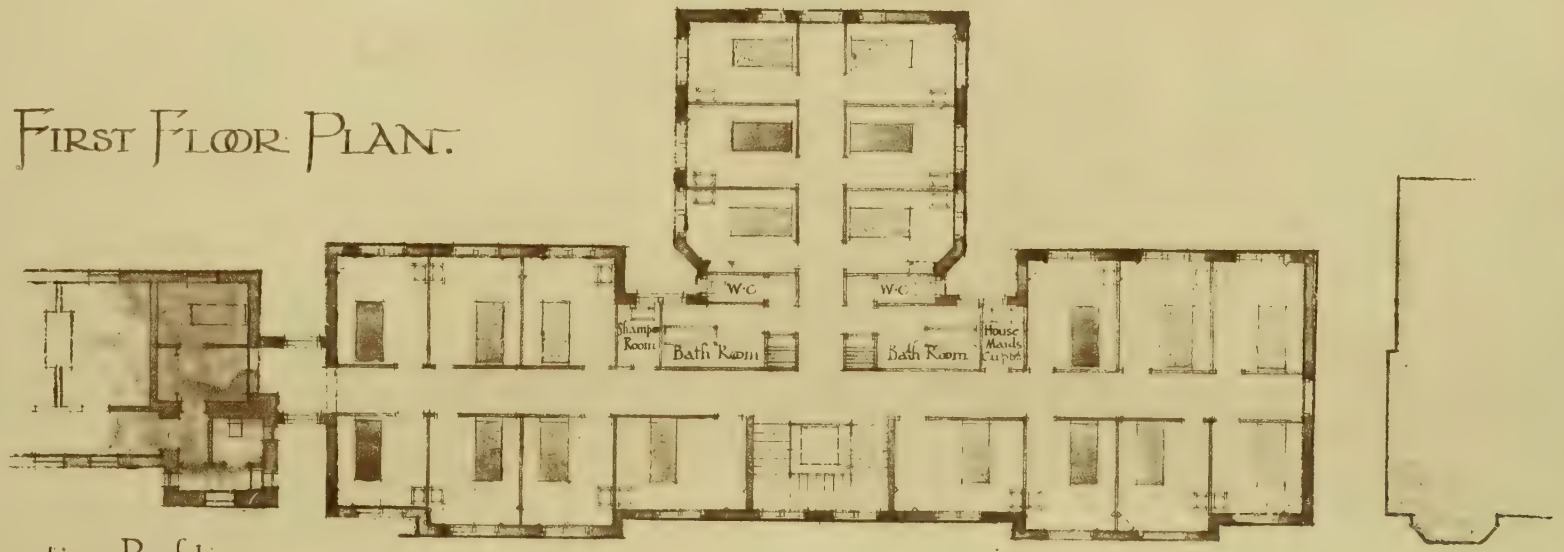
PROPOSED JUNIOR SCHOOL, BUSHEY.

H. BURN, FF.R.I.B.A.

St Marylebone Hospital.

Proposed Additional Sleeping Accomodation for Nurses.

First Floor Plan.



Existing Building

Boundary Wall.

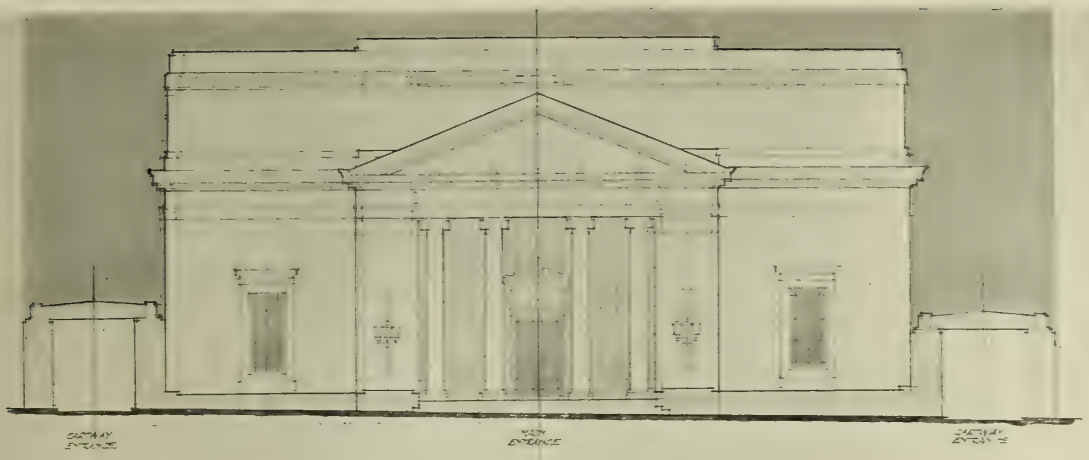
Ground Floor Plan.



THE BUILDER



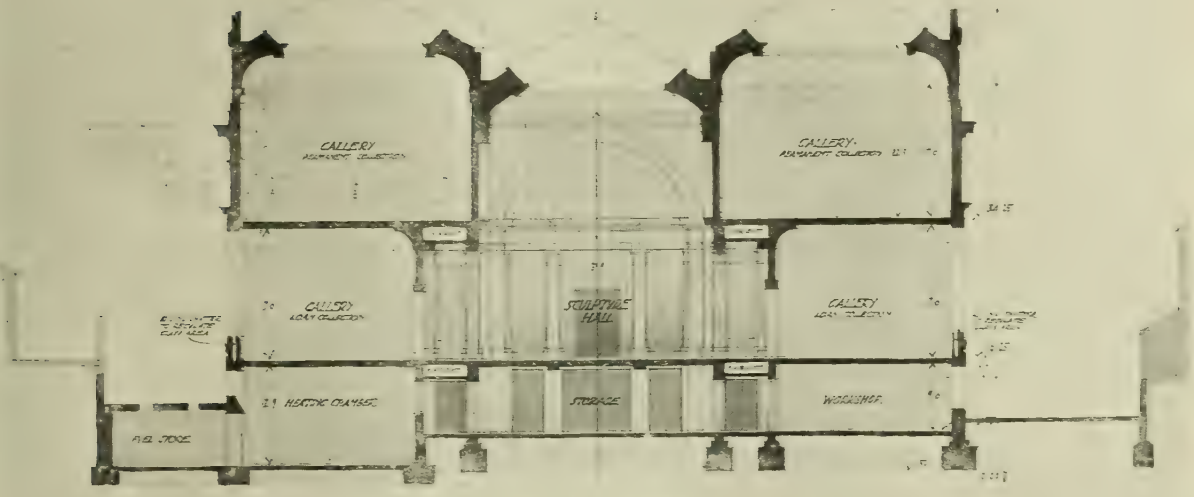
MESSRS. CONSTANTINE & VERNON, F. & A.R.I.B.A., ARCHITECTS.



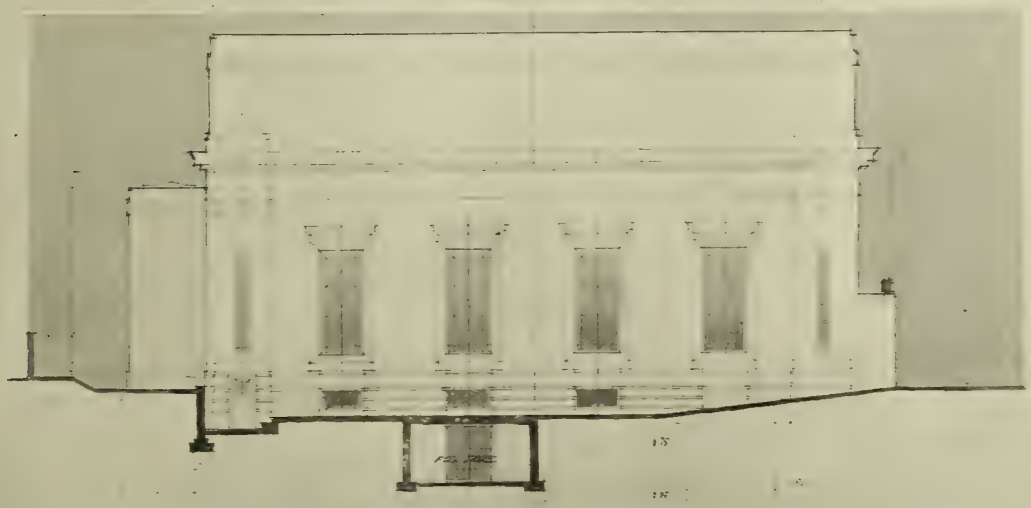
North Elevation
to
Queen Victoria Square

Scale of feet

0 5 10 15 20 25 30 35 40



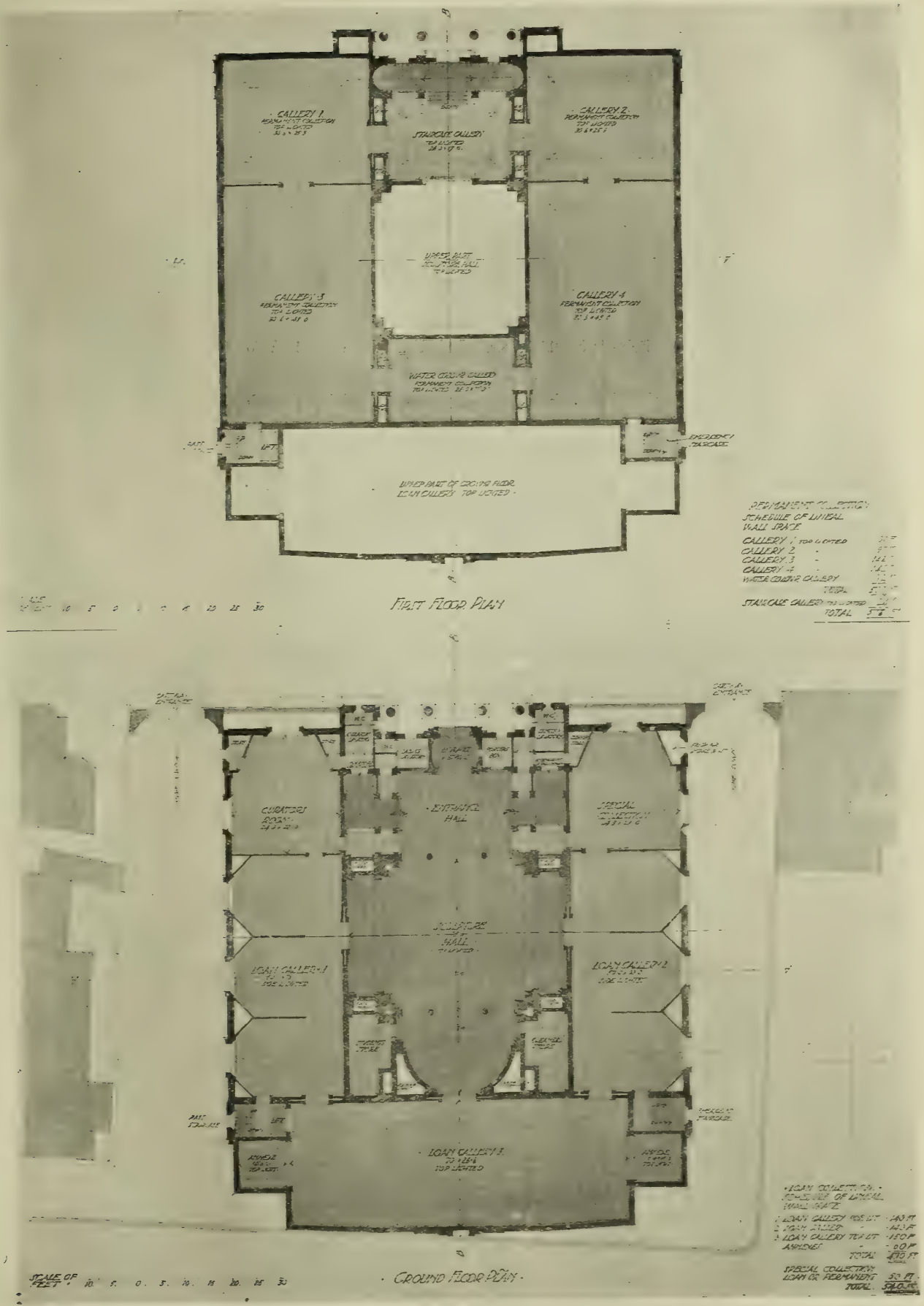
Transverse Section A-A



East Elevation

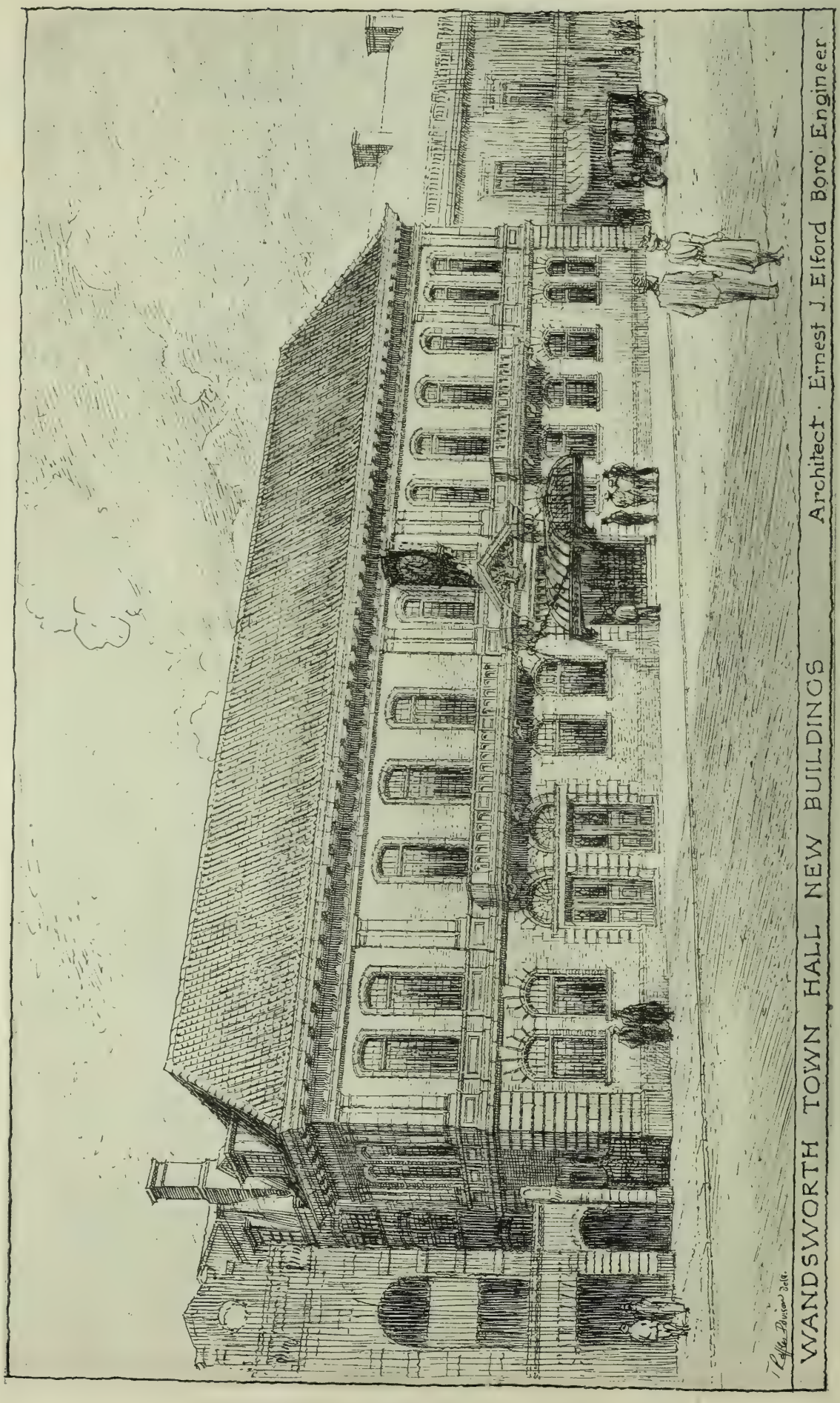
Hull Art Gallery Competition. Design submitted by Messrs. H. V. Ashley & Winton Newman.

[The first and second premiated designs in this competition, by Messrs. S. N. Cooke & E. C. Davies, and Messrs. J. S. Gibson & Gordon, respectively, were given in our issues for November 23 and December 7, 1923.]



Hull Art Gallery Competition.

Design submitted by Messrs. H. V. Ashley & Winton Newman.



Mr. Ernest J. Elford, M.Inst.C.E., Borough Engineer and Surveyor.

WESTMINSTER ABBEY RE-EXAMINED.

By W. R. LETHABY.

Transept Front and Great Portals.

While reading Mr. Westlake's excellent and comprehensive new history of the Abbey, I have been drawn to look over notes which have accumulated since I tried, in "Westminster Abbey and the Kings' Craftsmen," 1906, to give an account of the way in which it was built and of the workmen engaged. Two sections of my last series in *The Builder* dealt with this same subject and I hope now to get some other observations recorded by way of addition and correction.

. . . . . .

North Transept Front.—This was the principal façade of the church as rebuilt by Henry III, and here—because it fell within the limits of the first work and from its position in regard to the Palace and the chief approach by King-street—were placed the chief portals. While mentioning King-street, I may recall that it was only recently destroyed in widening the south end of Whitehall well within "my time."

The transept front was, I have no doubt, pushed on with the earliest work undertaken—that is, it was begun in 1245. The king would have been specially interested in these splendid doorways. As will be explained, they show close study of the portals of Amiens Cathedral, and the first master mason evidently knew that great work as well as Reims and the Ste. Chapelle. This master was Henry de Reyns (see *The Builder*, September, 1923).

From what is known of it, and as an important work built in the middle of the thirteenth century by the connoisseur king, this front may be regarded as the supreme example of our mediæval art. A student who would make a trustworthy drawing of the front by carefully bringing together all the evidence that can be gathered with the least possible amount of conjecture, would make a valuable contribution to the history of English art.

In 1906 I sought to show, by an examination of old prints and other evidence, what the main details of the north front were like before it was partly recased in Wren's time, and again almost totally recased at the end of the nineteenth century. The conclusion was arrived at that the north transept end, with its great sculptured portals, was modelled on the west front of Amiens Cathedral, which could hardly have been completed when the Abbey was begun; the central doorway contained a sculptured tympanum representing the Doom, and there were large statues of the Apostles in the jambs below. The windows in the recesses above the lateral porches were originally of the form in which they remained when I drew them in 1875; the forms of the original tracery filling the transept gable had also been preserved when I drew it at the same time; the form of the rose window might be established by a comparison of authorities; a passage-way arcade below it had eight pairs of openings distributed in the side and central compartments thus | 2 | 4 | 2 |, and not as in the "restored" front thus | 3 | 5 | 3 |.

The authorities were gone over again in the Journal of the R.I.B.A. in 1920, and several of the prints referred to were reproduced in a form useful for reference. The conclusions which I had freely arrived at in 1906, without preconceptions, but merely by an examination of the evidence, were here contradicted. It must, however, be recorded that I remain of the same opinion still. It is dreary work arguing again over conclusions which are denied, but new evidence is provided by a representation of the north front of the Abbey on a seal of Westminster School, which, I believe, was unknown in 1906; at least, I did not know it. This seal, dated 1661—the year following the Restoration of Charles II—is an amazingly delicate piece of work, engraved by Simon, who was, probably, the most remarkable English artist working in the Commonwealth period. Thomas Simon was chief graver to the Mint, and he walked at the funeral of Oliver Cromwell with the master carpenter, master joiner, master carver, and master mason, Mr. Philips. (No architect!)

The view of the Abbey given on the seal is of more value, as it is in elevation and nothing is hidden by projecting buttresses. It shows the later porch, which was erected against the central portal late in the fourteenth century, as still existing. It was pierced with such large openings that it must have been quite a glass-house. The gables of the side porches appear, also the circles in their tympana, and sculpture seems to be indicated in these. Large sculptured figures are on the buttresses, and on each side of the lateral windows. There are shields in the spandrils of the arches over these windows, and of the arches ranging with them in the central bay. The wall arcade between these arches and the rose window has four pairs of openings in the central space and two at the sides | 2 | 4 | 2 | as before described (Fig. 1).



Fig. 1.—Seal Enlarged.

This part is very clearly rendered; there were cinquefoils in a circle above the pairs of openings. The seal impression is injured at the rose, but enough remains to indicate the general character of the tracery and the pierced spandrils. Because of the small scale only about half the number of divisions were given in the tracery.

I give a general rendering of what I suppose it was like in Fig. 2, which may be compared

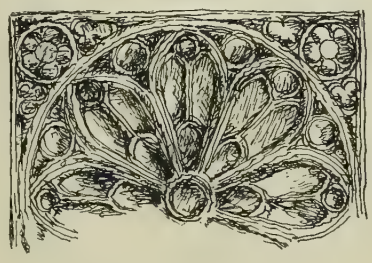


Fig. 2.—Seal Restored.

with the results reached before. The difference between the triforium windows to the east and to the west of the transept is accurately indicated on the seal. The main gable of the transept was obliterated.

We know that the tracery filling this gable had three circles containing cinquefoils above a blank arcade; two of the circles were pierced as windows, but the central upper one was blank. It must, I think, have contained a figure of the Majesty. Such gable figures existed at Wells, Lincoln, Salisbury, Crowland and Lichfield. The actual figure from the gable at Crowland is the battered image now at the triangular bridge, and usually called St. Ethelbert. The gable figure from Lichfield is, I believe, at the village of Stoke (?), not far away from the city. The blank arcade beneath the three circles was probably intended for standing figures, possibly the orders of angels as at Wells.

Great Portals.—In my former study of the north front I pointed out that its design was based on the noble west front of Amiens Cathedral, and I gave a diagram of the scheme of the latter. I have now re-examined the evidence, and there cannot be a doubt of the facts, as even the sketch plan of the Amiens porches is sufficient to show (Fig. 3). The influence of the



Fig. 3.—Amiens.

west front of Amiens on the north front of Westminster is so marked that it becomes highly probable that the sculptures of the portals were also similar, and that the Last Judgment was the subject assigned to the central porch at Westminster.

This supposition is confirmed by the fact that the jamb statues at Amiens were of the Apostles, and there is a record that at Westminster there were statues of the Apostles of full size by the central door.

The magnificent south porch at Lincoln, part of a work just subsequent to Westminster, and obviously inspired by it, is sculptured with the Last Judgment. Christ appears in a quatrefoil, together with cross- and spear-bearing angels in the upper part of the tympanum, and the rising dead were below. (The slightly later west porch at Lichfield follows the same type.) The little figure sculptures and open-work foliage in the arch-orders are so like those of the Chapter House at Westminster that a close relation between the two works at Westminster and Lincoln is obvious.

The drawings and engravings of the central porch at Westminster show a large quatrefoil in the tympanum, and Scott found evidence for it and followed it in his "restoration"

At Amiens the top of the central tympanum is occupied by Christ on a throne with hands upraised exhibiting His wounds. On each hand is the Virgin and St. John; also, on one side, an angel bearing the cross; and on the other an angel with the spear and nails. Above is a group of angels carrying sun, moon, &c. Below is the separation of the just and unjust—a yawning beast's head represents the jaws of Hell. Still lower, little bare bodies scramble out of long box-like tombs; while angels blow trumpets. Around the arch-orders are a crowd of lovely worshipping angels. On the central pier of the doorway is a standing figure of the teaching Christ; the side door-posts have *bas reliefs* of the wise and foolish Virgins. To right and left, on the deep splayed jambs, are the Apostles, supported on corbels projecting from the jamb columns. The lower part of this jamb is covered by a series of reliefs in medallions, arranged so as to touch one another like rows of coins. On the slanting jambs small shafts are placed between the larger ones, which bear the statues. Over the larger shafts are sculptured arch-orders, while over the lesser shafts they are moulded. This alternation of arch-orders is followed at Westminster and at Lincoln. Some statue corbels which remain at Westminster are at a similar height to those at Amiens, and it may not be doubted that some of the standing figures at Westminster were set against the jamb columns. The jamb figures at Lichfield are placed in this way. The medallions just mentioned at Amiens were followed in the filling of the tympana of the lateral porches at Westminster (Fig. 4). Again, at Amiens, the door jambs were enriched by square diapering of a type which is found on the door to the Cloister at Westminster, and it doubtless existed at the north porches as well.

It seems probable that the right-hand lateral porch at Westminster, like that at Amiens, would be devoted to the Virgin. The keystone of the vault of the recess, which is one of the very few original external stones which remain, is carved with an angel which had outstretched arms, and hands which probably held a crown. This would be especially appropriate above some sculptures of the life of the Virgin. The bosses of the vault of the aisle *within* this door

are of figure sculpture, differing in this respect from others which are of foliage, and these sculptures, David with his harp, the Coronation of the Virgin, &c., seem specially appropriate to this position. So, again, do the carvings in

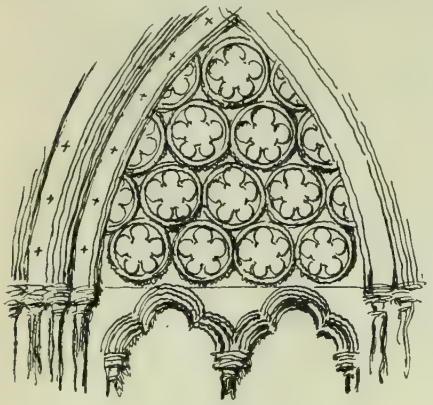


Fig. 4.—Eastern Recess in 1818: × × Sculpture Cut Away.

the spandrels of the wall arcade—a palm branch, St. Margaret the Virgin, &c. Further, there is a record that in 1644 and 1645, when the Abbey suffered from the process called "cleansing out pictures," that one, Thomas Stevens, was paid "for cutting out a crucifix at the north end of the Abbey" (May, 1644); and Thomas Gastaway was paid £3 3s. "for work done on the outside of the north side of Westminster, including the hire of scaffolding for taking down statues of the Virgin Mary and other saints" (May 13, 1645). At Amiens, the left-hand lateral doorway is devoted to the story of the local saint, and at Westminster the sculptures in this position *may* have referred to St. Peter and the Confessor, but of this there is no other evidence.

That the central portal contained the Majesty in quatrefoil on the tympanum, with cross- and spear-bearing angels on either hand, and others with trumpets, and the rising dead below, is as certain as circumstantial evidence can make it. Scott's original drawings for restoring these porches are in the Print Room at the Victoria



Fig. 5.—Central Porch.

and Albert Museum. He proposed from the first to put a quaterfoil in the tympanum, but it was comparatively small and had a major, vertical axis. When the work was begun and Wren's casing of the tympanum was stripped off, evidence for the position, form and size of the original panel was found. (My authority for this is some paper by the late Mr. John O. Scott, to which I have mislaid the reference).

The panel containing the Majesty as executed is of great size, and the form is that of a quatrefoil with square angles projecting between the curves. Now, in the little church of East Bedfont, Middlesex, there is a remarkable wall painting of "The Doom," which may be dated about 1260-70.

On September 15, 1923, I made a pilgrimage to examine this painting, of which good copies are preserved in the Victoria and Albert Museum. There are two paintings in recesses which adjoin at the north-west angle of the chancel arch; the Doom is in the northern recess and the Crucifixion in the eastern. The paintings are in the form of the tympanum of an arch about 4 ft. wide and as much in height. They are of fine style, simply executed in red, grey and white, the background red, and they must be the work of a London or Westminster painter. The Doom picture has a solemn figure of Christ seated in a large panel of exactly the form of Scott's panel at Westminster; He throws up His hands to expose the wounds, which also appear on the feet and side. In the lateral lobes of the quatrefoil are angels, the one on Christ's right supports the Cross and the opposite one holds the spear and a nail. Directly below the quatrefoil are three or four small figures pushing up the long covering slabs of their graves, while right and left in the lower corners of the arch-form are larger figures of two angels blowing trumpets. This remarkable painting, it would appear, must be based on the design of what, when it was painted, was the most splendid new sculpture of the Doom in the portal of Westminster Abbey.

Again, there is another strange piece of constructive evidence. Stone church, in Kent, has long been acknowledged to resemble the work at the Abbey very closely, and Street thought the details were even superior at the village church Now on the south side of the church is built in a beautiful early piece of sculpture of V form representing small figures pushing away the lids of their long, box-like coffins. Street, who illustrated it, in his little book on the church, describes it as: "A spandrel of an arcade, sculptured with a portion of the Resurrection of the Dead. It very nearly fits the spandrel of the arcade discovered in the south wall, and in order that it may be preserved I have had it placed there. The treatment of the bodies coming out of the coffins is good and the work is about the date of the church." Again of the fragments actually found in the south wall he writes: "A portion of an arcade; this seems never to have been completed, for whilst the lower stone has the dog-tooth enrichment of the arch finished, the upper stone has it simply blocked out. . . . We found a corresponding fragment of arcading built into the upper part of the chancel wall. . . . The conclusion at which I arrived is that these are fragments abandoned at the very time the work was going on."

I believe that the sculpture is part of the middle spandrel of a tympanum sculptured with the Doom copied from the Westminster doorway, and I hope to be able to work this out more fully after another visit.

Mr. Westlake, in his big new history of the Abbey, mentions Master Ralph of Dartford, mason, who was living at Westminster in the time of Henry III, and suggests that he may have been the master of the Lady Chapel begun in 1220. Stone is close to Dartford, and it seems possible that the link between the village church and the great Abbey was this Master Ralph.

Mr. Westlake is now kind enough to give me the full reference. It is the lease of a house "opposite the Almonry near the messuage of Master Ralph de Derteford cementarius." The date is that of Abbot Richard [de Berkyng], *i.e.*, 1222–46. (Westminster Abbey Muniments, 17342.)

The following notes from Mr. John O. Scott's report in 1880 on the work to the porches is worth reprinting: "Very careful investigations were made in 1871 and these led to the discovery of much of the antient design, including portions of the *stone roofs* or gables over the portals, also of the long *stone splays* below the transept windows [*i.e.*, the slopes] against which the gables abut. . . . The antient stone being much decayed could not be wholly retained, but some portions are still performing their office as they did 600 years ago. . . . Nearly the whole of the *mouldings*, except those on the acutal face of the gables, have been traced more or less completely, together with the *foliage* and *sculptured* orders of the arches—not the actual carving, indeed, but its position and size and heights of its main divisions, as also the mode in which *marble* was introduced." The italics are mine, the reference to sculptured orders is especially valuable. I believe that the old porches were still untouched in 1875. In a letter of 1910 the late Mr. S. Weatherly told me that "there was a long interval between the measurements and my perspective [1878] and the work being carried out."

In a letter of September 2, 1907, Mr. C. R. Baker King gave me the following facts:—The sizes of the voussoirs of the arches were carefully followed; the carving in the arches had been cut away, making hollows; the abaci of caps were of Purbeck; the neckings of the capitals extended along the jamb splays [not so now, but so at Lincoln]; a considerable portion of the ancient stone slopes remain; the pitch of the gables was given by several which had the intersection of two slopes; the sunk panels in the tympana had all been pared down [the cinquefoils must, I think, have taken the place of sculptures].

Many years ago, in a special study of the Doom door, at Lincoln, I identified two most beautiful female figures on the jambs as impersonations of the Church and the Synagogue. These are much in the style of Westminster sculpture and I have little doubt that the Lincoln statues were imitated from some once at Westminster. Similar pairs of figures are found at Reims and Notre Dame, Paris. They were, M. le Duc says, specially set up in cities where many Jews resided. Again, at Lincoln, one of the sculptured arch orders has a series of the wise and foolish virgins. As we saw above, these figures are sculptured on the door jambs at Amiens, and it may not be doubted that what is found at Amiens and Lincoln was also at Westminster. A second arch-order at Lincoln has figures of kings and ladies, probably, I think, the royal saints of England, and their subject would have been specially appropriate at the Abbey. Comparison of Amiens, the painting at East Bedfont, &c., shows that the Christ at Lincoln (and at Westminster) raised his hands; this noble figure and the angels on either side have been unhappily restored.

The drawing of Wren's time indicates the general design of the tympanum of the Doom portal. It had a large quatrefoil at the top and sub-arches divided into tracery beneath, the tracery rising from level lintels. How the tracery sprang from the marble lintels is explained by a contemporary doorway in the cloister which opens to the Library stair. There are here little corbels wrought on the lintel from which the tracery of the tympanum springs; moreover, the tracery is filled with carving, although it is of foliage and not of figure work, as would have been the case at the Doom door. Putting together all we know, I suggest that Fig. 5 indicates the most probable arrangement of the tympanum. A is the Majesty with two angels; B B trumpeting angels; C C the rising dead; D hell-mouth, as at Lincoln (see also Amiens above). We have seen that Scott found evidence for sculptures in the arch-mouldings of the north doors. Cottingham had a scroll of foliage of finest style "completely undercut with lions and birds at intervals," and described as from "the Door of north aisle of Nave." Lions and pairs of birds are found not infrequently in early mediæval art as symbols of Fortitude and Concord. Keepe (1683) described the central porch as "adorned with several intaglio's, devices, and fretworks that helped to the beauty thereof."

It appears from a description of the transept front in "Hatton's New View of London," 1708, that the sculptured reliefs of the central porch must have been defaced before that time, although those of the lateral recesses remained. "The north end was adorned with the figures of the 12 Apostles and some others (as 8 more) to be seen higher, as big as the life and placed in Gothic niches, of which there remains 6 below and 4 above, besides a prodigious number of small figures carved in *relievo* within the east and west porticoes of 3 at this north end."

Some slight notes of mouldings and details were made by John Carter. A drawing of the eastern recess made in 1818, by Ambrose Poynter, was shown to me by his grandson (Fig. 4). Important drawings of Wren's time, companions to the elevation published in the *Building News* (October 26, 1888), were also in the possession of Mr. Lee. These were most valuable sources, and I am sorry to say that

I cannot tell where they are now. The scale of the work is not likely to be recognised without some dimensions; it is 14 ft. to the soffit of lintel of central doorway and 37 ft. to the vault of porch; the central arch is 35 ft. high; and the side arches over 25 ft. high, and it is 50 ft. to the socket of the central gable-cross.

When the repairs of Wr.n's time were done, older wooden doors were new cased. These were broken up and thrown aside in the more thorough restoration of later days. A considerable fragment of one which remained has recently been adapted as a door to the stair of the Octagonal Crypt. It has diagonal framing covered with plain boarding, and such doors are shown at the North Transept in one of the seventeenth-century views of the interior.

Colouring, &c.—This wonderful work would have been completed by the usual vesture of whitening, colour and gilding. Our modern way of setting up costly structures in friable stone entirely without surface protection is a modern heresy which I can only suppose rests on an unconfessed and, indeed, unrealised idea that decay is good for trade. The arcade and sculptures of the west front of Wells Cathedral still show such extensive remnants of a general coating and traces of painting and gilding that it is certain that the whole front was brightly illuminated. Stains of colour—red and fair copper-green—are preserved in the west porches of Salisbury and in the great open north porch; here and there on the walls are patches of the general wash, and the wooden doors were painted. High up under the great open arches of the west front of Peterborough Cathedral I observed, nearly thirty years ago, whitening with much original thirteenth-century lining-out in red. Stukeley records that the sculptured west front of Crowland Abbey—which may be counted as one of the derivatives of the north front of Westminster—was coloured. Oliver observed the colouring of the sculptured front of Exeter Cathedral, and slight traces here and at the north porch are still visible. The wooden doors were bright red. Britton also noticed remnants of colour on the great Judgment portal of Lincoln, which, as we have seen, was practically a copy of the Westminster portal. At Westminster itself, it is known that the sculptured doorway from the Cloister to the Chapter House was brilliantly coloured and gilt. Similar evidence is to be found for the great foreign churches. I have observed traces of chevron patterns on the shafts of the west front of Reims; and there is record that the west portals of Notre Dame were largely gilt. The second half of the thirteenth century was indeed the special age of gilding, and the sculptured north porches would have been gay and glistening beyond our power to imagine. The rest of the exterior, except the marble shafts, capitals and bases, which were polished, would have been whitened and "picked out" with red. In the accounts of Henry the Third's works, whiteners appear, but we are not told if they were engaged on the exterior. In the orders for Henry the Seventh's Chapel, however, it is provided that the sculptures within and without should be coloured.

When the church was consecrated and the golden shrine of the Confessor was carried through the great central portal (in 1269), its fair shining beauty must have been entrancing.

Obituary.

We regret to announce the death on February 27, at Highgate, of Mr. George Lethbridge F.R.I.B.A., aged 76. The internment took place on Monday at Highgate Cemetery.

We regret to announce the death on March 2, of Mr. Thomas Edward Mundy, A.R.I.B.A., F.S.I., of Ember Lea, Elm Tree-avenue, Esher, aged 79. The funeral took place at Highgate on the 6th instant.

The death has occurred recently of Mr. Edmund Lewis, the Common, Whitchurch, a well-known Glamorganshire builder and contractor, who was for many years a member of local government bodies in the Cardiff-Penarth areas.

ST. PAUL'S BRIDGE.

At a recent Conference on this subject, the following statement, with covering letter, was sent to the Prime Minister asking him to receive a deputation:—

To the Rt. Hon. J. Ramsay MacDonald, M.P., P.C., Prime Minister.

St. Paul's Bridge.

Sir,—The undersigned are members of a Conference specially appointed by the Councils of the Royal Institute of British Architects, the Town-Planning Institute, the London Society, and the Architecture Club. They represent the concern felt by these four Societies on the subject of the proposed scheme for a bridge across the Thames opposite St. Paul's Cathedral. It is in view of the special urgency of the case (in connection with the possible allocation of public money) and of its enormous importance, that they ask the permission to appear before you by deputation; or if this is impossible, that a hearing should be allowed before the Ministry of Transport. The nature of the case which the deputation, if sanctioned, will present, is respectfully laid before you in the attached statement.

The design of the bridge would, no doubt, before execution, necessarily come before the newly-appointed Commission of Fine Arts. We venture to suggest that a matter so vitally affecting the public's interest in the æsthetics and amenities of London should come before that Commission at the present stage so that its views may be considered in conjunction with the practical and economical aspects before any commitment is made.

We are, Sir,
Your obedient servants,

Carmichael Thomas, William Davison, David Barclay Niven, *on behalf of the London Society.*

S. D. Adshead, W. R. Davidge, R. A. S. Paget, W. Rees Jefferys, *on behalf of the Town Planning Institute.*

Ralph Knott, E. Vincent Harris, R. M. Barrington-Ward, James Bone, *on behalf of the Architecture Club.*

Harry Barnes, Banister Fletcher, Paul Waterhouse, H. V. Lanchester, *on behalf of the Royal Institute of British Architects.*

Statement by Conference on St. Paul's Bridge.

The undersigned, being members of a Conference specially nominated by the Councils of the Royal Institute of British Architects, the Town Planning Institute, the London Society, and the Architecture Club, have, at a Session held on Friday, February 22, 1924, issued, by unanimous resolution, the following statement of their opinion:—

It appears to us, as representing Societies all of whom are concerned in a greater or less degree with the attempt to consider practically, æsthetically and economically the problem of London's need and development, that the expenditure of public or other funds on the scheme for a St. Paul's Bridge, which is, we believe, now before the Court of Common Council, the L.C.C., and possibly the Ministry of Transport, should be vetoed or deferred. We protest against it chiefly because it seems to us to be conceived without sufficient breadth of outlook. To many of us it is a matter of conviction that no large and important road and bridge schemes within the Metropolitan Area should in these days be taken in hand without the previous preparation of a complete and comprehensive plan for the re-arrangement of London's traffic ways. London's great size, far from being an excuse for piecemeal changes, actually renders them, in our opinion, inexcusable. Apart from this consideration we feel that the scheme lacks forethought and ignores certain existing conditions.

Its road connections on the Surrey side appear to unite it with a point which already has direct and easy access to the little-used Southwark Bridge, which is within 300 yards. In this respect it would seem that its utility is unimportant. In any case it is not, as far as the public knows, linked up with any thought-out scheme for the town planning of the Surrey area.

On the Middlesex side, its utility again is questionable, while its disadvantages are obvious.

The choice of the east end of St. Paul's Churchyard as a space for the encouragement of additional traffic appears to us singularly unfortunate, and it appears likely that the arches carrying the approaches between viaduct and viaduct may produce an embarrassment of street planning and of hygienic arrangements in a crowded area which is not yet fully considered.

Quite apart from questions relating to the stability of the Cathedral—questions which, we believe, are sufficiently grave—it is clear that the introduction of a north and south highway at this part of the City must lead to a serious obstruction of the existing east and west streams of traffic, both that in Cheapside and that in Cannon-street.

If there is, as it seems to us, any chance of the proposed bridge and its contributary roads becoming a definite impediment rather than an improvement to existing traffic conditions, it is clear that funds spent on it will be funds spent amiss.

It is, therefore, on the general ground that we believe the scheme to be based on an inadequate study of present difficulties and an incomplete survey of remedial possibilities that we most conscientiously urge its abandonment or postponement.

If, as is possible, the project is being hastened forward as a means of finding work and wages for some sections of the unemployed, we would respectfully point out that two bridges at Richmond and Mortlake, already approved in connection with the approach roads in the western river-side suburbs, are immediately ripe for construction. These form part of a considered system of general road improvement.

We press these points with a sense that the views we put forward and the anxiety of which they are the outcome are sympathised with not merely by the Societies which appointed us, but by a large section of the thinking public, who would with us deplore the calamity of large public expenditure on a work which may easily prove to be a costly blunder, likely to add to rather than diminish the difficulties of the traffic problem.

Rating.

Mr. C. Dalgliesh recently gave the second and third of his lectures on rating, at the College of Estate Management.

In the second lecture, Mr. Dalgliesh, having dealt with the difficult and interesting questions arising out of the valuation, for rating purposes, of large residential properties, proceeded to discuss the broad principles governing the use of the "contractors' theory" in dealing with such properties as town halls, universities, works, factories, and the non-productive parts of railways and waterworks. The question of the rate of interest to be applied in such cases was considered in some detail, as the lecturer fully realised the difficulty which arose out of the Chertsey case. The governing principles used in valuing quarries, coal-mines, and other similar properties were described, and the necessity for seeing that a sufficient amount was allowed for "statutables" was stressed.

In the third and last lecture, the rules governing the admissibility of evidence as to trade were considered and explained. It was pointed out that only where evidence as to actual lettings was wanting, or where it was impossible to arrive at the rateable value by comparison, did the courts admit such a reference. Example valuations of all the more typical cases dealt with in this way, such as public houses, theatres, and cinemas, were given. In closing, the lecturer dealt with the broad principles established by custom, practice, and the courts in the valuation for rating purposes of railways, tramways and waterworks. He pointed out that the item which often gave rise to serious difference was, as a rule, the "tenant's share," as many of the other items in the calculation were matters of accountancy.

A DISCUSSION OF PRINCIPLES FOR FUTURE BUILDING.

Continuing his series of lectures, Professor A. E. Richardson lectured recently at Pembroke College before the Cambridge University School of Architecture on this subject. In the course of his remarks, he said the present stage of architectural education, using the term in its broadest sense to include those who had received their training privately as well as those who had had the benefit of specialised training, had resulted in elevating the scientific art from the experimental level to a platform of academic status. The term "academic" in this sense being used to class all works derived from tradition. The issue at stake, however, was still confused by undue observance of old work as well as an overweening desire on the part of artists to place fashion above truth.

The modern view point was a catholic one in so far as it noticed the pictorial effect of past achievement. It had resulted from close study, for many centuries, of past building expression; it was based, moreover, on a prejudice for the qualities of form, and was biased towards the purely decorative rather than inquiry into the structural merits of building.

From over study of the past, that was to say, the pictorial aspect of it, the modern in building had arisen, the modern as they knew it, as the French knew it, and as the Americans understood it. It was true that they had reached a stage when renderings of conventional architectural form had reached the limits of expansion in an academic sense, and when a new old style was sought to keep convention active. It was a fact, however, that the present reaction and demand for more logical methods arose from the senseless restraint imposed on artists by prejudices which favour decorative tendencies.

The art of building in this country had reached a curious stage. It represented this period as surely as the art of the Victorian age represented the years of frantic experiment with Gothic, Classic, and every known style. It was impossible to change the work so built or building. As the latest phase of recency it was modern, and there it remained, but to-morrow and the next day it would recede into the limbo of things half-remembered.

As far as they of the moment were concerned it was an interesting sign-post in the life of the nation, and it served to direct them to something better. The twentieth century was still in its youth; were they, as executants, to see it pass into middle age without achieving the true distinctions of manhood? Was it to be written a century hence that the period immediately following the Great War had no architecture worthy of the name at a time when the interests of the whole nation were turned upon the question of building? For they were building now on an unprecedented scale, but architects were not doing the work. How, then, could a change be effected to rescue the scientific art from degeneracy?

Continuing, Professor Richardson said he had endeavoured to explain the present position of building and to touch upon the attitude of executants and the public towards the development of a broader and more defined system. The theory of a method of expression suited to existing conditions and elastic enough to include future possibilities was surely not beyond the comprehension of practising architects. Apart from a restatement of what was known of basic principles it was unwise to attempt to describe architecture or methods of design. If the arts were subjected to close analysis, and their motifs and exemplars set down in diagram form and dissected, item by item, there resulted a certain standardization. This method had been adopted by Guadet, it was being experimented with by modern writers. There were at least, two books due for the press. Within specific limits it had its advantages, but undue observance of laws and rulings thus preconceived would not be productive of fine art. The Beaux Arts system with its classic view point was another instance of the synthetical method, but it was significant that this system had reached its limits and was not regarded seriously by thinkers.

In some quarters the suggested development of a system of structure which would represent present and future conditions of use and function was thought of as being likely to produce a total eclipse of art culture. There were those who opined that buildings of fantastic shape and crudity would result immediately tradition was departed from. A little reasoning would clear this debatable point. What was desired was not so much a new style of building, not so much a departure from what was known, or unbridled originality, as a return to principles inseparable from the vitality of the art. The main issue was that originality was impossible apart from the truth; originality, moreover, was an abstract factor, it could not be exactly defined; how it was gained in the scientific art of building could not be stated.

It might, perhaps, not be possible for the present generation to evolve a new style of architecture. There would be those who would have recourse to fantasy, those who would continue to follow the fashion, and those who would be content to continue to imitate, and caricature, old forms. The structural theory, which had little to do with construction, the latter being merely the means to the end, did, on the other hand, offer a *via media* from present difficulties, and, if rightly appreciated, would be productive of a method of building suited to present and future needs; more especially for the future, for a style was not produced at command. He did not suggest for a moment that they should discontinue their study of the past; it would be suicidal so to do; but they should examine historic art in an enlightened way in order to realise its lessons and to distinguish the good from the bad, as well as to ascertain truths first in order which on the surface were not apparent. Form as well as structure had its share in architecture; it offered types and qualities which would be found to be immutable. Tradition was useful as a species of intellectual scaffolding, but it was useless as an attribute of structural development. The spirit of research, of reasoning, and logic was superior to slavish imitations of tradition. The present task was to re-establish definite principles, which were superior to form, and if the need arose, to subordinate form to principles, and the more closely they approximated to basic laws the less would they desire to imitate the external representations of past art, which more often than not were but a pale reflection of primary truths. The compelling force demanding expression in building was that of humanity; patronage came from divers sources; it was no longer confined to the wealthy or to the State, but was a demand insistent from all ranks of society. To treat the demand of one's fellows with disdain or to attempt to envelop the newer conditions which demanded specific treatment with the worn mantle of tradition was almost as hopeless as Canute's command to the tide.

The philosophy of structure, bound up as it was with realities and questions of use and function, although capable of intellectual interpretation, demanded something more than crude expression. Bold statement was as bad in its way as slavish imitation. The man who was equipped with knowledge of the past was in a better position to realise structure than one who relied on elementary dexterity. Architectural training distinguished the architect from the engineer or the builder. The experiment of a return to traditional methods, although sound in some respects, had the specious failing of paying more attention to form than to utility. It had served one useful purpose inasmuch as it had directed attention to the lack of a structural policy.

The issue before architects at the moment was the same that had ever been present since late mediæval times, that was the truthful expression of contemporary conditions of life. The difficulty had been, and still was, to demonstrate in the concrete and in a characteristic, if abstract, manner the sum total of those conditions.

The structural theory demanded truthful exposition, but the truth was not always polite. After all architecture was as much an art as it was a science, and structure, which was more than the skeleton of building, might be direct and deliberate, it might also be vigorous and upstanding, but it might not always be beautiful.

At this juncture, continued Professor Richardson, it was only fair to again revert to the artistic aspect of the question. Design either structural or decorative, could only result from resistance. That was to say, there must be certain definite reasons for the building to be; in other words, there must be a demand and a given set of conditions. Designs produced without resistance could be classed at once as fantasies, whether they were derived from known motifs or were merely speculative inventions. He had experimented with this branch of design and had found it to lead into the paths of external form and massing unrelated to structure. It was, therefore, essential in building up an architectural idea to arrive at synthesis by analytical means. It was neither wise to limit architectural study to certain phases of history nor to give undue preference to any particular phase, however good the latter might be. Taste, which was essential to good work, must be catholic in its outlook in so far as a study of decorative qualities was concerned.

The issue they were facing at the moment was one that had cropped up many times during the last century; it concerned the need for a form of architecture suited to the present day. Hitherto the question had arisen and had been as summarily dismissed, for architects found it more convenient to go on using known forms and difficult to invent new.

Architecture, like most other intellectual arts, was largely an affair of compromise. It had its cycles and its periods; there was no finality, nothing definite could be stated regarding the course it would take. It had its poetic flights, its prose moods and its dramatic moments of blank verse; it also demanded, on occasion, mere pedestrian exercise. The very variety of its scope militated against general co-ordination and stereotyping. We must not forget that this was the present and the past was the past, otherwise they would continue the vice of regarding effect to be more important than cause.

The mastering of the theory of structure must be the aim of those who would invent a new order of things for building. It must be understood that, in addition to observance of this principle, a designer must be an artist; he must, in short, have had acquaintance with all that was known, and all that was best in past and contemporary art. His outlook must be broad, it must not be limited to the narrow groove of his immediate surroundings —the drawing board and the office—but should embrace the aspects of life and of the kindred arts. The first condition was that an architect should know what he desired, what the client desired, and what would best suit the needs of the site and fulfil the conditions imposed. He must never forget that in addition to being the creator of a building, monument, or work of art, he was also the adviser, and if, after study, he found the conditions

to be of a nature demanding revisions, he should say so. Too often conditions were imposed by a client or a building committee that were unworkable. It was the first essential that they should be modified. Starting from the basic theory of a structural plan, which did not attempt deception, the same ruling of truth and direct statement should permeate the whole grouping of the design both internally and externally. There should be no make-believe or addition of features solely for effect.

The rule of character and fitness applied equally to every part of a building, to the mass as well as to the articulation of the memberings. There should be consistency of design both externally and internally. The structural theory would help towards the development of a definite and expressive style but, as previously stated, it would not do everything. There arose inevitably a point in the realisation of conditions when artistry came into play to co-ordinate the crudities of structure. It was then that the best qualities of past art could be resorted to, not with a view to lifting detail *en masse*, but rather in the direction of bringing to bear the theories gained by methodical study of the work of the past, and to recast them in the crucible of the mind. Study of the past made clear that each phase of history had evolved a complete and definite system of expression. There had always been present harmony, proportion, contrast, and material values such as texture, and other auxiliary factors, to freshen the general idea and to give point and finality to the details. The danger lay in selecting any one of the known historical styles, or a new old style, and literally riding it to death. Neither was it possible, even when frenzy dictated, to mix the styles in the hope of producing novelty. The electic method was a false doctrine. Archæology had at least done one service in defining the different styles. The service still to be undertaken by archæologists and historians was not to show specific differences of detail, but to reveal the conditions which produced the buildings and ornament, and to treat of the structural and geometrical principles which determined their raising.

The philosophy of structure pointed the way out of the maze engendered by over-observance of classic technique. There would, however, always be bad buildings, especially in a country where so little attention was given to the training of architects. For it was a fact that while only 10 per cent. of the architects of this country had received definite training in their profession, the remaining 90 per cent. who got the work had few qualifications to fit them for their calling. In the past, not the immediate past, despite misconceptions and mistakes, the art of building and the resultant forms corresponded to the needs of the times. The present reaction was not directed against the best of past architecture, which would always be referred to and could not be ignored, but aimed at the realisation of new truths arising out of the observance of principles which were eternal.

New Bridge at Norwich.

Whitefriars Bridge, Norwich, was closed to traffic recently. The City Council has decided to put a new bridge of reinforced concrete in its place, at an approximate cost of £16,000. This is part of a scheme of river-widening that is being carried out for purposes of flood prevention; it will also do away with the inconvenience of the present bridge to river traffic.

The original bridge at Norwich was built of wood about seven centuries ago, and belonged to the Carmelite monastery near by. In the fifteenth century it was rebuilt of stone, with one pointed arch, having a span of 30 ft. By 1835 it had fallen into a state of decay, and was then thoroughly repaired.

RESTORATION OF ST. PAUL'S CATHEDRAL.

Mr. F. L. Dove recently gave at Manchester University a lecture on this subject. Mr. H. B. Dixon presided. In the course of his remarks he said there was a tradition, but only a tradition, that a temple dedicated to Diana stood on the site of St. Paul's Cathedral in Roman times, but the first authoritative information they had was that in Ethelbert's reign a cathedral was erected by him and endowed with land in Hertfordshire which still remained the property of the Chapter. This cathedral stood for about 500 years, when it was, together with a large portion of the City, destroyed by fire in 1087. Steps were at once taken to rebuild it, and it was replaced by the magnificent Gothic fane which took 200 years to complete. This was at various times struck by lightning and very greatly damaged, and the spire, 534 ft. high, destroyed. The cathedral was patched up, but the spire was never reconstructed, and ultimately was completely destroyed in the Great Fire of 1666. After the fire the cathedral authorities were very anxious to repair and patch up the old building, and when Wren was consulted on the subject he regarded it as wholly past repair, and a commission of eight, of which he was one, was instructed to report on the rebuilding.

A great deal had been said and written about the foundations of St. Paul's, and although it would have been a distinct advantage if they had been carried deeper, yet on the whole there did not seem to be very much the matter with them. Subsidence of the building undoubtedly took place, due to the heavy weights, but it seemed to have been pretty even all round the dome, and the bulk of the settlement, if not the whole, took place whilst the work was in progress. As far as the lecturer had observed, no settlement in the foundations, nor in the crypt, had occurred for many years. Cracks and fractures began to appear long before the completion of the edifice, so much so that Strong, who was one of the first contractors engaged on the work (there were six of them altogether) was paid for 30,000 ft. of stone used in repairs whilst the work was going on. He believed that practically the whole trouble and damage that had arisen was due mainly to two causes, and in a lesser degree to a third. The first two were due to the fact that the interior of the piers was built of rubble with very large masses of mortar in it, and second to the stone having been laid with an extremely fine bed, in some places stone to stone. The minor cause, which was largely superficial, was the insertion of iron cramps and dowels. In fact, it was owing to one of these cramps bursting off a piece of egg and tongue moulding, which fell during a service, that alarm was first created about the condition of the cathedral.

A great variety of methods, some of them very ingenious, were exhibited in this old repair work. At one time stones were fitted and run with lead, and in the case of wide joints slates were inserted prior to running in the lead, and when he told them no less than about two tons had been taken out of the beds and joints of two piers, they would appreciate to what extent this was carried. It was a mystery how they succeeded in running the lead the distance they did, as it was so extraordinarily thin, frequently they had taken out pieces varying in size from two inches to twelve inches deep and three or four ft. long, and ¼ in. to ⅜ in. thick; the only conjecture that seemed feasible was that, before the lead was poured in, the stone must have been heated by braziers or some other means.

During the course of the work on the two piers at present dealt with, some 1,388 ft. of Portland stone had been cut out and replaced with new, and 48 tons of cement had been used in bedding and grouting up.

Hitherto only one pier had been dealt with at a time, occupying a period of eight years, and the work had now for some time been suspended whilst a commission, consisting of architects and engineers, had been considering whether or not other steps for the security of the dome could with advantage be adopted, but having regard to the fact that the dome had stood with the piers in the undoubted unsatisfactory condition in which they were found, and anything from six inches to nine or ten inches of the outer shell practically doing very little in the way of support, he felt that, with that average of nine or ten inches brought into full commission, the piers were to that extent larger from a weight-carrying point of view, and when the repairs to the whole eight were completed the supports of the dome would be immeasurably stronger than they had ever been, and he thought they might reasonably conclude they would quite well support the load they were asked to carry. In the light of their past experience and with the knowledge obtained by the work already executed, the lecturer thought it would be quite possible to operate on two piers at the same time, thus reducing the time needed by one half.

OXFORD'S PLANNING SCHEME.

A public inquiry was held recently, at the Town Hall, to consider the application of the City Council for approval of a resolution deciding to prepare a town-planning scheme under Section 42 of the Housing and Town-Planning Act of 1919. After the Town Clerk had outlined the scheme, the Master of Balliol, who appeared on behalf of the Hebdomadal Council, said the scheme also had the general goodwill and interest of the University. The reason why the University took no special part in the proceedings was due to members wishing to be considered rather as citizens than in any special category, as they knew the whole of the residents of Oxford were equally interested in the preservation of the beauty of the city. The University buildings were the most beautiful thing they had left in England, and everyone desired to preserve them. He was also in general sympathy with the scheme proposed. It was evident that the principle of zoning—applying particular callings to particular areas—was of great importance to the University. It was of great importance to the University to have plenty of space round the buildings without the intrusion of unsightly manufacturing business. Personally, he represented something which was moving in the same direction as the town-planning scheme was intended—the Cumnor Trust, designed for very much the same purpose, to preserve the amenities of the land around Cumnor for the good of the public. Through benevolence they had already been able to purchase and hand over to the University the whole of the ruins of Godstow Nunnery. Anyone who looked at the pictures of Godstow as it was 200 years ago—published in the local illustrated paper—and saw how much was lost to Oxford by want of foresight, could not fail to be shocked.

An Ancient Chantry.

A thirteenth or early fourteenth-century building has just been discovered at Gravesend. It is part of what was known as New Tavern Fort, and formed part of the Gravesend Blockhouse of the sixteenth century, which shared with Tilbury Fort, on the other side of the River Thames, the responsibilities of the protection of London from the raids of the Dutch and French. This ancient Chantry of Milton was lost sight of for nearly 200 years, and at some period, probably in the eighteenth century, the three-foot walls were covered in with bricks, and this fact probably helped to preserve the great hall in its present state. The building is now disused except that a part of the lower portion is utilised for stores. The Gravesend Public Library Committee is approaching the War Office with a view to arrangements for the preservation and suitable use of the hall.

HOUSING.

WE have received the following from Mr. John E. Yerbury, chairman of Tenant Co-operators, Ltd. We do not necessarily agree with all the opinions expressed:—:

Having spent many hours in the study of Major Harry Barnes's book on Housing, I have come to the conclusion that it is a clear statement of the present position, and that it contains all the essential data necessary to arrive at a final decision with regard to immediate action.

(1) Major Barnes's supreme test of the capacity of private enterprise in the past is the fact that surplus families increased from 320,000 in 1801 to 900,000 in 1911.

(2) If the failure of the past is to be converted to success during the present decade, then 1,200,000 houses must be provided by 1931. The whole of the labour available at present could only produce 700,000 houses; under normal conditions, only one-tenth of these would be occupied upon housing. Unassisted private enterprise cannot provide the houses required.

(3) The housing problem was not created by the war; only made worse. Private enterprise never has, and never will, provide houses for the poorest paid worker, unless wages increase to such a point that the poorest paid can pay an economic rent.

(4) Overcrowding is not a question of shortage of houses, but of the incapacity of large numbers to pay for proper accommodation.

Major Barnes's statement of the facts will be very wholesome reading to those who indiscriminately condemn, on the one hand, the landlord, land jobber, speculating builder and investor; and, on the other hand, labour and trade unions. Chapter XXVII is a valuable corrective. The remarks on the Finance Act of 1909-10 are also worthy of note.

The unexaggerated statement of the facts clearly shows that the three main factors in housing—land, material and labour—are each and all under the control of powerful organisations, whose interest it is to limit supply and raise cost. Land counts for something; material more; labour most. Personally, I feel, and I think this is Major Barnes's opinion on the whole, that the Land Acquisition Act, 1919, has practically given all the powers necessary with regard to land required for housing, and we are not concerned with other questions than housing for the moment.

It is to be hoped that the Government will obtain guarantees with regard to material and labour; but should it fail I think the whole facts should be clearly stated to the public. The force of public opinion must in the end make itself felt if the facts are given; and in my view would be sufficient to break rings, or trusts, in material, and to prevent restriction of output both in material and in labour.

In this connection the author's reference to the inter-relationship between industries is important, and it is this which adds to the serious responsibility of labour as a whole.

Major Barnes gives tables of the factors in cost, which I think may be accepted as proven facts:—

Land	6.6	
Roads and sewers	13.3	
Material ...	39.9	
Labour	26.6	
Other charges ...	3.3	
Profit	9.9	
	99.6	
	4	omitted dimensions to 4th place in calculations.
	100.0	

If it be remembered that labour represents about 50 per cent. of the cost of material it will be seen that it is to labour we must look for our greatest reduction in cost. And this can be given by increase in output, to the benefit of many of the workers who must be suffering from atrophy of the muscles through want of exercise, if one may judge from the way they work.

It cannot be possible to reduce the profit very much, nor the land and development charges, and such reductions as may be made will only amount to a small percentage of the total cost. It is, therefore, to material and labour that one has to turn for savings in cost; and I am inclined to think that 10 per cent. to 15 per cent. reduction might be made in cost of material if it were made quite plain that new sources of supply would be opened under the Trade Facilities Act unless the Government received guarantees against profiteering by rings, trusts, and combines. I am quite convinced, in my own mind, that with an assurance against unemployment, under conditions which would give the worker an adequate interest in increased profits, labour would readily and willingly increase output by 25 per cent. to 50 per cent.

The Minister of Health is negotiating with employers and operatives with regard to methods of increased employment, and one may hope that a scheme will be devised for obtaining a sufficient number of men to complete our housing requirements without interference with other branches of the building industry; with good will on all sides and public support for a Government guarantee there should not be any difficulty in this respect.

The numbers employed in the building trade had fallen by over 200,000 before the war. Wages increased, output decreased, and profit disappeared until building small houses became not speculative, but certain loss. Of course, the speculating builder ceased work, and the building trade began to lose its place in the industrial world as the second largest employer of labour.

Major Barnes gives an exhaustive summary and tables showing clearly the factors in rent, *i.e.*, (1) interest on cost, (2) maintenance; (3) insurance; (4) management; (5) empties; (6) loss on rent; (7) sinking fund; (8) rates.

1, 2 and 8 are the important factors, and it is for the provisions of finance at a low rate of interest that I have constantly pleaded in your columns, and have pointed out at the same time that rating reform (long overdue) is an essential to housing reform.

I do not think either Major Barnes or the National Housing Council allow sufficient for maintenance, which cannot be safely taken at less than 15 per cent. on the gross economic, or commercial, rent; viz., rent that gives fair profit to all legitimately interested in the provision of houses. Nor do I think the charge made in the tables given by Major Barnes as the rates factor is sufficient; the tables take as the basis of rateable value, not the "economic" rent, but the "estimated actual rent," and upon that figure charge rates at 10s. in the £, and if rating authorities assess on "actual" instead of "economic" rent they will be departing from the general practice objected to when speaking of total remission of rates. Major Barnes says that rent paid is the basis of rates; but this is only so if the rent paid is the real commercial rental of the premises; the man who pays less than a fair and proper rent cannot claim to pay rates on such rental; he is assessed on fair and reasonable rent.

I agree with Major Barnes's figure of 25 per cent. of rent as a working figure to estimate rates: but it must be 25 per cent. of gross commercial, or economic, rent, and not of an estimated rent to be charged to the poorest tenants having regard to their capacity to pay.

I find myself in general agreement with the views expressed by Major Barnes, but cannot subscribe to all his *obiter dicta*; for instance, I do not agree that "it is impossible to get people to regard the spending of other people's money as they regard their own." "There will always be waste in spending public monies."

There are plenty of people who are much more careful about the expenditure of other people's money than of their own; and many consider the waste of public money one of the worst forms of robbery, and impossible in a real patriot. Of such should be the Kingdom of Civil Servants.

With the second of Major Barnes's main conclusions, everyone who has taken any interest in the subject must agree. "Unless we make most vigorous effort, at the end of the present decade the position will be worse than in 1921." To my mind that is quite certain, without any shadow of doubt. Major Barnes's first main conclusion makes one think; I am not sure that I agree, but I am quite certain that unless something is done in the immediate future I shall be forced to accept that conclusion, as one does the premises.

I have from time to time in your columns and others stated a case, a remedy which I think might prevent the acceptance of Major Barnes's conclusion "that housing of the working classes has definitely passed into the same political category as education, old age pensions, and insurance."

I see two ways out of this position:—

(1) There must be a minimum wage fixed in every district which shall have such relationship to rent so that every worker will be in the position to pay an economic rent.

(2) Proper houses must be given at rentals within the means of the worker, that is (say) not more than one-fifth of his wages; (I think one-sixth is a fairer figure).

"The maintenance of the worker in a sufficient standard of life is as much a part of the cost of production as the maintenance of plant." My theory is that, with rating reform carried out, private enterprise could and would provide houses for the best paid worker, but not for the poorest paid worker. The Minister, therefore, should concentrate particularly upon the provision of, say, 250,000 houses, to be let at the lowest rental possible by public utility societies, or other means under special legislation.

If all charges were removed from rates which are not purely local a very great reduction would be made in inclusive rents. If loans were made at 3 per cent., repayable over a period of 100 years (from a fund raised at 5 per cent., repaid in 50 years), the loss would be £23 per annum for 50 years, with a gain of £31 per annum for a further 50 years. Upon every £1,000 spent (or say about £10 per annum per house), the "Chamberlain" scheme gives £12 12s. without the future compensation.

I anticipate that rating reform will reduce inclusive rents by 12½ per cent. Reduction in cost and increase in output will lower total cost by 15 per cent. and the combination of lower capital expenditure, etc., and saving on "outgoings" will enable houses to be provided to let at 7s. and 8s. per week. The local authorities should be asked to provide roads and sewers as their contribution to housing the wage earner of £2 per week and under. The revival of the Building Trades Parliament and a return to the spirit of 1919 would lead to permanent stability in the industry.

Building in America.

The New York Trust Co., in a pamphlet recently issued, state it is perfectly obvious the large volume of building in the past two years has made up the greater part of the post-war shortage. Taking the country as a whole, however, there is evidence that building requirements are still so large that the outlook is for at least another year of record building. The unprecedented volume of building construction reached its peak in 1923, with an estimated total expenditure for all types of buildings of almost £1,200,000,000.

THE WEEK IN PARLIAMENT.

Westminster, *Wednesday.*

The Subsidy.

Mr. A. Greenwood, Parliamentary Secretary to the Ministry of Health, informed Sir P. Sassoon that in cases in which the Minister was satisfied that builders, on the faith of assurances given by or on behalf of local authorities, had proceeded with building in anticipation of the approval of the local authorities' scheme for assisting private enterprise, the equivalent of the Government grant under the 1923 Act would be paid in respect of houses which would otherwise be eligible for assistance.

Wartime Buildings.

Mr. Jowett, First Commissioner of Works, informed Sir H. Brittain that the only war time buildings remaining in the Royal Parks were the aircraft buildings in Regent's Park and the Hospital in Richmond Park. Tenders were about to be invited for the demolition of the former, and arrangements were in progress whereby it was hoped the latter would be vacated in September, when steps would be taken to remove the buildings.

Office of Works Schemes.

Mr. Jowett, First Commissioner of Works, informed Lieut.-Commander Kenworthy that the average cost of the 5,178 houses built by the Office of Works was approximately £836, but many of these houses were constructed when wages and building materials prices were at peak level; the average cost of those now under construction was estimated to work out at from £400 to £450. These figures included the cost of roads, paths, sewers, and fencing, and every charge with the exception of the cost of the land. The types varied from flats consisting of living room, scullery and one bedroom, to houses consisting of living room, scullery, parlour and four bedrooms, with bathroom, &c. The number of houses to the acre varied from 10 to 12. Approximately 300 men were engaged on the houses now under construction. The whole of this labour was employed by contractors and not by the Office of Works. The building of further houses depended on the general housing policy of the Government, which was at present under consideration.

Demand for Bricks.

Major R. Williams asked the Minister whether in view of the demand for bricks which would arise when houses began to be built in larger numbers, and in view of the desirability of creating employment in the brick-making trade, he would consider the giving of assistance to companies engaged in brick-making to enable them materially to increase their output.

Mr. Wheatley said he was hopeful that the demand for bricks would be met by an increase of output by the industry without recourse to special measures on the part of the Government.

Exchequer Deficits.

Mr. Wheatley informed Mr. Black that it was estimated that on the basis of the present rents and charges the deficit to be made good by the Exchequer in respect of houses erected in England and Wales under the provisions of the Housing and Town-Planning Act, 1919, would be approximately £7,700,000 per annum. The deficit would continue for 60 years, but when the loans raised for roads and sewers were repaid at the end of 20 and 30 years respectively, a reduction in the annual sum would be effected. The total amount paid in respect of lump sum subsidies to private builders under the Housing (Additional Powers) Act, 1919, was £9,498,000. No further liability arose in respect of these houses. The liability of the Exchequer for houses erected to January 31 last under the terms of the Housing Act, 1923, was £28,000 per annum for 20 years.

Guild Contracts.

In answer to Sir K. Wood, who asked whether any housing contracts had been entrusted to the National Building Guild, Ltd., Mr. Greenwood said that the Minister had no knowledge of any housing contracts having been entrusted to the society in question.

Building Plans.

Mr. Hannon asked the Minister of Labour whether he would reconsider his decision that the statistics of approved building plans should in future be published only quarterly.

Mr. T. Shaw said, in view of the limited space available in the *Labour Gazette* it had been decided that the detailed figures relating to the building plans in each of various districts should in future be given only at quarterly intervals. The totals for all districts for which information was obtained, sub-divided to show various categories of buildings separately, were still, however, being published each month. He should be prepared to reconsider the question as regarded the district figures if he received evidence of sufficient demand to justify the expense of their monthly publication.

ROMAN FAMILY LIFE.

Sir Banister Fletcher lectured recently on this subject at the Central School of Arts and Crafts. He described the Roman circular temples, which, he said, were of peculiar interest to the whole Christian world as prototypes of the first Christian baptisteries, just as the Roman basilicas or courts of justice were probably of the early Christian churches. These were among the many instances in architectural evolution in which Christian forms were based on pagan originals, and helped them to realise that architectural styles were not divided into watertight compartments, but were evolved from one another, according to the changing needs of civilisation.

Of all the circular temples in Rome the little Temple of Vesta had the most attraction for English people, as the symbol of that united family life which the old Romans, like the modern English, regarded as the unit of the State. In its simplicity of plan, with its central altar-fire, it stood in the Forum Romanum as the centre of civic life, as a reminder of the sacredness of the Roman hearth, and its importance was intensified by the consecration of six "vestal virgins" to the service of the goddess. The convent-like building which housed them could still be traced, but of the temple little remained.

Other little circular temples there were, most attractive in their plan and treatment—the Temple of Mater Matuta, in the Forum Boarium, the temple at Tivoli, rising sturdily over the rocky gorge, and that at Baalbek, with its unique external design.

Sir Banister then gave an exhaustive account of the most majestic of all circular buildings in the world, the famous Pantheon at Rome, with its great expanse of dome open in the centre to the winds of heaven. Finally, he described briefly but vividly, the large halls or "basilicas" which, while housing courts of justice, served as rendezvous for business and consultation—the "Royal Exchanges," in fact, of ancient Rome.

BRITISH ARCHITECTS' CONFERENCE

The annual conference of the Royal Institute of British Architects and its allied societies in the United Kingdom and the Dominions Overseas will take place at Oxford from July 9 to July 12. A preliminary programme is in course of preparation by the Executive Committee under the chairmanship of Mr. Edward P. Warren, F.S.A., President of the Berks, Bucks and Oxon Architectural Association. It is confidently anticipated that a record number of members of the R.I.B.A. and the allied societies in the United Kingdom and in the Dominions Overseas will be present at the meetings, the banquet, the visits, and the excursions which are now being arranged by the Executive Committee. A preliminary programme will be issued at an early date. Ladies will be especially welcomed and it is hoped a large number will be present.

The remarkable popularity of the previous conferences at Liverpool, Cardiff, and Edinburgh, and the attractions offered by Oxford to a gathering of architects, should contribute to ensure a memorable success for the Conference of 1924.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

*** *We are glad to give questions and answers but cannot accept responsibility for contributed replies, especially on legal matters.*

Walls of a Small House.

[Reply to J. A. E.]

Sir,—Squared rubble walls 12 in. thick with cavity and inner shell of breeze blocks, or better of 4½ in. brickwork if obtainable in the neighbourhood, should form a thoroughly sound job provided the cavity is well ventilated, which is of the utmost importance.

The base of the wall would be built solid about 1 ft. 9 in. or 1 ft. 10 in. thick, leaving an offset of 3 or 4 ins. upon which the joist of the lower floor can rest, the damp course being first laid over the whole thickness of the wall. The bottom of the cavity must be ventilated with air-bricks into the open air, and the cavity carried right up to the eaves. The inner shell need only be carried up as far as the plate carrying the upper ceiling joists, leaving the cavity open to the roof, which will be quite sufficient to ensure a good draught through the cavity.

A breeze block shell would not be strong enough to bear an intermediate floor, in which case the floor joists would be run through the cavity into the outer wall, and it is a wise plan to coat the ends of such joists with creosote.

"X."

Specification for a House.

Sir,—In the specification for a house in which there is quite a considerable amount of half timber work in oak, the following clauses appear:—

"Oak to be reasonably seasoned, sound building quality. Any shakes, large, loose or dead knots will be rejected."

Some of the scantlings are as large as 12 in. by 5 in., and when they were examined in the shop seemed quite dry and sound. If numerous cracks and small splits begin to appear in the surface a few weeks *after fixing*, what is the position? Brickwork has been fixed in the panels, and it is now a very difficult matter to replace any of the timbers.

The oak is specified to be finished by rubbing with linseed oil only. No nationality of oak was mentioned, and the bulk of it has been done in English. In one or two small places an ugly knot has been removed and covered by a small piece neatly let in, but of course it shows. Can the contractor claim the right to do this?

These are points upon which experience of work in oak would be useful, and if the Bureau deals with such as these it will prove of great advantage to readers. Such a page is more valuable to those in the Building Trade than whole volumes of academic discussions.

"Northern Architect."

[Reply.]

The specification appears a little loose, both as to description and wording. "Reasonably" is a term that can be interpreted in many different ways, and post-war practice has been to judge reasonable seasoning in a somewhat less harsh manner than in "the good old days." Since no variety of oak was specified, it was natural to select English as being far and away cheaper, and being the usual choice for external constructional work owing to its unrivalled durable qualities. It is a very difficult matter to obtain English oak in large scantlings that will not develop shakes, but such cracks are not detrimental to its strength nor, in the opinion of many, to its beauty, and it would not be reasonable to reject any that were not of a particularly serious nature. In cutting out certain knots and patching the contractor seems to have taken a great liberty, as a natural knot is less unsightly than the neatest patch, which may in time shrink and drop out. Where such patches are particularly prominent, and provided the contract will stand the delay and disturbance, it would be advisable to have the members affected replaced. It is, of course, better to avoid such disturbance if matters are not too serious, but such things have to be judged on their own merits. M. A.

THE BUILDING TRADE.

ESTIMATING FOR SMALL BUILDERS.

By J. H. BARNS, F.I.O.B.

PAVINGS.

Terrazzo is the cheapest form of marble flooring or "wall lining" laid *in situ*. This class of work is usually performed by special firms, who charge from about 14s. to 20s. per yd. super for plain work; borders at a small additional cost. The price will depend upon the area to be covered, the size of the marble chippings, and the special colouring matter required for the cement ground or white cement.

Although this work is often performed by specialists it is an advantage for a small builder to be prepared to do a little of this work, particularly in making good after alterations, as it will cost comparatively a large sum for specialists to send many times to perform a small amount of making good to terrazzo.

The following is the approximate cost for a builder by his men to lay terrazzo in reasonable areas, small areas at higher prices :—

— per yd. super terrazzo with white marble chippings and ground in natural colours to floors:

	s.	d.
1 bus. (1 cwt.) ⅜ in. marble chippings, 8s.	8	0
½ bus. Portland cement, 3s... ..	1	6
Labour laying, per yd., 1s. 9d.–2s. 6d.	2	0
Labour, &c., rubbing	4	0
	15	6
Cartage and use of tools, say ..	1	0
	16	6
Profit and oncosts, say 15 per cent.	2	6
	19	0

If the chippings were of larger size or different colours this would increase the cost. If the ground were required for some definite colour, such as green or red, this would need the addition of about 2 lbs. dry (lime) colour per yd., costing 6d. to 1s. per lb. The cost of screeding floor to receive terrazzo would be measured separately.

Yds.

— super cube roman marble mosaic.

The price will depend upon the design of the filling and border. Approximate price for :—

20 yds.	50s. per yd.
40 yds.	46s. per yd.

Larger areas somewhat cheaper.

Marble floors laid complete in say 12 in. by 12 in. squares, black and white, alternately with sanded face—about 36s. per yd.

Ditto, but 12 in. by 12 in. dove and white—about 40s. per yd.

Hopton Wood stone—about same price as above.

DELIVERY OF GOODS.

In many cases the small builder will find it necessary to purchase goods that are urgently required in small quantities, and as he may not be able to wait for the delivery of the goods until the merchants' vans are in his neighbourhood, advantage cannot be taken of the offers of free delivery, but he must arrange for goods to be collected and delivered by a firm of carriers.

It may be asked why trouble to include such times, which may be classed as undefined expenses. There is no special reason except to remind estimators that such charges are occasionally incurred.

The builder should see that the obviously necessary but undefined expenses are included.

The table on this page gives the approximate cartage rates for London area.

Miles up to :	3	4	5	6	7	8	9	10
Weight over—								
28 lbs. & up to 56 lbs. ..	9d. ..	9d. ..	1/2 ..	1/6 ..	1/6 ..	1/10..	1/10..	1/10
56 lbs. to 1 cwt. ..	9d. ..	1/2 ..	1/6 ..	1/10..	1/10..	2/3 ..	2/3 ..	2/3
1 cwt to 1½ cwt. ..	1/6 ..	1/6 ..	1/10..	2/3 ..	2/3 ..	2/8 ..	2/8 ..	2/8
1½ „ 2 „ ..	1/10..	2/– ..	2/2 ..	2/6 ..	2/6 ..	3/– ..	3/– ..	3/–
2 „ 3 „ ..	2/10..	3/– ..	3/2 ..	3/9 ..	3/9 ..	4/– ..	4/6 ..	4/6
3 „ 4 „ ..	3/9 ..	4/– ..	4/3 ..	5/– ..	5/– ..	5/3 ..	6/– ..	6/–
4 „ 5 „ ..	4/8 ..	5/– ..	5/4 ..	6/3 ..	6/3 ..	6/8 ..	7/6 ..	7/6
5 „ 6 „ ..	5/– ..	5/4 ..	5/8 ..	6/8 ..	6/8 ..	7/– ..	8/– ..	8/–
6 „ 7 „ ..	5/8 ..	6/– ..	6/4 ..	7/4 ..	7/8 ..	8/– ..	9/– ..	9/4
7 „ 8 „ ..	6/4 ..	6/8 ..	7/– ..	8/– ..	8/8 ..	9/– ..	10/– ..	10/4
8 „ 9 „ ..	7/– ..	7/4 ..	7/8 ..	8/8 ..	9/4 ..	10/– ..	11/– ..	11/4
9 „ 10 „ ..	7/4 ..	7/8 ..	8/4 ..	9/4 ..	10/– ..	10/8 ..	12/– ..	12/4
10 „ 11 „ ..	7/8 ..	8/– ..	8/8 ..	9/8 ..	10/8 ..	11/4 ..	12/8 ..	13/4
11 „ 12 „ ..	8/– ..	8/4 ..	9/– ..	10/– ..	11/4 ..	12/– ..	13/4 ..	12/–

THE INSTITUTE OF BUILDERS.

Annual Dinner.

Mr. F. J. Gayer (President) occupied the chair at the annual dinner of the Institute of Builders, held at the Hotel Victoria, Charing Cross, on February 27. Among the guests present were Mr. H. Adamson, Mr. Dudley Bartlett, Mr. E. J. Brown, Mr. J. A. Brown, Mr. R. B. Chessum, Mr. B. H. Chessum, Mr. W. E. Davis, Mr. Claude Ferrier, Mr. G. Topham Forrest, Mr. P. F. Gleed, Mr. E. Stanley Hall, Mr. Stanley Hamp, Mr. F. Higgs, Mr. E. J. Hill, Major R. J. Holliday, Mr. E. C. Holloway, Mr. H. T. Holloway, Mr. R. E. Holloway, Mr. F. D. Huntingdon, Mr. Ralph Knott, Mr. F. W. Loasby, Mr. W. G. Newton, Mr. E. J. Read, Mr. A. Roome, Mr. S. E. Roome, Major A. D. S. Rice, Mr. F. Shingleton, Major Leslie Shingleton, Mr. Sydney Tatchell, Major A. F. Vigor, Mr. Frank Wall, Mr. A. G. White, Mr. C. Woodward, and Mr. D. C. Workman.

After the loyal toasts had been honoured, Mr. H. Mathews proposed "The Architects and Surveyors." In the course of his remarks he said the builders had no opposition with the architects and surveyors, although, of course, they must occasionally come into conflict when their points of view differed. The building body was composed of architects, surveyors and builders. The three had one single object and only by close co-operation could they get through the work. He would suggest the architect should put himself in the place of the builder, and endeavour to understand the builder's position. They would then, probably, get on even better than they did. In conclusion, he suggested the whole body should unite so that "Charing Cross Bridge Should Go."

In responding for the architects, Mr. E. Stanley Hall said the Architectural Association was anxious to welcome students of all crafts which bore on the subject of beautiful buildings. The Association would be only too glad to help them; and they, in their turn, would help the Association. If architects followed the fashion of going to builders' yards, it might be possible that builders, for their part, might like to learn from architects the basis of architecture and architectural taste.

The total number of students at the Architectural Association (170) was larger than that at any other school in Great Britain. Their one object was to look after the architecture of the next generation. He hoped that architects, builders, and craftsmen would come together and get on friendly terms. In regard to education he was glad to see they were trying to found a chair of Building Science. The Association would be only too glad to help and congratulated them on the step they were taking.

After Mr. Perceval Gleed had responded for the Surveyors, Mr. Roland B. Chessum, in proposing the "Institute of Builders and its President," said their development of recent years was due to the energy and spirit of their respective presidents. The dignity of building could only be preserved by setting a high standard compatible with any other branch of the industry.

Continuing, Mr. Chessum said in 1920 they had 239 members, in 1921 305 members, in 1922 402 members, and in 1923 654 members. He considered this remarkable increase was due to the enthusiasm of such men as their present president.

The President, in response, said although they had not yet a Royal Charter, he hoped in the near future entrance to the Institute of Builders would be by examination. A certain amount of progress had already been made in connection with a Chair of Building, and in order to encourage students the Institute had granted a number of medals to the different trades and centres up and down the country. It was extremely necessary to encourage technical education. The Institute was not concerned with industrial warfare, or, in other words, suicide; but he hoped the Labour Government would convey to the various trade unions the great necessity for the augmentation of the building trade industry.

Ald. G. Brittain then proposed "The Guests," to which Mr. Sydney Tatchell briefly responded.

BRISTOL CLERKS OF WORKS' DINNER.

The Bristol branch of the National Federation of Clerks of Works and Builders' Foremen's Association held its annual dinner at the Royal Hotel, Bristol, on February 23, with Mr. A. Gardiner in the chair.

Proposing the toast, "Architects, Engineers, and Surveyors," Mr. R. Slaughan said the three professions were professions which clerks of works and builders' foremen could well appreciate.

Mr. W. S. Skinner, in response, said the speaker had alluded to the Tomb of Tutankhamen, and he, the speaker, would like to say a word about the work of the Egyptians, who moved huge slabs of granite great distances and fitted them so close together that to-day a sheet of paper could not be placed between the joints. These slabs were well placed on columns 60 or 70 ft. high simply by man power. It was marvellous.

Mr. C. W. F. Dening said that architects were members of a silent community, who endeavoured to let their buildings speak for them. There were some buildings, even in Bristol, that actually shouted at them.

Mr. C. Willis, submitting "The Builders," said that half the trouble in the trade arose through lack of continuity of employment.

Mr. W. S. Weeks, President-elect of the Master Builders' Association, in response, said apprenticeship was the great hope of the trade, but it was no use for employers to take apprentices unless the builders' foremen, clerks of work, and operatives would teach them and encourage them. Other toasts were "The Bristol Association of Clerks of Works and Builders' Foremen," proposed by the Chairman, "The Chairman" and "The Visitors."

CLERKS OF WORKS' ASSOCIATION.

The Incorporated Clerks of Works' Association held their 41st annual dinner at the King's Hall, Holborn Restaurant, on February 23. Mr. W. A. Forsyth, F.R.I.B.A., presided. Among the visitors present supporting the Chairman were Messrs. W. Woodward, F.R.I.B.A., F. W. Troup, F.R.I.B.A., C. Armitage, F.R.I.B.A., Lieut.-Colonel A. C. Preston, V.D., Alderman W. Peet, Messrs. F. Hall-Jones, M.S.A., Roland Welch, A.R.I.B.A., Clifford Trollope, F. G. Minter, Dudley Bartlett, H. A. Gregory, E. E. Yewen, and Noël Heaton.

After the loyal toasts had been honoured, Mr. A. H. Taylor proposed "The Architects," and Mr. William Woodward, F.R.I.B.A., responded.

Mr. P. J. Luxton proposed "The Surveyors," and said, although the term surveyor meant all sorts of things and all sorts of people, it was usually understood in their company to mean a quantity surveyor. He was the man whom the building trade generally, and clerks of works in particular, had most to do with in London and the large provincial towns. The building owner to-day who ventured on a large outlay without calling in the assistance of a quantity surveyor would live to regret his folly. It was a big tribute to the profession that in connection with many contracts, involving large sums of money, both the building owner and contractor accepted the decision of the quantity surveyor without question.

Mr. A. G. Cross, whose name was coupled with the toast, also responded.

Mr. A. H. Castle, in proposing "The Worshipful Company of Carpenters," expressed the Association's gratitude to the Company for allowing them the use of the Hall for their meetings. The Worshipful Company of Carpenters, he said, had always been leaders in the production of well-trained craftsmen, and in later years in the promotion of technical education. In thus attempting to provide the additional skilled men so much wanted in the building industry the Carpenters' Company had well earned the thanks of the whole community.

Lieut.-Colonel A. C. Preston, V.D., Past Master of the Carpenters' Company, in response, assured them, on behalf of the ancient Company to which he belonged, that they were delighted to give the Association the use of the Hall for their meetings and for the work they did.

Mr. A. J. Dorey proposed "The Builders," and, in response, Mr. Clifford Trollope said the clerk of works was a great asset to the builder. He helped them through very trying and difficult times, and the builders could not be too thankful for the assistance given them.

The Chairman proposed the toast of the "Incorporated Clerks of Works Association," and said they must all feel that the position of English building was pre-eminent in the world. There was no country where construction of permanence in building was more understood than in Britain, and that condition was in a large measure due to clerks of works. He would like to thank the committee for circulating their Journal amongst architects. It was of very great assistance and it was invariably interesting. He would appeal to them to help in the promotion of the charitable side of the committee's work. They had an opportunity of subscribing to the benefit and pension fund, and he found this fund was very jealously guarded; it was well supervised and administered, and clerks of works incapacitated by illness, accident or otherwise were helped in times of need.

Mr. F. J. Pitts responded, and said the chief object of the dinner was to help the Benevolent Fund. There was one special point he wanted to put before the architects. At the present time an interesting question was being discussed at the meetings of the Association, namely, the question of insuring clerks of works when on a job. Generally speaking, that was never done. It was never thought about. It would be a little item to allow for in the bill of quantities. Members of the Association wanted the architects to consider the question and see if they could not include a small sum in the bill of quantities to insure the clerks of works against accidents. He would like them to think the matter over and put it before the notice of the other members of the Royal Institute.

Mr. J. W. Groom proposed "The Visitors," to which Mr. H. A. Gregory responded.

After Mr. W. Lake had proposed "The Chairman," Mr. Forsyth, responding, said in reference to the insurance of clerks of works, that it was a most important thing, and he would do his best to bring it before the Royal Institute of British Architects.

COMPARISON OF PRICES OF BUILDING MATERIALS, &c.

We publish a table giving the prices of the principal building materials on March 1, as compared with the price for February 1, 1924.

Material.	Feb. 1, 1924. £ s. d.	Mar. 1, 1924. £ s. d.	Fall. %	Rise. %
Bricks—				
Best Stocks	3 19 0	3 19 0	—	—
Flettons	2 13 3	2 13 3	—	—
Glazed	22 0 0	22 0 0	—	—
Thames Ballast	0 10 6	0 10 6	—	—
Thames Sand	0 15 6	0 15 6	—	—
Shingle (¾ in.)	0 14 0	0 14 0	—	—
Portland Cement	2 18 0	2 18 0	—	—
Ground Blue Lias Lime	2 13 6	2 13 6	—	—
Grey Stone Lime	2 10 9	2 10 9	—	—
Bath Stone	0 2 9½	0 2 9½	—	—
Portland Stone	0 4 4	0 4 4	—	—
Good Sound Building Timber—				
4 in. × 11 in.	34 0 0	34 0 0	—	—
3 in. × 7 in.	26 0 0	26 0 0	—	—
3 in. × 11 in.	34 0 0	34 0 0	—	—
2 in. × 11 in.	34 0 0	34 0 0	—	—
2 in. × 7 in.	26 0 0	26 0 0	—	—
3 in. × 4 in.	24 0 0	24 0 0	—	—
Slates—				
24 in. × 12 in.	37 12 6	37 12 6	—	—
22 in. × 12 in.	34 0 0	34 0 0	—	—
R.S. Joists	13 10 0	13 10 0	—	—
Iron—				
Common Bars	13 10 0	13 10 0	—	—
Mild Steel Bars	12 10 0	12 10 0	—	—
Steel Bars	13 0 0	13 0 0	—	—
Cut Nails	20 10 0	20 10 0	—	—
Sheet Lead	42 10 0	47 10 0	—	11.77
Glass—				
15 oz. Sheet	0 0 3⅜	0 0 3⅜	—	—
21 oz. Sheet	0 0 5	0 0 5	—	—
26 oz. Sheet	0 0 6	0 0 6	—	—
Raw Linseed Oil	0 4 2	0 4 5	—	6.00
Turpentine	0 6 11	0 6 9	2.41	—
Ground English White Lead	57 0 0	62 10 0	—	9.65
White Lead Paint	81 0 0	86 10 0	—	6.79
Red Lead	43 0 0	50 0 0	—	16.28

STEEL CONDUITS AND ELECTRICAL WIRING.

The British Engineering Standards Association has issued a new revision of the Standard Specification for Steel Conduits for Electric Wiring (B.S. Specification, No. 31), which was first issued in 1906 and revised in 1910. The following modifications have been made to the original standards, which it is interesting to note had been almost universally adopted:—

Two additional diameters have been included, *i.e.*, ½ in. and 2½ in. In the case of conduit having a larger diameter than 1 in., the screw threads have been slightly shortened. In other respects, the specifications for the conduits remain the same, but a comprehensive range of standards for the fittings used with conduits have been included, together with tests to be applied to the materials used in the manufacture of both the conduit and the fittings.

The use of this specification will ensure the supply of a good practical quality of steel conduit and fittings, and the wider its use the greater will be the benefits.

It should be recalled that about three years ago the Government Departments decided to co-ordinate their own specifications for electrical apparatus, so as to make use as far as possible of ordinary good class commercial articles, and for this purpose set up an interdepartmental Committee and made arrangements to secure the assistance of the B.E.S.A. This Committee decided to adopt the British Standard Specification No. 31, and recommended its extension to include a 2½ in. tube with a further addition of detailed standards for fittings. The B.E.S.A. Committee brought together all the British makers of conduits, and after considerable discussion general agreement was reached. The Interdepartmental Committee found that the revised specification would meet all the ordinary Government requirements, which, hitherto, in the absence of a standard specification for the fittings, had, in some cases, been special to each department. This B.E.S.A. Specification, therefore, will set a standard for the makers, the Government Departments, and for all purchasers of good quality conduit, and the more British Standard Conduit and Fittings are demanded, the better for the electrical industry and the public.

Copies of this publication (No. 31, 1923) may be obtained from the B.E.S.A. Publications Dept., 28, Victoria-street, London, S.W. 1. Price, 1s. 2d. post free.

£1,000,000 for Irish Roads.

The Irish Free State has made available £1,000,000 for road improvement throughout the country. The scheme will affect every county council and urban district council in the Free State, and £100,000 will be allocated to Co. Cork. Preference will be given in the workmen engaged to suitable persons who have served in the Free State Army.

LABOUR IN THE BUILDING INDUSTRY.

A REPORT on the supply of skilled labour in the building industry has been issued by the National Housing and Town-Planning Council and signed by the Chairman of the Council (Mr. F. M. Elgood) and the Secretary (Mr. Henry R. Aldridge), on behalf of the Committee. From this report we take the following abstracts:

In the following table the numbers of skilled craftsmen engaged in Great Britain in the building industry in 1901, 1911, 1914 (July), 1923 (February), 1924 (January) are clearly set out.

	1901.	1911.	July, 1914.	Feb., 1923.	Jan., 1924.
Bricklayers	120,288	106,193	73,671	58,540	57,170
Masons	97,398	65,155	34,381	21,490	22,270
Carpenters and Joiners	306,355	238,425	126,345	123,820	125,010
Slaters	16,111	13,909	4,154	5,190	5,210
Plasterers	36,238	28,784	19,479	16,290	16,070
Plumbers	76,065	76,511	33,009	33,090	34,440
Painters	176,007	200,115	132,479	109,800	106,860
	828,462	729,092	483,518	367,220	369,030

The main factors responsible for the decline in the numbers of skilled men in the industry are as follows:

(1) The first of the causes of the shortage is to be found in the fact that for many years past the number of apprentices flowing into the industry has been insufficient in volume to replace the depletions in the industry.

The reasons for the shortage of apprentices are three-fold:

(*a*) The unwillingness of parents to place their children in an industry which does not offer steadiness of employment at a good standard wage, and the difference in general attractiveness of careers opening out in other industries.

(*b*) The absence of any kind of responsibility—falling on the employer—for securing and training apprentices.

(*c*) The entire cessation of apprenticeship during the war.

Apprentices.

With regard to (*a*) it is beyond question that in the years preceding the war the industry was hard hit by severe crises of unemployment which produced much suffering amongst those engaged in it. The knowledge of this suffering without doubt acted as a potent factor in deterring careful parents from placing their children as apprentices to the industry. To these periods of unemployment must be added the varying nature of the occupation and frequent seasonal unemployment. The industry has suffered, and continues to suffer, as a result of the loss of time due to inclemency of the weather, especially at certain periods of the year. It is to be regretted that no workable solution has yet been found for "wet time."

The Committee are of the opinion that many parents have preferred to send their children into industries which offered greater steadiness of employment at wages which, taking the whole year round, were substantially higher than those likely to be secured in the building industry.

With regard to (*b*), the evidence obtained by the Committee places beyond question the fact that the sense of responsibility for securing and training apprentices clearly felt by large numbers of employers in the past has well nigh disappeared in some parts of the country. The Committee are informed, for example, that many large employers in the London area are unwilling to take apprentices. But whether the cause be that of unwillingness or indifference on the part of parents, or the absence of a sense of responsibility amongst employers, the result is the same. The proper recruitment of the industry has been neglected.

In reference to (*c*), with the virtual cessation of building during the war there was scarcely a single lad apprenticed during a period of four years.

Skilled Labour.

(2) There has been a substantial depletion in the number of skilled craftsmen arising from:—

(*a*) Migration to other industries in times of depression in the pre-war period.

(*b*) Losses to the industry during the war period as a result of death or migration to other industries; and

(*c*) Emigration to other countries, both before the war and since the war.

With regard to (*a*), the evidence submitted to the Committee places beyond question the fact that during the period of great building depression between 1906 and 1908 the number of men compelled to leave the industry as a result of hunger was substantial. Many found it better to secure constant work at unskilled or semi-skilled occupations than to continue in an industry which seemed to have no use for them as far as the prospect of earning a steady living wage was concerned.

From time to time public criticism is expressed in strong terms concerning the attitude of the men in the industry towards dilution. But it must in justice be recognised that in only too many cases the issue presents itself to them not as one of abstract argument, but of bitter memory of suffering experienced in the past by those near and dear to them throughout a time when it seemed to be a matter of national indifference whether they became chargeable to poor relief or not.

Concerning (*b*), the Committee find on enquiry that in one industry in particular there were great losses during the war period.

With regard to (*c*), the Committee find that in the period preceding the war there was a steady stream of emigration to other countries. Since the war—and more especially during the last two years—the outward stream of emigration has begun to flow again.

The Committee learn that 921 out of 4,000 carpenters (including ships' carpenters) left Glasgow in 1923 for the United States of America, where attractive high wages can be readily gained by skilled men. At the present juncture large numbers of bricklayers are also leaving the country.

Skilled Labour and Housing.

III.—The number of skilled craftsmen needed to execute a National housing policy.

In considering the number of operatives needed to build 200,000 houses a year two points emerge, viz.:—

(*a*) The number of skilled men necessary to build a stated number of houses; and

(*b*) The proportion of the men in the industry needed for the performance of building operations other than those relating to the construction of small houses.

With regard to (*a*) two sets of estimates have been considered by the Committee.

The first of the sets of estimates has been supplied by Mr. Platt, the Housing Director to the Manchester City Council. It is understood that his figures represent actual experience relative to the number of men occupied in building houses on one of the Manchester Corporation building schemes:—

THE NUMBER OF SKILLED CRAFTSMEN NEEDED TO BUILD 200,000 HOUSES PER YEAR.

Bricklayers and Masons	43,600
Carpenters and Joiners	41,200
Slaters	4,120
Plasterers	15,680
Plumbers and Glaziers	7,940
Painters	15,200
	127,740

The second set of estimates relates to the number of hours normally worked by all classes of labour in the construction of a small house. It is understood that an analysis of a large number of housing schemes carried into effect during the past three years reveals the fact that from 1,600 to 2,500 hours of labour per house represents the general range of time taken. (These figures include the hours worked by labourers as well as by skilled men.)

The Committee submit the following recommendations:—

(1) The Government should be asked to make a clear declaration of determination to carry into effect a long-run housing policy.

It will be of value in this relation to point out that the securing of an adequate number of apprentices will largely depend on:—

(*a*) The eagerness of parents to apprentice their children to the industry; and

(*b*) The goodwill of employers and operatives alike.

(2) The number of apprentices in training should be brought up to the level of a number mutually agreed upon between employers and operatives.

The following recommendations are made:—

(*a*) All builders engaged on public work, either national or local, or engaged in building houses in respect of which subsidies are given should be required, as a condition of their contract or the receipt of the subsidy, to train a specified proportion of apprentices.

(*b*) A Central Committee of Employers and Operatives should be set up and be charged with the definite duties of arranging for the recruitment of apprentices and the provision of adequate facilities for their training.

With a view to securing the transference of apprentices when work falls short or when employers may not be able to give apprentices a complete course of training it is suggested that the indentures should be between the parents on the one hand and the local district committee on the other.

(*c*) New apprenticeship schemes, the operation of which shall be limited for a certain agreed period of time, should be formed with, as their definite object:

(1) the placing aside of the present ratio of apprentices to craftsmen in favour of a new ratio to be mutually agreed upon;

(2) the training of a certain number of apprentices (whose age is greater than the present agreed age of 16) for a shortened period of not less than three or four years, the amounts to be paid by the employers to these older apprentices to be supplemented by grants made by the State;

(3) the modification of certain restrictions at present in operation governing the number of apprentices allowed to be in training under any one employer.

Recommendation (2) is put forward on the definite plea that a substantial injustice will be suffered by many of those who were of the apprentice stage during the Great War and who either volunteered or were drafted into the Army, or served in munition work during this period. It is argued that there has been quite enough suffering arising out of the war without condemning men, who would otherwise be skilled craftsmen, to remain in the position of unskilled labourers for the whole of their lives.

(*d*) Sympathetic and constructive consideration should be given to the valuable suggestion that the crafts of the building industry should be regarded as falling into four great groups or divisions, and that provision should be made for the concentration of the energy of the craftsmen coming within the limits of these four groups on the performance of work in regard to which delays in execution must seriously prejudice the activities of craftsmen in other groups.

The craftsmen of the industry fall within the following groups:—

(1) carpenters and joiners,
(2) plumbers and heating engineers,
(3) bricklayers and plasterers, masons and slaters,
(4) painters and glaziers.

With regard to group (3) it may be pointed out that already the bricklayers and masons belong to one union. There is also a strong feeling throughout the industry as to the desirability of setting up a Trowel Trade Union. In support of this proposal it may be urged with much force that in the Eastern Counties the bricklayer, in accordance with the custom of the area, does plastering work. It may further be pointed out that if bricklayers were set at plastering work it would be possible for employers in wet weather to absorb their labour in the plastering of rooms contained in houses which have already been roofed in. In submitting this suggestion the Committee clearly recognise that the work of plastering can best be done by the man who has specialised at plastering. The same truth applies in the case of the other crafts included in this group. But the Committee hold that it is clearly desirable that when the development of a housing scheme is held back because of the special shortage of one class of craftsmen included in this group, there should be a concentration of the energy of other members of the trowel trades group (even if they were less skilled in the craft which was specially short) on the task of clearing away arrears of work which, if left to accumulate, must involve the throwing of other craftsmen out of employment as well as delaying the completion of houses so greatly needed by the community.

(*e*) A system of insurance on a contributory basis or otherwise, should be set up and should provide that time lost in inclement weather should be paid for, if not in full, at least in part.

(*f*) Various improvements should be made in the status of the craftsmen and in the conditions of employment with the definite object of making the industry more attractive.

PATENTS.

APPLICATIONS PUBLISHED.*

206,380.—Waygood-Otis, Ltd., and T. H. J. Simmons: Lifts and hoists.

206,396.—J. B. Dring: Folding boxes.

206,400.—J. Birago.—Tables.

206,404.—R. Kuroshima: Folding-ladders.

206,407.—Cowans, Sheldon & Co., Ltd., and J. W. Branston: Jib-cranes.

206,414.—A. W. Nelson: Means for securing sash cords to sashes.

202,980.—O. Hartmann: Ceiling of slabs.

205,096.—Soc. Anon. la Ceramique Nationale: Apparatus for distributing the body material in the automatic manufacture of tiles.

206,894.—T. S. McCallum and Calto Co. Ltd.: Fire-places.

206,903.—C. R. Allensby and W. L. Clarke: Ovens and hot-cupboards.

206,929.—F. Bateman: Roads or the like and blocks therefor.

206,935.—W. C. Rankin: Stays for casement windows.

207,009.—W. Jones: Roof gutters.

207,020.—H. Duckworth, R. B. Duckworth and W. Duckworth: Folding-desks.

207,056.—E. Tonks & Sons, Ltd., and A. C. Tonks: Fastenings of the type known as fanlight fastenings.

207,084.—W. F. Owsley: Apparatus for levelling and surfacing plastic concrete paving.

207,110.—D. Palmer-Jones: Means or devices for connecting together members of permanent or temporary structures, buildings and scaffolding.

207,111.—E. Beckett: Concrete slab walls.

207,119.—J. C. Eccleston: Window fastener.

207,130.—E. W. Moss (J. G. Surtees): Fastening means for doors, gates and casement windows.

207,132.—D. Palmer-Jones and Scaffolding (Great Britain), Ltd.: Scaffolding or the like temporary erections.

207,209.—E. Lytton: Paints and varnishes.

207,218.—H. Howard: Wall brackets.

207,238.—E. C. Freegard: Composition of matter to be used for the removal of paint.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

THE RATING AND VALUATION BILL.

The Report of the Association of British Chambers of Commerce has now been issued on the draft Rating and Valuation Bill, and after expressing approval of the course adopted of submitting a draft Bill for the consideration and comments of those whose interests are concerned, and observing that such a course must result in advantage to the community and an economy of time to the Government, it expresses approval in the main with the proposals as stated in Clause 2 of the Memorandum, and particularly as regards—(1) The simplification of the present rating system, (2) consolidation of rates where not already existing, (3) a more equitable method as to precepts, (4) a quinquennial valuation, (5) a single valuation for rates and taxes, (6) greater uniformity in valuation, (7) making the assessment committees more representative of different interests. Clause 2 of the Memorandum referred to above is entirely vague in its terms, outlining the main objects of the proposals contained in the Bill as follows: "The main objects underlying these proposals are the simplification and improvement of the administrative system of machinery of rating and valuation, and the removal of various anomalies inherent in the present system; the substitution of a single valuation in the place of the separate valuations at present required for purposes of rating and taxation; the promotion of uniformity of valuation as a condition precedent to any comprehensive review of the system of local taxation and exchequer grants."

Thus far, therefore, the report is not very specific, but it is to be noted that it accepts the principle of a single valuation for rates and taxes, and thus there seems some agreement in opinion on this point amongst the associations which have issued reports, but numerous suggestions as to how it could better be put in practice. The Landowners' Association objected to the common assessment in so far as it involved employment of officials of the Inland Revenue by a rating authority not an assessment committee (*The Builder*, January 18), and the report of the London County Council Committees objected to the gross value being made conclusive for the assessment of income tax without important modifications (see *The Builder*, February 8). The Poor Law Unions Association seemed tacitly to accept the principle (see *The Builder*, December 14, 1923).

In the report under consideration the agreement with the main objects of the Bill is at present only as above expressed in general terms; it is, however, only a preliminary report, and detailed criticism is to follow, but it is noticeable that the report expresses doubts whether the economies claimed in the Memorandum in Clause 3 in connection with the proposals outlined in Clause 2 will, in fact, be effected, especially if a new central authority has to be created.

With regard to rating, the report approves in principle the transfer of these functions to the various rating authorities as proposed in the Bill, but considers that the position of those local authorities which have already adopted similar steps should have different treatment from that suggested. As regards valuation, the report considers it questionable whether complete uniformity would produce equitable results. The report strongly disapproves of the proposed creation of a central valuation authority, on the grounds that it is (1) unnecessary, there being no justification for the abrogation of the powers of local authorities generally, who are better able to judge of local conditions; and (2) uneconomical, involving the creation of a new department and great expense and inconvenience to all concerned, but as the association recognises that railways, canals, and such parts of public utility works as pass through more than one rating area call for special treatment, it suggests: (1) that certain general principles should be laid down for the guidance of the local authorities, and (2) in lieu of the general system of appeal provided for in the Bill a special appeal body should be set up to deal with appeals against the valuation of such special properties. The report states in connection with this suggestion that the Association considers that no other departure from the general scheme of the Bill is necessary in order to produce the desired result, and that in the course of a short time it will be found that by means of these regulations and the decisions of the appeal body a uniform system of procedure will prevail throughout the country. This is a suggestion which appears to us to have much to recommend it.

It is important to note that the report adds that whatever decision may be arrived at on this question, the Association voices the unanimous feelings of the Chambers of Commerce and other important bodies that Sub-clause (i) of Sub-clause (1) of Clause 28 should be deleted from the Bill. That Sub-clause provides that "any other properties, or properties of any other class which the Minister may from time to time direct to be treated as special properties" shall be deemed to be special properties. In this connection it may also be observed that the report considers other powers conferred on the Minister by the draft Bill are too vague and extensive, and would enable him to modify and even alter the intention of Parliament, and it points out that they are contrary to the policy of decentralisation. The report also considers that it is undesirable to extend the principle of the direct rating of owners instead of occupiers.

This is only a brief summary of some of the points dealt with in this report, and, as we have said, it is stated that detailed suggestions and criticisms will be submitted later. It may have been noted that the present Prime Minister, in his interesting speech outlining the policy of the Government, stated that the present Government intended to try and deal with the subject of rating, not only agricultural rating, and that Government after Government had promised to deal with this subject, but had failed to do so, but that he hoped this Government would have time to produce its scheme for readjustment and reform in the present Parliament. It is noticeable that in this statement no mention is made of the draft Bill submitted to the country by the late Government for consideration, and which has already received such careful investigation at the hands of such important organisations. A statement on the attitude of the Government towards this Bill should be made as soon as possible, as those bodies who are giving it careful consideration and making practical suggestions for its amendment will desire to know whether in the main it is to be proceeded with or whether the Government intends to scrap it.

Industry and the Schools.

Mr. J. Murrey, National Federation of Building Trade Operatives, and Mr. R. L. Roberts, ex-Chairman of London Master Builders' Association, have accepted invitations to serve on the Central Advisory Council which the Minister of Labour is appointing in the endeavour to secure that the entrance of juveniles into industry is made under the most favourable conditions.

Building Trade Wages.

A special meeting of the leaders of both sides of the building industry was held recently in London to consider an application by the men which would have the effect of increasing the present rate of wages by 2d. an hour. At the close the following statement was issued:—

"The National Wages and Conditions Council met to-day to consider an application by the operatives for an interim variation amendment under Clause 14 (c) of the rates of the Council. After prolonged discussion the parties failed to reach agreement. Further constitutional procedure is taking place, and the matter will be considered by the executives of the adherent bodies at an early date."

THE IDEAL HOME EXHIBITION.

On February 28 the Ideal Home Exhibition was opened by the Duchess of York.

We have now so far advanced in our study of the ideal home that we are not at all surprised to find a number of full-sized cottage houses fully furnished in an "ideal home" exhibition. In some respects, we find an advance in the quality of furnishings shown, and we can imagine that the interesting full-size buildings at the present exhibition at Olympia convey a decided over-statement of what is likely to be the appearance of such buildings when they come into the possession of those who usually occupy houses of that size. The admirable examples of old furniture, such as the tiny clock on a mantelshelf at £20, and the small gate-leg table at a similar cost, are only for the fortunate few who can indulge in luxuries. Furnished with the simple austerity which limited cost necessitates, these cottages would lose some of their charm, though we could all afford to build our fire-places in a pleasanter way than the rough brick affairs which go with some of these fine old furnishing. We still, however, find many admirers of the old type of timber-framed buildings, such as Messrs. Williams & Son, of Oxted, have reproduced for us with an admirable effect of tone and colour, built up in good architectural character; and we may modify our ardour with a more modified adoption of old styles, as in the ideal home set forth by Messrs. Y. J. Lovell & Sons. Messrs. Mead's cottage is not a very happily proportioned exterior, but inside it is very attractive and contains some very admirable furnishing. One of the old half-timber cottages suggests great age and one can almost feel a thrill of age and damp in passing within its gloomy walls. Other firms show how one may keep a cottage bright and cheerful at no ruinous cost, but exhibits such as these at Olympia do not suggest to the professional mind that complete happiness and satisfaction can be standardised in style, shape and furnishing with a completely satisfactory result. Nowhere, we suppose, does the skill of a really able architect prove itself so valuable as in the handling of a small house or cottage, and probably in no part of his practice are his services so begrudged. Besides the allurement of fully furnished cottages, we find again an even greater attraction in the gardens of spring flowers produced in an excellent way by professional firms. Such an array of beautiful spring flowers is well worth seeing, and one can imagine what a splendid "draw" two or three acres of a garden like that provided would prove at the Empire Exhibition. The general effect of such an exhibition as that at Olympia is much better now than it used to be, and the draping of the roof with orange-tinted valeria produces a unity of effect which is very effective, relieved as it is with tones of blue. We do not like the silvered staircase and gilded bay shrubs, and we think the main avenue of the exhibition might easily be made a telling feature; but some day, perhaps, we shall get a really satisfactory result, such as these exhibitions suggest. Many exhibits of great excellence are to be found, such as the furnishing stands of Messrs. Heal & Son, John Barker & Co., Burnet's, Storey's, &c. In sanitary goods, such exhibits as Geo. Jennings are remarkably good; and we have never seen a more admirable exhibit as regards quality and taste than that by Bratt, Colbran & Co., of their heaped fire, and this certainly cannot be said of all such exhibits. Smith, Wellstood & Co., "The Devon" Fire, the "Interoven," and others, deserve special notice.

We give below descriptions of some of the stands:—

DECORATION AND SANITATION.

George Jennings, Ltd.

This interesting exhibit includes an example of a bathroom with fittings, designed to give comfort and efficiency, with rubber flooring (tiled in blue and white), being warm and soft to the feet. The walls are of imitation marble in white, panelled in blue, a patent composition, very effective and easily fixed, which can be supplied in any quantity or colour. The bath is in the centre of the room and is cast-iron, white porcelain enamelled inside and out. Lavatory basin and dressing table are of Venato statuary marble. Other types of baths include a new pattern white porcelain enamelled inside and out, in one piece. Labour saving fittings are represented by baths and lavatory basins fitted with china covered supply valves and special white metal alloy valves, reducing the labour of cleaning to a minimum.

G. D. Peters & Co., Ltd.

The exhibition of this firm comprises three rooms, dining room, bath room and office, all lined with "Sundeala" boards. This material is a satisfactory substitute for lath and plaster, and is used on walls, ceilings, partitions, &c. In addition to the supply of "Sundeala" sheets in plain form a number of embossed patterns are shown fixed on this Stand. Changes in temperature do not affect this type of millboard. The sheets are 11 ft. by 4 ft. 6 in. and 8 ft. by 4 ft. There are three qualities and several thicknesses.

Associated Crafts, Ltd.

"Dekart" is a material that bears a very close resemblance to oak or any other hardwood. Its initial cost is considerably less than that of the materials it is intended to supersede, being about half that of real oak. The firm undertake to carry out architects' own designs and to submit suggested schemes of treatment. "Dekart" plaster sheets, tiles and mantels are also exhibited. "Dekart," it is interesting to note, is a British product, manufactured in London entirely by British workpeople.

Ferodo, Ltd.

This firm show a full range of samples of their well-known fabric stair treads, with several models showing methods of fixing nosings and treads to various types of stairs. These treads are specially woven from cotton and treated by a process which makes them exceedingly durable and long wearing. They are supplied in various colours, which are permanent, and the material retains its non-slipping qualities and good appearance, however well worn. Samples are also shown of Feroleum nosings and flooring material, which is made from fine Para rubber and Ferodo fibre, both corrugated and plain, in various pleasing colours. Feroleum is washable, hygienic, non-slipping and long wearing.

Fortis Reinforced Concrete Safe Co., Ltd.

A new development in safe construction is in the use of reinforced concrete, and two small Fortis safes are shown of this material. They are absolutely fire-proof, and will resist the acetylene activities of the modern burglar.

LABOUR-SAVING SECTION.

G. N. Haden & Sons, Ltd.

This interesting exhibit comprises four "Eco-Dry" closets. These contain gas and electrically-heated drying cabinets. They are specially made to deal with drying in private residences, and the larger ones for drying in schools, colleges, or in connection with recreation buildings. The air is heated either by gas or electricity, and the current of air is induced by the same means, or, in special circumstances, with small fans. There is no smell or fumes in connection with these cabinets, and the drying can be done quickly and with little trouble.

Chalco, Ltd.

This firm give a demonstration of the "Challenge" patent rustless curtain runner—an exceptionally convenient and up-to-date system of hanging curtains. In the "Challenge" the curtains are hung on neat little roller-bearing runners, the frames of which are made of rustless steel. The strong flat rail is easily bent by hand to fit any shape of window, without the use of any tool. It is very easily fixed in position. Curtains hung on "Challenge" runners are on the stand, forming part of the exhibit, and ready for manipulation and test by all interested. Several other attractive and extremely useful "Challenge" home accessories are also on view, including patent stair carpet clips, patent extending wardrobe rails and hanging wardrobes.

HEATING AND LIGHTING SECTION.

The Interoven Stove Co., Ltd.

"Interoven" and "Super Interoven" convertible cooking and heating stoves (Pascall's patents) are exhibited on this stand. They are readily convertible from cooking stove to open fire sitting-room grate, and save coal, space and labour. Over 60,000 "Interovens," the manufacturers state, are now in use. Other exhibits are:—"Bewty" expanding barless fire fronts (Pascall's patent), for modernising old-fashioned sitting and bedroom grates at a small cost; and "Bewty Minor" and "Bewty" dog grates. Also "Ten-in-One" adjustable stool bottom grates (Pascall's patent) and wrought welded range boilers of every description.

Candy & Co., Ltd.

Messrs. Candy & Co., Ltd., are again showing a selection of their well-known "Devon" fires. The "Devon" fire, the makers claim, embodies all the correct principles of construction, as the back, sides and bottom are composed of specially prepared fireclay, which results in considerable fuel economy and an extensive diffusion of heat in the room in which it may be fixed. The "Devon" fire in its decorative effect has many possibilities. It can be produced to fit in with any colour scheme and with any style of decoration, two objects much to be desired thus being combined, utility and beauty. Messrs. Candy have also on show fine examples of their production in decorative pottery, which is styled "Wescontree" ware, in which variety of shape and richness of colour are prominent features.

The New Stimex Gas Stove Co., Ltd.

This firm exhibits gas cookers, ranges and circulators, which embodies up-to-date principles. The gas combination range is designed to take the place of the ordinary coal kitchener, being gas cooker, fire and circulator combined. This range is fitted with a copper circulator, suitable in any district, whether the water is hard or soft.

Thomas Potterton.

This exhibit contains a selection of the standardised types of "Victor" gas boilers, and gives a working example of a system supplying hot water for general domestic use; also an exhibit of "Thermostats" for the automatic regulation of gas consumption, both water-type and atmospheric-type, can be seen in action, and the "Victor Combination" boiler, using coke or other smokeless fuel, or gas. Standard types of sectional boilers for central heating and applied equipment are included; also water treating plants for the elimination of lime deposit and other impurities, &c.

Samuel Smith & Sons, Ltd.

The makers claim for the "Foresight" range that it cooks the food perfectly, ensures a plentiful supply of hot water at all times, enables several boiling utensils to be in use at the same time, and reduces the fuel bill by 50 per cent. It is easily and quickly converted from an efficient cooking range into an open fire. Coal consumption is regulated by automatic movable fret. The working parts cannot burn away or get out of order as they are away from the fire. The flues are easily cleaned and maximum heat in room is radiated from special all-firebrick back, substantially made to stand long and hard wear. The parts, being standardised, are easily replaced should breakage occur. Extra hot-plate and close fire is obtained by swinging the trivet over the fire.

The Cozy Stove Co., Ltd.

This firm exhibit their well-known "Cozy" open fire stoves in various types of settings. The

Nos. 10a and 20 models are demonstrated burning. The No. 20 stove can be supplied with boiler to heat a couple of radiators. These stoves are constructed in such a way that they can be installed with the front plate flush with the tiles of the surround, thus giving the impression of a nice fireplace. At the same time, arrangements can be made so that the stove will heat one to two rooms besides the room in which it is installed by means of hot-air channels in the brickwork.

Allan Ure & Co.

The "Ure" back-to-back living-room grate and scullery cooker is a very widely-adopted combination fire doing the work of two which will successfully boil and stew on hot-plate, cook a 14-lb. joint and provide a plentiful hot-water service at one and the same time. This firm are also makers of mantel registers and interiors.

The Birnwell Iron Co., Ltd.

The "Birnwell" boiler, it is interesting to note, is a British invention, is British made, and is entirely British owned. It has been designed to provide a constant supply of hot water at any hour of the day or night. Each boiler is tested to a pressure of 100 lbs. per square inch before being despatched. Every "Birnwell" stove is guaranteed against defects in material and workmanship for five years.

Triplex Foundry, Ltd.

This firm invite every housewife to see the patent "Triplex" grates at work. Nothing shown on the stand is baked outside the hall. Ladies are asked to note the large cooking over and large boiling hot chamber on top of oven. The new "G" pattern has been specially designed to provide cooking accommodation for more than average requirements and the slightly larger fire to meet a demand for this in the north country. The "Workwell" grate is designed to give the working man's wife a thoroughly good cooking oven and an abundance of hot water, with economy. All who are interested in housing schemes are asked to inspect this practical grate.

W. H. Gaze & Sons, Ltd.

Gaze's are exhibiting in miniature their "All-weather" hard tennis court. The first British Hard Court Lawn Tennis Championship is being played in April next on "All-weather" hard courts at Torquay. Messrs. Gaze are also exhibiting garden figures and ornaments, in lead, old stone, &c. A fuller range of these figures can be seen at The Gazeway, Portsmouth-road, Surbiton; and tennis courts can be played upon, by appointment, at this address.

BOOK REVIEWS.

Spon's Architects' and Builders' Pocket Price Book for 1924. Edited by CLYDE YOUNG, F.R.I.B.A. Fiftieth edition. (London: E. & F. N. Spon, Ltd., 57, Haymarket, S.W. 1.)

This work, as its title indicates, is produced in a handy form, and contains a great deal of information in small bulk. It bears evidence of a certain amount of revision in the bulk items, but in certain smaller ones there is evidence of a little slackness, *e.g.*, while reduced brickwork in stocks is priced at £39 per rod, say, 2s. 10½d. per ft., lower down on the same page the brick walls are priced at 1s. 8d. per ft.; whereas on the same basis as bulk brickwork it should be 1s. 11d. without any allowance for the extra cost of less thickness. This remark also applies to the half-brick walls, so far as the extra cost last mentioned. It is difficult to understand why the extra cost of cement over lime-mortar should, in the case of stock brick-work be £2; in Fletton's, £1 10s.; and for the item of labour, mortar and scaffolding, £3. These may be small matters, but are inconsistencies to be avoided in a work of this class. The day-work prices for lead are lower than the purchase price has been for some six months past. Some of the prices are extremely low, notably stonework and granite sett paving.

Laxton's Builders' Price Book. (London: Kelly's Directories. Price 7s. 6d.)

Laxton's Builders' Price Book (1924) is a distinctly up-to-date publication, and keeps well abreast of the latest improvements in all matters relating to building construction.

Among the many good features in this edition we note that a very useful section on "Piling to Foundations and Riverside Structures" has been added (pp. 17 and 18). The chapter on reinforced concrete has itself been "reinforced" by a number of additional examples (pp. 40 to 45), and we appreciate the improvement effected by bringing together in one group asbestos manufactures of all kinds, with considerable advantage to clearness and handiness of reference (pp. 118 to 127).

It would be difficult to mention any article or material required in building which does not find mention in the many pages of this work.

Its arrangement is clear, its matter is good, and while conducted on its present lines its success is assured.



New Premises for Messrs. Woolworth, Oxford Street, W. (*See p.* 377.)

[From a photograph taken on February 12.]

Plumbing: A Textbook for Craftsmen. By ERNEST G. BLAKE, M.R.S.I. (Crosby Lockwood. 2 vols. Price, 6s. each.)

These textbooks are well printed, amply illustrated, and indexed. The title-page states that the books are based on a work of the same title by another author. Presumably some old illustrations have been used and those for cast-iron gutters and roofs are not quite the modern practice. Illustrations of sections of gutters at present on the market would have been more useful. An example shown (Fig. 112) of lead covering to hatch would hardly prevent percolation of water. There are chapters dealing with rain water, pumps, hydraulic rams, and drainage and ventilation. A work of this description should have shown the more recent patterns of cast-iron inspection chambers to drains.

Vol. 2 deals with soil and waste pipes, sanitary fittings, hot-water supply, wash-houses and laundries, and gas fires and boilers. The chapter on waste-preventing cisterns gives a clear account of those in common use, but some hints as to the disadvantages and difficulties experienced with the different kinds when in use would have been of value. The tip-up lavatory basins shown (Fig. 77) are now rarely fitted in good class work. An air pipe is shown (Fig. 105) off trap to sink, and if this is meant to indicate a "puff" pipe, it is a practice which is rapidly becoming obsolete.

Heating arrangements for small domestic systems are dealt with, and it is suggested that the boiler to kitchen range should be cleaned "at most" every two or three years; annual cleaning would be the safer recommendation. In a book of this kind one would hardly expect to find such a large subject as gas stoves and gas boilers exhaustively treated, but hints as to the difficulty of cleaning out some kinds of gas boilers should have been mentioned.

The Housepainter's Handbook. By JAMES LAWRENCE. (Manchester: The Decorative Art Journals Co., Ltd.). Price 5s. net.

This book is admirably summed up in its title. It is actually a small, neat, concise book crammed with information, and containing the essentials of painting-trade practice. Seeing, however, that there is already at least one book on the market which has precisely the same aims and purpose, the need for yet another is questionable. The book includes, in addition to notes on colours, colour-mixing, &c., information as to measuring and pricing, care of brushes, various useful talks, and a dictionary of painters' and architectural terms. There is also a very good Roman alphabet; but for the most part the illustrations are of doubtful value. The church borders, for example, are of the kind that might well deter sensitive men from attending divine service. The value of the book would, we think, have been increased had it confined itself to statements of fact and not included designs for church decoration, frieze panels, stencilled ceiling corners, and the like, which, fortunately, few house painters are called upon to provide.

International Garden Cities and Town Planning Federation. Report of Conference at Gothenburg, 1923. Report No. 5.

This report includes accounts of housing progress in seventeen different countries since 1918, together with numerous papers dealing with different aspects of town planning contributed by experts, including Mr. Raymond Unwin and Mr. G. L. Pepler. The English report was presented by Dr. I. G. Gibbon, of the Ministry of Health, and among his observations he remarks that the reason we still have no law enabling local authorities to plan built-up areas is largely because there is as yet no serious demand for it by public opinion, "and it is not our practice to pass laws unless there is behind them a public opinion to make them effective." This principle is sound in theory, but in practice it too often means that the Government tolerates obvious evils rather than gives alead in the right direction. Not the least pleasing side of this report is the evidence it gives of increasing international co-operation in the great twin problems of town planning and housing, which are all pressing equally over the world.

NEW BUILDINGS IN LONDON.

Oxford-street.—Reconstruction.—The premises of Messrs. Raoul's Shoe Co., 240, Oxford-street, are now being reconstructed by Messrs. Higgs & Hill, of Crown Works, South Lambeth-road, S.W.8. The reconstruction includes a marble front by Messrs. Jenkins, of Torquay, and metal work by Messrs. Pirie; Messrs. Waygood Otis, Ltd., are carrying out the lift work. The architects for the work are Messrs. Romaine-Walker & Jenkins.

Waterloo-road.— Alterations.— Alterations are now being carried out by Messrs. J. Parsons, of 190, Waterloo-road, at 117 and 119, Waterloo-road, for Messrs. Barclay's Bank, Ltd. The work consists of altering the ground floor and basement. This work will cost £1,851. The sub-contractors are: Cast stone front, by G. Seale & Sons, of Lomond-grove, S.E.; embossed glass, by W. Gibbs & Son, Union-street, S.E. Mr. V. Vagnolini, of 33, Stirling-road, Clapham rise, is the architect for the work.

Notting Hill Gate.—Remodelling.—All the work in connection with the structural alterations and remodelling of the Linden Gardens Hotel is being carried out by G. H. Carter, Ltd., of Holloway, N.7. Messrs. Smith, Major & Stevens are installing an electric passenger lift.

Clapham-road.—Reconstruction.—The premises of the Royal Association in Aid of the Deaf and Dumb, Clapham-road, S.W., are being reconstructed by Holloway Bros., Ltd. The sub-contractors for the work are: Fireproof floors, &c., Homan & Rodgers; heating, Henry Hope & Sons; metal windows, Crittall Manufacturing Co., Ltd. Mr. E. Maufe, of 3, Raymond Buildings, Gray's Inn, W.C., is the architect for the work.

Wembley.—Shops.—Messrs. G. H. Carter, Ltd., of Holloway, N. 7, have had their tender accepted by the Wembley Park Estate for the construction of reinforced concrete foundations and the erection of four shops. The architect for this work is Mr. E. J. W. Hider, M.S.A., Avenue-chambers, W.C.

Regent-street.—Building.—A new building is now being erected at 169–173, Regent-street, for the American Shoe Company, under the supervision of Messrs. Yates, Cook & Darbyshire; Mr. J. T. R. Wildman is the quantity surveyor. The building has an entire Portland stone front, and is a steel frame building; part will be used as showrooms for the company, and part of the ground floor and basement for the Burlington Restaurant. The upper portion of the building it is intended to let as business offices. The cost of the contract is approximately £60,000. The construction comes under the Steel Frames Act, and the reinforced floor contract has been let to Diespeker, Ltd., the steelwork being in the hands of the Aston Construction Co., Ltd. The stonework contract has been let to the Metropolitan Stone Co., and the granite to Brookes, Ltd. The asphalte has been let to the Ragusa Asphalte Co.; no other contracts have been arranged at the moment. The Monnoyer British Construction Co., Ltd., are the builders.

Tottenham Court-road. — Extension. — The North British Rubber Company are having an extension made to their premises, at 200–203, Tottenham Court-road, which will be faced with Portland stone. The floors are of steel and concrete construction; cast iron sashes, panels, and mullions from Macfarlane's foundry. Messrs. Moreland, Hayne & Co. are the contractors for the steelwork. The lifts and lighting will be carried out by the Berkeley Electrical Engineering Co., 10, Davies-street, Berkeley-square, W. Mr. F. G. Minter, of Ferry Works, Putney, is the general contractor.

Houses for Guildford.

In reference to the tenders for twenty-nine pairs of non-parlour houses for Guildford, given in our issue of last week, the prices quoted are for single houses.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C p'ters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 400).

CONTRACTS, COMPETITIONS, &c.

Forsome contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

MARCH 8.—**Carmarthen.**—FOUNDATIONS.—For laying of the foundations and carrying out the stonework in connection with the County War Memorial at Carmarthen. Mr. Ernest V. Collier, architect, 4, Quay-street Carmarthen.

MARCH 8.—**Carmarthenshire.**—NEW SCHOOL.—For erection of a new elementary school to accommodate 300 pupils at Gorslas, for the Carmarthenshire Education Committee. Mr. W. Vincent Morgan, Architect, County Offices, Carmarthen.

MARCH 8.—**Charminster.**—COTTAGES.—Erection of six bungalow cottages at Charminster near Dorchester, for the Dorchester R.D.C. Mr. F. T. Maltby, Architect, Dorchester.

MARCH 8.—**Derbyshire.**—THE WILLIAM HOLMES' ALMSHOUSES.—Erection and completion of six almshouses at Greenwich, Ripley, Derbyshire, for the Ripley U.D.C. Mr. G. W. Bird, C.E., Town Hall, Ripley, Derbyshire. Deposit 10s. 6d.

MARCH 8.—**Pontypool (Mon).**—VARIOUS WORKS.—For supply to the Pontypool R.D.C. of the following:—(1) Haulage, for one year, at per ton rate with rubber tyre lorries; (2) team labour (day work); (3) steam rolling (hire of and scarifying); (4) supply of steam coal. Mr. R. O. Roberts, Surveyor, Usk (Mon).

MARCH 8.—**Reading.**—HOUSES.—Erection of 26 houses on the Shinfield-road Housing Site, for the Town-Planning Committee of the County Borough of Reading. Housing Architect, Old College Buildings, St. Laurence's Churchyard, Reading.

MARCH 10.—**Buxton.**—HOUSES.—For the erection of 36 houses on the Heath Grove Estate or in the Fairfield District, for the T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton. Deposit £4 4s.

MARCH 10.—**Eccles.**—HOUSES.—For erection of 176 houses on the Peel Green Estate, for T.C. Mr. T. S. Picton, Borough Surveyor, Town Hall, Eccles. Deposit £3 3s.

MARCH 10.—**Glasgow.**—HOUSE.—For the erection of a medical superintendent's house at Belvedere Hospital, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow. Deposit £2 2s.

MARCH 10.—**Glendale.**—PUBLIC CONVENIENCE.—For erection of a public convenience at Wooler, for the R.D.C. Mr. A. H. Greathead, Sanitary Inspector, Wooler.

MARCH 10.—**Grimsby.**—HOUSES.—Erection of 52 houses in Laceby-road, for T.C. Mr. H. G. Whyatt, Borough Engineer, Municipal Buildings, 170, Victoria-street, Grimsby. Deposit £2 2s.

MARCH 10.—**Guildford.**—ADDITION.—For a small addition to the baths, for the T.C. Borough Surveyor, Guildford.

MARCH 10.—**Johnstone.**—PAINTING.—For painting work at stables, for the T.C. Burgh Surveyor, Johnstone.

MARCH 10.—**Letterston (Pemb).**—WALL.—For building boundary wall to Letterston Green, for the Parish Council. Mr. Thomas John, Clerk, Letterston (Pemb).

MARCH 10.—**Liskeard.**—PAINTING.—(1) General external repairs and painting, at the Wesleyan Church; (2) interior renovations and decorations to the church; (3) interior renovations and decorations to the Sunday school and basement. Mr. H. R. Venning, architect, Greenbank-lane, Liskeard.

MARCH 10.—**Liverpool.**—PAINTING.—For exterior and interior painting, including general repairs and alterations, to New Police Remand Home for Children at Derwent House, Stoneycroft, for the T.C. Land Steward and Surveyor, Municipal-buildings, Liverpool.

MARCH 10. — **London, S.W.** — BUILDINGS AND COTTAGES.—Erection of administrative buildings and 12 cottages in Pleasance-road, on the Roehampton Estate, Putney, S.W.15, for the L.C.C. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £2, to Cashier.

MARCH 10.—**Manchester.**—PAINTING.—For interior painting at the Whitworth Baths and Armitage-street and Miles Platting washhouses, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

MARCH 10.—**Market Weighton.**—ADDITIONS.—(1) addition to administration block, (2) new hospital pavilion, (3) laundry, drainage and roads, at the Smallpox Hospital, for the East Riding of Yorkshire Smallpox Hospital Committee. County Architect, County Hall, Beverley. Deposit £1 1s.

MARCH 10.—**Preston.**—EXTENSIONS.—For extensions to clinic at the Preston and County of Lancaster Queen Victoria Royal Infirmary. Mr. A. C. M. Lillie, architect, Bamber Bridge.

MARCH 10.—**Pyle.**—HOUSES.—For the erection of 44 houses on Collwyn-road, Tremarlas-road, Pyle, for the Pyle Building Club. Mr. W. J. Hopkins, 51, North-avenue, Kenfig-hill, Pyle.

MARCH 10.—**St. Albans.**—CASUAL WARDS.—Erection of casual wards, porters' quarters, &c., at St. Albans Union Workhouse, for the Board of Guardians. Mr. H. F. Mence, 11, St. Peter's-street, St. Albans. Deposit £3 3s.

MARCH 10.—**Sheffield.**—PAINTING.—For internal and external painting at Wales Court Institution, Waleswood, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

MARCH 10.—**Wallasey.**—PAINTING.—For the painting of the interior of the roof of the Seacombe Ferry Vestibule, for the T.C. Ferry Manager, Seacombe.

MARCH 10.—**Walsingham, Norfolk.**—COTTAGES.—Erection of 20 cottages at Briston, Norfolk, for the Walsingham R.D.C. Mr. W. O. Humphery, Surveyor, Fakenham, Norfolk.

MARCH 11.—**Arreton (Isle of Wight).**—REPAIRS.—For repairs to tower of St. George's Church. School House, Arreton.

MARCH 11.—**Bingley.**—FLOORING.—For re-boarding floors at Mornington-road School, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Blaydon.**—REPAIRS, &C.—For repairs and alterations at property, in High Stella, for the U.D.C. Senior Sanitary Inspector, Council Offices, Blaydon-on-Tyne.

MARCH 11.—**Bognor.**—P.O., &C.—For the erection of a Post Office and Telephone Exchange at Bognor, Sussex, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

MARCH 11.—**Ecclesfield Lound.**—HUT.—Erection and adaptation of Army hut at Ecclesfield Lound Council School, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Halifax.**—HOUSES.—Erection of (1) 48 brick-faced houses, Nursery-lane, (2) 62 brick-faced houses, Boothtown, for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £2 2s.

MARCH 11.—**Harriseahead.**—CHURCH.—Erection and completion of a new Primitive Methodist Church, at Harriseahead, near Stoke-on-Trent, for the Trustees. Mr. F. C. Cumis, architect and chartered surveyor, Kidsgrove, Stoke-on-Trent. Deposit £2 2s.

MARCH 11.—**Huddersfield.**—HOUSE.—Erection of a house in Beaumont Park-road, Huddersfield. Messrs. Lunn & Kaye, architect, Milnsbridge, Huddersfield.

MARCH 11.—**Kirkburton.**—HOUSE.—Erection of a detached residence at the Storthes Hall Mental Hospital, Kirkburton, near Huddersfield, for the West Riding Mental Hospitals Board. Mr. W. E. H. Burton, Architect, Wakefield. Deposit £1.

MARCH 11.—**Leeds.**—PAINTING, &C.—For painting and cleaning the Infectious Diseases Hospital, Seacroft, and the Tuberculosis Sanatorium, Killingbeck, for the T.C. Steward, Seacroft Hospital, Leeds.

MARCH 11.—**Maltby.**—SCHOOL.—Erection of school for 800 children, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Manchester.**—LINEN STORE.—Erection of a linen store at Monsall Hospital, for the T.C. Architect, Town Hall, Manchester. Deposit £1 1s.

MARCH 11.—**Moss and Fenwick.**—PARTITION.—Erection of a folding partition at Moss and Fenwick Council School. Education Department, County Hall, Wakefield.

MARCH 11.—**Shepley.**—HOUSES.—(1) For roads and sewers, (2) for the erection of 16 type A3 houses at Shepley, for the U.D.C. Messrs. R. & W. Dixon, architects, 5, Eastgate, Barnsley. Deposit £2 2s.

MARCH 11.—**Stanley Outwood.**—BATHROOM.—Erection of bathroom for teacher's house, for the West Riding E.C. Education Dept., County Hall, Wakefield.

MARCH 11.—**Stromness.**—HOUSES.—Erection of two blocks of three-apartment houses and four blocks of four-apartment houses, for the T.C. Mr. T. S. Peace, architect, Kirkwall.

MARCH 11.—**Wemyssfield.**—EXTENSIONS.—For extensions at Education Offices, Wemyssfield, Kirkcaldy, for the Fife E.C. Mr. George Sandilands, Education Offices, Kirkcaldy. Deposit £1 1s.

MARCH 12.—**Bedford.**—TELEPHONE EXCHANGE.—For the erection of a Telephone Exchange at Bedford, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

✱MARCH 12.—**Christchurch (Hants).**—COTTAGE HOMES.—Erection of two additional cottage homes, at Fairmile-road, Christchurch, for the Christchurch Union. Mr. Percy C. Ford, Clerk to the Guardians, Fairmile House, Christchurch (Hants). Deposit £2 2s.

MARCH 12.—**Cuckfield, Sussex.**—NURSES' HOME.—Alterations and additions to the Nurses' Home at the West Hylands Institution at Cuckfield, Sussex, for the Guardians of the Poor-Law Union of Cuckfield, Sussex. Office of the Board's Architect, Mr. Wm. H. Overton, 22, Ship-street, Brighton.

MARCH 12.—**Denbeath.**—INSTITUTE.—Erection of a Miners' Welfare Institute, at Denbeath, Fife. Mr. Stewart Tod, architect, East Wemyss.

MARCH 12.—**Manchester.**—SCHOOL.—Erection of high school for girls in Church-lane, Harpurhey, for the T.C. Clerk, Education Offices, Deansgate, Manchester. Deposit £2 2s.

MARCH 12.—**Ogmore Vale.**—HOUSE.—For erecting a house at Caedu Cross, Ogmore Vale, for the Ogmore-Valley Motor Ambulance Society. Secretary, 7, John-street, Ogmore Vale.

MARCH 12.—**Shrewsbury.**—PAINTING.—For external painting of the Royal Salop Infirmary. Mr. A. Sugden, secretary, Shrewsbury.

MARCH 12.—**Wembley.**—PAINTING.—For painting of street lamp and sewer ventilating columns, for the U.D.C. Mr. Cecil R. W. Chapman, Surveyor, Council Offices, Wembley.

MARCH 13.—**Ashton-in-Makerfield.**—SCHOOL.—For the erection of a Council School of semi-permanent construction, for 500 scholars, at Ashton-in-Makerfield, near Wigan, for the Lancashire E.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

MARCH 13.—**Doncaster.**—VESTRIES.—For erection of new vestries for the Church of St. Jude, Hexthorpe. Messrs. Walker & Thompson, surveyors, Carbon-chambers,, Hall-gate, Doncaster. Deposit £1 1s.

✱MARCH 13.—**Hatfield.**—HOUSES.—Erection of 24 further houses for the working classes at Hatfield, at an early date, for the Hatfield R.D.C. Messrs. Crickmer & Foxley, 1, Lincoln's Inn Fields, London, W.C.2.

MARCH 13.—**Liverpool.**—PAINTING.—For cleaning and painting inside the whole of the offices of the City Lighting Department, Highfield-street, for the T.C. Land Steward and Surveyor, Municipal-buildings, Liverpool.

MARCH 13. — **Willenhall.** — ALTERATIONS, &C.—For alterations and extensions to Willenhall Post Office, Staffs, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s.

MARCH 13.—**Woolwich, S.E.18.**—HOUSES.—Erection of 100 houses on the Housing Estate at Eltham, for the Metropolitan Borough of Woolwich. Mr. John Sutcliffe, Assoc.M.Inst.C.E., Borough Engineer, Town Hall, Woolwich. Deposit £3 3s.

MARCH 14.—**Bingley.**—ADDITIONS.—For additions and alterations to the Cottage Hospital. Mr. Frank Atkinson, architect, Old Bank Chambers, Bingley.

MARCH 14.—**Crompton.**—SCHOOL.—For the erection of a Council school for 350 scholars at Crompton, near Oldham, for the Lancashire E.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

MARCH 14.—**Derrytagh.**—ALTERATIONS.—For alterations and additions to Constabulary Barracks for Government of Northern Ireland. Mr. W. D. Scott, Assistant Secretary, Ministry of Finance, 15, Donegall-square, West Belfast.

MARCH 14.—**Linthwaite.**—HOUSES.—Erection of 30 scullery type houses, for the U.D.C. Mr. Joe Ainley, architect, 3, Chapel-hill, Huddersfield.

MARCH 14.—**London, N.1.**—EXTENSIONS.—For the erection of extensions to the Municipal Offices in Tyndale-place, Upper-street, for the Metropolitan Borough of Islington. Mr. E. C. P. Monson, Finsbury Pavement House, 120, Moorgate, E.C. 2. Deposit £10.

MARCH 14.—**Mitcham.**—BUILDING.—For the erection of a building for use as an Infant Welfare Centre at Cavendish-road, for the U.D.C. Surveyor, Broadway House, Mitcham.

MARCH 14.—**Pontefract.**—ADDITIONS.—For alterations and additions to the "Turk's Head" inn, Pontefract, for Messrs. The Carter's Knottingley Brewery Co., Ltd. Messrs. Garside & Pennington, architects, Pontefract.

MARCH 14.—**Swindon.**—REPAIRS.—Various repairs at hospital for the Swindon and District Hospital Board. Matron at the Hospital.

MARCH 14.—**Thornbury.**—SHOPS.—Erection of three shops and dwelling-houses in Thornbury. Mr. Herbert Varley, architect, 975, Leeds-road, Bradford.

MARCH 15.—**Lytham St. Annes.**—HOUSES.—Erection of 72 houses on various sites within the Borough, for the T.C. Borough Surveyor, Town Hall, St. Annes-on-the-Sea.

MARCH 15.—**Dewsbury.**—PAINTING.—For the painting of the Covered Market, for the T.C. Borough Surveyor, Town Hall, Dewsbury.

MARCH 15.—**Otley.**—HOUSES.—Designs and prices for 122 houses (qualifying for Government subsidy), for the U.D.C. Surveyor, Council Office, Otley.

MARCH 15. — **Shoeburyness, Essex.** — HOUSES.—Erection of 34 working class houses on the Housing Site at Dangers, Shoeburyness, Essex, for the Shoeburyness U.D.C. Mr. E. Read, Council's Surveyor, High-street, Shoeburyness.

MARCH 15.—**Swillington.**—HOUSES.—Erection of 50 houses, for Messrs. T. & R. W. Bower, Ltd. General Manager, Allerton Main Collieries, Woodlesford, near Leeds.

MARCH 15.—**Thetford.**—SHEDDING.—Construction of the shedding, grand stand, offices, and other woodwork erections, for Royal Norfolk Show at Thetford. Mr. W. Kerridge, East Harling, Attleborough.

MARCH 15.—**Warrington.**—PAINTING.—For painting, for the Gas Department. Mr. W. S. Haddock, General Manager, Gas Offices, Mersey-street, Warrington.

MARCH 17.—**Gorseinon (Glam).**—BRIDGE.—For construction at Gorseinon of a new ferro-concrete bridge over the river Lliw, for the Swansea R.D.C. Messrs. Morgan, Davies & Partners, civil engineers, Windstreet, Swansea.

MARCH 17.—**Halifax.**—LIBRARY.—Erection of new branch library and reading room, Siddal, for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £1 1s.

MARCH 17.— **Hampstead.**— CONVENIENCES.— Construction of public conveniences at (1) Grangeway, Kilburn, (2) West End Green, and (3) Fortune Green, for the B.C. Borough Engineer, Town Hall, Hampstead. Deposit £1 1s.

MARCH 17.—**Heswall.**—EXTENSIONS.—For the erection of sergeant's house and offices at the County Police Station at Heswall. Mr. H. Beswick, County Architect, Chester. Deposit £1 1s.

✱MARCH 17.—**London, S.W.3.**—REPAIRS, PAINTING AND DECORATING, AND NEW ENTRANCE GATES.—(*a*) For repairs, painting and decorating to the interior of the Dispensary Block, at the Hospital, Cale-street, Chelsea, S.W.; (*b*) for taking down existing gates and piers to the Ambulance Entrance of the Hospital in Cale-street, and erecting new, for the Guardians of the Parish of Chelsea. Mr. Edmund J. Harrison, 23, Berkeley-road, Crouch End, N. 8. Deposit £2.

✱MARCH 17.—**Penge, S.E.20.**—CONVENIENCE.—Construction of an underground convenience on a triangular piece of ground in High-street, Penge, for the U.D.C. Colonel H. W. Longdin, Surveyor to the Council, Town Hall, Anerley, S.E.20.

MARCH 17.—**Pontefract.**—BUNGALOWS.—Erection of (1) bungalow, in Pontefract, for Mr. E. H. Clarke; (2) bungalow, in Pontefract, for Mr. F. H. W. Holmes. Messrs. Garside & Pennington, architects, Pontefract.

✱MARCH 17.—**Prestatyn.**—HOUSES.—Erection of 14 houses on the Penrhwylfa-road, Prestatyn, for the U.D.C., on the Dawson Estate. Mr. S. Trevor Roberts, M.Inst.M. and C.E., Architect and Surveyor, for the Housing Scheme, Council Offices, Prestatyn. Deposit £3 3s.

MARCH 17.—**Tyne Dock.**—IMPROVEMENTS.—For carrying out improvements at Tyne Dock Station, for L. & N.E. Railway. Mr. S. Wilkinson, Architect, North Eastern Area, Newcastle.

MARCH 18.—**Bangor.**—ALTERATIONS.—For alterations to Maesgarnedd Children's Home, Llanfair P.G., for the Bangor and Beaumaris Board of Guardians. Mr. Robert Pierce, Insurance Chambers, Carnarvon.

MARCH 18.—**Bethnal Green, E.2.**—REDECORATIONS AND REPAIRS.—Internal redecoration, repair and alteration of the Schools, High-road, Leytonstone, E.11, for the Bethnal Green B.G. Mr. C. Faulkner Jones, Clerk to the Guardians, Administrative Offices, 79A, Bishop's-road, Bethnal Green, E.2. Deposit £2 2s.

MARCH 18.—**Coole.**—CHAPEL.—Erection of a memorial chapel at Coole, co. Westmeath, for Mr. Edward Hope. Messrs. Morris & Kavanagh, quantity surveyors, 68, Harcourt-street, Dublin. Deposit £1 1s.

MARCH 18.—**Glossop.**—HOUSES.—Erection of 12 houses on Sheffield-road Site, for the T.C. Borough Surveyor, Town Hall, Glossop. Deposit £2 2s.

MARCH 18.—**Leytonstone.**—REPAIRS, &C.—For the internal redecoration, repair and alteration of the schools, High-road, Leytonstone, E.11, for the Bethnal Green Board of Guardians. Mr. C. Faulkner Jones, Clerk, 79A, Bishop's-road, Bethnal Green, E.2. Deposit £2 2s.

MARCH 18.—**Sunderland.**—FENCING.—Provision and erection at Ryhope of approximately 430 lin. yds. of creosoted military pale fencing, 5 ft. 6 in. high, for the R.D.C. Mr. Thomas Young, surveyor, 17, John-street, Sunderland.

MARCH 18.—**Wellington (Salop).**—HOUSES.—For the erection of 36 houses, for the U.D.C. Mr. G. H. Connor, Surveyor, Council Offices, Wellington. Deposit £2 2s.

MARCH 19.—**Barnet.**—COTTAGES.—For the erection of three pairs of cottages at Bells Hill, for the Guardians of the Barnet Union. Messrs. White, Son, & Pill, 13 & 15, High-street, Barnet.

✱MARCH 19.—**Brighton.**—HOUSES.—Erection of four houses in Hereford-street, Brighton, for the County Borough Council. Borough Surveyor, Town Hall, Brighton. Deposit £1.

MARCH 19.—**Clacton-on-Sea.**—FENCING.—For supply of 500 lin. yds. of larch fencing, 2 ft. and 3 ft. in height, creosoted one coat, for U.D.C. Surveyor, Council Offices, Clacton-on-Sea.

MARCH 19.—**Dartford.**—HOUSES.—For the erection of 28 houses (in blocks of 4) on the Lowfield-street Housing Estate, for the U.D.C. Mr. J. James Hurtley, Clerk, Council Offices, Dartford. Deposit £2 2s.

MARCH 19.—**Edinburgh.**—WALLS.—For the taking down of retaining and parapet walls and the erection of new walls, for the T.C. City Road Surveyor, City Chambers, Edinburgh.

MARCH 19.—**Evesham.**—HOUSES.—Erection of 26 houses (with other work incidental thereto) on their site near King's-road, Bengeworth, Evesham, under the provisions of the Housing Acts, for the T.C. of the Borough of Evesham. Borough Surveyor (Mr. J. Abbott) Town Hall, Evesham. Deposit £2 2s.

✱MARCH 19.—**London, N.W.**—DEMOLITION WORK.—Demolition of the Aircraft Stores Depot Building, Regent's Park, London, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1.

✱MARCH 21.—**Croydon.**—COTTAGES.—Erection and completion of three cottages in the new Relief-road, Waddon, on the site situated about 750 yds. from Waddon Railway Station, for the County Borough Council of Croydon. Borough Engineer, Town Hall, Croydon. Deposit £1 1s.

✱MARCH 21.—**Ipswich.**—ALTERATIONS.—Alterations to the Head Post Office, Ipswich, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s., payable to the Secretary.

MARCH 22.—**Milford Haven.**—TEMPLE.—For building a new Masonic temple at Milford Haven. Mr. J. Howard Morgan, F.R.I.B.A., 24, King-street, Carmarthen.

✱MARCH 22.—**Skegness.**—FIRE STATION.—For the construction of a fire station on land adjoining the Council Offices, for the U.D.C. Mr. R. H. Jenkins, Engineer and Surveyor, Council Offices, Skegness.

MARCH 24.—**Brierley Hill (Staffs).**—HOUSES, ROADS AND SEWERS.—Erection of thirty houses, together with the necessary roads and sewers, on the Mill-street Housing Estate, for the Brierley Hill U.D.C. Mr. John Yorke, Surveyor, Town Hall, Brierley Hill, Staffs.

MARCH 29.—**Navan.**—VARIOUS WORKS.—For structural alterations, additions, repairs, plumbing and extension of drainage, roads and pathways, at the Navan County Hospital, for the County Meath Board of Health. Mr. A. Edward Smith, quantity surveyor, 5, St. Andrew-street, Dublin. Deposit £2 2s.

✱MARCH 31.—**Poplar, E. 14.**—TENEMENTS.—Erection of 12 tenements on a site at Lower North-street, for the Metropolitan Borough Council of Poplar. Mr. Harley Hockford, Borough Surveyor, Council Offices, Poplar. Deposit £3 3s.

MARCH 31.—**Ripon (Yorks).**—DISMANTLING, &C.—For following services at nine camps: (1) For the purchase of hutted camps and remove all buildings and debris; (2) purchase of materials resulting from dismantling; (3) for dismantling only; (4) for removal of concrete and other materials left on camps. Roads and Communication Officer, Ripon Camp.

MARCH 31.—**Sligo.**—STATION BUILDINGS.—For reconstruction of station buildings at Sligo, for the Midland Great Western Railway Co. Chief Engineer, Broadstone Station, Dublin. Deposit £4.

NO DATE.—**Bonnyrigg.**—HOUSES.—Construction of three groups of two-story flatted houses (24 three-apartment houses and 8 two-apartment houses), for the T.C. Mr. James Gray, architect, 140, Princes-street, Edinburgh.

✱NO DATE.—**Bucks.**—ALTERATIONS AND ENLARGEMENTS.—Alterations and extensive enlargements to Wycombe Marsh Paper Mills, High Wycombe, Bucks. Wycombe Marsh Paper Mill, High Wycombe, Bucks.

NO DATE.—**Buxton.**—BUNGALOW.—For the erection of a bungalow in Lansdowne-road, for Mr. G. B. Chell. Mr. Charles Flint, architect, Buxton.

✱NO DATE.—**Dudley.**—HOUSES.—Erection of 12 houses on the White Nobs site, for the Housing Committee of the County Borough of Dudley. Mr. F. H. Gibbons, M.Inst.M. & Cy.E., Borough Engineer, Town Hall, Dudley.

NO DATE.—**Hensingham.**—INSTITUTE.—Erection of an Institute and Sunday School, at Hensingham, near Whitehaven. Messrs. Higginson & Slack, architects, Lowther-street, Carlisle.

NO DATE.—**Letterfrack.**—CHURCH.—Erection of a new church at Letterfrack, co. Galway, for the Rev. W. Diskin, P.P., Letterfrack. Mr. R. M. Butler, architect, 23, Kildare-street, Dublin.

NO DATE.—**Mossley.**—HOUSES.—For the erection of houses, for the T.C. Borough Surveyor, Town Hall, Mossley.

NO DATE.—**Ogmore Vale.**—COTTAGES.—For erection of two cottages at Ogmore Vale. Mr. John Rees, 9, Commercial-street, Ogmore Vale.

NO DATE.—**Radcliffe.**—VARIOUS WORKS.—(1) Reboarding of school floor, (2) interior decoration, (3) installation of electric light, at St. Paul's Wesleyan Schools. Mr. Wm. Marsh, 46, Starling-road, Radcliffe.

FURNITURE, MATERIALS, etc.

MARCH 8.—**Colne.**—MATERIALS.—Supply of highway and other materials to the T.C. Mr. T. H. Hartley, Borough Engineer, Colne.

MARCH 8.—**Denbighshire.**—MATERIALS.—For supply of road material, &c., for one year, for C.C. Mr. E. W. Jones, County Surveyor, Wrexham.

MARCH 8.—**Morley.**—MATERIALS.—For supply of road and other materials, for one year, for T.C. Mr. F. Turner, Borough Engineer, Town Hall, Morley.

MARCH 10.—**Barnet.**—MATERIALS.—Supply of brick rubbish hardcore for road foundations; hard clinker for path foundations; and three hundred yards run of 12 in. by 6 in. flat Norwegian or other approved granite kerb, to the R.D.C. Mr. A. J. Wilshire, Surveyor, Council Offices, Boreham Wood.

MARCH 10.—**Bingham.**—ROAD MATERIAL.—Supply of slag to the R.D.C. Mr. D. W. Mason, Clerk, Bingham.

MARCH 10.—**Caerphilly.**—MATERIALS.—Supply of broken limestone and tar and Bideford gravel, for the R.D.C. Mr. T. H. Richards, Surveyor, Council Offices, Caerphilly.

MARCH 10.—**Clutton.**—MATERIALS.—Supply of granite, tar-macadam and limestone to the R.D.C. Mr. T. Orchard, surveyor, Hallatrow, near Bristol.

MARCH 10.—**Derby.**—MATERIALS.—Supply of bricks, cement, paints and oils, road materials, &c., for the T.C. Mr. C. A. Clews, Borough Surveyor, Derby.

MARCH 10.—**Glossop.**—SANITARY FITTINGS.—For supply of sanitary fittings, for T.C. Mr. G. H. Lea, Town Clerk, Town Hall, Glossop.

MARCH 10.—**Hamilton.**—MATERIALS.—Supply to the Lanark C.C. District of the Middle Ward of (*a*) tools and implements, (*b*) fencing materials, and (*c*) drain-pipes, for one year. Mr. W. A. Chapman, Road Surveyor, District Offices, Hamilton.

MARCH 10.—**Hatfield.**—MATERIALS.—Supply of local road materials, team labour, &c., to the Herts C.C. Lieut.-Col. A. E. Prescott, County Surveyor, Hatfield.

MARCH 10.—**Hemel Hempstead.**—MATERIALS.—For supply of materials for various public services for T.C. Mr. A. E. Usher, Town Clerk, Town Hall, Hemel Hempstead.

MARCH 10.—**Hoo.**—ROAD MATERIALS.—For supply of road maintenance requisites, for one year, for R.D.C. Mr. M. J. Harvey, District Surveyor, 12, Haig-villas, Hoo, Rochester.

MARCH 10.—**Ilkley.**—MATERIALS.—For supply of tarred slag and distilled tar, for one year, for U.D.C. Mr. J. M. Gameson, Surveyor, Town Hall, Ilkley.

MARCH 10.—**Kidderminster.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. J. Hawcroft, Borough Surveyor, Town Hall, Kidderminster.

MARCH 10.—**Nelson.**—ANNUAL CONTRACTS.—Supply and delivery of materials for roads, &c., for the year ending March 31, 1925, for the B.C. of Nelson. Mr. W. Shackleton, A.M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Nelson.

MARCH 10.—**Southwell.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. R. Morris, Surveyor, Easthope, Southwell.

MARCH 10.—**Stoke-on-Trent.**—MATERIALS.—Supply of various materials to the T.C. for six months. Borough Surveyor, Town Hall, Stoke.

MARCH 10.—**Swindon.**—TAR.—Supply of about 30,000 gallons of refined tar; or, alternatively, an equivalent quantity of bituminous compound. Borough Surveyor, 34, Regent-circus, Swindon.

MARCH 10.—**Thingoe.**—GRANITE.—For supply of broken granite, for one year, for R.D.C. Mr. C. D. Bright, Surveyor, College-street, Bury St. Edmunds.

MARCH 10.—**Wallasey.**—MATERIALS.—Supply of granite, macadam and chippings, Portland cement, granite concrete flags, to the T.C. Mr. L. St. G. Wilkinson, Borough Engineer, Town Hall, Wallasey.

MARCH 11.—**Caerphilly.**—SUPPLIES.—For supply to the U.D.C., for a period of twelve months, of following stores:—(5) Ironmongery sundries; (6) linen and drapery sundries; (8) chemist's and druggist's sundries; (9) hospital coke, coal and firewood. Mr. J. Tomkinson, Council Offices, Caerphilly.

MARCH 11.—**Cardiff.**—MATERIALS.—For supply of stores to the T.C. for one year. City Engineer, City Hall, Cardiff.

MARCH 11.—**Eastbourne.**—MATERIALS.—Supply of broken granite, tarmacadam, Mendip stone, Kentish rag and flints, to the R.D.C. Mr. W. Walker, Surveyor, 3, Bedford-grove, Eastbourne.

MARCH 11.—**East Elloe.**—MATERIALS.—Supply of granite, slag, gravel, &c., to the R.D.C. Mr. S. Mossop, Clerk, West-end, Holbeach.

MARCH 11.—**Liverpool.**—MATERIALS.—For the supply of various materials required for City Engineer's Dept. City Engineer, Municipal Buildings, Dale-street, Liverpool.

MARCH 11.—**Manchester.**—MATERIALS.—Supply of (*a*) steel tramway poles; (*b*) span-wire brackets; (*c*) cast-iron bases; (*d*) copper and bronze trolley wire. Mr. Henry Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

MARCH 11.—**Salford.**—MATERIALS.—Supply of various materials, for the T.C. Borough Engineer, Town Hall, Salford.

MARCH 12.—**Birmingham.**—MATERIALS.—Supply to the Birmingham Tame and Rea District Drainage Board of paints and drysaltery, and timber. Engineer, The Rookery, Erdington Park, Birmingham.

MARCH 12.—**Eastbourne.**—MATERIALS.—For supply of road and other materials, for T.C. Mr. L. Roseveare, Borough Engineer, Town Hall, Eastbourne.

MARCH 12.—**Fulham.**—MATERIALS.—For supply of materials for various public services, for B.C. Mr. J. P. Shuter, Town Clerk, Town Hall, Fulham, S.W.6.

MARCH 12.—**Magor.**—MATERIALS.—Supply of broken limestone and gravel to the R.D.C. Mr. Wm. Dowler, Clerk, Union Offices, Queen's-hill, Newport, Mon.

MARCH 12.—**Manchester.**—RED TERRA COTTA.—For supply of red terra cotta for the Municipal High School for Girls, Church-lane, Harpurhey, for T.C. Clerk, Education Offices, Deansgate, Manchester. Deposit £1 1s.

MARCH 12.—**Rye.**—MATERIALS.—Supply of material for one year to the R.D.C. Mr. H. J. Elliot Surveyor, Winchelsea, Sussex.

MARCH 12.—**Shoreditch.**—MATERIALS.—Supply of road materials, brooms, &c., for one year, to the B.C. Borough Surveyor's Department, Town Hall, Old-street, E.C.2.

MARCH 12.—**Wellingborough.**—MATERIALS.—Supply of highway materials to the U.D.C. Mr. R. S. Henshaw Surveyor, Council Offices, Swanspool, Wellingborough.

MARCH 13.—**Strood.**—MATERIALS.—For supply of road materials, for one year, for R.D.C. Mr. L. Randerson, District Surveyor, Meopham, near Gravesend.

MARCH 13.—**Uxbridge.**—ROAD MATERIALS.—For supply of road materials, for the R.D.C. Mr. E. E. T. Bolton, Surveyor, Corn Exchange, Uxbridge.

MARCH 14.—**Aylesbury.**—MATERIALS.—Supply of broken granite and refined tar, for one year. Mr. R. C. F. Sizer, Surveyor, Aylesbury.

MARCH 14.—**Bishopthorpe.**—MATERIALS.—For supply of whinstone, slag and slag chippings, for R.D.C. Mr. C. C. Lucas, Clerk to the Council, 6, New-street, York.

MARCH 14.—**Warwick.**—MATERIALS.—For the supply of broken stone, slag, macadam, &c., to the Warwickshire C.C. Mr. D. H. Brown, County Surveyor, Northgate-street, Warwick.

MARCH 15.—**Edinburgh.**—MATERIALS.—Supply of cement, brick and fireclay goods to the Burgh Engineer's Dept. for six months. Burgh Engineer, Edinburgh.

MARCH 15.—**Edinburgh.**—MATERIALS.—Supply of paints, timber, tools, &c., for six months, to the Fire Engines Dept. Central Fire Office, Edinburgh.

MARCH 15.—**Edinburgh.**—MATERIALS.—Supply of materials to the City Architect's Dept. for six or 12 months. City Architect, Edinburgh.

MARCH 15.—**Harrow.**—MATERIALS.—Supply of granite chippings, tar macadam, limestone tarpaving, shingle, fodder, distilled tar, to the U.D.C. Mr. J. Percy Bennetts, Surveyor, Council Offices, Harrow.

MARCH 15.—**Marple.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. D. J. Driver, Surveyor, Council Offices, Marple.

MARCH 15.—**Riccall.**—ROAD MATERIALS.—For supply of road materials, for one year, for R.D.C. Mr. J. Townend, Clerk, Council Offices, Selby.

MARCH 15.—**Sevenoaks.**—MATERIALS.—For supply of road materials, for one year, for U.D.C. Surveyor, Council Offices, Argyle-road, Sevenoaks, Kent.

MARCH 15.—**Westhampnett (West Sussex).**—MATERIALS.—Supply of road materials to the R.D.C. Mr. A. W. Shorland, Surveyor, Council Offices, Pallant House, Chichester.

MARCH 17.—**Bredbury and Romiley.**—MATERIALS.—Supply of road and other materials to the U.D.C. Surveyor, Offices, Bredbury.

MARCH 17.—**Margate.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. E. A. Borg. Borough Engineer, 13, Grosvenor-place, Margate.

MARCH 17.—**Merthyr Tydfil.**—SUPPLIES.—For supply to the Board of Guardians for (1) Poor-Law Institution, Merthyr Tydfil; (2) Subsidiary Institution, Trecynon, Aberdare; (3) Central Homes, Llwydcoed, Aberdare, in bulk, of straw, haulage, boots and shoes, officers' uniforms, oils, paints, ironmongery, boot-making materials, leather, drugs, medical accessories, &c. Mr. F. T. James, Union Offices, High-street, Merthyr Tydfil.

MARCH 18.—**Faversham.**—MATERIALS.—Supply of pit flints (broken), shingle and fine gravel, to the R.D.C. Mr. J. G. Chittenden, District Surveyor, Ashford-road, Faversham.

MARCH 18.—**Hazel Grove.**—MATERIALS.—Supply of stone, chippings, and other materials for highways purposes, to the U.D.C. Surveyor, Council Offices, Hazel Grove.

MARCH 19.—**Burnley.**—MATERIALS.—Supply of highway requisites to the R.D.C. Mr. Frank Hewitt, Surveyor, 18, Nicholas-street, Burnley.

MARCH 19.—**Hollingbourn.**—GRANITE, &c.—For supply of 400 tons of granite and 1,500 tons of tar macadam, for R.D.C. Mr. F. Miskin, 33, Earl-street, Maidstone.

MARCH 19.—**Walthamstow.**—MATERIALS.—For supply of materials for various services, for U.D.C. Surveyor, Town Hall Annexe, Orford-road, Walthamstow.

MARCH 22.—**Pontefract.**—MATERIALS.—Supply of road materials to the T.C. Mr. J. E. Pickard, Borough Surveyor, Municipal Offices, Pontefract.

MARCH 25.—**Penarth.**—STORES.—For supply to U.D.C. of general stores, ironmongery and brushes, &c. Mr. J. W. Morris, Clerk, Council Offices, Penarth.

MARCH 31.—**Barnsley.**—FURNITURE.—Supply of school furniture for a new Central School, for the T.C. Mr. Evan Davies, Director of Education, Education Office, Barnsley.

NO DATE.—**Warrington.**—FURNITURE.—For the furnishing of the new offices, Museum-street, of the Board of Guardians. Messrs. William & Segar Owen, Palmyra-square Chambers, Warrington. Deposit £2 2s.

ENGINEERING, IRON AND STEEL.

MARCH 8.—**South Africa.**—POWER STATION.—For steel frame buildings for power station and equipment of power station, &c., for electrification of railways in the neighbourhood of Cape Town, for the Union of South Africa Electricity Supply Commission. Messrs. Merz & McLellan, 32, Victoria-street, S.W. Deposit £10 10s.

MARCH 8.—**Wrexham.**—FENCING.—For supply of 500 yds. of unclimbable iron or steel fencing, 6 ft. high, for Wrexham and East Denbighshire Water Co. Mr. F. Storr, Engineer, Waterworks Offices, 21, Egerton-street, Wrexham.

MARCH 10.—**Kirkcudbrightshire.**—BRIDGE.—For the construction in ferro-concrete on the Hennebique system of a new bridge over the river Dee at Kirkcudbright, and the removal of the existing iron bridge, for the C.C. Messrs. Blyth & Blyth, civil engineers, 135, George-street, Edinburgh. Deposit £3 3s.

MARCH 10.—**Poole.**—TRAINING BANK.—Construction of a proposed training bank on the South Haven side of the entrance to Poole Harbour. Mr. H. Kendall, Surveyor, Poole.

MARCH 12.—**Barnsley.**—ELECTRIC LIGHTING.—For the installation of electric lighting services in several elementary schools. Mr. Evan Davies, Director of Education, Education Offices, Barnsley.

MARCH 12.—**Blackburn.**—ELECTRIC LIGHTING.—For electric lighting installation at Orphanage. Secretary, Orphanage, Wilpshire.

MARCH 12.—**Leeds.**—ROAD PLANT.—Supply of one portable petrol-driven concrete mixer; one portable petrol-driven stone breaker, complete with elevators, screens, &c., and portable petrol-driven compressor provided with four pneumatic concrete breaking tools, to the T.C. Highways and Permanent Way Engineer, 1, Swinegate, Leeds.

MARCH 12.—**Madras.**—PUMPING PLANT.—Supply of sewage pumping machinery to the T.C. Messrs. J. Mansergh & Sons, agents, 5, Victoria-street, S.W. Deposit 10s. each of two contracts.

MARCH 13.—**Newcastle-on-Tyne.**—RENEWAL.—For the renewal of the floor of bridge No. 18, carrying New Bridge-street, Newcastle, over the Newcastle and Berwick Railway, for the London and North Eastern Railway Co. Branch Office of the Chief Engineer, North Eastern Area, Forth Banks, Newcastle-upon-Tyne.

MARCH 15.—**Leicestershire.**—BRIDGE.—For the widening of Sawley Cut Bridge, situated between Long Eaton and Castle Donington, for the Leicestershire C.C. Mr. J. E. Blackwall, County Surveyor, Grey Friars, Leicester.

MARCH 15.—**Lynton.**—SEWER PIPE.—For 282 ft. of 15 in. cast-iron sewer pipe, for U.D.C. Mr. A. F. Gibbs, surveyor, Town Hall, Lynton.

MARCH 17.—**Cheltenham.**—ROAD PLANT.—For plant for manufacture of asphaltic material, for the T.C. Borough Engineer, Cheltenham.

MARCH 17.—**Derby.**—BRIDGES.—(1) New bridge over River Dove near Monks Bridge on the Derby-Burton main road; (2) new bridge over the River Derwent at Baslow; (3) widening of bridge over the River Derwent at Rowsley: (4) new bridge over the Chesterfield Canal at Killamarsh, for the Derbyshire C.C. Mr. J. W. Horton, County Surveyor, Derby. Deposit, £2 2s. each.

MARCH 17.—**Soyland.**—BRIDGE.—Widening in ferro-concrete of Slitheroe Bridge, carrying the Oldham and Ripponden main road over the River Ryburn, within the Urban Districts of Soyland and Rishworth, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

MARCH 17.—**Swansea.**—BRIDGE.—Construction of new ferro-concrete bridge over the River Lliw at Gorseinon, for the R.D.C. Messrs. Morgan, Davies & Partners, civil engineers, 62, Wind-street, Swansea.

MARCH 19.—**Clacton-on-Sea.**—GROYNE.—For the construction of a concrete and timber groyne on the East Beach, for the U.D.C. Surveyor, Council Offices, Clacton.

MARCH 20.—**Congresbury.**—BRIDGE.—For the diversion of the main road and the River Yeo, and construction of reinforced concrete bridge at Congresbury, for the Somerset C.C. Mr. E. Stead, County Surveyor, 49, High-street, Weston-super-Mare. Deposit £2 2s.

MARCH 24.—**Middlesbrough.**—DOCKS, &C.—Construction of docks, wharves, landing-places, &c., at the site of the Ferry, for the T.C. Mr. Preston Kitchen, Town Clerk, Municipal Buildings, Middlesbrough. Deposit £5.

MARCH 24.—**Teignmouth.**—GAS WORKS EXTENSIONS.—(1) Retaining wall, 190 ft. long; (2) retort house and bench of 18 horizontal retorts; (3) carburetted water gas plant; (4) high pressure gas plant; (5) to lay a 4 in. steel main across the bed of the River Teign, for the U.D.C. Mr. H. Higham, Gas Engineer, Teignmouth.

MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W. 1.

APRIL 12.—**Wallingford.**—HEATING.—For the installation of new calorifiers, mains and accessory works in connection with the heating apparatus at the Institution of the Board of Guardians. Mr. P. C. A. Slade, Clerk, Union Offices, Wallingford, Berks. Deposit, £5 5s.

MAY 1.—**China.**—BRIDGE.—**The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference 11647/F.B./E.C./2.**

MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.

JULY 1.—**Chili.**—HARBOUR WORKS.—For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.

ROAD, SANITARY, AND WATER WORKS.

MARCH 8.—**Doncaster.**—WATER MAINS.—For the extension of water mains at Edlington, for the R.D.C. Mr. W. R. Crabtree, Surveyor, Nether Hall, Doncaster.

MARCH 8.—**East Dean.**—WATER MAINS.—For work of laying water mains over Soudley Brains Green and Blakeney Hill, on the south side of East Dean, and over Plump Hill, for R.D.C. Mr. W. Whitehouse, surveyor, Cinderford, Glos. Deposit £2 2s.

MARCH 8.—**Glamorgan.**—REPAIRS TO ROAD.—For carrying out for the Glamorgan Agricultural Committee repairs to the Drive, near Llandow Halt and Southerndown-road Station. Wages and hours clauses in contract. The County Land Agent, 30, Park-place, Cardiff.

MARCH 8.—**Heysham.**—ROADS.—For the widening of Longlands-lane and Crimewell-lane, for the U.D.C. Mr. H. Miller, Surveyor, Council Offices, Heysham. Deposit £1 1s.

MARCH 8.—**Neath (Glam).**—CONSTRUCTION OF SEWERS.—For constructing for the R.D.C. storm-water sewers, laying and jointing earthenware pipes, erection of manholes, gulley gratings, laying kerbing, channelling, paving, ballasting, and metalling, &c., required by private street works, with all other works requiring to be done in reconstruction of Rugby-street and Railway-terrace, Resolven. Mr. D. M. Davies, Surveyor, Council Offices, Neath. Deposit £2 2s.

MARCH 8.—**Northallerton.**—ROADS.—For surface treatment of 400 miles of main roads, for the North Riding of Yorkshire C.C. County Surveyor, Northallerton.

MARCH 10.—**Bradfield.**—ROADS.—For the repair of the district roads, for the R.D.C. Mr. C. Ford, Highway Surveyor. Station-road. Theale.

MARCH 10.—**Cambridge.**—SEWERS.—Construction of a sewer consisting of 500 yds. of 12 in. pipes and 1,828 yds. of 9 in. pipes, together with the necessary manholes, &c., from Cherry Hinton-road to Long-road, for the Corporation of the Borough of Cambridge. Borough Surveyor, Guildhall, Cambridge. Deposit £2.

MARCH 10.—**Clutton.**—ROADS.—For steam rolling, for the R.D.C. Surveyor, Hallatrow, near Bristol.

MARCH 10.—**Todmorden.**—ROADS.—For three road-widening schemes, for T.C. Mr. H. Crabtree, Borough Surveyor, Municipal Offices, Todmorden. Deposit £2 2s.

MARCH 10.—**Tynemouth.**—ROADS.—For private improvement works, for the T.C. Mr. John F. Smillie, Borough Surveyor, Tynemouth.

MARCH 10.—**Wakefield.**—ROADS.—(1) Treatment of 80 miles of road with bituminous dressing: (2) treatment of 80 miles of road with tar to Road Board Specification No. 1, and supply of materials to the West Riding C.C. West Riding Surveyor, County Hall, Wakefield.

MARCH 10.—**Wallingford.**—SEWAGE WORKS.—For construction of (1) engine house, pump well, filters, &c.; and (2) reinforced high level tank, at Didcot, for the R.D.C. Messrs. Howard Humphreys & Sons, 28, Victoria-street, S.W. Deposit £3 3s.

MARCH 10.—**Yeovil.**—WATER MAIN.—Laying two miles of 5 in. cast-iron water main, with a meter chamber, at Martock, for the R.D.C. Messrs. Martin & Roberts, 44, St. George's-square, Westminster. Deposit £2 2s.

MARCH 11.—**Barnsley.**—SANITARY.—Conversion of privies into water closets in the Oxford-street and New-street area, Ardsley, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

MARCH 11.—**Cramlington.**—SEWAGE WORKS.—For the construction of clinker sludge floor, providing and laying cast-iron and sanitary pipes (about 300 lin. yds. in all), and the erection of a small shed at the sewage works at Hartford, for the U.D.C. Mr. A. S. Dinning, 21, Ellison-place, Newcastle.

MARCH 11.—**Deal.**—ROAD WORK.—Widening Beach street, road, footways and parade, and constructing retaining walls for same, for the Corporation of the Borough of Deal. Borough Engineer and Surveyor's Office, 18, Queen street, Deal.

MARCH 11.—**Dublin.**—WATER MAIN.—For providing and laying a water main and accessories, for the R.D.C. Mr. G. Gallagher, Clerk, 1, James's-street, Dublin.

MARCH 11.—**Glasgow.**—ROADS.—Reconstruction of main road from Langloan to Airdrie, for the T.C. Mr. James Dalrymple, 44, Bath-street, Glasgow. Deposit £2 2s.

MARCH 11.—**Hoo.**—ROADS.—For widening and re-surfacing of 1,538 yds. of road, including the construction of 403 yds. of new roadway, for the R.D.C. Mr. J. Harvey, surveyor, Star Elm House, near Rochester. Deposit £3.

MARCH 11.—**Leeds.**—ROADS.—(*a*) Paving and concreting, &c., of portions of highway in Roundhay-road, Water-lane, Foster-street, Kirkstall-road; (*b*) paving and concreting, &c., of portions of tramway track in Kirkstall-road, Elland-road: (*c*) granited rock asphalte surfacing (labour and material) in Kirkstall-road. Highways and Permanent Way Engineer, 1, Swinegate, Leeds. Deposit £1 1s each schedule.

MARCH 11.—**Leeds.**—ROADS.—(1) Making-up various private streets: (2) making-up streets on the Meanwood and Hawksworth Wood housing estates: (3) laying of granited rock asphalte at the North and South-street improvement, for the T.C. Highways and Permanent Way Department, 1, Swinegate, Leeds. Deposit £1 1s. each section.

MARCH 11.—**Rochdale.**—SEWER.—For construction of 780 yds. of 36 in. and 30 in. diam. outfall sewer, with cast-iron and reinforced concrete pipes, together with 30 yds. of brick sewer 9 ft. diam., and an overflow chamber, for T.C. Mr. S. H. Morgan, Borough Engineer, Town Hall, Rochdale. Deposit £5 5s.

MARCH 12.—**Birmingham.**—DEEPENING BROOK.—For deepening brook of a length of about 1,184 yds. of the Hockley Brook, for the T.C. Mr. H. H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

MARCH 12.—**Dudley.**—ROADS.—For making-up roads, &c., at the housing estate, Dudley, for H.M. Commissioners of Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

MARCH 12.—**Fulham.**—ROADS.—For making-up and paving Colwith-road for B.C. Mr. A. F. Holden, Borough Surveyor, Town Hall, Fulham. S.W.6.

MARCH 12.—**Guildford.**—ROADS.—Construction of reinforced concrete road, for the T.C. Borough Surveyor, Guildford. Deposit £2 2s.

MARCH 12.—**Havant.**—SEWERS.—Laying 1,000 yards lineal of 8 and 9 in. stoneware pipe sewers, &c., for the R.D.C. Mr. A. E. Stallard, Council Offices, Havant. Deposit £2 2s.

MARCH 12.—**Hemsworth.**—SEWAGE DISPOSAL.—Extensions to the New Brunswick sewage works, near Ryhill, for the R.D.C. Mr. W. T. Lynam, Engineer, Council Offices, Rotherham-road, Hemsworth. Deposit £2 2s.

MARCH 12.—**St. Thomas.**—SEWAGE WORKS.—Construction of Woodbury sewerage and sewage disposal, for the R.D.C. Mr. E. H. Quick, Surveyor, 9, Bedford-circus, Exeter.

MARCH 12.—**Yeovil.**—ROADS.—For maintenance of district roads, road rolling, &c., for the R.D.C. Mr. C. R. Harding, Surveyor, 81, South-street, Yeovil.

MARCH 13.—**Middleton.**—ROADS.—For widening the Heywood-road, for the T.C. Borough Engineer, Town Hall, Middleton. Deposit £5 5s.

MARCH 13.—**Newport (Mon.).**—HAULAGE.—For day haulage work and stone haulage for the B.C. Trade union rate of wages to be paid to employees. Engineer (Works section), Dock-street, Newport (Mon.).

MARCH 13.—**Southend-on-Sea.**—ROADS.—For making up Herschell-road (Section 1), Percy-road, Westcliff-drive, Sidney-road and Gainsborough-drive (Section 2), for the T.C. Mr. R. H. Dyer, Borough Surveyor, Municipal Buildings, Southend. Deposit £2 for each road.

MARCH 15.—**Ashbourne.**—SEWERS.—For construction of 650 lineal yds. of 9 in., and 170 yds. of 6 in. glazed stoneware sewer, &c., for the U.D.C. Mr. D. Powell, Surveyor, Council Offices, Ashbourne.

MARCH 15.—**Bude.**—SEWERS.—For laying 925 lineal yards of 9 in. stoneware pipe sewer and 164 yards of 9 in. cast-iron sewer, for the U.D.C. Surveyor, Belle Vue-avenue, Bude.

MARCH 15.—**Chichester.**—ROADS.—For surface tarring of 500,000 sq. yds. of main roads, for the West Sussex C.C. Mr. H. W. Bowen, County Surveyor, Chichester.

MARCH 15.—**Edinburgh.**—ROADS, &C.—For repairs to causeways and foot pavements and supply of road and other materials to the Roads Dept. City Road Surveyor, Edinburgh.

MARCH 15.—**Hayes.**—ROADS.—For making-up Hayes End-road (approximate length 260 yards), for the U.D.C. Mr. D. C. Fidler, Surveyor, Town Hall, Hayes, Middlesex. Deposit £2.

MARCH 15.—**Inverness.**—ROADS.—For the re-surfacing of about four miles of the Perth-Inverness main road, for the Inverness C.C. Mr. Robert L. Shinnie, District Clerk, Kingussie. Deposit £2 2s.

MARCH 15.—**Litherland.**—SEWERS.—Construction of sewers and manholes on the Moss-lane Housing Site, for the U.D.C. Mr. George Ponsford, Surveyor, Council Offices, Litherland.

MARCH 15.—**Shoeburyness, Essex.**—ROADS AND SEWERS.—Making-up, sewering, &c., a road across a portion of their housing site at Dangers, Shoeburyness, Essex, for the Shoeburyness U.D.C. Mr. E. Read, Council's Surveyor, High-street, Shoeburyness.

MARCH 17.—**Hale.**—SEWAGE WORKS.—Construction of activated sludge treatment works, for the U.D.C. Mr. G. Midgley Taylor, 36, Victoria-street, Westminster, S.W. 1. Deposit £5.

MARCH 17.—**Hampstead.**—PUBLIC CONVENIENCES.—(1) Grangeway, Kilburn, (2) West-End Green, and (3) Fortune Green, for the Borough of Hampstead. Borough Engineer's Office, Town Hall, Hampstead. Deposit £1 1s.

MARCH 18.—**Billericay.**—SEWAGE WORKS.—Construction of humus tanks, &c., at the Billericay sewage disposal works, for the R.D.C. Surveyor, High-street, Billericay. Deposit £1 1s.

MARCH 19.—**Aspatria.**—WATER WORKS.—For (1) laying of 385 yds. of 4 in. and 5 in. diameter cast-iron pipes; (2) construction of a water tower in Hennebique ferro-concrete, at Prospect, for Water Board. Mr. J. J. Davison, 6, King-street, Wigton, Cumberland. Deposit £2 2s.

MARCH 19.—**Falmouth.**—SEWERS.—For laying 5,600 yds. of concrete tube, stoneware, and cast-iron pipe sewers, for the T.C. Mr. G. Midgley Taylor, 36, Victoria-street, S.W. Deposit £5 5s.

MARCH 19.—**Hollingbourn.**—TAR SPRAYING.—For tar spraying or surface dressing 28,500 super yds. of roads, for R.D.C. Mr. F. Miskin, 33, Earl street, Maidstone.

MARCH 19.—**Torquay.**—WATER MAINS.—Laying of 4 miles of 14 in. cast-iron pipes, special castings, and ancillary works, for the T.C. Mr. Samuel C. Chapman, Waterworks Engineer, Town Hall, Torquay. Deposit £2 2s.

MARCH 20.—**Belper.**—SEWER.—For laying about 280 yds. lin. of 9 in. dia. sanitary pipe sewer at Smithy Houses, for the R.D.C. Mr. Robert C. Cordon, Surveyor Duffield, near Derby. Deposit 10s.

MARCH 20.—**Egypt.**—WATER INSTALLATION.—For water installation at Fayoum. Dept. of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference, D.O.T., 12472/F.E./E.C. (2).

MARCH 22.—**Newton Abbot.**—WATER MAINS.—For laying about 5,269 yds. of 6 in. and 821 yds. of 4 in. cast-iron water mains, for the R.D.C. Mr. F. Horner, Clerk, Council Offices, 64, East-street, Newton Abbot. Deposit £2 2s.

APRIL 1.—**London.**—SEWER.—For the construction of about 1,400 ft. of 4 ft. and 2 ft. 8 in. brick sewer (mostly in tunnel), beneath St. Martin's-le-Grand and Aldersgate-street, for the City Corporation. City Engineer, Guildhall, E.C.2. Deposit £2 2s.

NO DATE.—**Kendal.**—FOUNDATIONS, &C.—For the foundations, roadways, carpenters' and plumbers' work required in connection with new works at Kendal. Mr. H. E. Scarborough, architect, 22, Lowther-street, Carlisle.

Competitions.

(*See Competition News, page* 370.)

Auction Sales, Tenders, etc.

✱MARCH 11.—**London, N.16.**—Messrs. Joseph Hibbard & Sons will sell, without reserve, by order of the Roads Repairing Co. and others, removed for convenience of sale, in their sale rooms, at 15, Newington-green, Islington, sawmill machinery and builders' plant. Auctioneers: 15, Newington-green, Islington, London, N.16.

MARCH 11 AND 12.—**Banbury, Oxon.**—Mr. F. H. Clark will sell without reserve at Banbury Filling Factory, Central Stores Depot, 423 (fourth section) of timber and building materials accruing from the demolition of the Filling Factory, Banbury, Oxon. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

✱MARCH 11 AND TWO FOLLOWING DAYS.—**London, S.E.**—Messrs. H. W. Smith & Moon will sell, at 89, Newington Butts, S.E., unreserved sale in consequence of the retirement from business of Mr. J. E. Whiter, extensive builder's and contractor's stock, plant and machinery, selected stock of well-seasoned timber. Auctioneers, 6, Great James-street, Bedford-row, London, W.C.1.

MARCH 13.—**Bloomsbury.**—Messrs. Veryard & Yates will sell, without reserve, at one o'clock, building material arising from demolition of Y.M.C.A. "Shakespeare" Hut. Auctioneers, 365, Norwood-road, S.E. 27.

MARCH 13.—**Dagenham Dock, Essex.**—Mr. F. H. Clark will sell, in conjunction with Hubert F. Finn-Kelsey, F.S.I., F.A.I., without reserve at Dagenham Dock, Essex. Central stores Depot No. 95, buildings, timbers, and materials contained in the National Box Factory, Dagenham Dock. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18, and Lyminge, Folkestone, Kent.

MARCH 18 AND FOLLOWING DAYS.—**Aldershot.**—Messrs. Joseph Hibbard & Sons will sell, without reserve, on the premises, Elms-road and Boxalls-lane (two minutes from Station), Aldershot, surplus stock of Messrs. George Kemp & Co., owing to amalgamation with A. H. Stroud, Esq., stock, plant, scaffolding, ironmongery, and sanitary goods, blacksmiths' material, concrete mixer, timber stocks, rolling stock. Auctioneers, 15, Newington-green, Islington, N.16.

✱MARCH 26.—**London, E.C.**—Messrs. Leopold Farmer & Sons will sell in lots, at the London Auction Mart, 155, Queen Victoria-street, E.C.4, freehold manufacturing premises and land, with valuable free water power, known as Hythe End Mills, Wraysbury, near Staines, Middlesex; the whole area of the property covers about 11 acres. Auctioneers, 46, Gresham-street, Bank, E.C.

✱MARCH 26.—**London, E.C.4.**—Messrs. Leopold Farmer & Sons will sell, at the London Auction Mart, 155, Queen Victoria-street, E.C.4, freehold building site, Tyssen-street, Dalston-lane, Dalston, N.E. Auctioneers, 46, Gresham-street, Bank, E.C.

✱APRIL 16.—**Kent.**—Messrs. Knight, Frank & Rutley will sell, at very low reserves, to wind up an estate, at the residence, Otford Court, close to Otford Station (unless previously sold privately), the residential and building property, Otford Court, the whole extending to an area of about 190 acres. Auctioneers: 20, Hanover-square, W.1.

MAY 6.—**London, W.1.**—**Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.**

Public Appointments.

MARCH 11.—**Mountain Ash (Glam.).**—ARCHITECTURAL ASSISTANT.—Architectural Assistant required in the Architect's Department by the Mountain Ash U.D.C. Education Committee. Mr. A. Morgan, Director of Education, Town Hall, Mountain Ash, Glamorgan.

MARCH 11.—**Southend-on-Sea.**—TOWN-PLANNING ASSISTANT.—Town-Planning Assistant required in the office of the Borough Engineer and Surveyor, Mr. Robert H. Dyer, Borough Engineer and Surveyor, Southend-on-Sea.

MARCH 14.—**Islington, N.1.**—CLERK OF WORKS.—Clerk of Works in connection with the erection of extensions to the Municipal Offices of steel-framed construction with reinforced concrete floors, for the Metropolitan Borough Council of Islington. Mr. C. G. E. Fletcher, Town Clerk, Municipal Offices, Upper-street, N.1, enclosed "Clerk of Works."

✱NO DATE.—**Sudan.**—Foreman of Works required by the Sudan Government Railways. Consulting Mechanical Engineer, Sudan Government Railways and Steamers, 9, Northumberland-avenue, W.C.2.

✱NO DATE.—**Weston-super-Mare.**—Architectural Assistant wanted at once, with experience in town-planning work. Temporary appointment. Mr. Harold A. Brown, Engineer and Surveyor, Surveyor's Office, Town Hall, Weston-super-Mare.

A Squash-Rackets Court.

A squash-rackets court, which can be erected in a very small area, has been designed by Messrs. G. H. Carter, Ltd., of 108, Hungerford-road, N.7, and one has already been installed at the Cavendish Club. These courts have brick walls covered with a special hard and moisture-absorbing self-coloured composition, the uniformity of which gives consistent speed in play. The lighting arrangements are also uniform, with an absence of glare. It is claimed that the elastic and non-slippery nature of the floor does not tire the players, and that the total cost of installing the court is small.

TRADE NEWS.

Builders' Lorries.

The lorry illustrated below was recently built by Messrs. Leyland Motors, Ltd., to the order of Messrs. Howell J. Williams, Ltd. The chassis is a standard three-ton model, fitted with 30-32 h.p. engine. On this is mounted a special frame-sided body, the sides being 18 in. high. For carrying long timber it is fitted with a forward gantry to protect the cab. This gantry is constructed of angle iron, the sides projecting 18 in. above the crossbar to prevent lateral slipping. The central bolster is constructed in trestle form,



secured to the floor with four iron brackets; it is thus easily removable in case of uninterrupted loading space being required.

Sell's Directory.

We have received from Messrs. Sell's a copy of their Directory for 1924 (thirty-ninth year). The volume contains the names, alphabetically arranged, of some 100,000 firms in Great Britain and Ireland, together with their postal address, telephone number, trade or occupation, and registered code word. A Trade Section is included in each volume, where the name and address of some 130,000 firms are classified under 3,500 trade headings. A new departure of interest to the building trade is to be found in a separate section in the volume, entitled Sell's Building Trades List, which gives, under some 500 trade headings, the names and addresses of the leading firms engaged in the building and allied trades in Great Britain and Ireland, together with special announcements of firms giving particulars of their business.

New Woolworth Building.

Messrs. Banister, Walton & Co., Ltd., possessing extensive works, well equipped with modern plant and appliances, executed their portion of this work in record time. Among several substantial contracts which Messrs. Banister, Walton & Co. have in hand there is the new office building in Manchester for the Bleachers' Association, Ltd.

They also, of course, recently completed the new Woolworth Buildings in Liverpool.

HARRIS & WARDROP

BUILDERS & CONTRACTORS

WALLWOOD ST., LIMEHOUSE, E.14

ESTABLISHED 1869

Telephone East 152

PROPOSED NEW BUILDINGS & OTHER WORKS.*

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABERAYRON.—Capt. Evans, Llyswen, is to erect eight houses.

ACCRINGTON.—Alternative plans for the erection of a new pavilion and shelter at Oak Hill Park have been submitted by the Borough Surveyor, and he has been instructed to proceed to carry out one of brick rough cast estimated to cost £600.

ALDERSHOT.—Plans passed by T.C.: House, Cranmore-lane, for Mr. J. Levitt; lavatories, &c., at Assembly Rooms.

ASHTON-IN-MAKERFIELD.—Plan was approved of a proposed lay-out of streets in Gaswood Park, between Liverpool-road and Warrington-road, for the Gaswood Estate.

BEDDINGTON.—Plans passed by U.D.C.: Two houses, Croydon-road, for Mr. W. H. Upson; bungalow, Stafford-road, for Mr. E. M. Swabey; two houses and shops, London-road, for Mr. J. J. Kent.

BEDFORD.—Plans passed by R.D.C.: House and shop, Bromham, for Mrs. Webster; bungalow-shop at Chawston, for Mr. H. A. Sanders.

BENFIELDSIDE.—Application has been made to the U.D.C., with respective specifications, by the Consett Iron Co., in respect of 70 houses on the Highgate Estate; one cottage in Consett Park, and 20 houses in Durham-road, Blackiyne.

BILLINGHAM.—The U.D.C. have passed plans for the erection of eight houses in Station-road, for Mr. H. Scotson.

BISHOP AUCKLAND.—The Durham C.E.C. have resolved to ask the B.E. whether they are prepared to consider plans for the construction of a new Grammar School, at an approximate cost of £20,000.

BLEYDON.—Plans passed: Messrs. J. E. & L. E. Hetherington, Newcastle, additions to Wesleyan Chapel, Winlaton; Mr. Henry Bowers, for 20 bungalows at Rowlands Gill; Mr. G. C. Johnson, seven houses at High Spen.

BOLTON.—Plans passed by T.C.: W. Orrell, four houses, Holden-avenue; Knowles, Ltd., pavilion, Church-road; B. T. Saunders, house, Church-road; Hooton & Rigby, three houses, Abbotsford-road; N. Critchley, house, New Church-road; R. Young, house, St. Michael's-avenue; Thos. A. Scowcroft, house, Green-lane; Leigh Bros., Ltd., 10 houses, Alexander-road; W. Reddyhough, four houses, Regent-road; A. Fenton, two houses, Withins-lane; Horrocks & Andrews, two bungalows, Wheatfield-street; E. A. Le Gendre Starkie, new streets, off Colenso-road; Earl of Derby, new street off Bury-road; J. Archer, bungalow, Withins-lane; C. Reddyhough, billiard hall, Gibbon-street; Morris & Owen, two houses, Withins-lane; J. Latham, two houses, Regent-road; Wilfred Johnson, for extension to premises, Market-street; Leigh Bros., Ltd., for four houses and shops, two semi-detached villas, Chorley Old-road; W. W. Pickup, 10 houses, Roland-road; R. Shippobottom, for house and shop, Hughes-street.

BOURNEMOUTH.—Plans passed by T.C.: House, Clarence Park-road, Mr. A. Scott; house, corner of Pine-avenue and Stourcliffe-avenue, Mr. E. R. Saunders; house, corner Boscombe Overcliffe-drive and Dingle-road, Mr. R. J. M. Nabney; house, St. Ledger's-road, Mr. C. V. Miller; two houses, Burleigh-road, Mr. M. Sellick; house, Namu-road, Mr. W. Stark; five houses, Elmes-road, Messrs. Jones & Sims; house, 32, Iddesleigh-road, Mr. J. South; house, St. Luke's-road, Mr. A. Barnes; house, Bethia-road, Miss E. M. Southgate; house, King Edward-avenue, Mr. G. Jones; house, College-road, Mrs. M. Carnegie; two houses, Carbery-avenue, Mr. J. Scott; two houses, Glenmore-road, Messrs. F. W. Burton & Sons; house, Chigwell-road, Mr. C. Newton; house and garage, Seafield-road, Mr. W. Hoare; two pairs of houses, Section A, Shirley-road, Mr. J. Drewitt; house and garage, Pinecliffe-avenue, Mr. C. F. Gowlland; house and garage, Dingle-road, Mr. R. J. M. Nabney; house and garage, Grand-avenue, Mr. R. J. M. Nabney; house, Harewood-avenue, Messrs. Midgley & Hardy; house, Watcombe-road, Mr. H. Filmer; house, Danesbury-avenue, Mr. H. Hewitt; house, Watcombe-road, Mr. A. Williams; house, Irving-road, Mr. A. Barrett; house and garage, Belle Vue-road, Mr. G. B. Barnes; three houses, Court-road, Mr. W. Moore; house, Chessel-avenue, Miss Sutcliffe; house, Irving-road, Mr. R. C. Slingsby; two houses, Sutton-road, Mr. R. Vickers; two houses, Green-road, Mr. G. C. Roberts; two bungalows, Namu-road, Mr. G. H. Burt.——In connection with the Pavilion Scheme, the Pavilion Committee recommends that tenders be invited for clearing the site of existing buildings. — The Christchurch B.G. has decided to make application to the M.H. for sanction to expend some £6,000 in enlarging the nurses' home at the Institution, and £785 in respect of the extension of the aged women's quarters.—The Council is applying to the M.H. for sanction to a loan of £4,500 for subsidies for 60 houses. A tender of £1,350 per block for seven blocks each of four houses is to be accepted, subject to approval of the M.H., which is to be asked to sanction a loan of £10,000 for the purpose.—The Bournemouth E.C. is asking the B.E. to approve the enlargement of the Stourfield Council School by an additional block of buildings; and the T.C. is to be asked to obtain the necessary sanction for a loan of £1,464 for adapting Lowther-road Hospital as a secondary school.——Mr. P. M. Crosthwaite, an inspector under the M.H., has held an inquiry into the application of the T.C. to borrow £30,000 for the construction of a new sewer outfall at Southbourne.

BRADFORD.—The City Council has decided to carry out a scheme of alterations to Usher-street School and Sandy-lane School, by making the former into four separate dwellings and the latter into three separate dwelling houses.——An important scheme is also to be carried out at the junction of Manchester-road and Little Horton-lane.

BRIDGEND.—The Council is to put in hand immediately work of constructing two foot bridges to recreation ground and will borrow £1,000, the sum estimated to be cost of construction. Other U.D.C. schemes, with estimates of cost, to be proceeded with shortly are Litchard sewer, £2,425; Brynteg sewer, £510; and Glanogwr sewer, £2,000 to £3,000.

BRIDLINGTON.—The M.H. has intimated that he is prepared to issue a provisional order for the extension of the Royal Prince's-parade, and for acquiring certain properties in connection therewith.

BRINSLEY.—Notts E.C. has approved of additions to the Council School, estimated to cost £2,100.

BROMLEY.—Plans passed by R.D.C.: Mr. E. C. Woods, house, World's End-lane, Chelsfield; Mrs. A. L. Summers, house, Footbury Hill-road, Orpington; Mr. J. Kent, three new streets, Grosvenor-road, Elysian-avenue, and Sutherland-avenue, Ladywood Estate, Chislehurst-road, Orpington; Mr. G. Williams, house, Crofton-lane, Orpington; Mrs. L. E. Murphy, bungalow at Strathcona, Sutherland-avenue, Cudham; Mr. J. W. Beagley, bungalow, Norheads-lane, Cudham; Mr. V. Bendall, bungalow, Village Green-avenue, Cudham; Mr. C. N. Cubitt, house, Barnet Wood-road, Hayes; Lord Avebury, conservatory, High Elms, Downe; Mr. E. Morris, bungalow, Main-road, Leeson's Estate, St. Paul's Cray.

BURNHAM-ON-CROUCH.—Messrs. Howes & Belcher, architects, of Westcliff, have forwarded to the U.D.C. a plan showing the suggested lay-out of the land on the river front to the west of Burnham, which Burnham Estates, Ltd., have acquired from the executors of the late Mr. B. Weekes. The company propose to build houses of a fairly good class on the river front, to sell at about £1,000 each, and to build houses, with large gardens, on the back land to sell at about £650 to £750.

BURNLEY.—The T.C. has been recommended to extend an improvement scheme at Glen View-road as far as Reynolds-street, at an estimated cost of £1,800. It is subject to a grant of 60 per cent. towards the wages' bill of unemployed men take on for the works.

BURY.—There has been a revival of the question of the erection of a town hall for Bury. The matter has been discussed by the Parliamentary, Furnishing, &c., Committee.

BUXTON.—Considerable extensions are proposed to the "Cat and Fiddle" Hotel to provide accommodation as a residential hotel.——The Bench has approved the plans for the proposed alterations to the Devonshire Hotel, submitted by Mr. H. R. P. Lomas.

CAERPHILLY.—The U.D.C. has agreed to terms for land acquisition for the purpose of erecting new Council offices and other public buildings.

CARMARTHENSHIRE. — The County Education Authority is to erect new school for 400 children at Llangennech.—The Lampeter Council is considering a comprehensive water supply scheme.

CASTLEFORD.—Plans passed: Two bungalows, Wheldon-lane, for the Yorkshire (West Riding) Tramways Committee; four houses and lock-up shop, Leeds-road, Castleford, for Mr. L. J. Gallagher; house, Smawthorne-lane, for Mrs. Belwood; house, St. Helen's-place, for Mr. H. England; slaughter-house, making-up room, &c., off Carlton-street, for the Castleford Co-operative Industrial Society, Ltd.

CHEADLE.—The U.D.C. has passed plans submitted by H. Simon, Ltd., for new works; and by the Oil Well Engineering Co., for an extension of works.——Mr. G. Westlake has submitted a plan of the lay-out of the Highgrove Estate.

CHESTERFIELD.—The Improvement Committee have approved the lay-out plans of the site and detail plans of buildings on the Chester-street town-planned area, in connection with the scheme of the Chesterfield Miners' Welfare Fund Society. The buildings will be of one story, and the principal will be a lecture hall to seat 350. In other parts of the institute will be a billiard-room, smoke-room, games-room, and reading-room. The main entrance will be in Ashgate-road, but the institute will abut upon a new road, to be named Springfield-avenue, giving direct communication with the Brampton district.—It has been decided to carry out a scheme of extension to the Royal Hospital with a new wing, which will comprise a new ward.——An annexe is to be added to Holywell House to accommodate the additional nursing staff, and the main kitchen is also to be enlarged.

CHORLEY.—The B.G. has decided to erect a mortuary at an estimated cost of £500.

CLITHEROE.—A plan of a bungalow to be erected near Chipping, for Mr. F. Hoyle, was approved by the R.C.

CONSETT.—The U.D.C. is proposing to obtain sanction from the M.H. for the erection of an additional 100 houses. The Council's architect, Mr. F. A. Coyle, has prepared plans and specifications for the houses, which are to be built at a low figure, the smaller type being estimated at £288 and the larger type at £335 each.

CROYDON.—Plans passed by T.C.: F. W. Cattermole, eight houses, and four houses and garages, Stanford-road; R. Weller, seven houses, Waddon and Courtney-roads; Holborow & Son, two houses, Pollards Hill South; F. Windsor, house, Manor Way; C. S. Banks, six houses, Morland-road, next No. 223; F. Robinson, two houses, Whitehorse-lane; T. H. Burgess, 10 houses, Grecian-crescent; Clout & Tysoe, 18 houses, Mayfield-crescent and Mayfield-road; F. H. Willcocks, two houses, Pollards Hill South; Paish, Tyler & Crump, two houses, 34 and 36, Selwood-raod, two houses, Fryston-avenue, and four houses, Addiscombe-road; J. Larner & Sons, converting house into two maisonettes, 260, South Norwood Hill; S. H. Laver, three shops, London-road, Norbury, 1 to 3, College Parade; S. Jefferis, 12 houses, Livingstone-road; L. White, seven houses, Totton-road; S. H. Palmer, store for builders' plant, Cliffe-road; J. S. Campbell, mess and packing rooms to laundry, 120, Selsdon-road; G. Bland, 12 houses, Limpsfield-avenue; Young & Macintosh, 24 houses and 23 garages, The Chase, Norbury; A. E. Stanger, house, Crown-lane. — The Housing Committee is promoting a new scheme for building cottages on its estate of 60 acres at Waddon, which was acquired.

DARLINGTON.—The R.D.C. have approved plans submitted as follows: Twelve houses at Barmpton-lane, and four houses at Whinfield, for T. E. Dougal; two houses at Neasham-road, for J. W. Redford; bungalow, for A. G. Cramp; two houses at Middleton-one-row, for J. W. Richardson; two houses at Denton, for Lord Barnard; 12 houses at Middleton St. George, for Mr. J. F. Bainbridge; bungalow at Yarm-road, for T. Turnbull; bungalow at Yarm-road, for A. Graham; two houses at Yarm-road, for H. Blackett; house at Station-road, Hurworth, for J. Smith; and four houses at Station-road, Fighting Cocks, for G. M. Graham.——The E.C. have received sanction from the M.H. for the appropriation of a site at Cockerton for the purpose of erecting a public elementary school.——The B.G. has decided to extend the Nurses' Home.

DERBY.—The E.C. is asking the T.C. to sanction plans for a new school on the Nightingale-road site.

DEWSBURY.—The Education authorities have decided to proceed with the erection of a new elementary school at Myrtle-road, Ravensthorpe.

DONCASTER.—The Brodsworth Main Colliery Co. has commenced operations with the erection of 550 houses on the Doncaster house site at Woodlands Model Village.

DUDLEY.—Plans passed by T.C.: Mr. D. Jakeman, two houses, Stourbridge-road, Scotts Green; Messrs. J. Duffy & A. E. Darby, two houses, Westley-street; Mr. James Dunn, bungalow, Gammage-street.

DUNDEE.—Plans and sections of proposed new buildings, &c., have been lodged at the office of the City Engineer: Glamis-road, house and garage, for W. Stirling Draffen; Lochee-road, institute, &c., for J. Sharp & Sons, Ltd.; Macdonald-street, governor's house, for the Dundee Gas Commissioners; Magdalen Yard-road, additions for the Managers of the Dundee Royal Institution for the Blind.

EARLESTOWN.—The vicar and wardens of St. John the Baptist's, Earlestown, were granted a faculty to complete the church by the addition of one bay and a tower, with bells and clock, at the west end. It was not intended to proceed at present with the erection of the tower beyond the height of the nave. The work now to be put in hand will cost from £3,500 to £4,000.

EASINGTON.—The B.G. are preparing a scheme for the erection of a new nurses' home.

EASTBOURNE.—The R.D.C. has granted a subsidy in respect of six houses to be erected by Mr. J. T. Wenham, at Priory Orchard, Langley.

EDINBURGH.—The Dean of Guild Court have passed the following petitions: Miss K. B. Anderson, bungalow at Woodhall-road, Colinton; G. W. Campbell, two semi-detached houses at Ainwickhill-road; T. S. Henderson, three bungalows at Blackhall; J. M'Gavin, three bungalows at Templeland-road, Corstorphine; Wm. Stewart, double bungalow at Riversdale-road, Corstorphine; R. A. Wilson, bungalow at Hyvot's Bank, Gilmerton; T. Young, bungalow at Saughton-road, Corstorphine; R. W. Forsyth, Ltd. extensive new buildings at 31-32, Princes-street and 3, St. Andrew-square.

EDMONTON.—A proposed lay-out plan for 250 houses at Park-avenue and Village-road, Bush Hill Park, has been approved by the U.D.C. The plan was deposited by Mr. L. Brown, on behalf of Mr. G. H. Stacey. Another plan deposited by the same gentleman, for the erection of 50 houses by Mr. Stacey, in the roads mentioned, has been passed also.

EPSOM.—The Council has provisionally agreed to erect 74 cottages in various parts of the area.

FELTHAM.—The Middlesex C.C. intends to provide a new school for 400 children.

FLANDERWELL.—The Dalton Main Colliery has decided to build 200 houses at Flanderwell on a site bordering the Dalton Brook, Ravenfield and Bramley parishes.

FOLESHILL.—Plans passed by R.D.C.: G. Pickering, 8 houses at Bedworth.

GLAMORGAN.—The Port Talbot B.C. Highways Committee recommends the Council to erect beach shelters to accommodate 1,000 people.

GLOSSOP.—Plans passed by T.C.: Pair of semi-detached houses, Newshaw-lane, for Mr. G. Guthrie and Mr. Albert French; pair of semi-detached houses, Ashes-lane, for Mr. Samuel Goddard.

GREASBOROUGH.—The U.D.C. has decided to seek the sanction of the M.H. to a loan of £6,800 for works in connection with the provision of the new sewage works to serve the village, and the Mangham area.

GREENOCK.—The Governors of the Ebe Infirmary have decided to proceed with the £5,000 extension scheme.

HARTLEPOOL.—Plan passed: Fitting shop and offices, for Irvine's Shipbuilding and Dry Docks Co.

HASLINGDEN.—Application has been made to the M.H. for sanction to the conditional purchase as sites for houses of land near Whitlet-street, the old football field, and land at Rising Bridge.

HEMSWORTH.—The M.H. has authorised the R.D.C. to proceed with the erection of a further 100 houses.

* See also our List of Contracts, Competitions, etc.

HURSLEY.—Plans passed by R.D.C.: House, Kiln-lane, Otterbourne, for Miss Lovegrove; house, Shaftesbury-avenue, Chandler's Ford, for J. W. Mann; house, Shaftesbury-avenue, Chandler's Ford, for W. Harris; house, North End, Chandler's Ford, for W. Bendell; house, Southampton-road, Chandler's Ford, for G. G. Edwards; bungalow, Baddesley Common, for J. Bishop.

ILFORD.—Plans passed by U.D.C.: Milbourne & Co., two houses and garages, 96-98, The Drive; E. Meredith, house and shop, Becontree-avenue; D. J. Barwell, six houses, 40-50, St. Luke's-avenue; Cottee & Parker, two houses and garages, 28-30, Wards-road East; Mrs. M. A. E. Jay, house, "The Billet," Longbridge-road; L. Barnes, eight houses, 1 to 6, Norman-terrace, Ilford-lane and 2A to 4A, Norman-road; E. Cannell, alterations to Pioneer Market, Ilford-lane; P. E. Brand, Ltd., house and shop and 16 lock-up garages, Beehive-lane; P. E. Brand, Ltd., six houses, 1 to 6, Chaucer-gardens; L. & N.E. Rly. Co., three lock-up shops, 1 to 3, Station Bridge, Seven Kings; S. A. McLean, house, 1A, Mitcham-road; P. E. Brand, Ltd., 29 houses, 2-58, Ethelbert-gardens; Sunnyside Development Syndicate, block plan of houses, 265-281, Kingston-road; F. D. Pipe, meeting-hall, Clements-road.

ILKESTON.—Plans passed by T.C.: Four houses, Church-street, Messrs. Stapleton & Sons; house, Little Hallam-lane, Mrs. L. E. Hallam; two houses, Manor-lane, Messrs. J. Briggs & Co.; house, New Lawn-road, Miss M. Wilson; house, Charlotte-street, Mr. S. Clemerson; two houses, Cantelupe-road, Messrs. Stenson & Chapman; bungalow, Little Hallam-lane, Mrs. L. E. Hallam; two houses, Little Hallam, Mr. Jas. Cooper.

KENDAL.—Plans passed by T.C.: House, Murley Moss, Oxenholme-road, Mr. W. M. Harris; extension of warehouse, Elephant-yard, Stricklandgate, for Messrs. D. Livingstone & Co.; warehouse, Benson-green, Stricklandgate, for Mr. W. D. Hayton; two cottages, Howard-street, Mr. Wm. Corbett; two cottages, Serpentine-terrace, for Messrs. Wm. Dixon & Son.

KILLAMARSH.—The C.C. has decided to construct a new bridge at Rock Hill with a total width of 39 ft.

LAWRENCEKIRK.—Plan passed by T.C.: Bungalow, Garroch-street, for Mr. A. Adamson.

LEEDS.—The Corporation Library and Art Gallery Committee have decided upon a site near the present housing developments at Harehills Terminus on which to erect a new branch library. Plans are to be prepared and tenders invited forthwith.——The Highways and Permanent Way Departments are inviting tenders for a very large area of roadway work, amongst which is included a large area of granited rock asphalte paving.

LEYTON.—Plans passed: H. E. Gardiner, six houses, Colchester-road.

LIVERPOOL.—Plans passed: Orchard-lane, for A. L Roxburgh, bungalow and garage; Holly Field-road, for Edward Townley, 23 houses; Aigburth-road, for C. Frederick, houses and garage; Townsend-lane, for G. Linacre, garage and house; Sinclair-drive, for T. Jones, two houses and garage; Garston Old-road, for H. J. Thomas, house: Mill Bank, for J. Lathom, house; Carnatie-road, for J. G. G. Johnston, house and garage; Lime-street, for City Billiard Co., conversion into billiard hall; Scotland-road, for Robinson Brewery Co., rebuilding of public house; Wavertree Nook-road, for R. Cleagh, four houses and shops; Greenhill-avenue, for T. W. Thomas, eight houses; Menlove-avenue, for Roberts, Jones & Co., two houses and garage; Courtland-road, eight houses; Queen's-drive for T. Jones, house and garage; Greenhill-road, for Roberts & Sloss, 10 houses; Whitehedge-road, for J. W. Griffiths, three houses; Warnerville-road, for Serrett & Davies, four houses; Stanley-gardens, for W. H. Furphy, 52 houses; Queen's-drive, for J. R. Ruddock, 10 houses; Derby-lane, for J. R. Ruddock, 14 houses; Corinthian-avenue, for J. R. Ruddock, 11 houses; Florantine-road, for J. R. Ruddock, 32 houses; Pallaviz-road, for J. R. Ruddock, 7 houses; Dacre-road, for J. R. Ruddock, 10 houses; Cornice-road, for J. R. Ruddock, three houses; Orchard-lane, for R. Musgrove, two houses; Whitehedge-road, for Hugh Hughes, 22 houses; Grey Drive-road, for W. Cousins, house; Garden-lane, for V. Porter, four flats; Silver Beach-avenue, for J. Darcy & Son, six houses.

LLANDUDNO.—The Board of Management submitted plans for extension and reconstruction, which would cost nearly £7,000, and provide room for seventeen more beds. The proposal was unanimously agreed to.

LLANELLY.—The B.C. has in consideration the following schemes:—Erection of school clinic, maternity home, public slaughter-house, erection of new school at Llanerch, improvement of Thomas-street.

LONDON (WOOLWICH).—The Commissioners of His Majesty's Works have decided to purchase land on the East Wickham Building Estate, Churchfield, and Lodge-lane, for the purpose of housing workers in the Arsenal.

LONDONDERRY.—The Committee of Management of Londonderry City and County Infirmary proposes to build an additional wing to the institution. The nurses' quarters will be enlarged so as to provide accommodation for the matron and twenty-five nurses, as well as the domestics. This will occupy the two floors, and the third floor will be used as private wards, containing a hundred beds.

LYTHAM ST. ANNES.—The Parks and Pleasure Grounds' Committee have considered the question of developing the land adjoining the Fairhaven Lake.

MANCHESTER.—The Manchester Parks' Committee have decided to erect bowl-houses and tennis pavilions, &c., at Broadhurst Park, Green Bank Park, Debdale Park, Bradford Recreation Ground, Chorlton-cum-Hardy Recreation Ground, Platt Fields, and a boat-house at Platt Fields, at a total cost of £11,345.

MERTHYR TYDFIL.—The B.C. has decided to apply for grants to carry out the following works:—(1) New road from Brynteg to Queen's-road; (2) connecting road between Winchfawr and Aberdare-road. The estimated cost of two schemes is £1,850. The Council will also embark on following works:—(1) Road widening on main road Merthyr Vale to T.V.R. station; (2) widening of main road at Fiddler's Elbow, Quaker's Yard, and (3) erection of new bridge over Taff river at Pontyrhun, Troedyrhiw.—The Council has called for estimates of a housing scheme for Dowlais district.

MONMOUTHSHIRE.—The Bedwas and Machen U.D.C. has received plans for houses to be erected by the Bedwas Navigation Colliery Co. for its workmen.—The Tredegar Council has approved plans submitted by Mr. W. Edgar Jones for proposed new institute and workmen's hall, to be erected by the Glanhowy School.

NEWARK.—The T.C. has decided to carry out a very important improvement scheme at the junction of the five cross roads at Beumond Cross. The adjoining property has been acquired and will be demolished to permit of the new curb line being set back a considerable distance.

NEWCASTLE.—With a view to completing two sections of the Walker Estate, the Housing Committee are recommending the City Council to invite tenders for the erection of 142 houses, and that these be obtained at a price not to exceed the housing architect's estimate of £59,816. They are also recommending the securing of tenders for roads and sewers, which are still uncompleted.——The B.E. has intimated to the E.C. they can proceed with the immediate erection of the Heaton Secondary School for 500 boys and 500 girls. The scheme will involve an expenditure of about £80,000.

NOTTINGHAM.—The Public Libraries and Museum Committee of the T.C. are recommending the erection of two new public branch libraries, one at Vernon Park, Basford, and the other for the Radford and Lenton districts, the estimated cost of both is £16,514.——It is also proposed to erect new public baths at Radford, constructed to permit of conversion into a public hall, estimated cost £7,700.——The E.C. has approved of the following: Two additional class-rooms at Haggonfields C. School, Worksop, at an estimated cost of £9,080.

OLDHAM.—Reconstruction, alteration and extension of accommodation in connection with the public lavatories in Market-place, Oldham, is projected by the Carrying and Cleansing Committee, at an estimated cost of £3,000. The Surveyors and Buildings Committee considered plans for 50 houses proposed to be erected at Greenacres. The Oldham Industrial Co-operative Society have in view the erection of a new roof on the Co-operative Hall and the extension of the premises across Marsland-street.

PEMBROKESHIRE.—The R.D.C. has submitted for approval and grant road schemes estimated to cost £2,875, and has applied for separate loan to proceed with reconstruction of Milford-Neyland road.

PRESTON.—In order to straighten out the awkward dog-leg turn in the new arterial road at Deepdale-road, Preston, the Corporation have decided to remove the existing lodge of the isolation hospital and set back the boundary of the hospital grounds in line with the northern boundary of the road. A new lodge and gates will be erected in the hospital grounds.—The Lancashire C.C. has been authorised to make provision for a new church, at a cost of between £3,000 and £4,000.—The Members of the Woodplumpton and District Village Club are proposing extensions to the club premises.

PORTSMOUTH.—A proposal to establish a cripples' hospital for the borough is under consideration, the idea being either to build an addition to the Royal Portsmouth Hospital or to erect a separate building on Portsdown Hill.—The B.C. is to widen the London-road by purchasing property from the War Department, the cost being estimated at £10,000, which the M.H. is to be asked to sanction.——The Beach Committee is considering the erection of one-roomed bungalows facing the sea on land near Southsea Castle and Clarence Pier.

READING.—The E.C. has approved a scheme for the rebuilding of Kendrick Girls' Secondary School at a cost of £20,500.

REDCAR.—The T.C. have received approval from the M.H. to purchase 20 acres of land for housing purposes, at a cost of £6,750. It was decided to ask permission to proceed with the erection of 100 houses.

ROSSINGTON.—The Main Colliery Co., Ltd., has notified the Doncaster R.D.C. of their intention to erect a large number of houses on the east side of the village of Wadworth.

ROTHWELL.—Plans passed by U.D.C.: House, for Mr. W. Brown; house, for Mr. Bedford; two houses, for Mr. Wilson; house, for Mr. B. Ward; house, shop and lock-up shop, for Mr. Hopton; housing site, Leadwell-lane, for Messrs. J. & J. Charlesworth & Co., Ltd.

RYE.—The T.C. has decided to approach the M.H. in regard to the rebuilding and widening of Tillingham Bridge.

SALFORD.—Plans passed by T.C.: Conversion of dwelling-house into shop and dwelling-house, 26, Great Clowes-street, Broughton; construction of lecture room, nurses' home, Hope Hospital, Eccles Old-road, Pendleton.

ST. HELEN'S.—The justices have agreed to the rebuilding of the "Nag's Head," Eccleston-street, for Greenall, Whitley & Co.

SHOREHAM.—An expenditure of over £4,000 has been sanctioned by Shoreham and Lancing Sea Defence Commissioners for groyning the eastern end of the foreshore.

SOUTHAMPTON.—Another church building scheme, which is meeting with support, is for the building of a permanent church of St. Agnes, with a seating capacity of 1,000, at an estimated cost of £20,000. It is still hoped by the Council that the M.H. will sanction the purchase of Byams Estate, Marchwood, for an isolation hospital site, at an estimated cost of £11,500.

SOUTHEND-ON-SEA.—Plans passed by T.C.: Five houses, The Grove, L. J. Simpson; bungalow, Theobalds-road, Twitchett & Co.; two bungalows, Oliviadrive, W. A. Gardner; house, Honiton-road, W. Ashley; bungalow, Ely-road, W. T. Cusdin; two houses, South-avenue, M. H. Fance; two houses, Marine-avenue, Leigh, Allen & England; bungalow, Burlescombe-close, F. W. Goldsworthy; four houses, Leighton-avenue, H. H. Puzey; two houses, Prittlewell-chase, Mrs. F. S. Best; three houses, Tankerville-drive, T. E. Gill; conversion of house into shop, London-road, A. A. Cardwell; lock-up garages, Leigh-road, Herritage, Bishop & Herritage; house, Chalkwell-avenue, G. A. Spencer.

SOUTHPORT.—Consent has been obtained from the M.H. for the granting of subsidies to enable the Corporation to make arrangements for the erection by private persons of 200 additional houses in the borough, and application has been made for sanction to borrow £10,000 for the purpose. Fifty of the houses will be built at Sandon-road, Birkdale. Plans and estimates are to be prepared for the erection of fifty small houses.——Application is to be made for sanction for a loan of £75,000, for the erection of an isolation hospital.

SOUTHWELL.—The R.D.C. has made application to the M.H. for sanction to borrow £7,500 for the purposes of a housing scheme of their own.

SPENBOROUGH.—Plans passed by U.D.C.: Bungalow, Westfield-lane, Scholes, for Mr. J. C. Phelon; 13 houses in the district.

STOKESLEY.—The R.D.C. have approved plans for the following: Bungalow at Great Ayton, for Mr. T. W. Burton; bungalow at Marton Moor-road, Nunthorpe, for Messrs. Potter & Humble; house at Stokesley, for Mr. Sweeting; house at Faceby-lane, for Mr. Hickson.

STRETFORD.—Plans passed by U.D.C.: Four houses and shops, Talbot-road, for Messrs. G. H. Brown & Son; 4 houses, Gorse-lane, for Messrs. G. H. Brown & Son; three houses, Burleigh-street, for Mr. Fred Thorpe; 111 houses, Marlborough-road, &c., for Mr. J. W. Maunders; house, Urmston-lane, for Mr. William Hy. Ellis; extension of works, Smith-street, for Messrs. Samuel Whittaker, Ltd.

SUNDERLAND.—The E.C. propose to extend the laboratory accommodation at the Technical College in order to enable them to secure affiliation to the University of Durham, and an expenditure of £7,500 is estimated for additional buildings and alterations.

TODMORDEN.—The M.H. has sanctioned a proposal of the T.C. to subsidise an additional twenty houses, and has agreed to a further loan of £2,000. Plans are also being prepared for non-parlour houses on the Ferney Lee site, the building to be carried out by contract.

TYNEMOUTH.—The Housing Committee have reported to the T.C. that the housing architect has been instructed to prepare a block and sketch plans for the erection of an additional 50 maisonnettes at Balkwell.

UPPINGHAM.—The U.D.C. has approved a scheme for the building of 72 houses. These are to be divided amongst the parishes as follows: Uppingham 20, Barrowden 6, Belton 2, Bisbrook and Glaston 4, North Luffenham 6, South Luffenham 6, Lyddington 4, Morcott 3, Preston 4, Ridlington 2, Seaton 6, Wing 6.

WALVERLEY.—The R.D.C. and the local E.A. are urging the B. of E. for the immediate provision of a new Elementary School at Walverley.

WARSOP.—In view of housing developments near the Welbeck Colliery, remaining sections of Netherfield-lane School are to be completed, giving additional accommodation for 408 children and a central hall, estimated cost £9,900.

WASHINGTON.—The R.D.C. have decided to make application for permission to erect another 76 houses on the Spout-lane site.

WEMBLEY.—The Wesleyan Methodist Church Council propose to erect a new church, with seating accommodation for 600 people, at an estimated cost of £12,500.

WEETSLADE.—The R.D.C. have approved plans submitted by their surveyor for the erection of an additional 16 houses on their housing estate at Annitsford.

WHITBY.—Plans passed by R.D.C.: Shop at Sleights, for Mr. H. Lawson (plans by Mr. A. E. Young); four semi-detached houses in Station-road, Robin Hood's Bay, for Messrs. Robinson, Randall & Emmerson (plans by Mr. J. Rickinson); bungalow on Egton-road, Aislaby, for Mr. John H. Watgate.

WHITLEY BAY AND MONKSEATON.—Plans for a further 58 houses have been approved by the U.D.C.

WIGTON.—The M.H. has held an inquiry regarding an application by the U.D.C. for an additional loan of £5,000 for sewerage and sewage disposal works.

WILLESDEN.—Plans passed by U.D.C.: St. Luke's Memorial Hall, Canterbury-road, Kilburn, by Mr. R. P. Kennedy, for the vicar of St. Luke's Church, Kilburn; house, 100, Dewsbury-road, Willesden, for Messrs. Pearce & Taylor; three houses, 80, 82 and 84, Brondesbury Park, by Mr. F. Stanley Allen, for Messrs. Western by Mr. P. J. Symonds, for Mr. J. C. Webb; 10 houses, Oxgate-gardens and Dollis Hill-lane, for Mr. F. W. Brealy; boiler-house, &c., Neasden-lane, Neasden, by Mr. H. Shaw, for the Neasden Waxed Paper Co.; workshop, Mordaunt-road, Harlesden, for Messrs. M. Greenwood & Son, Ltd.; four houses, Fleetwood-road, Dudden-hill, Willesden, by Mr. P. J. Symmons, for Mr. J. C. Webb.

WORCESTER.—The C.C. propose to reconstruct the Bilford-lane Canal Bridge at an estimated cost of £4,100, Bilford-lane Bridge over Barbourne Beck at an estimated cost of £2,050, and Lansdowne-road Canal Bridge at an estimated cost of £2,400, subject to the sanction of the M.H.

YORK.—Plans passed by T.C.: A. Jessop, house, Moorgate; C. Martin, two houses, Lime-avenue.

FIRES.

BANFFSHIRE.—The Public School of Sandend, near Portsoy, Banffshire, has been completely destroyed by fire.

BUCKIE.—A fire has occurred at the fish-curing premises of Mr. W. Hill, Low-street.

ROEHAMPTON.—A fire has occurred at Queen Mary's Convalescent Auxiliary Hospital for Limbless Men at Roehampton House, and a large range of buildings was destroyed.

ST. PANCRAS.—Great damage was done by a fire which has occurred at the works of the General Motor and Tyre Co., Caledonian-road.

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge. £ s. d.

Best Stocks 3 19 0
Second Hard Stocks 3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose ..	9 10 0
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick:—
2½ in. ..... 11 3 0 | 3 in. 13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
		Two Sides and one End	32 10 0
Headers	21 10 0	Splays and Squints	30 0 0
Quoins. Bullnose and 4½in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

s. d.		s. d.
2 in. per yd. super 2	3 in. per yd. super	2 11
2½ in. „ 2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6
51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above		0	10 0
Super Cement		4	8 0
Roman Cement		8	15 0
Parian Cement		5	15 0
Keene's Cement, White		5	15 0
„ „ Pink		5	10 0
Plaster, Coarse, Pink		3	0 0
„ „ White		3	12 6
„ Fine		5	12 0
Sirapite, Coarse		3	9 0
„ Finish		3	17 0
Grey Stone Lime		2	10 9
Chalk Lime		2	10 9
Best Ground Blue Lias Lime		2	13 6
Hair		17	0 0
Granite Chippings		1	12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.
Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-
YORK STONE, BLUE—*Robin Hood Quality.*	

Delivered at any Goods Station London.	s.	d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) ..... Per Ft. Super	5	3
6 in. rubbed two sides, ditto ..... „	5	9
3 in. sawn two sides slabs (random sizes) „	2	1½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... „	1	5½
1½ in. to 2 in. ditto, ditto ..... „	1	3

HARD YORK—
Delivered at any Goods Station London.

Scappled random blocks ..... Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) ..... Per Ft. Super	5 4½
6 in. rubbed two sides ditto ..... „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags .. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s.	d.
Plain ..... per ft. cube	6	6
Moulded ..... „ „	7	9
Cills ..... „ „	8	3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	225 0
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11 .... £38 10 | 1 × 9 .... £36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
⅞	23/-	1½	38/6
.....	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33 6
1½	38 6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

BATTENS

Inches	s.	d.
¾ × 2	2	4 per 100 ft.

SAWN LATHS.

Per bundle					0	2 10
Dry Wainscot Oak, per ft. super, as inch	0	2	0	to	0	2 6
¾ in. do. do.	0	1	6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9	to	0	2 6
Cuba Mahogany	0	3	0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0	0	to	50	0 0
American Whitewood planks, per ft. cube ..	0	1	4	to	0	1 6 0
Best Scotch Glue, per cwt.	4	10	0	to	—	
Liquid Glue, per cwt. ..	4	7	0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	
Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
{ Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work „ „	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ⅞ in...	13 10 0
⅛ in.	14 10 0	1 in. to 2½ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¼	11d.	3½d.
3½ in.	1/2¼	1/0¼	3½d.
4 in.	1/4	1/1¼	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¼	1/5½	5d.
O.G. GUTTERS.			
3 in.	1/6½	1/2¼	3½d.
3½ in.	1/6½	1/2¼	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¼	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

	Per ton in London. £ s. d.		£ s. d.
IRON—			
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g...	15 0 0	..	16 0 0
„ „ „ 24 g...	16 0 0	..	17 0 0
„ „ „ 26 g...	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in.	20 10 0	..	22 0 0

(under 3in. usual trade extras.)

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.) £ s. d.

LEAD—Sheet, English, 4 lb. and up 47 10 0
Pipe in coils 48 0 0
Soil Pipe 51 0 0
Compo pipe 54 0 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	35	0 0	.. —
Do., ex country, carriage forward ..... per ton	36	0 0	.. —

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps ..	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps ..	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.	
Strong Sheet .... per lb.	0 2 3	.. —
Thin „ .... „	0 2 4	.. —
Copper nails .... „	0 2 3	.. —
Copper wire .... „	0 2 4	.. —
TIN—English Ingots „	0 2 7	.. —
SOLDER—Plumbers' „	0 1 2	.. —
Tinmen's „	0 1 4	.. —
Blowpipe „	0 1 6	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes .... per gallon	0 4
„ „ „ in barrels	0 4 5
„ „ „ in drums	0 4 8
Boiled „ „ in barrels	0 4 8
„ „ „ in drums .... „	0 4 11
Turpentine in barrels	0 6 9
„ in drums (10 gall.)	0 7 0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	62 10 0
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	86 10 0
Red Lead, Dry (packages extra) .... per ton	50 0 0
Best Linseed Oil Putty ..... per cwt.	0 16 0
Filocol ..... per cwt.	0 15 6
Size, XD Quality ..... ßkn	0 3 0

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this li tis to give, as far as possible the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
26 „ thirds	7½d.	Enrilled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
Rolled plate	4½d.
Rough rolled	5½d.
¼ Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

Epstein Busts for Aberdeen.

The Art Gallery Committee of the Town Council, at a recent meeting, decided to purchase two bronze busts by Epstein—one of Mr. R. B. Cunninghame Graham, and the other entitled "Old Pinager."

These works of art were first shown in London and in the Leicester Galleries, where they are now on exhibition. They have been acquired at a price of £150 each.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND.

Edinburgh.—HOUSES.—The Dean of Guild Court has passed the following plans: Mr. A. H. Duncan, bungalow, Dumbrae-road, Corstorphine; Mr. A. E. Hasefield, villa, Barnton-avenue, Davidson's Mains; Mr. S. McKenzie, house, Haughton-road, Corstorphine; Mr. Alexander Raitt, bungalow, Dovecot-road, Corstorphine; Mr. J. Ross, bungalow, Dumbrae-road, Corstorphine.——The Housing Committee has agreed to recommend the T.C. to proceed with the erection of 1,000 houses at Lochend.

Kirkintilloch. — SCHOOL. — Dumbartonshire Education Authority has decided to erect a new secondary school in connection with St. Ninian's Roman Catholic School, at Kirkintilloch.

Broughty Ferry.—PAVILION.—The T.C. has asked the City Engineer to submit a report regarding the erection of a proposed pavilion.

Greenock.—BUILDING.—The Committee on Secondary Education has recommended the provision of a new building for Greenock High School.

Renfrew.—HOUSES.—The Board of Health has approved of the site decided on by the T.C. for the erection of 60 houses in Sandy-road.

Broughty Ferry.—TENEMENTS.—Erection of tenements for T.C. of Dundee. Applications to be addressed to Mr. J. Thomson, Director of Housing, City Chambers, Dundee.

Buckie.—HOUSES.—Painter work of seven blocks of houses in course of erection. Schedules from Mr. W. Hendry, Burgh Surveyor, or from Messrs. G. Sutherland and C. George, Architects, 26, Crown-street, Aberdeen.

Aberdeen.—CLUBHOUSE EXTENSION.—Extension of Deeside Golf Club house at Bieldside. Brown & Watt, Architects, 17, Union-terrace, Aberdeen.

MARCH 11.—**Kirkcaldy.**—EXTENSIONS.—Extension to Education Offices, Wemyssfield, Kirkcaldy, for Fife Education Authority. Particulars from Mr. G. Sandilands, Education Offices, Kirkcaldy. £1 1s.

CASTLE OF COULL UNEARTHED.

MR. W. DOUGLAS SIMPSON, M.A., F.S.A., lectured recently at Aberdeen on "The Rediscovery of Coull Castle." In the course of his remarks he said the important Castle of Coull, situated in the beautiful Howe of Cromar, between Aboyne and Tarland, was the chief seat of the great family of De Lundin, better known as the Durwards, hereditary Door-wards at the Scottish Court.

The Durwards erected three castles. Two, the Peel of Lumphanan and the Castle of Strachan, were moated and palisaded mounds of the earlier Norman type. The third, at Coull, forming the capital messuage and administrative centre of the barony, was a great building of stone and lime of the fashion just then coming into use in Scotland. During the War of Independence the castle was held for England, first by Sir John de Hastings and then by the Earl of Atholl.

After its desertion the ruined castle had become entirely buried, though at the end of the eighteenth century the remains were partly exposed during diggings made for lime. An account written on that occasion made it clear that the castle must have been an exceptionally large and powerful specimen of its class, and stimulated Dr. Marshall Mackenzie, when he acquired the property in 1912, to commence excavations on the site with a view to exposing the ruins once again. Interrupted by the war, the excavations had been resumed, at Dr. Mackenzie's request, by Mr. Simpson during last summer. The general result had been to recover one of the oldest and greatest of Scottish castles from burial and oblivion.

As exposed to-day, the buildings consisted of a courtyard 110 ft. in breadth, enclosed by walls varying from 7 to 18 ft. in thickness. Remains of three flanking towers had been revealed, one of which, forming the donjon or keep, was 32 ft. in diameter, and still existed to a height of 14 ft.

An interesting feature of this tower was that it had been greatly damaged at an early date, evidently by an attempt to undermine it, and had afterwards been clumsily repaired. In front of the main gate was a long, deep pit, hewn in the solid rock, which had been spanned by a drawbridge.

Bruce's well-known policy was to dismantle castles as soon as he recovered them, and Coull Castle was known to have been held by the English as late as July, 1305. At the end of 1307 Bruce invaded Aberdeenshire and won the battle of Inverurie. It was known that all the castles held for England were recovered in the following year. And although Coull Castle was not specifically mentioned, it was reasonable to assume that it had been captured and destroyed in that year.

Forthcoming Books.

In their list of books for the spring season Messrs. B. T. Batsford, Ltd., include the following:—"English Decoration and Furniture of the Early Renaissance," by Margaret Jourdain, being the first, yet final volume of the "Library of Decorative Art"; "The Story of Architecture," a popular outline, by P. Leslie Waterhouse, M.A.; "The Decorative Arts in England during the late Seventeenth and Eighteenth Century," by H. H. Mulliner; "Sketching in Lead Pencil," for students and architects, by Jasper Salwey, A.R.I.B.A.; "Building Construction Plates," for students, two parts, elementary and advanced, by A. Buchanan and W. H. Hudson; "A History of Ornament (concluding part) in Renaissance and Modern Times," by Professor A. D. F. Hamlin; "Colonial Furniture of the Pilgrim Century" (1620–1720), by Wallace Nutting; "Industrial Arts for Elementary Schools," by Bonsor and Mossman, with 280 illustrations; "Poster Design: A Study of its Recent Development in Europe and America," by Charles Matlack Price.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7	1/7	1/4½	1/6½		
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¼		
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½		
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2¾		
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½		
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—		
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½		
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2¾		
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2¾		
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2		
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/5½	1/1½		
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2¾		
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2		
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2¾		
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½		
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2¾		
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1 0		
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2¾		
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾		

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 392.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	„ „	7	6
Add if in floors 6 in. thick	„ „	3	6
Add if in beams	„ „	4	0
Add if aggregate 1 : 2: 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	„	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	„ „	9	0
¾ inch on flats in two thicknesses	„ „	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	„ „	21	6
Bath stone and all labour fixed	„ „	10	6
Portland stone fixed	„ „	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	„	80	9
Do. 24 in. × 12 in. Do. Do.	„	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	„ „	5	9	
Do. roofs, floors and partitions	„ „	6	3	
Do. trusses	„ „	8	3	

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	„	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	„	1	6
Gutter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	„		54/-	65/-	72/-
Do. matchings	„	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	„ „	3	9

DOORS.		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	„	2/5	2/8	2/11
Two-panel moulded both sides	„	2/8	2/11	3/2
Four-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	„	1/5	1/7	1/10
Add if cross tongued	„	2d.	2d	2d.

STAIRCASES.	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1½ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	„ „	6	0
Add if ramped	„ „	11	10
Add if wreathed	„ „	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).			
6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	„	20	0
Do. stanchions	„	23	0
In roof work	„	28	0

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	„	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	„	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	„	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	64	0
Do. Do. in flats	„	62	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	„ „	1	6
Copper nailing	„ „	0	6

	½″	¾″	1″	1½″	2″	4″
Drawn lead waste per ft. run	1/2	1/11	2/2	3/10	4/7	
Do. service „	1/10	2/5	2/10	4/3		7/6
Do. soil „					3/3	8/2
Bends in lead pipe each						
Soldered stop ends „	1/2	1/8	2/1	2/10	3/6	
Red lead joints „	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints „	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws „				14/7	19/6	
Bib cocks and joints „	6/4	9/7	15/4	41/-		
Stop cocks and joints „	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	„ „	2	4
Do. Do. Keen's	„ „	3	3
Add sawn lathing	„ „	1	5
Add metal lathing	„ „	2	3
Portland cement screed	„ „	1	10
Do. plain face	„ „	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	„ „	1	1
Obscured sheet	„ „	1	3
⅛ in. rolled plate	„ „	0	9
¼ in. rough rolled or cast plate	„ „	0	11
¼ in. wired cast plate	„ „	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	„ „	0	7
Plain painting 1 coat	„ „	0	9
Do. 2 coats	„ „	1	2
Do. 3 coats	„ „	1	9
Do. 4 coats	„ „	2	4
Graining	„ „	2	3
Varnishing twice	„ „	1	9
Sizing	„ „	0	3
Flatting	„ „	0	7
Enamel	„ „	1	1
Wax polishing	per foot sup.	0	6
French polishing	„ „	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1¼ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

HOUSING SCHEMES.

THE Ministry of Health recently issued the following statement :—

A conference was held at the Ministry of Health on the 19th ult., with representatives of the suppliers and producers of building materials. Mr. Wheatley, the Minister of Health, who presided, was accompanied by Mr. Shaw, the Minister of Labour; Mr. W. Adamson, the Secretary for Scotland; Mr. Greenwood, the Parliamentary Secretary of the Ministry of Health; and Mr. James Stewart, Under-Secretary for Scotland.

Mr. Wheatley explained that before launching its housing scheme the Government were anxious to obtain the co-operation of all sections of the building industry, so that they might be assured not only that the necessary labour, materials, and other facilities would be available to ensure that houses would be produced in sufficient numbers, but also that the houses would be provided at a fair and reasonable price. The Government wished each part of the industry to approach the question from the same point of view, namely, that no section should make an effort to secure improved conditions as a result of the launching of the housing scheme which it would not have been able to secure apart from that scheme. Mr. Wheatley hoped that it would be possible to devise means to carry out a programme of building through the ordinary organisation of the industry, and that this could be done in such a way as to make control unnecessary.

On behalf of manufacturers of materials the following representatives of important sections of the industry spoke :—

Mr. W. H. Wright, President of the National Building Brick Federation; Mr. Richard Jewson, Timber Trade Federation; Mr. Barlow, Northern Federation of the Building Brick Industry; Mr. John King, National Light Castings' Association; Mr. G. H. Richards, North Wales Slate Quarries; Mr. H. J. C. Johnston, Employers' National Council for the Clay Industry; Mr. P. M. Stewart, Cement Makers' Federation, Greystone Lime Burners' Association, Pressed Brick Makers' Association; Mr. F. G. Foster, Member, Mid-Yorkshire Lime Makers' Association, President, Sheffield and District Lime Makers' Association; Col. Foster, United Kingdom Lead Manufacturers' Association.

The speakers assured the Minister that the Government would have the whole-hearted co-operation of the materials' manufacturers of the country, and that there would be no attempt to advance prices as a result of the housing scheme.

A small committee was appointed by the representatives present to co-operate with the committee of the employers' and workers' organisation, which has already been set up with the object of submitting proposals to the Government.

BRISTOL BUILDERS' DINNER.

THE annual dinner of the Bristol Association of Building Trades' Employers was held recently. Mr. C. R. Setter presided, and amongst those present were the Lord Mayor, the Sheriffs, the Bishop of Bristol, the President of the Bristol Chamber of Commerce, the ex-President of the National Federation of Building Trades' Employers (Mr. W. H. Nicholls), the President of the Western Federation (Mr. E. P. Bovey), the President of the Bristol Society of Architects (Mr. W. S. Skinner), and the hon. secretary (Mr. W. J. Stenner), the Town Clerk, City Engineer, Docks Engineer, City Valuer, the President, Bristol Plumbers' Association (Mr. H. J. White), the President, Bath Builders' Association (Mr. G. Hayward), and the President, Clerks of Works' Association (Mr. C. H. Trevelyan).

Mr. C. F. W. Dening proposed "The National Federation of Building Trades' Employers," and said the Federation was on better terms to-day with architects and the allied professions than it had ever been. The spirit that pervaded the building trade to-day was anxiety for good work. Before they could tackle the rebuilding of Bristol it was necessary to have a comprehensive plan and a general lay-out for the development of the city.

Mr. W. H. Nicholls, responding, said the National Federation was looking to Bristol to play an increasing part in the Councils of the National Federation in the near future. Bristol had not done badly, but there was a great deal more it could do to help to grapple with the serious problems to be dealt with in the near future. So long as they had good homes they would have a contented people. But these things must be accompanied by economic business methods. In attempting to solve this question they had to be extremely careful that they did not ruin for ever the trade that for many years had provided the homes for the people.

In submitting "The Bristol Association of Building Trades' Employers," the Sheriff said the men in the trade had always done their part. There were great difficulties in the housing question, and some way must be found to surmount them.

In response, the President said they all felt their responsibility with regard to housing, but they wanted the public to feel that they had a responsibility towards the builders to make it possible for them to solve the problem. He believed they had arrived at a point when there could be co-operation.

In responding to "The Visitors," proposed by Mr. F. N. Cowlin, Mr. W. S. Skinner said that in Bristol they had one of the few architectural schools in the country, and it was doing very good work. Regarding housing, this would settle itself in a very short time if the trade unions would relax their rules and allow them to work as long as they would at piece-work.

Mr. L. S. McKensie (City Engineer), who also responded, said he was disappointed at the housing progress. It was the most serious and difficult problem before the country. Only 1,500 houses had been erected in Bristol since the war, and the slums had not been touched. More co-operation was needed to get the work done.

THE LONDON MASTER ASPHALTERS' ASSOCIATION.

ON February 29, the fourth annual dinner of the London Master Asphalters' Association was held at the Restaurant Frascati. Mr. G. Mitchell presided.

After the loyal toasts had been honoured, Mr. Francis J. Sim, in proposing the "London Master Asphalters' Society," said, although this was only their fourth annual dinner, it had been a very successful Association, and was recognised as being of the greatest value to all concerned. They were, in regard to the question of prices, concerned with keeping them at a suitable economic level, without undue fluctuations.

Mr. G. Mitchell, responding, said the success of the Association was due to the efforts of the preceding chairmen and officials concerned. He hoped the past dignity and character of the Association would be maintained, and that they would continue to work in harmony with allied associations.

After Mr. J. B. London had proposed "The Chairman," Mr. G. Mitchell, responding, said it was due to Mr. Cooper that the Asphalters' Association, which had one of the best names in the world, ever came into being. He hoped that in the future, as in the past, they would get along with the minimum of friction.

The "Immediate Past Chairman" was proposed by Mr. T. D. Cooper, who reiterated the necessity for binding themselves together even more closely, if possible, than in the past. Only on this basis could they maintain their past success.

After the "Immediate Past Chairman" had replied, Mr. S. D. Clements proposed "The Visitors," to which Mr. Alexander Ritchie replied.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BATH.—For the enlargement of Bloomfield Reservoir, for the T.C. :—
*Stephen Ambrose, Ltd. £1,800

BATH.—For erection of tea chalet in Royal Victoria Park, for the T.C. :—
*F. J. Amery & Sons £1,675

BATH.—For the erection of an elevated tank at Lansdown, for the T.C. :—
*Willmer Contracts, Ltd. £2,135

BEDFORD.—Alterations and additions to the present cloak room, Girls' Modern School, for the Governors of the Harpur Trust. Mr. George P. Allen, F.R.I.B.A., architect and surveyor, High-street, Bedford :—

J. Corby & Son.	£794 0 0
S. Foster	790 0 0
H. Bowler	757 0 0
*W. Laughton	744 14 9

All of Bedford.

BEDFORD.—Repairs, painting, decorating, &c., 77, High-street, for Messrs. Amies, of Stafford. Mr. George P. Allen, F.R.I.B.A., architect and surveyor, High-street, Bedford :—

F. Gale	£432 19
J. Corby & Son	424 5
H. Bowler	306 5
*S. Foster	295 10

All of Bedford.

BEDFORD.—For alterations and building new bath room for the Quantock's Boarding House, Linden-road. Mr. George P. Allen, F.R.I.B.A., architect and surveyor, High-street, Bedford :—

S. Foster, Bedford	£165 0
*J. Corby & Son, Bedford.	163 5

BLACKPOOL.—For alteration to premises in Lytham-street, for the T.C. :—
*R. W. Bonny & Sons

BOURNEMOUTH.—For materials required for public conveniences, for the T.C. :—

*Hathern Brick & Terra Cotta Co., Ltd.—*Ribbed Grey Vitreous Terra Cotta*	£1,614 12 9
*Shanks & Co., Ltd.—*Sanitary ware*	411 10 6
*Lockerbee & Wilkinson—*Locks*	173 5 0

BOURNEMOUTH.—For making-up Hawthorn and Old Priory-roads, for the T.C. :—
*J. Douglas £956

BOURNEMOUTH.—For the drainage of public conveniences on the Undercliffe Drive, for the T.C. :—
*Grounds & Newton £2,995

BOURNEMOUTH.—For heating of the "Tabernacle" at the Sanitary Hospital, for the T.C. :—
*Haden & Sons. £149 10

BRENTFORD.—For erection of caretaker's cottage and coach-house at the Isolation Hospital, for the U.D.C. Mr. J. W. Westlake, Surveyor, Council House, Brentford :—

G. Challis, Brentford	£925
F. D. Hidden & Co., Brentford.	920
*H. Goodman, Holloway	856

BRIDLINGTON.—For erection of shelters on Beaconsfield Estate, for the T.C. :—
*Whitehall Concrete Co., Leeds £4,670

CHELMSFORD.—For supplying and laying 240 yds of water main in Finchley-avenue, for the T.C. Mr. E. J. Miles, 16, London-road, Chelmsford :—

Henry Potter, Chelmsford.	£255
*W. & C. French, Buckhurst Hill.	190

CHESTERFIELD.—For erection of showroom for the Gas Department of the Corporation in Knifesmith-gate :—
*W. G. Robson, Sheffield. £4,825

CROYDON.—For widening of engine room, &c., at the Electricity Works, for the T.C. :—
*G. E. Everitt & Son. £4,515 15

DENHAM.—For the erection of a shed containing a milk room and sterilising room and a range of three pigsties on Rush Green Farm, Denham, for the Middlesex C.C. :—

A. & B. Hanson, Ltd.	£259
Grainge & Grainge	247
W. S. Try	240
*Y. J. Lovell & Sons	227

DERBY.—For the erection of an engineering laboratory at the Technical College, for the T.C. :—
*J. H. Fryer £2,478

DEVIZES.—For erection of villa, Caen Hill. Mr. C. H. Goater, "Wiltshire Times" Chambers, Trowbridge :—
*H. J. Batchelor, Wilts. £473

DORCHESTER.—For construction of shop front to premises in Great Western-road, for the Weymouth and District Co-operative Society :—

Watts Bros., Dorchester	£1,489
Theo. Conway, Ltd., Weymouth	1,487
Jesty & Baker, Weymouth	1,378
C. E. Slade, Dorchester	1,372
Jenkins, Hitt & Grant, Weymouth	1,364
J. F. Herridge, Dorchester	1,347
Pickett & Son, Dorchester	1,325

NDEE.—For erection of bridge at Kingsway, he T.C. :—

Orr, Watt & Co., Motherwell £14,517 16 6

DLING.—For erection of parlour-type three-oom houses, Priory-road. Mr. J. A. West, archi-, 22, Station-road, Carlton, Notts :—

T. H. Harper, Carlton £514

*Subject to variations in wages

OSFORTH.—For laying new sewers and formation adway on Coxlodge Housing Site, for the U.D.C. Geo. Nelson, Surveyor, Council Chambers, High-t, Gosforth :—

John Trough, Fulwell £1,175 18 6
Stanley Millar, Newcastle-on-Tyne 1,095 0 0
Wm. C. Fleck, Gosforth 920 5 0
Dyson, Lindsley & Co., Chester-le-Street 852 5 6
J. W. Robson, Gosforth 769 13 4
Elliott Bros., Newcastle-on-Tyne 736 0 0
H. Kindred, Swalwell 735 10 1
Edgar & Mole, Newbiggin-by-the-Sea 718 6 7
S. Oake & Co., Hebburn-on-Tyne 713 4 2
Blackett's Construction Co., Thornaby-on-Tees 712 0 0
Peter Harle, Newcastle-on-Tyne 703 9 8
G. E. Simpson & Co., Newcastle-on-Tyne 621 0 0
W. W. Franklin, Junr., Newcastle-on-Tyne 595 19 3

AWICK.—For relaying of High-street with ridged ite setts, for the Hawick T.C. :—

Improved Roads Construction Co., Ltd., Newcastle £14,722 2 2

AYWARDS HEATH.—For proposed alterations additions to the Birch Hotel. Messrs. F. W. Rees rcher-Betham, architects, 44, Park-lane, Croydon. ntities by Mr. W. J. Lewis, Ilford :—

Wallis & Sons £5,941
Trollope & Colls, Ltd. 5,771
Mullen & Lumsden, Ltd. 5,710
C. H. Gibson, Ltd. 5,400
Thomas White 5,241
Lewis, Helby & Tanner 4,492
Architects' Estimate 4,750

ERTFORDSHIRE.—For the construction of the fford by-pass road, for the Herts C.C. :—

Sir Robt. McAlpine & Sons.. £257,254 3 10

ONLEY.—For erection of detached residence at croft. Mr. J. Ainley, architect, 3, Chapel-hill, ddersfield :—

Mason—A. Hirst & Co., Honley £852 10 0
Joiner—B. Oldfield & Co., Honley 427 10 0
Plumber—F. France, Netherton 240 0 0
Slater—T. Allison, Ltd., Milnsbridge 98 9 0
Plasterer—E. S. Jessop, Honley.. 80 0 0
Painter—Spence & Co., Honley.. 24 6 0
Electric—E. Holroyd & Sons, Honley 36 18 6
Concretor—E. S. Jessop, Honley 64 0 0
Walling—D. Garside, Golcar.... 50 0 0

HUDDERSFIELD.—For construction of 1,388 lin-yds. earthenware pipe and cast-iron pipe sewers, varying from 5 in. to 12 in., for the T.C. Borough Engineer, 1, Peel-street, Huddersfield :—

Section A—The Provincial Construction Co., Ltd., Sunderland.
Section B—A. Graham & Sons, Huddersfield.

HULL.—For the erection of electric sub-station in Clarendon-street, for the T.C. :—

†Maxwell Holmes £5,025

ILFORD.—For erection of maternity home, excluding medical officer's house, for the U.D.C. (Revised tenders) :—

A. E. Farr £25,133
*S. E. Moss, Southend-on-Sea 25,050

ILFORD.—For the erection of the Becontree permanent school, for the U.D.C. :—

*Perry Bros., Ealing £34,367

KEIGHLEY.—For laying of granited rock asphalte in East-parade, for the T.C. :—

*Messrs. Tunstall's Seyssel & Limmer Rock Asphalte Co., Ltd., Leeds.

LEYTON.—For the erection of two covered play-sheds at Cann Hall-road School, for the U.D.C. :—

W. J. Cearns £1,235 10 0
W. J. Clemens 1,138 0 0
H. C. Horswill 1,096 0 0
E. A. Russell 1,095 0 0
R. J. Truscott 1,083 12 6
Clements (Grays), Ltd. 1,020 0 0
J. & J. Dean 998 0 0
*F. J. Coxhead 845 0 0

LICHFIELD.—For reconstruction of Whittington sewage disposal works, for the R.D.C. :—

*J. R. Deacon, Lichfield—Building work £1,179 0
*Tuke & Bell—Distributors 273 5
*Joseph Evans & Sons—Pumps.. 149 0

LINLITHGOW.—For laying about 1,500 yds. 4-in. cast-iron pipes, for the D.C. of West Lothian C.C. Messrs. J. & A. Leslie & Reid, 72a, George-street, Edinburgh :—

Topping & Co., Edinburgh..... £651 9 4
A. H. Robertson, Inverkeithing.. 602 17 8
R. C. Brebner & Co., Edinburgh 586 12 2
A. McNulty, Penicuik..... 555 8 6
Peter Adamson, Cowdenbeath.. 550 10 8
Casey & Darragh, Stirling..... 502 12 10
*John Hardie & Son, Bo'ness.... 424 15 0

LIVERPOOL.—For new warehouse for Messrs. Baxendale & Co., Ltd., of Manchester and Liverpool, to plans prepared by Mr. Gordon Hemm, architect :—

*Roberts & Sloss £10,835

LONDON.—For repairs and restoration work to the Westminster School Crimean Memorial, for the School Committee. Mr. George P. Allen, F.R.I.B.A., architect and surveyor, High-street, Bedford :—

T. H. Adamson & Sons, Putney..... £105

MANCHESTER.—For the construction of a sewer along Great Ancoats-street, Swann-street, and Rochdale-road, Manchester, for the Rivers Committee, Manchester Corporation :—

*E. Nuttall, Sons & Co., Ltd., Manchester..... £385,592

MEXBOROUGH.—For erection of 32 houses, Adwick-road, for the U.D.C. Mr. G. F. Carter, Surveyor, Council Offices, Mexborough. Quantities by Messrs. Gregory & Son, Colwyn Bay :—

G. Smith & Sons, Mexborough..... £591
O. Weaver, Mexborough..... 548
A. J. Pugh, Rotherham..... 535
Hanwell & Co., Rotherham..... 515
Lockwood & Worrell, Doncaster..... 490
*Meanby & Sons, Mexborough 485

NEWBURY.—For alternative tenders for 12 houses, including fencing and drains, for the Corporation. The Borough Surveyor, Municipal Buildings, Newbury :—

Edwin Wait, Newbury £6,365 0
Hoskings Bros., Newbury 6,300 0
Bunce Bros., Beenham 6,000 0
Camp Hopson & Co., Newbury 5,830 0
J. Smallbone & Sons, Streatley .. 5,670 0
*R. A. Wickens, Newbury 5,224 14

NEWBURY.—For the erection of 12 houses in Essex-street, for the T.C. :—

*R. A. Wickens..... £5,224 14

PETERBOROUGH.—For erection of 16 houses on Grange-road Estate, for the T.C. City Surveyor, Broadway, Peterborough :—

	Per Pair.
Guttridge & Sons, Peterborough.....	£1,193
T. Measures, Peterborough	1,135
J. Cracknell, Ltd., Peterborough	1,082
*R. S. Jellings, Peterborough	1,054

PORTSMOUTH.—For erection of pavilion at Milton Park, for the Corporation. Mr. A. W. Ward, Borough Engineer, Portsmouth :—

Jno. Croad £1,700
Howe & Bishop 1,612
John Lay & Co. 1,579
Jas. Crockerell 1,572
*Light Bros. & Flowers 1,567

PORTSMOUTH.—For erection of convenience at Great Salterns, for the Corporation. Mr. A. W. Ward, Borough Engineer, Portsmouth :—

Jno Croad £1,785
Light Bros. & Flowers 1,751
John Lay & Co. 1,684
*Jas. Crockerell 1,674

ROCHDALE.—For the construction of Rothesay-terrace and Neston-road, for the Housing Committee of the Rochdale T.C. :—

*R. & T. Howarth.

SALFORD.—For making-up part of Hafton-road, for the T.C. :—

*Bradshaw & Co. (Asphalters), Ltd. £860 0 3

SALFORD.—For the erection of five blocks of A type and four blocks of B type houses on the Littleton-road Housing Site, for the T.C. :—

*W. G. West, Stockport..... £16,698

SALFORD.—For sewering, &c., at Stanton, Winster and Beeston-avenues, for the T.C. :—

*T. Wilson £361 7 6

LONDON.—For the development of Bromley-road, No. 1 Section of Downham Estate, for the L.C.C. :—

Percentage quoted by Tenderer for addition to or *deduction from* (—) a schedule of prices prepared by the Council.

Name and Address of Tenderer.	Tender A. Council taking cost price risks.		Tender B. Contractor taking all risks.										Remarks.
			500 Houses.		1,000 Houses.		1,500 Houses.		2,000 Houses.				
	Houses.	Roads & Sewers.	Houses.	Roads & Sewers.	Houses.	Roads & Sewers.	Houses.	Roads & Sewers.	Houses.	Roads & Sewers.			
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.			
a Henry Boot & Sons (London), Ltd.	—1	—10	9	††	—	—	—	—	—	—			†† Not filled in.
Holland & Hannen & Cubitts, Ltd.	—2½	—2½	25	25	—	—	—	—	—	—			
P. & W. Anderson, Ltd.	Nil	Nil	12½+5	12½+5	—	—	—	—	—	—			
a Stewart & Partners, Ltd.	Nil	Nil	12.5	9½	—	—	—	—	—	—			
a Leslie & Co., Ltd.	1½	Nil	15	5	12½	5	10	5	10	5			
Unit Construction Co., Ltd.	2½	—3	27½	22	—	—	—	—	—	—			
R. Lehane & Co., Ltd.	1½	5	15	20	12½	20	12½	20	12½	20			
J. W. Ellingham, Ltd.	2½	5	12½	15	—	—	—	—	—	—			
Fred & T. Thorne	6½	—10	17½	12½	—	—	—	—	—	—			
R. L. Tonge	4	4	5	5	4	4	4	4	4	4			
a A. Vigor, Ltd.	3	9	18½	25	18½	25	18½	25	18½	25			
Walter Jones & Sons, Ltd.	5	3	15	12½	—	—	—	—	—	—			
Wilson, Lovatt & Sons, Ltd.	6	5	12½	11½	12	11	11½	10½	11	10			
A. & S. Wheater, Ltd.	6½	6½	10	10	10	10	—	—	—	—			
a Thomas & Edge	7½	5	12½	11½	12½	11½	12½	11½	12½	11½			For concrete houses—A. 10%; B. 15 %
H. Kent,	7½	7½	17½	12½	15	12½	15	12½	15	12½			
W. Saint, Ltd.	8½	8½	15	15	—	—	—	—	—	—			
F. J. Stanbury	9	15	15	20	14	19½	13½	19	13	18½			
c Allen Fairhead & Sons, Ltd.	9½	2½	15	9	15	9	14½	8½	14½	8½			Various qualifications
b Trollope & Colls, Ltd.	10	10	15	15	—	—	—	—	—	—			Do.
d W. Muirhead, McDonald Wilson & Co., Ltd.	10	10	22½	26	—	—	—	—	—	—			
c L. Rowbotham	12	—1	15	15	—	—	—	—	—	—			Tender limited to 500 houses.
Kinnear, Moodie & Co.	12½	12½	17	17	—	—	—	—	—	—			
W. Arnott, McLeod & Co., Ltd.	15	20	15	20	—	—	—	—	—	—			
S. Gee & Sons, Ltd.	20	25	25	30	24	30	23	30	22	30			
c J. Wills & Sons, Ltd.	20	50	30	60	—	—	—	—	—	—			Offer to submit alternative proposal.
Perry Brothers	25	25	35	35	35	35	33⅓	33½	33½	33½			
a Briggs & Son	25	40	38½	57½	—	—	—	—	—	—			
a Holloway Bros. (London), Ltd.	26	13½	27	15	26½	15	26½	14½	26½	14½			
c Balfour, Beatty & Co., Ltd., and F. G. Minter	28	25	50	45	—	—	—	—	—	—			Various qualifications
a Walter Lawrence & Sons, Ltd.	29	17½	32	19	—	—	—	—	—	—			
c W. Marlow & Sons, Ltd.	32½	5	45	17½	—	—	—	—	—	—			
W. Pattinson & Sons, Ltd.	33½	33½	33½	33½	—	—	—	—	—	—			

(a) Tenders A and B subject to adjustment for variations in wages.
(b) Tender B only subject to adjustment for variations in wages.
(c) Tenders A and B subject to adjustment for variations in wages and materials.
(d) Tender B only subject to adjustment for variations in wages and materials.

SALFORD.—Supply of 300 tons of lime, to the T.C. :—

*Buxton Lime Firms Co. £485

SALFORD.—Supply and erection of two fire escape staircases at Ladywell Sanatorium, for the T.C. :—

*A. Lees £187

SALFORD.—For sewering, levelling, and paving various streets, for the T.C. :—

*Thomas Wilson—

Street behind Wainman-street and Littleton-road	£300	0	9
Street behind Chinley-street and Wainman-street	201	8	7
Street behind Chinley-street and Waverley-street	168	15	7
	£670	4	11

*Whitehall Asphalt & Engineering Co., Ltd., Trafford Park ..

Ayrshire-road (part of).....	£1,181	0	11
Valencia-road	712	18	6
Ukraine-road	714	1	7
Mackenzie-road	1,017	18	10

SHARDLOW.—Erection of infirmary, for the Board of Guardians :—

*Stevens, Long Eaton £17,123 19

SHIELDHALL.—For construction of quay walls of new dock, for the Clyde Trust :—

*Shanks & McEwan, Glasgow £721,716

SHREWSBURY.—For erection of 24 non-parlour houses in Sultan-road, for the T.C. Mr. A. W. Ward Borough Surveyor, Guildhall, Shrewsbury :—

J. C. Vaughan, Oswestry £8,728

SOUTHPORT.—For asphalting Waterloo-road, for the T.C. :—

*Penmaenmawr & Trinidad Lake Asphalt Co.—10s. 7½d. per yd.

STRATFORD.—For preliminary road work at Seymour-grove housing site, for the T.C. :—

*Bethell & Sons £661 5 9

STRETFORD.—For reconstruction of carriageway in Chester-road, for the U.D.C. :—

*Bethell & Sons £2,444 7 5

STRETFORD.—For repaving Talbot-road, for the U.D.C. :—

*Bethell & Sons £20,448 8 3

WALTON-ON-THAMES.—For erection of assembly rooms for the Boy Scouts. Mr. G. B. Carvill, architect, Trafalgar Buildings, 1, Charing Cross, London :—

W. G. Tarrants, Ltd., Byfleet	£712
W. H. Gaze & Sons, Ltd., Kingston-on-Thames	653
E. Potterton, Weybridge	597
Nightengale & Pryor, Walton-on-Thames	595
Dillaway & Co., Kensington	587
Smith Ingram & Co., Ltd., Walton-on-Thames	579
*W. A. Annett, Walton-on-Thames.....	560

WATFORD.—For laying (*a*) 295 lin. yds. of sewer in Gills Hill-lane; (*b*) 260 yds. in Loom-lane and Batler's Green, for the R.D.C. Mr. E. Lailey, surveyor, 9, Market-street, Watford :—

F. Bracey (Roads), Ltd., Watford	(*a*)	£556	3	0
	(*b*)	720	3	6
Wiggs & Co., Radlett	(*a*)	579	0	0
	(*b*)	720	0	0
*Henry Brown, Watford	(*a*)	574	0	0
	(*b*)	668	0	0

WORKSOP.—For erection of school in Prior's Well-road, Worksop, for the Nottinghamshire E.C. :—

A. Richmond & Sons, Retford £13,200

YORK.—For fence for Fulford-road open-air school :—

*Armstrong Addison & Co., Sunderland £147 16 7

YORK.—For repairing greenhouse, asphalting, &c., at Fairfield Sanatorium, for the T.C. :—

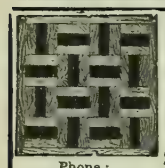
*W. Usher £209 15

YORK.—For alterations and repairs to stores at Foss Islands-road, for the T.C. :—

W. Fairweather & Son £240 4 10

YORK.—For making-up streets, for the T.C. :—

*C. Martin, Ltd., Chatsworth-terrace	£239	15	3
Berkeley-terrace	259	2	6
Back Chatsworth-terrace, S.E.	198	18	0



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THE BUILDER

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VOL. CXXVI.—No. 4232. MARCH 14, 1924.

THE ASSESSMENT OF COMPETITIONS

ONE of the chief among our purely architectural difficulties is that of the assessment of competitions. The present practice is provocative of so much recrimination and discontent that the whole system will have to be brought under review if the architectural competition is to hold what prestige it still retains. It must be understood that we cast no personal reflections when we say that the decision of the assessor or assessors must be final and conclusive and accepted as such by every competitor. The batsman does not dispute the umpire's decision, and the same rule must hold good in the more serious affairs of life. It is, of course, always possible that matters may come to such a pass that protest becomes desirable for the public good, and the fact that some competitors have recently come to the conclusion that this point has been reached shows that there is a strong feeling, at least in certain quarters, against the present regime. At the same time, if any changes are made those that make them should bear in mind the importance of binding every competitor to accept the award, on the ground that if he does not approve of the methods employed he should refrain from entering as a candidate.

Turning to the qualifications necessary in an assessor, obviously the main essential should be that he is acquainted at first hand with the problem to be solved. For example, it is clearly idle for an architect, however brilliant he may be as a designer, to judge a scheme for a concert hall if he is ignorant of acoustics, and so fails to take this vital requirement into account, or to judge a school or hospital if he knows little of school or hospital methods. These considerations would seem very obvious, but it is so often the obvious that is overlooked. The increasing specialisation of the day cannot fail to render older and more general methods obsolete. But while we avoid this Scylla, we must be careful lest we fall into the Charybdis of pure "practicality," and it would be fatal to good architecture if designs were selected solely for their practical efficiency. It is the extreme difficulty, one might almost say the impossibility, of getting one man who is sufficiently acquainted with the practical requirements in any given type of building and who is also a real judge of architecture that provides one of the strongest arguments in favour of the jury system.

We have always kept an open mind on the respective merits of the single assessor or the jury of assessors, but on one point there can hardly be two opinions. When competitors know who is to assess the designs, there invariably ensues a rush to find out his foibles, his peculiarities, and his weaknesses; frequently, anything he may have written is eagerly devoured, and the object of the competition—to produce the best building—is obscured behind a host of irrelevances concerning the whims of one particular man. This is the weakest point in the single assessor system, and it might to some extent be overcome by naming, say, three or four assessors, and stating that the judging would be undertaken by one of their number. This might eliminate the most serious objection to one man, but, as we have seen, it can still be argued that no one man can have the knowledge and the breadth of vision to select the design that is best as a whole. The one-man system, on the other hand, possesses certain advantages. He knows what he wants, and can select and weed out far more quickly than can a jury; he is easier to get hold of and cheaper to pay. The difficulty lies in finding the right man and in preventing candidates from knowing who that right man is.

Undoubtedly, the gravest objection to competitions generally is the great waste of labour involved in a multitude of competitors submitting what are really working drawings, and the practice of requiring only the simplest pencil drawings in the first instance, and reserving careful details for a final panel of selected candidates, should be extended. Unnecessary labour on the part of candidates should be ruthlessly eliminated, and any alterations in the conditions avoided after competitors have begun work. The conditions should be explicit and final. The showers of questions that we so often see answered in what is virtually a supplementary list of requirements are sure evidence of a slovenly schedule of conditions in the first instance.

Whatever may be said of the system of allotting marks for the different aspects of the design—plan, elevation, &c.—it is hard to justify the giving of marks for the draughtsmanship and rendering generally. If a design is calculated to produce the finest and most suitable building it would seem absurd deliberately to build a slightly inferior building solely because it was better drawn on the original plan. It can only be through the drawing that an assessor can tell that certain plans and elevations, &c., are the best designs submitted, and surely if the drawing can prove that it is all that ought to be required of it. It could be of no satisfaction to a future generation to be told that its museum would have been a better building but for the excellent quality of the drawings that produced the inferior reality!

One of the stumbling blocks in the way of instituting a system of juries is that of remuneration, but given that system we would suggest that just as the citizen has to sit on ordinary juries with either no remuneration at all or at best with only a trivial sum, it should be agreeable to the architect, with the privilege of an assured reputation and a responsibility towards architecture, to sit on a competition jury at a low rate of payment; that is to say, low enough to make the jury practicable to those promoters of competitions who wish to employ it. This suggestion is not new, but it merits the serious consideration of the profession. It is astonishing how much time architects are prepared to spend gratis in attending meetings of importance to the profession without prospect of return, and since architecture itself takes precedence over the profession that practices it, it should not be hard to surmount the difficulty of paying a jury where the jury system is adopted. Whether or not it is considered desirable to substitute the jury system for that at present in operation, we believe that the whole question of competitions should be reviewed not only in order to attract the best work, but also to retain public confidence, without which the whole competition system must be worse than useless.

Since the above was written we have received, and give on p. 421 a draft revision of the R.I.B.A. Regulations for Architectural Competitions.

NOTES.

Lord Curzon's Address.

The opening by Lord Curzon of the Architecture Club Exhibition at Grosvenor House on Tuesday was a successful event upon which the Club may well be satisfied. Before an audience which included many well-known architects, Lord Curzon delivered an address of much charm and sagacity, which showed a knowledge of architecture not usually possessed by an "amateur," as he styled himself, even when "deeply interested" in architectural work. There was much in the address which could not fail to be stimulating to architects, especially his concluding remarks on what to avoid, and his belief that although there is, perhaps, some decline in the knowledge of and interest in architecture shown by those now representing the old-time patrons of the arts, there is appreciation shown by a far larger public, due in part to the architectural Press. This is, we hope and believe, a well-founded conclusion which will give encouragement to the Royal Institute of British Architects and other bodies, as well as the Club. We can all agree with Lord Curzon's references to the beautiful old cottages to be found all over the country; but the suggestion he made, in contrasting these old buildings with modern cottages and villas, that perhaps the modern cottages are not the work of architects, hardly does justice to the architects of many delightful cottages built in recent years; though in saying this we are not forgetting the others, and these, no doubt, Lord Curzon had in mind.

At the A.A.

Mr. Goodhart-Rendel's talk on "the Gothic Survival," at the A.A. on Monday night, provoked a stimulating discussion, although the lecturer's extraordinary memory and amazing research tended, perhaps, to scare his adversaries from giving him battle on his own ground and restricted them to generalities. It was generally agreed that it is indefensible to design a building that by the nature of its requirements is hopelessly assymmetrical and to force it into a symmetrical classical form, and the lecturer maintained that it has been the survival of the Gothic spirit in England that has helped to keep us free from the cramping classical symmetry that has been adopted by so many other countries. It was rather taken for granted that we are reverting to the classical, but are we not really trying to frame an expression that is neither one thing nor the other—an expression that selects from every style that which meets our present needs, but that throws the rest overboard? Mr. Goodhart-Rendel wisely reminds us that although we may not admire nor wish to imitate the work of the Gothic revival, yet there is a great deal that we can learn from that movement in the direction of freedom and plasticity; but, above all, let us remain English and retain our characteristic insular prejudices!

St. Paul's Bridge.

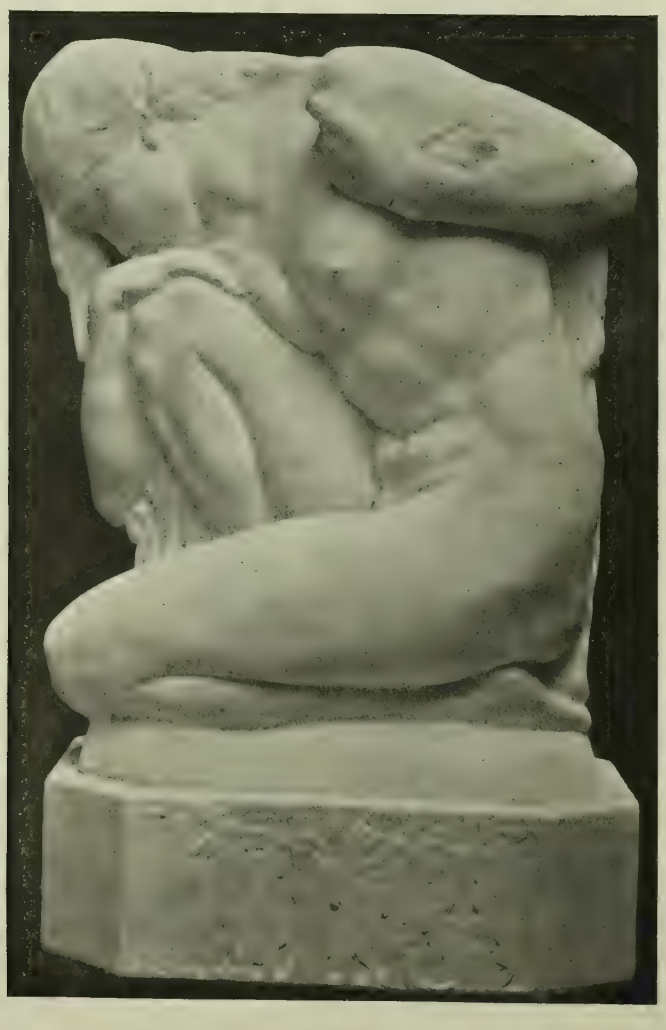
Little encouragement could be felt from the reception of the deputation from the London Society, the R.I.B.A., the Town Planning Institute, and the Architecture Club to the Minister of Transport, Mr. Harry Gosling, M.P., on Tuesday. The Minister said it was asking a big thing to go back on the Government's previously promised support; but Mr. Rees Jeffery's objection to the City being turned into a traffic corridor remains unanswered. Who or what there is to save London from this unfortunate enterprise it is difficult to see.

Competition Conditions.

One important item in the revised list of regulations for Architectural Competitions, just issued by the Institute, is the insistence on the appointment of an assessor, or assessors, of architects of acknowledged standing, who shall review the whole of the designs, and whose award shall lead to the appointment of the first-placed competitor as architect. But, obviously, a coach and four may be driven through all precautions, and an ecclesiastical architect of "acknowledged standing" might be called upon to settle the design of a hospital or an intricate commercial undertaking. And the descriptive title "of acknowledged standing" might imply that the "standing" and the "acknowledgment" involved artistic capacity. Our experience tells us that the acknowledgment of artistic power is a fragile bridge to fame.

Building from Structure.

The lectures which Professor Richardson has delivered at three of the most important educational centres in the country are a valuable contribution to the study of present-day architectural development in the light of a definite structural principle instead of the haphazard methods which so largely obtain. Structural principles must surely figure largely in our architectural outlook, and should never be ignored; but it would be a mistake to pretend that these alone are a sufficient guide. If we have no instinct for beauty and distinction within ourselves we shall only be working with dry bones, and it is from those who have the artistic, whether instinctive or acquired, that we can hope to receive that



"The Unfolding of Spring." (In Marble, Life Size.)
Mr. Gilbert Bayes, Sculptor. (*See p.* 409.)



Figure on the Todmorden War Memorial.

Mr. Gilbert Bayes, Sculptor.

vivifying influence that shall make the dry bones to live.

Clopton Bridge. The plea recently put forward by the S.P.A.B. for the preservation of the ancient bridges of England is one worthy of the most sympathetic attention, but the particular instance of Clopton Bridge derives importance not only from its architectural character, but its association with Shakespeare's birthplace. Unfortunately, it lies in the way of much traffic, being a link on the main road from Birmingham to London, and is no longer adequate for present-day traffic. All this may be granted without admitting any claim arising out of it justifying any alteration of the bridge, especially as a new bridge can be constructed a little higher up the river to meet the requirements of traffic. It has the advantage also that the old bridge could then be restored to its original condition, and the cast-iron bracketed structure removed, which disfigures it so much at the present time. We are glad to learn that an interview has been arranged with the Minister of Transport and the S.P.A.B. in which the Society is putting forward the claims of these old bridges for preservation. Clopton Bridge was built a century before the birth of Shakespeare, and is a fine example of fifteenth-century bridge building.

Influence of Materials. An interesting paper read by Mr. C. E. N. Brome-head before the Royal Geographical Society on "Natural Resources in Relation to the Arts," dwelt on the influence of local materials on building and their importance to architecture, as directing its style; varying in different localities according to the rocks and minerals available. In his reference to concrete the lecturer perhaps did less than justice to its claim to evolve a treatment that was native to itself in saying that most of the work done in concrete was in imitation of stone. We think that concrete building has already established definite characteristics of its own, and that in this way it can give a good account of itself, and it is because of the architectural features developed through its use that it has attracted so much attention at the present time, no less than for its general adaptability as a building material.

The Superstition of Materials. It was peculiarly characteristic of Victorian times to place the emphasis on the wrong thing, or rather, perhaps, to place our values on material things. We should be sorry to deprecate a good standard of materials for working in, but we may erect this into a superstition, if we have only eyes for English oak and Portland stone, and vest the merit not on the excellence of its use but on the material itself. So when we consider the decorative treatment of the new premises in Cavendish-square, which we illustrate this week, we are glad to notice that the figures in relief executed by Mr. Gilbert Bayes are fashioned in cement. The artist knows how to make materials yield to his will, and discovers the possibilities lying in them. Cement is a material of the kind and its use for sculpture and outside work is full of possibilities. In resorting to materials of less cost in initial outlay, an impetus will be given towards the decoration of our streets, and we are glad to see an example of this new decoration on these premises.

The late W. H. Ward. By the death of Mr. W. H. Ward the profession loses one of its most gifted representatives whose work will live after him—not, as with other architects, in bricks and stones, but in at least an equally permanent form as an architectural historian. His great work on the "Architecture of the French Renaissance," put him in the front rank of architectural writers and gave him a deservedly high reputation as an original thinker with a gift of lucid expression. Like many other exceptional men he had a retiring disposition and was not, perhaps for that reason, as well known to the public as he should have been, but his intimate friends and all who knew him will deeply regret the loss of a gifted and lovable man.



Della Robbia-ware Decorative Panel from "Children's House," Bow.

Mr. Gilbert Bayes, Sculptor. (*See p.* 409.)

GENERAL NEWS.

Professional Announcements.

Mr. Wilfrid L. Evershed has resigned his position with H.M. Office of Works and taken offices at 51, High-street, Guildford. He will be pleased to receive copies of catalogues and prices.

The name of the architectural and surveying firm of Messrs. Ralph Booty and Co., is changed to Messrs. Booty and Edwards. Singapore address, Winchester House, Singapore; Colombo address, Architect's Office, New Town Hall Site, Colombo; London agents, Messrs. Theobald & Gardiner, 96, Gower-street, London.

Ferro-Concrete Lions.

The six lions which will flank the broad flight of steps leading up to the portico of the Government Pavilion at Wembley are made of concrete. They have been designed on a massive scale and will be 20 ft. long and 8 ft. high, and are conventional adaptations of the lions in Trafalgar-square. They were first modelled on a small scale. The first model was 1-24th full size, the second 1-4th full size. The full-size lion is cast in no more than twenty-five moulds, each interlocking with the other. The casting takes three days, and the setting three days.

New Lake at Eastbourne.

The Eastbourne Council has received sanction for the construction of a model yachting lake, at a cost of £10,000, at the Crumbles, Eastbourne. The Council also propose to erect 178 houses, while a municipal golf links is contemplated.

R.W.A. Architectural Exhibition.

Eight of the sets of drawings which were submitted for the final round of the Victory Scholarship Competition (£100 and a gold medal awarded by the Society of Architects) were recently exhibited at the studios of the Royal West of England Academy School of Architecture, Bristol. Two students from the R.W.A. School, Messrs. A. J. Saise and R. H. Brentnall, were chosen from forty competitors, representing the architectural schools of the kingdom, in the preliminary competition. Mr. Eustace H. Button, who recently passed his final R.I.B.A. examination at the head of the year's list for the British Empire, and won the Ashpitel Prize with distinction in thesis, is now on the staff of the school.

New Bridge Over the Tyne.

The Newcastle City Council recently resolved to promote a Bill in Parliament, in conjunction with Gateshead, for the construction of a new bridge over the Tyne connecting the two towns.

Board of Architectural Education.

An exhibition of successful designs submitted in answer to the bi-monthly problems in design will be held at the R.I.B.A., 9, Conduit-street, W.1, from March 15 to March 22 inclusive, between the hours of 10 a.m. and 6 p.m. (Saturdays 10 a.m. to 1 p.m.).

Obituary.

Mr. Edward James Shrewsbury, A.R.I.B.A., who died recently in Maidenhead Hospital, was one of the founders of the Berkshire Archæological Society.

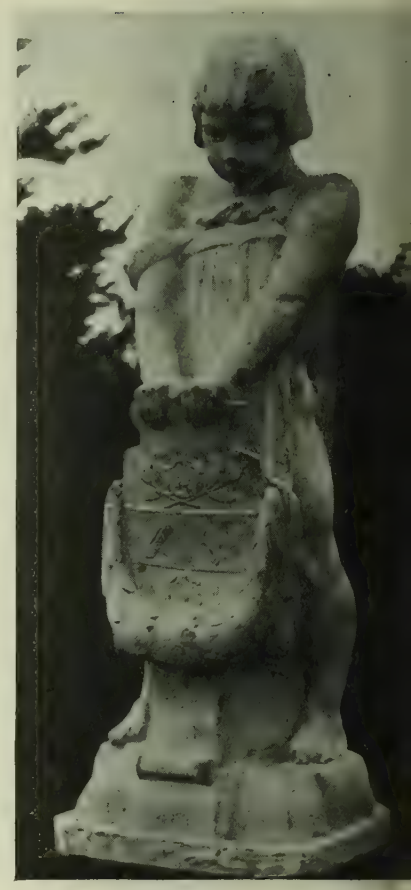


Figure on Todmorden War Memorial
Mr Gilbert Bayes, Sculptor.
(*See p.* 409.)



Relief of Professor W. R. Lethaby.
Mr Gilbert Bayes, Sculptor. (*See p.* 409.)

COMPETITION NEWS

Masonic Peace Memorial.

For full particulars of this competition see our issue for February 8. No sending-in date has yet been fixed.

Barton-on-Irwell.

The sending-in day for this competition is June 28.

Newcastle Fire and Police Station.

Newcastle City Council has decided to hold a public competition amongst architects for plans for the proposed new police and fire brigade station on the Marlborough-crescent Market site. Buildings are to cover 2,465 yds leaving the remainder for an open court yard. Three premiums, amounting in all to £900 will be offered for designs, and an assessor nominated by the President of the Royal Institute of British Architects and approved by the authority, will be appointed to adjudicate. Sending-in day, March 27. In a recent issue it was stated that the cost of this work was estimated at £12,500; we now understand that the cost is likely to be about £125,000.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Essay on Heating and Ventilating (Mar. 31 Nov. 9, 1923). Industrial Designs (June Dec. 21, 1923). National Theatre (April 26 Monument to Sir Wilfrid Laurier (April Dec. 14, 1923). Belfast Union Lighting (March Nov. 9, 1923). Ross-Smith Memorial (Sept. 30 Feb. 1).

OUR CONTEMPORARY SCULPTORS

GILBERT BAYES

Few living sculptors have executed more attractive work than has Mr. Gilbert Bayes. He has made excursions into many of the fields of plastic art, and all of them have achieved success. Some of his theories, principles and qualities seem to stand out prominently when his work is reviewed, and are of more than ordinary interest. He considers that all art should be "likeable." This is by no means synonymous with the late Victorian ideal of "prettiness"—indeed, nothing could be farther from his thoughts. He feels that all sculpture must have human interest, beauty of form, and attraction, so that it creates a feeling of pleasure or satisfaction. No one can deny the success which these theories have achieved.

The value of Mr. Bayes' work is enhanced when it is placed in an architectural setting because he has a wonderful facility for catching the spirit of his surroundings and for modelling work which achieves complete harmony. It therefore comes about that he can work with architects with widely differing aims; he can catch the spirit of buildings with different intentions, and will add to their beauty and interest in every case. The harmonious working of architect and sculptor is one of the foundations of successful joint work, and it is impossible to lay too much stress upon this valuable quality.

A third quality is visible principally in his equestrian work. Here he has attempted with unqualified success to portray action. Action as a constantly changing condition creates difficulties in portrayal which are only realised when encountered. No individual photograph from a slow motion picture will adequately represent the complete series, yet this is the task which the sculptor encounters when he models a group portraying movement. Gilbert Bayes has studied his subject so well and so accurately that he is able to exaggerate actual form and to create effects which are full of life, sculpturesque and wonderfully truthful.

Colour has played but a small part in the plastic art of England, and few men have seriously delved into its possibilities. Mr. Bayes has added enamel to his bronzes and given them vastly increased interest, and he is even now finding excellent material in the study of coloured wood and glazed terra-cotta.

"Sigurd" in the Tate Gallery, London, has previously been illustrated in *The Builder*. It shows the artist in his most brilliant mood, with a highly decorative bronze enriched with small spots of enamel giving a group full of action and interest. It is a work that will live, and will always find many enthusiastic admirers. The promise of greatness in equestrian work makes the lover of sculpture regret that the great bronze groups of "War" and "Peace" now in course of erection outside the Sydney Art Gallery are so far away. There should be a Gilbert Bayes' equestrian in London. Both the Sydney groups are finely modelled and very decorative. The horses in particular have an individuality which is very rare. Vigorous sculpturesque heads, sturdy muscular limbs, give them an artistic quality that mere copyism could never produce. The rider in each case is part of his steed. Mounted bare-back, he conveys a primitive atmosphere which is most convincing and, viewed in conjunction with good architecture, both groups will be most effective.

Similar architectonic qualities are displayed in the groups, "The Bronze Age" and "The Stone Age," which crown Messrs. Smith & Brewer's fine building for the new museum at Cardiff. These groups seem to be conceived in the spirit of masonry. They grow out of the structure and become crowning points of interest instead of being, as sculpture groups so frequently are, mere adjuncts and accessories. There is composition in these groups of a high order, good treatment of flesh and drapery, broad simple heads and features. They achieve, in fact, the ideal in architectural sculpture.

In somewhat lighter vein is the work of the Law Society's War Memorial at their headquarters in Chancery-lane. This lighter treatment harmonises with the surroundings in which it is placed. The motto, "They died that we might live," forms the motive for a panel of charming children who, with unaffected ingenuousness, play pipes, blow upon horns, and within the limits of a conventional treatment convey the impression of freedom from care and perfect happiness. Thus is given a new aspect to the sacrifice of the flower of England's manhood and the ends which it died to gain. But children have a fascination for the sculptor, and he succeeds in obtaining a wonderfully attractive representation. In the Todmorden War Memorial there are two "wee men," which are primarily pieces of fine stone ornament. In detail they have wonderful attributes. In particular, one which holds a lamp delights the beholder with its beautiful outline and serious aspect. A recent sketch for a garden figure in colour reaches the high level of the Todmorden figure with the lamp. The coloured figure is just a fantasy—a boy with a fish. It is the handling of the masses, of the detail and the drapery that gives it real attraction.



A Garden Figure in Colour.

The frieze of the children's orchestra in the new Brinsmead building, which is reproduced on p. 414, shows another great example of Mr. Bayes' powers of child presentation. All the children are attractive, but the central figure of the little girl pianist is marvellously fascinating, while the contrast of the serious double-bass next to her gives to both a piquancy that is invaluable.

In the study of the nude, Mr. Bayes shows the hand of the master. Not only is he able to produce form of great beauty but he can impart to it unmistakable individuality. "The Unfolding of Spring" is a typical example. Its lines and masses suggest the tenderness of maiden youth, the subtle roundness of the perfect human figure. There is a fine sense of proportion and drawing which is admirable.

The sculptor thinks that much work that would be otherwise great is spoiled because the material is not considered soon enough, whereas it should be one of the first considerations. In this case he designed the group as a piece of carved marble, and personally worked on the carving to a very large extent—a fact which is responsible for the great success achieved.

Portrait work has not been particularly prominent, but a few essays in this direction show that the power is there. The relief of Professor Lethaby modelled a few years ago has a nobility of expression which is very true to the character of the sitter, while the freshness of the technique is most attractive.

Recently Mr. Bayes has made fresh excursions into the realm of coloured reliefs in Della Robbia ware and other media. One of the best of these is for an over-door at the Children's House, Bow, in which is portrayed a Virgin and Child in a lunette with supporting figures of children and seraphs. The relief is handled in a characteristic manner, vigorous, powerful, and attractive, while composition and subject-matter have received a due amount of attention. The colours principally employed are blue, grey, white and yellow, with other subdued colours in the swags. Less architectural, but essentially decorative, are some examples of panels in carved and coloured wood portraying everyday scenes. A girl in a hammock, an ox plough, a water cart, and a wagon have been some of the subjects of these essays. There is a wealth of detail in the animals, figures, trappings and accessories which makes them sumptuous pieces of ornament. These little works are playful and fantastic, but very attractive, and might form a valuable adjunct to an architectural screen or similar object in a building.

Many seals and medals have been modelled by Mr. Bayes, among which are the great seal of King George V, the King's Police Medal, King Edward's Medal, and the Scott and Shackleton Medals for the Royal Geographical Society.

Mr. Bayes won the gold medal of the Royal Academy Schools and has work at the Tate Gallery, the collections at Liverpool, Preston, and Dresden, and in the National Art Gallery, New South Wales. His work has embraced every phase of the sculptor's art and he is at the present moment producing some of his finest work.

CORRESPONDENCE.

Advisory Art Committees.

Sir,—I have read with much interest the R.I.B.A. Memorandum under the title of "Advisory Art Committees" in *The Builder* of February 29.

The R.I.B.A. Memorandum does not suggest that the proposed Advisory Art Committees should be made compulsory, but would it not be better if they were, and that external designs for all new buildings must come before and be approved by them? If it were thought best that they should be made compulsory, it would not be a difficult matter for the new Fine Arts Commission to get a Bill through Parliament. To rely on such Committees forming themselves, voluntarily, without power, would still leave this important matter very uncertain in results, to say nothing about many districts which probably would not trouble at all.

I infer from the fourth paragraph of the Memorandum that the R.I.B.A. naturally assumes that the bulk of the members of such Committees would be members of the Institute, and is apprehensive in that case of the delicate operation of the Committees in judging other architects' work that would come up before them, particularly in the case of a plan being submitted by an architect whose own judgment on his design might be more worthy than the whole of the Committee's; and then, again, members of the Committees would very frequently be judging other members' work, but this kind of thing could easily be surmounted by the reasonableness of all parties, and to their general satisfaction.

The paramount and essential work of the Committees would be to make it impossible in future for any more bad or unsuitable architecture, usually designed by people who know nothing about it, or who are grossly indifferent to their own work and any good work in the vicinity. Nothing better could be devised to educate the public in architecture than these proposed Committees. Their very existence would set and demand a better standard than prevails to-day.

J. Jarman.

Richmond.

[For other letters, see page 428.]



"Peace" (Bronze).

At the National Art Gallery Sydney, N.S.W.

Mr. Gilbert Bayes, Sculptor. (*See p.* 409.)

ST. PAUL'S BRIDGE

Mr. Harry Gosling, M.P., Minister of Transport, received this week on behalf of the Prime Minister, a deputation on the subject of the proposed new St. Paul's Bridge. The deputation was as follows:—Messrs. Carmichael Thomas, William Davison, David Barclay Niven, *on behalf of the London Society*; S. D. Adshead, W. R. Davidge, R. A. S. Paget, W. Rees Jefferys, *on behalf of the Town Planning Institute*; Ralph Knott, E. Vincent Harris, R. M. Barrington-Ward, James Bone, *on behalf of the Architecture Club*; Harry Barnes, Sir Banister Fletcher, Paul Waterhouse, H. V. Lanchester, *on behalf of the Royal Institute of British Architects.*

Sir William Davison, M.P., introduced the deputation. The deputation urged that the proposed bridge was totally unnecessary, and would in fact, so far from alleviating the problem of London's traffic, cause great congestion in the neighbourhood of St. Paul's Cathedral. The reasons why the bridge should not be constructed were given, and it was suggested that the question of the control of London traffic should receive attention before the building of more bridges was entered upon. It was said that with effective control of traffic the present roads would prove adequate.

Mr. Gosling, in reply, said that the deputation asked him to do a very big thing if they suggested that he should reverse the decision of his predecessors to assist towards the cost of the approaches. Such action would, in fact, be paramount to the Minister hindering the carrying out of a scheme which, after an exhaustive litigation, had received the special sanction of Parliament in 1911. He pointed out that the technical aspect had received very great consideration from the experts and advisers of the Ministers who were wholly in favour of the scheme. He promised, however, that he would carefully reconsider the arguments which had been laid before him.

Town Planning Conference.

An International Town Planning Conference, arranged by the International Garden Cities and Town Planning Association, will be held at Amsterdam, Holland, from July 2 to 9. Principal subjects for discussion will be: (A) Regional planning in relation to large cities; (B) Parks, park systems, and recreation.



"The Plough." (Carved and Pierced Wood Decorative Panel.) Mr. Gilbert Bayes, Sculptor.



Mr. E. Stanley Hall, F.R.I.B.A. (President), occupied the chair at a general meeting of the Architectural Association, at 35, Bedford-square, W.C., on Monday evening.

After the minutes of the previous meeting had been read, the President announced that there were six new nominations for membership, and the following were unanimously elected new members :—

John Burley.	E. de la tour Abrams.
W. S. Newman.	R. W. Lloyd.
L. D. Castelli.	A. V. J. Kirkham.

"The Gothic Survival."

An address entitled "The Gothic Survival" was then delivered by Mr. H. S. Goodhart-Rendel, who said he proposed to talk about the spirit of Gothic as far as it was a thing which was difficult to work out of the English system, and make a few remarks about the present situation of architecture rather than about Gothic in particular. He had recently been looking through a large number of architectural periodicals of the nineteenth century, and thinking about the great difference between the architecture of those days and of the present. One thing he thought very regrettable was the lack of sympathy between most of the veterans in the profession and most of the younger members, and that he thought was a different state of affairs from what existed in other countries where there had not been the architectural upset which had been experienced in this country during recent years. In France there was a certain respect for what might be called "academic" people, but in this country he felt there was a big gulf between the point of view of the average architect and the distinguished men who built the buildings of about thirty years ago. He supposed that was because there was a different way of looking at architecture to-day owing to the upset of the Gothic revival. By the Gothic revival he did not mean a building with Gothic arches, but a great deal of work which was arbitrary and impulsive and designed from the small up to the great rather than from the great down to the small—work in which the accident of building and tradition more or less took the place of purely intellectual work of abstract design. He thought most architects in England were Goths playing with a Classic box of bricks which they did not understand. They would find particular reasons for that in looking at the history of English architecture. It was all very well for them to be proud of their eighteenth-century tradition, but it could not be expected that it would have any European interest. It was less intellectual and more second-hand than the best Italian work, and it was above all more arbitrary; arbitrary from the fact that Classic buildings were built from the outside in. There was no better example of that than Sir Christopher Wren, who packed the inside of his buildings into the elevations somehow or other. There was a very great charm about many of Wren's buildings, but he did not think there was much to be learned from them as to the method of design, and in his opinion they were the worst possible models for any student to study.

He thought Gothic *versus* Classic was a most hopeless thing to argue about, because the words were so arbitrary, and he thought the only distinction they could make was the distinction made by Miss Austen, in her novel, "Sense and Sensibility"—the Latin was sense, and the Teutonic sensibility. If that distinction were taken with architecture, the distinction between the point of view of the man who thought his plan and the whole of his design must be regulated by a cast-iron programme and that nothing must be allowed in the building except what was called for in the programme, and the point of view that the building must be allowed to design itself, would be seen. To allow one's fancy to play over a design and trust to one's self to prevent a falling into wild extravagances seemed a most hopeless way of building. Yet, look through all the past buildings that had been erected and think whether the best could have been built on the rigid Classic system.

They had, he thought, and that was the point of the lecture, to be really eclectic between those two types. At present they were modelling architectural education on the Classic system, but he thought they had to realise that they had to make some little contribution of their own, something which they could work in with the French system, and would make English architecture, not a new beginning, but make it spring over all that mess in the middle of the nineteenth century. The Gothic revival was undoubtedly the main movement in the nineteenth century, and architects of fifty years ago were quite sure that when the pointed arch was rediscovered nobody would go back to nasty things like sash windows. Those architects were not quite fools; the trouble was their exclusive view. Their work was not imitative, except in detail, and he thought the most characteristic Gothic ever produced was produced in the nineteenth century. He did not think Gothic details were worth saving, but he would urge them to keep the general Gothic tradition.

Major H. C. Corlette said he thought the question of plan should be approached in as free a way as the question of the external design. It was impossible to attempt to build from the outside to the inside. He felt that, if the English tradition of the latter part of the sixteenth century had been carried on for another 100 years or so, there might have developed something which was quite extraordinary in architecture in its capacity to express the British point of view. Let them consider whether the English traditions of the latter part of the sixteenth century were not now quite as well worth following as the traditions which the Italians took up in the fifteenth century and the traditions which the Romans developed so magnificently in some of their buildings.

Mr. Gilbert S. Jenkins, Mr. A. S. G. Butler, and Mr. W. H. Ansell also took part in the discussion.



The Wagon: Carved and Pierced Wood Decorative Panel. Mr. Gilbert Bayes, Sculptor. (*See p.* 409.)

BY-LAW REQUIREMENTS

Speaking at the recent Conference of the United States National Housing Association, on "Reducing the Cost of Housing by Eliminating Unnecessary Building Law Requirements," Mr. Ira H. Woolson (Chairman, Committee on Building Codes, U.S. Department of Commerce) made some remarks on local building by-laws, some of which were applicable to this country.

He said an analysis of 134 building codes representing all sections of the United States disclosed that for 1, 2 and 3-story dwellings the thickness of walls required by 60 per cent. of the codes was 12 in., and upwards to 20 in. Similarly, for 4-story buildings, 70 per cent. of the codes required that walls should be 12 in. thick, and upwards to 24 in.

The consensus of expert opinion obtained by the Building Code Committee upon this subject was that such walls were unnecessary for the class of building and the type of occupancy. The Committee, therefore, recommended 8 in. walls for dwellings up to 30 ft. in height, plus a 5 ft. gable.

In the skeleton type of building—that was, where the walls were carried upon the steel or reinforced concrete framework in each story—the Committee's tentative recommendation for all walls, with the exception possibly of fire walls and party walls, was a thickness of 8 in., or a reduction of about one-third on the present requirements in many cities. The Committee's tentative recommendations, if adopted, would reduce the average thickness of walls for the better-class of dwelling construction nearly 10 per cent. for bearing walls, and 20 per cent. for non-bearing walls. Corresponding reductions for industrial and commercial types of building would show a saving of 14 per cent. to 26 per cent., depending upon whether the walls were bearing or non-bearing. There was less reduction in thickness in proportion in bearing walls than in non-bearing walls, for the reason that the bearing wall depended very largely for its support upon its anchorage to the floor system. In case of fire, if the floor system burnt out, these walls became very unstable and consequently dangerous; and the Committee felt that it was not justified in making as great a reduction in thickness for such walls.

Similar reductions would be found—though perhaps not as great a percentage—in walls which were built of hollow tile, concrete block and similar materials.

At existing prices for masonry materials and labour there was opportunity for a very substantial reduction in cost of building, due to the relaxations which the Committee was recommending.

An examination of 109 building codes, fairly representing the country as a whole, disclosed that in 50 per cent. of them the live floor load requirements for dwellings was 60 lbs. and upwards to 100 lbs. per sq. ft.; and an average of all showed 53 lbs. per sq. ft. for the first floor. The consensus of opinion was that these loads were entirely excessive for the class of occupancy.

The Committee recommended 40 lbs. per sq. ft. as ample in ordinary construction, if care be taken to keep unit stresses in structural members within safe limits. A reduction to 30 lbs. per sq. ft. was permitted for monolithic floor construction, or those with ribbed slabs. In joisted construction it was estimated that the reduction in floor load in the dwelling class would permit floor timbers of a given size and quality to increase 10 per cent. in length, or the use of smaller timbers. Either solution promoted economy.

The Committee had gathered a great deal of information upon actual floor loads. For dwelling-house occupancy the average load would not be over 10 lbs. per sq. ft., and in a great many cases less than that. Ten to 15 lbs. would be ample, but, of course, provision must be made for the exceptional loading which might come from crowding of people at the time of some function being held in the rooms. They had recently had an analysis made of a number of dormitory rooms in New York state hospitals, and found that the average actual loading there was only 7½ lbs., and that was under a condition of 25 per cent. congestion.



Equestrian Statue in Bronze at National Art Gallery, Sydney, N.S.W.

Mr. Gilbert Bayes, Sculptor. (*See p.* 409.)

OBITUARY

The death occurred recently of Mr. Leonard Peskett, who was naval architect to the Cunard Steamship Company for a period of forty years. Mr. Peskett became associated with the Cunard Company in 1884, and during his many years' service he had been connected with the design and construction of such vessels as the *Campania*, *Lucania*, *Caronia*, *Carmania*, *Lusitania*, *Mauretania*, *Aquitania*, *Ivernia*, and *Carpathia*.

He was an authority on naval architecture, and had contributed valuable papers to the Institute of Naval Architecture. He had also served on several important Committees dealing with ship construction.

THE ARCHITECTURE CLUB

BRITISH ARCHITECTURE OF TO-DAY

On March 11 the Marquis Curzon of Kedleston opened the second exhibition of the Architecture Club at Grosvenor House.

The President of the Club, Mr. J. C. Squire, who was in the chair, mentioned that Lord Curzon had always had a passionate interest in architecture and was connected with the Society for the Protection of Ancient Buildings.

Lord Curzon, in the course of his remarks, said architecture always seemed to him the most human—almost humane—the most universal, the most cosmopolitan, and the most civilising of the arts. They could not all possess pictures or statuary, but they all lived in a house, and were surrounded by other houses; therefore, they were continually brought into contact with the progress and the art of architecture. If they went to the country they were dependent on the architecture of Nature, but in towns they were confronted with the architecture of man, and he sometimes wondered whether in his experience he had derived most enjoyment from the genius of man or from the architectural works of the Almighty.

Continuing, Lord Curzon said he carried his enthusiasm for architecture to the point of saying he would like to have been a working architect. Why? In the first place architecture needed and demanded no small amount of study and research. Above all, in architecture there was scope for creative power and human imagination. Also, architecture could be practised both indoors and out of doors. Further, they had the most wonderful set of models and materials the world could produce. Painters were confined to paint, sculptors to marble and bronze; but architects could use all the stones the world produced, every species of marble and every metal, and could combine them in any proportion or degree they pleased. Then let them look at the scope and range of the architect. He might be called upon to draw plans from a cathedral to a horse-box; from a castle to a cow-shed.

In regard to the prizes of the profession, if they put up a bad building they were damned, but if they were successful there was the building—always visible to the world. Those were some of the reasons that had led him to such an interest in, and enthusiasm for, architecture. It was true he had been born and lived in an English house (Kedleston) which was a great monument of architecture: probably the finest existing example of the earlier style of the great Robert Adam.

In regard to the position of architecture to-day, Lord Curzon questioned whether it was on the upward grade, stationary, or whether it had gone down. It was difficult to answer dogmatically, but those who had studied the matter at all would understand that the movement of architecture was distinctly and admittedly a movement in advance. There were one or two indications that the interest in and knowledge of architecture were much more widely spread than 30 or 40 years ago.

He was not certain, however, that the cultured classes took such an interest in architecture as in the time of the great men of the eighteenth century. After referring to the good work of various publications dealing with architecture, Lord Curzon said the answer to the question as to whether they were capable of producing any new national style of architecture was doubtful. If they examined the architectural history of their country they would find architecture had expressed the tastes of the time in a manner strikingly national. When the Normans came upon the scene they brought their castles with them, but castles strikingly Continental. The manor houses of England, whether of timber or stone, in the thirteenth, fourteenth and fifteenth centuries, were among the most purely national things the country had ever produced. Some of the late Tudor mansions were among the most beautiful things in the world; imitations were no good at all. Then they had the Elizabethan and Jacobean styles, and a little later the Renaissance, which gave them Inigo Jones and Christopher Wren. The time of William and Mary was a magnificent period of British art. The red-brick and stone buildings (Queen Anne and the later Georges) expressed original English architecture.

So, continued Lord Curzon, we came down to the last century. No one would contend that there was such a thing as Victorian architecture. Could they have, at the present time, taking the name of the King and Queen, a George and Mary style? Plenty had tried, but he thought, on the whole, without success; perhaps the conditions did not admit of a new style. They had to take the old styles, alter them, readjust them, so that, by a sort of imaginative eclecticism, they created a new. Architecture in America was an example of this method, and he considered it the best in the world—turning out some of the finest modern architecture that the world could show. To what extent could we do the same? If they looked at the public buildings they would see how they succeeded. He did not wish to say anything about our public buildings, museums, libraries, &c. Probably the nadir of inferiority was reached in the building known as the Admiralty, the most melancholy emanation of human genius that had ever been seen.

The possibilities of creating great country houses were at an end; people had not got the money to do it. The *nouveau riche* did not want beauty, but luxury and comfort—a winter garden, squash racket courts, and swimming baths. It was impossible for a good country house ever to be built again.

The smaller class of modern house, as designed by Sir Edwin Lutyens and his contemporaries, was the creative triumph of the present generation. The two disastrous failures of modern architecture were the cottage and the villa. Why was it that the cottage which, 400 years ago, was the most beautiful thing in the world, had been replaced by the modern building? Probably architects had nothing to do with it; probably the building speculator was responsible for these horrors. He would like to see architects turn their attention to building a better style of cottage. In regard to the villa, was it not almost incredible that they should perch these execrable creations in various parts of the country? It was not, however, confined to England alone. Perhaps architects, in the interval of their labours, would be able to give something not invariably ugly.

Continuing, Lord Curzon said if he had been able to carry out his natural instinct and had become an architect, he would have suggested the following rules should be preserved: Use an English style in England, do not build a French chateau looking over an English countryside; let dignity and moderation be the guide of their work; avoid megalomania; avoid buildings that climbed into the sky; avoid aggressive individualism.

Referring to Regent-street, Lord Curzon said, in conclusion, that now it had been pulled down it lacked combination. He was sorry for Nash, who had a knowledge of form, and had made Regent-street sober, demure, and an artistic whole. It was a permanent loss to the country that the Regent-street of Nash had gone.

Finally, they should use the simplest and best materials. Above all, they should avoid pretension and sham; and it was essential not to forget the æsthetic side.

On the motion of Mr. O. Milne, seconded by Mr. H. Child, a vote of thanks was accorded to Lord Curzon.

We do not find quite the same amount of interest in the second exhibition of the Architecture Club as distinguished the first, and it is evident that for some cause or other there is a difficulty in getting much of the best work together. We miss the work of many able architects. In two of the sections—those of Housing and Memorials—we should have hoped to see a much higher average of quality. The housing exhibits are probably above the average quality of the large amount of housing work already done, but we have seen a good deal of cottage building of much better sort than the bulk in this collection. Amongst the best shown are the pleasing examples from the Cushencan Village, County Antrim, by C. Williams-Ellis; houses at Swanport, Lincoln, by Hennell & James; a striking panoramic view of houses at Edmonton, by Niven and Wigglesworth; and Dover Housing Scheme by Adshead, Ramsey & Houfton. One of the photographs of the latter shows that a good proportion really can play a part in cottage design. Amongst the collection of War Memorials we find little evidence of any inspiration and hardly anything of those which have actually realised any distinction. The model of the Aberdeen Memorial, by Messrs. Mackenzie, is unfortunately placed so that the dome comes into undue prominence; it should have been placed at a much higher level, so that its quality of dignity and distinctive emphasis would have been made more apparent. We like the simple, pleasing effect of the Village War Memorial at Drayton, by H. M. Fletcher. We do not like the fashion of crosses with truncated arms, nor the effect of an elaborately decorative memorial with no better setting than an old brick wall.

Amongst the models we find two or three attractive ones of modern houses, such as that of a Riverside House, Bray-on-Thames, by Baillie Scott & Beresford, and the Ugborough Vicarage, Dartmoor, by P. D. Hepworth. The models of old cathedrals, lent by the Dean and Chapter of Canterbury, are very interesting; some such collection would surely be of educative value to our schools of architecture as studies of mass and outline. Amongst the illustrations of modern architecture we greet some old friends, and if we find nothing exceptionally striking, we may at least enjoy a sight of many suggestive examples of domestic architecture. The house for Mr. Parsons, at Welwyn, by Louis de Soissons & A. W. Kenyon, is the sort of simple Georgian work one never tires of, and a simply-treated garden corner at Dalingridge-place, West Hoathly, by Wratten & Godfrey, is a delightful example of quiet charm contributed by an unusually excellent photograph. It is pleasant to find such a nicely treated brick building as Lloyds Bank, Cheam, by Edward Maufe. For the acme of richly-treated woodwork we may turn to several examples by Sir Robert Lorimer, at Eton College and elsewhere. It would be beyond the bounds of our available space even to mention all the exhibits of genuine interest.

That an exhibition of architectural work such as this, which has cost considerable effort to bring together, is fairly representative of the art of architecture as practised to-day, it is impossible to admit, unless perhaps it be in the way of domestic building, for the best kind of commercial or public buildings is very inadequately shown. One of our best modern buildings of a public sort is the University block, by Messrs. Wills & Anderson, at Cardiff, illustrated by an excellent photograph. This has, however, been built some time. Messrs. Trehearne & Norman's Bryanston House, Dorset-street, is a good example of sensible, pleasing treatment of a more recent date. The fact is that there is seldom an adequate representation of the best modern work, such as, for instance, could be obtained by a view looking down the east end of Aldwych, which would have for the left side of the picture a fine range of buildings by Trehearne & Norman, leading down to Sir John Burnet's admirable Insurance building; whilst the right flank would show one of our most satisfactory modern buildings, Australia House, by A. G. R. Mackenzie; and in the distance beyond Mr. H. T. Hare's Insurance block; whilst a central feature in the view is St. Clement Danes, and beyond is seen a peep of Street's Law Courts. We know of nothing in modern London which might go so far to prove our modern quality, and we are sure that a fine view of all this done to a large

scale would prove that there are some grounds for satisfaction with out modern efforts. Already we are able to visualise the impressiveness and dignity which will be found when we get the ultimate result of Mr. Selfridge's finely conceived store in Oxford-street, which, when completed, will rank with the finest buildings of its kind in the world. We may criticise as we please the appropriateness of such a building as the home of retail trade, but, after all, such a structure is so large and impressive in its way that it does seem to add something of definite value to our wonderful Oxford-street, which for miles is only one long drawn-out jumble of fussiness and vulgarity.

Everyone who goes to the exhibition will find for themselves, according to their degrees of appreciation, what is of special interest. The illustrations of domestic work which we have not seen before include admirable things by Messrs. Forbes & Tate, Baillie Scott & Beresford, Oswald P. Milne, H. M. Fletcher, P. D. Hepworth, L. L. Dussault, Nathaniel Lloyd, Wratten & Godfrey, John D. Clarke, and C. Williams-Ellis. Mr. G. Gilbert Scott again claims first notice in ecclesiastical work, but this section of the exhibition is not a very strong one. The models of garden figures include one or two good pieces like Harold Stabler's fine "Harpy Eagle." There is at least a better feeling of selection in the general character of the exhibition than we find in other exhibitions of architecture. Our notes are necessarily too short to refer to many exhibits which go to the credit of modern architecture.



The late W. H. Ward.

The Late W. H. Ward.

MR. WARD, who was taken ill on Friday last week, and died on Monday following an operation, was born in 1865. He was articled to Sir A. Blomfield, and was later with Messrs. Ernest George & Peto and Sir Edwin Lutyens. He received the R.I.B.A. Measured Drawings Medal in 1905. His works included several houses and war memorials, St. Peter's School, Weston-super-Mare, and, in partnership with W. G. Cogswell, Emmanuel Church, Liverpool. His principal publications were "French Chateaux and Gardens of the XVI Century," "Architecture of the Renaissance in France," etc.

THE LATE W. H. WARD, F.R.I.B.A.

AN APPRECIATION BY A. E. RICHARDSON

I AM asked to write an appreciation of an architect whose passing will be deeply regretted by all to whom he was known, as well as by that wider circle which accepted his writings as authoritative. I am willing enough to write but have not the materials wherewith to compile an ordinary obituary notice. My note of appreciation shall be fully charged regarding Ward's attainments and influence on the profession at large, for now that he is gone he will be generally recognised to have been a great figure.

The years pass swiftly like fleeting milestones on the highway of life; they pass with even greater speed in such intimate quarters as professional circles; and thus it is that we are shocked when some friend drops out of the orbit to be seen no more. Ward was a man of dignity, a scholar and an artist. He had, too, the reticence of the student, but on the subject of historical architecture he was expansive. No more will his signature be attached to articles in the Press, we shall look in vain for the books he should have lived to indite, for it need be no secret now that more than one publisher was eager for the honour of dealing with him. My first acquaintance with Ward began in the inner library at Conduit-street fourteen years back, when, by an odd chance, I disturbed the gentle student, for thus he appeared, and never lost the look, by dropping some dusty books from the top case. He was very gentle about the disturbance and went on with his work, which to judge from the volumes spread on the table, seemed to be a gigantic task. I made a few discreet inquiries and found that I had unwittingly tried a scholar. At that time Ward was putting the final touches to what was destined to be his chief work, "The Architecture of the Renaissance in France." From Gerald Ince, Ward's Cambridge friend, I subsequently gathered details of his prowess at College, his gift for impromptu verse, and his skill as a writer. Little did it occur to me that the years would pass all too swiftly, and that I should, through closer acquaintance with this distinguished man, cherish incidents which at the time appeared trivial. Through the good offices of Herbert Batsford I got to know Ward intimately and understood his thoroughness by hearing the eulogies of his enthusiastic publisher. As I write I can hear Herbert Batsford say: "Ward is the most thorough man I know; he can write, too; the matter in his new book is delightful. I want him to write a new history of Italian architecture; he is the man for a revised edition of Greece and Rome and anything else I can find for him." The years pass, the books remain unwritten, the voices are silent. It so happened that I was in Herbert Batsford's room on the morning when the first edition of the French book came from the bookbinder, and I am pleased now to think that the first two volumes sold came direct to my hands.

On the outbreak of war, Ward, who was then fifty, but looked slightly younger, lost no time in enlisting and gave his age, a pardonable sin, as 36. He was in the trenches at the very worst time before comforts were usual, and after useful service he was invalided; but he did not give up his soldiering, for later on he got patched up and held an important post at Amiens.

I regret the loss of this architect and historian, and I am certain his loss will be universally regretted. Who is to take his place? The old order of writers is giving place to others who have not the necessary patience, the ripe erudition, or the balance, to serve as historians of the art. Ward was the complete embodiment of the University spirit. His chambers in Bedford-square had all the character and atmosphere of the quarters of a don. It has been my privilege to sit with him on committees and faculties, to meet him in the quadrangle at Gower-street—for he took an interest in the doings of University College, and only a few weeks since attended a Board of Studies. It was Ward's one regret that he got too little architecture to do; he felt the lack of commissions, purely because he realised that it was in his power to do work of any description if the chance came his way. What he did accomplish shows that he was an artist with a soul above monetary considerations. Books were his solace—books and study. His tastes led him instinctively to the study of French art, and it was only after years of travel in France and Italy that he made up his mind to deal exhaustively with the history and development of French building during four centuries. One feels that, if Ward had had the chance of projecting a monumental building he would have conceived it in that largeness of handling which was a feature of the epoch of the Grand Monarch! But he also realised that England, too, could show an architectural style, and as secretary of the Wren Society he did much useful pioneer work to make the aims of the Society known.

Ward is dead, we have lost a friend; but his works live and gain an increased radiance, because we shall not see the like by the same pen. There are some who will remain indifferent to the lesson of a scholarly life; some, too, mayhap, who will never take the trouble to profit by so much sacrifice of leisure on the part of one who suffered ill-health. Ward never talked about himself; he set no store on his ability, but just worked and wrote, attended this or that meeting as a duty, and maintained a cheerful nonchalance to all the busyness of the commercial battle outside.

It is a pity, for he was young-looking—that is, as age is accounted in these times. He was unaware of the respect and love of those who knew him intimately—he would have been the first to resent it; but death is an excuse for an outpouring. When such an one dies, his memory flares up like a beacon, all his labours and sayings become poignant as exemplars. I can see him now as my pen attempts homage—a dignified figure with the slight stoop of a scholar, and the mind of a gifted youth.

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ILLUSTRATIONS.

New Premises for Messrs. Brinsmead.

No. 17 Cavendish-square was formerly the residence of the Earl of Bessborough. The showroom front in Wigmore-street has been inserted for Messrs. Brinsmead, and the Adam treatment carried through the whole of the ground floor of this façade to make a cohesive elevation. Mr. Gilbert Bayes modelled the figures of "Art," "Science," and "Music," and the panel of the children. A special colour treatment has been carried out in a burnt sienna with ivory relief sculpture. The columns and doors are polished mahogany, and the steps white Sicilian marble.



Frieze, "The Children's Orchestra," at Messrs. Brinsmead's New Premises.
Messrs. Bennett & Hossack, Architects; Mr. Gilbert Bayes, Sculptor.

Internally, the ground-floor showroom is panelled and has green walls, red and gold doors, a buff ceiling and frieze, and a polished floor. There is a full-length posthumous portrait in oils of John Brinsmead by Mary Edis. The first-floor showroom is decorated as an Adam room with grey walls in two shades with white flat enamel paint, a frieze of ivory tinged with sienna, and a white ceiling with cobalt blue ground to a portion of the enrichment. The corridors are green and black with a white frieze, and the studios yellow and black and orange and black with a small Chinese band at the frieze level. The lift cage is specially designed by the architects in mahogany and ebony.

The heating was installed by Messrs. William Freer, Ltd.; lift by Messrs. Marryat-Scott; lighting by Messrs. Duncan Watson, Ltd.; Adam ornament to front supplied by Messrs. Jackson & Son, Ltd.; general building work by Messrs. L. H. & R. Roberts; construction of the front and the whole of the decorative work by Messrs. Green & Abbott, Ltd. The sculpture reliefs are by Mr. Gilbert Bayes. The architects are Messrs. Bennett & Hossack. F. and A.R.I.B.A., 41, Bedford-row, W.C.1.

Royal Masonic Institution Junior School.

We give this week the design submitted in the recent competition for a Junior School at Bushey for the Royal Masonic Institution, by Mr. C. J. Dawson, F.R.I.B.A. The design placed first, by Messrs. Davis & Emanuel and Henry C. Smart, was given in our issue for February 22, and other designs submitted were given as follows: Messrs. Gotch & Saunders, February 29; Messrs. W. & T. R. Milburn, March 7.

MEETINGS.

Friday, *March* 14.

London Society.—Mr. B. Chancellor on "Royal Residences in London." At 18, John-street, Adelphi, W.C.2. 5 p.m.

Monday, *March* 17.

Royal Institute of British Architects.—Mr. H. Bagenal on "Planning for Musical Requirements." At 9, Conduit-street, W.1. 8 p.m.

Institution of Structural Engineers.—Annua Dinner. At the Criterion Restaurant, W.1 7.30 p.m.

Tuesday, *March* 18.

Liverpool Architectural Society.—Mr. L. B Budden on "The Relation of Architecture to the Arts." At 13, Harrington-street.

Society for the Promotion of Roman Studies.—Major G. Home on "Some Lesser-Known Roman Towns in Algeria and Tunis." At Burlington House, Piccadilly, W.1. 4.30 p.m.

Wednesday, *March* 19.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Early Christian Architecture." At Southampton-row, W.C.1. 6 p.m.

Thursday, *March* 20.

Society of Antiquaries.—Final Report on the excavation of the Anglo-Saxon Cemetery. At Burlington House, Piccadilly, W.1. 8.30 p.m.

Town Planning Institute.—Mr. F. M. Elgood on "Buildings and Building Lines, Including Zoning." At the Institution of Mechanical Engineers, Storey's Gate, S.W.1.



Architecture Club Exhibition.

House at Welwyn: Garden Front. Messrs. Louis de Soissons and A. W. Kenyon, Architects.

Burford Priory: New Wing and Terraces. MESSRS. WRATTEN & GODFREY, Architects.

Architecture Club Exhibition.





Architecture Club Exhibition.

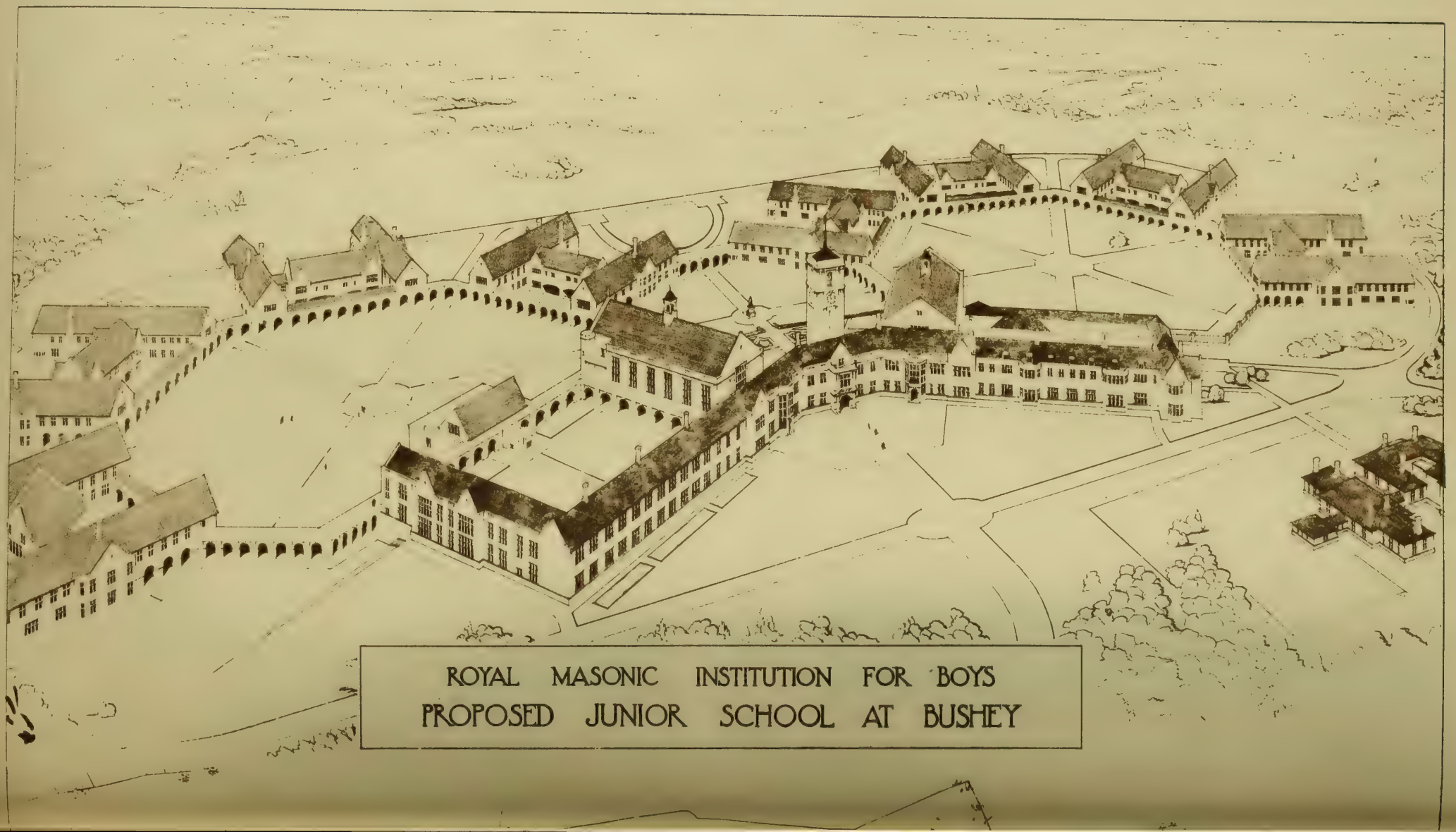
Burford Priory: New Wing and Terraces.

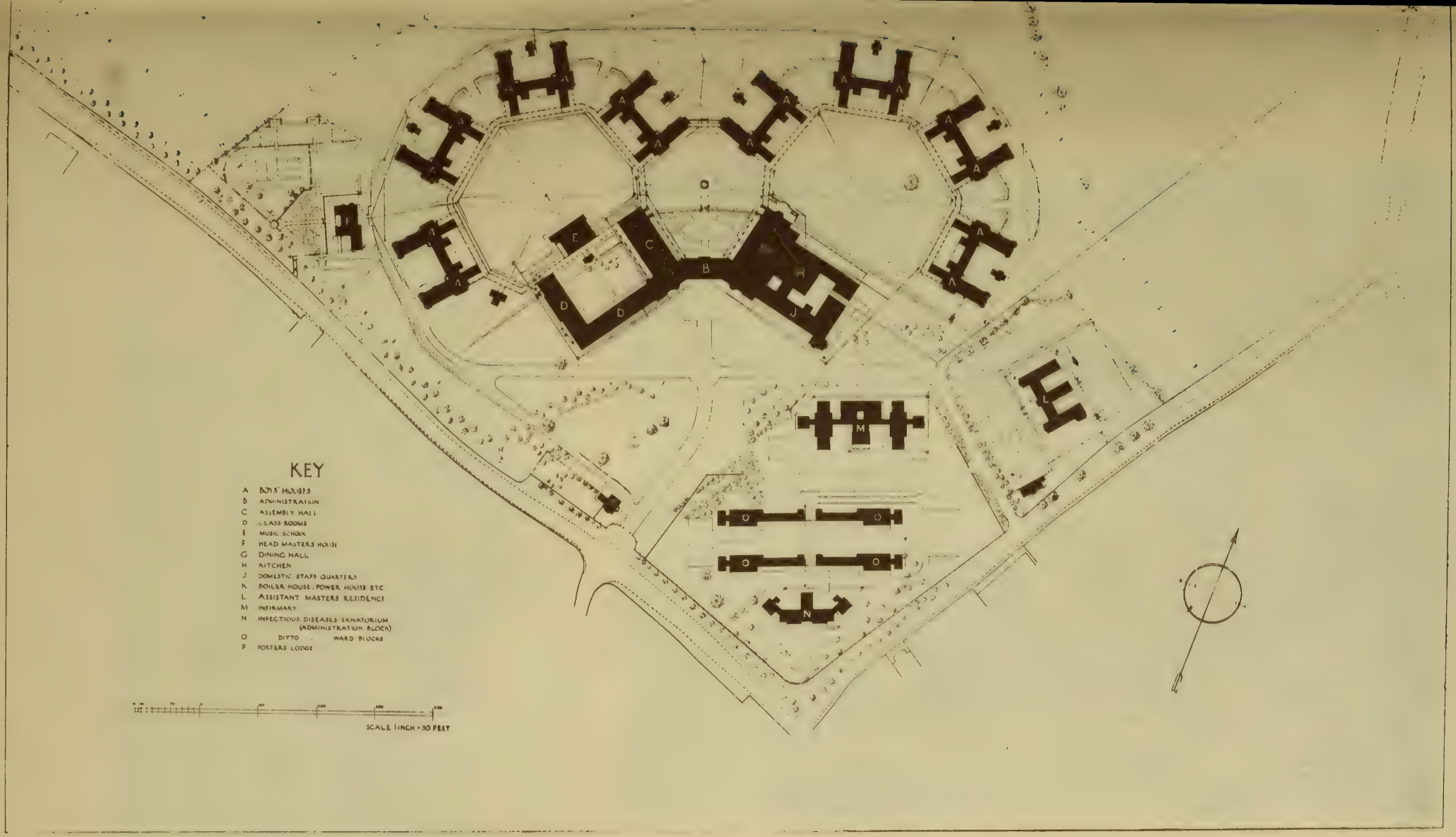
MESSRS. WRATTEN & GODFREY, Architects.


B R I N S M E A D &



NEW PREMISES. 17. CAVENDISH SQUARE. MESSRS BENNETT & HOSSACK. F. & A.R.I.B.A., ARCHITECTS.


ROYAL MASONIC INSTITUTION FOR BOYS
PROPOSED JUNIOR SCHOOL AT BUSHEY



ROYAL MASONIC INSTITUTION FOR BOYS: PROPOSED JUNIOR SCHOOL, BUSHEY.

DESIGN BY MR. C. J. DAWSON, F.R.I.B.A.





Architecture Club Exhibition.

Church of St. Mary the Virgin, Buxton.

MESSRS. CURREY & THOMPSON, Architects.

"Music." "Science." "Art."



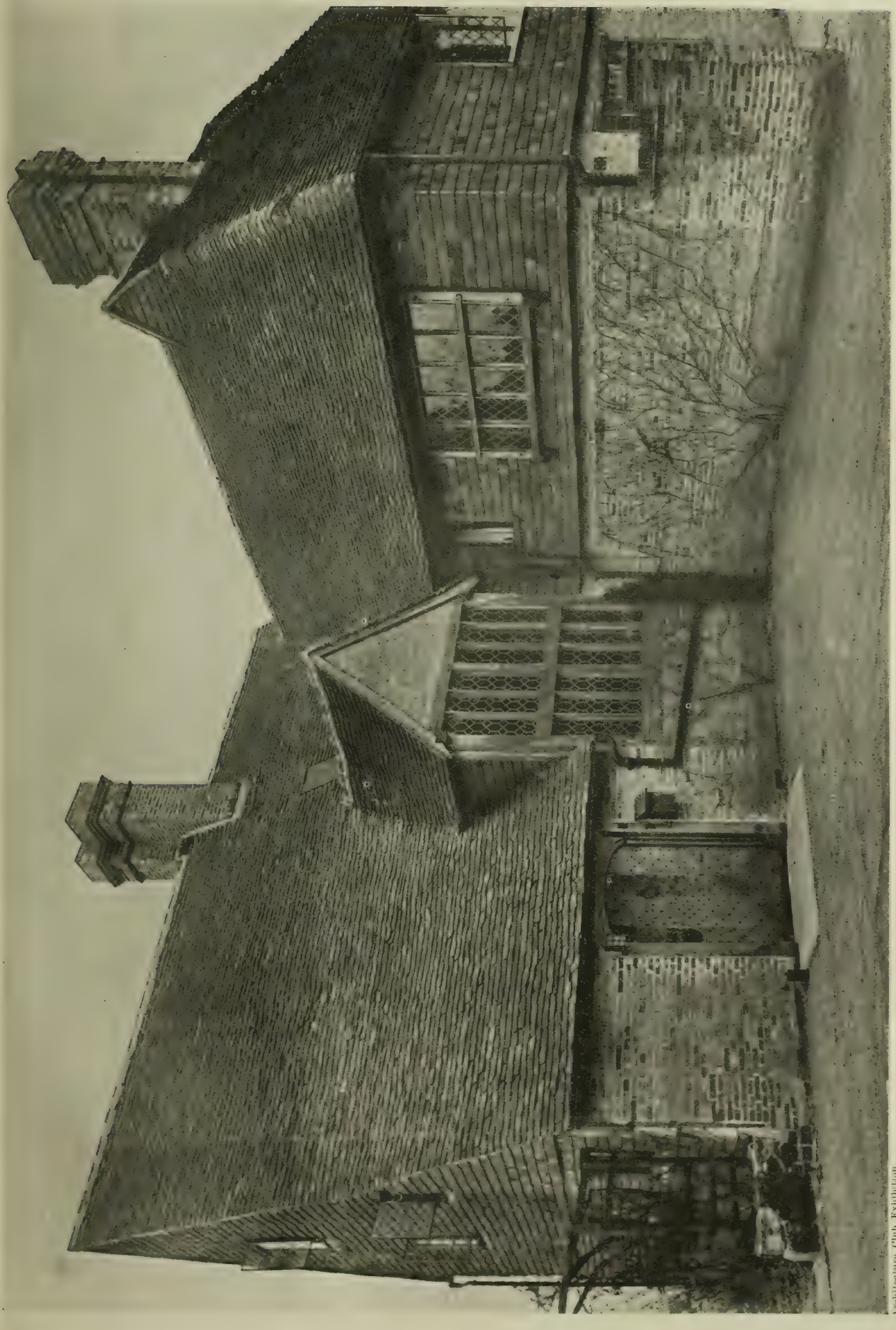
Messrs. Brinsmead's New Premises: The Entrance Front.

Messrs. Bennett & Hossack, F. and A.R.I.B.A., Architects; Mr. Gilbert Bayes, Sculptor.



Architecture Club Exhibition.

St. Ninian's Roman Catholic Church, Gretna. Mr. Evelyn Simmons, Architect.



"The Nunnery," Penshurst: North Front.

Mr. John D. Clarke, Architect.

Architecture Club Exhibition.



Sheffield War Memorial Competition. Design Placed First: By Mr. Carus Wilson.
Left: Design Placed Second. *Centre*: Design Placed First. *Right*: Design Placed Third.
[Mr. E. Vincent Harris, F.R.I.B.A., was the Assessor in this Competition.]

REVISION OF THE REGULATIONS FOR ARCHITECTURAL COMPETITIONS

A special general meeting of the Royal Institute of British Architects will be held on March 18, at 5.30 p.m., to consider the revision of the existing Regulations for Architectural Competitions prepared by the Competitions Committee, in consultation with the allied societies and the Society of Architects, and approved by the Council.

The new Draft is as follows:—

It is assumed that the object of the Promoters is to obtain the best design for the purpose in view. Where the Promoters desire to achieve this end by means of a Competition experience shows that the object may best be secured by conducting all Competitions upon the lines laid down in the following Regulations, which have been framed with a view to securing the best results to the Promoters with scrupulous fairness to the competitors.

Members and Licentiates of the Royal Institute of British Architects, Members of its Allied Societies and Members and Licentiates of the Society of Architects do not compete excepting under conditions based on these Regulations.

The Conditions of a Competition shall contain the following Regulations (*a*) to (*f*) as essential:—

(*a*) The nomination for every Competition of an Assessor or Assessors who shall be Architects of acknowledged standing to whom the whole of the designs shall be submitted.

(*b*) Each design shall be accompanied by a declaration signed by the competitor, or joint competitors, stating that the design is his or their own personal work, and that the drawings have been prepared under his or their own supervision. A successful competitor must be prepared to satisfy the Assessor that he is the *bona fide* author of the design he has submitted.

(*c*) No Promoter of a Competition, and no Assessor engaged upon it nor any employee of either shall compete *or assist a competitor*, or act as Architect, or joint Architect, for the proposed work.

(*d*) The premiums shall be in accordance with the Assessor's award and the author of the design placed first by the Assessor shall be employed to carry out the work, unless the Assessor shall be satisfied that there is some valid objection to such employment, in which case the author of the design placed next in order of merit shall be employed, subject to a similar condition. The award of the Assessor shall not be varied for any other reason.

(*e*) If no instructions are given to the author of the design selected by the Assessor to proceed within twelve months from the date of the award, then he shall receive payment for his services in connection with the preparation of the Competition drawings of a sum equal to 1½ per cent. on the amount of the estimated cost* up to £50,000, but if the estimated cost of the work exceeds £50,000, he shall be paid a sum equal to 1½ per cent. upon the first £50,000 plus ½ per cent. upon any sum in excess of that amount. The first premium shall be deducted from the sum so paid. If the work is subsequently proceeded with this sum shall form part of his ultimate commission.

(*f*) The selected Architect having been appointed to carry out the work shall be paid in accordance with the Schedule of Charges sanctioned and published by the Royal Institute of British Architects, and the premium already paid shall be deemed to be a payment on account.

1. The Promoters of an intended Competition should, *as their first step*, appoint one or more professional Assessors, Architects of acknowledged standing, whose appointment should be published in the original advertisements and instructions. The selection of an Assessor or Assessors should be made with the greatest possible care, as the successful result of the Competition will depend very largely upon his experience and ability. The name or names of the Assessor or Assessors should always appear in the conditions governing a Competition or in any advertisement or other announcement relating thereto.

The President of the Royal Institute of British Architects is always prepared to act as honorary adviser to Promoters in their appointment of Assessors.

2. The duties of an Assessor are as follows:—

(*a*) To confer with and advise the Promoters on their requirements and on the questions of cost and premiums to be offered.

(*b*) To draw up instructions for the guidance of competitors and for the conduct of the Competition, incorporating the whole of the clauses of these Regulations which are applicable to the particular Competition.

Note.—It is essential in drawing up the Instructions to state definitely which of the conditions must be strictly adhered to, under penalty of disqualification from the Competition, and which of them are optional.

(*c*) To answer queries raised by competitors within a limited time during the preparation of the designs, such answers to be sent to all competitors.

(*d*) To examine all the designs submitted by competitors and to determine whether they conform to the conditions and to exclude any which do not.

(*e*) To report to the Promoters on the designs not so excluded and to award the premiums in strict accordance with the Conditions.

(*f*) To inform the Promoters if necessary that modifications may be made in the winning design by the successful Architect, if so desired by the Promoters.

3.—Competitions may be conducted in one of the following ways:—

(*a*) By advertisement, inviting Architects willing to compete for the intended work to send in designs. *For Competitions for Public Works this method is recommended.*

(*b*) By advertisement, inviting Architects willing to compete for the intended work to send in their names by a given day, with such other information as they may think likely to advance their claims to be admitted to the Competition. From these names the Promoters, with the advice of the Assessor, shall select a limited number to compete, and each competitor thus selected shall receive a specified sum for the preparation of his design.

(*c*) By personal invitation to a limited number of selected Architects to join in a Competition for the intended work. Each competitor shall receive a specified sum for the preparation of his design.

Note.—Where a deposit is required for supplying the Instructions it shall be returned on the receipt of a *bona fide* design, or if the applicant declines to compete and returns the said Instructions within four weeks of the date for submitting designs.

4.—The number, scale and method of finishing of the required drawings shall be distinctly set forth. The drawings shall not be more in number or to a larger scale than necessary clearly to explain the design, and such drawings shall be uniform in size, number, mode of colouring and mounting. As a general rule a scale of 16 ft. to 1 in. will be found sufficient for plans, sections and elevations, or, in the case of very large buildings a smaller scale might suffice.

Unless the Assessor advises that perspective drawings are desirable they shall not be admitted.

5.—No design shall bear any motto or distinguishing mark; but all designs shall be numbered by the Promoter in order of receipt.

6.—A design shall be excluded from a Competition:—

(*a*) If sent in after the period named (accident in transit excepted).

(*b*) If it does not give substantially the accommodation asked for.

(*c*) If it exceeds the limits of site as shown on the plan issued by the Promoters, the figured dimensions on which shall be adhered to.

(*d*) If the Assessor shall determine that its probable cost will exceed by 10 per cent. the outlay stated in the Instructions or the estimate of the competitor should no outlay be stated.

(*e*) If any of the Conditions or Instructions other than those of a suggestive character are disregarded.

(*f*) If a competitor shall disclose his identity or attempt to influence the decision.

7.—All designs and reports submitted in a Competition, except any excluded under Clause 6, together with a copy of the Assessor's Award, should be publicly exhibited for at least six days. Due notice shall be given to all competitors of the date and place of such exhibition. It is desirable that competitors should be furnished with a copy of the Assessor's Award.

8.—All drawings submitted in a Competition, except those of the design selected to be carried out, shall be returned carriage paid to the competitors, within fourteen days of the closing of the Exhibition.

The usual R.I.B.A. Scale of Charges for Assessing Competitions is the sum of Fifty Guineas, plus one-fifth per cent. upon the estimated cost of the proposed building.

In the event of more than *one Assessor* being appointed, the remuneration shall be decided by mutual arrangement between the Assessors and the Promoters.

The Conditions of a Competition issued by a Corporate Body should have the Common Seal of that Body fixed thereto.

* The amount of the estimated cost means the amount stated in the Conditions of the Competition.

EXHIBITION NOTES.

The exhibition of buildings and paintings at the Suffolk-street Galleries, where three galleries are filled with photographs of Mr. Delissa Joseph's buildings, and two, including the large gallery, are occupied by Mrs. Delissa Joseph's paintings, suggests that other architects might follow suit and give us an epitome of their doings—though few would be able to compete with this large exhibition of executed work. With most of the buildings probably a large number of our readers are familiar, but the photographs often show them in a new aspect and with the adventitious charm of trees and figures. The pictures by Mrs. Joseph evidence a practised hand, and many of them have decided charm of colour and light.

Pencil Drawings.

As one calls to mind the beautiful pencil drawings which have been made during the centuries and the many excellent reproductions of such, one is rather in doubt whether it was worth while to publish four pencil drawings in a little brochure entitled "Pencil Drawing" (by Charles Marriott), at a published price of 5s. The drawings are hardly the best work of their authors. Messrs. Emanuel, Fletcher, Gillett and Thomas. "The Zwolle," by Frank L. Emanuel, and "Norwich," by Hanslip Fletcher, have some excellent quality, but when there is such a wealth of beautiful pencil drawing to be seen to-day, the object of this small collection is a little difficult to understand.

ARCHITECTURAL SOCIETIES

NORTHERN ARCHITECTURAL ASSOCIATION.

On February 23 Mr. Arthur Stratton lectured before the Northern Architectural Association at Newcastle on "Dutch Architecture and Its Influence on English Architecture in the Seventeenth and Eighteenth Centuries."

In the course of his lecture he showed the gradual development and charm of the native work in spite of the difficulties of cramped sites and the flat, uninteresting nature of the landscape, and demonstrated how cleverly the Dutch architects had turned their greatest difficulty, viz., water, into a valuable and picturesque asset, and how, by their clever and varied treatment of gables, they had successfully overcome the difficulty of their narrow frontages.

Continuing, he showed how the Dutch domestic style of the eighteenth century strongly influenced English architecture of the so-called Georgian period, commenting on the fact that though the Dutch and the English were continually at war practically during the whole period trade between the two nations must have been great and almost continuous. The lecturer also suggested a further means of influence, viz., the dissemination of folio books containing plans and elevations drawn to scale by Dutch architects, many of which books found their way into England, and drew attention to the fact that although Sir Christopher Wren had never been in Holland many of his designs, including some of the steeples for his City churches, were inspired by the work of Holland, and drew to their notice the great charm, and the foil made by the graceful steeple of St. Martin's, Ludgate, to the dome of St. Paul's Cathedral.

By means of many slides his theory of the Dutch influence upon English work was strongly reinforced, and the lecturer pointed out the aptitude of the English to assimilate to their own purposes the good and suitable of the work of other nations, without adopting the native extravagancies which eventually crept into a style. England was fortunate to possess this faculty.

The lecturer concluded by saying that during his recent visit to Holland he had been greatly struck by the large amount of really fine architectural work now being carried out there. This was being done to a large extent by the older practitioners, who were successfully evolving a modern and national style based on simplicity and a thorough knowledge and appreciation of the old. Unfortunately, there was a second school, mostly composed of young men full of ideas and of great cleverness, but whose work showed lack of scholarship, and could only be described as extravagant and unbalanced.

ROYAL INSTITUTE OF ARCHITECTS OF IRELAND.

The Royal Institute of the Architects of Ireland recently held their annual dinner at the Shelbourne Hotel, Dublin.

Mr. George Sheridan, the president, proposed the toast of "Prosperity to Ireland."

Senator Douglas, who responded, said they were at a stage when they had to plan and construct in order to meet what had been a mania of destruction. They had to define a policy of construction, and if, in the next few years, the wish of prosperity to Ireland was to be translated into reality, every man must put his very best into his work.

Mr. R. M. Butler proposed the toast of "The Learned Professions."

The Attorney-General (Mr. H. Kennedy, K.C.), responding, said that a new Ireland was starting upon its way, an Ireland which they hoped would offer not to one profession, but to all, a degree of prosperity and happiness that had never been known in the past.

Mr. C. St. J. Orpen, proposing the toast, "The Fine Arts," mentioned that in that country people suffered too much from the paralysing effect of criticism.

In responding, Senator Yeats said that he thought he had recently seen the most wonderful architectural sight in the modern world—the great Town Hall of Stockholm. To them in that half-ruined city of Dublin it was an example of what a city could do in re-building. He had seen three great modern buildings—Philadelphia Terminus in New York, the Catholic Cathedral at Westminster, and the great house in Stockholm, which was the greatest of the three. At the Catholic Cathedral of Westminster they found how to make or mar a great building; they had there the great idea of the architect ruined by inartistic decoration, and the most ignoble and incompetent was the Chapel of St. Patrick put up by the public subscriptions of Irishmen. The fact that every man who paid his guinea must have a guinea's worth of influence was the very antithesis of art. The Swedes were now the greatest decorators in the world. Before the war the Budget of Sweden was very little more than the Budget of Ireland—it was only half a million more. The population of Sweden was six millions. The Swedes were one of the two most educated nations in the world. Denmark was the other. As they had no coal the people in the Free State would not produce manufactures in great volume. The making of great buildings of the kind he had described would have an effect on the whole nation.

Mr. Dermod O'Brien, also responding, alluded to the observations that had been made about construction, and said that there were various snares that he would like to warn everybody against. Two of these were, novelty in expression in different forms and a vulgarising of a good many of the arts by allowing them to become purely mechanical.

ROMAN AMPHITHEATRES.

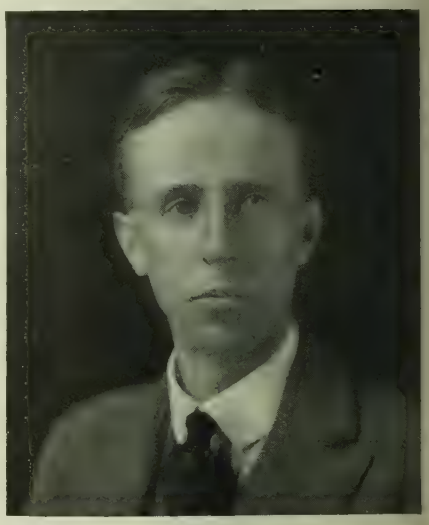
In a recent lecture at the Central School of Arts and Crafts Sir Banister Fletcher dealt with theatres, amphitheatres, and circuses, as providing necessary amusement for the social life of Roman citizens. Roman theatres were founded, he said, on Greek theatres, and were, indeed, often adapted from them; but the different genius of Roman drama required certain important changes of plan. The old Greek orchestra became unnecessary, and the space for chanting and dancing was now given up to stalls for spectators; while the increase in the number of actors brought about a corresponding enlargement of the stage. The oldest and most magnificent of Roman theatres was the ruined Theatre of Marcellus, begun by Julius Cæsar and finished by Augustus, and it was the only one known that was built on a level site entirely above ground. This great building was interesting in the history of architecture, for the Doric and Ionic orders were placed one over the other, and used not constructively but decoratively. It was, therefore, a fine example of Roman motif in design, which was a composite form, combining as it did the use of wall, arch, and order, which were the essence of Roman building design as distinct from Greek.

But the mimicry of the stage failed to satisfy the virile Roman race, which revelled in fierce physical combats between men and wild beasts, and for these displays great oval amphitheatres were built, which were entirely Roman in origin, and carried out with that wonderful mastery of intricate detail in plan and construction which could be studied to-day in the ruins, still stupendous in their size and grandeur, of the Roman Colosseum, one of the most celebrated structures in the world, remaining to-day a mute but impressive memorial of the grandeur that was Rome.

LIVERPOOL SCHOOL OF ARCHITECTURE

In our last issue we briefly mentioned that the title of Associate Professor had been conferred upon Mr. Budden, of the Liverpool University School of Architecture. Mr. Budden was born in 1887, and educated at Merchant Taylors' School, Crosby, and at Liverpool University. He entered the School of Architecture there in 1905, and graduated with First Class Honours in Architecture in 1909. He was awarded the Holt Travelling Scholarship and University Scholarship in Architecture, and was a student at the British School at Athens, 1909-10. In the latter year he took his M.A., and was appointed studio instructor in the School of Architecture. A year later he became assistant lecturer, first in the history, and afterwards in the theory, of architecture. In 1913 he became an Associate of the Royal Institute of British Architects. Rejected on medical grounds for war service, he was in 1915 elected a member of the Faculty of Arts, and was in charge of the School of Architecture (in the absence of the Professor) until 1919.

In 1919 he became senior lecturer in the Theory and Practice of Architectural Design. After being convenor to the Board of Studies in Architecture and Civic Design, Mr. Budden became chairman of that body for 1921-22.



Mr. Lionel Budden.

He was chosen as Liverpool's representative of Associates of the R.I.B.A. to serve on the London Committee on Architectural Registration, and was appointed by the R.I.B.A. thesis examiner in design for the final examination of that body. In 1923 he was elected to the Council of the Liverpool Architectural Society.

Mr. Budden occupies a high position in his profession. His work is marked by refinement and taste, and as a teacher his achievement has been very notable. Recently he won a competition for the Birkenhead War Memorial, while with Professor Abercrombie several years ago he was second in an open competition for replanning the centre of Bradford and for redesigning its street façades. At the School of Architecture he is responsible for the theory of design, and the Royal Institute of British Architects awarded him its medal for his "Introduction to the Theory of Architecture." In addition to the competitions mentioned, Mr. Budden (in collaboration with Mr. H. J. Rowse) was first in that for work at King's College, Cambridge.

The White Star Co. has founded an annual prize of ten guineas, in the Liverpool School of Architecture, for the design of a portion of the interior of an Atlantic liner.

ARCHITECTURE AND CONCRETE

Mr. Maxwell Ayrton lectured recently on the importance of reinforced concrete in architecture.

The lecturer, in the course of his remarks, referred to the efforts of science to keep in touch with the changing conditions and requirements of the times, and said it was, perhaps, more apparent in the world of design than in any other science, particularly with regard to the introduction of iron and steel into building construction and design generally. The great changes effected in recent years had tested the genius of both engineer and architect, and acting together they had produced wonderful work; but there were still many difficulties to be overcome. The close union between architects and engineers would, however, before long remove all obstacles that stood in the way of complete success in the use of reinforced concrete. The great objection to concrete in the past had been that, when the boarding was taken down, the impression of the boards remained.

As the use of this material became more general, practically a new trade would be created—that of the skilled maker and fixer of shuttering, the man who would know in an instant, when he saw an architect's detail drawings, exactly how he was to set about making his moulds and shuttering, and exactly what would and what would not make a good job, just as at the present time a first-class pattern maker for steel and iron was able to correct in a moment an error in judgment on the part of the designer should he have made one.

The possibilities of reinforced concrete were immeasurable, and its advantages over others many, among the greatest being that of speed. It was conceivable that, when the architect and engineer had sufficient time to complete the drawings for a building down to the last detail, they might bring this manipulation to so fine a point that when the day came for the striking of the shuttering the building should be complete, and need no further finishing than the necessary hanging of doors and putting in of windows and painting.

The lecturer mentioned a few of the problems awaiting the architect, and said perhaps the most difficult was the satisfactory management of the expansion joints. Steel and cement expanded and contracted equally and together; otherwise, of course, reinforcement of concrete would be impossible. That necessitated expansion joints at regular intervals. In some cases it was possible to cover the joint by an overlapping projection. No rule could be laid down; it was one of those points in which it was absolutely essential that the engineer and architect should work in harmony. The "mix"—that was, the composition of the concrete, and, in particular, the amount of water used—was of the greatest importance in the texture of the face of a building. The aggregate used was a matter settled by the local conditions. That and the colour of the sand used determined the colour of the finished work.

Another point to consider was the amount of concrete which could be filled in each day, technically known as the "lift." That varied, of course, according to the thickness of concrete and the amount of reinforcement, &c. It was inevitable that a slight change of texture and colour should happen at each "lift," and it was desirable from every point of view that the "lifts" should be kept as horizontal and regular as possible.

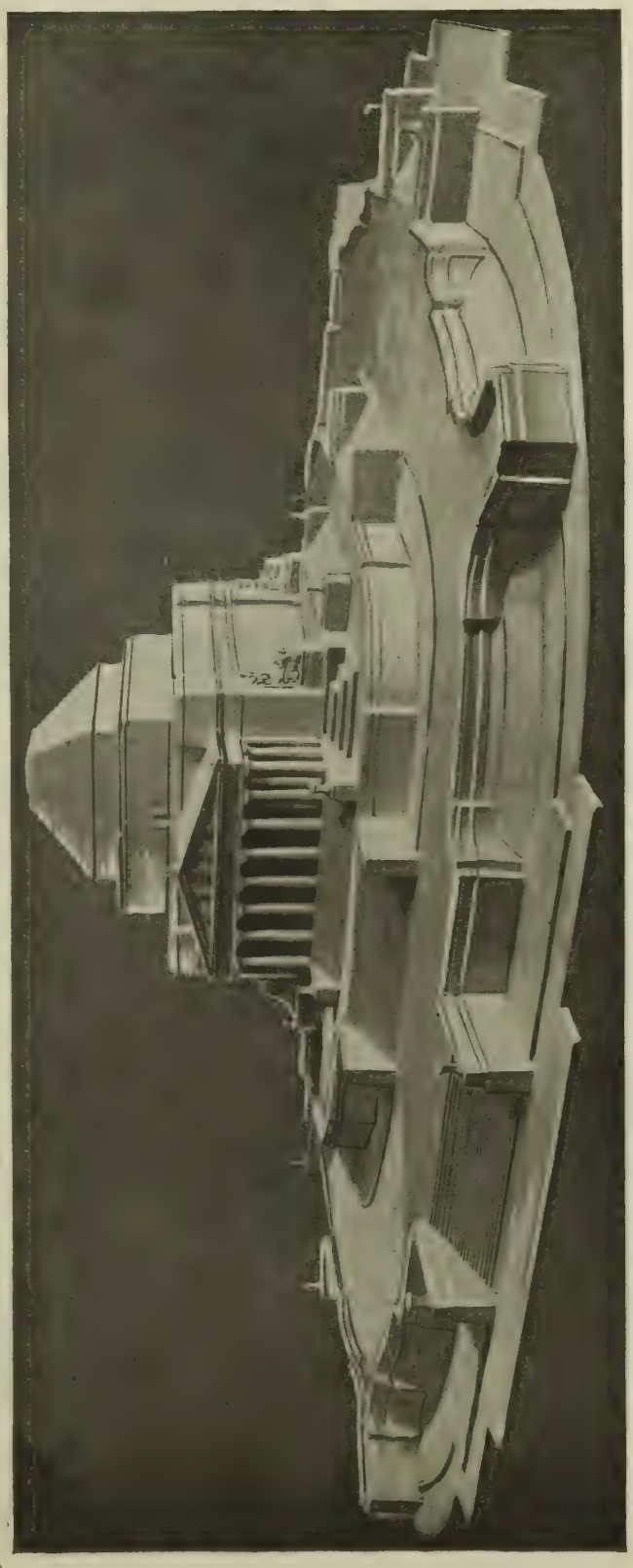
Timber shuttering was bound to move slightly in filling, if only from the natural swelling of the timber when soaked with water. Therefore, some method should be forthcoming which would allow for that change without detriment to the design. Shuttering of a section like weather boarding might meet some cases, so that if it moved outwards slightly it would be unnoticed.

R.I.B.A. Annual Dinner.

The annual dinner of the Royal Institute of British Architects will take place on Tuesday, May 6. Full particulars will be issued at an early date.

THE SPIRIT OF CONQUEST

In his lecture on Roman Architecture recently at the Central School of Arts and Crafts, Sir Banister Fletcher described the triumphal arches of the Romans as the outcome of Roman love of ostentation and a desire to impress conquered peoples with the military power of the empire. Thus amphitheatres for amusement, thermæ for luxury, and triumphal arches for show, depicted the various sides of human weakness which were catered for by those in power. These arches were erected in various parts of the home country, and in conquered provinces, to celebrate the opening of a new road or seaport of a new province. They produced in a permanent form in stone the arches, garlanded in evergreens, under which victorious generals passed in their quadrigas into a captured town, and all the details of the processions along the Via Sacra at Rome, when the returning victors went up to offer sacrificial thanksgivings in the Temple of Jupiter on the Capitoline Hill. The Arch of Titus recorded the capture of Jerusalem, and the bas-reliefs set forth the seizure of the Golden Candlestick and the table of showbread from the Holy of Holies in the Temple. The triumphs of peace were recorded in such arches as that at Beneventum.



Australia's Shrine of Remembrance.

Messrs. P. B. Hudson & J. H. Wardrop, Architects.

[This memorial is to be erected in Melbourne at a cost of £250,000.]

THE SURVEYORS' INSTITUTION

On March 10, Mr. J. Calvert Spensley lectured before this Institution on the subject of "Economic Effects of the Housing Subsidy and the Rent Restriction Acts." In the course of his lecture he dealt with the following points:—

House Shortage.

It was hardly necessary to discuss at any length the circumstances which had led to the shortage of dwelling-houses, but it was well to bear in mind the chief causes. In normal times periods of building activity had alternated with periods of building depression, the movement being followed by a converse movement of empty properties. In Greater London the volume of new building, which was high in the period 1898 to 1909, reached a maximum of over 27,000 in a year; it had already fallen to 13,000 when the land value duties legislation was introduced in 1909 and 1910. How far that measure directly or indirectly hastened the fall, and how far the fall was the natural consequence of a high proportion of empty properties, it was not necessary to discuss, but in 1912, 1913, and 1914, the yearly output was only 8,000. Whether with the decrease in empty houses the normal reaction would have begun to take place in 1914 could not be told, because the war involved the virtual cessation of house building.

Various estimates had been made of the true shortage—estimates which naturally varied according to the assumed requirements. In January, 1918, the lecturer put the number of new houses required for Greater London in the four years to April, 1921, at 53,500, namely, 36,000 working-class tenements and 17,500 non-working-class houses (300,000 rooms). Compared with this figure, the largest number of new houses built in Greater London was about 27,000 in 1899 and again in 1901. Thus, although the prospect at that time was serious owing to the limited building, it was not alarming, the estimated requirements being equal to only one-half of the number of houses built in the four years during the period of maximum production (105,000 in the four years 1899 to 1902). It was now known that the actual number of houses erected in the four years 1916-20 was less than 3,000, the numbers in 1921 being 10,000 and in 1922 18,000. As regards the present-day shortage, no definite figure had been stated officially, but in order to have some idea of the magnitude of the problem it might perhaps be said that 50,000 new houses and tenements would meet the immediate needs of Greater London apart from the slum clearance requirements.

Building Costs.

The second important factor in the consideration of the question was the abnormally high cost of building. There was, he believed, no authoritative statement showing the variation in cost for any long series of years. A contemporary (Ministry of Health figures) report showed the average approved tender prices in the months mentioned for two of the standard post-war type of houses as set out in the following table:—

A-Type (4 Rooms).

	1919	1920	1921	1922	1923
	£	£	£	£	£
January	—	782	834	494	346
February	—	798	824	494	367
March	—	817	700	436	364
April	—	817	697	395	355
May	—	855	697	392	368
June	643	860	693	382	341
July	713	870	665	378	365
August	757	875	612	370	351
September	800	881	594	349	352
October	750	888	573	346	358
November	735	859	577	332	387
December	744	841	514	346	410

B-Type (5 Rooms).

January	—	856	932	560	373
February	—	932	878	518	373
March	—	919	838	513	406
April	—	914	798	446	390
May	—	953	813	422	371
June	785	972	792	419	410
July	833	955	752	413	412
August	852	956	707	407	405
September	868	949	659	398	388
October	834	958	667	407	416
November	822	960	661	387	435
December	837	943	566	387	465

The A-type houses in general comprised living-room, scullery, bathroom, and three bedrooms,



No. 123, Wigmore-street, W. Messrs. Bennett & Hossack, F. and A.R.I.B.A., Architects.

[This building was formerly a private residence, and the old doorway and door have been retained. The shop front has been designed to harmonise with this door and to present the appearance of an eighteenth-century shop, while giving the maximum lighting area and a substantial display of fabrics, Chinese wall-papers, and antiques, which are associated with the name of Messrs. Green & Abbott, Ltd.]

and the figures included the cost of drains, paths, fences, &c., but not land, roads, or sewers. The B-type houses had in addition a parlour. The corresponding price of a pre-war house built to a type-B specification did not appear to have been calculated officially. Comparison between the cost of pre-war and post-war cottages might be made in the case of the London County Council's 1914 and 1919 cottages on Old Oak Estate, and the 1922–23 cottages at Roehampton, as set out below. Unfortunately figures relating to the 1924 cottages for Downham were not yet available. The post-war cottages mentioned were the simplest post-war types, but they possessed amenities which the pre-war cottages lacked, and a reservation was necessary in comparing the figures :—

	3 Rooms.	4 Rooms.	5 Rooms.
Buildings Only.			
	£	£	£
1914 (Old Oak)	220 ..	269 ..	317
1919 (Old Oak)	620 ..	784 ..	895
1921 (estimated)	774 ..	980 ..	1,119
1922 (Roehampton)	360 ..	406 ..	—
All-in Cost.			
1914 (Old Oak)	271 ..	338 ..	401
1919 (Old Oak)	712 ..	837 ..	1,032
1921 (estimated)	890 ..	1,071 ..	1,290
1922 (Roehampton)	— ..	— ..	—

With the greater demand for cheap building it was remarkable that, in spite of the impetus given by war to inventiveness generally, house building had been left with no satisfactory substitute for the hand-laid brick. While it might be admitted that centuries of building had evolved a standard brick perfect in shape, size and weight, it was, after all, designed for hand labour, and machinery and mass production had as yet hardly touched the problem of the provision of dwelling-houses. Herein the economic principle of "substitution" seemed to have failed in practical results.

The Bearing of House Shortage and Building Costs on Rents.

The relative bearing of house shortage and building costs upon the question of rents was fairly well recognised, and it was almost unnecessary to say that increases or decreases in the rent standard were not necessarily caused by increased or decreased cost of building, but that an important factor was excess or deficiency of demand in relation to supply. Thus, if after the war families had decreased in number or in size, or if, owing to a decline in trade or for any other reason, there had been a falling off in population resulting in a large number of empty houses, it was obvious that there would have been no great increase in rents, even though the cost of building were twice or three times the pre-war cost.

Building costs were, however, very important in relation to rent, because, with a great demand for houses, the economic tendency was that there would not be a supply to meet the demand unless a price was forthcoming (or a periodical payment by way of rent) which would recoup the builders for the expense of production. As wages and the prices of building materials were still high, the cost for which houses could be supplied was also still relatively high, and builders would not build except for intending purchasers, who, in relation to the rent-paying portion of the community, were comparatively few. Houses were not built for letting because the economic rent at which such houses could be let, though greater than the rents of the existing houses protected by the Rents Acts, would not be high enough to be remunerative.

In normal times the cost of building had an important bearing on rents in the direction of checking excessive rents, because rents could not for long exceed the equivalent annual cost of building a house. In other words, economic rents could not for long remain higher than remunerative rents, since, if excessive rents were charged, capital (which was fluid) would flow into the building industry and demand and supply would tend to bring about the normal. The normal at different periods would not be the same, *e.g.*, pre-war and post-war; but once normal conditions were established, one got what had been described as something comparable to the sea with its differences in level, sometimes small, sometimes great, as those caused, for instance, by storms and strikes, but always with a tendency to an average level. At the present time, however, normal had not yet been reached, and the cost of building as a factor in checking excessive rents was virtually out of action.

It might be well to make clear the meaning in which the term "remunerative rent" was here used in relation to "economic rent." The latter term denoted the rent which would be obtainable if there were free competition. Remunerative rent was the annual sum which, after meeting annual outgoings, gave a fair return on the capital sum invested. At the present time, remunerative rent was falling towards the level of economic rent. Normally economic rent and remunerative rent tended to coincide.

What had happened not only in London but throughout practically the whole country was that the demand for house accommodation had exceeded the supply, the demand being greatly affected by increases, both in the number of families and in the proportion of adults in the population, while the supply of houses had been greatly affected by the abnormal increase in the cost of building. Such conditions lead inevitably to the position where rents could be increased out of all proportion to the deficiency of houses.

The increase in the actual and potential economic rent of the smaller properties was also due to the fact that persons had had to reduce their standard of living and go into houses smaller than those they occupied before; this had necessarily increased the pressure on the smaller houses.

The Future.

The practical question had entered a new phase with the resumption of private enterprise activity and the possibility of dilution of the building trade. If the result was a rapid increase in the pace of house building, especially if this were accompanied by a decline in the cost per house, it ought to retard the extreme increase in the potential rent standard; that was to say, it might by recognised economic means produce the end which the system of rent restrictions was intended to serve, and at the same time avoid the anomalies which statutory interference with freedom of contract almost inevitably involved. Whether it could possibly produce the result in time to avoid the extension of statutory rent restrictions after 1925 was another question.

Already the check on building (whether caused by high cost of materials or by shortage of skilled labour) had had a very serious effect on the rent-paying community. If in spite of subsidies it were not possible to produce houses sufficient in number to show a margin of supply over demand by June, 1925, what would happen? The answer which the economist would give would probably be that, judging from the known factors, there would be an immediate increase of rents, since the legislature virtually allowed an open market in house rents, the only limitation being the county court judge's view of what was "harsh," "oppressive" or "causing exceptional hardship." The answer which the politician would give was probably influenced by the fact that the great bulk of the electors were protected rent-paying tenants and their wives, and that no party could face an electorate from whom protection was withdrawn before a margin of housing accommodation had been secured.

While, therefore, it was no doubt true that anything that interfered with the free play of economic forces was to be deprecated unless the safety or general advantage of the community at large should demand it, there would seem to be a social and certainly a political necessity for a continuance of rent restriction in some form until the housing shortage was remedied. Conversely it might be said that unless the shortage was well on the way to being made good within a very limited time, there would inevitably be a demand for an extension of rent restriction on lines which might have far-reaching political results.

The conclusion must be that we were too close to the practical working of housing subsidies and rent restrictions to judge of their economic results, and that the subject was not so much a part of economics as of politics, and that, for the time being, economic forces were subordinated to political and sociological forces.

TOWN PLANNING CONFERENCE AND EXHIBITION

Town planning, which is so intimately associated with housing, the reconstruction of unhealthy areas, the better building of the suburbs, the garden city movement, and the establishment of satellite towns, is to-day regarded as offering the only true solution to the social evils of our time. And, whilst town planning rests for its success on an appreciation of all the interests of the citizen, and in doing so becomes a stupendous undertaking, at the same time in its actual realisation it is certainly a very highly technical art. As such it is closely associated with architecture and engineering, and, as is recognised in regard to these two subjects, the necessary qualifications to practise town planning can only be obtained through organised education. The Universities of Liverpool and London have had sufficient experience to justify their having established Chairs in this subject some fifteen and ten years ago. The Department of Town Planning in the University of London was founded in 1914. This year marks the tenth anniversary and during the ten years of its working many of our most promising town planners have emanated from the School. This year it has been decided to hold at University College, Gower-street, from March 31 to April 5, a Conference and Exhibition.

The exhibition is to consist of the work of past and present students and of proposals and incidents of particular interest in the neighbourhood of London. The conference, to which all members and officials of local authorities are especially invited, is meant to help in the technical difficulties of statutory town planning.

The following programme has been arranged :

The opening ceremony will be performed on March 31 by Prince Arthur of Connaught.

Tuesday, April 1, *at* 5.30.—Address by Dr. Raymond Unwin—"Zoning requirements of Town Planning Schemes under the Act." Chairman—Mr. Alfred Gotch, President of the Royal Institute of British Architects.

Wednesday, April 2, *at* 5.30.—Address by Mr. George Pepler—"The Technique of preparing Maps in connection with Town Planning Schemes." Chairman—Mr. Thomas Mawson, President of the Town Planning Institute.

Thursday, April 3, *at* 5.30.—Address by Dr. Gibbon—"Town Planning Schemes in their relation to Regional Development." Chairman—Mr. Neville Chamberlain.

Friday, April 4, *at* 5.30.—Address by Mr. Topham Forrest—"Architectural interests involved in the making of Town Planning Schemes." Chairman—Mr. Andrew Taylor.

Incorporation of Architects in Scotland.

A Council meeting of the Incorporation of Architects in Scotland was held recently at Edinburgh. The chair was occupied by Mr. T. P. Marwick, F.R.I.B.A., President. A letter was read from the Royal Institute of British Architects, in which agreement was expressed with the suggestion of the Council that a medal be awarded by them quinquennially for the best street frontage in the large towns of Scotland, and he expressed the hope that the scheme would prove a successful innovation. A bust of the late Mr. William Burn, architect, Edinburgh, was presented by his grand-nephew, Mr. H. L. Anderson, architect, London. There were elected two Fellows, one Associate, and five Students.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU.

*** *We are glad to give questions and answers but cannot accept responsibility for contributed replies, especially on legal matters.*

Cost of Building.

SIR,—Can you kindly direct me what would be a fair price per ft. cube upon which to base an approximate estimate for a small house in an urban district in the home counties? The work to be of the plainest and simplest description, but sound and good. Personally, I thought 1s. per ft., but it would be interesting to me, and no doubt to others, to hear what other experience would dictate.

ARCHITECT.

Road Charges.

SIR,—Can any of your readers advise me how much the road and sewer charges are likely to amount to per ft. frontage on a site adjoining a 24 ft. roadway not yet made up or sewered on a building estate in the Midlands? The road is not a main thoroughfare. Is there any redress in cases where the road charges are thought to be excessive?

INEXPERIENCED.

Strengthening Columns.

SIR,—I should be very grateful for advice as to the best and most inexpensive method of strengthening cast-iron columns of the hollow circular type, to render them capable of bearing more than their designed load. It is not possible to attain access for grouting the centre up solid in cement, and possibly even this would not go far towards solving the problem.

CONSTANT READER.

Asphalting.

SIR,—We have two houses in Earl's Court with roofs of zinc sheeting which has become porous, and we are desirous of repairing same at as low cost as possible. An asphalte firm has quoted us the price as £90 for asphalting the two roofs, and we also have a quotation for re-zincing at £60. Both these are too high, and we should like an opinion as to how it could be done at much lower cost and at the same time be made lasting.

F. DAY.

London.

Inigo Jones: Drawings by Sir Charles Barry.

SIR,—I shall be greatly obliged if you could inform me, either direct, or through your correspondence column:—

(1) The name of the sculptor of the marble bust of the late Inigo Jones, and where the bust can be seen. I believe it is in one of the Architectural Institutions. The reason for this is that I have the original plaster cast from which the bust was made.

(2) Whether you can inform me if there is a market for the sale of a set of original working drawings, some signed by the late Sir Charles Barry, dated 1847–50, used in connection with some of the contracts of "The New Palace of Westminster" (now the Houses of Parliament). The reason for this request is that I have to dispose of same to the best advantage in winding up an estate, and fourteen of these drawings are in my possession.

The favour of your best advice in these matters will greatly assist me.

A. G. CHESHIRE.

[REPLY.]

The terra-cotta bust of Inigo Jones at the Royal Institute of British Architects is probably the one of which our correspondent has a plaster cast. In the Victoria and Albert Museum, South Kensington, is a lime-wood carved medallion of the architect, but we know of no marble bust of him such as our correspondent expects to find. The monument erected in 1652 over Inigo Jones' grave in the Church of St. Benet in the City was destroyed by the Great Fire, and if any remnants remained Sir Christopher Wren did not reinstate them when he rebuilt this church (now seen in Queen Victoria-street) in 1680. The Royal Institute of British Architects possesses a brown line portrait sketch made by Inigo Jones of himself, and in the Court-room of the Barber Surgeons' "Hall" in Monkwell-street, E.C., Vandyck's well-known oil painting of Inigo Jones is treasured. Another belongs to Lord Darnley by the same painter, and copies of that portrait are not uncommon. Another is at Charlton House. Hollar, in 1655, engraved Vandyck's sketch "En grisaille" of Inigo Jones, and W. Hall's fine frontispiece to Cunningham Graham's "Inigo Jones" is one of the best known. A fine engraving of him by R. V. Vorst, after Vandyck, furnishes a capital folio plate in Triggs and Tanner's "Some Architectural Works by Inigo Jones."

Drawings by Sir Charles Barry.

The probable money value of fourteen sheets of the original working drawings of the New Palace of Westminster, dated 1847–50, must depend upon their condition and character. Our correspondent says that some are signed by Sir Charles Barry, and "used in connection with some of the contracts," consequently it would appear that they are ordinary utilitarian plans of portions of the structure, and not likely to be of permanent interest or architectural value. Complete plans and elevations of the Houses of Parliament as executed and signed by either Sir Charles Barry or Pugin would possibly possess a competitive value if offered at auction, simply as historic records of a national building of world-wide fame.

Contracts.

SIR,—The abnormal condition of the labour market at the present time makes it extremely difficult for surveyors to give estimates or adjust builders' accounts; and having business with various builders, I am faced with the question of allowances for decrease in rates of wages which is universally required in contracts. Allowance having been made in large contracts for the decrease which started February 1, 1923, I find for some weeks past that builders have been compelled to pay workmen 2d. to 4d. per hour in addition to the trade union rate; whilst, on the other hand, Government contracts stipulate that the contractors shall pay the union rate and no more. When this increase is demanded as a set-off to any decreases, it is disallowed, because the contractors take the risk. Has the contractor any legal claim to be allowed these increases owing to shortage of skilled labour, and over which he has no control?

H. W. IDLE.

[REPLY.]

This is a question of contract. Where, in an entire or lump sum contract, it is provided that an allowance be made for any decrease in the rates of wages during the period of the contract, it would appear clear that that allowance must be made. It is, therefore, not possible to set off against such decrease any additional rates paid per hour by the contractor over and beyond the trade union rates. The fact that the contractor has been compelled to pay additional rates, owing to lack of skilled labour, to workmen he has employed, was a risk the contractor had to provide for in his tender, together with other similar contingencies. He has no legal claim to be repaid any amounts so paid, for by his own contract he created a duty for himself, and he is bound, subject only to exceptions contained therein, to fulfil it. Quite apart from what we believe is the legal position, there may be, however, a strong moral claim.



Architecture Club Exhibition.

Burford Priory: New Wing and Terraces. MESSRS. WRATTEN & GODFREY, Architects.

ROBERT ADAM

At a recent meeting of the Manchester Arundel Society, Mr. John Swarbrick, F.R.I.B.A., gave an address on "Robert Adam." After some reference to Robert Adam's earlier years, he said in 1754, when in his twenty-sixth year, he travelled upon the Continent in order to study architecture. He passed through France to Italy and Rome, but returned early in 1758, down the Rhine from Venice and Switzerland, for England and France were then at war. This journey exercised a most remarkable influence over his subsequent work. Whilst abroad he met Charles Louis Clérisseau, Piranesi and many other distinguished artists, but, probably most important of all, he discovered that the architecture of the Romans was not in reality the stiff, inflexible affair of rigid rules that Palladio and his successors had represented it to be. Robert Adam was also an antiquary, and his natural predilections led him to explore the ancient remains of Roman buildings, such as the vast baths, the ruined palaces, the subterranean vaults or grottos, and such places as Herculaneum and Pompeii. Moreover, in 1757, he equipped an expedition to Spalato, in Dalmatia, and had those splendid engravings made that were subsequently published in his great work on this subject. Possibly this undertaking did much to establish his early reputation.

In 1761 he was appointed "Joint Architects of His Majesty's Works." Popular as Robert Adam undoubtedly was, it needed all his endurance to bear with equanimity the persistent prejudice against Scotsmen which then existed. Yet no architect of the day was more generally popular. He became the fashionable architect, and among his clients were the King and Queen and many members of the peerage. Commissions came to him from all parts of the United Kingdom and Ireland, and so great was the demand upon his services that it was with difficulty that he sought to fulfil his engagements with satisfaction to his clients and credit to himself. So anxious were some of the eighteenth-century house builders to secure the advice of Robert Adam that they dispensed with the services of older architects.

Almost as soon as he began to practise he started to prepare designs for furniture and the various appointments of private houses and other buildings, as at Harewood House (Yorkshire), Syon House, Osterley House, Kedleston, and Nostell Priory. He realised that an interior could not be pleasing so long as the furniture and fittings bore no relation to the architectural treatment. He perceived that there must be consonance throughout, and that if the work were to attain to true excellence one scheme of effect must govern the treatment as a whole, and that the carpets, ceilings, walls and fittings, together with the smallest pieces of furniture and sundry features, must all be designed in accordance with the general scheme. The variety of subjects that it became necessary to design, in order to apply this principle, was very considerable. Not only did he find it desirable to design cabinets, upholstery, carpets, tapestry, and embroidery, but also mirrors, silver plate, memorials, freedom caskets, lead fanlights, fire-grates, door furniture, girandoles, épergnes, torchères and many other details too numerous to mention. Though many of these designs were open to criticism, there was in most an artistic expression that still retained a living charm.

In 1760, two years after Robert Adam's return to England, his younger brother, James, started upon the Italian tour, from which he did not return until May, 1763. Whilst abroad, James purchased, on behalf of George III, the large collection of drawings and prints which then belonged to Cardinal Alexandro Albani. He also employed Clérisseau, Zucchi and other artists to prepare drawings of architectural and decorative work for professional purposes. Engravings of some of these drawings by Cunego were subsequently published. In this and other ways, Robert Adam came into the possession of a fine collection of drawings, paintings, engravings, books and ancient marbles. He was, in fact, a collector and connoisseur of great discrimination.

We in this country were apt to regard the Adam style as the artistic expression of Robert Adam alone, but though Adam undoubtedly impressed upon his work the stamp of his own individuality, it should not be forgotten that his treatments were due not solely to his personal investigations of ancient Roman remains and observation of Cinquecento work in Italy, but also in a large measure to that second eighteenth-century renaissance or revival of the study of the antique aroused by the writings of the Abbé Winckelmann and others. It was this same movement that influenced the work of the Louis XVI period in France. Probably Adam learned much from the French in the design and arrangement of stately interiors. The manner in which he arranged rooms *en suite* and secured vistas and also varied the shapes of the rooms, introducing round and oval apartments and exhedræ, was distinctly clever. Another service of Robert Adam to art, which was too often overlooked, was the raising of public taste from an admiration of Chippendale's Rococo and Chinese treatments, and other contemporary vagaries, to an appreciation of the excellencies of the lighter and less familiar work of the ancient Roman craftsman. Adam's judgment in such matters as town planning and the design of public bridges, such as those at Edinburgh and Bath, was excellent in many ways, and much in advance of that of most of his contemporaries. The most familiar architectural works of Robert Adam are probably the Register House and University at Edinburgh, Harewood House (Yorkshire), Kedleston, the interior of Croome Court, Stowe, Lansdowne House, Osterley, the Adelphi, Mellerstain, the Countess of Home's house in Portman-square, Gosford House, Nostell Priory, Kenwood, the Watkin Wynne house in St. James's-square, and Syon House. As the interiors of most Adam houses were not shown, the public had become accustomed to judge the merits of his work by the standards set by such replicas as they might have seen. Some of these did not do justice to Adam. He had even seen the light, gossamer-like bas-reliefs picked out in bright colours on a tinted ground, in a perfectly shocking manner. At Mellerstain some of the original Adam work had been painted by modern decorators chocolate and other colours, with an appalling effect. Many architects had been shocked to find that it has become the custom for certain well-known firms of furnishers to set immature draughtsmen to copy portions of some of the original designs of the brothers and then adapt them to suit entirely different apartments. The result had often been a meaningless, uninspired hotch-potch of Adamesque detail that no discerning connoisseur could well respect and this kind of stuff had often been called contemptuously, "the Adam style." Professor Sir Reginald Blomfield wrote in his "History of Renaissance Architecture in England":—"Their [the Adam brothers] work is often graceful and accomplished, refined in proportions, and dexterous in ornament, but it is feminine in quality and steeped in affectation. One looks in vain in their work for the energy of intelligence, the strong contempt for prettiness, which even the inferior masters of the older school possessed in some degree. The elegance of the Adams was but a poor substitute for this great quality. Their art was essentially a morbid development, evidence of the slow decay that was surely overtaking the once magnificent school of English architecture." After reading that one began to wonder if Sir Reginald Blomfield had forgotten the simple, broad effect, severity, dignity and massiveness of Adam's design for the main front of the Edinburgh University and other similar work. There was certainly nothing there that could be called either feminine or affected—the treatment was bold and masculine to a degree. It showed, in fact, that simplicity of treatment which characterised Adam's work after the disastrous American war, which ended in the declaration of Independence. Robert Adam struck a note that no other British architect or designer had struck before him, and on general grounds he occupied a place of honour in the history of the development of English architecture. It could at least be said of him that he was the first English architect to show how the principle of unity of effect or consonance could be applied in order to bring both the accessories and appointments completely into accord with the architectural treatment. Too many architects had been content to provide the structure and leave the owner without any advice or guidance with regard to its equipment or setting. It must therefore be clear that Robert Adam was in some respects a pioneer and a man accustomed to take a broad and comprehensive view regarding his work as a whole. They must all admit that, if they wished to be fair, irrespective of whether they might entirely agree with the details of his treatments or not.

BOOK REVIEW

Little Things that Matter. For those who Build. By EDWIN GUNN, A.R.I.B.A. (London: Tothill-street.) Price 5s.

That strict attention to the details of construction is of the highest importance in house building is so obvious that the point would seem to require no emphasis. We know, however, from painful experience, that this is not the case. How often it is that an architect is called in by a distressed client to inspect a new house in which serious defects have developed, the cause of which is unknown; and how often it is that the result of the examination is the discovery of faults in construction which could easily have been avoided, but which will now require drastic and expensive remedies. Dry rot, perhaps, has developed, owing to defective ventilation beneath the floors, or due to the fact that the damp-proof course is in the wrong position. Damp walls and cracked ceilings are found to be the result of a want of attention to detail, which is either due to a lack of knowledge or to careless workmanship.

It is, therefore, with considerable pleasure that we have read the manual on "Little Things that Matter" before us, and can heartily recommend its use to all those engaged in cottage and small house construction, for whom it is primarily intended. In a succinct but lucid manner, the author discusses the various details of house construction, including foundations, damp-proof courses, hollow walls, weather-proofing, tile roof covering, the treatment of eaves, valleys, hips, ridges and verges, the position of chimneys and the treatment of doors and sash-frames; and he makes useful suggestions from his own experience as to the construction of these details in a satisfactory manner. As an instance of the small things that matter, the author refers to the position of taps over a pantry sink, and says that he was once informed by an hotel manager that he had saved 50 per cent. of his considerable bill for breakages of china and glass by removing the hot and cold cocks to the corners of the wash-up sink. In this position, they are equally convenient for use, and they do not come so readily into collision with the articles being handled. The manual, in which æsthetic as well as constructive values are considered, is evidently the result of considerable practical experience; it is profusely illustrated by clearly drawn sketches, and the subjects are defined by marginal headings.

BOOKS RECEIVED.

THE HISTORY OF THE PAINT-STAINERS' COMPANY OF LONDON. By W. A. D. Englefield. (London: Chapman & Dodd).

"THE STUDIO" YEAR-BOOK OF DECORATIVE ART, 1924. (London: *The Studio*, Ltd.) Price 7s. 6d. net.

HOUSING PROBLEMS IN AMERICA. (New York: National Housing Association).

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

Peabody Buildings.

Sir J. Remnant asked the Minister if he was aware that the tenants in the Peabody Buildings adjacent to the Windsor Hotel, Victoria-street, Westminster, were being turned out to allow the building to be converted into flats; and if he could postpone this conversion until the great demand for housing accommodation by the working classes in London had been relieved.

Mr. Wheatley said he was informed that these buildings were sold by the Peabody Trustees because they were regarded as out-of-date, and that they had now been vacant for some time. He understood that all the occupiers had been provided with alternative accommodation in dwellings belonging to the Trustees, including a new block of dwellings which was erected in Westminster in substitution for the Victoria-street building.

Answering further questions, Mr. Wheatley said that he would deprecate any interference with existing housing accommodation. His belief at the moment was that he had no power to stop the conversion of these working-class dwellings into more expensive flats. The appeal should have been made to another authority. It probably was made, and the authority might have been less sympathetic than he would have been had he had the necessary power.

Parlour and Non-Parlour Houses.

Mr. Wheatley informed Lord E. Percy that the average prices of non-parlour and parlour houses included in contracts let and reported by local authorities during the month of January, 1924, were £384 and £445 respectively. These prices were exclusive of the cost of land, roads and sewers. The corresponding averages for the three previous months were :—

	Non-Parlour.	Parlour.
October, 1923 ..	£358	£416
November, 1923..	387	435
December, 1923..	412	465

Labour and Prices.

Mr. Wheatley informed Mr. D. G. Somerville that he was in communication with the building industry as to the arrangements to be made in order to ensure the supply of labour and materials necessary for the carrying out of an adequate housing programme, but he was not yet in a position to make a statement. The question of price, which was, of course, a very important element in any housing scheme, was also receiving consideration.

The 1919 Act.

Mr. Wheatley informed Mr. P. Harris that the total number of houses erected by local authorities and public utility societies under the Housing, Town-Planning, &c., Act, 1919, up to February was 168,430, and a further 4,634 were under construction at that date, 39,184 homes were completed by private builders with the aid of the subsidy authorised by the Housing (Additional Powers) Act, 1919.

Concrete or Brick?

Mr. P. Harris asked the Minister whether he could say if the experiences of his department during the last four years had led him to the conclusion that in the erection of cottages concrete could be substituted for brick with advantages in economy and durability.

Mr. Wheatley said that cottages could be designed and constructed in concrete so as to be equally as durable as brick. The relative degrees of economy would depend on various local circumstances, but particularly on the availability and cost of bricks, suitable aggregate and skilled labour.

Ancient Monuments.

Sir M. Conway asked the Secretary to the Treasury, whether in providing work for the unemployed the opportunity would be taken to place funds at the disposal of the Ancient Monuments Commission for the excavation of ancient monuments in Great Britain.

Mr. W. Graham said that the function of the Ancient Monuments Commission was to make an inventory of Ancient and Historical Monuments and to specify those most worthy of preservation. It did not include the work of excavation. A considerable amount of work to relieve unemployment was being undertaken in connection with the ancient monuments supervised by the First Commissioner of Works.

The Rent Restrictions Bill.

Mr. Wheatley informed Mr. T. Thomson that Mr. Gardner's Rent Restrictions Bill was being examined in detail. If the Government decided to make any departure from the course already announced a statement would be made.

Building Trade Negotiations

Mr. Wheatley stated, in reply to questions, that the negotiations with the building trade were being expedited as much as possible, but he was unable at the moment to state when he should be able to make a statement on the subject.

Overcrowding in Finsbury.

In reply to Mr. Gillett, Mr. A. Greenwood said the Minister of Health was aware of the overcrowded housing position in Finsbury, but he thought that the situation there could probably best be relieved by increasing generally the accommodation available for the Metropolis. He understood that this Borough was rapidly losing its residential character and that there were no vacant sites of any size.

Production of Bricks.

Mr. Mills asked what was the present annual production of bricks; whether it exceeded 160 bricks per day; and, if not, would the Minister take steps to increase the output in the brick-making industry, in view of the building programme outlined by him.

Mr. A. Greenwood said that the question of the steps that could best be taken to secure the provision of sufficient supplies of material to ensure the carrying out of an adequate housing programme was one which the Minister had asked the building industry and the manufacturers of material to consider. The present output of bricks was variously estimated at between 2,500 million and 4,000 million a year.

Westminster Cathedral.

Mr. Henderson, the Home Secretary, informed Sir H. Brittain that the Westminster Cathedral Authorities intended to take precautions to make a fall from the parapet impossible, and he hoped their example would be followed by all authorities responsible for similar places to which the public had access.

Rings and Trusts.

In reply to a question as to whether he would set up a committee to inquire into and report on the operation of trusts, rings, and co-operative societies in this country, Mr. A. V. Alexander, Parliamentary Secretary to the Board of Trade, said that the suggestion would be considered, but several committees in recent years had inquired into the operation of trade combinations.

Office of Works Houses.

Lieut.-Commander Kenworthy asked the First Commissioner of Works if he would state what were the overhead charges incurred on the houses built by the Office of Works by direct labour under the Addison and other housing schemes, including architectural and contractional services, salaries of staff, and cost of office accommodation; and what was the percentage charge in the case of schemes supervised by the Office of Works and carried out under lump sum contracts, including salary charges, cost of office accommodation, &c.

Mr. Jowett said the percentage charge for overhead expenses on the housing schemes executed by H.M. Office of Works had worked out at 3 per cent. in respect of schemes carried out by direct labour and 2 per cent. in respect of schemes carried out by contract.

State-aided Houses.

Mr. Greenwood informed Mr. T. Thomson that the total number of State-subsidised houses completed in each year since 1919 was as follows: 1919, 100; 1920, 15,711; 1921, 86,669; 1922, 88,999; 1923, 19,185.

Mr. Wheatley, in reply to Mr. Lambert, said that up to February 1, 168,430 houses had been completed under the Housing, Town Planning, &c., Act, 1919. The average all-in cost for houses erected under the provisions of the Act would be approximately £1,040. It was anticipated that the annual loss falling on the Exchequer would be £7,700,000 per annum.

Scottish Schemes.

Mr. Adamson (Secretary for Scotland), informed Mr. D. Millar that the number of houses proposed to be erected under schemes put forward by Scottish local authorities under the Housing, Town-Planning, &c. (Scotland) Act, 1919, was 115,574; the total number sanctioned for erection by local authorities under that Act was 25,129; and of these 21,011 had been completed at January 21, 1924.

The New Rents Bill.

Stormy scenes were witnessed at the first meeting on Tuesday of the Standing Committee of the House of Commons which is considering the Rent Restrictions Bill of Mr. Gardner, the Labour member for the Upton Division of West Ham. Mr. Wheatley, Minister of Health, and Sir Patrick Hastings, Attorney-General, have withdrawn from the Committee. The Government are represented by Mr. Stewart, Under-Secretary of Health for Scotland. Mr. Mardy Jones, a Welsh Labour member, is in charge of the Bill.

The first amendment, moved by Sir Kingsley Wood, was to postpone Clause 1, which seeks to extend the date of decontrol. After a thirty-five minutes' speech from Sir Kingsley Wood, the Chairman ruled that the amendment was a dilatory motion, and he refused to accept it.

Lt.-Col. Fremantle moved an amendment providing that if decontrol did not come to an end by 1925, an extension of control should take place only on the advice of the local authority. He said that if private enterprise was to supply ninety per cent. of the houses, as in the past, decontrol at an early date was essential. The local authority knew where the shoe pinched.

The amendment was still under discussion when the Committee adjourned.

Business Architecture.

Manchester will shortly have a new shopping centre in the locality of King-street. This centre will be brought into being by the erection of commodious shops and offices on a site bounded on one side by Ridgefield, on another by South King-street, and on the third by Bow-street, and Ridgefield and South King-street are to be widened. In close proximity is the extension of Kendal Milne (Harrods). The architect for the Ridgefield and South King-street scheme is Mr. Charles Swain, of Manchester. A six-story building will be erected in Portland stone, and the whole scheme, it is estimated, will cost £80,000 to £100,000.

New Middlesex Road.

The contract for the construction of a new road starting at Finchley-road, Hampstead, and ending at the North Circular-road, Hendon, has been placed with Messrs. Walter Jones & Sons, Ltd., 64, Victoria-street, Westminster. The amount of the tender was £86,019.

The contract is the first to be placed in the Middlesex area in connection with an authorised scheme, involving a total estimated expenditure of £1,600,000.

THE BUILDING TRADE

QUANTITIES AND SMALL HOUSES

Recent correspondence and deliberations seem to indicate a certain amount of misgiving as to the purpose served by the issue of quantities for tenders upon small buildings, and notably as it effects the cost of houses of the size and class most in demand to-day. It is pointed out that the minute specification and measurement of the multitudinous little labours and details which singly have barely any money value at all, but which the builder for his own protection feels impelled to put a price upon, tends to raise appreciably the price of a tender above that which a builder would quote when tendering upon the merits of a job and without a prepared bill of quantities before him.

That there is indeed much to be said for this point of view, the open-minded onlooker can hardly fail to agree, but that it is right that it should be so is quite another matter, and one which raises the whole question of the relations between builder, building owner, architect, and surveyor.

The real purpose of a bill of quantities is not always clearly understood, and it is sometimes apt to be looked upon as merely a means of eliminating sharp practice on the part of contractors, who, as a class, often suffer in reputation for the offences of the very few. Russel Sturgis, in his "Dictionary of Architecture," gives a very sound definition of the purpose of a bill of quantities:—

"The purpose of a bill of quantities is to afford to a builder, in customary form, all the purely mechanical and clerical preliminaries for deducing from the drawings the value of the structure, to which may be added the further advantage (in usual regular practice), of this work being done only once for all the builders about to estimate in competition."

It will be seen, then, that its main purpose is one of service to the contractor, which purpose, no doubt, has its reflection in the prevailing but often criticised practice of making payment of the surveyor's fees through the contractor, though it gives food for wonder and thought that the revolt against the use of quantities for certain classes of work should come from the direction of the builders. A bill of quantities, of course, also serves the further purpose of forming a stable basis of contract which, once agreed upon by both parties thereto, is quite above and independent of personal judgment, that is, where the bill is properly framed. The extreme value of such an instrument is apparent to and recognised by all, except when applied to buildings under a certain limit of size, when doubts seem to arise.

A building of whatever size is a most complicated unit, involving many trades and many operations on the part of each. The intuition of the salesman who can appreciate at a glance the value he must place upon his goods to ensure a profit and competitive success, is hardly applicable to the builder, though it can perhaps come increasingly into play as the subject of tender decreases in size and complication.

Nobody wishes the builder to make either an excessive profit or a loss upon his work, and loose tendering may lead to the first in times of slack competition, or to the latter when the market is keen. The ideal at which any good man of business aims is a fair profit for a good sound job. Tendering upon a good bill of quantities brings such close tendering from contractors who know their job that it would seem to indicate that here is the medium through which this ideal may best be attained. We may, then perhaps, accept this as an acknowledged fact, while maintaining an open mind upon the interpretation which is by common usage placed upon this particular means to an end.

Let us examine, for example, a particular example applicable to the bill for any small house. The full orthodox way of billing a moulded frieze rail would be to give its lineal measurement, specify its size and describe, make a sketch of its moulding, number its mitres and its mitred returned ends, and so on. For a simple matter, it presents quite a formidable array of writing matter, and in spite of continual usage the contractor is apt to price out in a relatively formidable manner. He will bear in mind that he is bound by a clause that all quantities are measured nett, and that allowance is to be made for all cutting and waste, and for what may prove in actual work to be a very trivial matter, his small allowance per foot run may in the whole job total up to quite a considerable amount, particularly when his mitres and labours are added thereto from a round figure unit. All the time he has the confidence that his competitors are from force of custom placing a similar interpretation upon like matters, and that none of them will have the courage to leave blank items which may, in extra work, become relatively heavy when measured at schedule rates which would become nil.

A mould similar to the frieze mould might be required as an intricate ornamental panel over the fireplace, full of breaks and jumps and ears, and, if measured as a plain run of mould, might work out at a very low price for a very intricate little job. The estimator, therefore, feels called upon to protect himself by putting a price upon such labours, sometimes by the exigencies of currency units, quite out of proportion to their real value.

There is, no doubt, that an element of fear of the scope of a bill of quantities and of its binding nature has a damaging effect upon the expediency of its application. It is too often looked upon as a set of chains rather than as the real friend it can be to either party to the contract, and it therefore seems necessary that the form of such a bill should be made as simple and condensed as possible. A simple process should read simply and may then be priced simply.

There seem to be too many reiterated restrictions that by common usage go to swell the bulk of a specification and bill of quantities, with an apparent assumption that work by nature will be done badly when the natural assumption should be that it will be done efficiently, and while it is necessary to legally protect against the rogue, continual warnings against this, that, and the other thing are apt to take on a rather terrifying appearance.

For instance, when we all specify that all workmanship and materials are to be the best of their respective kinds and to the satisfaction of the architect, is it necessary to specify all timber to be well seasoned, free from loose or dead knots, &c., when anything short of these qualities would certainly not be "best"? Is it necessary to state that no cement must be beaten up again after it has once set, when such practice would certainly not be best workmanship? Is it even necessary to state that all stone is to be laid on its natural bed?

Of course, these items are specification items, but they find their way into most bills of quantities, particularly in the provinces, where a separate specification is unusual, and they make them bulky and tend to exaggerate an impression of the size and importance of a job, and the restrictions under which it is to be worked.

More particularly is this the case in smaller work. A little house that has two stone steps and a meat slab often carries a list of preliminary items to the stonemason's trade as verbose and important as those for a big stone-faced building.

It would seem, therefore, that there is much "dusting" to be done upon the surface of our custom-ridden documents before they can become the entirely useful instruments that they should undoubtedly be. Much of the vain repetition must go, to the relief of all parties. Only in the case of particular methods of practice peculiar to individual architects would there seem any need for very great elaboration to give security in law or practice.

We have touched upon the minute labours involved in the taking off of simple operations, and many of these might with advantage be taken as read without undue risk of a miscarriage of justice in the adjustment of variations, provided the builder, on examining the drawings prior to tendering, and, perhaps, with somewhat more care than is generally the case, knows his job well enough to see whether or not there is an unusual amount of such work to be anticipated. Cases will, no doubt, arise where extra work may involve an undue proportion of unmeasured labours, and where a strict following of the schedule would be unfair, but, surely, a reasonable architect and a reasonable builder between them could arrive at a fair ruling where a rigid following of the schedule prices would mean an obvious injustice. Cutting and waste might with advantage go in as a bulk percentage item following the items affected. There must be many such complications which with advantage might be "boiled down" to a handy and digestible bill, and a conference of architects and builders might do much good in evolving a simple standard model form of specification and quantities. We want to know just what form will approximate to the viewpoint of the builder who quotes on his own quantities, while giving adequate protection to all parties to the contract.

We have noted that the objection to all this minute detail is aimed at small work only, but it seems very probable that the same evils occur in the larger work also, for it must be a simple matter of proportion. They have been exposed in the smaller work because of the facility of comparison with similar tenders without quantities, so that it is obvious that such a conference as has been suggested could cover a very wide field of research and might lead to results of paramount importance.

There is nothing wrong with the ideal of good quantities as the basis of a contract, and there is no reason why they should not form an invaluable instrument of equity, and pay for themselves through the keener prices made possible by their discretion of detail.

It is, at any rate, a very serious thing that there should be the faintest suspicion that a bill of quantities is not only an individual extravagance but a breeder of other extravagances, when its whole purpose is one of service to all branches of building, to bring about the economies for which present-day needs call so strongly.

Craftsmen's Competitions.

Considerable interest is being taken in the Craftsmen's Competitions and the exhibition of work executed in the Building Craft Schools which are to be held in connection with the Building Trades Exhibition at Olympia, London, from April 11 to 26. In addition to the prizes in the Craftsmen's Competitions previously announced, the following City Companies have undertaken to award further prizes as under:—

(1) The Carpenters' Company, £10, and diplomas and medals; (2) Armourers' and Braziers' Company, £5; (3) The Painters' Company, Special prizes or diplomas to the value of 5 guineas.

Besides those from the London area, many applications have already been received from intending competitors from the provinces, and the competition promises to be keen, interesting and educative. Schools intending to exhibit work and students who wish to take part in the competitions should communicate at once with Mr. Don Cameron, Hon. Sec. to the Committee of Management, 43, Essex-street, Strand, London, W.C.2, from whom full particulars may be obtained.

THE TWO DEMANDS

Mr. John E. Yerbury writes :—

Sir,—Adverting to "Building Contractor's" example of working his method of payment by result, may I suggest that although it might be applied to the sub-letting of the labour, in brickwork as a whole, it would be difficult to apply in order that each individual in a gang should get his share? The contractor could enter into an arrangement with the piece-work bricklayer to give a bonus in this, or any other, way, but could the sub-contractor (for labour only) enter into a similar arrangement with the individual workers employed by him? Some men would work right through the job, others for a short time only, and it would be quite an effort in costing accountancy to satisfy every man employed; and the cost of checking the work would add considerably to the price.

Payment by result is easy when all men have to perform exactly the same operations and turn out a number of exactly similar articles; but it is very difficult to apply to the building industry with its many trades and various grades of work which each have. The overhead charges in a highly organised business are already a heavy handicap, and it seems to me that even if possible to work, "Building Contractor's" system would add considerably to these charges.

"Building Contractor" will, I fear, not obtain support for his proposal by giving examples of the easiest and simplest working of his scheme; but will have to deal with each and every trade, and in the most intricate cases to work in actual practice.

For the moment we will assume that he can set out a system which will work as easily in practice as his example works on paper; and both employer and worker will gain the advantage he shows.

Having agreed the value at £40 and having found that the actual cost was £30, the saving is shared as he suggests. When "Building Contractor" estimates the cost of the next similar job will he again agree the value at £40, knowing that the cost was £30? Will he not rather say: "This is a competitive job—if I estimate the value at £40 I shall lose it; let us agree the value at what we know the cost really is, £30. We shall then stand a chance of getting the job and make a living, which is better than losing it by trying to make an extra profit."

The men will naturally stand out for the previous figure, hoping again to receive a good bonus, and so "rate fixing" will be the future bone of contention in the building trade, as in some other industries.

I do not say it is impossible, but I can say that having discussed the subject for years, I have never seen a system which would work; and when I have put my own suggestions for profit-sharing to contractors they have always pointed out the very great difficulties to be overcome. The number of trades, the varying types of work, the differences in the proportions of labour engaged in the trades, the fact that those who start a contract may be all over the country before completion, and the impossibility of knowing whether a contract is profitable or not until very near the end. Ground work and brick work may be profitable. Can the contractor pay a bonus on these trades, and run the risk of loss in all the others?

If "Building Contractor" has a scheme which will work I hope he will be able to introduce it to those who rule the trade, and that it will receive consideration.

It may seem rather an impertinence on my part to criticise or to offer suggestions to those who are engaged in the industry, but my excuse is that I am concerned to see some progress towards those ideals which were the stock-in-trade of everyone during the war.

As I have written in your columns many times before the war, during the war, and since, "the interests of employer and worker are identical if they will but see it," and it is the strangest thing outside fiction that (in spite of the fact that every employer has succeeded who has seriously set to work to share profits with those who help to make them) the majority of employers are against the principle of profit-sharing in the sacred name of individualism.

I shall always regret the breaking-up of the Building Trade Parliament, from which I, at least, had hoped great things; and I am still sanguine enough to go on hoping that some day it may be revived. This, I know, is thought by some to be "arrant nonsense"; it may be to-day, but I still look for a saner view to-morrow.

I am convinced that the suggestion I made in your columns ten years ago could be turned to good account to-day, if only all employers were as are the most enlightened and all workers as are the most intelligent.

The more one studies the housing question the more one feels that things cannot go on as they are. Every industry should pay a sufficient wage to create contented workers (no man can be content to work for bare existence and the profit of others), for without contented workers this country never will give the best output per man in her industries.

The Interim Report of the Foster Committee laid the foundation upon which a working scheme might be raised, with good will on all sides. A round table conference might yet revive the Parliament and devise a working scheme which should be a light to lighten other industries.

APPRENTICESHIP IN THE LONDON BUILDING TRADE

A correspondent, Mr. H. W. Idle, writes as follows :—

Sir,—Referring to the letter in your issue of Feb. 29 from Mr. Ernest Lesser, my experience has been that an apprentice will learn his trade more thoroughly when machinery is absent; and this is usually the case in small firms that do not employ more than seven or eight joiners, or, say, forty in all trades, especially so in the provinces. How then is a builder in a small business to keep within the trade union regulation that there should be not more than one apprentice to seven workmen?

Again, Mr. Lesser's last word is "parents." To my mind the root of the apprenticeship difficulty is with them—an employer naturally asks a premium for teaching an apprentice, the first year being profitless. How many can afford £25 to £50 for premium, as well as the cost of tools?

In technical and evening classes there is a grant from the Government for each pupil who passes an examination. Why not hold out the same grant to employers, whose teaching is much more practical and thorough? There would be no financial difficulty with parents, and the employer would be compelled to take an interest in an apprentice with a grant from Government sources—also the completion of an apprenticeship is usually followed by constant employment in the same firm; small firms in particular.

"The Smaller House."

The work of many architects who are well known for the excellence of their domestic work, in addition to the work of younger men who are specialising in a similar class of work, is illustrated in "The Smaller House" (London: 29, Tothill-street, S.W.; price 25s. net). Some of the houses illustrated are pre-war, whilst the remaining examples are post-war. It is on the latter examples that interest will centre, and the problem of severe economy has been ably dealt with. The houses are shorn of most of their pre-war excrescences, perhaps to their advantage, and in many the bedrooms come in the roof, no doubt to economise brickwork, unavoidable but not always satisfactory; the types on Georgian lines are much preferable. Many interiors and garden lay-outs are illustrated. The volume concludes with a list giving the cost of some of the houses illustrated, when built, and their approximate cost to-day.

ARE LONDON BUILDERS PROFITEERS?

Mr. A. Bosworth writes :—

Sir,—May I venture to seek a little light on this subject through the medium of your columns, if you will be so kind as to spare me a little of your valuable space for this purpose?

Some few weeks ago, in the columns of *The Times*, the Chairman of the Leicester Housing and Town-Planning Committee declared as a fact that, from actual experience not theory, it had been found that "really spacious semi-detached houses could be built in bulk, with a fair margin to the contractor, for £350." I quite appreciate that what may be possible in Leicestershire may not necessarily be possible in London within the same limits, owing to higher rates of wages, but materials should not, I think, cost more here than there. Yet I find it impossible to get anything here within 20 per cent. of the Leicester figure (£350), even for flats in blocks of six or eight, much less really spacious semi-detached houses.

On the basis of the Leicester testimony, which scarcely admits of any doubt, my idea of a reasonable price for London is £450 for flats and £500 for houses, good class structures, decent interiors and pleasing exteriors, but it would seem these figures are impossible to the London builder. Hence my query as above. Perhaps some of your readers would care to express an opinion.

HOUSING AND EDUCATION.

A meeting convened by the National Union of Women Teachers (London Unit) was held at York Mansions Restaurant, S.W.1, on March 6. Mrs. Tidswell (President), in opening the meeting, said it had been called to discuss "The Relation of Housing to Education," as being teachers they knew the very detrimental effect bad and inconvenient housing conditions had on the children whom they were called upon to educate, and they felt how very difficult it was even to teach them cleanliness when there was only one water tap in a house tenanted by several families. In her opinion a great deal of the money spent on education was wasted on account of the bad housing.

Miss Titleboam (ex-President) said the question was very forcibly brought home to teachers when mothers of their pupils came with complaints about the insanitary state of their houses and asked for advice. She compared conditions of living in fine houses with those of the slums, and pointed out how easy it was for children born in the former to benefit by their educational advantages, while those who lived in overcrowded houses had little chance of retaining anything learned in school owing to the terrible surroundings in which they were forced to grow up. What chance had they? Fifty per cent. of those children were never even rested, because they had no rooms to rest in, and teachers spent half their school hours merely endeavouring to correct wrong impressions and remove from the minds of the children the ugliness gained by them during the time they were not at school.

Miss Lovell (Women's Housing Council, Kensington) believed the only remedy for such conditions was to educate public opinion and then bring influence to bear on the Government.

Miss Biggs (Secretary, W.H.C., Westminster) said there were 3,000 people in Westminster living in two rooms, with families ranging from three to eleven in number, and although many of the buildings were camouflaged with beautiful exteriors the interiors were not fit for human occupation. Under the Acts of 1890 and 1909 tenants could demand that repairs should be done, but their powers were greatly modified by the fact that if they were turned out there were no other houses for them to inhabit.

BATH BUILDERS' ASSOCIATION

The Bath Master Builders' Association held their annual dinner recently. Mr. George Hayward (president of the Association) presided, and was supported by, among others, the Mayor of Bath (Mr. Charles H. Hacker), Messrs. H. Matthews (president of the National Federation of Builders), P. Bovey (president of the S.W. Federation), W. S. Weeks (president of the Bristol Association), F. N. Cowlin, E. W. Wooster, J. Basil Ogden, H. H. Morgan, A. J. Taylor, A. C. Fare, T. B. Silcock, G. E. Peto, J. Pictor, W. A. Williams, T. A. Pearce, E. Ireland (vice-president), G. E. Hiskens (hon. secretary), etc.

Mr. E. Ireland, proposing "The Mayor and City Council of the Queen City of the West," said the problems of civic government were to-day greater than they ever were before.

After the Mayor had responded, Alderman C. H. Long, proposing "The National and South-Western Federations of the Building Trades' Employers," said the question of housing had been a great trouble to many Governments. The present Government, unlike other Governments, had gone to the National Builders and the National Operatives and asked them to form a joint committee, which was sitting to-day, and at which Mr. W. H. Nicholls (past president of the National Federation) was the chairman.

Mr. H. Matthews (president of the National Federation), in responding, said that he felt they were not attaching the importance to the question of apprenticeship that they ought. They were told by the operatives that they ought to have 56,000 apprentices engaged in the building industry, and yet there were only 21,000, leaving 35,000 minus. He did not think that was a creditable thing for the industry, and it would seem that somebody was lacking in his duty. The Federation had tried on three or four occasions to get employers to make a return of the number of apprentices and skilled workmen they employed, and they had failed on every occasion. Was there any reason why they should not give those returns and so enable the Federation to attack that great problem where it needed attacking most? Supposing that 35,000 more apprentices had been engaged in the industry, say since the Armistice, how much better off they would be for skilled labour to-day than they were.

Dealing with the housing question, Mr. Matthews said he believed that the present Government were in earnest on that matter and were going to leave no stone unturned in order to redeem promises which they had made. They way in which they approached the question was so different from the way previous Governments had approached it, that he thought they would not only make a great success but also deserve it.

The Chairman, responding to the Mayor, said if Bath was to vie with the other spas of England and the Continent there was no doubt about it that a winter garden was a necessity. It would be said that they had not got a site. Well, he had found a site. To his mind it should be in the north side of the North Parade Bridge. In spanning the river they would span it sufficiently wide to build a winter garden on the city level.

The remaining toasts were "Architects, Engineers, and Surveyors," proposed by Alderman A. W. Wills, and acknowledged by Mr. A. J. Taylor; and "Our Guests," which was submitted by Mr. F. J. Blackmore and responded to by Messrs. W. S. Weeks and Frank N. Cowlin.

Change of Address.

On and after March 24 the address of the Val de Travers Asphalte Paving Co., Ltd., will be 106, Salisbury House, Finsbury Circus, E.C.2.

PAINTERS' AND DECORATORS' MATERIALS

On February 29, Mr. Charles H. Eaton, F.I.B.D., gave a lecture on this subject before the students of the Architectural Association, Bedford-square. Mr. J. Cayley presided.

In the course of his remarks Mr. Eaton said the work of the painter and decorator was quite the most important of all the building trades. They might recall that when relics of antiquarian interest were discovered, very frequently the greater part of the interest was in the paint.

A general rule in painting was that all surfaces must be clean, smooth and free from dust, grease or dirt of any kind, and must be perfectly dry. Labour, probably the most expensive item on the works, should be the most highly skilled for the type of work involved; expenses were generally higher, ultimately, if a low grade of labour was employed. The materials used should be always of the best, obtained from a firm whose reputation was beyond all doubt. This insistence upon the best possible material was so important that it might be said if they failed to satisfy it, they were guilty of gross negligence; failure to use the best material would very materially increase their labour cost in the additional effort required on the part of the craftsman in his efforts to turn out a good job.

The lecturer then dealt with special problems and said three factors were necessary before rust set in, viz., the presence of moisture, oxygen and carbon dioxide gas. Impurities in the metal itself were a contributory cause. There was some difference of opinion as to the removal of scale prior to painting. He was convinced that iron work should be well brushed with a wire brush, or sand blasted, and painted at the works whilst still warm. Undoubtedly red lead or iron oxide paint was the best for the purpose. It was cheap and efficient, covered remarkably well, and was of a pleasing colour.

Dealing with the question of rubbing down, the lecturer said for generations—in fact, since the introduction of oil paints—considerable trouble had been experienced with the dust-creating glass-paper used for rubbing down the surface of paint to make it smoother. Things had altered and they now had waterproof glass, or flint papers, being used in place of ordinary paper, from which particles of flint became detached. By the new method the surface was merely sponged over and the waterproof glass-paper applied. It cut rapidly, reduced rubbing-down costs, avoided dust, and was much healthier for all concerned, in addition to which it gave a much better finish to the work.

The treatment of surfaces upon which distemper had been applied was not very difficult if the work had been properly done. It would be easy to wash off the old distemper which normally was soluble in water. The first application of paint followed as soon as the wall surface was dry. The time appeared to have passed when craftsmen prepared their own flat paint, or flatting, and they now had offered a wonderful range of flat enamels made in practically any colour. They were capable of standing reasonable washing, a quality not found in the older type of material. He would draw their attention to reds; at one time it was difficult to find a red that would keep its colour; after a few months it became a definite pink of unattractive appearance. They now had reds that were so permanent in colour that the trouble was to get rid of them when they wished to change their colour scheme. However, a material had been produced which effectually sealed them. Liquid sealer was a material which prevented any preceding material from bleeding through any subsequent coats of paint.

The painting of new plaster was not to be recommended; if moisture were imprisoned, it would lift the paint film, and so the paint would fall off leaving defects in the surface that increased the cost of later work. Keen's and Parian cement required to be painted immediately they were set from the trowel; then a period of some weeks must elapse before further treatment.

Generally it might be inferred that if work did not turn out satisfactorily something was wrong with the method of preparation. At all times manufacturers were ready and willing to place at the service of their clients a paint technologist who would assist them to get to the bottom of any trouble, but faults were generally caused by lack of skill and interest.

A discussion followed the close of the lecture, and Mr. L. H. Bucknill, A.R.I.B.A., thanked Mr. Eaton for his paper and said the explanations given would enable them to understand many things that previously had been obscure.

NEW BUILDINGS IN LONDON.

Portugal-street.—Extension.—An extension is now being made to the London School of Economics, Portugal-street, Kingsway. It will have a Portland stone front, which is being executed by the builders, Messrs. F. G. Minter, of Putney. Messrs. Lindsay's Paddington Iron Works, Ltd., are doing the steelwork. This is the only sub-contract placed at present. The architects for the work are Messrs. Trehearne & Norman, of Windsor House, Kingsway, W.C.2.

Bayswater.—Reconstruction.—Messrs. J. Jarvis & Sons, Ltd., are doing some building work at Moscow-place, W.2. The work consists of reconstructing and rebuilding the existing mews and garages, and altering to an up-to-date garage, complete with lock-ups and flats over. All the sub-contracts have been let.

Regent-street.—Building.—A new building now being erected at 92, Regent-street, with frontages to Regent-street and Glasshouse-street, has been designed by Messrs. Yates, Cook & Darbyshire, architects for Messrs. H. L Brown & Son, Ltd. Messrs. Hall, Beddall & Co., Ltd., are the principal contractors. Both frontages are being executed in Portland stone. The constructional steelwork is being executed by Messrs. W. H. Blake & Co., Ltd., of Sheffield; the fireproof flooring is of the "Bigspan" design by Messrs. Diespeker & Co., Ltd.

Regent-street.—Building.—A new building has been designed for Messrs. Wilson & Gill, at 137-141, Regent-street. Messrs. Yates, Cook & Darbyshire are the architects; and the builders are Messrs. Hall, Beddall & Co., Ltd. The frontage to Regent-street is being executed in Portland stone by the South-Western Stone Co., Ltd. Messrs. Dorman, Long & Co. are providing and fixing the constructional steelwork, and the fireproof flooring is of the "Bigspan" type by Messrs. Diespeker & Co., Ltd.

Golden-square, W.—New Building.—A new building is now being erected at 25–29, Golden-square, and 13–17, Warwick-street, London, W., for Messrs. Dormeuil Frères. The architects for the work are Messrs. Mewes & Davis, and the general contractors are Messrs. F. D. Huntington, Ltd., 11, Hanover-square, W.1. The building will be seven stories in height with frontages to both Golden-square and Warwick-street of 118 ft. Steel-framed building with Portland stone fronts. The cost of the contract is approximately £138,000. The following sub-contracts have already been placed:—Steelwork, Dorman, Long & Co., Ltd.; Portland stone, The South-Western Stone Co., Ltd.; fireproof floors, Diespeker & Co., Ltd.; lifts, Waygood-Otis, Ltd.; heating and sprinkler system, Richard Crittall & Co., Ltd.; plumbing and drainage, John Blaikie & Sons, Ltd.; steel shutters, Art Metal Equipment Co.; asphalt, Limmer and Trinidad Lake Asphalt Co.; granolithic and concrete stairs, Stuart's Granolithic Co., Ltd.

Bayswater.—Extension.—Messrs. Bradley's are having an extension made to their premises in Hereford-road at an estimated cost of £40,000. The work includes the extending of the fur department with new cold storage, &c. The architect is Mr. J. A. Bowden, of 30, Craven-street, Strand, W.C., and the building is of a very simple type, not being in a prominent position. The principal sub-contracts are:—Steelwork, Messrs. Smith, Walker, Ltd.; artificial stone, The Empire Stone Co., Ltd. The general contractors are Messrs. F. G. Minter, Ltd., of Putney.

THE ROMANCE OF BUILDING THROUGHOUT THE AGES.—IV

MR. G. W. THOMPSON'S fourth lecture* on "The Romance of Building throughout the Ages," delivered to the Amalgamated Society of Woodworkers (Junior Members), at Liverpool, dealt with the period of Rome from 700 B.C. to A.D. 300.

The lecturer said after conquering Greece the Romans took, as plunder, many of the works of art, and if it had been possible to transport it they would certainly have removed to Rome the complete Acropolis. The Romans built splendid roads, bridges, and aqueducts, but it was not until they learned from Greece and employed Greek artists and artificers that structures of great artistic merit were erected.

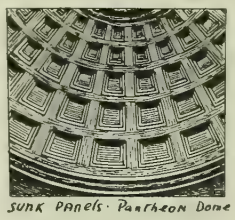
Italy was rich in building materials. Rome was built on a volcanic rock called tufa. From Tivoli was obtained hard limestone called travertine. A volcanic stone—peperino—was obtained from Mt. Albano. Besides these, lava and pozzolana and sand and gravel existed in plenty. Pozzolana mixed with lime made excellent concrete. Walls were usually built of concrete and faced with stone.

The Romans adopted the trabeated style of the Greeks, and devised the arcuated style by introducing the arch, vault, and dome. Hemispherical domes or cupolas (cupa=cup) were used for covering circular structures, *e.g.*, the Pantheon, which was the most ancient of existing Roman temples. Although at one time the hall of a bath it was now used as a Christian church (S. Maria Rotondo). Its internal diameter was 142 ft. 6 in., which was also its height. The walls were of concrete 20 ft. thick. The Corinthian columns of the portico were monoliths, 46 ft. 6 in. high. The original bronze door and frame still remained.

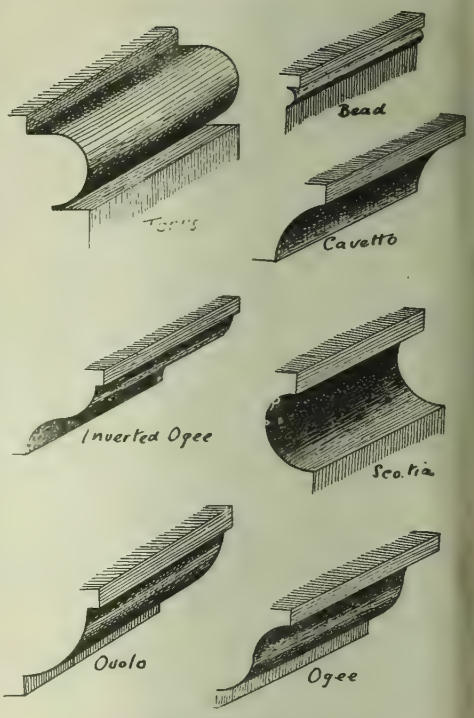
Aqueducts were among the most picturesque of Roman remains, and brought water from the distant hills to ancient Rome. Great quantities of water were needed for the thermæ, or public baths, which contained separate marble halls for cold, tepid, and hot baths, for rubbing and drying, and for games. The walls were ornamented, and mosaic pavements of coloured stone, glass, and marble existed. The baths fell into disuse in the fifth century, following the destruction of the aqueducts by the Huns.

The favourite amusements of the Romans were chariot-races and gladiatorial contests, and for these they built great round or elliptical-shape amphitheatres. The Colosseum was the most striking of these, and was built about A.D. 80. Its shape was that of an ellipse, 620 ft. by 513 ft., and the arena was 287 ft. by 180 ft. The seats were of solid stone, and dens of wild beasts were under the lowest tier. The external façade had four stories, the total height being 157 ft. The elevation was pierced with arches of Tuscan, Ionic, and Corinthian orders.

The amphitheatre at Verona was in a splendid state of preservation, and other well-known examples were to be found at Pompeii, Capua, Nimes, and the remains of one at Dorchester, in this country.



The Romans honoured their victorious generals by raising arches or columns as symbols of victory. The arch of Titus remained in good condition. Trajan's Column was another memorial of victory. It was built of Cararra marble and was 147 ft. in height. It consisted of 34 blocks hollowed out, and 182 steps carved in the blocks formed an internal spiral stair. The sculptures around the column numbered 2,500 human figures, besides animals. A full-size cast of the column stood in the Victoria and Albert Museum, London. The column was in the Roman Doric style. A figure of Trajan originally stood on the top, but now a bronze statue of St. Peter overlooked the city.



ROMAN MOULDINGS.

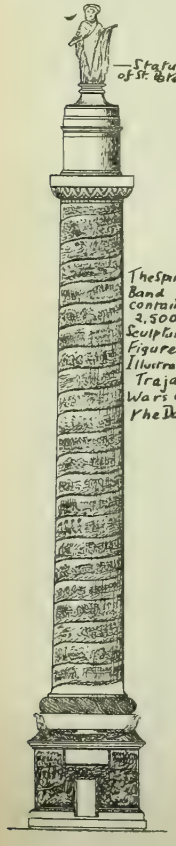
Very famous were the ruins of the Roman Forum, or market-place, which was really the centre of the old city.

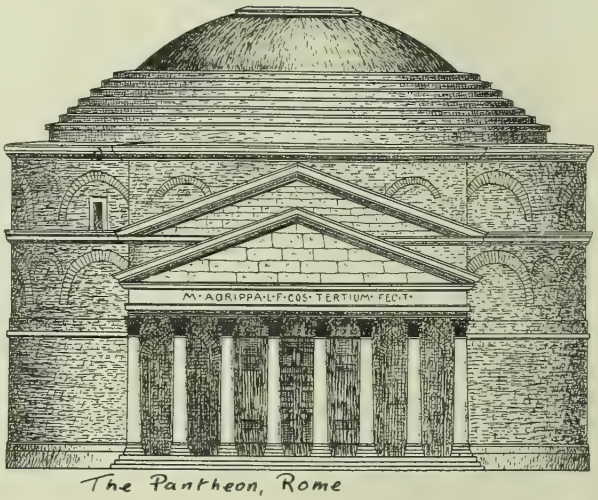
With each of the monuments of ancient Rome was associated some important historic event. When the Empire was at the height of its power it was the custom to carve portrait-statues in honour of the rulers. The Empire became less and less powerful, and finally it was conquered by barbarians from the north.

Rome was a city full of art history and of art treasures, and still provided a fruitful home of study for young architects

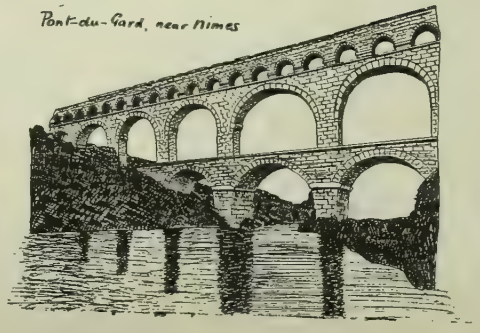
In some descriptive notes accompanying the slides, the lecturer said the circular portion of the Pantheon was known as the Rotunda, and was erected by the Emperor Hadrian in A.D. 120-124. In front of the Rotunda was the Corinthian octastyle (eight columns) portico, 110 ft. wide and 60 ft. deep in the centre. The eight columns were monoliths. The dome, or cupola, was a hemisphere built partly of brick and partly of concrete. The building was lighted by means of one circular opening 27 ft. in diameter at the crown of the dome; this method of lighting produced an effect both solemn and impressive. The aim of the Romans was to make the Pantheon (the Temple of all the Gods) symbolical of the vault of heaven, the idea being that the worship of Jupiter should take place in a building open to the sky. The dome was originally covered with bronze plates, but these had been replaced by sheets of lead. The ancient Roman bronze door frame, doors, and fanlight, originally plated with gold, still remained.

Among the most picturesque ruins were the arches of the ancient aqueducts that carried water from the distant hills to Rome. The Pont-du-Gard, near Nimes, in France, was the finest existing example of a Roman aqueduct. It was about 900 ft. long, and was formed of three tiers of arches crossing a valley 180 ft. above the river Gard.





The Pantheon, Rome



* Earlier lectures in this series were given in *The Builder* as follows:—I, February 1; II, February 15; III, February 29.

CONTRACTS UNDER SEAL.

The case Nixon *v.* Erith Urban District Council which we noted and discussed in our issue October 26 has been carried to the Court of Appeal, where the decision given in the Court below has been affirmed. It will be remembered that the Council, acting under the Housing of the Working Classes Act, 1890, and the Housing and Town Planning Act, 1919, were putting in force a housing scheme, and the plaintiff, who was a quantity surveyor, acting under the instructions of the defendants' architect, had taken out quantities and was sueing to recover the remuneration agreed upon for this.

The scheme was not carried out in its entirety, but the sole question really decided in the case was whether the action could be brought as the contract with the plaintiff was not under seal. It is not necessary to do more in this present note than to refer to the reasoning of the Court of Appeal on this question under the Housing Acts.

The material sections are Section 56 of the Housing of the Working Classes Act, 1890, and Section 1 of the Housing and Town Planning Act, 1919. Section 56 is as follows: "Where this part of this Act has been adopted in any district the local authority shall have power to carry it into execution (subject to the provisions of this part of the Act with respect to rural sanitary authorities) and for that purpose may exercise the same powers whether of contract or otherwise as in the execution of their duties in the case of the London County Council under the Metropolis Management Act, 1855, and the Acts amending the same, or in the case of sanitary authorities under the Public Health Acts, or in the case of the Commissioners of Sewers under the Acts conferring powers on such Commissioners."

Lord Justice Bankes pointed out that there were four classes of authorities: (1) the London County Council; (2) two classes of sanitary authorities, namely, (a) rural, and (b) urban; and (3) the Commissioners of Sewers: and the object was to confer on each of those authorities power to erect houses for the working classes. Under the Act the rural sanitary authorities had to obtain the consent of their county council before putting any scheme into force, but the other classes were free to act without obtaining such consent.

It was then pointed out that this section was not well drafted, but the powers given to each authority were not cumulative, but were given to each authority separately in respect of the erection of working-class houses, and the section must be read distributively. Under that reading of the section the powers of an urban sanitary authority "whether of contract or otherwise" were derived under the Public Health Acts, and Section 174 of the Public Health Act, 1875, provides "Every contract made by an urban authority whereof the value or amount exceeds £50 shall be in writing and sealed with the common seal of such authority." Section 1 of the Housing and Town Planning Act, 1919, which compels the local authorities to adopt Part III of the principal Act of 1890, it was held made no difference, for it was only under Part III of the principal Act that they derived their powers to make any contract in respect of a building scheme.

The above is a short summary of the effect of the judgment of Lord Justice Bankes (the only judgment at present reported of the three Lords Justices) as reported in the *Times*, February 21, but it seems to make the matter clear.

The bad drafting of Section 56, it will be seen, has been the cause of some doubts, for the section is not even grammatical English, but the above interpretation makes it clear that the several authorities mentioned derive their powers severally from the Acts specified.

Builder's Estate.

Mr. Thomas Start (71), of St. Anne's, Walton-road, Bognor, Sussex, builder (net personalty £1,169), £17,598.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	C'p'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/9	1/9	1/9	1/9	1/9	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall.)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 437).

THE SCOTTISH BUILDER

ARCHITECTURE AND COMMERCE

MR. T. P. MARWICK, F.R.I.B.A., President of the Incorporation of Architects in Scotland, lectured recently on this subject at the Victoria Art Galleries, Dundee. Mr. Charles G. Soutar, F.R.I.B.A., the President, occupied the chair.

In the course of his remarks the lecturer said in present times one found a great amount of misunderstanding and lack of appreciation among many educated people as to the part which architects filled in this world. Their labours did not receive the recognition and publicity they merited. Publicity stimulated interest, and the success of art in the long run depended upon public interest. Beautiful buildings educated the people, and in the course of time they would, if worthy, raise the whole tone of public taste throughout the country. All who did good artistic work should be suitably rewarded. Yet how seldom did anyone in this country take the slightest interest as to who was the designer of a particular building. It was only last year that a medal had been instituted in London for presentation to the architect who produced the most beautiful street frontage, and something on similar lines was done in Birmingham. There was now to be one quinquennially for Scotland. That was all in the right direction, for so long as men of conspicuous talent were unappreciated and their most earnest efforts passed by without intelligent criticism and recognition, they would be discouraged and mediocrity would abound. In the United States of America a very marked advance in architectural talent had taken place, largely coincident with the bestowal of patronage of those connected with commerce and the stimulation of public interest.

He hoped in a short time they might have in Scotland, as there was already in Cambridge London, Liverpool, and other English cities, a University degree in Architecture. This ought to be placed within the reach of all men in training. It would give the imprimatur of the University and help to improve the quality and status of the profession. This had already been arranged for at Glasgow University, and in Edinburgh they were working towards the same end. He hoped Dundee would follow. It would also be well if in every city or town a Consultative Art Committee were elected to co-operate with the local authority. This had recently been done in Edinburgh and Birmingham, and one hoped to see such action followed everywhere, for he was convinced that it would be beneficial.

ABERDEEN BUILDING WAGES.

THE following minute of agreement has been arrived at between employers and employees in the mason, plumber, slater, joiner, and wood-cutting machinists trades in the city of Aberdeen: "The parties mutually agree that the rate of wages be increased to 1s. 7½d. per hour on March 7, 1924 (from 1s. 7d.), and from that date that the Aberdeen wages be adjusted under an agreement which will stipulate a rate equal to that adopted by the Scottish National Building Trades Federation employers; and either party reserves the right to revise this agreement as at February 1, and August 1, yearly, at two months' notice." This will mean an increase of one halfpenny per hour to about 1,600 employees in the Aberdeen building trades.

The Architect in India.

Mr. John Begg recently delivered a lecture, illustrated by lantern slides, to the members of the Glasgow Institute of Architects on this subject. In the course of his remarks he said modern architectural practice in India was a comparatively negligible quantity at the beginning of the present century, when it received a stimulus as a result of the Government action of introducing the recruitment of architects from home to the Public Works Department of India. Even at the present time, however, architectural practice was still a small affair compared with the vast opportunities which the country offered. For many years India would require careful nursing, during which time everything would depend on the lead which the Government gave to the public in India with respect to the profession. He predicted a great future for architects and architecture in India. How soon that would begin to be felt, however, depended upon many matters, of which the important strings were partly held by the Government and partly by architects. There was a living tradition of craftsmanship and design still existing in India in a somewhat feeble state of vitality, and it was for the people of this country to keep that tradition alive, foster it, and give it a new lease of life. In that tradition lived the germs of India's future architecture. Mr. Begg illustrated his lecture with a series of lantern slides showing many examples of the work executed by members of the Public Works Department.

Tidying Edinburgh.

The Edinburgh Corporation Lighting and Cleansing Department Welfare Club held their fourth annual meeting recently. Lord Provost Sleigh presided. In the course of his remarks he said he appreciated very cordially the services rendered by the department, and he recognised how much was due to the staff for the efficient manner in which they carried out their laborious duties. The club had engaged in excellent work, and he understood they had present in the hall a hundred scholars, from schools in the centre of the city, who had been invited by the executive committee of the club in token of their appreciation of the services rendered by the children in the campaign against the chalking and marking of buildings, and the throwing of wastepaper on the streets.

Health and Home Exhibition.

The arrangements for the holding of this exhibition at Aberdeen, from the 15th to the 22nd of this month, have all been completed. All the space for stands has been let out, and there will be over 40 exhibitors, representing the leading firms in Aberdeen and various parts of Scotland and England.

There will be numerous working exhibits, and continuous demonstrations of labour-saving devices.

NEW BUILDINGS IN SCOTLAND

Aberdeen.—SHED.—The Tramways Committee has instructed the Burgh Surveyor to issue specifications for erecting a new shed at King-street to accommodate 24 tramway cars. The estimated cost of the addition is £16,000.—The T.C. has accepted a tender of £39,000 for the erection of 86 houses at Torry.

Dundee.—REBUILDING.—The E.C. are considering the question of rebuilding the old gymnasium in Ward-road.

Ayr.—HOUSE.—Plans have been passed for a house at Seafield, for Mr. J. Anderson. The estimated cost being £800.

Musselburgh.—HOUSES.—The T.C. has accepted tenders for the erection of 28 houses, amounting to £11,983.

Edinburgh.—ADDITIONS.—The house, No. 21, Grosvenor-crescent, has been acquired for an addition to the Theological College of the Episcopal Church by the Representative Church Council.

Troon.—VARIOUS.—The Dean of Guild Court has passed plans as follows:—W. Mills a building, West Portland-street, at an estimated cost of £400; A. E. Howell, additions to Sandford, Harling-drive, estimated to cost £200; and Mrs. K. Murphy, Ardaghy, an addition to a house, Morven-crescent, at a cost of £200.

Renfrew.—EXTENSION.—Plans have been passed by the Dean of Guild Court as follows:—Rebuilding and extension of dairy premises in Paisley-road, for Mr. J. Love.

Oban.—CONVERSION.—The Dean of Guild Court recently approved of plans submitted by the Oban and Lorn District Co-operative Society, Ltd., for the conversion of a store at the rear of Kimberley Buildings into a bakery.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2¾	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2¾	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2¾	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/5½	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2¾	
Inverness	1/4	—	1/8½	1/4	1/4½	1/4	1/3½	10½d to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2¾	
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1 0	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2¾	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 481.

CONTRACTS, COMPETITIONS, &c.

Forsome contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

MARCH 15.—**Abersychan (Mon).**—HOUSES.—For erecting for the U.D.C. twenty houses at Garndiffaith and Abersychan. Architect's Department, the Co-operative Wholesale Society, Ltd., St. Mary-street, Cardiff.

MARCH 15.—**Dewsbury.**—PAINTING.—For the painting of the Covered Market, for the T.C. Borough Surveyor, Town Hall, Dewsbury.

MARCH 15.—**Lytham St. Annes.**—HOUSES.—Erection of 72 houses on various sites within the Borough, for the T.C. Borough Surveyor, Town Hall, St. Annes-on-the-Sea.

MARCH 15.—**Otley.**—HOUSES.—Designs and prices for 122 houses (qualifying for Government subsidy), for the U.D.C. Surveyor, Council Office, Otley.

MARCH 15.—**Shoeburyness, Essex.**—HOUSES.—Erection of 34 working class houses on the Housing Site at Dangers, Shoeburyness, Essex, for the Shoeburyness U.D.C. Mr. E. Read, Council's Surveyor, High-street, Shoeburyness.

MARCH 15.—**Swillington.**—HOUSES.—Erection of 50 houses, for Messrs. T. & R. W. Bower, Ltd. General Manager, Allerton Main Collieries, Woodlesford, near Leeds.

MARCH 15.—**Thetford.**—SHEDDING.—Construction of the shedding, grand stand, offices, and other woodwork erections, for Royal Norfolk Show at Thetford. Mr. W. Kerridge, East Harling, Attleborough.

MARCH 15.—**Warrington.**—PAINTING.—For painting, for the Gas Department. Mr. W. S. Haddock, General Manager, Gas Offices, Mersey-street, Warrington.

MARCH 17.—**Bonnybridge.**—PAINTER WORK.—For painter work for 14 houses, for Stirling C.C. Messrs. A. & W. Black, architects, 5, King's-court, Falkirk.

MARCH 17.—**Bradford.**—ADDITIONS.—For alterations and additions at Open Air School, Thackley, for the T.C. City Architect, Town Hall, Bradford.

MARCH 17.—**Brixham.**—SHELTERS.—For the construction and erection of four shelters, for the U.D.C. Surveyor, Town Hall, Brixham.

MARCH 17.—**Chesterfield.**—FIRE STATION.—For the erection of a fire station with firemen's quarters and superintendent's office and house, &c., for the T.C. Mr. W. M. Ashmore, architect, 1, Highfield-road, Chesterfield.

MARCH 17.—**Edinburgh.**—PAINTER WORK.—For painter work at 13, King's Stables-road, for T.C. Mr. J. A. Williamson, City Architect, City Chambers, Edinburgh.

MARCH 17.—**Glasgow.**—GATES.—Erection of new entrance gates and gate lodge, Dumbreck-road, for the T.C. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow. Deposit £2 2s.

MARCH 17.—**Gorseinon (Glam).**—BRIDGE.—For construction at Gorscinon of a new ferro-concrete bridge over the river Lliw, for the Swansea R.D.C. Messrs. Morgan, Davies & Partners, civil engineers, Wind-street, Swansea.

MARCH 17.—**Halifax.**—LIBRARY.—Erection of new branch library and reading room, Siddal, for the T.C. Borough Engineer, Crossley-street, Halifax. Deposit £1 1s.

MARCH 17.—**Hampstead.**—CONVENIENCES.—Construction of public conveniences at (1) Grangeway, Kilburn, (2) West End Green, and (3) Fortune Green, for the B.C. Borough Engineer, Town Hall, Hampstead. Deposit £1 1s.

MARCH 17.—**Heswall.**—EXTENSIONS.—For the erection of sergeant's house and offices at the County Police Station at Heswall. Mr. H. Beswick, County Architect, Chester. Deposit £1 1s.

MARCH 17.—**London, S.W.3.**—REPAIRS, PAINTING AND DECORATING, AND NEW ENTRANCE GATES.—(*a*) For repairs, painting and decorating to the interior of the Dispensary Block, at the Hospital, Cale-street, Chelsea, S.W.; (*b*) for taking down existing gates and piers to the Ambulance Entrance of the Hospital in Cale-street, and erecting new, for the Guardians of the Parish of Chelsea. Mr. Edmund J. Harrison, 23, Berkeley-road, Crouch End, N. 8. Deposit £2.

MARCH 17.—**Penge, S.E.20.**—CONVENIENCE.—Construction of an underground convenience on a triangular piece of ground in High-street, Penge, for the U.D.C. Colonel H. W. Longdin, Surveyor to the Council, Town Hall, Anerley, S.E.20.

MARCH 17.—**Plymouth.**—PAINTER WORK.—For painting Nos. 1 to 63, Corporation Buildings, Morice-square, Devonport, Nos. 76 to 84, Duke-street, Devonport, Nos. 1 to 18, James-street, Devonport, for T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth.

MARCH 17.—**Plymouth.**—REPAIRS.—For repairs to premises, 33, Well-street, for the T.C. Medical Officer of Health's (Housing) Department, Town Hall, Stonehouse, Plymouth.

MARCH 17.—**Pontefract.**—BUNGALOWS.—Erection of (1) bungalow, in Pontefract, for Mr. E. H. Clarke; (2) bungalow, in Pontefract, for Mr. F. H. W. Holmes. Messrs. Garside & Pennington, architects, Pontefract.

MARCH 17.—**Prestatyn.**—HOUSES.—Erection of 14 houses on the Penrhwylfa-road, Prestatyn, for the U.D.C., on the Dawson Estate. Mr. S. Trevor Roberts, M.Inst.M. and C.E., Architect and Surveyor, for the Housing Scheme, Council Offices, Prestatyn. Deposit £3 3s.

✱MARCH 17.—**Seaton.**—HOUSES.—For the erection of 12 houses on the Colyford-road, Seaton, for the U.D.C. Mr. John Ford, Architect, Seaton, Devon.

MARCH 17.—**Southend-on-Sea.**—CUBICLES.—For bathing cubicles, Eastern Esplanade, consisting of five huts, for the T.C. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

MARCH 17.—**Tyne Dock.**—IMPROVEMENTS.—For carrying out improvements at Tyne Dock Station, for L. & N.E. Railway. Mr. S. Wilkinson, Architect, North Eastern Area, Newcastle.

MARCH 17.—**Warmley.**—HOUSES.—For erection of eight houses on housing site near Bitton Station, for R.D.C. Mr. S. Williams, Clerk to the Council, Council Offices, Warmley. Deposit £1 1s.

MARCH 18.—**Bangor.**—ALTERATIONS.—For alterations to Maesgarnedd Children's Home, Llanfair P.G., for the Bangor and Beaumaris Board of Guardians. Mr. Robert Pierce, Insurance Chambers, Carnarvon.

MARCH 18.—**Bethnal Green, E.2.**—REDECORATIONS AND REPAIRS.—Internal redecoration, repair and alteration of the Schools, High-road, Leytonstone, E.11, for the Bethnal Green B.G. Mr. C. Faulkner Jones, Clerk to the Guardians, Administrative Offices, 79A, Bishop's-road, Bethnal Green, E.2. Deposit £2 2s.

MARCH 18.—**Cavan.**—BUILDINGS.—For the erection of new buildings at the Farnham Arms Hotel, Cavan. Mr. James Kelly, architect, Clones.

MARCH 18.—**Coole.**—CHAPEL.—Erection of a memorial chapel at Coole, co. Westmeath, for Mr. Edward Hope. Messrs. Morris & Kavanagh, quantity surveyors, 68, Harcourt-street, Dublin. Deposit £1 1s.

MARCH 18.—**Glossop.**—HOUSES.—Erection of 12 houses on Sheffield-road Site, for the T.C. Borough Surveyor, Town Hall, Glossop. Deposit £2 2s.

MARCH 18.—**Hull.**—HUT.—Additions to the school hut on the Cottingham Castle Estate, for the T.C. City Architect, Hull. Deposit £2 2s.

MARCH 18.—**Isle of Ely.**—COTTAGES.—Erection of two pairs of cottages at Barton-road, Wisbech, and one pair at Tydd St. Giles, for the C.C. Mr. R. S. W. Perkins, County Surveyor, Downham-road, Ely.

MARCH 18.—**Leytonstone.**—REPAIRS, &C.—For the internal redecoration, repair and alteration of the schools, High-road, Leytonstone, E.11, for the Bethnal Green Board of Guardians. Mr. C. Faulkner Jones, Clerk, 79A, Bishop's-road, Bethnal Green, E.2. Deposit £2 2s.

MARCH 18.—**Liverpool.**—ALTERATIONS.—Alterations and plumbing work to Rumney-road Block, for the West Derby B.G. Mr. Ernest B. Bailey, F.S.I., 9, Cook-street, Liverpool. Deposit £1 1s.

MARCH 18.—**Manchester.**—REPAIRS.—For repairs to property, Nos. 1 to 29, Sefton-street, Bradford, for T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

MARCH 18.—**Margate.**—ROOF.—For construction of a reinforced concrete roof to boiler house at Waterworks Pumping Station at Wingham. Also false ceiling to coal store at Station. Borough Surveyor, 13, Grosvenor-place, Margate.

MARCH 18.—**Romford.**—PAINTING.—For the external painting of houses, numbering 738, for the R.D.C. Mr. T. W. A. Greenhalgh, Clerk, South-street, Romford.

MARCH 18.—**Sunderland.**—FENCING.—Provision and erection at Ryhope of approximately 430 lin. yds. of creosoted military pale fencing, 5 ft. 6 in. high, for the R.D.C. Mr. Thomas Young, surveyor, 17, John-street, Sunderland.

MARCH 18.—**Wellington (Salop).**—HOUSES.—For the erection of 36 houses, for the U.D.C. Mr. G. H. Connor, Surveyor, Council Offices, Wellington. Deposit £2 2s.

MARCH 19.—**Ardrossan.**—PAINTING.—For the painter work in connection with the erection of twenty houses, for the T.C. Joint Town Clerks, Burgh Chambers, Ardrossan.

MARCH 19.—**Barnet.**—COTTAGES.—For the erection of three pairs of cottages at Bells Hill, for the Guardians of the Barnet Union. Messrs. White, Son, & Pill, 13 & 15, High-street, Barnet.

MARCH 19.—**Brighton.**—HOUSES.—Erection of four houses in Hereford-street, Brighton, for the County Borough Council. Borough Surveyor, Town Hall, Brighton. Deposit £1.

MARCH 19.—**Clacton-on-Sea.**—FENCING.—For supply of 500 lin. yds. of larch fencing, 2 ft. and 3 ft. in height, creosoted one coat, for U.D.C. Surveyor, Council Offices, Clacton-on-Sea.

MARCH 19.—**Dartford.**—HOUSES.—For the erection of 28 houses (in blocks of 4) on the Lowfield-street Housing Estate, for the U.D.C. Mr. J. James Hurtley, Clerk, Council Offices, Dartford. Deposit £2 2s.

MARCH 19.—**Edinburgh.**—HOUSES.—Erection of 20 houses at Saughtonhall-drive, for T.C. Messrs. R. & A. K. Smith, surveyors, 44, Queen-street, Edinburgh.

MARCH 19.—**Edinburgh.**—WALLS.—For the taking down of retaining and parapet walls and the erection of new walls, for the T.C. City Road Surveyor, City Chambers, Edinburgh.

MARCH 19.—**Evesham.**—HOUSES.—Erection of 26 houses (with other work incidental thereto) on their site near King's-road, Bengeworth, Evesham, under the provisions of the Housing Acts, for the T.C. of the Borough of Evesham. Borough Surveyor (Mr. J. Abbott) Town Hall, Evesham. Deposit £2 2s.

MARCH 19.—**London, N.W.**—DEMOLITION WORK—Demolition of the Aircraft Stores Depot Building, Regent's Park, London, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1.

MARCH 19.—**Newport (Mon).**—REDECORATING 50 HOUSES.—For redecorating for the B.C. fifty houses on the Somerton Estate, Newport. Fair wages clauses in contract. Borough Engineer, 8, Corn-street, Newport. Deposit £2 2s.

MARCH 19.—**Sawley.**—CHAPEL.—For the erection of a Wesleyan Chapel (in stone) at Sawley, near Ripon. Mr. Thomas Stokes, architect, Thirsk.

MARCH 20.—**Maldon.**—HOUSES.—For the erection of 16 houses in Cherry Garden-road, for the T.C. Borough Engineer, Municipal Offices, Maldon.

MARCH 20.—**Portsmouth.**—HOUSES.—For erection of 100 houses on the Portsdown Hill Site, for T.C. Borough Engineer, Town Hall, Portsmouth. Deposit £2 2s.

MARCH 21.—**Croydon.**—COTTAGES.—Erection and completion of three cottages in the new Relief-road, Waddon, on the site situated about 750 yds. from Waddon Railway Station, for the County Borough Council of Croydon. Borough Engineer, Town Hall, Croydon. Deposit £1 1s.

✱MARCH 21.—**Croydon.**—FLATS.—For the erection of a block of flats containing 20 tenements, at the rear of Nos. 14 to 26, Cherry Orchard-road, for the T.C. Borough Engineer, Town Hall, Croydon. Deposit £3 3s.

MARCH 21.—**Glamorgan.**—VARIOUS WORKS.—For carrying out, for the Glamorgan C.C., the following works: (1) Tar-paving at schools in the Eastern and Western Divisions; (2) erection of new science block at Port Talbot Secondary School; (3) erection of new infants' department at Maesmarchog (near Onllwyn) Council School; (4) re-levelling of playgrounds, building retaining walls, sloping ways, &c., at Craigcefnparc (near Clydach) Council School; (5) erecting new school at Bryncethin (near Bridgend); (6) erection of handicraft and cookery centre at Twyn, Caerphilly; (7) restoration of manual instruction centre at Garw Secondary School (Pontycymmer); (8) rebuilding a wall at Blaengarw Council School. For works 2 to 8 at the respective schools; and for all works at County Hall, Cardiff.

MARCH 21.—**Ipswich.**—ALTERATIONS.—Alterations to the Head Post Office, Ipswich, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s., payable to the Secretary.

MARCH 21.—**Irthlingborough.**—BRIDGE.—For widening bridge in ferro-concrete, brick or stone, for the Northamptonshire C.C. Mr. C. S. Morris, County Surveyor, Northampton. Deposit £2 2s.

MARCH 21.—**Manchester.**—WALL.—For rebuilding wall at Wilmslow-road, Didsbury, for T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

MARCH 21.—**Salford.**—ALTERATIONS.—For alterations and additions to the Maternity and Babies' Hospital, Seedley-terrace, Pendleton. Borough Engineer, Town Hall, Salford. Deposit £2 2s.

MARCH 21.—**Shipton.**—ADDITIONS.—For additional accommodation at the Shipton Smallpox Hospital, for E.R. of Yorkshire Smallpox Hospital Committee. County Architect, County Hall, Beverley. Deposit £1 1s.

MARCH 21.—**Talywain.**—PAVILION.—For the erection of a pavilion on Athletic Ground, Talywain. Mr. W. Finch, Talywain.

MARCH 22.—**Edinburgh.**—TELEPHONE EXCHANGE.—For erection of a new telephone exchange at Morningside, for Commissioners of H.M. Works. Architect, H.M. Office of Works, 4-5, Drumsheugh-gardens, Edinburgh. Deposit £1 1s.

MARCH 22.—**Lanercost.**—ADDITION.—For addition and alterations to the Primitive Methodist Chapel, Calees, Lanercost. Rev. J. A. Smith, Bourne House, Brampton.

MARCH 22.—**Middlesbrough.**—HOUSES.—Erection of 27 houses on the Marton-grove Housing Estate and 30 houses on the Acklam-road Garden Colony, for T.C. Mr. S. E. Burgess, Borough Engineer, Municipal Buildings, Middlesbrough.

MARCH 22.—**Milford Haven.**—TEMPLE.—For building a new Masonic temple at Milford Haven. Mr. J. Howard Morgan, F.R.I.B.A., 24, King-street, Carmarthen.

✱MARCH 22.—**Montgomeryshire.**—CONCRETE BRIDGE—Erection of a ferro-concrete bridge over the river Severn, at Dolwen, Llandinam, in the county of Montgomery, for the R.D.C. Johnson's Reinforced Concrete Engineering Co., Ltd., 24, Lever-street, Manchester. Deposit £2 2s.

MARCH 22.—**Padstow.**—CONVENIENCE.—For the erection of a public sanitary convenience, for the U.D.C. Mr. Fred A. Williams, Clerk, Urban Council Office, Padstow.

MARCH 22.—**Skegness.**—FIRE STATION.—For the construction of a fire station on land adjoining the Council Offices, for the U.D.C. Mr. R. H. Jenkins, Engineer and Surveyor, Council Offices, Skegness.

MARCH 22.—**Truro.**—HOUSE.—For the erection of a residence, near Short Lanes End, Kenwyn, Truro Mr. Alfred J. Cornelius, architect, Truro.

✱MARCH 22.—**York.**—BOILER HOUSE.—For the extension of the existing boiler house at the Electricity Generating Station, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

MARCH 24.—**Brierley Hill (Staffs).**—HOUSES, ROADS AND SEWERS.—Erection of thirty houses, together with the necessary roads and sewers, on the Mill-street Housing Estate, for the Brierley Hill U.D.C. Mr. John Yorke, Surveyor, Town Hall, Brierley Hill, Staffs.

MARCH 24.—**Harrogate.**—WORKS.—Erection of tar macadam works and refuse pulverising works at Central Depot, Dragon Junction. Mr. C. E. Rivers, Borough Engineer, Municipal Offices, Harrogate.

✱MARCH 24.—**Horsham.**—HOUSES.—Erection of four pairs of semi-detached parlour type houses to be erected at Oxford-road, Horsham, for the U.D.C. Council's Surveyor, Mr. C. G. Atkinson, Town Hall, Chambers, Market-square, Horsham. Deposit £2 2s.

MARCH 24.—**Ilford.**—CONVENIENCE.—For building an underground convenience for both sexes at junction of Goodmayes-lane and Green-lane, for the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford. Deposit £2 2s.

✱MARCH 24.—**Llangefni.**—HOUSES.—Erection of eight houses (in two blocks of four each), for the Llangefni (Anglesey) U.D.C. Mr. J. Arfon Jones, Architect, Roby House Chambers, Llandudno.

✱MARCH 24.—**Ramsgate, Kent.**—ALTERATIONS AND ADAPTATION.—Alterations and adaptations of the remaining portion of the Chatham House County School for Boys at Ramsgate, in the County of Kent. County Education Architect (Mr. W. H. Robinson, F.S.A.), Room 69, Sessions House, Maidstone. Deposit £2 2s., in the form of a cheque payable to the Kent Education Committee, and crossed "National Provincial Bank of England, Ltd."

✱MARCH 25.—**Dartford.**—HOUSES.—Erection of 24 houses at Ship-lane, Sutton-at-Hone, for the R.D.C. Mr. Eustace J. Hobbs, Clerk, Council Offices, West Hill, Dartford. Deposit £2 2s.

MARCH 25.—**Nottingham.**—HOUSES.—Erection of 428 houses on Sherwood Estate, for the T.C. City Engineer, Guildhall, Nottingham. Deposit £1 1s.

MARCH 25.—**Thornaby-on-Tees.**—HOUSES.—Erection of 50 houses on Housing Estate, for T.C. Borough Engineer, Town Hall, Thornaby-on-Tees. Deposit £2 2s.

✱MARCH 26.—**Berkshire.**—CONCRETE TANK AND FIRE-ESCAPE STAIRCASES.—(*a*) Concrete water storage tank; (*b*) fire-escape staircases at Pinewood, Wokingham, Berkshire, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 in respect of each work.

✱MARCH 26.—**London, S.E., and Kent.**—CLEANING AND PAINTING AND REPAIRS.—Cleaning and painting works and repairs: (*a*) at South Eastern Fever Hospital, Avonley-road, New Cross, S.E. 14; (*b*) at Joyce Green Fever Hospital, Dartford, Kent, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, London, E.C. 4. Deposit £1 in respect of each work.

✱MARCH 26.—**Lowestoft.**—COKE STORE.—Extension of existing underground concrete coke store, at St. Luke's Hospital, Lowestoft, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

MARCH 26.—**Nantymoel (Glam)**—HOUSES.—For erection of ten houses, with roads and sewers, for the Ogmore and Garw U.D.C., at Blandy-terrace. Mr. W. T. Ollivant, Engineer and Surveyor, Council Offices, Brynmenin (Glam). Deposit £2 2s.

MARCH 26.—**Ogmore and Garw.**—HOUSES.—Erectino of 10 houses at Blandy-terrace, Nantymoel, with construction of roads and sewers in connection therewith, for U.D.C. Mr. W. T. O. Jones, Engineer, Council Offices. Brynmenyn. Deposit £2 2s.

✱MARCH 27.—**Bromley (Kent).**—FLATS.—Erection of 60 flats, namely, 32 flats on the south side of Mosulway, Bromley Common, and 28 flats on the north side of Mosul-way, for the T.C. of the Borough of Bromley. Borough Engineer's Office, Municipal Buildings, Bromley. Deposit, £3 3s.

MARCH 28.—**Burlingham.**—FARM PREMISES.—For the erection of farm premises at Chamery Hall-lane and Burlingham Lodge Farm, on the Burlingham Estate, near Norwich, for the Norfolk C.C. County Land Agent, Shire House, Norwich. Deposit £1 1s.

✱MARCH 28.—**Leicester.**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange at Leicester, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

MARCH 29.—**Navan.**—VARIOUS WORKS.—For structural alterations, additions, repairs, plumbing and extension of drainage, roads and pathways, at the Navan County Hospital, for the County Meath Board of Health. Mr. A. Edward Smith, quantity surveyor, 5, St. Andrew-street, Dublin. Deposit £2 2s.

✱MARCH 29.—**Wandsworth, S.W.**—POST OFFICE.—Erection and completion of a branch post office at Wandsworth, S.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

MARCH 31.—**Poplar, E. 14.**—TENEMENTS.—Erection of 12 tenements on a site at Lower North-street, for the Metropolitan Borough Council of Poplar. Mr. Harley Hockford, Borough Surveyor, Council Offices, Poplar. Deposit £3 3s.

MARCH 31.— **Ripon (Yorks).**—DISMANTLING, &C.—For following services at nine camps: (1) For the purchase of hutted camps and remove all buildings and debris; (2) purchase of materials resulting from dismantling; (3) for dismantling only; (4) for removal of concrete and other materials left on camps. Roads and Communication Officer, Ripon Camp.

MARCH 31.—**Sligo.**—STATION BUILDINGS.—For reconstruction of station buildings at Sligo, for the Midland Great Western Railway Co. Chief Engineer, Broadstone Station, Dublin. Deposit £4.

✱MARCH 31.—**Southfields and Tooting.**—HOUSES.—Erection of (*a*) 32 houses on the Southfields Housing Estate, Southfields; (*b*) 48 houses on the Furzedown Estate, Tooting, for the Wandsworth B.C. Southfields Estate, Mr. G. L. Elkington, A.R.I.B.A., 7, Laurence Pountney-hill, E.C.4 Deposit £2 2s.; Furzedown Estate, Mr. H. B. Elkington, A.R.I.B.A., 7, Laurence Pountney-hill, E.C. 4. Deposit £2 2s.

✱MARCH 31.—**Stafford.**—HOUSES.—Erection of 20 houses of the non-parlour type, on the Lemmascote Housing Estate, for the Stafford Corporation. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford. Deposit, £2 2s.

✱MARCH 31.—**Wandsworth, S.W.18.**—SPORTS PAVILIONS.—Construction of sports pavilions at King George's Park, Wandsworth, and the Furzedown Recreation Ground, Streatham, for the B.C. of Wandsworth. Mr. E. J. Elford, M.Inst.C.E., Borough Engineer, 215, Balham, High-road, S.W.17.

✱APRIL 1.—**Bethnal Green, E. 2.**—ALTERATIONS, BOILER HOUSE.—Work of altering the Boiler House, at their Institution, Waterloo House, Waterloo-road, Bethnal Green, E. 2, for the Bethnal Green Board of Guardians. Mr. C. Faulkner Jones, Clerk to the Guardians, Administrative Offices, Bishop's-road, E. 2. Deposit £2 2s.

✱APRIL 1.—**London, S.W. 18.**—SANITARY CONVENIENCES.—Construction of sanitary conveniences on Streatham Green, Streatham High-road, for the Wandsworth B.C. Mr. E. J. Elford, Borough Engineer, 215, Balham High-road, S.W. 17.

✱APRIL 1.—**Pontefract.**—HOUSES.—Erection of 306 dwelling houses at South Kirkby, near Pontefract, for the South Kirkby, Featherstone and Hemsworth Collieries, Ltd. Messrs. Garside & Pennington, architects and surveyors, Pontefract. Deposit £5 5s.

APRIL 1.—**Wandsworth.**—CONVENIENCES.—For the construction of sanitary conveniences on Streatham Green, Streatham High-road, for the B.C. Mr. E. J. Elford, Borough Engineer, 215, Balham High-road, S.W. 17.

APRIL 4.—**Breconshire.**—RE-MODELLING OF SCHOOL.—For carrying out for the Education Committee the re-modelling of Cwmtwrch Council School. Mr. W. Lewis Harpur, County Surveyor, County Office, Brecon. Deposit £2 2s.

MAY 1.—**China.**—BRIDGE.—The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say, £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference, 11647-F.E.-E.C.-2.

NO DATE.—**Dublin.**—HOTEL.—For reconstruction of the "Four Courts" Hotel, Inn's-quay. Mr. J. Mackay, surveyor, 58, Dame-street, Dublin. Deposit £2 2s.

NO DATE.—**Pontypool (Mon).**—HOUSES.—For erection of 10 houses on the Twmpath Estate, for the Twmpath Estate Co., Ltd. Messrs. Fisher & Sons, architects, Albion Chambers, Pontypool.

✱NO DATE.—**Southwark, S.E. 17.**—REBUILDING.—Rebuilding of premises situate and being No. 82, Borough High-street, S.E., for the United Charities of the Parish of St. George the Martyr, Southwark. Borough High-street, S.E.

NO DATE.—**Wakefield.**—HOUSES.—Erection of 52 houses, for the T.C. Messrs. Massie & Holdsworth, Wood-street, Wakefield.

FURNITURE, MATERIALS, etc.

MARCH 15.—**Edinburgh.**—MATERIALS.—Supply of cement, brick and fireclay goods to the Burgh Engineer's Dept. for six months. Burgh Engineer, Edinburgh.

MARCH 15.—**Edinburgh.**—MATERIALS.—Supply of paints, timber, tools, &c., for six months, to the Fire Engines Dept. Central Fire Office, Edinburgh.

MARCH 15.—**Edinburgh.**—MATERIALS.—Supply of materials to the City Architect's Dept. for six or 12 months. City Architect, Edinburgh.

MARCH 15.—**Harrow.**—MATERIALS.—Supply of granite chippings, tar macadam, limestone tarpaving, shingle, fodder, distilled tar, to the U.D.C. Mr. J. Percy Bennetts, Surveyor, Council Offices, Harrow.

MARCH 15.—**Marple.**—MATERIALS.—Supply of road materials to the U.D.C. M. D. J. Driver, Surveyor, Council Offices, Marple.

MARCH 15.—**Riccall.**—ROAD MATERIALS.—For supply of road materials, for one year, for R.D.C. Mr. J. Townend, Clerk, Council Offices, Selby.

MARCH 15.—**Sevenoaks.**—MATERIALS.—For supply of road materials, for one year, for U.D.C. Surveyor, Council Offices, Argyle-road, Sevenoaks Kent.

MARCH 15.—**Westhampnett (West Sussex).**—MATERIALS.—Supply of road materials to the R.D.C. Mr. A. W. Shorland, Surveyor, Council Offices, Pallant House, Chichester.

MARCH 17.—**Bredbury and Romiley.**—MATERIALS.—Supply of road and other materials to the U.D.C. Surveyor, Offices, Bredbury.

MARCH 17.—**Bromley.**—MATERIALS.—For supply of tar, tar spraying, sand and chippings for R.D.C. Mr. L. J. Small, Highway Surveyor, High-street, Farnborough, Kent.

MARCH 17.—**Coventry.**—CONCRETE PIPES.—Supply of 574 lin. yds. of 33 in. reinforced concrete pipes, to the T.C. Mr. J. E. Swindlehurst, City Engineer, Coventry.

MARCH 17.—**Gloucester.**—MATERIALS.—For supply of materials for Waterworks Engineer's Department for six months, for T.C. City Surveyor, Guildhall, Gloucester.

MARCH 17.—**Gosport.**—MATERIALS.—Supply of paving, broken stone, drainage pipes, tools, &c., to the T.C. Borough Engineer, Gosport.

MARCH 17.—**Lewisham.**—MATERIALS.—Supply of stoneware conduit pipes, spigoted and socketed pipes, iron manhole covers and frames, to the B.G. Mr. W. R. Owen, Clerk, Offices, 394, High-street, Lewisham, S.E. 13.

MARCH 17.—**Llanelly.**—SUPPLIES.—For supply to the Llanelly R.D.C. of following materials:—(1) Lime and other stones for highway repairs; (2) haulage of stones and other materials. Surveyor to R.D.C., Ty'fran, Llanelly.

MARCH 17.—**Llanfrechfa (Mon).**—HAULAGE.—For supply to the U.D.C. of haulage of materials to the various roads during a period of one year. Mr. William Clark, 44, Coronation-road, Cwmbrau (Mon).

✱MARCH 17.—**London, S.E. 13.**—PIPES.—Tenders for the supply of stoneware and cast iron piping and cast iron manhole covers. Mr. W. R. Owen, Clerk to the Guardians, Guardians' Offices, 394, High-street, Lewisham, S.E. 13.

MARCH 17.—**Margate.**—MATERIALS.—Supply of road and other materials to the T.C. Mr. E. A. Borg. Borough Engineer, 13, Grosvenor-place, Margate.

MARCH 17.—**Merthyr Tydfil.**—SUPPLIES.—For supply to the Board of Guardians for (1) Poor-Law Institution, Merthyr Tydfil; (2) Subsidiary Institution, Trecynon, Aberdare; (3) Central Homes, Llwydcoed, Aberdare, in bulk, of straw, haulage, boots and shoes, officers' uniforms, oils, paints, ironmongery, boot-making materials, leather, drugs, medical accessories, &c. Mr. F. T. James, Union Offices, High-street, Merthyr Tydfil.

MARCH 17.—**Ramsgate.**—LAMP CONTROLLERS.—Supply of three hundred automatic clockwork lamp controllers, to the T.C. Mr. R. Hy. Ruthven, Engineer, Gas Offices, Ramsgate.

MARCH 17.—**Repton.**—MATERIALS.—For supply of materials for highways repair for six months, for R.D.C. Mr. H. S. Askew, Clerk to the Council, Union Offices, Burton-on-Trent.

MARCH 17.—**Salford.**—MATERIALS.—For supply of various materials for Tramways Department, for T.C. General Manager, Tramways Dept., 32, Blackfriars-street, Salford.

MARCH 17.—**Sculcoates.**—MATERIALS.—For supply of tar, granite, gravel, &c., for one year, also surface tarring, for R.D.C. Mr. B. Hinchcliffe, surveyor, 4, Parliament-street, Hull.

MARCH 17.—**Wellingborough.**—MATERIALS.—Supply of road materials for one year, to the R.D.C. Mr. H. G. Cordon, Surveyor, Commercial-place, Wellingborough.

MARCH 18.—**Faversham.**—MATERIALS.—Supply of pit flints (broken), shingle and fine gravel, to the R.D.C. Mr. J. G. Chittenden, District Surveyor, Ashford-road, Faversham.

MARCH 18.—**Hazel Grove.**—MATERIALS.—Supply of stone, chippings, and other materials for highways purposes, to the U.D.C. Surveyor, Council Offices, Hazel Grove.

MARCH 19.—**Burnley.**—MATERIALS.—Supply of highway requisites to the R.D.C. Mr. Frank Hewitt, Surveyor, 18, Nicholas-street, Burnley.

MARCH 19. — **Hollingbourn.** — GRANITE, &C.—For supply of 400 tons of granite and 1,500 tons of tar-macadam, for R.D.C. Mr. F. Miskin, 33, Earl-street, Maidstone.

MARCH 19.—**Kettering.**—MATERIALS.— For supply of granite, slag and tarred macadam, &c., for one year, for R.D.C. Mr. F. W. Stowe, George-street, Kettering.

MARCH 19.— **Walthamstow.** — MATERIALS.— For supply of materials for various services, for U.D.C. Surveyor, Town Hall Annexe, Orford-road, Walthamstow.

MARCH 19.—**Wembley.**—MATERIALS.—For supply of road mending and other materials for one year, for U.D.C. Mr. C. R. W. Chapman, Surveyor, Council Offices, Wembley, Middlesex.

MARCH 20.—**Blything.**—MATERIALS.—For supply of road materials, also tenders for steam rolling on district roads for one year, for R.D.C. Mr. H. R. Buddery, Clerk to the Council, Council Offices, Bulcamp, Halesworth.

MARCH 20.—**Bridlington.**—MATERIALS.—Supply of stores to electricity works for one year. Borough Electrical Engineer, Bridlington.

MARCH 20.—**Northampton.**—MATERIALS.—Supply of road materials and tar, to the C.C. Mr. C. S. Morris, County Surveyor, Northampton.

MARCH 21.—**Glyncorrwg.**—MATERIALS.—Supply of highway materials, tubes and fittings, &c., to the U.D.C. Mr. W. P. Jones, Surveyor, Cymmer, near Port Talbot.

MARCH 21.—**Great Yarmouth.**—MATERIALS.—Supply of paints, timber, &c., to the T.C. Mr. S. P. Thompson, Borough Engineer, Town Hall, Great Yarmouth.

MARCH 21.—**London.**—WHITE LEAD.—Supply to the Bombay, Baroda, and Central India Railway Co. of white lead. Mr. S. G. S. Young, secretary, 91, Petty France, S.W. Charge 10s.

MARCH 21.—**Merthyr Tydfil.**—SUPPLIES.—For supply to B.C. of supplies, for six months, as follows:—Ironmongery, timber, cement, lime, slates, bricks, sewer pipes, limestone, tar macadam, paving stones, fodder, coal and haulage. Borough Engineer, Town Hall, Merthyr Tydfil.

MARCH 22.—**Pontefract.**—MATERIALS.—Supply of road materials to the T.C. Mr. J. E. Pickard, Borough Surveyor, Municipal Offices, Pontefract.

MARCH 22.—**Tenby.**—MATERIALS.—For supply to the B.C. of building materials, sanitary ware, &c., for a period of 12 months. Mr. B. Morley, Surveyor, Council Offices, Tenby.

MARCH 22.—**Winchester.**—TOOLS.—Supply of tools for use on main roads for one year, to the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester.

MARCH 22.—**Woodstock.**—MATERIALS.—Supply of Hartshell, Leicestershire and Clee Hill stone, to the R.D.C. Mr. A. G. Higgs, Clerk, Woodstock.

MARCH 24.—**Great Yarmouth.**—MATERIALS.—For supply of Guernsey granite, for T.C. Mr. S. P. Thompson, Borough Engineer, Town Hall, Great Yarmouth.

MARCH 24.—**Hunslet.**—MATERIALS.—Supply of highway material, for the R.D.C. Mr. W. B. Pindar, Clerk, Leek-street, Hunslet, Leeds.

MARCH 24.— **Walsall.** — MATERIALS.— Supply of various materials to the R.D.C. Mr. W. P. Young, surveyor, Daw End, Rushall.

MARCH 25.—**Great Crosby.**—MATERIALS.—Supply of road and other materials, to the U.D.C. Mr. J. A. Wright, Surveyor, Council Offices, Coronation-road, Great Crosby.

MARCH 25.—**Penarth.**—STORES.—For supply to U.D.C. of general stores, ironmongery and brushes, &c. Mr. J. W. Morris, Clerk, Council Offices, Penarth.

MARCH 26.—**Dunmow.**—MATERIALS.—Supply of granite, gravel, &c., to the R.D.C. Mr. P. E. Furlong, 58, New-street, Dunmow.

MARCH 26.—**Isle of Thanet.**—MATERIALS.—Supply of flints, broken granite and tar macadam, to the R.D.C. Mr. G. L. Butterworth, Surveyor, Birchington.

MARCH 27.—**Kiveton Park.**—MATERIALS.—Supply of oken slag, granite and tar macadam, to the R.D.C. rveyor, Council Offices, Kiveton Park, near Sheffield.
MARCH 31.—**Barnsley.**—FURNITURE.—Supply of hool furniture for a new Central School, for the C. Mr. Evan Davies, Director of Education, Educa-n Office, Barnsley.
MARCH 31.—**Dublin.**—SLEEPERS.—Supply to the eat Northern Railway (Ireland) Co. of Baltic redwood epers, 9 ft. by 10 in. by 5 in. Mr. J. B. Stephens, cretary, Amiens-street Station, Dublin.
MARCH 31.—**Waterloo-with-Seaforth.**—STORES.—For pply of road and other materials for one year, for .D.C.—Mr. J. R. Fothergill, Surveyor, Town Hall, aterloo.
APRIL 1.—**London.**—PAINTS.—Supply of paint, oxide zinc, iron oxide and black, to the Director-General, dia Store Department. Branch No. 12, Belvedere-ad, S.E.
NO DATE.—**Ogmore and Garw.**—STATIONERY, &C.—r supply to the U.D.C. for its various departments of ationery, books, &c., for a period of six months. r. W. M. Kear, Accountant, Council Offices, Bryn-enin, Glam.

ENGINEERING, IRON AND STEEL.

MARCH 15.—**Leicestershire.**—BRIDGE.—For the idening of Sawley Cut Bridge, situated between ong Eaton and Castle Donington, for the Leicester-ire C.C. Mr. J. E. Blackwall, County Surveyor, rey Friars, Leicester.
MARCH 15.—**Lynton.**—SEWER PIPE.—For 382 ft. of 5 in. cast-iron sewer pipe, for U.D.C. Mr. A. F. ibbs, Surveyor, Town Hall, Lynton.
MARCH 17.—**Cheltenham.**—ROAD PLANT.—For ant for manufacture of asphaltic material, for the .C. Borough Engineer, Cheltenham.
MARCH 17.—**Derby.**—BRIDGES.—(1) New bridge ver River Dove near Monks Bridge on the Derby-urton main road; (2) new bridge over the River erwent at Baslow; (3) widening of bridge over the iver Derwent at Rowsley; (4) new bridge over the hesterfield Canal at Killamarsh, for the Derbyshire .C. Mr. J. W. Horton, County Surveyor, Derby. eposit, £2 2s. each.
MARCH 17.—**Hertfordshire.**—BRIDGE.—For widening nd reconstruction of Small Lea Bridge, Waltham ross, for C.C. Mr. A. E. Prescott, County Surveyor, atfield. Deposit £2 2s.
MARCH 17.—**Kirkheaton.**—RAILWAY.—For the con-ruction of a mineral railway, colliery sidings, and re-tive works, extending to about 10 miles, for the irkheaton Colliery Co. Messrs. D. & G. R. Rankine, 38, West George-street, Glasgow.
MARCH 17.—**Soyland.**—BRIDGE.—Widening in ferro-oncrete of Slitheroe Bridge, carrying the Oldham and ipponden main road over the River Ryburn, within ie Urban Districts of Soyland and Rishworth, for ie West Riding C.C. West Riding Surveyor, ounty Hall, Wakefield. Deposit £1.
MARCH 17.—**Swansea.**—BRIDGE.—Construction of ew ferro-concrete bridge over the River Lliw at orseinon, for the R.D.C. Messrs. Morgan, Davies & artners, civil engineers, 62, Wind-street, Swansea.
MARCH 18.—**Adwick-le-Street.**—WATER MAINS.—or the excavating and refilling of certain trenches for ater mains, for the U.D.C. Mr. George Gledhill, urveyor, Council Offices, Adwick-le-Street. De-osit £1.
MARCH 19.—**Aberdeen.**—BRIDGE.—For reconstruc-on of the Don Bridge at Inverurie, for C.C. Messrs. awse & Allan, 10, Bon Accord-square, Aberdeen. eposit £2 2s.
MARCH 19.—**Aberdeen.**—DOCK WORKS.—For the emoval of the Graving Dock and relative works, for berdeen Harbour Commissioners. Mr. R. C. Nicol, arbour Engineer, Aberdeen.
MARCH 19.—**Clacton-on-Sea.**—GROYNE.—For the onstruction of a concrete and timber groyne on he East Beach, for the U.D.C. Surveyor, Council ffices, Clacton.
MARCH 20.—**Congresbury.**—BRIDGE.—For the diver-ion of the main road and the River Yeo, and construc-ion of reinforced concrete bridge at Congresbury, for he Somerset C.C. Mr. E. Stead, County Surveyor, 9, High-street, Weston-super-Mare. Deposit £2 2s.
MARCH 22.—**Dublin.**—BRIDGE.—For the reconstruc-on of a steel underline bridge and cylinders, between ewbliss and Clones, for the Great Northern Railway Ireland) Co. Mr. J. B. Stephens, secretary, Amiens-reet Station, Dublin. Deposit £2 2s.
MARCH 22.—**Harrogate.**—TANKS AND ECONOMISER.—rection of two hot water storage tanks (cast iron), also n economiser of 120 pipes, for T.C. Mr. F. W. Whittaker, Consulting Engineer, 40, Sunbridge-road, radford.
MARCH 22.—**Portknockie.**—HARBOUR EXTENSION.—or construction of Harbour Extension works, for T.C. lessrs. Lewis & Lewis, 15, Victoria-street, Westminster, .W. Deposit £1.
MARCH 24.—**Bridlington.**—SEA WALL.—For con-ruction of a new sea wall, promenade, groynes, c., at Bridlington, for T.C. Surveyor, No. 1, The rescent, Bridlington. Deposit £3 3s.
MARCH 24.—**Middlesbrough.**—DOCKS, &C.—Construc-on of docks, wharves, landing-places, &c., at the site f the Ferry, for the T.C. Mr. Preston Kitchen, own Clerk, Municipal Buildings, Middlesbrough. eposit £5.
MARCH 24.—**Teignmouth.**—GAS WORKS EXTEN-IONS.—(1) Retaining wall, 190 ft. long; (2) retort ouse and bench of 18 horizontal retorts; (3) car-uretted water gas plant; (4) high pressure gas plant; 5) to lay a 4 in. steel main across the bed of the iver Teign, for the U.D.C. Mr. H. Higham, Gas ngineer, Teignmouth.
MARCH 24.—**West Riding of Yorkshire.**—BRIDGE.—or construction of a ferro-concrete bridge on the ennebique system, over the Aire and Calder Canal, the Urban District of Selby, for C.C. Surveyor, ounty Hall, Wakefield. Deposit £1.
MARCH 26.—**Manchester.**—WATERWORKS.—For the construction of a reinforced concrete building and the relaying of 44 in. water mains, &c., near Lostock, for the T.C. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.
MARCH 26.—**Wokingham.**—TANK, &C.—(a) Concrete water storage tank, (b) fire escape staircases, at Pinewood, Wokingham, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 each contract.
MARCH 29.—**Monifieth.**—BRIDGE.—For widening Milton Bridge in reinforced concrete, for T.C. Mr. C. A. Mackenzie, Burgh Surveyor, Monifieth.
MARCH 31.—**Bridgend.**—DRIVAGE.—For sinking, for the Mid-Glamorgan Water Board, a vertical trial shaft to a depth of about 50 ft., together with lateral trial adits on either side for a maximum distance of 100 ft. from the base thereof. Shaft and adits will be driven in carboniferous limestone near to King's Wood, Schwyll, Bridgend. Messrs. Thomas & Morgan & Partners, engineers, 23, Gelliwasted-road, Pontypridd. Deposit £2 2s.
MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W. 1.
MARCH 31.—**Sheffield.**—BRIDGES.—For reconstruction and widening of bridge over Great Central section of L. & N.E. Railway and bridge over Sheffield and South Yorkshire Navigation, Broughton-lane, for T.C. Improvement Surveyor, Town Hall, Sheffield. Deposit £5.
APRIL 12.—**Wallingford.**—HEATING.—For the installation of new calorifiers, mains and accessory works in connection with the heating apparatus at the Institution of the Board of Guardians. Mr. P. C. A. Slade, Clerk, Union Offices, Wallingford, Berks. Deposit, £5 5s.
MAY 1.— China.— BRIDGE.— The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference 11647/F.E./E.C./2.
MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.
MAY 2.—**Durban, Natal.**—WATER SCHEME.—For supply of large sluice valves, valve tower ironwork, pipes, &c., for Vernon Hooper Dam in Shongweni Water Scheme, for T.C. Messrs. Webster, Steel & Co., 5, East India-avenue, London, E.C. Deposit £5 5s.
JULY 1.—**Chili.**—HARBOUR WORKS.—For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.

ROAD, SANITARY, AND WATER WORKS.

MARCH 15.—**Ashbourne.**—SEWERS.—For construction of 650 lineal yds. of 9 in., and 170 yds. of 6 in. glazed stoneware sewer, &c., for the U.D.C. Mr. D. Powell, Surveyor, Council Offices, Ashbourne.
MARCH 15.—**Bude.**—SEWERS.—For laying 925 lineal yards of 9 in. stoneware pipe sewer and 164 yards of 9 in. cast-iron sewer, for the U.D.C. Surveyor, Belle Vue-avenue, Bude.
MARCH 15.—**Chichester.**—ROADS.—For surface tarring of 500,000 sq. yds. of main roads, for the West Sussex C.C. Mr. H. W. Bowen, County Surveyor, Chichester.
MARCH 15.—**Edinburgh.**—ROADS, &C.—For repairs to causeways and foot pavements and supply of road and other materials to the Roads Dept. City Road Surveyor, Edinburgh.
MARCH 15.—**Hayes.**—ROADS.—For making-up Hayes End-road (approximate length 260 yards), for the U.D.C. Mr. D. C. Fidler, Surveyor, Town Hall, Hayes, Middlesex. Deposit £2.
MARCH 15.—**Inverness.**—ROADS.—For the resurfacing of about four miles of the Perth-Inverness main road for the Inverness C.C. Mr. Robert L. Shinnie, District Clerk, Kingussie. Deposit £2 2s.
MARCH 15.—**Litherland.**—SEWERS.—Construction of sewers and manholes on the Moss-lane Housing Site, for the U.D.C. Mr. George Ponsford, Surveyor, Council Offices, Litherland.
MARCH 15.—**Shoeburyness, Essex.**—ROADS AND SEWERS.—Making-up, sewering, &c., a road across a portion of their housing site at Dangers, Shoeburyness, Essex, for the Shoeburyness U.D.C. Mr. E. Read, Council's Surveyor, High-street, Shoeburyness.
MARCH 17.—**Bromley.**—SEWER EXTENSION.—For construction of 160 yds. of 9 in. glazed stoneware pipe sewer, &c., for R.D.C. Mr. L. J. Small, High-street, Farnborough, Kent. Deposit £1 1s.
MARCH 17.—**Hale.**—SEWAGE WORKS.—Construction of activated sludge treatment works, for the U.D.C. Mr. G. Midgley Taylor, 36, Victoria-street, Westminster, S.W. 1. Deposit £5.
MARCH 17.—**Hampstead.**—PUBLIC CONVENIENCES.—(1) Grangeway, Kilburn, (2) West-End Green, and (3) Fortune Green, for the Borough of Hampstead. Borough Engineer's Office, Town Hall, Hampstead. Deposit £1 1s.
MARCH 17.—**Hendon.**—SEWER EXTENSION.—For construction of 690 yds. of 9 in. pipe sewer and surface water drainage, &c., in Colin Deep-lane, for U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W. Deposit £3 3s.
MARCH 17.—**Luddenden.**—CONDUIT LINING.—For lining a 15 in. conduit about 90 yds. in length with cement and sand, for Luddendon Foot Joint Sewerage Board. Manager of the Works, High-road, Sowerby Bridge.
MARCH 18.—**Billericay.**—SEWAGE WORKS.—Construction of humus tanks, &c., at the Billericay sewage disposal works, for the R.D.C. Surveyor, High-street Billericay. Deposit £1 1s.
MARCH 18.—**Blyth and Cuckney.**—SEWERAGE AND SEWAGE DISPOSAL.—For carrying out sewerage and sewage disposal works at Harworth for the R.D.C. Mr. A. E. Hewitt, Surveyor, Council Offices, 66, Bridge-street, Worksop. Deposit £2 2s.
MARCH 18.—**Egham.**—DRAINAGE.—For construction of a surface water drain at St. Jude's cemetery, Engle-field Green, for U.D.C. Surveyor, Council Offices, Egham.
MARCH 18.—**Whitstable.**—ROADS.—For making up the following roads: St. Anne's-road (parts of) length 360 yds.; Norwood-road (part of), length 730 yds., for U.D.C. Mr. J. Dunn, Surveyor, Council Offices, Whitstable. Deposit £1.
MARCH 19.—**Aspatria.**—WATER WORKS.—For (1) laying of 385 yds. of 4 in. and 5 in. diameter cast-iron pipes; (2) construction of a water tower in Hennebique ferro-concrete, at Prospect, for Water Board. Mr. J. J. Davison, 6, King-street, Wigton, Cumberland. Deposit £2 2s.
MARCH 19.—**Bacup.**—WATERWORKS.—For construction of a filter house, settling tanks, bridge and approach road, &c., at Cowpe Reservoir, for the T.C. Mr. W. H. Newton, Borough Engineer, Municipal Offices, Bacup. Deposit £3 3s.
MARCH 19.—**Falmouth.**—SEWERS.—For laying 5,600 yds. of concrete tube, stoneware, and cast-iron pipe sewers, for the T.C. Mr. G. Midgley Taylor, 36, Victoria-street, S.W. Deposit £5 5s.
MARCH 19.—**Glasgow.**—ROAD CONSTRUCTION.—For reconstructing and maintaining a road in Provan Gas Works, for the T.C. Mr. J. W. McLusky, General Manager, Gas Dept., 30, John-street, Glasgow. Deposit £2 2s.
MARCH 19.—**Hollingbourn.**—TAR SPRAYING.—For tar spraying or surface dressing 28,500 super yds. of roads, for R.D.C. Mr. F. Miskin, 33, Earl street, Maidstone.
MARCH 19.—**Torquay.**—WATER MAINS.—Laying of 4 miles of 14 in. cast-iron pipes, special castings, and ancillary works, for the T.C. Mr. Samuel C. Chapman, Waterworks Engineer Town Hall, Torquay. Deposit £2 2s.
MARCH 20.—**Belper.**—SEWER.—For laying about 280 yds. lin. of 9 in. dia. sanitary pipe sewer at Smithy Houses, for the R.D.C. Mr. Robert C. Cordon, Surveyor, Duffield, near Derby. Deposit 10s.
✱MARCH 20.—**Bolton-upon-Dearne.**—EXCAVATION AND DRAINAGE, &C.—Private Streets Works Act, 1892. —Carrying out the necessary excavation, drainage and making-up with foundations, kerbing, tarred slag carriage-way, and tar-paved footways of Chapel-street, Bolton-upon-Dearne, for the D.C. Mr. W. H. Adams, Engineer, Council Offices, Bolton-upon-Dearne. Deposit 10s. 6d.
✱MARCH 20.—**Bolton-upon-Dearne.**—EXCAVATION AND DRAINAGE, &C.—Private Street Works Act, 1892. —Carrying out the necessary excavation, drainage, and making-up with foundations, kerbing, tarred slag carriageway and tarred-paved footways of School-street, Bolton-upon-Dearne, for the D.C. Mr. W. H. Adams, Engineer, Council Offices, Bolton-upon-Dearne. Deposit 10s. 6d.
MARCH 20.—**Egypt.**—WATER INSTALLATION.—For water installation at Fayoum. Dept. of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference, D.O.T., 12472/F.E./E.C. (2).
MARCH 20.—**Lincoln.**—ROADS.—Laying about six miles of tarred macadam near Scunthorpe, for the Lindsey C.C. Mr. A. G. Bradshaw, County Surveyor, Lincoln.
MARCH 20.—**Stockport.**—ROADS.—For making up St. Petersgate and St. Peter's-square, for the T.C. Mr. H. Hamer, Borough Surveyor, Town Hall, Stockport.
MARCH 22.—**Dunfermline.**—TAR SPRAYING.—For tar spraying various main highways, approx. 80,000 sup. yds., for T.C. Mr. R. M. Morton, Burgh Engineer, City Chambers, Dunfermline.
MARCH 22.—**Middlesbrough.**—SEWERAGE.—Construction of (1) common drains to 27 sites in Valley-road (Marton-grove Housing Estate); (2) sewerage works, common drains, and road works to 30 sites in Mattison-avenue, Greenbank-avenue, Grassholme-avenue, and Northern-road (Acklam-road Garden Colony), for T.C. Mr. S. E. Burgess, Borough Engineer, Municipal Buildings, Middlesbrough.
MARCH 22.—**Newton Abbot.**—WATER MAINS.—For laying about 5,269 yds. of 6 in. and 821 yds. of 4 in. cast-iron water mains, for the R.D.C. Mr. F. Horner, Clerk, Council Offices, 64, East-street, Newton Abbot. Deposit £2 2s.
MARCH 22.—**Rochford.**—ROAD.—For the construction of a new bye road at Tarpots Corner, South Benfleet, for the R.D.C. Mr. A. C. Madge, Surveyor, Rayleigh, Essex.
MARCH 24.—**Connah's Quay.**—CEMETERY.—For extension of the cemetery at Connah's Quay, for U.D.C. Surveyor to the Council, Council Offices, Connah's Quay. Deposit £2 2s.
MARCH 24.—**Haywards Heath.**—ROADS.—For making-up a passage 105 yds. long, known as Petland-gardens, for the U.D.C. Mr. G. Plummer, Surveyor, South-road, Haywards Heath.
MARCH 24.—**Lancing.**—DRAINAGE.—For the third portion of Lancing drainage for Steyning West R.D.C. Mr. F. Slaughter, Engineer to the Works, Steyning.
MARCH 24.—**Long Eaton.**—SEWAGE.—For new sewage disposal works, for U.D.C. Mr. H. Raven, Engineer, The Hall, Long Eaton. Deposit £5 5s.
MARCH 24.—**Uttoxeter.**—WATER MAINS.—For construction of 1,300 yds. of 5 in. and 3 in. dia. cast-iron water mains, for U.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £2 2s.
MARCH 25.—**Basingstoke.**—ROADS.—For steam road rolling. Mr. R. Forrester, Chequer's-road, Basingstoke.
MARCH 25.—**Dover.**—ROADS.—For about 3,000 sq. yds. of slag tarmacadam resurfacing and incidental works, for the T.C. Mr. W. Boulton-Smith, Borough Engineer, Maison Dieu House, Dover. Deposit £1.

MARCH 25.—**Ogmore.**—CULVERT, &C.—(*a*) Construction of masonry culvert; (*b*) retaining walls; (*c*) erection of unclimbable iron fencing; (*d*) forming and widening roadway at Pwllcarn, Blaengarw, for the U.D.C. Council Offices, Brynmenyn, Glam. Deposit £1 1s.

MARCH 25.—**Southall-Norwood.**—ROADS.—For making-up Manor Way for the U.D.C. Mr. J. B. Thomson, Surveyor, Town Hall, Southall.

MARCH 31.—**Stoke-on-Trent.**—SANITARY.—Conversion into water closets of about 190 pail closets in Hanley, for the T.C. Chief Sanitary Inspector, St. Peter's Chambers, Glebe-street, Stoke-on-Trent.

APRIL 1.—**London.**—SEWER.—For the construction of about 1,400 ft. of 4 ft. and 2 ft. 8 in. brick sewer (mostly in tunnel), beneath St. Martin's-le-Grand and Aldersgate-street, for the City Corporation. City Engineer, Guildhall, E.C.2. Deposit £2 2s.

Competitions.

(*See Competition News, page* 408.)

Auction Sales, Tenders, etc.

★MARCH 18.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W., (close to "The Swan," Stockwell), a large and well assorted stock of timber, fittings and building materials. Auctioneers, 255, Clapham-road, S.W.

MARCH 18 AND FOLLOWING DAYS.—**Aldershot.**—Messrs. Joseph Hibbard & Sons will sell, without reserve, on the premises, Elms-road and Boxalls-lane (two minutes from Station), Aldershot, surplus stock of Messrs. George Kemp & Co., owing to amalgamation with A. H. Stroud, Esq., stock, plant, scaffolding, ironmongery, and sanitary goods, blacksmiths' material, concrete mixer, timber stocks, rolling stock. Auctioneers, 15, Newington-green, Islington, N.16.

★MARCH 25.—**Dartford, Kent.**—Messrs. Dann & Lucas will sell by order of the Proprietor, Mr. G. F. Ward, freehold, as a going concern, with possession on completion of the purchase, Stone, near Dartford, Kent, the Toll House sand and ballast pits, havingan area of about 12 acres, with a long road frontage, a four-roomed cottage and plant and machinery. Auctioneers, Dartford, Kent.

★MARCH 25.—**London, E.C.**—Messrs. Warmington & Co. will sell, at the London Action Mart, E.C., Kensington Investment, a commanding and ripe building site of 23,100 super ft., situate on the east side of Church-street, frontage of 125 ft. to Church-street. Auctioneers, 1, Dover-street, W.1.

MARCH 26.—**London, E.C.**—Messrs. Leopold Farmer & Sons will sell in lots, at the London Auction Mart, 155, Queen Victoria-street, E.C.4, freehold manufacturing premises and land, with valuable free water power, known as Hythe End Mills, Wraysbury, near Staines, Middlesex; the whole area of the property covers about 11 acres. Auctioneers, 46, Gresham-street, Bank, E.C.

★MARCH 26.—**London, E.C.4.**—Messrs. Leopold Farmer & Sons will sell, at the London Auction Mart, 155, Queen Victoria-street, E.C.4, freehold building site, Tyssen-street, Dalston-lane, Dalston, N.E. Auctioneers, 46, Gresham-street, Bank, E.C.

★MARCH 27.—**Eastbourne.**—Messrs. Knight, Frank & Rutley will sell, by direction of the Eastbourne Waterworks Co., the freehold commercial site of about 4¼ acres, with railway facilities, and including detached double-fronted residence and factory or warehouse buildings. Auctioneers: 20, Hanover-square, London, W.1.

★MARCH 27 AND 28.—**Windsor.**—Messrs. Perry & Phillips (in conjunction with Messrs. Buckland & Sons) will sell on the premises, St. Leonard's-hill, Windsor, the whole of the interior and exterior fixtures and fittings previous to the demolition of the mansion. Auctioneers, High-street, Windsor, 4, Bloomsbury-square, W.C.1, and 59, High-street, Bridgnorth.

APRIL 16.—**Kent.**—Messrs. Knight, Frank & Rutley will sell, at very low reserves, to wind up an estate, at the residence, Otford Court, close to Otford Station (unless previously sold privately), the residential and building property, Otford Court, the whole extending to an area of about 190 acres. Auctioneers: 20, Hanover-square, W.1.

MAY 6.—London, W.1.—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

MARCH 14.—**Islington, N.1.**—CLERK OF WORKS.—Clerk of Works in connection with the erection of extensions to the Municipal Offices of steel-framed construction with reinforced concrete floors, for the Metropolitan Borough Council of Islington. Mr. C. G. E. Fletcher, Town Clerk, Municipal Offices, Upper-street, N.1, enclosed "Clerk of Works."

★MARCH 20.—**Huntingdon.**—Surveyor, Sanitary Inspector and Inspector of Nuisances required by the Council of the Borough of Huntingdon. Mr. J. W. Winter, Town Clerk, Town Clerk's Office, Huntingdon.

★MARCH 22.—**Cambridge.**—Clerk of Works required to commence duties on March 31st, by the Borough of Cambridge. Borough Surveyor, Guildhall, Cambridge.

★MARCH 24.—**Southend-on-Sea.**—Clerk required in the Borough Engineer's and Surveyor's Department, Building Inspector's Section, by the Corporation of Southend-on-Sea.

★MARCH 25.—**St. Helens.**—Architectural Assistants for a minimum period of twelve months required on housing scheme of 450 houses by the Corporation of the County Borough of St. Helens. Mr. Arthur W. Bradley, Borough and Water Engineer, Town Hall, St. Helens.

★MARCH 26.—**Bromley, Kent.**—(1) Building Inspector, (2) Draughtsman and Surveying Assistant required by the Bromley R.D.C., Kent. Mr. Leonard O. Wall, Clerk to the Council, Park House, Bromley, Kent.

★NO DATE.—**Highgate.**—Clerk of Works required for housing scheme, by the Borough Engineer, Town Hall, Highgate.

Junior Institution of Engineers.

On March 7, Mr. P. M. Fraser, F.I delivered a lecture on "An Introductio Study of Fire Danger in Factories, wi Notes on Fire Insurance," at the Junior tion of Engineers.

The lecturer gave an account of the ment of fire insurance offices and fire l and explained how the fire offices fix t so as to make each particular trade pa own losses. By complying with cert ditions laid down by the Fire Offic mittee, the normal rates of insurance obtained, and in addition special indu were offered in the way of discounts extinguishing devices. The causes of above the normal rate were enumera included multi-story buildings, cubic of buildings above a prescribed limit, cor partitions, well holes, elevator shafts and engines, and certain methods of and lighting.

The efficacy of sprinklers seemed to b by statistics, showing that only in a per cent. of the total number of fires in fitted with sprinklers was the installatio to cope with the fire, excluding cert in which the water had been shut o installation was out of order. For work, the lecturer explained, it was ess have a non-conducting fluid, and for of fires the extincteur of the foam most suitable. With the foam type, l less damage was done to textile an goods. Ferro-concrete was noticeabl ability to withstand intense heat and

Sea-coast Site for Disposal.

The Corporation of Wallasey is of a lease of 999 years an area of 13,500 land at New Brighton, to be used for th of buildings which will increase the am the Borough. It is stated that the si ticularly suitable for residential purp that there would be good opportuniti hotel, a club, or a theatre. Full partic be obtained from Mr. L. St. G. W Borough Engineer, Wallasey.

"A Perfect Solution"

An Architect writes: "*The cradles are, in my opinion, a perfect solution to the difficulties with all types of roof principal connections.*"



The Cradle Truss does away with the many disadvantages of the all-steel truss. It is made of timber and steel—each being put to its most efficient use—timber for compression members, steel for tension. The scientific application of this combination is one of the chief factors in the success of the Cradle Truss.

The Reasons why Cradle Trusses are so popular and efficient:—

1. The tension bars being in pairs, give greater lateral rigidity
2. These bars being round reduce the possibility of corrosion to a minimum. 3. Adjustable joints. 4. Fine appearance. 5. The cradle joints are so easy to paint.

Other reasons and quotations for spans up to 80 ft. will promptly be supplied.

BELFAST: Nelson Gray & Co. 7 Queen's Sq.

JAMES WILD & Co.
Engineers, C. Dept.
49, Deansgate, MANCHESTER

LONDON. Kern House, 36/38, Kingsway. W.C.2

Enquiries invited for all classes of structural steelwork.

THE "GLOW-WORM

is extensively used in such

LABOUR-SAVING HOUSE

as those at

LETCHWORTH	ROYSTON
WELWYN	HITCHIN
HILLINGDON	POTTERS BAR
PINNER	HODDESDON

etc., etc.

The "Glow-Worm" is the only boiler of design with a really efficient hotplate for simp cooking operations and an ample hot water supp for the average small-to medium household

In addition, the "Glow-Worm" has an open fire for heating irons and toasting, it warms the kitchen, and has a fire that is always visible. Made in two sizes. Burns coke, coal, or anthracite. Consumes Kitchen refuse. Easily fitted to existing hot water pipes.



From all Builders' Merchants

The "Glow-Worm" is on view at Ideal Homes Exhibition, Olympia Stands Nos. 41, 101, 175a & 189a.

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4. Lloyds Avenue, London, E.C.3

PROPOSED NEW BUILDINGS & OTHER WORKS.*

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; P.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABERDEEN.—Plans passed by T.C.:—Bungalow, Queen's-road, for Mr. Herbert S. Dawson, per Messrs. Williamson & Bell, architects; bungalow, Anderson-drive, for Mr. James H. Ferguson, per Mr. George Watt, architect; bungalow, Anderson-drive, for Messrs. A. & S. J. Mitchell, per Mr. George Watt, architect; bungalow, Queen's-road, for Mr. Alexander Siddon, per Mr. George Watt, architect; cottage, Norfolk-road, for Mr. Frank A. Garden, per Mr. R. Leslie Mollo, architect; four semi-detached bungalows, Burns-road, for Alfred Cheyne, Alexander Barnett, Jane Kay, and Arthur C. Bruce, per Mr. Arthur C. Bruce, architect; bungalow, School-road, for Mr. Charles Harper, per Mr. George Watt, architect; bungalow, Braemar-place, for Messrs. Joseph Shirras & Son, per Mr. George Watt, architect; bungalow, Road from Craiginches to Bridge of Dee, for the Aberdeen Baker Incorporation, per Messrs. Brown & Watt, architects; bungalow, Garthdee-road, for Mr. James A. Clapperton, per Messrs. Sutherland & George, architects.

ALTRINCHAM.—Plans of twenty-eight houses, type "A," to be erected at Oldfield Brow, were approved, and the Council recommended to proceed with the scheme estimated to cost £11,900. Sanction has been received from the M.T. for the Hale-road bridge widening.

AUDENSHAW.—The Audenshaw, Droylsden and Denton Higher E.C. are seeking a site for the erection of a new secondary school to serve the three townships. The D.C. are in negotiation regarding a scheme for the improvement and widening of the bridge over Asdton Hall-lane.——Plans passed by U.D.C.: Two houses, for Chester's Brewery Co.; two houses, Stamford-road, for Messrs. Whittaker & Brown.

BACUP.—Sanction has been received from the M.H. for the erection of a further twenty-five houses.

BARNSLEY.—The Central Miners' Welfare Committee has granted the sum of £15,000 towards the cost of erection of a mining college. The estimated cost is £45,000, and the proposed site is in Church-street.

BATHGATE.—The District Committee has agreed to apply for a Provisional Order to construct a reservoir at the Lyne Water, Cobbinshaw and construct a pipe therefrom to the Bathgate district. The estimated cost of the Lyne scheme is £339,782.

BATLEY.—Plans passed: New primary school at the rear of Sunday School adjoining Purlwell-lane, for the Trustees of the Purlwell Wesleyan Sunday School.

BELFAST.—Plans passed: Villa on Castlehill-road, for Mrs. J. D. Dick, architect, Mr. Thomas Houston; four villas on Ailesbury-road, for Messrs. H. & J. Martin; villa in Myrtlefield Park, for Mr. John Wilgar, architects, Messrs. Hobart & Heron; villas on Woodvale-road, for Mr. D. Kilpatrick, architect, Mr. T. R. Agar; bungalow in Ormiston-crescent, for Captain Thomas Robinson, architect, Mr. J. St. J. Phillips; 14 villas, Ashley-gardens, for Messrs. Macivor Bros., architect, Mr. W. C. Maxwell; alterations to shop and house on Newtownards-road Upper, for Mrs. R. Hutchinson, architect, Mr. James Scott; five villas on Edgby-road, for Mr. W. J. Ervine, architect, Mr. Godfrey W. Ferguson; five villas, Dufferin-drive, for Mr. Samuel Duffin; four villas on Ballygomartin-road, for Messrs. Wilson, Cousin & Co.; two villas, Ravensdene Park-gardens, for Captain N. B. Fitzpatrick, architect, Mr. T. R. Eagar; 17 villas, Maryville Park, for Mr. A. McDowell, architect, Mr. T. R. Eagar; house and private dance hall on Lisburn-road, for the Misses M. L. Foster, and Elsie E. Tylor, architects, Messrs. Taggart & Silk; four houses in Broadway, Falls-road, for Mr. W. J. Ervine, architect, Mr. C. A. Aickin; stables and stores, Glenbank-place, for Mr. John Gibson, architect, Mr. D. W. Boyd; additions to villa on Templin-road, for Mr. John Ellis; additions to house in Kincora-avenue, for W. J. Robinson; shop and house, Bloomfield-avenue, for W. McClughan; house in Malone-avenue, for W. & J. Robinson; shops, Carter's-hill, for H. & J. McKibben; house in Greenland, for Oswald Mahood; warehouses and offices, Donegall-street, for S. Lamont & Sons; two houses in Avenhill Park-gardens, for N. B. Kilpatrick; two houses in Woodvale-road, for D. Kilpatrick; house in Ashmere-gardens, for Mrs. M. E. Penpraze; addition to house in University-terrace, for R. M. Beath; conversion of shop into two shops in Mill-street, for S. Gibson; eight houses in Salisbury-avenue, for D. Cupe; four houses, Bawnmore-road, for E. Curley; house in Antrim-road, for S. R. Boyd; shop and house in Silvio-street, for T. E. Carlisle; house, Balmoral-avenue, for H. J. Titterington; five houses, Castle-avenue, for W. Curran; house, College Park, Belmont, for D. B. Marr; two houses, Luxor-gardens, for T. Wizell; house, Castlehill-road, for Mrs. J. D. Dick; house in Myrtlefield Park, for J. Wilgar.——The Belfast Corporation has passed a resolution applying to the Northern Ministry of Home Affairs for sanction to a loan of £200,000 for the purpose of the Small Dwellings Acquisition Act as amended by subsequent Act.

BLACKBURN.—Plans passed by T.C.: Six houses, Brigton-street, by Mr. R. J. Dodd; eight houses, Thorne-road, by Mr. Wm. Edmondson; bungalow, Brackgate, by Mr. Gerald R. Clayton; four houses, Brothers-street, by Mr. G. H. Felton; stables, Gorse-street, by Messrs. Hy. Livesey, Ltd.; two houses, Green-lane, by Mr. Gerald R. Clayton; four houses, Preston Old-road, by Mr. Harper Southworth; new street, Parsonage-road, by Messrs. Duttons Blackburn Brewery Co., Ltd.; six houses, Bank Hey-lane, by Mr. Joseph Seed.——A scheme has been approved for the Corporation to erect one hundred and sixty-six houses at Brown-hill, and plans passed for the erection of thirty-one houses by private enterprise.—The Borough Engineer has been instructed to prepare a scheme for the reconstruction of the Freckleton-street baths.

BLACKPOOL.—The E.C. are to consider provision of an infants' school in the vicinity of Highfield-road, Lytham-road, and St. Anne's-road.—The M.H. is to be asked by the Corporation to sanction the borrowing of £4,200 to defray the cost of alterations to premises in Lytham-street and West-street to be used for municipal buildings.

BOLTON.—£50,000 for the Finance Committee Grants under Small Dwellings Acquisition Act: £10,000 for the Public Health Committee, contributions towards sanitary conversions.——In addition to the above, the Finance Committee approved the expenditure of £240 on fencing at Heaton Cemetery and £2,560 on the new bandstand in Queen's Park, and a sum not specified for.——Details are being prepared with estimates for cost for the construction of a new road 2¼ miles long, from Manchester-road to St. Helen's-road.——The T.C. approved a scheme by which the Mawdsley-street chapel front is to be set back for the widening of Great Moor-street. A side street is to be closed and the longer side of the church will front Great Moor-street. The Corporation will pay £16,000 in compensation, besides giving a piece of land. Messrs. Bradshaw, Gass & Hope, architects, are engaged on plans for the reconstruction of the church.—Application has been made to the M.H. for sanction to borrow £4,118 for the Parks Committee improvement works in Leverhulme and Haslam Parks. £25,000 for Waterworks Committee water mains.

BOURNEMOUTH.—Plans passed by T.C.: House and garage, corner Mayfield-road and King Edward-avenue, Mr. F. Richards; house, Stamford-road, Mr. B. G. Webb; additions, Quorn Hall, Richmond-gardens, Mr. P. Sutcliff; house, St. Alban's-avenue, Mr. A. Harris; house, Southbourne-avenue, Mr. W. Eastwood; house, Easter-road, Mr. E. J. Skivington; house, Bethia-road, Mr. W. Ward; house, Cranmer-road, Mr. C. Burt, sen.; two pairs of houses, Droxford-road, Mr. A. H. Elcock; three houses and two garages, Seafield and Douglas-roads, Mr. E. R. Saunders; two houses, Stamford-road, Mr. W. J. Clarke; house and garage, Bryanstone-road, Mr. R. J. M. Nabney; house and garage, corner of Boscombe Overcliffe-drive and Browning-avenue, Mr. F. F. Tarrant; bungalow, Stamford-road, Miss K. Staples; five houses, Mortimer-road, Mr. F. Marks; house, Malvern-road, Mr. E. Mabey; house, Bethia-road, Mr. W. J. Mountain; house, Ashton-road, Mr. F. Moorman; house, Tennyson-road, Mr. F. Moorman; house and shop, corner Pine and Murley-roads, Mr. T. Wareham; house, South Hill-road, Mr. A. T. Lewis; house, King George-avenue, Mr. J. Gover; house and garage, corner Iddesleigh and Stokewood-roads, Mr. M. O. A. Beer; house, Queen's Park South-drive, Mr. R. F. Sydenham; two houses, Chigwell-road, Mr. E. B. Little; house, Sutton-road, Mr. O. Hunt; house and garage, Queen's Park-avenue, Mr. Hay Baker; two houses, Danesbury-avenue, Mr. C. Coul; house, Coronation-avenue, The Hon. Gertrude Pitt; four garages, Stanfield-road, Mr. S. Harris; pair of houses, Stourvale-road, Mr. A. Green; two bungalows, corner Stamford and Burleigh-roads, Mr. J. Lee; bungalow, Irving-road, Mr. R. Clarke; house, King George-avenue, Mr. Stacey; 12 lock-up garages, Cardigan-road, Mr. E. C. Hall; garage and living accommodation, 4, Knyveton-road, Mr. Horspool; house, Tuckton-road, Mr. E. O. Nightingale; house, 40, Highfield-road, Mr. F. Hawkins; conversion into flats, "Clive," Gervis-road East, Mr. W. H. McKenzie; five houses, Beaufort-road, Mr. Long; house, corner Herberton and Beaufort-roads, Mr. Long; house, St. Luke's-road, Mr. A. Barnes; two flats, 52, Beaufort-road, Mr. S. Adams; three houses, Mavis-road, Mr. S. G. Ward; house, 7, Southbourne Overcliffe-drive, Messrs. Bunning & Patrick; house, Southbourne Overcliffe-drive, Messrs. Bunning & Patrick.

BRADFORD.—The scheme for the erection of a new public hall has been advanced another stage when the lay-out plan in respect of the New Inn site was approved. The frontage will face Thornton-road, bounded on each side by Town Hall-square, Tyrrell-street, and the New Inn yard. The ground floor will be let off as shops, and the hall will be similar in design to the Alhambra Theatre. Accommodation will be provided for 3,500 people, the final details of plans are being settled by the City Architect (Mr. W. Williamson).—The M.H. has sanctioned the erection of forty-six houses on the Thornton Housing Site.——The following houses have passed for subsidy: Arthur Foster and others (Agents: Walker, Collinson & Bradley), 23, Durham-road and Woodlands roads; B. B. Fairbank (Agents: B. D. Fairbank & Son), 2, Baslow-grove; Foster Bros., 2, Upper Woodlands-road; L. Holland (Agent: J. N. Liversage), 1, Parkside-road; W. H. & L. Crow (Agents: B. D. Fairbank & Son), 2, Hollybank-road.——Applications for permission to develop estates have been approved by the Town-Planning Committee as follows: Mr. G. Hallett, new road off Smith-lane, house; Mr. P. W. T. Blackburn, Smith-lane, Daisy-hill, pair of villas and part of proposed new road); Messrs. Walton & Wilkinson, Haworth-road, semi-detached houses; Messrs. Wray & Pickles, Heathfield-street; Mr. B. B. Fairbank, Baslow-grove, semi-detached houses; Mr. B. Waterhouse (the Heaton Garage), Highgate, Heaton, garage, showroom, &c.; Mr. A. Thomas, Westfield-lane, Idle, bungalow; Messrs. Croft & Keighley, Highfield-road, Idle, semi-detached houses; Miss E. Callow, Howgate, Idle, laundry extension; Miss E. Shackleton, 7, Institute-road, Eccleshill, bakehouse extension; B. Ramsden & Sons, Huddersfield-road, Wyke, warehouse.

BRECONSHIRE.—The C.C. has received an offer of land to enable it to proceed with scheme of widening part of the Talybont-Usk road, at an estimated cost of £500.

BRIDGEND.—The U.D.C. has received sanction to erect a further fifty houses.

BRIGG.—The U.D.C. propose to erect twenty-four houses at an estimated cost of £350 each, and ten houses at an estimated cost of £450 each, subject to the approval of the M.H.

BRIERFIELD.—Funds are being raised by the members of the Congregational Church for redecorating the interior of the church building.

BURNHAM-ON-CROUCH.—Plans have been passed by the U.D.C. for a bungalow in Glyn-road for Mr. A. E. Short; for a cottage in Mill-road for Mr. T. Slaughter; and for a pair of houses in Silver-road for Messrs. Challis.

BURNLEY.—The Borough Surveyor has been instructed to prepare estimates of cost for the erection of 50 houses on the Palace House site.

BURY.—Sanction is being sought to borrow £10,985—For the construction of swimming bath at Clarence Recreation Ground (£9,152), for an approach road (£949), for culverting Green Brook (£362), for paddling pool (£474), also for an extension for existing housing scheme by the erection of a further 150 houses.——Sanction has been received for the borrowing of £6,000 in connection with the Walmersley Housing Scheme.

BUXTON.—Plans passed by T.C.: Two houses, Lansdowne-road, for Mr. J. Boon; bungalow, Lightwood-road, for Mr. G. B. Chell.

CARMARTHENSHIRE.—The Ammanford U.D.C. is to construct a storage reservoir, at an estimated cost of £8,000.—The Llandilo and Llandebie R.D.C. is to construct a storage reservoir, and has called for estimates.—The C.E. authority has given formal notice to acquire land for building a school at Burry Port.—Estimates for reconstruction of Carmarthen Town Bridge have been submitted to the C.C. The cost is placed at £35,000, and grants have been applied for from M.T. and G.W.R. Co.

CHEADLE.—The R.D.C. has decided to make application to the M.H. for a loan not exceeding £11,000 for the purpose of providing a water supply to the parishes of Alton, Bradley, and Farley.

CHELTENHAM.—Plans passed by T.C.: The Corporation, 30 non-parlour type houses, Tennyson-road.

CHORLEY.—The Blackrod War Memorial Committee have decided to erect a lych-gate at the Cemetery as a war memorial.

COLNE.—Plans have been approved by the T.C. for the erection of a weaving mill, off Burnley-road, for the Boundary Mill Co., Ltd.

CONSETT.—The U.D.C. have received sanction from the M.H. to borrow the sum of £16,666 for the erection of 50 houses.

CROMPTON.—Plans have been approved by the D.C. for the erection of new premises in Market-street, for the Union Bank of Manchester, Ltd.

DARLINGTON.—The T.C. approve the following plans: Messrs. R. T. Snaith & Son, eight houses, Willow-road; H. Parvin, house, Willow-road; J. E. Chilton, house, Roslyn-street; house, Pierremont-crescent; shop, Feethams; bungalow, Yarm-road; house and shop, Pierremont-road; J. W. Henderson, house, Longfield-road; C. A. Gray, two houses, Cleveland-avenue; Clark & Moscrop, extensions to Nursing Home, Eastbourne-road; lay-out of new streets, Neasham-road; H. G. Steavenson, house, Harewood-hill; Messrs. W. W. Lee & Son, two houses, Cockerton; 11 houses, Brook-terrace; T. Rodgers, private road, Thornbeck Villas, Woodlands-road.

DEWSBURY.—Plans passed: House, Wakefield-road, for Mr. N. Briggs; 10 bungalows, Church-lane, Thornhill, for Mr. W. C. Wakefield; two houses, Park-lane, for Messrs. Read & Walmer; shop premises, Queensway, for Messrs. R. Blackburn & Son; bungalow, Wakefield-road site, for Mr. H. Bingham; bungalow, Boothroyd-lane, for Mr. F. Gomersal; bungalow, Boothroyd-lane, for Mr. N. Blackburn; bungalow, Boothroyd-lane, for Mr. M. Cross; house, Wakefield-road site, for Mr. H. Blackburn; two houses, Chickenley Heath, for Mr. W. Mather.——Application is being made to the M.H. for sanction to borrow £27,500 in connection with the erection of 56 houses for which tenders have been accepted by the Corporation.

DONCASTER.—Sketch plans have been prepared for the erection of a fire station and firemen's dwellings on the site of the Tannery, Church-street.

DUBLIN.—Plans passed: Phibsborough-road, 18, rebuilding, Mr. M. Maguire; Cook-street, 24, part reconstruction, Messrs. Rogan & Co.; Botanic-road, Tobacco Factory, canteen, Messrs. Player & Sons.

DUDLEY.—The E.C. has approved of a scheme for the erection of a new secondary school with an engineering section attached.

DUKINFIELD.—It is proposed to make structural alterations to increase the seating accommodation from 150 to 200 at the Baptist Chapel, Town-lane.——The T.C. have decided to install new mains, pillars and lanterns in Range-road, estimated to cost £149 17s. 8d.

DURHAM.—Plans passed by R.D.C.: New billiard room and committee hall and alterations to Framwellgate Moor and Pity Me Workmen's Club.

ECCLESFIELD.—The E. Authorities are urging the County Architect to make better provision for comfort of the children attending the temporary school at High Green, also to install a head teacher's room at all schools in the area.—Plans have been prepared and tenders are to be invited for the erection of a domestic training centre at Chapeltown.

EDINBURGH.—Plans passed by Dean of Guild Court: Alexander Cunningham, two bungalows at St. John's-road, Corstorphine; Danish Bacon & Co-operative Trading Company, 201, Leith-walk, conversion of office premises into house; Ernest H. Lyon bungalow,

* See also our List of Contracts, Competitions, etc.

Bonaly-road, Colinton; Thomas M'Crae, conversion of self-contained house, Learmouth-terrace, into three separate dwellings; J. W. Wallace, bungalow, Meadow-place-road, Corstorphine; J. D. Johnston, bungalow Hillview-terrace, Corstorphine.

GLAMORGAN.—The Gower R.D.C. is to borrow £6,470 to carry out the Llanmorlais-road improvement scheme.—The Radyr Golf Club is to undertake pavilion and other building works, at an estimated cost of £2,500.—The G.W.R. Co. has notified the Merthyr Tydvil B.C. that it will carry out repairs to, and make enlargements to, Quaker's Yard station.—The B.E. has advised the Mountain Ash E.C. that it is of opinion that the Committee should erect a central school at Ynysybwl. The Committee has already provided in its estimates for erection of a central school at Abercynon, and the enlargement of Miskin School, Mountain Ash.—The C.C. is to acquire land for extension of the mental hospital at Angleton, and is to carry out reconstruction of Pontardawe Police Station.

HAVERFORDWEST.—Plans passed by T.C. are as follows:—Two houses at Portfield, for Mr. Jenkins, Gowerton (Mr. Butler, architect). The Council is to invite tenders for supply of stone, tar-spraying, liquaphalte, and general haulage for a period of twelve months.

HAWORTH (YORKS)—Plans have been prepared for the erection of a new Roman Catholic Church at Craven Royd, Haworth.

HINCKLEY.—Plans for 142 houses have been passed by the U.D.C.

HORBURY.—Plans passed: House off Jenkin-road, for Mr. J. Dyson; house, hotel for J. Yetley & Sons, Ltd.; two houses in Windyridge-street for Mr. E. Lord.

KIDDERMINSTER.—The T.C. decided to invite tenders for the alterations, improvements and reconstruction of the cattle and wholesale markets—separate tenders to be invited. The Surveyor's estimated cost is £10,000.

LEEDS.—The Church Extension Society has secured sites for new churches to be erected on the new Housing Estates at Hawkesworth, Middleton and Meanwood. They hope to commence building this year.—Plans have been prepared and tenders are being invited for the completion of Atlas Chambers Rebuilding Scheme in King-street and Park-place. Messrs. Perkins & Bulmer, of Infirmary-street, Leeds, are the architects.

LLANELLY.—The Council is to undertake the repairing of the schools buildings in the area, at an estimated cost of £7,500. The estimated cost of re-roofing the Boys' Central School is £2,500.

LONDON.—The Metropolitan Asylums Board propose to make arrangements for 24 single rooms for patients at Colindale Hospital at an estimated cost of £2,050.

LONDON (HACKNEY).—Plans passed by B.C.: Factory premises at Victory Works, Theydon-road, for T. D'Amery; workshop, Silesia-buildings, Mare-street, for Hall, Beddall & Co.

LONDON (LEWISHAM).—Plans passed by B.C.: Building, Randlesdown-road, for Bethell & Swannell; four houses, Belmont-hill, for L. Shore; six houses, Warren-road, for Dibben & Co.; 10 houses, Bellingham-road, for H. R. Watt; house, Belmont-hill, for A. G. Shorter; four houses, Woolstone-road, for Nichols, Aitchison & Budd; premises, High-street, for T. H. Sawyer & Son.

LUTON.—Plans passed by T.C.: C. T. Archer, three houses, Stockingstone-road; Mrs. S. A. Taylor, bungalow, Turner's Knoll; N. Hill, three houses, Lincoln-road; N. Hill, two houses, Mansfield-road; R. V. How, four houses, Portland-road; C. J. Perkins, house, Kingston-road; A. Mardle, four houses, Biscot-road.

MACCLESFIELD.—A new post office is included in the Draft Revenue Building Estimates.

MAIDSTONE.—Plans passed by T.C.: Loose-road, bungalow for Mr. G. Wilkinson and two bungalows for Messrs. W. T. Burrows & Son; Curzon-road, two houses for Mr. J. Barton; St. Peter-street, concrete gantry for the Maidstone Gas Co.; Willington, lock-up shop for Mr. W. S. Girling; Mill-street, rebuilding No. 4, for Messrs. G. H. Leavey & Co.

MANCHESTER.—New schools on three building estates, costing £14,700, £32,000, and £22,000 respectively; extension of the Municipal College of Technology, £180,000; junior technical school in Hulme, costing £35,000; school for mental defectives and a teachers' training college at Parr's Wood; and a proposal to build a secondary school in Levenshulme.——Plans passed by the Manchester Corporation: Alterations to "Blue Post" Inn, 55, Vine-street, Hulme; Saxone Shoe Co., Ltd., alterations and additions to premises, 90, Stretford-road, Hulme.——Manchester University: Revised details of foundations addition to Museum of Manchester University, Oxford-street.

MARKET HARBOROUGH.—A site has been acquired in Northampton-road for the erection of new offices for the Market Harborough Building Society.

MARSDEN.—The U.D.C. are awaiting the approval of the M.H. for erection of fifty houses.—Estimates are to be prepared for the remodelling of the sewage works.

MIDLOTHIAN.—The Calder and District Committee has decided to erect twenty-four houses.

MILNROW.—The D.C. approved plans for the erection of 12 pairs of semi-detached houses and pair of semi-detached houses in Buckley Hill-lane.

MONMOUTHSHIRE.—The Ebbw Vale U.D.C. E.C. recommends Council to erect new school at Glyncoed at estimated cost £24,000, and effect enlargements to Tyllwyn Schools at an estimated cost of £5,000.—The widening, reconstruction and improvement of Aberbeeg bridge, at an estimated cost of £22,500, is proposed to be undertaken by the C.C. and certain of the U.D.C.s.—The Tredegar U.D.C. has now approved the scheme to provide high levels water supply, the estimated cost of the scheme being £8,000. The U.D.C. has passed plans for two houses to be erected in Church-avenue by Mr. W. Edwards, Tredegar.—An unemployment relief scheme is being considered by the Pontypool B.G. involving the construction of a new road from Little Mill to New Inn.—Drastic alterations to the Blaenavon Park-street Mixed Council School are to be carried out by the C.E.C., and involve expenditure of £2,000 on rebuilding work alone. The work will be put in hand immediately.—The Chepstow R.D.C. is endeavouring to arrange for a site for erection of a new landing stage in which the Chepstow Development Association will have interests.—The Management Committee of the Victoria Cottage Hospital, Abergavenny, has decided to build a children's ward, at an estimated cost of £1,?00, and work will shortly be put in hand.—The Ebbw Vale Central War Memorial Committee will shortly put in hand work of erecting memorial, at an estimated cost of £1,600.

MUSSELBURGH.—The T.C. has agreed to proceed with the widening of the new stone bridge over the Esk, with relative tramway track improvements, at a cost of £17,665, according to the offer of Messrs. Angus & Sons, Edinburgh.

NEWTON ABBOT.—Plans passed by U.D.C.: Gospel Hall, at Kingsteignton; pair of cottages, at Kingsteignton, for Messrs. L. G. Frost & S. E. Jeffery; bungalow, at Dawlish Warren, for Mr. J. B. Carmichael.

NORMANTON.—Plans passed: House at Mill-hill, for Mr. J. W. Fox; four houses in Gladstone-street, for Mr. H. Robshaw.

OLDHAM.—The Parks and Cemeteries Committee are to consider improvements to the chapels in the Chadderton and Greenacres Cemeteries.——Plans have been approved by the B.C. for the Heron-street Higher Standard, Centre-street (Messrs. Taylor & Roberts, architects).

OSSETT.—Plans passed by T.C.: Two houses, Swithenbank-street, for Mr. A. E. Clegg; house at Sowood View, for Mr. John Baker; two houses in Wesley-street, for Mr. Jarvis A. Brook; house in Wheatcroft, off Church-street, for Mr. Gladstone Moorhouse; detached house off Church-street, for Mr. A. Mitchell; three houses in Spa-lane, for Mr. Joseph Illingworth.

PAISLEY.—Plans passed: Mr. J. Macfarlane, three bungalows at Calside; Mr. H. Neil, bungalow, Gartmore-road.

PLYMOUTH.—Alterations and improvements estimated to cost £10,000 are projected at the South Devon and East Cornwall Hospital. The improvement of the mortuary has already been taken in hand, and the committee hope to embark shortly upon the erection and equipment of a laundry at a cost round about £5,500. The enlargement of the pathological department and the X-ray department are also contemplated, together with the remodelling of the entire hospital.

PONTARDAWE.—The R.D.C. has instructed the architect to procure tenders for erection of 22 houses at Colbren-road site, Gwaun-cae-Gurwen.

PONTYPRIDD.—The U.D.C. has applied for sanction to erect 100 houses, and has instructed that tenders be invited for erection of the houses in batches of twenty. The Council is negotiating for building sites at Graig-yr-hesg and Lan Wood.

PORT ISAAC.—Messrs. Lewis & Lewis, consulting engineers, London, have prepared a scheme for submission to the Cornwall C.C. for the provision of harbour shelter at the fishing centre of Port Isaac, which is exposed to heavy ground seas from the Atlantic. They propose a breakwater 200 ft. long. The cost is estimated at £19,600.

PRESTATYN.—Plans passed by U.D.C.: Bungalow, Highbury-avenue, for Miss Lucy Thacker; house, Plas-avenue, for Mr. Jos. Edwards; house, 3, Bryntirion Estate, for Mr. S. F. Hopley; semi-detached houses in Gronant-road, for Mr. Robert Wallace; semi-detached houses, Bryntirion-drive, for Mr. J. Williams; house, Bryntirion-drive, for Mrs. Boler; house, Bryntirion-drive, for Mrs. E. H. Halliwell and Miss A. Whitehead; semi-detached houses in Glyn-avenue, for Mr. Hugh Jones and Mrs. Lyde; residence in Woodland Park, for Mr. L. T. Williams.

READING.—The T.C. has adopted plans and sections prepared by Messrs. C. Smith & Sons, architects, for additions to the Park Hospital, estimated to cost £14,820.

REIGATE.—Plans passed by T.C.: J. Hodge & Son, two houses, Rushworth-road; E. Penfold, house, West-street, and pair of houses in Orchard-road; W. Farmer, house, Oak-road; Vincent Hooper, three houses, Redstone-road; Harry G. Clacy, house, Crakell-road; H. G. Donnison, house, Chart Field-road; A. J. Vinson, pair of houses, Chart-lane.

ROTHERHAM.—The Justices have passed plans for the conversion of the Electric Picture House into billiard-rooms, shops, &c., and for the rebuilding of the Cleaver Inn, Wellgate.

ROTHERHAM.—At a recent meeting of the R.D.C. it was stated that the Rother Vale Collieries, Ltd., were prepared to erect twenty-five houses at Treeton if the Council would undertake to erect a similar number.—The Cortonwood Collieries are prepared to erect two hundred houses at Brampton Bierlow if the Council would undertake to erect approximately the same number.—The R.D.C. are making application to the M.H. for sanction to borrow £10,390 for new sewage disposal works in the parish of Brampton Bierlow.

ROYTON.—An application to the D.C. has been made by the Co-operative Society for a store site in the Ooze Wood Housing Estate.——Plans were approved for subsidy for a block of three houses, block of four houses, block of five houses, all in Shaw-road, not in accordance with Ministry requirements, partly built old parlour type; pair semi-detached houses, Springfield-lane; pair of semi-detached houses, Springfield-lane, parlour type.

SCARBOROUGH.—The railway station at Scarborough will soon be extensively altered. The alteration will consist of considerable improvements to the parcels and lift luggage departments. Building operations will be expedited as much as possible so as to have the scheme completed in time for the summer rush. The contract will be let by tender. The architect for the work is Mr. Stephen Wilkinson, York.

SKEGBY.—Colliery developments at Blidworth will soon be altering the aspect of this old village, for it was stated at the last meeting of the R.D.C. that the Industrial Housing Association, Ltd., proposed forthwith to commence the erection of 100 houses, and to proceed by stages until 850 to 1,000 houses are built. Eventually it is believed something like 2,000 houses will be erected. The R.C. is to confer with the engineer of the Association as to the sewerage scheme which will be necessary. At present there are only 200 houses in Blidworth.

SOUTH SHIELDS.—Plan passed: House and shop, Prince Edward-road, Messrs. T. A. Page & Son, for Mr. Blunden.

STALYBRIDGE.—A faculty has been obtained for installing a new stained-glass window in the west side of St. Paul's Church: and to place an alabaster tablet in the chancel, estimated to cost £?00.——The Surveyor has been instructed to prepare plans and obtain estimates of cost for the conversion of West Hill into a school for the higher standards for boys, with a handicraft centre.

STRETFORD.—Plans passed by U.D.C.:—Twelve houses (subsidy), Wellington-street, for Messrs. Howard & Sons; two houses, Urmston-lane, for Messrs. Jones & Thomas: sewering, &c., Derbyshire-lane West, Addison-road, Skelton-road, for the de Trafford Estates conversion to shop, 27, Isabella-street, for Mr. W. R. Dykes.

STOCKTON.—The General Purposes Committee of the T.C. have had before them sketch-plans for the new municipal buildings, which, in view of the offer of the London & North-Eastern Rly. Co. to supply an alternative site for the cattle market, it is now proposed to erect on the existing cattle market. It is proposed that the scheme be carried out in three sections, the first providing accommodation for the Town Clerk, Borough Engineer, Borough Accountant, and Medical Officer, at an estimated cost of £40,000, the second section, at a cost of £70,000, and the third at £40,000, giving the total cost of the scheme at £150,000.

SWANSEA.—The Higher Education Sub-Committee has decided on a scheme for extending the Technical College at a cost of £100,000.

TADCASTER.—Plans passed by R.D.C.: Eight houses in Belcroft-lane, for Mr. L. J. Gallagher; three houses in Newton-road, for Messrs. C. & S. Robinson and J. Goodall; bungalow at The Drive, Station-road, Scholes, for Mr. G. McConnell; two houses at Owlett-lane, Kippax, for Messrs. E. & A. Davies; two houses at Owlett Hall-lane, for Messrs. A. Barton and M. Booth; two houses at Owlett Hall-lane, for Messrs. S. Roberts and E. Hastings; fifty houses at Swillington, for Messrs. T. & R. W. Bower; house at Brigshaw-lane, Allerton Bywater, for Mr. C. Stockwell.

THORNE.—Sinking operations at No. 1 Shaft are now within reach of the Barnsley seam, surface buildings are being erected, and building operations upon the new village and new elementary school are about to be commenced.

TORPOINT (CORNWALL).—The U.D.C. propose to construct a road bridge across the River Tamar between Devonport and Torpoint.

THURCROFT.—The United Street Companies have decided to erect 100 more houses on the Laughton-road site and the Rotherham R.C. have also decided to build 100 more on the site known as Katherine-street.

WALLSEND.—The M.H. has sanctioned the T.C.'s proposal to borrow £13,860 for the erection of 36 houses, at High Farm, and £12,776 and £1,586 for street and sewer works.

WALLASEY.—Plans passed by T.C.: Two houses, office and workshop in Mill-lane, for Mr. E. M. Bellis; seven houses and garages, Broadway-avenue, for Mr. H. W. Jones; house, Leasowe-road, for Mr. C. L. Nicklin; three houses, Breck-road, for Messrs. J. McKee & Son; four houses, Lymington-road, for Mr. W. J. B. Bellis; six houses, Hillside-road, for Mr. E. A. Hawke; 15 houses, Willoughby-road and Dawlish-road, for Mr. W. Stocks; conversion of shop, 125, Poulton-road, into house and shop, for Mr. A. Bell; bakehouse, &c., at No. 72, Albion-street, for Miss Hardman; two houses, Cliff-road, for Mr. J. P. Jones; two houses, Poulton-road, for Mr. J. Hall; 10 houses, Rolleston-drive, for Mr. G. A. Lindley; six houses, Dawlish-road, for Mr. W. J. B. Bellis; offices, Church-road, for Mr. George Russell; seven houses, Lymington-road, for Mr. J. H. Holland; street on the "Fox Hey" Estate, Breck-road, for Mr. G. A. Lindley; seven houses, Pendennis-road, for Mr. T. Owen; two houses, Grosvenor-road, for Messrs. Young & Broster; 26 houses, Uppingham-road, for Mr. J. H. Lindley.

WALTON-LE-DALE.—The Surveyor reported that the cost of the removal and re-erection of the building at Bell's-lane and Houghton-lane, in order to improve a dangerous corner, would be £110; and the cost of making a new road to the east of the farm, £1,500.——Notice has been received that the Preston and Blackburn Corporations intended laying a main to connect the two electricity stations along the old tram road, Hennel-lane, Chorley-road, Higher Walton-road, and Houghton-lane.

WALTON-ON-THAMES.—Plans passed: Messrs. Crouch & Co., eight bungalows, Mount Felix Estate; W. A. Annett, two bungalows, Terrace-road, and two bungalows, Cottimore-lane; Trigg & Son, bottling factory, High-street.

WARRENPOINT.—The Northern Ministry o Home Affairs has given permission to the U.D.C. to borrow £2,829 to enable it to carry out improvements in the town. These include the erection of shelters for visitors and the repair of the promenade roadway.

WEYMOUTH.—Plans passed by T.C.: S. Jackson & Sons, pair of villas on allotment ground, Argyle-terrace, for Mr. W. E. Barrett; Jenkins, Hitt & Grant, Ltd., bungalow, Fernhill-avenue; F. J. Purchase, four houses, Roman-road.

WIGTON.—Plans passed by R.D.C.: Additions to Mr. Little's property at Kirkbride, and additions and improvements to a farm at Kirkland, for Mr. W. Simpson, High-street, Maryport.

YORK.—It is proposed to build a new church in the South Bank district of York. The architects are Messrs. Brierley & Rutherford, Lendal, York.

FIRES.

EDINBURGH.—Fire, causing damage to the extent of several thousands of pounds, has occurred in the premises of Messrs. M'Vitie & Price, Ltd., biscuit manufacturers, Robertson-avenue.

STOKE-ON-TRENT.—Great damage has been caused by a fire which destroyed the saw mills of Messrs. John Foster & Sons,

PRICES CURRENT OF MATERIALS.*

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Bettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
No. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
No. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick:—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
Headers	21 10 0	D'ble Headers	27 10 0
Quoins. Bull-nose and 4½ in. Flats	28 10 0	One Side and one End	31 10 0
		Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
½ in. Shingle for Ferro-Concrete	14 0	" "
1 in. "	15 0	" "
2 in. Broken Brick	10 6	" "
Fan Breeze	5 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test 51/- alongside at Vauxhall in 80-ton lots.	£2 18 0 to £3	3 6
Ferrocrete per ton extra on above	0 10	0
Super Cement	4 8	0
Roman Cement	8 15	0
Parian Cement	5 15	0
Keene's Cement, White	5 15	0
" Pink	5 10	0
Plaster, Coarse, Pink	3 0	0
" White	3 12	6
" Fine	5 12	0
Sirapite, Coarse	3 9	0
" Finish	7	9
Grey Stone Lime	2 10	9
Chalk Lime	2 10	9
Best Ground Blue Lias Lime	2 15	3
Hair	17 0	0
Granite Chippings	1 12	0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.
Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.
Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*
Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
	6 0½
6 in. rubbed two sides ditto "	2 10
4 in. sawn two sides slabs (random sizes) "	2 5
3 in. ditto. ditto "	2 11
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 6
4 × 9	34 0	3 × 11	34 0
4 × 8	29 0	2 × 11	34 0
4 × 7	28 0	3 × 9	33 0
3 × 8	26 10	2½ × 9	33 0
3 × 7	26 0	3 × 4½	24 0
2½ × 7	26 0	3 × 4	24 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£38 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/6		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	22/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 4 per 100 ft.

SAWN LATHS.

Per bundle		0 2 10
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to	0 2 6
¾ in. do. do.	0 1 6 to	0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to	0 2 6
	0 3 0 to	0 3 6
Cuba Mahogany		
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to	50 0 0
American Whitewood planks, per ft. cube	0 14 0 to	0 16 0
Best Scotch Glue, per cwt.	4 10 0 to	—
Liquid Glue, per cwt.	4 7 0 to	5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	14 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2¼ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount; carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	52½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	1/1d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 5½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

	£ s. d.		£ s. d.
IRON—			
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	0 0		15 0 0
Staffordshire "Marked Bars"	0 0		18 0 0
Mild Steel Bars	12 10 0		13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0		14 0 0
Hoop iron, basis price	16 10 0		17 10 0
Galvanised	31 0 0		32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0		16 0 0
" " " 24 g.	16 0 0		17 0 0
" " " 26 g.	18 0 0		19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0		22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0		23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0		26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0		22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0		23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0		25 0 0
Sheets Galvanised Flat. Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 8ft. to 20g. and thicker	23 10 0		24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0		26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0		27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0		22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet. English, 4 lb. and up	49 10 0
Pipe in coils	50 0 0
Soil Pipe	52 0 0
Compo pipe	56 0 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 1 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	37 0 0	—
Do., ex country, carriage forward per ton	38 0 0	—

PLUMBERS' BRASS WORK.
Delivered in London

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in
7/6	11/6	17/-	29/-	36/-	61/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps	33/-	41/-	56/-	101/-	per doz
8 lbs. S. traps	35/-	45/-	68/-	126/-	"

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	—
Thin " "	0 2 4	—
Copper nails "	0 2 3	—
Copper wire "	0 2 4	—
TIN—English Ingots "	0 2 7	—
SOLDER—Plumbers' "	0 1 2	—
Tinmen's "	0 1 4	—
Blowpipe "	0 1 6	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 10
" " " in barrels "	0 4 0
" " " in drums "	0 4 3
Boiled " " in barrels "	0 4 3
" " " in drums "	0 4 6
Turpentine in barrels "	0 6 9
" in drums (10 gall.) "	0 7 0
Genuine Ground English White Lead. per ton (Do not less than 5 cwt. casks.)	63 10 0

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots per ton delivered 87 10 0

Red Lead, Dry (packages extra) per ton	50 0 0
Best Linseed Oil Putty per cwt	0 16 0
Filocol per cwt.	0 15 6
Size, XD Quality per ckn.	0 3 0

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths....	3½d.	32 oz. fourths.....	8½d.
15 „ thirds	4½d.	32 „ thirds	10½d.
21 „ fourths ..	5d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
26 „ thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

BUILDING IN CANADA.

The official review of building permits issued in Canada during 1923 states that activity in building for a total of 56 cities was somewhat less in 1923 than during 1922, but much greater than in both 1921 and 1920.

An analysis of the returns by provinces shows that the value of the building permits issued in Quebec and Ontario was higher than in 1922, 1921 or 1920.

The largest aggregate of building permits issued in any one city was again reported in Toronto. Montreal recorded the next largest total, and the township of York (a suburban area adjoining Toronto) was the third largest total in the Dominion. Considerable activity was shown in Vancouver, although the total was 28 per cent. less than in 1922, but permits then had been exceptionally high on account of authority having been granted for the construction of a Government pier. The city of Hamilton took fifth place in the record of individual cities. Quebec, Windsor and Winnipeg came next in order.

A review of the reports by months shows that the highest total was recorded in April, when the permits issued were 15 per cent. of the total for the twelve months.

Reports as to the number and value of permits for houses, other buildings and engineering contracts were furnished by a number of cities; forty-four centres made returns showing that they had issued permits for 12,900 dwellings. The number of permits issued for other buildings including garages, stables, stores, factories, &c., was almost 22,200. In addition, permits for some 200 engineering projects were granted.

In British Columbia the value of the permits issued in 1923 was less than in 1922; this, as has already been pointed out, was due to the fact that a permit was granted in the latter year for a government pier in Vancouver.

Activity in Nova Scotia attained its highest level in the period immediately succeeding the Halifax explosion of 1918. The total for that province in 1923 was smaller than in any other year of the record. The value of building authorised in New Brunswick was less than in any other post-war year.

THE RENT ACTS: NOTICE OF INCREASE

The case Michael *v.* Phillips which we noted March 30 last has been carried to the Court of Appeal, where the decision has been affirmed.

The case raises some interesting questions, and the facts were as follows:—By an agreement in writing, dated May 22, 1918, one Michael, since deceased, had let to the defendant a flat at Hampstead for a term of one year and seven-eights at a rent of £107 18s., the landlord paying rates and taxes. The standard rent of the flat was £107 18s., and it only came within the Rent Act because the rateable value was £105 and, therefore, just within the limits of the Act. The term above granted was to run from May 9, 1918, and thus would terminate March 25, 1920, but on February 17, 1920, and thus before the determination of the agreement, the plaintiffs, the executors of Michael, had demised the flat to the defendant for a further term of seven years from March 25, 1920, at a rent of £160 a year.

No notice of intention to increase the rent had been given, and the Act of 1920, which requires such notice to be given, did not come into force until July 2, 1920. In this action the plaintiffs were claiming one quarter's rent due June 24, 1922, and the defence to this claim was that as no notice of increase had been given the increased rent could not be claimed, and while admitting liability for £26 15s., a quarter's rent at the standard rent, the defendants counterclaimed for £125, payments made in excess of the standard rent.

As regards the defence and counterclaim the plaintiffs raised two points: (1) That no notice of increase was necessary as the Act of 1920, requiring notice, was not in force at the time when the rent was increased; and (2) that the rent included payment in respect of attendance, and therefore under section 12 subsection (2) (i,) the Act did not apply to the flat. On this second point the evidence was that the landlords provided a lift, with a porter to attend to it, who every morning, except on Sundays, by the lift removed the tenant's refuse and carried up coals from the tenant's cellars from and to a place outside each flat, but the lease contained no covenant by the lessors to provide a lift and porter to render services.

The Court of Appeal affirmed the decision of the Divisional Court, and held that notice of intention to increase the rent as prescribed by section 3 subsection (2) was a condition precedent to the lessors' right to increase the rent, and it was immaterial that the lease purporting to make the increase was made before the passing of the Act, and on the second question the Court of Appeal held that as the lease contained no covenant to supply attendance section 12 subsection (2) proviso (1) did not apply to take the flat out of the Act.

On the first of these two points in the Divisional Court it had been also held that as the new lease had been entered into before the expiration of the original term the landlord had never, under section 3 subsection (1) been in a position to give notice of an increase because there had never been "a period during which but for the Act the landlord would be entitled to obtain possession."

As we pointed out in our note to Schmitt *v.* Christie (*The Builder*, July 4, 1922), and to Michael *v.* Phillips when heard in the Divisional Court (*The Builder*, March 30, 1923), very difficult questions have arisen under the Act as interpreted by these decisions. The standard rent when once it has been ascertained attaches to the house *in rem* (see King *v.* Yorke, *Weekly Notes*, 1919, p. 59; *The Builder*, February 28, 1919), and an increase of rent can only be demanded even in the case of a new tenancy when the requirements of the Act have been complied with (see Schmitt *v.* Christie, and Michael *v.* Phillips).

Those conditions are that the landlord must be in a position to give a notice of increase under section 3 subsection (1), that is, no increase is authorised except in respect of a period during which but for the Act the landlord would be entitled to obtain possession, *i.e.*, when the tenancy has determined either by notice or otherwise, and that a notice of increase in accordance with subsection (2) of the Act has been given, that is, a four weeks' notice. If a change in the tenant does not get rid of the standard rent as was held in Schmitt *v.* Christie, it is difficult to see how the new tenant can be effected with notice of increase. The term is still subsisting as against the old tenant in the case we are imagining, and notice of increase cannot have been given to him because of subsection (1) the landlord not being in a position to obtain possession, and the new tenant cannot be effected with notice because it is a four weeks' notice, and if he comes in, at the end of four weeks the position is the same as regards subsection (1), as in the case of the outgoing tenant, for a term is again subsisting, and the landlord is again not in a position to obtain possession.

There appears to be a flaw in the Acts for when once an increase of rent has been lawfully made it should be the standard rent plus the permitted increase which should attach to the house, and not merely the standard rent unincreased. The only question we have now to consider is whether the new Acts of this year have made any difference.

The Rent Restriction Act, 1923, which came into force July 31 last does seem to some extent to remove this difficulty, for under section 2 subsection (1) where a landlord is in possession of the whole of the dwelling house at the passing of the Act, or comes into possession of the whole house at any time thereafter, then (provided that he has not come into possession under an order or judgment made after the passing of the Act on the ground of non-payment of rent) the principal Act ceases to apply to the house from the passing of the Act, if the landlord is then in possession, or from the date when he came into possession.

By subsection (2) also, where at any time after the passing of the Act the landlord of a dwelling house to which the principal Act applies grants a valid lease to the tenant for a term ending at some date after June 24, 1926, being for a term of not less than two years, or enters into a valid agreement for a tenancy of such term, from the commencement of the term the principal Act shall cease to apply to the dwelling house. This subsection it will be seen applies only to the tenant, that appears to be to the tenant in possession.

These two subsections also contain provisions as to parts of houses. But it is particularly important to notice that the word "possession" in subsection (1) is construed by subsection (3) to mean "actual possession, and a landlord shall not be deemed to have come into possession by reason only of a change of tenant made with his consent."

Thus the position seems relieved by the Acts passed this year, but from the above observations we hope it is clear that a new lease or agreement to a different tenant must under no circumstances be granted before possession is obtained, as otherwise the difficulties illustrated by the case Schmitt *v.* Christie and Michael *v.* Phillips will be experienced.

In conclusion, it may be noticed that although the Rent Restriction (Notices of Increase) Act, 1923, gives to a notice to increase the rent the character of a notice to terminate an existing tenancy, it only so operates where an effective notice to quit can be given, and thus the limitation contained in section 3 subsection (1) of the principal Act, that the increase can only be demanded in respect of a period during which but for that Act the landlord would be entitled to obtain possession still applies; and further it must be remembered that a valid notice to quit does not mean obtaining possession for the tenant can remain on as a statutory tenant unless under section 4 of the Rent Act, 1923, grounds for obtaining possession can be shown.

CURRENT PRICES FOR BUILDING WORK IN LONDON.*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19 -
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	67	0
Do. Do. in flats	"	65	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7	
Do. service	"	1/10	2/5	2/10	4/3		
Do. soil	"						7/6
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	1

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

JAMES WALKDEN & SONS, LTD. (194,709). Registered December 27. The Office, Monument Lodge, Wigan. Builders and contractors. Nominal capital, £4,000.

DIXON & Co. (BANGOR), LTD. (194,673). Registered December 24. Eureka Slate Works, Port Penrhyn, Bangor, Carnarvon. Slate manufacturers now carried on by R. Williams and J. R. Williams, at Eureka Slate Works, Port Penrhyn, Bangor, under the style of Dixon & Co. Nominal capital, £10,000.

JOSEPH COOKE (LONGPORT), LTD. (194,583). Registered December 20. Porthill Saw Mills, Longport, Stoke-on-Trent. Builder and contractor now carried on by Joseph Cooke, at Porthill Saw Mills, Longport, Stoke-on-Trent. Nominal capital, £4,000.

J. W. WOOLNOUGH, LTD. (194,654). Registered December 22. 30, Seaside-road, Eastbourne. Builders, contractors, &c. Nominal capital, £20,000.

GAYTHORN PAINT AND VARNISH CO., LTD. (194,737). Registered December 28. 119, Greengate, Salford. Paint and varnish manufacturers, wall-paper and brush merchants, now carried on by F. A. Williams at 119, Greengate, Salford, Lancaster. Nominal capital, £4,000.

HILTON GRAVEL, LTD. (194,678). Registered December 24. Hilton, near Derby. Quarry masters and stone merchants, now carricd on by John Marston Spurrier at Hilton, Derby, under the style of Hilton Gravel Co. Nominal capital, £10,000.

W. WAISTELL HIRD & Co. (WEARDALE), LTD. (194,853). Registered January 3. County Bank Chambers, Marton-road, Middlesbrough, Yorks. Fluor spar, limestone, ganister, quarry and mine-owners and lessees. Nominal capital, £2,000.

A. LOCKETT & SONS, LTD. (194,866). Registered January 4. 36, Camomile-street, E.C.3. Builders, decorators, office fitters, &c. Nominal capital, £1,000.

NEWCOMBE & Co. (CARDIFF), LTD. (194,897). Registered January 4. 267, Albany-road, Cardiff. Builders and contractors, engineers, &c. Nominal capital, £3,000.

RICHARD LEGGOTT CHALK QUARRIES, LTD. (194,887). Registered January 4. South Field, South Ferriby, Lincoln. Quarry-owners, chalk, gravel and ballast merchants, &c. Nominal capital, £6,000.

SMITH & DOWNTON, LTD. (194,890). Registered January 4. 7, Lower Grosvenor-place, Westminster, S.W.1. Timber merchants, builders' merchants, &c. Nominal capital, £3,000.

FRED J. W. JANES, LTD. (194,770). Registered December 31. 203, Biscot-road, Luton, Bedford. Builders and contractors, now carried on at 203, Biscot-road, Luton, under the style of F. J. W. Janes. Nominal capital, £1,000.

DRURY BRICK WORKS, LTD. (194,823). Registered January 2. The Temple, Dale-street, Liverpool. To acquire the brick works known as Drury Brick Works, and situate at Buckley, Flint. Manufacturers and dealers in bricks, tiles, pipes, pottery and ceramic ware of all kinds. Nominal capital, £6,000.

F. THURLBY & Co., LTD. (194,793). Registered January 1. Nottingham-road, Burton Joyce, Nottingham. Builders' and plumbers' merchants, now carried on by Florence Thurlby at Nottingham-road, Burton Joyce, Nottingham. under the style of F. Thurlby.

YOUNG & Co. (BALHAM), LTD. (194,785). Registered December 31. 53-55, Balham-hill, S.W.12. Builders and decorators' merchants, &c. Nominal capital, £10,000.

WHARF MILLS, LTD. (194,967). Registered January 8. Brick and tile manufacturers, concrete makers, &c., manufacturers of disinfectants and cleansing preparations, soap manufacturers, &c. Nominal capital, £5,000.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*

ABERDEEN.—For erection of two shelters and supply of 75 seats, for the Esplanade, for the T.C. :—

Shelters—
**Concreter*—Sellar & Co. £110 14 0
**Carpenter*—John Duguid 342 0 0
**Slater*—George Bain 126 8 0
**Painter*—A. Brannan & Son .. 59 9 4
Seats—
**Wood, with iron frames*—Garvie Innes & Scott 265 0 0

BEDDINGTON.—For erection of brick and concrete pavilion in Stafford-road Recreation Ground, for the U.D.C. Mr. S. F. R. Carter, Surveyor, Council Offices, Wallington :—

*A. A. Secrett, Ltd., Wallington £706
H. Bacon & Son, Coulsdon 890
G. Watson, Wallington 715

BIRKENHEAD.—For construction of 421 yds. of brick and reinforced concrete sewer, 580 yds. of stoneware pipe sewer, and 182 yds. of concrete pipe sewer. Mr. C. Brownridge, Borough Engineer, Town Hall, Birkenhead :—

*James Hogg & Son, Ltd., Belfast £23,030 6 9

BRADFORD.—For the erection of houses in connection with Thornton Housing Scheme, for the T.C. :—

Sixteen houses in blocks of 2, Class A. Roughcast above first floor level—
Mason—*F. Robinson & Sons.. £180 0 0
Joiner—*R. J. Patchett, Ltd... 97 10 0
Plumber—*L. D. Sunderland.... 48 0 0
Plasterer—*G. Sugden & Son.... 46 0 0
Slater—*Hill & Nelson..... 30 10 0
Painter—*E. Hoyle..... 4 2 0½
Per house £406 2s. 0½d., total £6,497 12s. 8d.

Twelve houses in blocks of 2, Class A. Brick faced full height—
Mason—*F. Robinson & Sons.. £187 10 0
Joiner—*R. J. Patchett, Ltd... 97 10 0
Plumber—*L. D. Sunderland.... 48 0 0
Plasterer—*G. Sugden & Son.... 36 0 0
Slater—*Hill & Nelson..... 30 10 0
Painter—*E. Hoyle..... 4 2 0½
Per house £403 12s. 0½d., total £4,843 4s. 6d.

Eight houses in blocks of 2, Class B. (Type 1). Roughcast above first floor level—
Mason—*F. Robinson & Sons.. £202 10 0
Joiner—*R. J. Patchett, Ltd... 112 10 0
Plumber—*W. Murgatroyd.... 54 0 0
Plasterer—*G. Sugden & Son.... 52 0 0
Slater—*Hill & Nelson..... 42 0 0
Painter—*E. Hoyle..... 5 0 4½
Per house £468 0s. 4½d., total £3,744 3s.

Ten houses in blocks of 2, Class B. (Type 2). Roughcast above first floor level—
Mason—*F. Robinson & Sons.. £202 10 0
Joiner—*R. J. Patchett, Ltd... 112 10 0
Plumber—*W. Murgatroyd.... 54 10 0
Plasterer—*G. Sugden & Son.... 54 0 0
Slater—*Hill & Nelson..... 34 10 0
Painter—*E. Hoyle..... 5 0 4½
Per house £463 0s. 4½d., total £4,630 3s. 9d.

BRECONSHIRE.—For improvement and widening of bridge at Builth Wells, for the County Highways Committee :—

*Hybart, Broadhead & Co., London £8,310

CANNOCK.—For repairs to and painting Council Offices, for the U.D.C. :—

*A. Davies, Hednesford £388

CARLTON (YORKS.).—For construction of steel bridge over the River Aire, in the parishes of the Goole and Selby D.C., for the Highways Committee of the West Riding C.C. :—

*Sir Wm. Arrol & Co., Ltd., Glasgow.

CHEADLE.—For carrying out Kingsley Holt sewage scheme, for the R.D.C. :—

*J. Hurst, Cheadle..... £3,221 2 7

CHELTENHAM.—For decorations at Wyecliffe House, Cheltenham. Mr. F. W. Watson, architect and surveyor, Cheltenham :—

H. Trigg £248 0
J. C. Pearce & Son 247 0
*H. Mealing & Co. 206 10

CHELTENHAM.—For the supply of water pipes to the T.C. for one year :—

		Per ton.
*Thomas Spittle, Ltd.—		
	3-inch pipes at	£11 0 0
	4-inch ,, ,,	10 15 0
	5-inch ,, ,,	10 12 6
	6-inch ,, ,,	10 12 6
	Irregular ,, ,,	22 10 0
*Stanton Ironworks Co., Ltd.—		
	7-inch ,, ,,	10 5 0
	8-inch ,, ,,	10 0 0
	9-inch ,, ,,	10 0 0
	10-inch ,, ,,	9 15 0
	12-inch ,, ,,	9 15 0

COVENTRY.—For the erection of Children's Ward at Infirmary, for the Board of Guardians :—

*Kelley & Son £15,427 12 11

CROYDON.—For the erection of a Palais de Danse at Drummond-road. Mr. H. Victor Kerr, L.S.A., architect :—

George Barker, London..... £22,100
Monnoyer British Construction Co., London 22,000
Walter Lawrence & Son, London 21,986
G. B. Farrar & Co., London 21,890
Arthur Vigor, London 21,831
W. Smith & Sons, Croydon 21,532
G. E. Everitt, Croydon 21,324
C. H. Gibson, Croydon 21,000
‡Walter Gladding & Co., London 20,933
General Building Co., London 19,849

DEWSBURY.—For erection of houses on Site No. 1 at Wakefield-road (56 of various types), for the Corporation :—

Brickwork and Mason—
*J. Donovan, Dewsbury £11,015 2 11
Joiner—
*J. Brooke & Sons, Dewsbury 7,466 0 0
Plumber's Work and Glazier—
*Calvert & Holdsworth..... 3,566 17 10
Slater's Work—
*G. Fawcett & Sons 2,071 13 0
Plasterer's Work—
*A. Idle & Sons 1,897 8 0
Painter's Work—
*Pickles, Ayland & Co., Ltd. 538 0 0

DEWSBURY.—For alterations to Moorlands Hall, for the purposes of adoption as a Maternity Hospital :—

*W. West, Dewsbury £380 16 10

DUNDONALD.—For erection of 40 houses and construction of streets. Mr. A. D. Haxton, architect Leven :—

Street Work and Mason—
*Thos. Miller, Fifeshire
Joiner—
*David Arnott, Fifeshire
Plumbers—
*Wm. Nicol & Sons, Ltd., Fifeshire
Plasterers—
*Lind Bros., Station-road, Lochgelly, Fifeshire
Slaterers—
*John Robertson & Sons, Fifeshire
Painter—
*Thos. Beattie, Fifeshire
Glaziers—
*Dickson & Walker, Edinburgh
Electricians—
*Peters & Ellis, Lochgelly

EXMOUTH.—For laying 900 yds. of 10 in. water main, East Budleigh, for the U.D.C. Mr. Samuel Hutton, Engineer, Public Hall, Exmouth :—

Supplying 10 in. cast-iron pipes and valves—
*Sheepbridge Iron Co., Sheepbridge £820 8 9
Laying 10 in. main—
*E. Harris & Son, Exeter..... 370 17 0

FERRYHILL.—For erection of six homes for the Mainsforth Colliery Aged Miners' Homes Committee. Mr. J. Stones, architect and surveyor, Sedgefield, Ferryhill :—

*Morgan & Roper, Sedgefield..... £2,074
T. Manners & Son, Bishop Auckland.
Eisel & Richardson, Coundon.
G. W. Lazenby & Co., Ltd., Ferryhill.
William Dunn, Ferryhill.
R. Barron & Co., Coundon.
T. Wilkinson, Sedgefield.
T. Coates, Durham.
Chas. Douglas, New Shildon.

HEMEL HEMPSTEAD.—For the erection of 14 houses at King's Langley, for the R.D.C. :—

Lofts & Holland..... £9,070
H. Lacey & Sons 8,330
A. J. Eldridge..... 7,322
J. Honour & Son 6,983
*R. L. Tonge 6,380

HENDON.—For construction of 600 yds. of 9 in. stoneware pipe sewer, Mill Hill, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W.4 :—

W. Manders & Co., London £3,784 4 2
J. Mowlem & Co., Westminster 3,253 10 0
Thos. Adams, Wood Green 2,529 9 6
John Cronk & Sons, London .. 2,348 11 6
G. Percy Trentham, Ltd., London 2,270 0 0
D. R. Paterson, Ltd., Camden Town 2,171 9 6
Charles Carter, Golders Green .. 2,111 17 0
*Howard Farrow, Golders Green 2,015 16 0
T. Wood & Sons, Luton 1,954 0 0

HERTFORDSHIRE.—For erection of Council School to accommodate 144 scholars, at Walkern, for the C.C. County Surveyor, Hatfield :—

Lown & Co., London £5,944 3 0
Foster & Co., Hitchin 5,740 0 0
Frost & Carter, Luton 5,713 15 8
Austin & Son, Stevenage 5,590 17 9
Redhouse & Son, Stotfold..... 5,423 0 0
R. H. Field, Stevenage 5,325 0 0
Hitch & Co., Ware 5,160 0 0
J. Ray, Letchworth 4,948 8 10
Lacey & Son, Luton 4,927 4 9
P. R. Paul, Waltham Abbey .. 4,861 19 5
Ginn & Son, Hertford 4,843 0 0
F. Newton, Hitchin 4,831 0 0
Thurgood & Son, Much Hadham 4,631 15 0
‡W. O. Porter, Ware 4,395 7 7

HILLHOUSE.—For alterations to "Slubber's Arms." Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield:—

Mason and joiner—
Graham & Jessop, Ltd., Huddersfield.

Plumber—
Crowther & Shaw, Huddersfield.

Concretor—
J. E. Dyson, Huddersfield.

Steelwork—
Joseph Taylor & Sons, Huddersfield.

HINCKLEY.—For construction of 1,200 yds. stoneware sewer, for the R.D.C. Mr. W. M. Edwards, Surveyor, Burbage:—

Emery & Co., Birmingham	£1,869 10 0
W. Webster, Northampton	1,635 13 0
S. Deeley, Wakefield	1,192 9 6
T. Bradbury, Sutton Cheney	1,095 0 0
*S. Chaplin, Nuneaton	1,063 5 0

HULL.—For the erection of electricity sub-station at Clarendon-street, for the T.C.:—

G. Houlton, & Sons	£5,292 0 0
Atkinson & Overton	5,241 0 0
Robert G. Tarran	5,150 15 0
P. T. Kettlewell	5,005 0 0
F. Bilton,	5,089 14 3
J. T. Levitt	5,061 15 2
M. Holmes	5,025 0 0
*Quibell & Son, Ltd., Hull	4,764 0 0

KEIGHLEY.—For rock asphalte paving in Bow-street, for the Corporation. Surveyor, W. Fowlds, Esq., A.M.I.C.E.:—

*Tunstall's Rock Asphalte Co., Ltd., Leeds.

KILMALLOCK.—For erection of new hall. Mr. P. J. Ryan, Civil Engineer, Kilmallock:—

P. Molloy, Limerick	£3,100 0 0
M. Gough, Limerick	2,770 0 0
Callaghan, Bruree	2,671 0 0
Clery, Charleville	2,568 14 10
*Gaul & Lucy, Cork	2,500 0 0

LEEDS.—For conversion of shop premises in Kirkgate into banking premises, for the Yorkshire Penny Bank, Ltd. Messrs. Chorley & Gribbon, architects, Leeds:—

*Messrs. Armitage & Hodgson, Camp-road, Leeds.

LEEDS.—For erection of a golf pavilion, at Templenewsam Estate, for the Corporation:—

Armitage & Hodgson, Camp-road, Leeds.
(Amended acceptance.)

NOTE.—Accepted instead of the tender of H. C. Bridges, Hanover-street, Leeds, whose firm could not comply with the time limit stipulation.

LONDON.—For erection of two houses. Mr. C. W. Boswell, architect, Barrington-road, Hornsey, N.:—

*Sydney G. Goulding, Hornsey.

LONDON.—For supply of bricks for six months to the Lambeth B.C.:—

(3) *Stock and Fletton Bricks.*	Price per 1,000. Stocks.	Flettons.
Marsh, Bishop's, Prince's, Vauxhall, Oval, Vassall, Angell, and Stockwell Wards:—		
*Young & Son, Ltd.—Best Stock Bricks	£4 9 8	
*Eastwood's, Ltd.	—	£3 0
Herne Hill, Town Hall, Tulse Hill, and Knight's Hill Wards:—		
*J. Knowles & Co. (London), Ltd.	4 9 6	—
*Young & Son, Ltd.	—	3 5

LONDON.—Provision of accommodation for the teaching of science at the Highbury County School, Islington, E., for the L.C.C.:—

*Shurmer & Sons, Ltd.	£1,053
John C. Mather	1,090
C. P. Roberts & Co., Ltd.	1,150
Patman & Fotheringham, Ltd.	1,233
E. A. Roome & Co., Ltd.	1,235
Prestige & Co., Ltd.	1,272
Holland & Hannen & Cubitts, Ltd.	1,300
Whitby's, Ltd.	1,366
G. E. Wallis & Sons, Ltd.	1,492

LONDON.—For re-glazing rooflight at Art Gallery, for the Camberwell B.C.:—

*Braby & Co. (using existing glass)	£120 0
Mellowes & Co. (using existing glass as far as possible)	158 13
Helliwell & Co. (using new glass)	176 0
British Supply Prism Syndicate Ltd. (using existing glass as far as possible)	276 10

E. Davis & Son—net cost, plus 15 per cent. profit.

LONDON.—For work of separation of "active" from surplus portions at the Bishopsgate fire station, for the L.C.C.:—

*Whitbys, Ltd.	£2,109
C. P. Roberts & Co., Ltd.	2,130
John C. Mather	2,200
L. H. & R. Roberts	2,244
Albert Monk	2,270
J. & C. Bowyer, Ltd.	2,287
Edwards Construction Co., Ltd.	2,293
Triggs & Co.	2,354
G. Parker & Sons, Ltd.	2,398
W. J. Dixon & Son	2,548

LONDON.—For renovating surface of bare areas at Blackheath, for the L.C.C.:—

*Mears Bros.	£2,927
Howard Farrow	3,100
R. Neal & Sons	3,400
Hodsons, Ltd.	3,892
George Bell & Sons, Ltd.	4,878

LONDON.—For alterations at the Maternity Home, for the Lewisham B.C.:—

*C. Cutler	£110 0
G. J. Howick	130 0
A. T. Peyton	131 10

LONDON.—For various works and supplies to the Lewisham B.C.:—

Artificial stone paving—
*Alexandra Paving Stone Co., Ltd., 5s. 10½d. per yd. sup.

Stoneware goods—
*Doulton & Co., Ltd., at 12½ per cent. below standard list price, less 2½ per cent. discount.

Cement, lime, bricks and firebricks—
*Cement Marketing Co., Ltd., cement at £2 16s. 6d. per ton.
*A. H. Lavers & Co., lime at £2 6s. per ton, delivered in 4 ton lots.
*John Knowles & Co. (London), Ltd., Fletton bricks at £3 5s. per 1,000.
*Harris Pearson, firebricks and side-arch firebricks at £7 17s. 6d. per 1,000.

Road material—
*A. F. Manuelle, Ltd., 2-in. Guernsey granite at 21s. 9d. per ton.
*A Manchester, dug flints at 11s. per ton.
*Chittenden & Simmons, Ltd., for ragstone at 22s. per ton for 1½-in., and 26s. for ½-in. material.

Thames Ballast and sand—
*Fry Brothers, Ltd., Thames ballast at 8s. 6d. per cub. yd. and Thames sand at 12s. 6d. per cub. yd.
*A. Manchester, pit sand at 8s. 6d. per cub. yd.
*Supplies & Transport Co., Ltd., shingle at 12s. per cub. yd.

METROPOLITAN ASYLUMS' BOARD.—The following tenders have been received by the Board:—

S. Luke's Hospital—Newgate lodge—

W. J. Croft, Lowestoft	£156 0 0
R. A. Evans & Co., Ltd., Lowestoft	133 0 0
†D. Leighton & Son, S. Lowestoft	130 0 0

Southern Hospital—Additional coal store—

L. Kazak, Hampstead	£343 0 0
†D. C. Bowyer, Belvedere	279 10 0

S. George's Home—Cleaning and painting—

H. Bragg & Sons, Ltd., S.W.	£227 0 0
C. H. Boyd & Son, Ltd., W.	222 0 0
W. Mountain, Brixton	212 0 0
Norfolk Decorators, Ltd., Glasgow	202 0 0
W. Lay & Sons, Paddington	196 0 0
J. S. Cammegh, Kensington	195 10 0
W. Chappell, Maida Vale	195 0 0
G. H. Batstone, Hammersmith	190 14 10
J. Darch, Ltd., E.C.	179 0 0
D. C. Bowyer, Belvedere	164 10 0
L. Kazak, Hampstead	160 0 0
W. Lilly & Co., S.W.	149 0 0
Dilliway & Co., W. Kensington	148 15 0
H. A. Thomas & Son, S.E.	136 15 0
F. Cousins, Holloway	134 0 0
M. Greenwood & Son, Ltd., W.	133 7 5
A. H. Inns, Ltd., E.C.	117 0 0
†J. Scott Fenn, Woolwich	106 18 0

Brook Hospital—Removal of kitchen annexe, etc.—

T. W. Heath, Ltd., Chelsea	£845 0 0
Thomas & Edge, Woolwich	548 0 0
W. S. Sharpin, Wellington Works, Bow	530 0 0
Douglas, Halse & Co. Ltd. Woolwich	480 0 0
J. Darch Ltd., E.C.	480 0 0
Barnes & Co., Lewisham	418 0 0
†J. Hocking & Co., Charlton	397 0 0

MONMOUTH.—For asphalters' work at the new banking premises, for the Midland Bank, Ltd. Messrs. Woolfall & Eccles, Liverpool, architects:—

*The Ragusa Asphalte Co., Ltd., Oxford-street, London.

NEWTON ABBOT.—For providing and laying about 2,300 yds. of galvanised water mains, for the Committee of the Devon County Show. Mr. R. A. Rogers, surveyor, Union-street, Newton Abbot:—

A. J. Steer, Ltd., Plymouth	£647 8
W. H. Rogers, Wolverhampton	527 0
Best Bros., Ltd., Teignmouth	490 0
Parker Bros., Newton Abbot	420 0
Lambe & Son, Shaldon	404 10
*J. Northcott & Son, Newton Abbot	375 10

OLDHAM.—For the erection of fifty houses on Greenacres site, for the T.C.:—

*A. Pellowe & Son	£25,820

OUTWELL.—For erection of (1) house near Gill's Bridge; (2) chapel at Elm. Mr. J. W. Crouch, architect, Post Office-lane, Wisbech. Quantities by architect:—

(1) Tomblinson Bros., Outwell	£530 0 0
Jas. Parker & Son, Upwell	506 13 0
White & Holmes, Elm	498 15 0
Hood & Noy, Wisbech	497 2 6
H. Johnson, Wisbech	490 0 0
*Webber & King, Upwell	478 0 0
(2) Elworthy & Co., Upwell	£2,410 3 0
J. H. Johnson & Sons, Wisbech	2,300 16 6
Rands & Son, Ltd., Wisbech	2,250 17 0
Webber & King, Upwell	2,014 1 9
*White & Holmes, Elm	1,999 10 6

PENYBONT.—For erection of twenty houses, eight non-parlour type and twelve parlour type, at Llangynwyd, for the R.D.C.:—

*Messrs. T. Thomas & Son, Maesteg—	
Parlour type	£440
Non-parlour type	390

PONTARDAWE (GLAM.).—For erection of twenty houses, twelve non-parlour type and eight parlour type, at Clydach, for the R.D.C.:—

Robert Jones, Clydach	£13,789 16
Morgan Bros., Clydach	11,738 0
David Davies, Pontardawe	11,056 2
‡Thomas Bros., Pontardawe	10,912 0

PONTEFRACT.—For supply of 380 yds. of iron railings with stays, for the Parks Committee of the Corporation:—

*W. A. Parker & Co.: 7s. 9d. per lin. yd.

QUEENSFERRY.—For painter work of 16 houses at Hopetoun-road, for the T.C. Mr. W. M. Scott, architect, Linlithgow:—

*Norfolk Decorators, Ltd., Glasgow £169 8 10

READING.—For the reconstruction of Caversham Bridge and approaches, for the T.C.:—

*Holloway Bros. (London), Ltd. £63,162

READING.—For compressing station in connection with the sewage disposal scheme of Mr. Midgley Taylor, for the T.C.:—

*W. Moss & Son, London £6,210 10

ROMFORD.—For extensions and alterations at the Institution, for the Board of Guardians:—

*Myall Bros., Southend £86,000

SHEFFIELD.—For the reconstruction and widening of bridge over the canal at Staniforth-road:—

*Messrs. Wellerman Bros., Sheffield £7,115

SHEFFIELD.—For the construction of reinforced concrete bridge over the River Sheaf, at Charlotte-road:—

*Messrs. Thos. Wilkinson & Sons, Ltd. Sheffield £6,100

SHEFFIELD.—For the construction of reinforced concrete bridge over the River Sheaf, at Rydal-road:—

*Messrs. A. Waddington & Son, Sheffield £4,194

SOUTH QUEENSFERRY.—For erection of 20 houses at Hopetoun-road, for the T.C. Mr. W. M. Scott, architect, Linlithgow:—

Brickwork—
*D. Aitken, Bo'ness £2,654 3 9

Joiner—
*P. Doherty, Queensferry 1,683 14 7

Slater—
*J. Robertson & Son, Dunfermline 477 9 9

Plaster—
*G. M. Paris, Broxburn 563 1 5

Plumber—
*A. Thomson & Co., Dunfermline 717 10 7

Glazier—
*Dickson & Walker, Edinburgh 34 2 9

SOUTH SHIELDS.—Concreting in back Alnwick road, for the T.C.:—

*George Thornton & Co. £508 12

SOUTH SHIELDS.—For 64 privy conversions in Alnwick-road, and Ebor, Tennant and Medres-streets, for the T.C.:—

*A. Holmes & Co.: 30 at £5 17s. 6d. and 34 at £6 10s. each.

STONE.—For carrying out w.c. conversion scheme for the U.D.C.:—

Section 1 (Newcastle-road, Newcastle-street, and Margaret-street)—	
*F. W. Loxley	£394 1 9
Section 2 (North-street, Station road, and Alma-street)—	
*J. Marson	339 18 10
Section 3 (High-street and Mill-street)—	
*G. H. Davenport, Wolstanton	663 0 0
Section 4 (Stafford-street, Crown-street, and Abbey-street)—	
*Yates & Francis	585 11 1

STAFFORD.—For kerbing, channelling and paving footways in Gaol-road, Marston-road, Earl-street, Bath-street, Albion-place, and Chapel-str: for the T.C.:—

*G. Sandy & Co. £2 24 13 9

STRETFORD.—For interior decoration in water paint or wall paper of two rooms in each of the 416 houses of the U.D.C.:—

	Each on schedule of prices.
*T. W. Bagley	158 houses.
*J. Hartland	137 houses.
*T. Summers	71 houses.
*H. Storer	50 houses.

SUNBURY-ON-THAMES.—For erection of 20 houses, for the U.D.C. Mr. H. F. Coales, Surveyor, Council Offices, Sunbury-on-Thames:—

The Pioneer Works, Ltd., Hammersmith	£11,800
W. G. Tarrant, Ltd., Byfleet	10,660
F. D. Hidden & Co., Ltd. Brentford	9,297
Collinson & Co., Ltd., Teddington	9,200
Lucas Bros. (Shepperton), Ltd., Shepperton	9,100
Newby Bros., Southgate	8,750
Edward Wright, Sunbury	8,740
F. Hopkinson & Co., Ltd., Worksop	8,200
*W. A. Annett, Walton-on-Thames	8,000

SUNBURY-ON-THAMES.—For construction of cast-iron and glazed stoneware pipe sewers, for the U.D.C. Mr. H. F. Coales, Surveyor, Council Offices, Sunbury-on-Thames :—

Wimpey & Co., Hammersmith	£4,474
S. Kavanagh & Co., Surbiton Hill	4,304
Mowlem & Co., Westminster	4,159
Standard Construction Co., Swansea	3,542
Crawford Bros., Havant	3,295
Gunn, MacNeill & Co., London	3,520
*Langley & Johnson, Slough	3,470

TRALEE.—For the erection of 14 dwellings at Tralee, for the U.D.C. :—

*Coughlan Bros., Cork £630

TUAM.—For rebuilding Town Hall, for the Town Commissioners :—

Charles Doyle, Mullingar	£5,553 7 6
W. Simmons, Galway	5,157 11 6
P. Dooley, Galway	5,086 16 3
Thomas Coughlan, Castlepollard	4,812 17 10
Martin Burke, Tuam	4,607 13 0
Thomas McHugh, Tuam	4,598 11 11
James Stewart, Galway	4,484 7 6
*Owen Larkin, Ballinasloe	4,130 1 4

(Accepted subject to modifications in the design.)

WAKEFIELD.—For erection of two houses in Park Lodge-lane, for Messrs. Massie & Holdsworth :—

Mason—J. Lockey.
Joiner—E. Lockey.
Plasterer—W. H. Moss.
Slater—H. & W. Parker.
Plumber—Ellis & Longbottom.
Painter—N. Keighley.
(All of Wakefield.)

WAKEFIELD.—For erection of two houses in Belgrave-mount, for Messrs. Massie & Holdsworth :—

Mason—Furness & Render.
Joiner—Broadhead & Son.
Plasterer—T. E. Senior.
Slater—H. & W. Parker.
Plumber—J. Woodhead.
Painter—J. Broadbent & Sons.
(All of Wakefield.)

WALLASEY.—For the erection of boiler house extensions, &c., at Generating Station, Poulton, for the T.C. :—

*J. & G. Chappell, Liverpool £14,700

WALLASEY.—Six chalets and three kiosks, for the T.C. :—

*Kent & Co., Liverpool £339

WALLASEY.—For making up streets, for the T.C. :—

*John McGeoch & Sons, Wallasey—
Lindeth-avenue £541 19 4

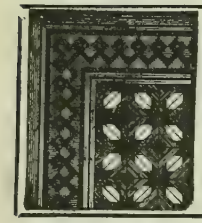
WEYMOUTH.—For alterations to the ladies' cloak room, Alexander-gardens, for the T.C. :—

Jesty & Baker	£257
Theo. Conway, Ltd.	250
Bird & Cox, Ltd.	240
*Jenkins, Hitt & Grant, Ltd.	216

New Thames Frontage.

In the course of a letter to *The Times*, Mr. Alan E. Munby states, in reference to the controversy on the Thames bridges, that the Thames between Westminster and Blackfriars is much wider than for some distance on either side—at Waterloo Bridge, for example, it is about half as wide again as at Southwark Bridge. The area at low tide between Waterloo and Blackfriars Bridges appears to be nearly fifty acres, and that between Waterloo and Westminster Bridges rather more, say, together, 100 acres, which approximates to the area bounded by Cannon-street, Bishopsgate, London-wall, and Aldersgate and St. Paul's. At high tide, this river area is possibly 20 per cent. more. No suggestion should be countenanced which would spoil the vista of the river or the possibilities of a fine architectural scheme which new bridges invite; but were a section of the river floored over near the southern shore, an opportunity would exist for the creation of a fine frontage, to which one or more bridges of less span, and, hence of less cost could be attached, and very valuable ground rents would be created without the interminable process of acquiring existing interests.

If this suggestion should prove on investigation to be impracticable, he makes a plea for moving footways over any new bridges. Distance, he continues, is measured by time, not by space, and such footways, practicable perhaps alone on bridges, arranged with speeds at each end to admit of good central velocity, would greatly increase the handling power for foot traffic, reduce vehicle traffic, and add to the value of property on the southern shore considerably.


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WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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THE ARCHITECTURE OF SHOPS: A MODERN SYMPOSIUM.

THE question of advertising has come very much before the public lately, and the occasion is a suitable one to refer to the problem of the shop-front. Until the beginning of the last decade it could safely be said that architects made no serious efforts to deal with the shop-front problem in a logical and sympathetic manner. It would be truer, perhaps, to say that many architects ignored the shop-front, and refused to have anything to do with its design. The subject was distasteful, and it became a question whether the shopkeeper should be helped and encouraged in a development which seemed to have nothing to commend it. The arguments of the architect were sound, and it could be contended that if we had fewer acres of plate glass we should still be able to buy what we wanted. The counter argument was that the large window tempted the public to buy what it did not need. At all events, the general tendency everywhere was to secure the maximum area of window space, and though the advertisement value of the huge window was always doubtful, there was never any ambiguity about the disastrous effects upon the architecture. The following imaginary criticism was quite typical of the period, and might well have applied to many buildings: "This building takes its place as a fine example of modern commercial architecture. If we regard it as a design from the first floor upwards it is excellent, *sui generis*. Unfortunately, the huge expanse of shop-fronts makes any form of architectural composition impossible, and we should have thought that the owners would have been willing to sacrifice immediate profits for the gain in architectural dignity, by either abandoning the shops or confining the windows to smaller dimensions."

Mr. Max Beerbohm's delightful essay on "Signboards" appeals to the architectural mind, which was always fully aware of the commercial value of dignity and reticence. He suggests a signboard to the shopkeeper to teach him to chasten his shop window. The shopkeeper objects; he considers that shop windows are attractive enough in themselves and have made these boards unnecessary: "You are wrong, believe me! Your window is quite repulsive. But the signboard, being itself an absolute symbol, will teach you how very well it is to symbolise, rather than to parade your wares. Are you a jeweller? You fill your window with a garish and unseemly chaos of all you have: bracelets, sleeve-links, penknives, tiaras—*toute la boutique*. Your rival in Paris, even in New York, is much wiser. He understands the value of a reticent symbolism. Very little puts he into his window. What he puts is good. Men and women, beholding, praise it. Their imagination has been stirred, their appetite whetted for the things that are withheld, and they long to enter in at the door. Last winter, in the Rue de la Paix, I saw a jewel-window, sir, that should serve for an example to you. It was lined with scarlet velvet and illustrious with electric light. In the very middle of it lay, like a bomb in a palace, one beautiful black pearl. Had I been rich, I must have entered. Are you a florist? I blame you less for your profusion. For flowers, being things of Nature, do not need any artistic ordering, and your window, with its lilies and forget-me-nots and lilac-branches, is a chance patch of the country not unwelcome to us. Yet you, also, might expose but one single daffodil on some days. And as for the crude efforts of your neighbour, the butcher, to create a pastoral atmosphere, I cannot think of them but with utter contempt. Let him put up all his shutters and keep the dreadful secrets of the slaughter-house to himself."

This is an age when we are supposed to select our purchases from the shop window; an earlier generation expected the shop to contain the article in request. It may be that our needs and wants are not so clearly defined to-day, and we purchase something as a passing fancy which we happen to have seen in a shop window. Mr. Arnold Bennett, who is always modern, discusses "The Shops" in one of his illuminating essays. As an expression of the spirit of the age it is excellent, and it represents another point of view which the architect cannot afford to neglect:

"*The* shops count amongst the greatest attractions of London and the provincial cities. They draw to their windows enormously larger crowds than Westminster Abbey or the National Gallery. There are half a dozen spots in the West End where the spectacle of shop windows full of frocks, hats, and lingerie results in blocked pavements for several hours every day. No other kind of wares will regularly block pavements. And let it be admitted that no other kind of wares are so pretty and agreeable to look at, and therefore so worthy to block pavements. The richly variegated windows of a big shop, just illuminated at twilight, with the dark upper stories setting off their brightness, and the hypnotised crowds passing slowly in front of them, make a show that for truly romantic beauty cannot be beaten in London, and I will back it against any sunset seen from Westminster Bridge. Further, sunsets are not improving in elegance, and shop windows are."

The idea of the large modern shopping emporium brings us nearer in principle to the old fashioned shop, when obviously it is impossible to stock the windows with a sample of every commodity. The logical development of the emporium, therefore, seems to lead us to the conclusion that the need for a spectacular and prodigal display at the pavement level may not be so essential in the future. It is a mistake to look too far ahead in architectural matters, and commit ourselves to rigid arguments upon any phase of our civilisation. The modern emporium is not yet the final word of the trader, and in saying this we bear in mind that everyone is not convinced that the departmental system of shopping is the ideal. Mr. E. V. Lucas in "A Wanderer in London" regrets the passing of the old shops, and we are in sympathy with him. The saddest change, he says, in the shops of London is in the chemists: the greatest in the tobacconists: "An element of bustle has come into the chemist's life. Of old he was quiet and sympathetic and whispering: now his attitude is one best described by the words 'Next Please.' I wonder that the sealing wax remains. In some of the new chemists the difficulty is to find bottles at all. Only by struggling past novels and photograph frames can this be done."

The social attraction of the shop window is a factor which must be balanced against the architectural appearance of our streets. If we were certain that buildings on glass bases were the final expression of the shop, it is obvious, from a civic point of view, that the proper position for them would be in a quarter devoted to shopping alone. There is, however, ample evidence to show that the influence of architecture is beginning to have effect. A decade of steady progress in the design of the shop-front can be recorded, and the marked improvement is due to the fact that architects have accepted the problem and studied it seriously. The moral influence of the dignified window has demonstrated to the shopkeeper the æsthetic and commercial value of reticence in window dressing. Window spaces are being reduced by delicately designed marble or bronze surrounds which enhance the choiceness of the limited number of articles displayed. It is possible that we are in sight of the day when the shopkeeper will realise that the architecture of the shop-front is an attraction to the public, and that the smaller window serves his purpose better than a wilderness of plate-glass. From a recent article in the *Manchester Guardian* on "London Architecture" we quote the following:—

"One of the features of the year, indeed, has been the more expert consideration given to the shop-front. One feels that if the rebuilding of Regent-street were now only being considered, instead of being completed, we should have a prospect of a worthy successor of the polite old thoroughfare."

If we have diagnosed cause and effect correctly we can point a moral. It means that no commercial development should be neglected by architects because they happen to disagree with any particular tendency of the moment. We have come to understand that health in architecture, as in life, is best established, not by the avoidance of risks, but by being prepared to meet them. By dealing frankly with the daily problems which come to hand, the architect can make architecture a living thing, which, in the end, will not only survive all fashions, but will ultimately influence everything it comes in contact with.

NOTES.

The R.I.B.A. Meeting.

Major Barnes's paper on "National Housing" at the R.I.B.A., on Monday, attracted a gathering representative of almost every housing interest, and produced a most stimulating discussion. It was curious, however, that among all those speakers who discussed the pros and cons of national housing not one should have referred to p. 211 of Major Barnes's book, "There are others, including the writer, . . . who believe that such public provision is as a rule more expensive and less efficient, and is, therefore, a regrettable necessity only to be accepted if it is inevitable." How can it ever be necessary and inevitable to do something in an expensive and less efficient way unless the cheaper and more efficient way is not available? Major Barnes did not face this fact in his excellent paper, and to face it properly it would be necessary to prove not only that private enterprise is not available now, but that it can never be available again. Major Barnes is out for permanent State housing, which seems to us to be propping permanently the bad industries at the expense of those who can and do house their people properly and pay adequate wages. At the same time we should like to congratulate Major Barnes on an able and interesting paper.

Realisation of Competition Designs.

When we recall the history of architectural projects in Manchester, it is only natural to find some feeling of uncertainty in the minds of possible competitors for the proposed Art Gallery in that city. Mr. G. H. Willoughby very pertinently suggests that there should be "some reasonable agreement amongst the promoters of this scheme that the work will ultimately be proceeded with." Even the solatium which the R.I.B.A. competition conditions provide for the authors of winning designs which are not carried out does not form an adequate compensation, for it is the carrying out of his design in the completed building which is the real goal of an architect's ambition. In the multitude of counsellors we are told lies safety, but to the onlooker the multitude of counsellors in Manchester has appeared to spell confusion.

A National Style of Architecture.

In the course of the interesting address given by Lord Curzon at the opening of the second exhibition of the Architecture Club his lordship said the answer to the question as to whether they "were capable of producing any new national style of architecture" was doubtful—and this may well be the case. It is not in any conscious way that such a result will be reached and it is altogether to be doubted whether we should be aware of having reached it if we did. Of the good we are seldom conscious, and to set out to produce a new style of architecture might lead us very far astray. It is better to have as our aim to do the best in the conditions presented to us, and to leave style to take care of itself.

Conduit Street.

As one looks up Conduit street, the effect of the new buildings on the farther side of Regent-street would not evoke any encouragement to our hopes for better ideas of balance and dignity in our newly fronted thoroughfares. The two new buildings, separated by a narrow street way, are so different in scale as to produce a very unfortunate result. Another note on recent street effects may be found in the excellent decorative effect which balcony railings often produce, as illustrated by the newly-painted railings along the Waldorf Hotel front, the light green effect being very pleasing.

Approach to Waterloo Bridge.

The street widenings and other city improvements inevitably suggest opportunities that once lost can never be regained. It is not surprising then, that the opening up of the Strand approach to Waterloo Bridge indicates very graphically how our street congestion at points like this might be relieved. Mr. John Struthers writes: "At present there is no opening to the Embankment for heavy fast vehicles, for the vast amount of traffic converging at the point referred to in the busiest thoroughfare of the Metropolis, between Northumberland-avenue in the west to New Bridge-street in the east, a distance of nearly a mile-and-a-quarter. It would, therefore, be an improvement of the first magnitude were relief provided as proposed by the formation of the new spur street, already suggested. The gradient might not be quite of the requisite character, but with expert drafting it is believed the route might be so arranged as to afford access between the points of a satisfactory nature, especially if the whole area were set out for improvement, between the Savoy Hotel and Wellington-street, and between the Strand and the Embankment. If that area were scheduled, a further traffic improvement might be considered in the matter of another by-pass between the Strand opposite Burleigh-street and Wellington-street. That site in the Strand is now vacant also (and for sale), and the remaining property on the south side of the street eastwards set out for demolition and a widening. The two spurs might, therefore, be planned in conjunction with the happiest results, as far as the nature of the topography of the area will allow, were the whole 'squared' area as suggested made available for re-planning. While the matter is under consideration, a third question calls for attention. It concerns



Architecture Club Exhibition.

Carved Oak Woodwork at St. John's Church, Lattingtown, U.S.A.

Sir Robert Lorimer, A.R.A., Architect.



From a photograph by Mr. E. J. Strange, F.I.O.B.

The Eagle Gate, Salt Lake City.

the systematisation of the traffic converging from all the points of the compass on the main thoroughfare at the approach to Waterloo Bridge. I am an advocate of the 'one-way-traffic points,' and believe that it might be possible to form a 'squared-circus' for traffic regulation there, the whole work being taken as a single improvement, capable of great development."

Kensington Square.

It is very satisfactory to know that an agreement has been reached under which the prominent commercial firm who owned two houses on the north side of Kensington-square have agreed to leave these houses unchanged in character for thirty years. By an arrangement with the owners of three houses on the north side of the square, the firm in question have purchased a portion of the gardens at the back of them, the owners having sold these gardens through a public-spirited desire to preserve the amenities of this historically and architecturally interesting spot. Mr. Bryan Fell, who gives an interesting account of these arrangements in a letter to *The Times*, adds particulars of a covenant which other owners of houses in the square have entered into, in order to preserve the site from further encroachments. Mr. Fell points out with much truth that "commercial values are not the only values, nor should they be allowed to override over considerations of equal or greater importance." It is here, in fact, that our values are most wrong. Business and commercial interests ought not to be allowed to imperil the security of those permanent values with which time and historical associations have invested many parts of London, nor the quiet of those who seek to enjoy and retain them.

Private Munificence.

Those public-spirited people who endow prizes and awards would serve the cause they are supporting more generously if they would repose greater faith in the discretion of administering bodies. A benefactor may naturally wish to encourage the study of a particular subject, but he is defeating his own object, as well as straining the privileges of patronage, if he restricts the trustees of the endowment to permanent rigid conditions. The principle of limited perpetuity ought to apply to scholarships and awards, and after, say, the formal 33 years of a generation, the trustees should be empowered to modify the conditions, in the spirit of the gift, for the good of the body they serve. The controversy over the Rome Prize is an instance of altered conditions and demands in architectural training, and indeed one has only to glance down the list of awards by "private munificence and held in trust by the Royal Institute" to realise the inequalities. Devolution in training and the establishment of local centres have only added to the complexity, but the intention of the benefactors would be more accurately translated if greater discretion were allowed in the interpretation.

Our Dorothy Perkins.

A correspondent writes:—"It has been suggested that owners of little adjoining gardens, spread out like so many bandana handkerchiefs around our surburban terraces, should encourage the communal movement, forgo their barriers, and throw their plots into one large satisfactory garden. It sounds plausible, but if the reaction against ostentatious individualism is carried too far it will defeat its own end. Harmony means a contribution of differences, and we can surely remain neighbourly without having our personality battered out by experts. An expert would certainly give us more beautiful gardens, and probably some vegetables thrown in, but we don't want this. We want our own plot and our own Dorothy Perkins, and we value our own fence more than anything else we have."



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GENERAL NEWS

Professional Announcement.

Mr. C. Gordon Huntley, A.M.I.E.E., and Mr. William W. Wood, A.R.I.B.A., of the firm of Huntley & Wood, consulting engineers, P. & O. House, Cockspur-street, London, S.W. 1, dissolved partnership, by common consent, on February 16, 1924. Mr. Wood is now winding up the practice from 3, High-street, Spalding, Lincs.

Tenders for Checking Prices.

The Administrative Committee of the Southern Counties Federation of Building Trades Employers draw our attention to "the growing method of co-operative societies of obtaining prices from a number of builders for contemplated building works, with a view apparently of seeing if the prices supplied by their own Building Departments are fair and reasonable, or, in other words, using the time of the builders in preparing and submitting estimates without, so it would appear, the least intention of giving the work to a builder, free of cost to themselves. . . ." To invite tenders with such intentions, they add, is to ignore ordinary business ethics, and is an injustice to the contractor.

Mr. J. H. Thomas.

Mr. J. H. Thomas, the Colonial Secretary, has resigned his post as President of the Co-operative Permanent Building Society.

Ancient Architecture.

Mr. D. S. Robertson lectured recently on this subject at Westminster School, at a meeting arranged by the Society for the Promotion of Hellenic Studies.

In the course of his remarks, he dealt with the temples of Greece from the seventh century B.C., and said the palaces had perished, but the temples, or many of them, survived, having been turned into Christian churches, thereby becoming sacred. He emphasised their simplicity, their general plan resembling that of an English barn. Doric and Ionic were the two great styles, and Doric predominated throughout, though Ionic became popular at Athens. The chief feature was the porch at the East End, but he pointed out that the Temple of Zeus at Olympia had a sham porch at the back, with no door in the west wall, while the Parthenon had a genuine porch at each end, this, in fact, being a double temple. It was impossible to estimate the influence of ancient architecture on the modern world, but all the buildings of the Middle Ages had their foundation in the architecture of Greece and Rome.

Holding-Up Empty Houses.

The Minister of Health, the Rt. Hon. John Wheatley, M.P., received recently a deputation from the Birmingham Town Council, including the Lord Mayor and the Chairmen of the Finance and Housing Committees. The deputation urged that some means should be found for preventing the holding-up of empty houses for sale, either by charging the owners with rates even when they were empty, or by giving the local authority further powers to take them over compulsorily by purchase or lease. The Minister replied that he had every sympathy with the object in view, but he was afraid that at any rate as far as the rating proposals were concerned, it was unattainable, as it would require legislation of an important and contentious nature which there would be no chance of getting through this year. There were also difficulties in the way of giving local authorities the suggested powers outside the rating proposals in regard to empty houses—amongst other reasons because of the difficulty of deciding whether houses were being legitimately kept empty or not. He promised to consider any suggestions that were made to him.

"Our Contemporary Sculptors."

The description (in our last issue, p. 410) of Mr. Gilbert Bayes' work entitled "Peace" should have been: "A Bronze Figure from the Water Priory Memorial." The relief at the Children's House and the coloured garden figure were fired and glazed by Messrs. Doulton & Co.

COMPETITION NEWS

Sheffield War Memorial.

The assessor (Mr. E. Vincent Harris) has made the following awards in this competition

(1) Mr. Carus Wilson (given in the last issue of *The Builder*), Lecturer in Architecture Sheffield University.

(2) Messrs. G. J. Morewood & G. C. P Toothill, Sheffield.

(3) Messrs. F. Jahn & R. Smith, Sheffield Technical School of Art.

Newcastle Concert Hall.

The assessor, Mr. A. W. S. Cross, F.R.I.B.A. has made the following awards in this competition:

1. (£750) Messrs. Nicholas & Dixon-Spain FF.R.I.B.A., London, W. 1.

2. (£250) Messrs. Adshead, F.R.I.B.A., Topham, A.R.I.B.A., & Adshead, A.R.I.B.A. Manchester, and Mr. W. H. Wood, F.R.I.B.A. Newcastle-on-Tyne.

3. (£100) Captain H. T. Wright, F.R.I.B.A. 13, Brunswick Place, Newcastle-on-Tyne.

New Masonic Temple.

The Bradford Masonic Association invite designs and estimates for a Masonic Temple to be erected at Bradford. Premiums of £200 £150, and £100 will be awarded to the first second and third premiated designs. A committee appointed by the Association will act as assessors. Sending-in day, June 30. Plans and conditions can be seen at the office of *The Builder*.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending in date, and second the issue of *The Builder* in which full particulars were given):—Essay on Heating and Ventilating (Mar. 31 Nov. 9, 1923). Industrial Designs (June Dec. 21, 1923). National Theatre (April 26 Monument to Sir Wilfrid Laurier (April 3 Dec. 14, 1923). Newcastle Fire and Police Station (March 27; March 14). Ross-Smith Memorial (Sept. 30; Feb. 1).



Architecture Club Exhibition.



Chimneys at Winchendon Priory.

Mr. Philip Tilden, Architect.

CONCERT HALL AND BATHS COMPETITION, NEWCASTLE-ON-TYNE

A Criticism by a Competitor.

Having myself spent the better part of four months on this problem, I may at least claim to know something about it, and my remarks may be of interest to my fellow-competitors.

At the outset, I should like to express my appreciation of the painstaking care and endless trouble (obvious to anyone who has seen his report) taken by the assessor, Mr. A. W. S. Cross. However many mistakes we may have made, and there is not one design in the room which is free from them, Mr. Cross points to them in a kindly spirit, and so helps us all on our way.

There was one mistake—and one only—in the conditions issued to competitors. That was the reference to, and description of, the scheme prepared by the City Property Surveyor, however excellent that scheme may have been. Many of us allowed it to tie our hands—a most unwise thing to do in any trial of skill—and most of all in an architectural problem of great difficulty. About seventy-seven applied for particulars and parted with two guineas for an indefinite period, a practice which I think might well be discontinued; and forty-one designs were received. That means that thirty-six were floored by the problem of putting all the buildings asked for on a site which could easily have been extended. It is even rumoured that negotiations are in progress for this extension of the site, which makes us all look a little foolish.

Design No. 20, by Messrs. Nicholas & Dixon Spain, has undoubtedly the finest elevation in the room, and I fancy owes its place in no small degree to this. The plan has, perhaps, fewer mistakes than many others, but the slipper baths on the first floor butt into the ladies' bath hall in a reprehensible manner, very skilfully cloaked on the section, yet acknowledged by the figured heights. I have rather a preference for stairs on an outside wall myself. Particularly clever is the handling of the two corridors flanking the men's bath hall, enabling the galleries to be set well back from the edge of the pond. This was a stumbling-block to many of us.

I also admire the daring manner in which the authors elected to place their engineering plant under the concert hall, and away from the baths, and the successful way in which they have done it. This was, in my opinion, the crux of the problem, but I feared this solution myself, quite wrongly it appears. I congratulate the winners most heartily.

No. 17.—Messrs. Adshead, Topham & Adshead, Manchester; and Mr. W. H. Wood, Newcastle-upon-Tyne. This is also a design which owes its place in no small degree to an excellent elevation. The crush halls are small, service for towels is through the ladies' bath hall, cloak rooms are totally inadequate. But the general lines of the plan are in some respects superior to the winners, and the whole scheme is excellent in its simplicity, a quality sadly lacking in the majority of the designs. This design was placed second by the assessor, and is well worthy of its place, except for quite inadequate exits.

No. 22.—Mr. J. H. Kennard, London. Quite one of the best plans in the room, with an excellent concert hall, fatally spoiled by insufficient exits, which could quite well have been provided. It fails in elevation and by putting the ladies' bath hall (to be used as hall) on the basement floor. But for these faults, this scheme would probably have gone a long way.

No. 33.—Messrs. Marshall & Tweedy, Newcastle-upon-Tyne, show a very well planned concert hall on ground floor, which fails on the first floor, being too cut up and strained, lacking the simplicity I have referred to. Another fatal error is insufficient exits. Badly balanced front elevation, that to College-road being much the best. They have a beautifully rendered detail, showing an excellently designed facade, spoiled by the grouping of the front generally.

No. 32.—Mr. Joseph Hill, London, submits one of the finest ½ in. scale details in this collection, the Doric Order very simply and effectively treated and really beautifully ordered. The elevations fail for lack of a central feature. The lighting of his Turkish bath is deficient.

No. 37.—Messrs. Willink & Dodd. The best planned Turkish bath submitted in this competition. The elevations would be much better without the two wing porticoes, thus giving emphasis to their central feature, exquisitely shown on a masterly ½ in. detail.

No. 5.—Mr. T. Braddock, London, S.W., has very well balanced elevations, excellently drawn. The plan shows a fan-shaped concert hall, with a gallery projecting 45 ft. into the auditorium, much more than half the depth of the hall. This scheme fails in section, and the Green Room is much too small. The entrance hall and cloak rooms are very good.

No. 14.—Messrs. Mauchlen & Weightman, Newcastle-upon-Tyne. A well-planned concert hall, with really adequate entrance hall and cloak rooms, &c. This scheme well deserves the special commendation given to it by the assessor, and I think this firm should do well in competitions, as they appear to grasp the essentials of a problem.

I have only mentioned a few of the designs, many of them very able and well worth close study.

MEETINGS

Friday, March 21.

Edinburgh Architectural Association.—Professor Beresford Pite on "The Tendencies of Architectural Education." At 8 p.m.

Illuminating Engineering Society.—Discussions on "The Use of Light for Outdoor Advertisements" and "The Use of Light in Shops and for Display Purposes." At Royal Society of Arts, John-street, Adelphi. At 8 p.m.

Saturday, *March* 22.

Institute of Certified Carpenters.—Dinner. At Pritchard's Restaurant, Oxford-street, W.1. At 7 p.m.

Monday, *March* 24.

Architectural Association.—Miss Margaret Jourdain on "The Architect as Designer of Furniture." At 35, Bedford-square, W.C.2. At 7 p.m.

Tuesday, *March* 25.

Architects & Surveyors' Assistants Professional Union.—Visit to showrooms of the National Radiator Company. At 439, Oxford-street, W.1. 7 p.m.

Wednesday, *March* 26.

British Society of Master Glass Painters.—Dr. T. M. Legge on "Specimens of Fifteenth-Century Stained Glass," and also Mr. F. S. Eden on "Ancient Stained Glass in London." At 6, Queen-square, W.C.1. 5.30 p.m.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Byzantine Architecture, A.D. 324 Onwards." At Southampton-row, W.C.2. 6 p.m.

NORTHERN ARCHITECTURAL ASSOCIATION.

The annual exhibition of drawings by members of the Northern Architectural Association was held at Higham Place, Newcastle, recently. The drawings of Cairo Hospital, by Messrs. Cackett & Burns Dick, of Newcastle, and Messrs. W. & T. R. Milburn, of Sunderland, were on exhibition. These two firms were in the final list of six competitors. Competitive designs in other schemes were on view. Messrs. Hicks & Charlewood, of Newcastle, showed designs which secured second prize in the War Memorial Chapel Competition, Durham. Mr. Marcus K. Glass, of Newcastle, also had an exhibition of drawings.

THE LONDON SOCIETY

A CLEANER LONDON.

The annual meeting of the London Society was held recently at the Royal Academy of Arts. Lord Crawford presided.

The report deals with the Society's activities in regard to the proposed demolition of the City Churches, St. Paul's Bridge scheme, and the idea of a bridge at Charing Cross. With reference to the Central London plan, the report stated that as a preliminary to such a plan, it was necessary to prepare existing user zoning maps for the various boroughs, and the architectural staff had now completed those maps for two-thirds of the Metropolitan boroughs north of the Thames. The term "existing user zoning" was a little technical, and meant that those maps showed the present uses of the various properties—namely, residences, shops, factories, industries—as it was necessary to know how industries were placed, which areas were most suitable for dwellings, and so on, before laying down a new plan for London of the future.

Lord Crawford said that any movement of an æsthetic character well established in London would carry its influence and impetus throughout the country. A great responsibility rested on the executive committee of that society, for there was plenty of scope for good work in London. The report made two concrete suggestions in regard to the City Churches:—(1) That a public meeting should be held on the subject; and (2) that the Society should take steps to extend to the area upon which a church stood the restrictive covenants which already protected the churchyards.

Sir Aston Webb, P.R.A., in the course of his remarks, said the Society had been doing constructive work from the first. The first constructive work they did was the preparation of a plan showing the possible arterial roads out of London. It was completed by the end of the war, and had proved extremely useful to those whose duty it had been to carry out road work and give employment. Since the London Society was founded civic societies had been formed in most of the cities and towns of England.

It seemed to Sir Aston that there were three things which London wanted very badly and in which the Society could help. First of all they wanted a clean London—that was, a smokeless London—and he believed it was attainable if they all tried to secure it. One committee on smoke had lately reported that one-quarter of the smoke of London came from factories and three-quarters from domestic fire grates, so that the citizens generally were responsible for much of London's smoke. The only remedy was to encourage the inquiry into the production of smokeless fuel at the same price as, or a little cheaper than, that of soft bituminous coal. Then the use of the latter fuel should be prohibited in large towns like London, Sheffield, Birmingham, and Manchester. The second thing which badly needed improvement was the traffic government of London, which was now in a hopeless condition. A central authority was needed for the main services of London, with the power to decide on the direction and course of roads and tramways, instead of the problems being confused by the interests of many authorities.

Third: there was urgently needed a great development plan of London—or rather, two plans, supplementary in character, were needed. There was the zoning of London, showing at a glance the grouping of industries, dwellings, and the use made of dwellings, and this should form one plan. This would show what a haphazard mixture London was now, and might enable it to be straightened out by degrees. Besides they needed an imaginative map of London as it might be, and in the future they might begin to work towards a simplification of London and at the same time add to its beauty



Victoria National War Memorial Competition. Design placed Second: By Mr. William Lucas.
[Miss Margaret Baskerville and Messrs. C. Douglas Richardson and W. P. McIntosh, sculptors; Mr. M. Napier Waller, painter.]



Lord Lister War Memorial. The late Sir Thomas Brock, R.A., Sculptor.
[This memorial was unveiled in London by Sir John Bland-Sutton, to the memory of the late Lord Lister. It was designed by the late Sir Thomas Brock, R.A., who was commissioned to prepare the design previous to the war, which caused its postponement. His death intervening, the work has been carried out by The Morris Art Bronze Foundry, Rochester-row, Westminster.]

THE RIDDLE OF BIRCHINGTON CHURCH

By The late W. DE GRAY BIRCH.

Of the vast number of excursionists who daily rush along the high street of Birchington, a picturesque village on the northern coast of Kent, lying between Margate and Herne, very few condescend to linger for a few moments' exploration of the remarkable points of interest which the ancient church, dedicated to All Saints, offers to cognoscenti and antiquaries. Its weather-beaten tower and elegant spire, roofed with shingles of time-defying oak, present a landmark to mariners on the North Sea passing to and from London, in acknowledgment of which benefit the authorities of the Trinity House gratefully subscribed with no mean hand towards their repair.

The churchyard contains a large number of old tombstones, of which many of the most ancient inscriptions, seventeenth century and possibly earlier, have become illegible, and a considerable number of the memorials are sinking rapidly into the soil. Their artistic merits—for even in memorials of the dead there is, and always has been, a *cultus*—here consist for the most part of impossible cherubs, distorted skulls, unnatural foliage and flowers, and the usual concomitant panoply of the grave. Among them, almost the newest of them all, the modern cross put up in memory of Gabriel Charles Dante Rossetti, stands close to the south door, a so-called "Runic" cross, but sculptured without regard to the true proportions of crosses of that remote age, and ornamented, if we may indeed use the word here, with travesties of imperfect knot-work and spirals which would have excited horror in the eyes of the late J. Romilly Allen, as greatly as they perturb the mind of his disciples. But we must not complain when we read in the *Guide* to the church that this monument is a perpetration of "one of those brilliant lights of the pre-Raphaelite school, Rossetti's fellow-painter, Ford Madox Brown." The fabric of the church is well preserved and, in spite of copious *soi-disant* restoration, still exhibits many of its more ancient features. It is somewhat alarming to read that "the *last* restoration in 1863 was very thorough and cost as much as £981. It was carried out from the designs and under the superintendence of Mr. C. N. Beazley. . . . The gallery at the west end was taken down, the old pews removed, the side arches in the chapels opened up, the whitewash scraped off the walls and pillars, and the whole of the interior was restored." Restored indeed, but with the scraping and removals went away also the soul of the temple and the church is now naught but a "whited sepulchre" robbed of its past memories, if any linger there still.

If we examine the detail of the architecture, we see here, as in many other places, points which testify to the gradual replacements of old features by substitution of newer forms, the fashion of the ever-changing taste of the time; the Norman arches opposite the south door, and on the wall of south aisle, the early arches of the north and south chapels, the more sharply pointed arches of the nave and aisles, each and all indicate successive stages in the building of the fabric. The body of the edifice is roomy, consisting of nave, two aisles, three chancels, with fine arches of Early English work, springing from octagonal columns of simple design, that mark the area of the nave. The dimensions have been given as 94 by 24 ft., but the latter figure falls far short of the true breadth which is more likely twice as wide or even wider.

One peculiar feature is the tower, which here stands at the east end. Barrett, the historian of Birchington, assumes that this tower was originally constructed as "a squat tower" for one bell, at the time the chapels were built. Some persons have supposed that the nave and the aisle of this church belonged to a church at Gore End or Minnis Bay, and that to save it from the encroachment of the sea it was taken down and many of its stones utilised in the work of building the body of this one. Their theory rests upon the curious and puzzling dimensions and mouldings of an extra-wide column in the south aisle, with an unfinished or fragmentary arch now represented by the springers alone as they start from the shaft of the column, and supposed to have formed part of the supporting masonry of the earlier edifice at Minnis. Another theory is that the original design for the construction of the tower on one of the more westerly bays of the South aisle was found to be too expensive and had to be abandoned for lack of funds; nevertheless, there is among the evidences belonging to this church an old map on which is marked a small church at Gore End now no longer in existence. It is a riddle which an expert architect alone can solve. One historian states that "Gore End in this parish antiently had a church standing at the seaside, but the decay of the cliff near thereunto ruinated the same, and forced the inhabitants to build the church now standing, which was called 'All Saints.'"

The font is ancient and may have come from an older church. It is octagonal in form, and bears indistinct traces of sculpture on the facets. The oaken pulpit probably dates from 1675. There are old books and MSS., some of the sixteenth century, in keeping of the Vicar and Churchwardens, and there are many brasses memorialising the Quex and Crispe families, one also of "Sir" John Heynys, Vicar of Monkton in 1505, to which parish Birchington was a chapel annexed, dating October 9, 1523. In this brass, which is now let into the chancel wall, the Vicar is represented in embroidered sacerdotal vestments and holding up the chalice wherein is placed the hostial wafer, not the paten, as the *Guide* states. It is a valuable and reliable evidence of the ecclesiastical robing of the period. The carved tomb erected to the memory of Sir Henry Crispe and his lady in the N.E. chapel, and many other sepulchral art-relics make this church a rich field for the study of mediæval costume. Some of the brasses taken from this church have found their way, we fear, to the marine-store dealer and old metal merchant. The parochial register is one of the oldest in existence, dating from the first year of the Royal commands for keeping such records, 1538.

The original charm of this interesting church is greatly marred by the incongruous introduction of gaudy windows, bad in drawing, mawkish in conception, and false to fact. Why is it that in the great majority of church windows large sums are being constantly expended upon such monstrosities, popularly called stained glass windows? It is true that Albert Durer was guilty of anachronism when he delineated the faithful who assisted at the "Descent from the Cross" in headgear of his own period; it was the fashion of his time, and Holman Hunt's Christ at the Door is draped in vestures unlike anything Our Lord ever wore; but then, Durer and Hunt, not to mention numberless other artists, had not the opportunity of learning from the investigations of the Palestine Exploration Society the correct form of the costume of Christ's period. Nor had the miniaturists of the Middle Ages any opportunity of deriving inspiration from the early Greek Manuscripts or the Catacombs. But there is no excuse for our modern artists for following such inartistic examples that were then produced. A far less outlay would suffice to reproduce the beautifully designed and coloured stained glass of the twelfth century in Canterbury Cathedral, or the examples at Great Malvern; Evesham; Trinity College, Cambridge; St. Margaret's, Westminster; and many other well-known specimens of later dates, than is constantly being paid for kaleidoscopic freaks, and rainbow impossibilities which suggest to the right-minded ecclesiologist that the window-artist was suffering from a severe attack of *cauchemar*, and had temporarily thrown aside all the results of his education and observation.

No one, nowadays, would think of depicting Julius Cæsar landing in Britain clad in the uniform of the Duke of Wellington at Waterloo, yet we are asked to gaze upon the representation of sacred personages and incidents put before us not only absolutely inaccurate but totally regardless of what is now known to be the right way of depicting them. Take, for example, the Rossetti window at Birchington, with its "blind puppies" and its pudding-basin or "bowl of blood"; how much more beautifully remindful of Rossetti, poet and painter, would not a purely white-draped Genius of Poetry, attended by a Muse of Painting holding her appropriate emblem, set in a border copied from an early Canterbury window, have been, than the far-fetched and obscure suggestions conveyed in this church, as we are told in the *Guide*, "to the admiration of thousands of visitors"?

We regret to announce the death of Dr. de Gray Birch, LL.D., F.S.A., on March 8. at Monte Carlo, at the age of 82.

Dr. Birch was born on January 1, 1842, and from Charterhouse he went to Trinity, Cambridge, and at the age of 22 entered the MSS. Department in the British Museum. In 1865 he was made senior assistant, a post which he held till his retirement in 1902, after 38 years' service.

At the Museum Dr. Birch was occupied with the study and arrangement of MSS. charters and seals, and made a special study of Anglo-Saxon, Mediæval Latin, Portuguese, and Spanish. In matters relating to literary and record research, printing, book-binding, and disputed handwriting he became an acknowledged expert. Dr. Birch edited the Journal of the British Archæological Association, of which he was successively hon. secretary, treasurer, and vice-president, for 22 years. He also catalogued the seals in his department in six volumes, and wrote a history of Scottish seals; he edited the Royal Charters of the cities of London and Lincoln, the Cartularium Saxonicum, the Commentaries of Afonso d'Albuquerque, and the Nunnaminster MSS.; and he made a catalogue of Saxon Abbots and catalogues of the Margam and Penrice MSS. He also published histories of Margam and Neath Abbeys and "Memorials of the See and Cathedral of Llandaff," and an edition of the Register of Hyde Abbey, Winchester, as well as a history of Domesday Book. He was an honorary LL.D. of Glasgow University.

Mineral Resources and Architecture.

Mr. C. E. W. Bromehead read a paper recently before the Royal Geographical Society on this subject. He pointed out that in England the architectural style of a district was often controlled to a large extent by the material available locally. The dominant formation of the Thames Valley below the chalk gap was the London clay, which produced a soil in which oaks flourished. Therefore, in the absence of good stone, the builder turned to brick and timber, and the architect evolved the glorious Tudor mansions of red brick, or the humble, half-timbered crofters' cottages of Windsor Forest. The lecturer also mentioned the "black and white" buildings of Shrewsbury, which were world-famous. In sculpture the dependence of the art on the material available was well exemplified by the difference between that of Egypt and Greece. The fact that in England they had practically no true marble, and very little stone, suitable for fine sculpture was one reason why, with a single exception, there was no English school of sculpture of any importance. The public statues in London were notorious, and the exceptions proved the rule, concluded the lecturer.

A meeting of the Royal Institute of British Architects was held at 9, Conduit-street, W.1, on Monday last.

Obituary.

The Hon. Secretary (Mr. A. Keen) announced the death of Mr. William Henry Ward, M.A. Cantab., F.S.A., Elected Associate 1893 and Fellow 1919, Institute Silver Medallist (Measured Drawings, 1895); Mr. John Watson, of Edinburgh, elected Fellow in 1906; Mr. Walter Higginbottom, elected Fellow 1891; Mr. Thomas Edward Mundy, one of their oldest Associates, having been elected to that class in 1872; Mr. Edward J. Shrewsbury, elected Associate 1876.

It was decided that a message of sympathy and condolence be conveyed to their relatives.

NATIONAL HOUSING.

Major Harry Barnes, F.R.I.B.A., Vice-President of the R.I.B.A., then gave an address on "National Housing and a National Municipal House-building Service." In the course of his remarks he said the catholicity of the Royal Institute of British Architects was in no better way illustrated than in the freedom it gave to the expression of opinion, however heterodox, in respect of buildings—their height, their construction, their position, and in his case their provision. He would deal with the subject under the following headings:—

The Standard of Housing.

The town standard of public health was the first element in the cost of house building, and a not inconsiderable element. Roads and sewers as apart from land and buildings involved an addition to the cost of erecting a house under a housing scheme of sums from £50 to £60. He was fully aware of the problems that ranged round the construction of roads and sewers, but he hoped that those who took part in the discussion would not raise them. However interesting the by-way, the diversion would only detain them from their destination, which was the conclusion that the housing of the lower-paid workers must be undertaken as a public service.

The first proposition he offered for debate was: That, subject to wise economies in design and construction, adequate and well-constructed roads and sewers, with a sufficient water supply, were essential parts of a housing standard.

Up to the present in their history of this standard, the Englishman's castle was inviolate. The city engineer, the district surveyor, the medical officer, the sanitary inspector were all on the public side of the gate, and on the private side a man might still, despite the Act of 1667, do much as he liked with his own. Two standards had been set up. The first that not more than two people should occupy a room, and the second that for each person there should be provided 400 cubic ft. of space, from which they might easily deduce that a bedroom occupied by two persons, if it were 8 ft. in height, must have a floor area of 100 sq. ft. Presumably this capacity had been determined by physiological considerations, and at all events it was sufficiently well established as a standard. True, it was in fact the standard was not insisted on in existing buildings, and also that it was definitely proposed to reduce it during the present period of house shortage from 400 to 300 cubic ft., but he did not understand that any proposal had been made to reduce it in the construction of new buildings. Let it be observed that the regulation was not based on any sentimental consideration, but on the face that certain pulmonary and contagious diseases were regarded as arising from an insufficient supply of pure air.

Without further argument he would say: There must be a living room, and it must be adequate in size, and it must not be used as a wash-house or a storage-place for food or fuel, or so as to diminish the number of bedrooms that would otherwise be provided. There was another matter on which he would not dogmatise, and that was the addition of a parlour. From the point of view of convenience and comfort it seemed to be essential, but for his purpose, that of arriving at the irreducible standard, it was not, perhaps, a necessity. They could now sum those conclusions up in his second proposition, which he offered them for discussion, namely: That the housing standard demanded bedrooms of sufficient number to provide for the proper separation of the sexes, and of sufficient size to allow a minimum capacity of 400 cubic ft. per person in occupation of them, a living room of adequate size with food and fuel stores, and the separate and exclusive use of a scullery, washhouse, water-closet, and bathroom; or, in other words, that for the normal working-class family of parents and children of both sexes, the non-parlour house with three bedrooms was the minimum type of house that should be provided. The question of standard was absolutely crucial, and the discussion of housing apart from a conclusion on standard was the most futile of all futile proceedings.

The Cost of Housing.

They must recognise at the outset, the lecturer continued, that the standard he had outlined was something which had never been obtained. Before the war the better-paid skilled workers were getting something approaching it, but those below that grade were not getting it, and never had got it. The lower-paid worker, if he got a new house, which was rare, got one with much less accommodation than they were asking for, but in a vast number of cases he got no new house at all, but part only of one erected originally for a single family. Let them further recognise that they were asking for something better at a time when everything was dearer. These two things together meant that they had not merely doubled their difficulties, they had quadrupled them. Put in another way, they were proposing in the future to give the lower-paid worker a better house than the higher-paid worker had before the war. In cash that meant that for families which were housed before the war at 4s. to 5s. a week, a standard was desired which there was little prospect of providing at less than 15s. a week, a rent utterly beyond the rent-paying capacity of the lower-paid workers. They were, in the case of such workers, then, in the dilemma that they must either reduce the standard, increase their incomes, or provide them with houses of the standard irrespective of their rent-paying capacity. If they maintained the standard they abandoned private enterprise. If they clung to private enterprise they abandoned the standard. The housing standard and private enterprise were the two masters no man might serve, he must cleave to the one and despise the other.

Private enterprise worked on profit, and where there was no profit private enterprise would not work. Profit in house building was represented by the payment of remunerative rent; where there was no remunerative rent there was no profit, and where there was no profit there was no private enterprise. That had been the position since the war; and despite all the efforts made to obscure it, it became increasingly manifest.

The Addison scheme and the Chamberlain scheme both recognised the fact and made provision for it, by grants or guarantees.

It would appear they were in what was now fashionably called the vicious circle. Repeal the Rent Acts and they could get houses. Get houses and they could repeal the Rent Acts. Which way were they to run? The truth was that even in pre-war days the lower-paid workers were not housed by private enterprise up to any satisfactory standard, and that there was not the ghost of a chance of private enterprise providing for those workers in the future the higher standard which was now demanded. The housing of the lower-paid workers must increasingly become the task of municipal authorities. They were passing through a period of indecision and there was a reluctance to face the facts, but when once the municipalities were committed to an extended programme there would be no turning back. For good and all the housing of the lower-paid workers would have become as permanently a public service as their education. He would not pass to the question as to how the houses were to be provided by municipal action without again driving home his contention that, however much they might shy at establishing another great public service, it was either that or abandoning the housing standard that had grown up.

The Provision of Housing.

The first step was to dismiss entirely and for ever the idea that in their housing they had a task they could complete. Up to the present all housing programmes had been based on the idea that by a brief and intense application of collective activity, what was called the "shortage" could be made up, and then the task handed over to those of whom it was ignorantly said that they performed it before. He would, the lecturer said, dismiss in the most decisive manner such an idea: there was not only housing to be done to an unprecedented extent, of an unprecedented standard, but there was re-housing to do of an equally unprecedented amount. There were 8,000,000 houses in the country to-day. What life would they give them? If it were anything less than 80 years it meant that their replacements alone must be something more than 100,000 a year during that time. They must further increase that number of 8,000,000 by at least 120,000 a year if they were to provide for the new families that came into being, and they would then still have on their hands the problem of providing structurally separate dwellings for about 1,000,000 families for whom no such dwellings existed.

The next step was to dismiss with equal decisiveness the idea that this year, or next year, or the year after it would be possible to carry through a housing programme of 200,000 houses a year without a fatal inflation in costs right throughout the building industry. He gravely questioned whether the utmost sanity and vigour could do more than build up sufficient resources within this decade to enable them to start in the next, and maintain throughout it a steady output of 200,000 structurally separate dwellings in a year. The third step was to cut cottage building clean out of the main building industry (it was never really part of it), and half of the present trouble was that the two were entangled. It could not be too much emphasised that before the war, at the very outside, not more than one man in eight in the building industry was employed in cottage building, and it was questionable whether their output, including replacements, exceeded an average of 100,000 houses a year. The building industry had dwindled from eight men to four, and when it was proposed that instead of taking one man out of eight for cottage building they were to take two men out of four the proposition only needed to be stated to show them in what term of inflation it must express itself.

It was clear that if cottage building was to draw on the main building industry it could not have its extra man without inflating labour costs, until the whole building industry (particularly in view of the increase in maintenance and other constructional work) wa

recruited up to its full past strength and beyond. It was a moderate estimate that five men must come into the building industry before one additional man could be safely yielded to cottage building, and such wholesale recruiting was, it appeared, to be attempted. The building industry as a whole was to be made so attractive that it would furnish the requisite number for cottage building without leading to increased labour costs. It was an impossible task, that could not and would not be achieved, unless it was proposed to nationalise the whole industry. More than any other industry the building industry was exposed to the booms and slumps that accompanied the trade cycle. No industry in private hands was less capable of being stabilised. It was the last expenditure on which men engaged and the first from which they withdrew. It was subject to all the impediments that their land laws and their building regulations presented. The alternation of good times and bad times was a commonplace to all engaged in it, from the casual labourer who designed the building to the casual labourer who cleared away the rubbish at its completion. Let them make up their minds as to what it was they wanted to do. Were they out to stabilise employment or to provide houses? If the former, they might do something towards stabilising the building industry by employing it in times of depression on cottage building. For that purpose it was an intelligent enough proposition, and something might be achieved in the direction desired, but only at the price of destroying any regular programme, year in and year out, of cottage building. They could not have it both ways, they could not use their material to fill up the dips and depressions in their road and, at the same time, spread it evenly over their surface.

On those grounds, grounds not of theory but of fact, he submitted the only way to make cottage building possible was to make it a matter of municipal concern, and he advanced the proposition: That the public provision of dwellings for the lower-paid workers was inevitable, that it demanded a steady and little varying programme, and that the execution of such a programme without a general inflation of building costs could only be secured by the establishment of a national municipal cottage-building service apart from the main building industry.

A National Municipal Building Service.

The first task of such a service would be to organise independent supplies of labour and materials as far as possible unaffected by fluctuations in the main building industry. The labour task was to find 200,000 men and retain them for the specific purpose of cottage building, and his suggestion was that instead of finding them indirectly by first increasing the building industry by 500,000 men in order that 200,000 might be drawn from it, the 200,000 men should be drawn directly into a public cottage-building service. Such a service could, of course, only be built up gradually, and it might well be that a commencement should be made with specific trades such as bricklayers, plasterers, and slaters, the service extending as occasion demanded and opportunity offered. In raising such a labour service the following matters would demand attention: (1) The attraction of men into the service. (2) The fact that the need for new houses did not arise equally at all times in every part of the country, combined with the equally obvious fact that men grew tired of the journeyman's life and wanted to settle down. (3) The steady replenishment of the service.

The lecturer would, he said, limit the type of house to be erected by such a service to the "B" type, that was, the parlour house with three bedrooms, although perhaps allowing some increase in size, and he would restrain such a service from undertaking the erection of public buildings. Such restrictions would, no doubt, be necessary to secure the assent of employers and operatives in the main industry. With regard to the replenishment of the service when organised there would be no difficulty. On the estimate of a 25 years' life it would require the entrance of 8,000 men per annum to keep it at strength, and these could be easily furnished by the technical schools of the country, to which the prospect of a post in a public service would effectively attract a sufficient number of applicants.

In regard to materials, a cottage-building programme, if it were not to be upset by the fluctuations in demand made on materials by the main industry, must have its independent sources of supply. The materials required were few and simple—brick, stone, slate, tiles and timber were the chief. Of these brick, stone and tiles were local materials, and might be left to local provision. Slates were a national and timber an international supply. Their acquisition and distribution might be undertaken by a central authority.

In conclusion, there was no real difficulty in solving the housing problem; those that had arisen were due to the fact that persons whose enthusiasm had outrun their intelligence had rushed into enterprises, the extent of which they had not measured, with resources they had failed to estimate. To this had been added an ignorance of, or an indifference to, the collateral results of the policy they had been pursuing, hence the present position. The architect played an important part in regard to housing. He could help in the means that were to be employed, and the end that was to be achieved. Building was, or should be, a matter of appropriate arrangements of parts, soundness of construction, economy in cost, and beauty in result. None of those things could be fully achieved without the co-operation of the architect, and no sound housing policy would concern itself with the rest of the workmen and leave the chief workman out of account.

Discussion.

MR. FRANK M. ELGOOD, F.R.I.B.A., Chairman of the National Housing and Town-Planning Council, in moving a vote of thanks to Major Barnes, said his conclusions in regard to standard and cost were almost irresistible. One of the things they all realised was that they had to deal fairly constantly with an extraordinary reaction which overcame the public mind and hindered progress. To think that the Minister of Health should by any possible means have contemplated the possibility of providing public money for the erection of houses 40 to the acre was almost inconceivable. Architects, who had special knowledge, had constantly to be on the watch, even on those who were supposed to be the nation's custodians. The provision of a good house for the worker had never been an economical problem; he was perfectly certain the poor had never been properly housed. If they looked for an improved standard of housing and life in the future they had got to realise that housing must be subsidised. The outlook might be distasteful, but either they had to raise the workers' wages or subsidise the houses.

MR. ERNEST BROWN, M.P., in seconding the vote of thanks, said whatever people thought about the urban side of the problem those who understood the rural side would agree that the provision of houses on that side was bound to become a national problem.

MR. RAYMOND UNWIN, F.R.I.B.A., said with regard to the question of the maintenance of the standard of houses he entirely agreed. If they got away from the standard they got such a pitiful economic relief for their reduced area that it was not worth while. It was more economical in the long run to retain a reasonable standard of accommodation and size of rooms. The question of national service for building was a difficult problem. Some of them considered they could not have a national service in housing unless they had it in other industries.

MR. SIMON, M.P., said when Major Barnes mentioned there was no real difficulty in solving the housing problem he was utterly surprised. With the third contention of Major Barnes, "if they were going to maintain the standard set down it meant good-bye to private enterprise," he was even more surprised. They knew the economic conditions to-day, but five or ten years hence they would not know them. After the lessons of the past years they should be very chary of the future. They had to make up their minds that they must maintain private enterprise in order to build the maximum number of houses. There were two clear policies: Mr. MacDonald's policy against that of Mr. Neville Chamberlain and Dr. Addison. If they adopted the former they would, no doubt, be able to let houses to the poorest section of the working classes, but they must remember they were only going to build a relatively small number of houses during the next five years. The fundamental difference of opinion on the matter was whether new houses should be built for labour—which meant a £30 subsidy; or, alternatively, for the skilled artisan and upper working class. If they followed Mr. MacDonald they would very soon have such a revolt of the taxpayer that they would soon have a state of things similar to the Addison scheme. It was fatal to build houses to let at any very low rent; and there would be no great advantage from the point of view of public health. He was dead against the £500 house at a 9s. rent. If they let for 9s. it would mean that those in pre-war houses were going to pay nearly twice the amount of rent for a similar type of house. Was it desirable to have two levels of rent?

MR. GEORGE HICKS, Secretary, Amalgamated Union of Building Trade Workers, said in regard to cottage building he thought it would be a profound mistake to separate it from other forms of building. The building industry already provided opportunities for labour to do the class of building which the lecturer had described as cottage building. He would like to see a housing scheme of 200,000 houses a year fitted in with the general building programme of the country; the housing programme should be one of elasticity. The question of training labour was one the building employer found very difficult. Each time he (Mr. Hicks) put the question to the employers and asked them to extend their training facilities they spoke of the absence of any guarantees; without guarantees they could not accept the responsibility of continuous training in the variable circle of the trade. He considered a labour army for cottage building would not be an effective but a nondescript army. He agreed the standard for housing laid down by Major Barnes was the minimum that could be allowed. In regard to materials there was certainly a very great lack of organisation among manufacturers: in many parts of the country no organisation at all.

MR. H. R. SELLEY, President, National Federation of House Builders, said he spoke for private enterprise. The public had got the houses they deserved for the little assistance they had given to the builder 30 years ago. Major Barnes had referred glibly to the lower-paid artisan: it was difficult to know where to place the datum line. Speaking for private enterprise he looked on the question from an economic point of view: it was certainly still very much alive. If the principles of Major Barnes' paper came into operation, however, it would be dead in a fortnight. If they had 9s. houses at £500 the people who were thinking of 15s. houses would wait a little longer. He knew of nothing that would make better citizens than to give them a front garden and a mortgage. Let them pay £30 down and then settle down and pay the balance.

MR. EDWIN EVANS, Vice-Chairman, L.C.C. Housing Committee, said he would like the next paper of Major Barnes to deal with the financial side of the 200,000 a year housing scheme. They had talked about the standard of the houses, but no one had talked about the standard of the people who lived in the houses.

After SIR THEODORE CHAMBERS and MR. W. MC G. EAGAR, Secretary, Garden Cities and Town-Planning Association, had taken part in the discussion, MAJOR BARNES briefly responded.

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ILLUSTRATIONS

Bank at Doncaster.

The general contractors for this building are H. Arnold & Son, of Doncaster; stonework, Bath and Portland Stone Firms; steelwork, Leonard Cooper, Ltd.; reinforcement, B.R.C.; metal windows, H. Hope; internal bronze and other metal work, Birmingham Guild, Ltd., and Geo. Wragge, Ltd.; stone and wood carving, G. & A. Brown, Ltd.; marble, J. Stubbs & Sons, 272, Crown-street, Liverpool. Mr. F. C. R. Palmer, F.R.I.B.A., is Surveyor, and Mr. W. F. C. Holden, A.R.I.B.A., Assistant Surveyor, to the National Provincial and Union Bank of England, Ltd.

House at Strensall.

Mr. C. W. Bowles, F.R.I.B.A., is the architect of the house at Strensall, Yorks.

"Vyse Court," Bishop's Stortford.

The old buildings, formerly used as a malthouse and kiln, were acquired from the adjoining owner, and these working drawings show the alterations that are being made to convert them into a billiard-room, offices, &c. The work is being done for Mr. J. H. Kerner-Greenwood, and all the flat roofs and damp-proof courses are of waterproofed concrete or cement mortar.

The architect is Mr. L. Edmund Walker, and the quantity surveyor Mr. Gilbert H. Burton, F.S.I., New Court, Lincoln's Inn, London, W.C. The contract has been placed with Messrs. W. Bell & Son, Saffron Walden.

Newcastle Concert Hall and Baths Competition.

We give this week the design placed first, by Messrs. Nicholas & Dixon-Spain, FF.R.I.B.A., in the Newcastle-on-Tyne Concert Hall and Baths Competition. The full result of this competition is given on p. 448. A review of the designs submitted is given on p. 449.

BOOKS RECEIVED.

TAYLOR'S SANITARY INSPECTOR'S HANDBOOK. By John H. Clarke. (London: H. K. Lewis & Co., Ltd.) Price 12s. 6d. net.

NEW RAMBLES IN LONDON. By W. H. Fairbairns, Prescott Row, H. M. Buckingham, Elmand Emneth, W. G. Morris and Walter E. Gawthorp.

THE SURVEYORS' INSTITUTION. List of Members, 1924.

MASTERS OF ARCHITECTURE: INIGO JONES. By Stanley C. Ramsey. (London: Ernest Benn, Ltd.) Price 10s. 6d. net.

MASTERS OF ARCHITECTURE: SIR WILLIAM CHAMBERS. By A. Trystan Edwards. (London: Ernest Benn, Ltd.) Price 10s. 6d. net.

MASTERS OF ARCHITECTURE: VANBURGH. By Christian Barman. (London: Ernest Benn, Ltd.) Price 10s. 6d. net.



Lychgate at Chirk, Denbighshire, in memory of the late Dr. Lloyd.
MESSRS. DOUGLASS MINSHULL & MUSPRATT, Architects.

BOOK REVIEWS

Oxford: A Guide to Its History and Buildings. By G. R. STIRLING TAYLOR. (Longmans, Green & Co.) Price, 4s. net.

Oxford, like Cambridge, possesses an atmosphere of intellectual and scholastic culture which is, perhaps, difficult to define, but unquestionably exists and is quite distinguishable from that which pervades the great seats of learning on the Continent. This is probably to a great extent due to the residential character of the English universities. The University of Oxford has played so important a part in the development of the nation that an acquaintance with its history is essential to a thorough grasp of the history of England generally. We therefore welcome this little volume as a useful and instructive guide to the University and city. It is divided into three parts—history, itinerary, and illustrated descriptions.

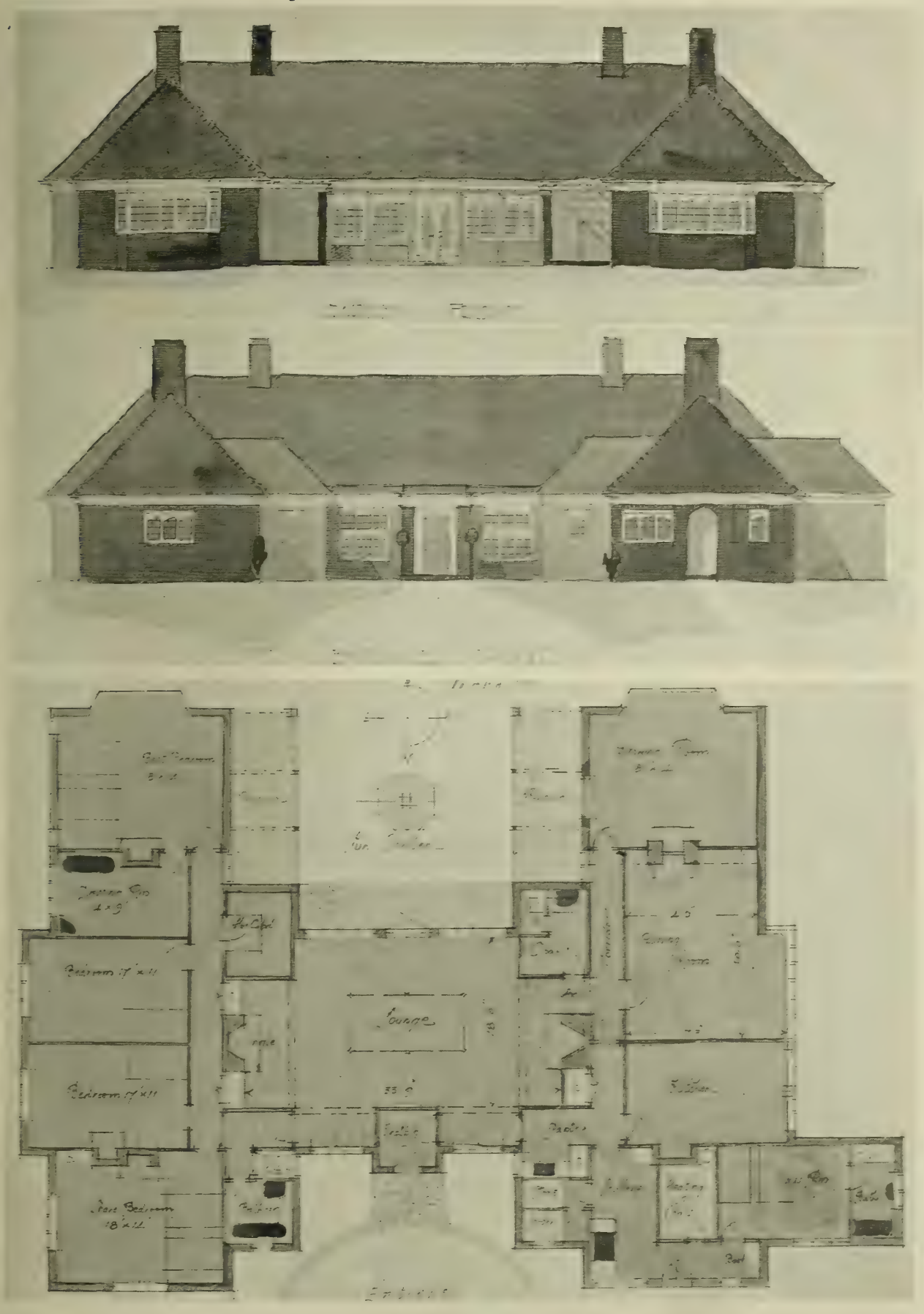
In the first part, the author has condensed into a small space a terse but interesting account of the historical development of the University and city—a difficult achievement. Both in the itinerary and the descriptive accounts, historical notes predominate and architectural description is chiefly confined to dates and reference to the architects responsible for the works mentioned. The full-page illustrations in the third part are clear and have the merit of being opposite to the descriptive text.

Social Survey. A Guide to Good Citizenship. By GEORGE PEVERETT and ALFRED T. FIKE. (National Adult School Union, 30, Bloomsbury-street, W.C.1.) Price 6d.

This short but stimulating little work is evidence of the growing responsibility in civic life. The present generation has no doubt of the answer it must make to the cry of Cain, and if the younger and coming generation does not also take up the challenge it will not be for want of encouragement or of excellent handrails, such as the pamphlet under review. The better side of the last century was pre-eminently philanthropic. Appalled by the consequences of the industrial revolution, but still influenced academically by the policy of *laissez-faire* men and women of goodwill poured their energies into works of remedial relief and great palliative measures. The present mood is not a direct sequence of the past; it depends for its inspiration less on benevolence than on a sense of justice or of resentment at injustice; it is fiery and hasty, with the defects of its qualities. Such publications as this Survey are exactly the corrective and the guide that is needed. It embodies a scheme to promote local surveys, and consists of twenty short chapters, each two or three pages long, compiled of pertinent questions on such subjects as Local Government, Child Life, Housing, Drink Traffic and Industry. The syllabus is admirably mapped out and should give the student, however young and infallible, not only some idea of the immensity of the canvas, but also an inspiration to induce him to persevere.

The Story of Golder's Green. By F. HOWKIN. (London: Ernest Owers, Golder's Green.) Price, 2s. 6d.; cloth, 5s.

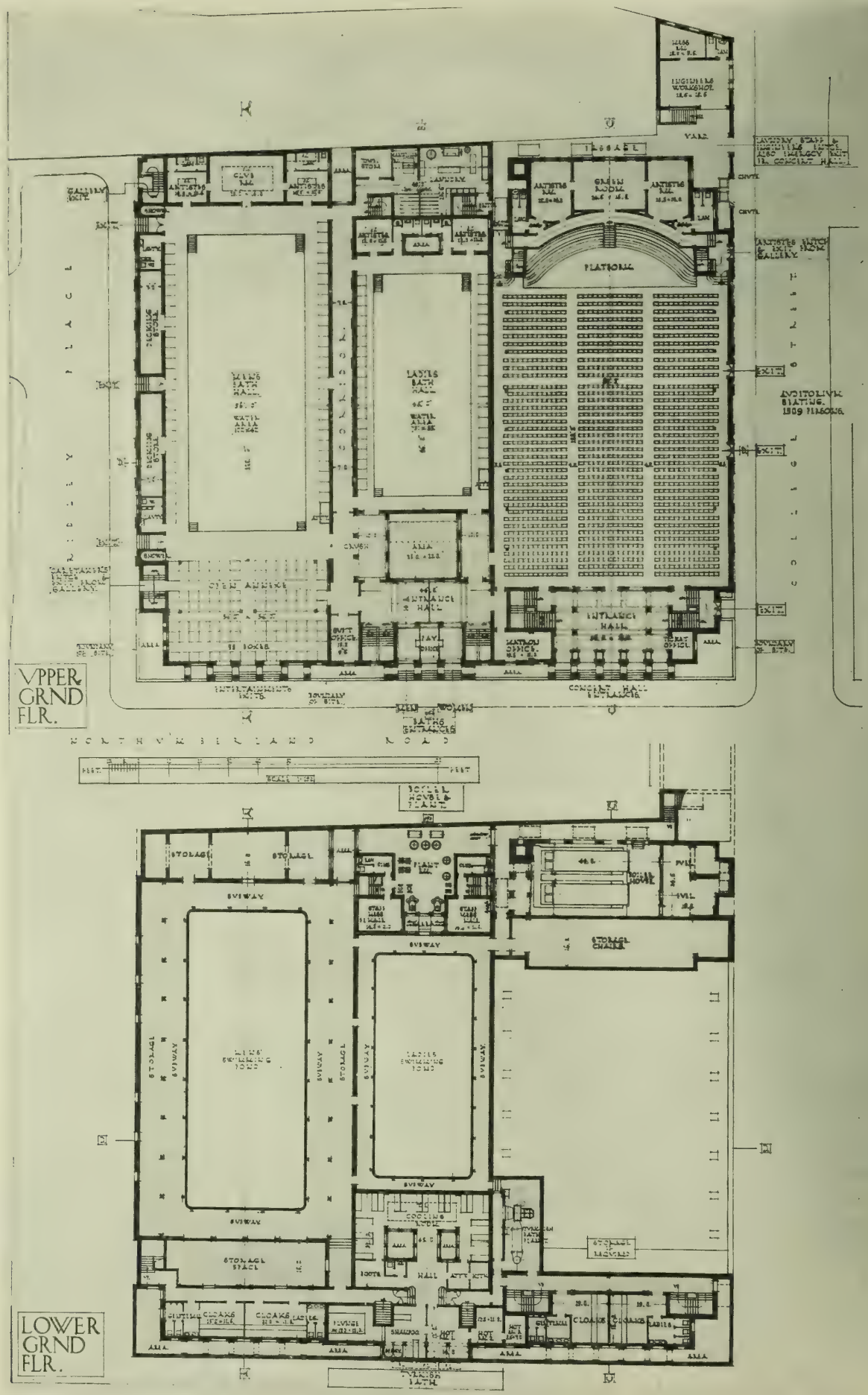
The story of Golder's Green is fascinating and its development phenomenal. To residents it should appeal strongly. It is interesting to compare the view illustrated from an old print dated 1797 with developments of to-day. Four maps are given, dated as follows, 1796, 1865, 1907, and 1923, and it is on these that the history of the district can be traced. Some of the old buildings still remain, notably the "Old Swan" public house, a picturesque old weather-board building; and part of an old barn, a relic of Hodford Farm. Mutton Bridge, another relic, it is sad to note, is shortly to be demolished for road widening. The volume makes entertaining reading and should certainly be read by residents, who should know the history of their district.



Bungalow at Gerrard's Cross: Mr. Robert G. Muir, F.R.I.B.A., Architect.

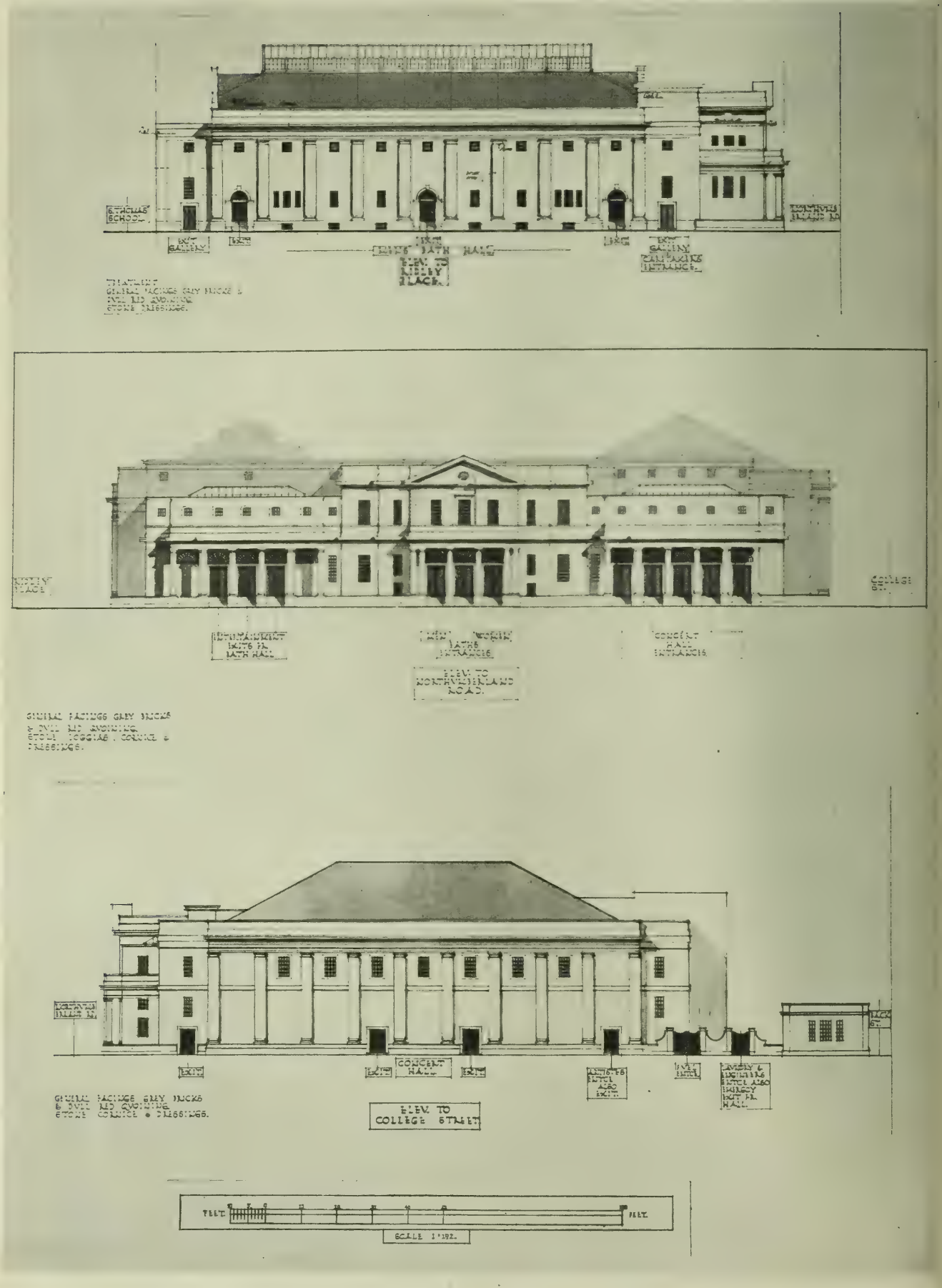
[This bungalow contains six bedrooms and one dressing-room in addition to a maid's room. There is a spacious lounge and loggia with ample kitchen offices. The structure is to be in brick with tiled roofs. Mr. Robert G. Muir, F.R.I.B.A., of 1, Raymond-buildings, Grays Inn, is the architect.]

1



Newcastle Concert Hall and Baths Competition.

Design placed First: By MESSRS. NICHOLAS & DIXON-SPAIN, FF.R.I.B.A.



Newcastle Concert Hall and Baths Competition.

Design placed First: By Messrs. Nicholas & Dixon-Spain, FF.R.I.B.A.

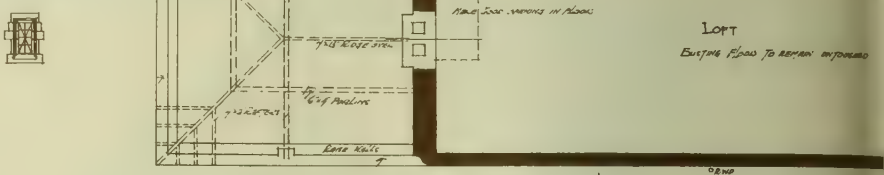

LOGGIA
DINING ROOM
HALL
DRAWING ROOM
BILLIARD ROOM
FUEL
BOOTS
SCULLERY
PANTRY
LARDER
KITCHEN
MAID'S ROOM
LAV

'VYSE COURT' BISHOP'S STORTFORD

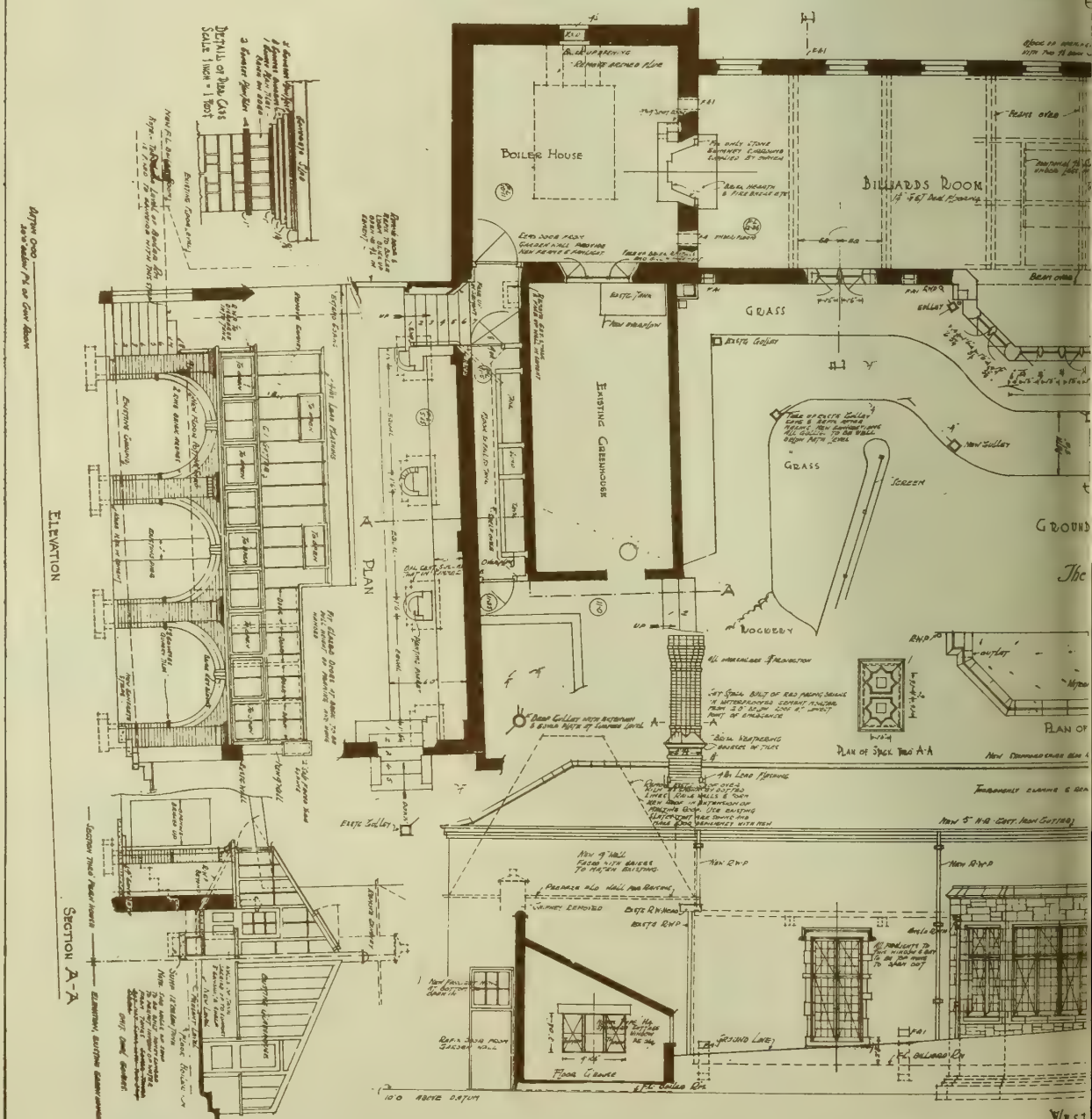
ALTERATIONS AND ADDITIONS FOR J. H. KERNER-GREENWOOD, Esq.

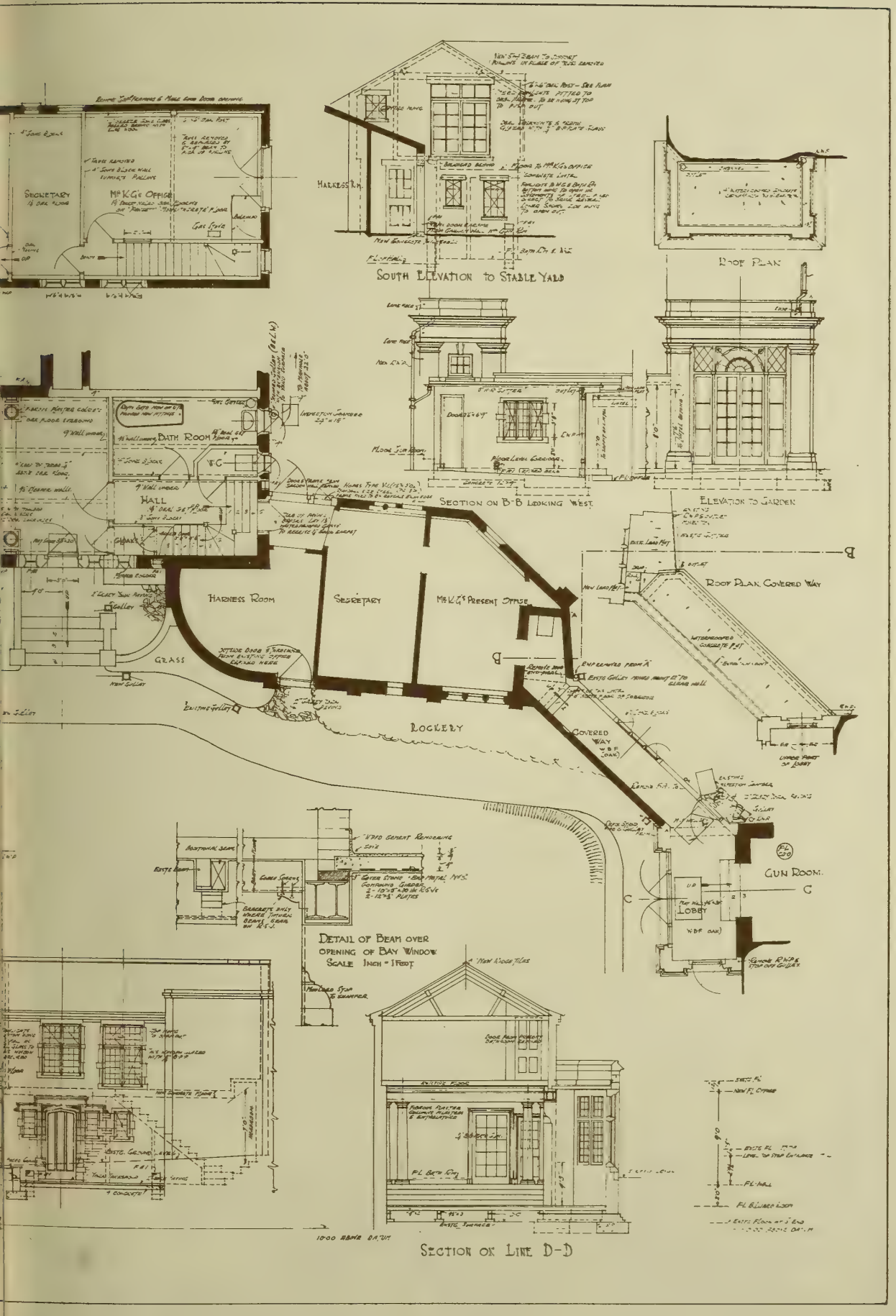
INDEX.
R.W.P. - RAINWATER PIPE
R.W.H. - " " HEAD
B.&L.W. - BATH & LAVY. WASTE
F.A.I. - FRESH AIR INLET
W.B.F. - WOOD BLOCK FLOOR

WINDOWS SHOWN CROSSED THUS TO OPEN



FIRST FLOOR PLAN



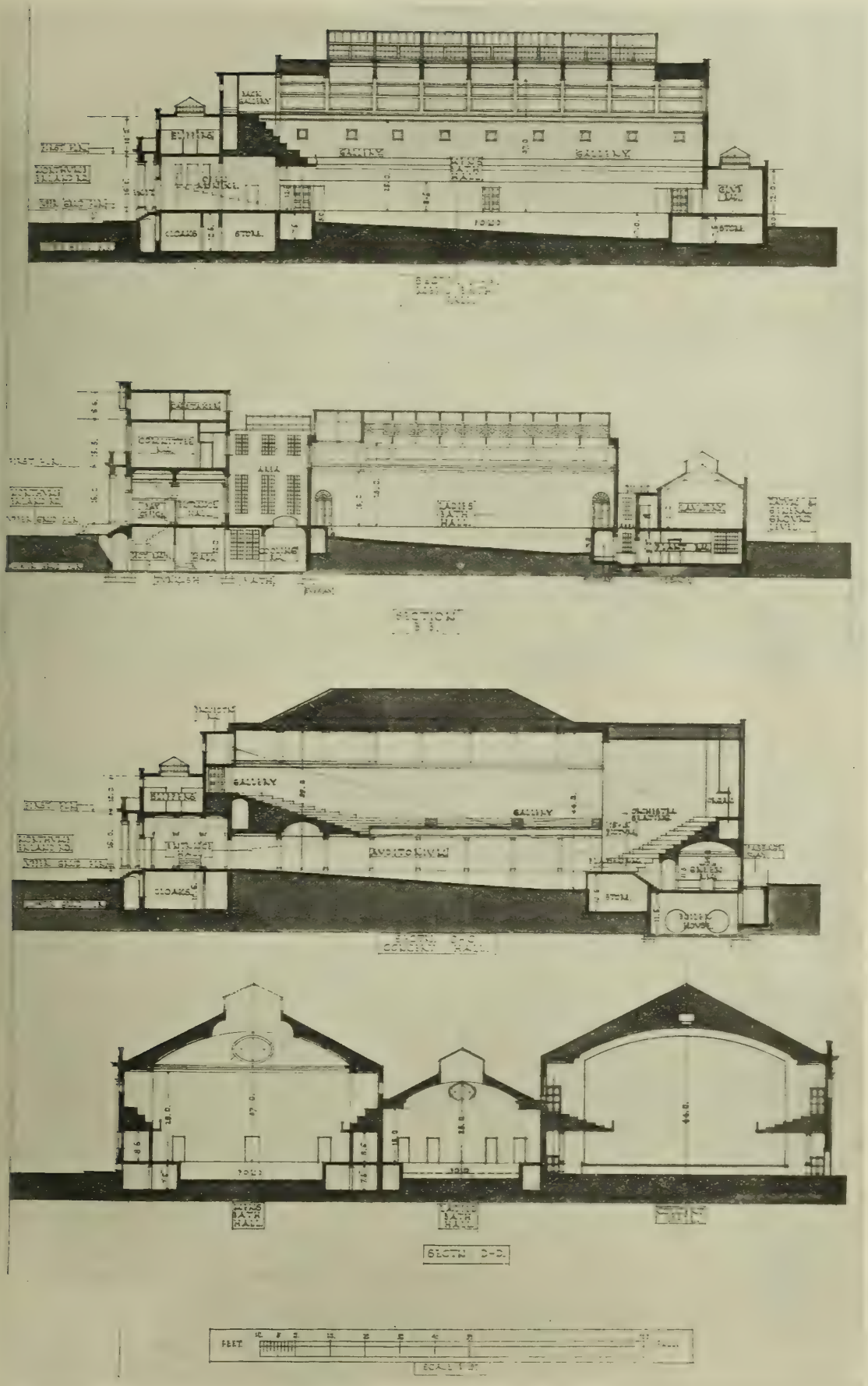

SECRETARY
Mr K.G's OFFICE
HARNESS R.m
SOUTH ELEVATION to STABLE YARD
ROOF PLAN
SECTION on B-B LOOKING WEST
ELEVATION to GARDEN
BATH ROOM
W.C
HALL
HARNESS ROOM
SECRETARY
Mr K.G's PRESENT OFFICE
GRASS
ROCKERY
ROOF PLAN COVERED WAY
COVERED WAY
GUN ROOM.
LOBBY
DETAIL OF BEAM OVER OPENING OF BAY WINDOW
SCALE INCH = 1 FOOT
SECTION ON LINE D-D



DONCASTER

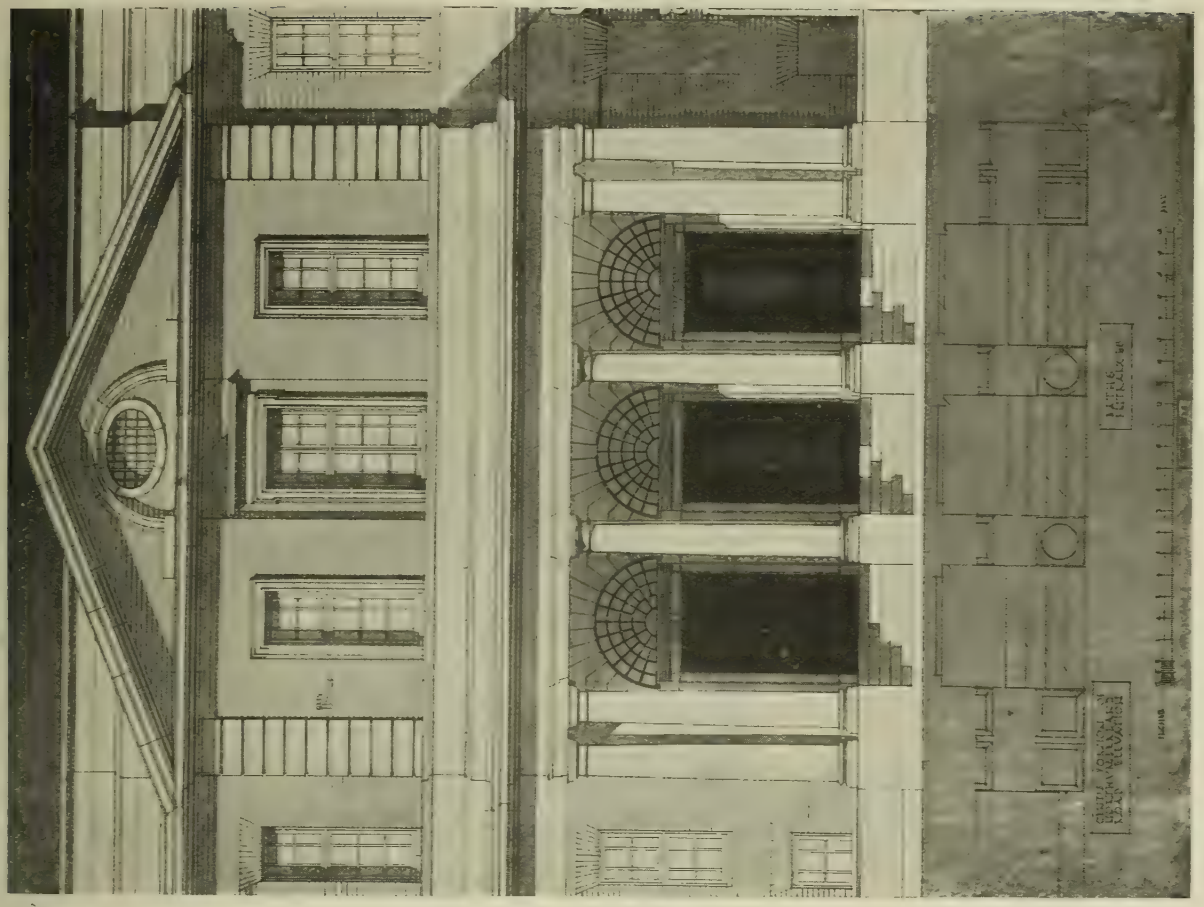
BANK PREMISES, DONCASTER.

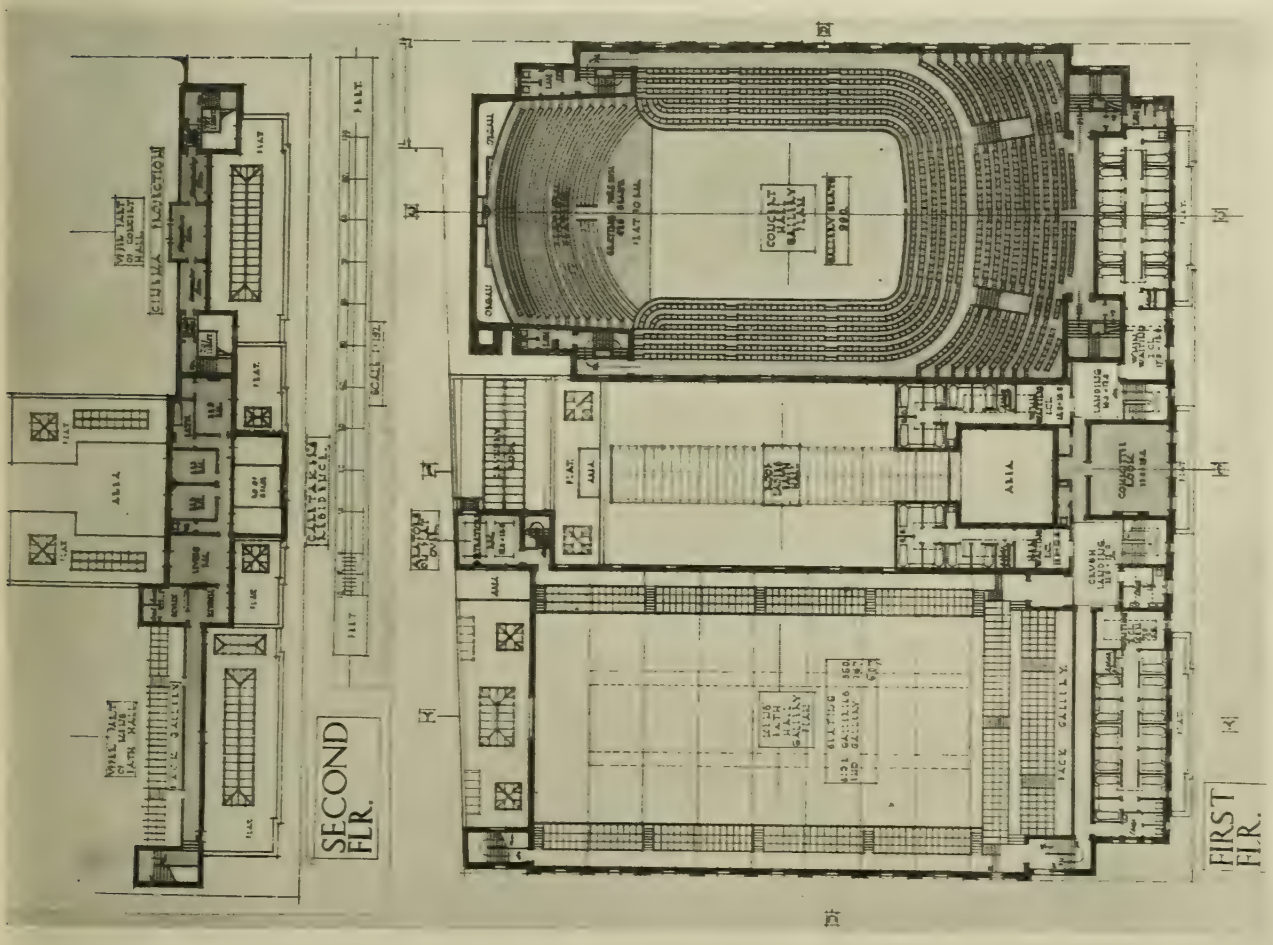
MR. C. F. R. PALMER, F.R.I.B.A., SURVEYOR TO THE BANK, AND MR. W. F. C. HOLDEN, A.R.I.B.A., ASSISTANT SURVEYOR.



Newcastle Concert Hall and Baths Competition.

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STAIRCASES

(BASED ON THE WORK OF M. GAUDET.) BY T. P. BENNETT.

THE liaison between the portions of the building which are horizontal and those which are vertical is the staircase, and it may first be studied in detail and afterwards as an element in the composition of the building. In all early architecture the construction of the staircase proceeded on the principle of direct support; that is to say, solid treads acting as lintels spanned the space between the spandril walls or were laid upon rampant barrel-vault constructions between the walls.

In Latin and Italian the single word *scala* signifies a ladder and a staircase, and it indicates the fact that early staircases were merely stone ladders. Many of the richest staircases still follow this principle, and rise from floor to floor in one continuous line. About the seventeenth century the "cantilever," or "open-newel," staircase was evolved, and as soon as this was accepted as an element of construction a very wide field of design was opened up for the architect. At present such stairs are used without hesitation, yet the time is not so very far distant when the constructor approached such a problem with trepidation.

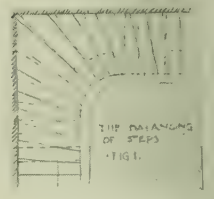
There are various recognised rules for ascertaining the correct proportions of tread and riser; of these the most common are the "English" rule, whereby the width of the tread in inches multiplied by the height of the riser in inches should equal about 65, and the "French" rule, which states that twice the height of the riser plus the width of the tread should equal 23 or 24 in. The latter is more logical because it is based on the assumed length of tread for an average person as 24 in., and the assumption that the effort of mounting upwards is twice that involved in proceeding horizontally. Normally, the treads and risers of staircases vary between 13 in. by 5 in. and 8 in. by 8 in., and 12 in. by 6 in., 11 in. by 6½ in., and 9 in. by 7 in. are most common. There are, however, many exceptions—Table "A" giving the dimensions for some of the most monumental staircases in Paris.

This table is sufficient to show that in monumental architecture the designer endeavours to make the slope as flat as possible. On the other hand, cottage, turret, and cellar stairs sometimes reach the extreme limits of steepness. Italian staircases, notably in Rome, are even flatter than those quoted above, as is shown by Table B.

So far reference has been made solely to internal staircases. In dealing with external work the French have a word "*perron*," describing monumental stairs which approach a building having its main entrance above ground level. The existence of such a word serves to emphasise the distinction between internal and external stairs, which is quite marked. The external staircase is a piece of monumental architecture designed for comparison with the whole exterior of the building. As such, its entire composition is on a much larger scale, and the treads tend to become wider and the risers shallower; but in addition to the increase of the width of the tread on account of the need for effect there are also practical reasons, such as the danger created on steep stairs by frost and rain. The dimensions of a few external staircases or *perrons* will be of interest. (See Table C.)

When the staircases are curved the dimensions of the width and height of steps should be measured in the centre of their length, or, perhaps more conveniently, at a point 18 in. from the centre of the handrail, this being the point at which the ordinary person mounts.

In designing stairs which are partly straight and partly curved care must be taken to avoid a sudden transition from the straight to the curved portions; this can be effected by "dancing" or "balancing" steps. The French principles in these matters are sound, some being indicated in Figs. 1 and 2, which



show such a transition and also the treatment of steps at the angle of a staircase having a continuous string. It will be found in practice that it is almost impossible to design a

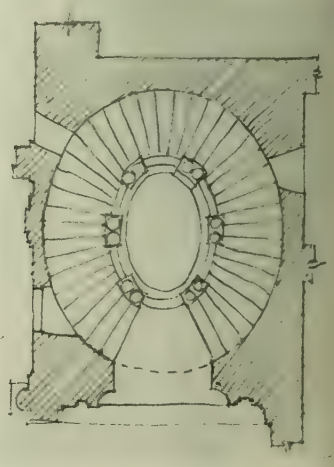


FIG. 3.—THE OVAL STAIRCASE, PALAZZO BARBERINI, ROME.

TABLE A.—INTERNAL STAIRS: FRENCH BUILDINGS.

Building.	Length of tread, metres.	Height of riser, metres.	Proportion riser to tread.
LOUVRE: Henry II's staircase	0·365	0·14	0·384
Colonnade staircase	0·40	0·148	0·37
VERSAILLES: Marble staircase	0·40	0·14	0·35
INVALIDES: Staircase for the use of the old and infirm	0·38	0·12	0·316
PALAIS ROYAL: Staircase of Honour	0·59 to 0·38	0·145 to 0·14	0·37
CONSERVATORY OF ARTS AND SCIENCES: Grand staircase by Antoine	0·42	0·135	0·321
LUXEMBOURG: Senate's staircase	0·37	0·15	0·405
Presidency staircase	0·37	0·135	0·365
HOTEL DES MONNAIES	0·33	0·153	0·464

TABLE B.—INTERNAL STAIRCASES: ITALIAN BUILDINGS.

Building.	Length of tread, metres.	Height of riser, metres.	Proportion riser to tread.
ROME: Chancellor's palace	0·404	0·165	0·408
Giraud palace	0·443	0·151	0·341
Doria Panfili palace	0·396	0·145	0·366
Farnese palace (departure)	0·591	0·132	0·223
„ „ ordinary stairs	0·54	0·132	0·244
Borghese palace	0·41	0·136	0·332
Barberini palace rectangular stairs	0·465	0·133	0·286
„ „ oval stairs	0·48	0·108	0·225
Corsini palace	0·43	0·133	0·309
Braschi palace	0·376	0·143	0·38
Vatican palace stairs	0·406	0·119	0·293
„ museum stairs	0·37	0·114	0·308
VENICE:			
Scala d'Oro, Museum	0·323	0·17	0·521
Staircase of the Giants	0·30	0·144	0·48

TABLE C.—EXTERNAL STAIRS, OR PERRONS.

Building.	Length of tread, metres.	Height of riser, metres.	Proportion riser to tread.
VERSAILLES:			
Staircase of the 100 steps	0·40	0·14	0·35
Central staircase	0·38	0 14	0·368
Side staircases	0·36	0·135	0·375
FONTAINEBLEAU:			
Stairs in the Court of Honour, straight portion	0·415	0·11 to 0·13	0·289
Curved portion	0·36	0·105	0·292
Stairs in the Court of the Fountains	0·44	0·135	——
Stairs in the Park	0·38	0·15	0·307
CONSERVATORY OF ARTS AND CRAFTS:			
Stairs in the Court of Honour	0·35	0·16	0·455

staircase satisfactorily where the faces of the first and last risers are more than 3 in. in front of the return string.

In a staircase of special shape, such as that in the Palazzo Barberini at Rome (Figs. 3 and 4), the treads must be carefully set out to obtain a satisfactory line for the closed string by having even spacing where the face of the riser comes into contact with the face of the string. The exactitude of the French language subdivides the English "landing" into *pallier d'arrivée* (landing of arrival) and *pallier de repos* (landing of rest). This exact designation indicates the purpose of the landing clearly, and incidentally the principle which should govern its design. It is inadvisable to design a staircase which rises more than 10 or 12 ft. without a landing, and the Board of Trade, in buildings governed by it, indicates a limit of 12 ft.; a section of the Theatre Act insists on not less than three or more than fifteen risers without a landing.

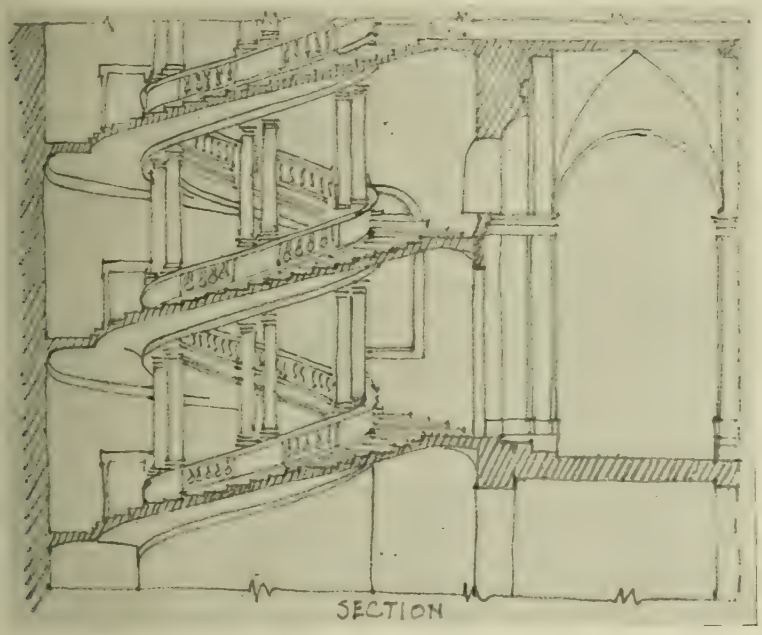


Fig. 4.—The Oval Staircase, Palazzo Barberini, Rome.

Staircases are one of the main methods of lighting well-planned buildings. In monumental buildings it is often difficult to avoid carrying a half-space landing across the face of the façade, and in some cases stairs have been well designed so that adequate lighting is obtained without destroying the continuity of the façade. A brilliant example is to be found in the wonderful staircase at the Chateau de Blois (Fig. 5). Solid steps in stone staircases were once universal, but it is now more common (and indeed better construction) to erect them in concrete, either pre-cast or built *in situ*, and to cover them with a finishing surface of cement flooring composition or stone or marble slabs. By this means the surface can be renewed from time to time without in any way interfering with the main structure.

The "open-newel" stair was at first supported by means of an elaborate system of arches; such a staircase is to be found at Versailles. Wooden stairs were carried by a combination of strings and newels, the newels forming a support from floor to floor. As the constructors of staircases became more *facile* they reduced the apparent dimensions of the strings, which then became "cut." The enrichment of the staircase is enhanced by the balustrade, which may be in stone, iron, wood, bronze, or a combination of these materials. Some of the seventeenth-century staircases built in wood have magnificent balusters cut to dimensions which would make them quite possible in masonry without alteration. There is an excellent example in Chelsea Hospital. At other times iron adds enormously to the richness of the staircase, as may be seen in an example at Hertford House, Manchester-square.

In designing monumental stairs it is well to bear in mind that the purpose of the landing, so far as appearance is concerned, is to change the angle caused by the remainder of the flight. In planning, landings should be in the centre of the room or group of rooms which they are intended to serve.

Ramps are sometimes employed instead of staircases, and in several places the London Building Act emphasises their desirability. They are, however, (1) uncomfortable, and (2) exceedingly long even for short rises. They are a necessity for bringing vehicles from one level to another, and for this reason find their use in the approach to such buildings as the Ramp du Pincio at Rome and one of the entrances to the Opera House at Paris (Fig. 6). There are purely utilitarian ramps at Waterloo and Paddington stations. The limit of slope is 1 in 10. In large gardens the ramp frequently forms a means of passing from one level to another which is at times more suitable than the introduction of steps, or, in any case, may be used with steps to gain effect. Where ramps are partly straight and partly curved it is better, if possible, to make the curved parts level. If the curve is sharp and is made to fall the inner portion must be carefully examined to see that the slope does not become dangerous.



Fig. 5.—The Staircase Tower, Chateau de Blois.



Fig. 6.—The Ramp at the Opera House, Paris.

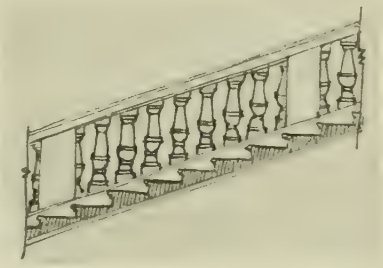


Fig. 7.—A Ramped Balustrade

EXHIBITION NOTES.

MR. NEW'S DRAWINGS.

The drawings by Mr. New in the new room at the R.I.B.A. will find many admirers. Mr. New has learnt something of real value from old prints, and the best spirit of them has come forth in his work. His views of Oxford Colleges are of especial value, and his clear-cut drawings are amongst the best of modern conventional drawings.

ETCHINGS.

The lover of etchings may have a pleasant time at the Fine Art Society now. Here are a number of admirable plates on view, and prominent amongst them are about two dozen by Robt. W. Allan, whose vigorous handling of pictures does not prevent his dealing with etchings in a suave and delicate manner. Two of his landscapes shown are very attractive—"Richmond, Surrey," (113) and "On the Loire, Evening" (126). The latter is a perfectly-balanced scene envisaged with breadth and delicacy. In his forcible "Loch Cornish, Skye" (121) it seems a pity that the artist has somewhat over-textured his clouds, which are heavy and opaque and rather detract from an otherwise fine plate. There are many things of special note in this exhibition, such as the telling picture of "Ebb Tide" (70), by C. R. W. Nevinson, and the pure delicacy of "The Siesta" (99), by Lee Hankey.

ARCHITECTURAL EXHIBITIONS.

Mr. Delissa Joseph writes suggesting that other architects should follow with exhibitions of their work on the lines of the exhibition at the Suffolk-street Galleries.

ARCHITECTURAL SOCIETIES

R.I.B.A. MINUTES.

We take the following notes from the minutes of the Council Meeting held on March 3 :—

R.I.B.A. Diploma in Town Planning.—On the recommendation of the Board of Architectural Education the Council approved the regulations and syllabus for the examination for the diploma in Town Planning, and appointed the following members to act as examiners :—Professor Patrick Abercrombie, Professor S. D. Adshead, Mr. E. G. Allen, Mr. Reginald Bruce, Mr. Arthur Crow, Mr. W. R. Davidge, Mr. F. M. Elgood, Mr. W. Carby Hall, Mr. W. A. Harvey, Mr. H. V. Lanchester, Mr. T. Alwyn Lloyd, Mr. W. Harding Thompson, Professor Beresford Pite, Mr. Raymond Unwin.

R.I.B.A. Prizes and Studentships.—On the recommendation of the Board of Architectural Education the Council decided that candidates who have entered for the Soane Medallion or the Tite Prize shall be permitted to submit their drawings in place of the usual problems in design required for the final examination, and that candidates who have been awarded the Soane Medallion or the Tite Prize, or who have received a certificate of hon. mention in either of these competitions, shall receive exemption from the design portion of the final examination. It was also decided to fix the age limits as follows :—R.I.B.A. Essay Prize—45 years; Measured Drawings Medal—35 years; Pugin Studentship—18-30 years; Owen Jones Studentship—40 years; Tite Prize—35 years; Soane Medallion—35 years.

Arthur Cates Prize.—The annual value of the prize was increased from £30 to £50.

R.I.B.A. Essay Prize.—Candidates for this prize will be required in future to submit to the secretary the subject on which they propose to write for the approval of the jury.

R.I.B.A. Intermediate Examination (Subject A. General History of Architecture).—Candidates who are relegated in Subject A (general history of architecture) of the Intermediate may be required at the discretion of the Examiners to take either subjects :—C.1 (*a*) Greek and Roman; or C.1. (*b*) Byzantine and Romanesque; or C.1. (*c*) French and English Gothic; or C.1. (*d*) Italian, French and English Renaissance, instead of being required to sit for Subject A again.

London Traffic Authority.—On the recommendation of the Town-Planning Committee it was decided to urge upon the Prime Minister the necessity of the establishment of a traffic authority for London at the earliest date practicable.

Building Research Board.—On the recommendation of the Science Standing Committee it was decided to request the Department of Scientific and Industrial Research to grant an interview to representatives of the R.I.B.A. to enable them to lay before the Department their views on the subject of research into building materials.

Public Telephone Kiosks.—On the recommendation of the Town-Planning Committee it was decided to urge the Postmaster-General and the Metropolitan Boroughs Joint Standing Committee to refer the proposed new standard design for public telephone kiosks to the National Fine Arts Commission for their advice before the building of these kiosks is proceeded with.

Reinstatement.—Mr. S. P. Brinson was reinstated as a Licentiate.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

On March 12 the second annual exhibition of the Birmingham Architectural Association and of the students of the School of Architecture was opened by the Lord Mayor of Birmingham, at the rooms of the Royal Society of Artists. This year 25 members of the society, which numbers 220 members, scattered over five Midland counties, and 30 students, are among the exhibitors, and their work consists mainly of water-colour and pen-and-ink drawings and pastel work. Among the members exhibiting are Mr. R. Savage (the President of the Association), who shows his front elevation design for the Masonic Temple in Broad-street, together with ground and first-floor plans; Messrs. Holland W. Hobbis and A. E. McKewan, Vice-Presidents; Mr. E. Bewlay, whose contribution takes the form of pastel drawings of various unnamed buildings and scenes; Messrs. Nicol & Nicol, who show, among other things, their designs for the Birmingham War Memorial and some Italian studies; Messrs. H. T. Buckland and W. Haywood; Mr. W. A. Harvey, who gives examples of housing schemes and lay-outs; Mr. J. A. Swan; Mr. A. L. Snow; Mr. Owen Parsons; and Mr. C. E. Bateman.

At the formal opening, in introducing the Lord Mayor (Alderman T. O. Williams), the President (Mr. R. Savage) said their object was not to advertise architects individually, but to interest the people of Birmingham in the subject of architecture. During the last few years there had been a marked increase of popular interest in this subject. People, he considered, were beginning to wake up to the fact that architecture, in common with painting, sculpture and literature, was one of the fine arts. To get better results from the profession it was necessary they should have the sympathy and support of their fellow-citizens, and it was really with that object that they were holding the exhibition. The more critical people became—provided, of course, they had the necessary knowledge—the higher would be the standard of architectural work.

The Lord Mayor, in declaring the exhibition open, said it had been an education to him to find such a variety of styles and phases of architecture as were depicted on the walls, and he hoped that those who had designed them would some day see them realised in buildings that would be monuments to their skill. He was also pleased to see drawings of places which many of them had visited—works which showed the value of the excursions abroad arranged by the Association. There was no doubt the more they travelled to see what other people were doing, the better it must be for British architecture in producing buildings which were both utilitarian and artistic. He felt sure they would see an improvement in the architecture of Birmingham, as to the need for which there was no doubt. From what he had seen, the Lord Mayor said he was satisfied that Birmingham architects could hold their own with those of any other city or town in the country.

On the proposition of Mr. B. J. Fletcher (Head Master of the Municipal School of Art), seconded by Mr. M. Rudland, a vote of thanks was accorded the Lord Mayor for opening the exhibition.

SOUTH WALES INSTITUTE OF ARCHITECTS

The annual general meeting of the Western Branch of the South Wales Institute of Architects was held at Swansea recently, when the following officers were appointed for the ensuing year: Chairman, Mr. H. C. Portsmouth, F.S.A.; Hon. Treasurer and Librarian, Mr. C. Russell Peacock, F.S.A.; Hon. Secretary, Mr. J. Herbert Jones, F.S.A.; and Hon. Auditor, Mr. Ernest E. Morgan, A.R.I.B.A.

Branch Committee: Mr. C. S. Thomas, F.S.A.; Mr. Glendinning Moxham, F.R.I.B.A.; Mr. G. R. H. Rogers; Mr. Edwin Smith, A.R.I.B.A.; Mr. Oliver S. Portsmouth, A.R.I.B.A.; and Mr. G. L. Crocker and Mr. J. C. Gower, students, and associates' representatives.

Those elected to represent the Branch on the Council of the South Wales Institute of Architects were: Mr. H. C. Portsmouth, F.S.A.; Mr. C. S. Thomas, F.S.A.; Mr. J. Herbert Jones, F.S.A.; Mr. G. R. H. Rogers; Mr. Ernest E. Morgan, A.R.I.B.A.; and Mr. G. L. Crocker, associates' representative.

LIVERPOOL ARCHITECTURAL SOCIETY.

On March 18, Professor L. B. Budden lectured on "The Relation of Architecture to Other Arts" before the Liverpool Architectural Society. In the course of his remarks he said architecture was receiving more general attention to-day than it had done for a century. This he attributed to three causes: First, the fact that architectural education was at last being established on a professional basis and so commanded public respect; second, that the work of many practising architects in England had, during the last decade or so, shown increasing power and distinction, the improvement being largely due to American influences; thirdly, that the publicity now given to architecture by means of exhibitions and critical articles in the Press had brought it into line with painting, music and the drama, as a subject that should engage the interest of all educated people.

A problem that had its own peculiar difficulties was the reconciliation of the tendencies in modern furniture design and applied craftsmanship with the claims of contemporary architecture. Professor Budden then proceeded to outline the cause of the present divorce of architecture from painting, sculpture and the crafts, and considered the consequences. In architecture these had led to architects relying for their effects on purely architectural elements of design, whilst in painting and sculpture the independent work conceived without regard to any special setting had become predominant. So specialised had the arts become that even the best painters and sculptors were usually quite ignorant of the technique of architectural composition. Without at all understanding its resources and aims they were ever ready to explain what was wrong with modern architecture and would patronisingly suggest remedies for its salvation. Architects themselves were commonly in no better plight. Only too frequently even those who were highly trained and possessed a cultivated and fastidious judgment in their own art were complacently insensible to valuable aspects of modern painting and sculpture. Sometimes they exhibited frankly bad taste and took a Philistine pleasure in doing so; in any case they were almost invariably antipathetic to the work of the younger generation of other artists.

The loss to architecture was deplorable. By being limited simply to its own resources it was denied a whole range of effects which it could only achieve by the aid of painting and sculpture conceived in sympathy with it. At present these two latter arts in their most vital modern forms paid no attention to architecture at all and were more often than not antagonistic to it.

How to bridge the gulf that divided architecture from the arts and crafts which once owed allegiance to it was the final question. Professor Budden elaborated a number of constructive proposals and indicated tendencies which seemed already to be working to that end.

PLYMOUTH ARCHITECTURAL SOCIETY.

The annual meeting of the Plymouth Branch of the Devon and Exeter Architectural Society was held at Plymouth recently. Mr. J. Leighton Fouracre, F.R.I.B.A., presided. The reports presented by the honorary secretary and treasurer, Mr. B. Priestley Shires, showed an increase of four members on the year. The new model by-laws, after certain amendments, had been approved, and the adoption of this model set by all the architectural societies throughout the kingdom affiliated to the R.I.B.A. was proposed. The chairman, in expressing the hope that the coming year would be marked by a greater advance in the interest taken in the Society's work, mentioned that he intended to give three evenings for the study of design among the junior members.

The competition organised for the benefit of the junior members produced designs from five competitors, and the award of the adjudicator, Mr. Anstis G. Bewes, was announced as follows: (1) Mr. J. R. Millman, Plymouth; (2) Mr. E. E. Brown, Stonehouse, and Mr. F. M. Pidsley, Baldock, Herts, equal.

ASTON PARK, BIRMINGHAM

THE Birmingham Civic Society recently submitted a scheme to the City of Birmingham Parks Committee as a result of the annual inspection of the city parks, which was attended at the request of the Parks Committee by Mr. William Haywood, F.R.I.B.A., Hon. Secretary of the Civic Society. At the time the Visiting Committee accepted the offer of the Society to suggest improvement to Aston Park.

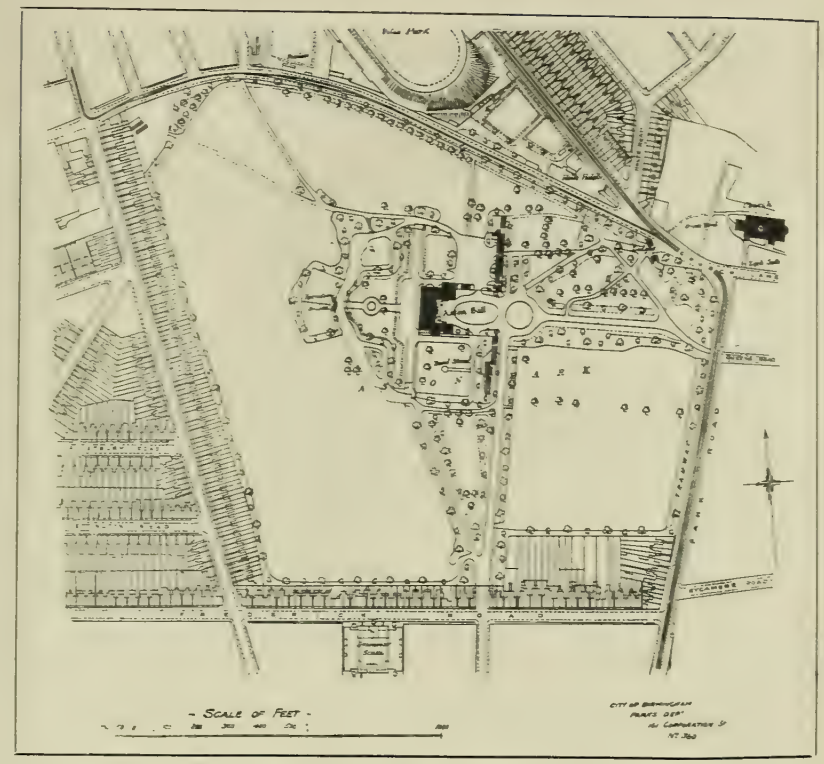
The report states:

It is impossible to deal with Aston Park as with ordinary suburban enclosures. The historical value of the hall at once claims consideration for special environment, and provides the best of reasons for a suitable difference in treatment from other public grounds, a difference which is valuable in itself and should be fully exploited.

It is not proposed to attempt a restoration of the grounds to their original character as shown on the plan of 1758. The proposal now put forward is designed to give (within the area now available) gardens which might have been contemporary with the house, because based upon the manner of garden design then in vogue.

This development of historical character in the grounds immediately about the hall has been so arranged as to break up the lower ground on the west with a view to its better control and maintenance. The hard usage of the ground which has made grass impossible at this point is provided for by covering two relatively large areas with asphalte, the chilly appearance of which is moderated by surrounding avenues and gardens; and it is thought that these avenues—each with a fenced strip of ground to protect the trees—will serve to cut off the adjoining playing fields, and so make possible a satisfactory growth of grass within the boundaries left unpaved.

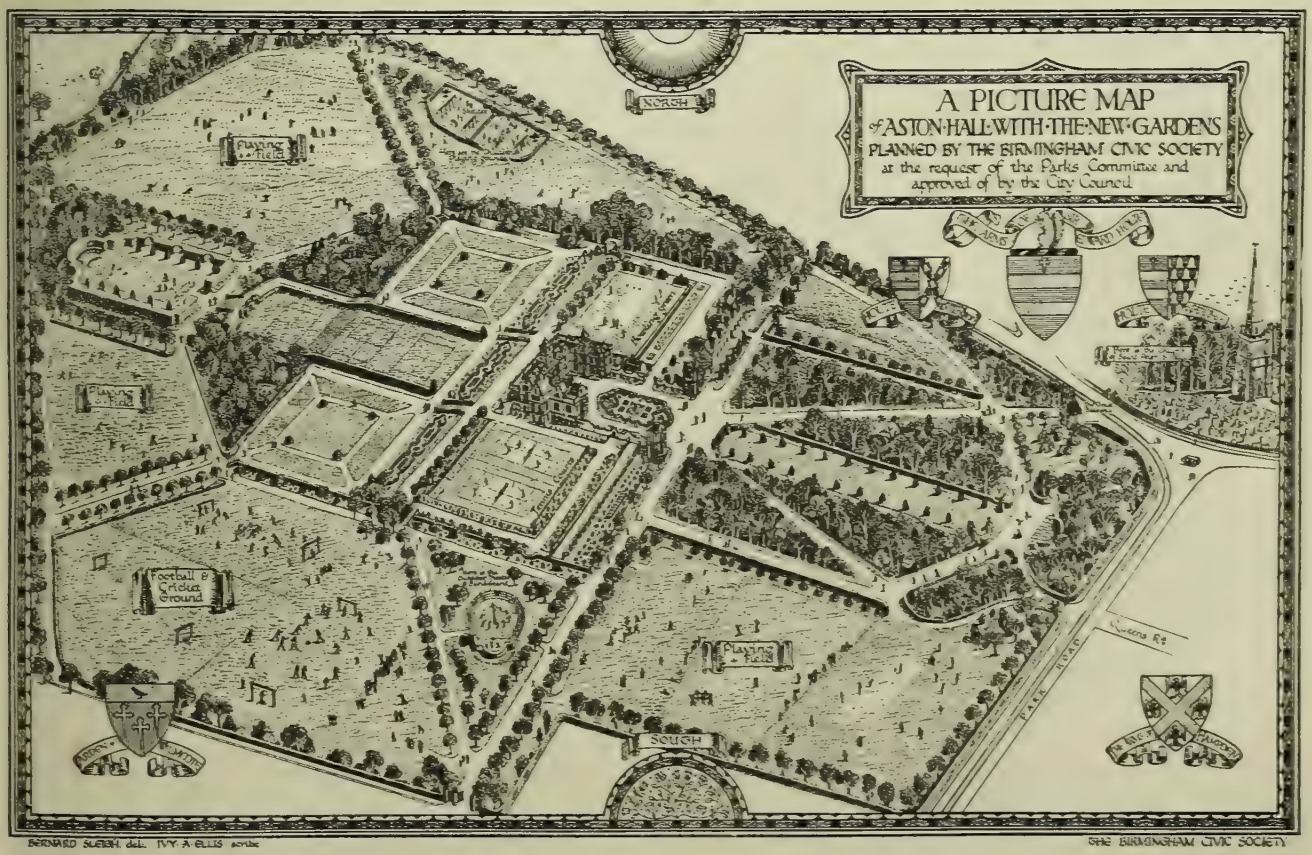
The children's gymnasium and the bandstand are two of the least satisfactory details of the present park. Both are incongruous adjuncts to the hall, and it is proposed to move the former to a site near the north-west entrance, where it will adjoin the asphalted playing areas, and to construct a new music stand, stage, and auditorium, near to the south entrance, as shown on the plan.



Aston Park, Birmingham.

The revised arrangements of the gardens about the hall include vistas radiating from the east and west fronts, which would add greatly to the stately character of the mansion. One of these vistas is designed as a direct approach from the lodge entrance in Church-lane, and this approach is balanced in effect by a new route from Park-road, while the present central road is converted into a great lawn, with formal trees at intervals, and a suitably designed viewpoint as a terminal feature.

It is suggested that the formal bedding in the east forecourt and on the slope below the west terrace should be laid out with topiary work of a character contemporary with the hall; that the lawn now occupied by the bandstand should be converted into tennis-courts; that the west and south margins of this green should be planted with double herbacious borders between clipped hedges; that the bowling-green on the north front should be increased in size, and the path area be reduced as shown. These alterations are associated with a proposed blocking-up of the way down the slope at this point.



THE SURVEYORS' INSTITUTION

DISCUSSION ON HOUSING SUBSIDY AND RENT ACTS

At the last meeting of the Surveyors' Institution—the President (Mr. J. Inglis Davidson) in the chair—a discussion followed the reading, by Mr. J. Calvert Spensley, Chief Assistant Valuer of the London County Council, of his paper, entitled "Economic Effects of the Housing Subsidy and the Rent Restrictions Acts." Extracts from the paper were published in *The Builder* of March 14.

Major H. Barnes, F.R.I.B.A., in moving a vote of thanks to Mr. Spensley, said the production of houses was not a thing which could be increased with anything like the same rapidity, apart from exceptional circumstances, with which other commodities could be increased. When dealing with houses the position did not so rapidly adjust itself to market conditions. But, apart from that, there was the fact that the indispensable condition of anything like an augmented supply of houses was absent. They had not got anything like the labour that was required to meet the housing demand. In the past, so far as he could see, out of every ten men engaged in the building industry not more than one was engaged in building working-class houses—at the very outside not more than one in eight. The other seven men, if they took eight as the number, were engaged on maintenance, repairs and general buildings. They were told that those eight men had dwindled to something like four; put it at five, and at a time when they had got that depletion they got a double demand. The result could only be enormous inflation of costs, and any inflation of costs on a free market in housing must bring with it a corresponding increase in rents so long as the rents could be obtained. There was, no doubt, a margin of people to whom a subsidy made a difference, but it was not a large margin. He did not think the subsidy was playing a very great part in stimulating the demand for houses. He did not believe there was the least prospect in any period which any of them there would live to see of what had been called by Mr. Spensley a gap or chasm being closed so far as a very large section of the population was concerned. Therefore, as regarded the housing shortage, not as concerned those people who could afford to pay for houses, but those who wanted or needed houses whether they could afford to pay for them or not, he saw no prospect of the shortage being met without a considerable subvention from State funds.

Sir Theodore Chambers, in seconding, said the feeling he had had during the past four years had been that there were two entirely different housing problems—the problem of the weekly wage-earners and the problem of the salaried men and the people with a certain amount of saved capital on the interest of which they partly lived. As regarded the problem of the house of the weekly wage-earner, he had come to the same conclusion as Major Barnes, that it was impossible to expect in any time that they saw in front of them that the capitalist would again build houses to let to that class. He thought the house-owner had been put to so much difficulty by unnecessary legislation, and he had been so abused as an intolerable person, the other directions in which his capital could be put out to far greater advantage were so numerous, that he (Sir Theodore) could not conceive that private enterprise, in the sense of building working-class houses to let to the working-class people, would ever come again in their own life-time. At the present time it was perfectly true that the gap—the ability to pay of the wage-earner in this country and the economic or remunerative rent of the house which society now demanded he should live in—was too great to be bridged. He did not believe they could get round it in any way. It was true that Major Barnes, in a valuable book he had written, said it would be necessary if society demanded those conditions for the working people that the subject should be treated somewhat in the same category as education or other services which the community wished the people to obtain. Turning to the problem of the middle-class house, he thought it most unhappy that the views of the majority of the Rent Restriction Act Committee were not accepted, and the Act lifted off the houses that were brought in in 1920.

Mr. T. P. Bennett, F.R.I.B.A., said that Mr Spensley had put the cost in 1922 of a house on the Roehampton Estate as £362, which was considerably less than double the 1914 cost on the Old Oak Estate. Mr. Spensley mentioned that the prices were not exactly comparable, but the whole of his (Mr. Bennett's) investigations went to prove that it was still impossible even at the end of 1923, to erect any kind of building at approximately less than twice the pre-war cost. Mr. Spensley further said that from one-third to one-half of the increased cost was due to increased amenities and increased accommodation. If that were so, he failed to see how they could build them for £362. Mr. Spensley also stated that there was no indication that workmen at the present time were going slow as compared with pre-war times. He was sorry to say his investigations did not support that view, and he could not find any builders who would support that view. He had put the loss in output at 15 per cent. at least, and had been told it was nearer 20 per cent.

Mr. Spensley, in reply, defended his figures, and said he could find no statistical evidence of workmen going slow, and thought it only just to say he had come to a negative conclusion.

Covent Garden.

The Westminster City Council recently received a communication from the National Anti-Profiteering Society, stating that the serious state of congestion of Covent Garden Market had been before them, and they considered some steps should be taken to ensure that in the future provision should be made for better conditions than existed, and suggesting that, as it was not possible to extend the Market, the Government should take the matter in hand and the Market be removed elsewhere.

The Council recommended no action be taken in the matter.



Proposed House at Hilperton, Trowbridge. Mr. Walter W. Snailum, Architect.

[This house is to be built this spring for Mr. E. Leonard Hill, of Trowbridge. It will occupy a site on the high ground near to Trowbridge. and will command exceptionally extensive views. The walls externally will have a plinth of cherry-red bricks, above which they will be white rough-casted. The angle quoins will be relieved with red tile work, and the roof will be covered in sand-faced dark tiles. On the side opposite to the view given it is proposed to erect a large loggia, with a sleeping porch over. The architect is Mr. Walter W. Snailum, of Trowbridge, Mr. George E. Hubbard, A.R.I.B.A., being responsible for the whole of the drawings, including the perspective.]

THE LAW RELATING TO BUILDING

By W. T. CRESWELL, Lic.R.I.B.A., Assoc.S.I., F.R.S.I. (Barrister-at-Law).

VII. CERTIFICATES (2).

Necessity that Certificates should be in writing.

It was stated in a previous article that there is no legal necessity for certificates to be written, and that a verbal certificate will suffice unless the contract stipulates that certificates must be in writing. It is somewhat remarkable that forms of contract do not as a common usage include this stipulation, because it would effectually obviate the doubt and uncertainty which are always likely to arise when certificates are given orally.

Undue influence of Employer over Architect or Surveyor in signing Certificates.

The granting of a certificate by an architect and surveyor may be open to question by the contractor, if it appears that in signing it he has acted under the influence of the employer, and not in accordance with his own skill and judgment. An architect must act in the full consciousness of his dignity and responsibility as a quasi-arbitrator, and not be overruled by the wishes or instructions of the employer, if these are against the just claims of the contractor. In McDonald *v.* Workington Corporation (1892), Vol. II, Hudson on Building Contracts 228, Lord Esher said, "His duty is to give the certificate according to his own conscience and according to what he conceives to be the right and truth as to the work done, and for that purpose he has no right to obey any order or suggestion by those people who are called his masters. For the purpose they are not his masters. He is to do that on his own conscience, wholly independent of them, and to act fairly and honestly as between them and the contractor."

In Roberts *v.* Hickman (1911), Vol. II, Hudson on Building Contracts 426, it was enunciated that where an architect, in a quasi-judicial position, does not preserve that attitude of judicial independence needed and required of him to discharge his duties, though he may not be guilty of fraud or collusion, he is no longer fit to be judge; and where he does act in the interests of the employer, or by the employer's directions, the latter cannot in such circumstances rely upon the architect's certificate as a condition precedent to payment or as an adjudication binding upon the contractor. Fletcher Moulton, L. J., said "The misconduct on the part of an architect in allowing himself to receive instructions from one of the parties, and to act in that party's interest, goes to the status of the architect. It makes him incapacitated to act as a judge, and it is obvious it affects his decision on every point, and not only on the point on which you can show that he has taken a direction from either side. He is no longer fit to be a judge, because he has been acting in the interests of one of the parties, and by their direction. That taints the whole of his acts, and makes them invalid to whatever subsequent matter his decision is directed."

In the House of Lords the Lord Chancellor said:—"I agree with what Fletcher Moulton, L. J., said, but would like to add this: It is not, in my opinion, a case to which the terms "turpitude" or "fraud" are apt. I think the real error of the architect was that he mistook his position, that he meant to act as a mediator, that he had not the firmness to recognise that his true position was that of an arbitrator, and repel unworthy communications made to him by the defendants. It is undoubted that the defendants, Messrs. Hickman, tried in this respect to lead him astray in their own interests."

Architect's refusal to certify.

If an architect should expressly refuse to grant a certificate, in collusion with the employer, the courts would probably allow the contractor to proceed in an action for payment of his account, without first proceeding to arbitration. In Kellett *v.* New Mills U.D.C. (1900), Vol. II, Hudson on Building Contracts 238—there was a claim for balance of work done and extras. The plaintiff had agreed to do work for the defendants to the satisfaction of their engineer, and the defendants agreed to pay the plaintiff upon the certificate of their engineer. The engineer did not address himself to determine and certify, but wrongfully refused, or wrongfully and unreasonably delayed so to determine and certify, and the defendants took advantage of his refusal and delayed payment. Fraud was not alleged. It was held that the plaintiff could recover from the defendants without a certificate.

In Macintosh *v.* The Great Western Railway (1850), 19 L. J., ch. 374, a Bill filed against a railway company, their secretary, and engineer, stated that the plaintiff had contracted with the company to execute certain works, and that the company had agreed to pay for them in a specified manner, with a proviso that the works should not be considered as executed unless the engineer of the company should certify to that effect; and that the engineer, upon notice, should proceed to examine the works, and, if properly executed, should certify the same, and that thereupon the plaintiff should be entitled to recover; that the works had been completed properly, but that the engineer, acting under the direction of and in collusion with the company, refused his certificate. The Bill prayed a declaration that such refusal was a fraud upon the plaintiff, and for an account and payment of the sums due to him. All the defendants put in a general demurrer. Upon appeal, the decision of the courts below overruling the demurrer was confirmed. (Demurrer is a pleading which admits the facts as stated in the pleading of the opponent; and, referring the law arising thereon to the judgment of the court, waits until the court decides whether the party is bound to answer. Demurrers in the High Court are now abolished.)

An action does not lie against an architect for "negligence," if he does not grant a certificate, in the absence of allegation of fraud or collusion, either at the suit of the contractor or the employer.

If the contract provides for arbitration, their remedy—whichever of the two is the aggrieved party—is to proceed to arbitration; the court would not interfere until this provision of the contract had been complied with. If there is no provision for arbitration, it would seem that the course open to the contractor or employer is to proceed in an action against the architect and the other for collusion; or, alternatively, against the architect for breach of duty, an accusation very difficult of proof except in a case of obviously flagrant injustice on his part. See Stevenson *v.* Watson (1879) 4 C.P.D. 148, and Chambers *v.* Goldthorpe (1901) 1 K.B. 624.

In Robins *v.* Goddard (1905) 1 K.B. 294, Collins, M. R., said:—"If something which purports to be conclusive is made subject to revision, it loses its quality of finality." That is to say, the arbitration clause protects either party to the contract against the operation of any unfair dealing in this matter.

Retention Money.

Payment to the contractor is usually made by instalments on certificates given by the architect, from time to time as the work proceeds, and termed "progress certificates." Such certificates are for instalments, which in each case represent a percentage of the value of work done (this percentage is stated in the contract); so that a balance of payment is always withheld, and such balance allowed to accumulate to a prescribed amount, which said amount is designated "retention money"; and it is also usual to fix a limit of time during which retention money may continue to be withheld, a moiety being due on completion of the works and the balance to be included in the final certificate. Sometimes it is provided that interest at a given percentage shall accumulate on overdue monies.

Payments in advance.

When a contract provides for instalments in advance, upon the certificate of the architect, such progress, or interim, certificates are not conclusive, but subject to readjustment in the final certificate. It may be here noted that contractors accounts for variations must be questioned promptly when rendered (if the architect or employer has any objection to raise), or they are considered, legally, to have been accepted as correct.

Non-payment by employer.

A clause is often inserted in a contract enabling the contractor to determine the contract if certain circumstances arise, *e.g.* (1) if the employer fails to meet an interim certificate within a prescribed period; (2) if the works are stopped by the architect or a court of law for a period exceeding one prescribed; (3) if the employer has become bankrupt (or where the employer is a company and it has gone into liquidation) and the trustee in bankruptcy, or the liquidator, is unable, within a prescribed time, to carry out the contract and make payments due or likely to become due thereunder. But, in the presence of such clauses, the contractor is not alternatively entitled to an action for breach of contract; and the amount due to him is usually settled by arbitration.

If, for any other reason, the employer fails to pay, or endeavours to repudiate the contract, he may render himself liable for the profit the contractor might reasonably have been expected to make had he been allowed to complete.

In all these cases the employer is the rightful owner of all work and materials already fixed to the freehold. It is therefore only with the loose materials on the site that questions can arise as to ownership.

THE SPLENDOUR OF ROME'S PALACES

In his lecture at the Central School of Arts and Crafts recently, Sir Banister Fletcher described the palaces of the Roman Emperors on the Palatine Hill, Rome, and showed how, with the ruins on the site, it was possible, with the aid of knowledge and imagination, to reconstruct the buildings in the mind's eye so as to get some idea of the appearance of Rome in the days of the Cæsars. There Augustus was born and there he reared the first imperial palace, which was subjected to constant additions and developments by Tiberius and Caligula, Vespasian, Titus, and Domitian, while Septimus Severus also remodelled and extended the buildings, which thus became the finest palatial pile ever erected. The plan was magnificent, and there was nothing piecemeal or accidental; the whole was laid out on axial lines, which gave fine vistas, and when irregularities occurred they were masked by hemicycles and devices similar to those employed recently in the Admiralty Arch. A great portico of fluted cippolino columns led into the tablinum, or throne-room, flanked by the chapel of the imperial "lares" on one side, and by the basilica, or hall of justice, on the other. Thus, in accordance with Roman traditions and ethics, the imperial power was firmly planted, architecturally at any rate, between religion and justice. Beyond was the peristyle, or colonnaded court, for state life and pageants, and this led to the triclinium, with its three tables and couches for diners. This social sanctum, where emperors gave their banquets, remote from the business of the outer courts, was flanked by nymphæums, with flowers, fountains and running water.

It was but a step from these palaces to the humble insulæ, or workmen's tenement dwellings, where the slaves were herded together in buildings erected story over story, so that Augustus had to issue regulations limiting their height.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

**** *We are glad to give questions and answers but cannot accept responsibility for contributed replies, especially on legal matters.*

Show Case Window.

SIR,—I am constructing an isolated show case window approximately 15 ft. by 6 ft. 6 in. by 8 ft. high, as rough sketch (see below). It is solely for show purposes, and the floor is 18 in. above the ground (cement paving), the back and one end are supported on brick piers, while the front and other end are enclosed with brick and glazed tiles. To prevent condensation on the glass in cold weather would the following be satisfactory ? :—

Ventilators through the floor in nearest board to the glass and a space left about 6 in. wide in ceiling near the glass, exposing the joists, which can be left open in the rear (as shown on sketch).

Will this prevent the trouble ? I should be glad to receive your opinion, or alternative suggestions.

C. J. NORRINGTON.

Epsom.

[REPLY.]

Your system of ventilating the show case is quite sound and should do much towards eliminating condensation. If it is convenient to run a hot-water pipe under the floor beneath the vent openings this would make things quite safe, or a single protected gas point is a great help. May we suggest that the gap in the ceiling might be better screened if a narrow frieze were interposed between the top frame and cornice ?

Cost of Ironmongery.

SIR,—We have received an inquiry as to the proportion of total cost of house under 1923 Act which goes in builder's ironmongery (pipes, stoves, window fasteners, bath taps, &c).

E. C. WARREN.

London.

[REPLY.]

It is a difficult matter to state a definite proportion of cost which goes to provide the builder's ironmongery for a house even of a particular type. Our correspondent will readily realise that the amount of piping required varies considerably with the arrangement of the plan, as will such matters as eaves guttering and down pipes. Taking a typical subsidy house costing say £500, a sum of about £95 would be required to cover the cost of galvanised piping, eaves guttering, down pipes, grates, register mantels, bath, lavatory basin, taps, cistern, cylinder, door furniture, locks and window furniture, but, as we say, this is an amount that will vary very much in individual cases.

This represents a proportion of about 19 per cent., which is relatively high for the small compact plan which the subsidy requirements impose.

Paving of Cowshed.

SIR,—Would you kindly let me have an answer to the following questions ? The proportion of sand and cement for making cement floor to cowshed. Time it should be left before being fit for use. Amount of each required to lay a floor of 36 sq. yds. and 2 in. thick.

Lincoln. R. ROGERS.

[REPLY.]

For pavings subject to fairly heavy wear it is far preferable to use granite chippings in lieu of sand, and a preliminary bed of bricks broken up on the site with a hammer (not rammed) and spread tightly packed to a thickness of 4 in. to 6 in. makes a good foundation, the slight cost of which is well repaid in the longer life of the paving. The paving should be laid in sections, chess-board fashion, or in alternate strips, each section being completed in one process, and the surface should be kept wet for seven days after laying, by the use of a watering can. Before the initial set the surface should be well trowelled to a smooth face.

The proportions for mixing should not be weaker than two parts of cement to five parts granite chippings (½ in. to dust). The surface will be fit for use about a week after the wetting process has been completed.

An area of 36 sq. yds. 2 in. thick makes up a bulk of 2 yds. of granolithic cement, but this will require 3 yds. of granite chippings and dust, as the dry material will shrink about one-third of its bulk on mixing and watering, the cement filling up the interstices and occupying no further bulk. The amount of cement required to mix with this will, therefore, be 32 ft. cube, or 16 bags of cement filled 12 to the ton. The quantities needed will therefore be : 14 to 16 bags of cement, between four and five loads of granite chippings and dust, and nine loads of broken brick.

Restoration of Old Cottages.

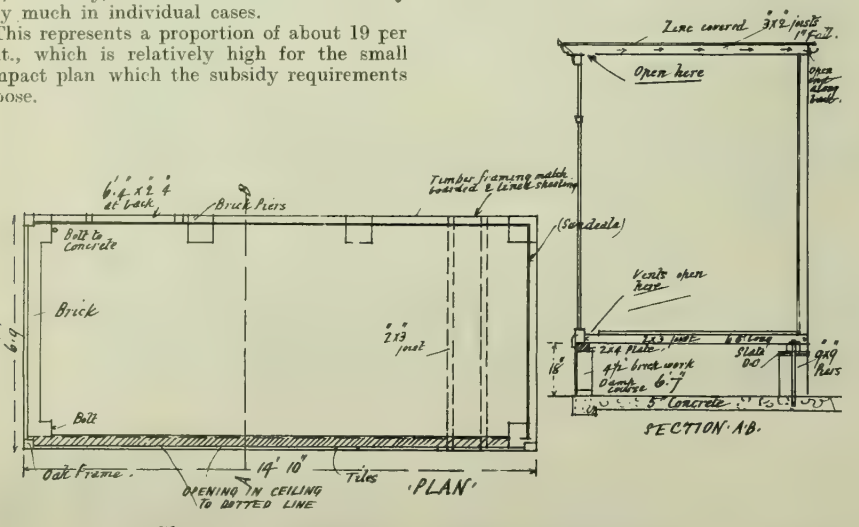
SIR,—I am proposing to alter two very charming old cottages to throw them into one small country house. They are, of course, without a damp course, and are in consequence very damp, in some places enough to rot the plastering, which will have to be stripped and renewed throughout. I had thought of cutting out and inserting a blue brick in cement damp-course, in short lengths at a time throughout, but should like to know if there is a cheaper satisfactory method. I am sure there must be many of your correspondents who have had similar problems to solve, and I should be most interested to hear their views if you will kindly give my letter prominence.

RESTORER.

Washed Sand.

SIR,—I shall be obliged if you could inform me in the columns of your valuable paper whether there is any recognised standard of size for "washed sand." The point is whether, as I maintain, "washed sand" means sand that has been washed, whether passed through a 3-16 in. screen or smaller, or whether it necessarily means sand which has passed through a 1-16 in. screen, which I am told is sometimes described as a "washed sand screen."

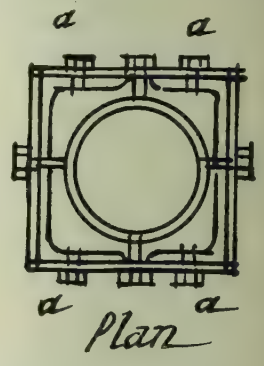
London. F. J. ROBERTSON.



Show Case Window. *(See Inquiry on this page.)*

Strengthening Columns.

SIR,—"Constant Reader" will find a good solution of his problem by surrounding three-fourths of the plain portions by a rolled steel box girder. If the cast-iron columns are, say, 6 in. dia., then the steel strengthening will be 8¾ in. square, made up of two 8 in. by 4 in. channels and two 8¾ in. by ¾ in. plates, thus :—



There should be 3 or 5 heights of "centering" steel set screws (4 in each plane) tapped into the steel surrounding plates and screwed just home against the column ; *a a a a* are steel studs with nuts outside—tapped into the channels. Cast-iron chairs one-eighth the height of the columns would prevent the steel surround from slipping.

Manchester. A. HENTHORN STOTT.

Hard-wearing Dado.

SIR,—Can any of your readers advise me as to the best material to use for the dado of an office stairway on which there is a considerable amount of traffic ? The considerations are wearing qualities and economy of upkeep. Mosaic or tiling are too expensive and cement needs painting.

LANDLORD.

Hospital Costs.

SIR,—Can any reader give me any information concerning the all-in cost—including the necessary nurses' accommodation, resident staff, kitchens, boilers and boiler-house, laundry, operating theatre, complete ; and the number of beds of any hospitals built in recent times or just before the war, giving the dates of erection in order that the necessary adjustment of cost to present-day prices can be made ?

HOSPITAL.

Damage by Workman.

SIR,—I shall be glad if you will kindly inform me what is the legal position where a workman, during the course of employment, causes breakage or damage by accident. Is the workman liable, or does the loss fall upon the employer ?—"ILLEGIBLE."

Roman Builders.

Mr. A. S. Walker, lecturing recently on "Old London and how to see it," in the course of his remarks said Rome was a modern city compared with London, which was founded in B.C. 1108, while Rome was not founded until B.C. 735.

In regard to the question of the City churches, the lecturer said they could show their practical sympathy with the movement to preserve these buildings by opposing any measure put before Parliament to destroy them without reference to their history, their art, or their traditions.

PRACTICAL DESIGN FOR BUILDING CONSTRUCTION—VI.

AN ELEMENTARY EXPLANATION OF THE APPLICATION OF THE THEORY OF CONSTRUCTION TO PRACTICAL DESIGN

By EWART S. ANDREWS, B.Sc., M.I.Struct.E., A.M.Inst.C.E.

SECTION II.—FLOORS AND BEAMS.

The loads upon the floors of a building are transmitted to the walls or columns by a floor system which resists the forces upon them by means of bending stresses. There is always a double, and sometimes a treble system of beams; in the case of an ordinary domestic floor, the floor boards transmit the loads to joists and sometimes these joists in turn transmit their loads to bressumers or girders. In heavier constructions the floor boards are usually replaced by reinforced concrete *slabs* and the floor joists by steel or reinforced concrete beams; if these beams do not have a bearing direct on to a wall or column or stanchion, they are usually called *secondary beams* which, in turn, are carried by main beams or girders. There are on the market a number of special forms of floors, often called patent floors, although few of them are still patented, but in any case their function is the same, namely, to transmit the loads by bending resistance either to the vertical supporting walls or columns or to the beams or girders which in turn transmit the loads to the vertical supports.

Ordinary timber floors usually have only small spans and seldom involve calculations involving a knowledge of the theory of subject. They were used hundreds of years before the theory had been developed and empirical rules based entirely upon practical usage and experience are nearly always followed.

As we shall often use the term "empirical rule" in these articles, we will explain that we use it to mean a rule that is not based upon theoretical considerations; we do not mean, as some people appear to think, that the rule is a bad one—some empirical rules are excellent. Typical examples of empirical rules relating to beams are the following:—

(*a*) To find the depth in inches of a timber floor joist, divide the span in feet by two and add two.

(*b*) To find the section modulus of a steel I beam multiply the depth in inches by the weight per foot in pounds and divide by ten.

The Strength of Beams.

Before we can calculate the load which a given beam can carry we have to make the acquaintance of a number of technical ideas, which, though not really abstruse, require studying carefully and accurately and in such a manner that we do not step up to the next stage until we are quite certain that we are fully acquainted with the one under consideration. We propose to explain these as briefly as possible but before doing so we would like to make clear that in order to investigate the strength of beams there are two quantities which we must know. The first of these is called the *bending moment* and depends entirely upon the span, the loads upon the beam, and the manner in which its ends are supported; it does not depend at all upon the shape of the beam or upon the material of which it is made.

The second quantity is called the *section modulus* and this depends entirely upon the shape of the cross-section of the beam.

If we divide the bending moment at any point along the length of a beam by the section modulus we obtain a number which represents the maximum intensity of stress in the material of the beam and, according to the material of which the beam is made, we decide whether this intensity of stress is one which the material can resist.

Stress, Strain and Elasticity.

All the materials employed in construction are *elastic* materials, although many of them are not what may be termed perfectly elastic. By a elastic material we mean one which, when a given force is applied to it, becomes deformed to a certain definite extent, this deformation not changing with increase of time and disappearing when the force is removed. The deformation which takes place in an elastic body when acted upon by a force is called *strain*. When an elastic body becomes strained forces are introduced between the molecules of the material which tend to bring the body back to its original form, and these molecular forces are called *stresses*.

The strains under working conditions are exceedingly small but they always occur, and by means of very delicate instruments called extensometers they can be measured; for instance, a steel bar 1 in. in cross-sectional area and 10 in. long, when subjected to a pull of 7.5 tons, will stretch by about six thousandths of an inch.

These strains and stresses may be of a complicated nature, but for purposes of study they may be divided into three kinds, viz.:—

(*a*) An *extension* strain corresponding to a *tensile* stress.

(*b*) A *compression* strain corresponding to a *compression* stress.

(*c*) A *slide* strain corresponding to a *shear* stress.

These are represented diagrammatically in Fig. 9.

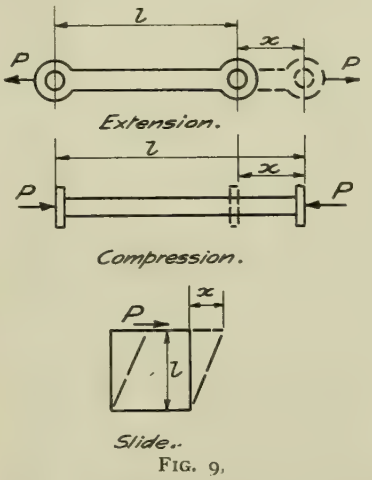


FIG. 9.

Of these the slide strain presents much more difficulty than the others, and we will not deal further with this until a later stage.

Intensity of Stress.

As we have explained above, the word stress is used in the general sense of molecular force, but we also use it in the particular sense of the molecular force acting over a unit area; strictly, this should be called intensity of stress. In the design of steel structures, for instance, we say that the safe or working stress in tension is 7.5 tons per square inch, meaning that on any one square inch of the material we can allow a tensile molecular force of 7.5 tons. In the simplest case of stress in which the stress on each square inch of the material is the same, as in a centrally loaded tie-bar, we can find the intensity of stress in the material by dividing the total force or pull in the tie-bar by the area of the cross-section of the bar.

Suppose, for instance, that a round mild-steel tie-bar is 1½ in. in diameter and is subjected to a pull of 18 tons. The area of a circular bar 1½ in. in diameter is 1.77 square inches, so that by dividing 18 by 1.77 we get the stress in the material,

$$i.e.,\ \text{stress per sq. in.} = \frac{18}{1.77} = \frac{10.2\ \text{tons}}{\text{per sq. in.}}$$

Variations of stress.—In the simplest case, as previously stated, the intensity of the stress is the same all over the section; this is indicated diagrammatically at A, Fig. 10, which represents a centrally loaded tie-bar, the lengths of the arrows which indicate the intensity of stress being all equal.

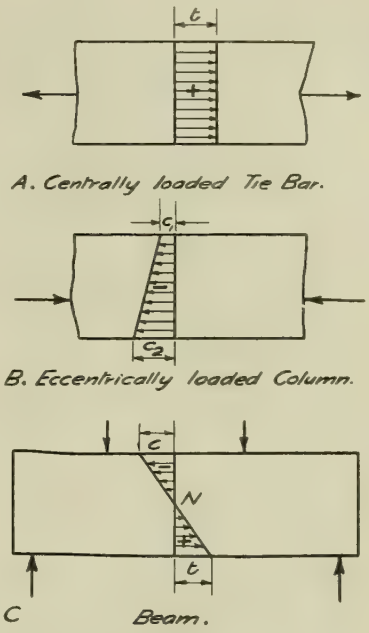


FIG. 10.

In other structural members the intensity of stress may vary gradually from one point to another. Fig. 10 (B) represents an eccentrically loaded column or structure in which the intensity of the compression stress increases gradually from the value c_2 at the top to the value c_2 at the bottom. In the case of a beam, the diagram representing the variation of stress is as shown in Fig. 10 (*c*); the upper portion of the cross-section is compression and the lower portion is in tension, the stress varying from a maximum zero at a point N, called the *neutral axis*, and then gradually increasing to a maximum value *t* in tension.

It is clear that tensile and compression stress are like in kind but opposite in sense, so that it is convenient to distinguish them by the symbols *plus* and *minus*; we have indicated the tensions as positive and the compressions as negative, but we might equally have adopted the opposite arrangement, and in some text-books it will be found that compressions are taken as positive and tensions as negative.

We shall return later to the very important question of the variation of stress in the cross-section of a beam; but will for the moment draw attention to the fact that, in the illustration given, if we added together all the tensile stresses we should find that they were numerically equal to the sum of the compression stresses, but as the total tension is opposite in sign to the total compression, the resultant of all the stresses is zero. This is true of every beam section, and explains why it is not the area of a beam section which determines its strength but another quantity called the section modulus.

Unital Strain.

In calculating strains it is usual to consider them in relation to the original dimensions of the body. Referring to the tie-bar represented in Fig. 9, in which the extension is shown to much exaggerated extent, the extension is x, and the original length is l; if we divide x by l we obtain a quantity which is called the unital strain. In the same way that when we use the term stress we often mean intensity of stress, so when we speak of strain we often mean the unital strain.

To take a numerical example, we may consider the same bar as we considered above. On

a test on a specimen 12 in. long it was found that the bar stretched .0094 in.

$$\text{Unital strain} = \frac{\text{Total extension}}{\text{Original length}} = \frac{.0094}{12} = .000783$$

As unital strength is a length divided by a length, it is a mere number or coefficient, and will not depend on the units in which the engths are measured so long as the extension and the original length are measured in the same units.

Elastic or Young's Modulus : Hooke's Law.

In a truly elastic material, the intensity of stress is proportional to the unital strain ; this is often called Hooke's Law, which is usually given as "Stress is proportional to strain." If, for instance, we find that with a certain intensity of stress we have a certain unital strain, then by doubling the stress we will double the strain. This means that the intensity of stress must always be a certain number of times the unital strain, and this number is called an elastic modulus, and in the case of tension and compression it is called Young's Modulus, and it is denoted by the letter E. Another way of defining this is by the relation : Young's Modulus = E

$$= \frac{\text{Intensity of tensile or compression stress}}{\text{Unital tensile or compression strain.}}$$

If our stresses are measured in tons per square inch, the value of E will be in tons per square inch, and if the stresses are measured in pounds per square inch, the value of E will be in pounds per square inch. In testing many structures we cannot actually measure the stress in the material, but we can measure the strain, and thus by a knowledge of Young's Modulus we can calculate the stress. For mild steel E is about 30 million pounds per square inch, or about 13,300 tons per square inch.

One of the remarkable things about steel is that although its ultimate or breaking tensile strength varies within wide limits, according to the chemical composition of the steel and the heat or mechanical treatment to which it has been subjected, the value of Young's Modulus hardly varies at all. One method of defining Young's Modulus, which some students find easier to understand, is that it is "the stress that would cause a bar to stretch to twice its original length." This will be understood from the above definition, because if a bar stretches to twice its original length, the extension will be equal to its original length, and therefore the unital strain will be

$$\frac{\text{extension}}{\text{original length}} = 1 ;$$

in using this definition, however, we should remember that with no structural material is it possible to stretch it to twice its original length.

VICTORIA AND ALBERT MUSEUM

Chinese Sculpture.

This museum has recently acquired an early Chinese statue in dark grey limestone. The figure, which is life-size, represents the Buddha Amida, seated cross-legged. Behind the head is a large circular halo, decorated with elaborate floral designs of a type derived from Indian Gupta sculpture, retaining considerable traces of colour on the surface of the stone. The statue, which is a characteristic example of the great Buddhist art of the T'ang dynasty (A.D. 618–906), is probably the finest piece of Chinese stone sculpture that has yet reached this country. It is temporarily exhibited on the staircase leading to room 62.

Jacobite Wine Glasses.

The large collection of English glass on exhibition has been augmented by a collection of about fifty pieces. These pieces (including two rare decanters) consist exclusively of glasses engraved with portraits, mottoes, and emblems commemorative of the Jacobite cause and date from the middle and second half of the eighteenth century.

THE RENT BILL IN COMMITTEE

The suggestion made in Committee on the Rent Bill that control should be made a question of local option so far as the county boroughs are concerned shows the loss of perspective which has arisen in the public mind in connection with the control of one class of private property in what is supposed to be the public interest. This tendency has been apparent ever since control was instituted in the height of the war ; the private interests are entirely lost sight of, and any nostrum for house shortage is put forward without due consideration.

To make the local authorities who are responsible for pushing forward the housing schemes and for furthering housing generally the arbiters of whether private property should be controlled for uncertain periods, would be making them judges in their own cause and enable them to cover their own deficiencies by continuing to fetter the property and action of private owners of property in their districts. Truly the old proverb might be paraphrased and read, "Those whom the gods desire to destroy, they first turn to rent control." We are glad to see, however, that the only representative of the Government apparently present on the Committee advised the Committee against accepting this amendment, which he characterised as "hopelessly impracticable."

It is useless saying that what we have always asserted would be the case has come to pass, and that the protection for so long a period of one class of sitting tenants would practically create vested interest, and when decontrol either partial or complete was attempted, those vested interests would make a great outcry and hard cases would be made out in every case where a protected tenant was called upon to face the conditions which the many unprotected persons have had to endure for many years.

Whenever the question of rent decontrol comes up these people, who have been saved anxiety during the war, and for nearly five years after its termination, make their voices heard throughout the land and desire to be permitted to live on their landlords ; and the position has been accentuated by the fact of control itself, for that control has put an end to the letting of houses, and, therefore, they cannot when evicted find any other houses to rent, and to this extent they have a grievance. The ill-advised and too long continued policy of rent control has sown the seeds for a harvest which is now being reaped, but it is not too much to say that the difficulty will never be got over until the normal conditions of landlord and tenant can be re-established. It is impossible for the whole population to own their own houses, the principle of leasing must exist, and if control had been limited as soon as possible at the termination of hostilities, private enterprise would have stepped in again and the business of building and letting houses would have again been set on foot.

As it is, every year a new Act is introduced to discourage it, and the landlord is treated as the sport of circumstance, with the inevitable result that he has withdrawn from the enterprise altogether, and we are faced with a growing population which can only rent their houses, but with no houses for them to rent, except the fixed minimum still subject to control. The question must be approached with wider vision than has prevailed since control was instituted, and the private letting of houses must be encouraged instead of penalised, for otherwise the only prospect is the continuance of control, until eventually the only houses that will be available to be taken on lease will be those being built by the local authorities, and private enterprise and private landlords will be a thing of the past.

RENT CONTROL

The Minister of Health, the Right Hon. J. Wheatley, M.P., received recently a deputation consisting of Mr. E. J. Churchman, President, Mr. Edwin Evans, Vice-President, and Mr. M. Cheverton-Brown, Hon. Secretary, of the National Federation of Property Owners and Ratepayers of Great Britain, together with Mr. J. Cameron (Greenock), Vice-President of the Scottish Federation, and Mr. P. Gilmour, President of the Glasgow Branch of the Federation.

The deputation urged that Mr. Gardner's Bill, which is at present in Standing Committee, was premature in view of the short experience of the working of the Act of 1923 ; that the continuation of control was reducing the capital value of small house property almost to vanishing point so that no intelligent person seeking an investment would nowadays invest money in small working-class property ; that the provisions in the Bill restricting the right to possession would make it practically impossible for owners under any circumstances to get possession of their houses ; that the reduction in the permitted increases, as was shown by careful calculations they had made, was not justified by any reduction in the cost of repairs or mortgage interest ; that the effect of bringing houses decontrolled under the 1923 Act again into control would be to stop the tendency among property-owners to give up holding houses for sale when they became empty ; and that to take away from landlords their share in the profit derived from the sub-letting of controlled houses was to undo the concession of a principle which they had got recognised by Parliament and to which they attached more importance than to the trifling amount of money they derived from it.

The Minister in reply said that he realised very clearly his responsibility to see that justice was done all round. The landlords were not responsible for the change in social conditions which had made, and would keep, the owning of small house property unremunerative. He hoped that out of the present conflict some method of protecting them during the transition period would be found, and he would do his best to see that they were protected. He did not agree with the principle that the gradual removal of control would lead to a gradual increase of rents, and thus to a return to the pre-war conditions under which 95 per cent. of working-class property was owned privately. He agreed with the view of the majority of the deputation that there was no reasonable expectation that circumstances would arise to make this possible. He pointed out that the Bill at present before the House of Commons was not a Government Bill. It would be necessary for the supporters of the Bill to make their case good. Their case was that by comparison with 1920 the landlords' expenses had fallen to such an extent as to justify the reduction proposed in the Bill. The Government's attitude was that they approved the Bill in principle ; would assist with legal advice in Committee ; and would move amendments if they thought it desirable to do so ; and if the Bill emerged in what seemed to them a satisfactory form, they would not feel obliged as they otherwise would to introduce legislation of their own. The question was, however, urgent, as although the number of evictions was not greater than in normal times before the war, there was now no margin of empty houses into which evicted tenants could remove, and public opinion would not tolerate their being thrown into the streets. He promised to give the fullest consideration to everything that had been put to him by the deputation.

Builders' Estates.

Mr. William Mooney, of Oxford-street, Liverpool, formerly carrying on business in School-lane, Hanover-street, and Manesty-lane, Liverpool, as a plumber, painter and joiner (net personalty £33,331), £40,562.

Walter Broadbent, of Leeds, builder (net personalty £1,830), £26,371.

TOWN-PLANNING INSTITUTE

Mr. T. H. Mawson (President) took the chair at a meeting of the Institute on March 14 at the Institution of Mechanical Engineers, when Mr. F. M. Elgood dealt with the subject of "The Model Clauses: Buildings and Building Lines."

Mr. Elgood said that of the six parts into which the Model Clauses were divided Part III, relating to buildings and building lines, was the most varied in relation to its importance and comprehensive in its effect. It contained the principal provisions upon which a scheme would stand or fall according as it benefited the community in the future or impeded its fair development. Indeed, it was conceivable that many a scheme might be complete in itself if it never travelled outside the scope of what was suggested by this part. It was not to be thought, however, that any such partial exercise of town-planning powers was contemplated or was satisfactory, especially as the trend was all in the direction of enlarging the area of schemes to bring in a wider range of vision and to pay less heed to parochial or other arbitrary boundaries. When the time came, however—and the sooner it came the better—to deal with the whole of the country in a regional manner, as had, or was being, attempted in South Yorkshire, South Lancashire and many other districts, it would probably be found that there would be greater necessity for careful consideration of this phase of the subject in the subsidiary areas than for any other.

To be effective under all conditions, it was generally conceded that "zoning" was of three kinds, although only two in the Model Clauses were so described, viz., character and density zoning. There might be good reasons in some schemes, however, to have varying height zones, that was to say, certain entire areas where the limits of height were perhaps considerably less than would be generally allowed, such, for instance, as where it might be necessary to preserve the amenities of a view point; or when to retain scale in relation to an existing feature it might be desirable to define an area with exceptional height limitations. It was, perhaps, too much to suppose it would ever be expedient even if possible to prescribe a minimum height, and yet for certain purposes, taken in conjunction with a possible clause governing architectural effect—not to be found in the Model Clauses—such a power might be very effective.

Of all provisions in the earlier town-planning schemes, those which showed the greatest variation were probably in respect of the method of determining the application of density zoning. It was one thing to talk about 10 or 12 houses to the acre and another thing to explain how the limitation was to be applied. It was, perhaps, hardly necessary to compare the various methods which had been suggested for defining a "land unit." Such a comparison was doubtless made when the Model Clauses on this subject were settled, and the latter were evidently based on certain well-defined principles, of which the more important appeared to be: (1) The utmost elasticity is permitted as to the size of a land unit and the time when it is determined; (2) the local authority acting in its discretion is to have the determining power to fix the land unit when the time arrives; (3) a method is adopted by which the detailed development of a land unit can be approved by means of plot plans; (4) ample provision to be made for the variation of land units and plot plans; (5) appeal to the Ministry against decisions of a council.

The first of these points as to the size of the land unit was qualified by the maximum area being limited to seven acres, and the second by the requirement that a land unit must be contained wholly in one density zone. Land given or required for public open spaces might, at the council's discretion, be included in the land unit, and this would be perhaps one of the most useful means of bargaining with an owner for obtaining small amenities and even larger open spaces on favourable terms.

Commenting on the first principles on which the density zoning provisions were based, Mr. Elgood could not see why the definition of a "building unit" was not included amongst others in the interpretation clause. He had been unable to discover a clause which specifically made it incumbent upon a builder to have the land unit determined, except where dwelling houses and residential buildings were to be erected. An important and intentional omission was any provision for limiting the number of buildings on any single area.

Opinion as to how far it was desirable or practical to determine in advance the development of areas for specific uses, to the exclusion of others, seemed now to have become more or less crystalised. The principles on which town planners would act would vary, of course, in degree, but the first essential was to consider what was, what was likely to be, and what ought to be, the predominant use of the zone concerned. As a whole he thought the Ruislip-Northwood map was a pretty strong example of what he might call the compulsory method. Without deciding whether this was under all, or any, circumstances good or bad, the framers of the Model Clauses had provided what it was hoped was a workable method of proceeding by stages, *i.e.*, zoning on broad lines in the first instance, and narrowing the zones and their uses later by supplementary orders. There would, of course, be frequent instances where it might be advisable at once to confine certain areas to specific uses only, but those would probably be small both in number and in extent. If they looked back, say, a couple of generations, and realised the changes of character which had occurred, not only in streets, but in whole localities, they might well feel that for schemes to be as rigid as the covenants in a Crown lease would bring down to town planning an evil reputation.

The table of character zones in clause 28 was admittedly illustrative only of possible types. It wanted a lot of study to enable one to understand the reasons for the five divisions suggested, and he thought it not unlikely that when one commenced to zone the areas of a scheme a good deal of time and temper might be saved by putting on one side the model types and commencing quite independently to place their own description upon the character of the zones and the building to be permitted.

Unless it be Zone V, and Zone I suggested itself as that which would cover the widest areas in most schemes, but few districts would be likely to be satisfied with this as the only zoning provision for residential areas; although buildings for noxious industries were altogether excluded it could not assuredly be considered as unwise, even at the inception of most schemes, to secure that in certain residential areas owners might have complete reliance upon their being free from the introduction of any kind of industrial building, and perhaps even of shops and business premises. This did not in any way qualify the satisfaction he had expressed as to the elasticity offered by the power to grant or withhold consent for such buildings, nor as to the power to make supplementary zoning orders, but councils might make just as big a mistake, if encouraged to zone too timidly, or too vaguely in the first instance, as if they zoned too rigidly. It seemed to him, therefore, that there might well be a sub-division of Zone I. where certain other kinds of buildings as well as buildings for noxious industries were definitely excluded. It seemed worth consideration whether Zone II might not also be subdivided, so as to provide for what was in the Ruislip-Northwood scheme, called "optional" shopping areas, *i.e.*, where either dwelling houses or shops might be built without the consent of the council. Zone III, with its limitations, seemed entirely good, but with regard to Zone IV he hoped it would be included in few schemes, for it was almost the negation of town planning. The provisions as to supplementary zoning were of a sufficiently drastic character. They would presumably be inserted in all schemes as they stood.

It was decided by the meeting to deal with the remaining part of the paper, which referred to the height of buildings, space about buildings, and building lines, at the next meeting.

Mr. Thompson in opening the discussion touched on the point of height restriction, and said that whilst the author had suggested there might be height restriction for the purpose of he preservation of view, yet general restrictions of height were primarily to secure conditions of height in regard to sunlight, and second to secure as far as possible æsthetic conditions. He thought that the use of a limiting angle of light, which meant the restriction of the height to the width between buildings, would secure both objects.

Mr. C. P. Lovelock (Carshalton) observed that the regulations were remarkably comprehensive, and he thought it wise in view of the fact that districts very quickly varied in character.

Professor P. Abercrombie characterised this section of the Model Clauses as entirely unsatisfactory, and he was utterly disappointed. Of the five zones two were the very negation of town planning. As town planners they must take their courage in their hands and say what the areas in a town were to be used for, and if they made mistakes the town-planning scheme must be amended. There was one type of building which ought emphatically to be excluded from certain zones, and that was the house, but under the Model Clauses, with the consent of the council, houses could be erected in any type of zone. Even after putting forward the five zones it would be possible under the provisions for supplementary zoning to undo everything which had been adopted. It was giving loopholes everywhere, and watering down town planning to practically nothing at all. The speaker also objected to the limitation of the land unit to seven acres, and instanced a case where, with a site of 20 acres, it was only possible to build on eight owing to the steepness of the slopes. If the 20 acres were made one land unit the site could be utilised for housing, and safeguards provided to prevent the vacant land being built over.

Mr. Platt (Manchester) pointed out that under the Salford Corporation Act of 1902 power was obtained to prevent the erection of any houses in a certain area. It was the case of land near to the Ship Canal which was largely occupied by railway lines.

Mr. A. E. Mirams (Bombay) said he had acted as arbitrator for 60 town-planning schemes in the tropics, and he thought the Act he worked under offered more benefit to the community than the English Town-Planning Act. He objected to the whole principle of land units, and believed they could meet the difficulties by limiting the number of houses to the acre, or limiting the percentage of the building plots to be built upon. Then it was absolutely essential and vital that any scheme, to be a reasonable scheme which would appeal to the owners and to the public, should have provision made for subsequent alterations. As town planners they might say a certain area should be a residential area, but it was possible that no one would want to live there, and conditions so changed that in 10 or 20 years it might be highly desirable to have shops in the area.

Mr. H. V. Lanchester, F.R.I.B.A., said that when he read the clauses he felt in a strong mood of philosophic anarchy. He had hoped in the early days that town planning was going to give them imaginative force instead of by-laws. By-laws produced nothing but mediocrity, and if they were going on piling them up town-planning schemes would be almost as mediocre as the state of things which existed before. He was against constructive work being controlled by those

measures. When one went to work in places where there was freedom they said, "This is common sense; hang the by-laws," and then they got results. By-laws of this kind could not take the place of common sense in the handling of their problems, and he had almost a feeling of resentment that their great art was going to be snowed under by this appalling and increasing aggregation of rules and regulations which were fatal to their imaginative work.

Mr. E. R. Abbott said the Ruislip-Northwood scheme had been in operation for 10 years, and there had been only two slight alterations with regard to roads. They had succeeded in putting down strictly proposals for buildings which would have spoilt the whole aspect of the area.

Mr. Reay Nadin remarked that if they were to carry out some of the views expressed then there was no need for town planning at all. He agreed with Mr. Abbott, who, after all, had more experience of a town-planning scheme in operation than any of them.

Professor S. D. Adshead said he must object to the autocratic statements put forward by Mr. Mirams in his advocacy of free town planning. He supported what was said by Professor Abercrombie as to seven acres not being sufficient for a land unit. The whole root of the matter was that the real requirement was to have the right sort of personality to prepare a scheme and to enforce it.

Mr. R. H. Aldridge said that the experience of Ruislip-Northwood and the first Birmingham scheme showed that given the exercise of wisdom a scheme could be devised which would stand the test at any rate of 10 years' time. Personally, he felt it would be better for local authorities to take the Ruislip-Northwood and Harborne schemes and go through them and endeavour to apply them to their own particular areas.

THE WEEK IN PARLIAMENT

Westminster, *Wednesday.*

Trade Facilities and the Brick Industry.

During the discussion on the Trade Facilities Bill, Mr. Franklin suggested that help should be given under the Bill to the brick-making industry. If the price of bricks could be cheapened, he said, they would be able to get the cost of housing somewhere near the price which the Government thought desirable.

Mr. Percy Harris said he knew the case of a company which actually did put forward a very sound proposition to develop the cement industry which at present in this country was almost a monopoly. One of the difficulties in building houses at present was the high cost of cement.

Revaluation of House Property.

Major Moulton asked the Chancellor of the Exchequer whether, in the event of the Rent Restriction Bill becoming law, a revaluation of house property effected for the purposes of rating and taxation would be made; and whether such valuation, if made, would be given retrospective effect.

Mr. Snowden said that there was no provision in the existing law under which, in the circumstances mentioned, a general revaluation of house property could be required to be made for the purposes of rating and taxation. Generally, the revision of rating valuations was a matter for the local authorities, but outside London any ratepayer who was aggrieved by the valuation list in force might, under Section 1 of the Union Assessment Committee Amendment Act, 1864, give the Assessment Committee, at any time, notice of his objection to the list, and as regarded Imperial taxation there was a general statutory right to a reduction of an assessment in force for any year where it was shown that the annual value of the property for that year was less than the value adopted for the purposes of assessment.

Density of Houses.

Mr. Wheatley informed Mr. T. Thomson that he proposed, in connection with future approvals of housing schemes submitted by local authorities, to require the authorities to submit to him any proposals for building at a density exceeding twenty to the acre.

Evictions.

Asked by Mr. Palmer if his attention had been called to the distress caused in many parts of the country by the issue of orders for eviction of tenants under the 1923 Rent Restriction Act, Mr. Wheatley said he was aware that there were a number of cases of eviction under the Rent Restriction Act of last year. The Government were generally in favour of the Bill which was now before a Standing Committee, and their future action would depend upon the progress made by that Bill and the form in which it emerged from the Committee.

Output of Bricks.

Mr. Wheatley informed Mr. Lumley that the present output of bricks was variously estimated at between 2,500 million and 4,000 million a year. Taking 20,000 as the average number of bricks per house, a total of 4,000 million bricks would be required for 200,000 houses.

Prices of Sheet Lead.

Mr. Wheatley informed Sir Kingsley Wood that the present London prices, compared with those in March of last year, of sheet lead and white lead paint were as follows, viz.:—

	Sheet Lead. per ton.	White Lead Paint. per ton.
March, 1923	.. £38 0 0	.. £80 15 0
March, 1924	.. £47 10 0	.. £86 10 0

The increase in cost of a non-parlour house on account of the rise in cost of lead, including lead pipes, during this period would be, approximately, £2 17s. There were, in this country, various associations in the lead industry, which included among their activities the fixing of selling prices. They did not, however, control the price of pig lead, which was imported to the extent of about 94 per cent. of its use in this country. The price of pig lead had increased by £8 per ton during the last twelve months.

Repair of Houses of Parliament.

Lieut.-Colonel Howard-Bury asked the First Commissioner of Works whether his attention had been drawn to the uncompleted and damaged turrets outside the Palace of Westminster; and whether, in view of the great numbers of visitors that were expected this year from the Dominions, he would have them completed.

Mr. Jowett said that the answer to the first part of the question was in the affirmative, and he was considering the whole question of the repair of the stonework of the Houses of Parliament, which presented many difficulties. In the meantime, he was merely removing detached and dangerous portions of the masonry.

Building Materials.

Mr. Wheatley informed Mr. McEntee that no evidence that manufacturers of building materials had at any time enforced higher prices against municipalities than against private builders for such materials had been brought to the knowledge of his Department.

Sir Kingsley Wood asked whether the Committee on the cost of building material was still carrying out its duties, and whether he proposed to give any additional powers to the Committee.

Mr. Wheatley said that the question whether there should be any extension of the scope and powers of this Committee was under consideration; in the meantime the Committee was continuing to obtain information as to changes in the prices of materials.

Mr. Snowden (Chancellor of the Exchequer) informed Mr. Sullivan that, so far as he was aware, no material used for building purposes was liable to Customs duty on importation into this country.

State Costings Committee.

Sir C. Cayzer asked the Minister of Health whether he proposed to set up a Costings Committee with a view of keeping control on materials and dilution of labour used in building houses for the people to the same extent as was done successfully in providing munitions of war.

Mr. Wheatley said that the questions of cost of materials and of augmentation of labour were engaging the attention of a Joint Committee of employers, operatives and manufacturers engaged in the building industry, and he awaited their report before deciding what further action might be required. In the meantime the Committee to survey prices of materials was continuing the work for which it was appointed.

Mr. Oliver asked the Minister whether he would consider the setting up of a Costings Committee for the purpose of controlling the price of building material, so that the rents of new houses would be as low as possible.

Mr. Wheatley said that this was one of the questions which was engaging his serious attention. It would be dealt with in the proposals he hoped to submit to Parliament in due course.

St. Paul's Bridge.

Mr. Gosling (Minister of Transport) informed Sir E. Iliffe that a grant, limited to a maximum of £866,000, had been offered from the Road Fund, with Treasury sanction, towards the cost of formation of road approaches to the proposed St. Paul's Bridge, including the widening of the whole length of Aldersgate-street as and when opportunity offered. He was not in a position at present to give any estimate of the probable total cost of the bridge and approaches.

Skilled and Unskilled Workers.

Mr. T. Thomson asked the Minister of Health if he had formed any estimate of the relative proportion of skilled to unskilled men employed on the erection of any given number of houses of the "A" and "B" types.

Mr. Wheatley said that the proportions would vary somewhat with local circumstances, but on the average the relative number might be taken to be in the proportion of three skilled men to two unskilled.

Non-payment of Rent.

In reply to questions as to whether he would take steps to safeguard from eviction unemployed who could not pay their rents, the Prime Minister said that such powers would have to be granted by legislation, of which there was but little prospect. The position was undoubtedly getting serious in some industrial centres, especially where wide combinations of house owners had been formed. He hoped that consultations now in progress by the Secretary for Scotland would result in municipal policies that would temporarily meet the case. The question of rents was now occupying the attention of the Standing Committee.

Consolidation Bills.

Lord Muir-Mackenzie, on behalf of the Government, has introduced in the House of Lords two Bills to consolidate enactments relating to the housing of the working classes in England and Wales and Scotland. The Bills have been read a first time.

Obituary.

The death took place recently of Mr. Charles Holland Lancaster, of "Lingfield," Blundellsands-road East, Blundellsands, who for over forty years was Architect and Rating Surveyor to the West Derby Union. Mr. Lancaster was seventy-two years of age, and during his term as a public servant he was responsible for the erection of many of the buildings connected with the institution, including the Alder Hey Hospital and the Sanatorium, Heswall.

THE BUILDING TRADE

ESTIMATING FOR SMALL BUILDERS

By J. H. BARNS, F.I.O.B.

POLISHING.

In considering the question of the cost of French Polishing, some description of the various methods of the work must be given as there are so many kinds. Previously to polishing the wood it is customary for the joiner to damp the surface of the hardwood because it makes his work of glass-papering easier, and causes the grain to rise so that it may be cut down with glasspaper to the smooth surface required for polishing. The damping-down will usually tend to remove any bruises on the wood caused by machine work.

Immediately upon applying polish to any hardwood it causes the grain of the wood to rise, however smooth it may have been beforehand. It is therefore necessary to glasspaper the surface in between each coat. The cheapest way is to brush over the wood with two or three coats of shellac and spirits (a thin polish), which may be described as brush polish, although the quickest way of doing this work is to apply the polish with a pad of wadding instead of a brush, though it would still be called brush polish. The ordinary polishing of hardwood, such as mahogany, is usually done to two different styles of finish, the ordinary method and the open grain finish.

By the ordinary method the wood is first of all stained with some kind of stain, usually bichromate of potash, and afterwards filled in with plaster (dental plaster). When this has dried it is rubbed down with glasspaper, to remove the surplus plaster and cut down the surface of the wood which has now become roughened. Only sufficient plaster is left on the wood to fill in the pores and to present a level surface. Linseed oil is then applied. The polish, being in the nature of a varnish, is applied to a wad of cotton-wool covered over with a clean rag, and as this is rather apt to stick during rubbing, and to facilitate the working, a little linseed oil is applied. The more linseed oil there is used the easier the working, but if much linseed oil is used it comes through the polish and soon presents a very dirty appearance. A rubber of polish is then applied, and further glass-papering and further polishing, going over and over the wood as many times as is desired—sometimes from nine to twelve separate operations or occasions are necessary to bring the wood to the required surface.

To state the matter briefly, the ordinary polishing consists of staining, filling, oiling, a fad of polish, first body, second body, etc., and stiffen off to finish. To obtain a good result, power and friction are necessary in the rubbing. If materials are simply floated on as for brush polishing they quickly sink into wood and present a dull appearance. What is considered one of the arts in polishing is to match up the wood so that it presents a uniform colour, as most hardwoods present quite a different shade if seen from different angles, and it is this colouring up of the wood which makes the differences in colour of the wood less marked.

The open grain method of polishing is similar to the above, but the filling with plaster is omitted. The various tones which are required in some of the different classes of wood are often obtained by the use of different polishes, whether button, garnet, red, or white.

A very cheap method of polishing is to give the wood a coat of oil or spirit stain, and then give it one fad of polish. This is often applied for cheap polishing to oak. Ebonising on mahogany is similar to the ordinary methods of polish, except that a black polish and stain are used instead of red polish.

French polishing is used for both interior and external work, although in the case of external work it does not stand the weather for very long, the reason being that the coat of polish (which is really in the nature of a varnish) is so very thin that it affords very little protection to the wood. Sometimes brown hard varnish is used in the polishing for external hardwood, but unless this is very carefully applied it is apt to crack.

The amount of material used is comparatively small, but this will largely depend upon the time elapsing between each operation or coat, as if a day or two is allowed to lapse between each coat, less material is required, and a better finish is usually obtained. A polisher will use between two and three pints of polish in eight hours, and about a quarter of a pound of rags.

The cost of the french polishing is approximately 1d. to 1½d. per foot super per coat, or per operation (neither of these is a polisher's phrase), so that if a really good class of work is required, and the polisher went over the surface nine times, it would be worth about 1s. 2d. per foot super. The cost of full polishing for any kind of hardwood is between 7d. and 1s. 2d. per foot super. An American filler has been introduced to the market which is intended to take the place of the plaster filling to the surface of the wood. The advantage seems to be that it does not cause the grain of the wood to rise, and therefore does not need so much rubbing down afterwards as would the plaster coating. In practice the filler is fairly satisfactory, and it may be used to advantage in polishing or staining veneered work.

The following are a few of the materials for polishers:—

Orange Polish	per gall.	17s. 6d. to 21s. 9d.
Button	,,	17s. 6d. to 21s. 9d.
Dark Polish	,,	15s. 0d. to 19s. 6d.
Garnet	,,	15s. 0d. to 19s. 6d.
Red or Rosewood	,,	21s. 0d. to 24s. 9d.
Ebony Black	,,	21s. 0d. to 24s. 9d.
White	,,	20s. 0d. to 24s. 9d.
Methylated Finish	,,	6s. 0d. to 7s. 0d.
Best Brown Hard Spirit Varnish	,,	9s. 6d.
Best White Hard Spirit Varnish	,,	8s. 9d.
Pi-Chromate of Potash		lb. 1s. 6d.
Oxalic Acid		,, 1s. 6d.
Plaster		per bag 10d.
White Rags		per lb. 1s. 3d.
Coloured ditto		,, 8d.

The cost of cleaning and re-polishing old work will depend upon the condition of the work. The cleaning would cost about 1½d. or 2d. per foot, and the re-polishing from 2d. to 6d. per foot. Reviving with furniture polish would cost much less.

If the polished work is in a very bad condition it may be necessary to strip off the old polish with soda, etc., bleach the wood with oxalic acid, re-stain and re-polish the woodwork, and the cost would be similar to new work, say, 8d. to 1s. per foot. Wax polishing to floors from 2d. to 6d. per foot, and will depend upon the degree of finish required. Wax polishing is usually required for walnut and oak, and would cost about 2d. to 4d. per foot super. The usual method is to give one fad of ordinary polish, and then finish either with beeswax or paraffin wax. The idea of giving one fad of polish under the wax is to stop the wood from bleaching, as otherwise the walnut is rather apt to go yellow, although this is an effect which is sometimes sought after.

INDIGENCE, INDUSTRY AND INDOLENCE

In the three words we have placed at the head of this note are comprised three of the main problems of the day. In the centre is industry, upon which in the long run the nation must really depend and which must be assiduously cultivated. To the left is unemployment—that is, unavoidable unemployment—for which the Government has yet been unable to suggest a remedy which will not hopelessly clog industry. To the right is one of the weaknesses common to human nature, but which is capable of being propagated and increased if the incentive to work is removed and comfort can be assured without work. It is not too much to say that the future of the nation depends upon the right solution of the problems involved in these three words in our heading but if they are treated separately as in water-tight compartments, then such a solution is impossible.

The Minister of Labour has declared that unemployment is as much a national responsibility as the payment of interest on War Bonds, and has also expressed sympathy with a motion that a living wage is the first charge upon industry. In connection with uncovenanted benefit he also intimated that the regulations seemed framed to pass everyone through one sieve, and considered that every unemployed person should be treated as a perfectly honest and honourable person receiving benefit as a right and not as a charity.

These are three of the latest pronouncements on the subjects of Indigence, Industry, and Indolence, and taken separately they may appear not unreasonable, but how are they to be put into practice? Industry has to bear the burden of the other two, and what contribution is made to encourage the growth of the parent plant?

Utopia can be built up out of the nation's capital for a limited time, but taxation carried to an undue extent saps the capital and cripples industry. This is a time for great circumspection and not a time when we can endeavour to set our house in the perfect order we should wish to see it in in normal times.

The question of a minimum wage is coupled with the inequality of wages in different trades and cannot be dealt with satisfactorily without considering the abnormal competition in certain industries from foreign depreciated exchanges

The unemployed cannot be given the same support as they can derive from work, for some incentive must be left to exertion, and the existing trade of the country will shrink as the burden of taxation for unemployment is increased. Without impugning the honesty of any individual, assistance can only be given to any person of any class with circumspection.

The three subjects are inextricably bound together, but the greatest of the three is industry—that is the constitution of the patient—and it is useless for the nation's doctors to concentrate on his secondary ailment before strengthening his constitution. When once that has been done the rest will follow, but at present the doctors seem absorbed in the secondary ailments to the exclusion of the main problem. Palliatives are of no use and economy and patience must be exerted until world conditions become more normal; but vast expenditure on palliatives will certainly only hasten disaster.

In connection, however, with the question of palliatives, may we say that we regret that the great scheme of Unemployment Insurance, which was in normal times a contributory and self-supporting system, should have been tampered with even to meet a crisis. We should have thought it was better to leave this great and satisfactory scheme untouched and to have provided for the national emergency from unemployment by some special and independent scheme.

INSTITUTION OF STRUCTURAL ENGINEERS

INSPECTION OF MATERIALS.

On March 20 Mr. H. J. Davey lectured before the Institution of Structural Engineers on this subject.

At the beginning of his theme he quoted the following extract from actual copies from current quotation forms issued respectively by British and Continental steel works:—"Inspection to be final, as no responsibility can be accepted for such material after it has left the sellers' works. Where testing or inspection has to be done, the buyer must make the necessary arrangements for this to be carried out as soon as possible after receipt of advice that the material has been rolled. All bars from which test pieces have been taken must be accepted by the buyers if complying with the specification of tests. For material under $\frac{5}{16}$ in. thick, bend test only will be given in accordance with the British standard specification for such material," and said the clause forming an integral part of such forms might, therefore, be regarded as binding upon each signatory to the contract. On the one part a supplier would guarantee that material supplied by him under a contract complied with the terms of the specification, and on the other part the consulting engineer or architect would discover by his own or independent inspection and testing that a greater or lesser part was unfit or even unsafe to be used in a structure. He would then reject the material, call upon the supplier to withdraw it, and to replace with material conforming to the specification.

Certain recognised steps would follow. The supplier would produce copies of his own tests, and disclaim responsibility for tests taken elsewhere. The test results produced by the supplier would without exception comply in every respect with those specified: a very satisfying document, in fact. Both parties, neither eager for litigation, and both anxious for progress with the structure, might, after lengthy and highly technical correspondence, agree upon an independent authority for final reference and would abide by the result. All of which was lengthy, costly, and not conducive to good business relations.

The inspection of structural steel was best begun at the ingot stage, although, in point of fact, it was rarely offered for inspection before being finished and sawn to length, plates excepted. Ingots allocated to plates were rolled into slabs which were generally allowed to cool for subsequent re-heating and rolling into the finished article. During the ingot phase some indication might be noticed of the presence or otherwise of external or internal defects such as spills or laminations. Spills were clearly discernible in the hot ingot and bloom stage in the form of black patches of different sizes. These patches were separations of metal from the solid body, and they did not "roll out," but persisted through to the finished bar, section or plate. They occurred more frequently in bar and section than in plate. Laminations—sometimes termed "fractures"—in the finished plate were indicated when the ingot, or, at second stage, the slab, separated partly during the early passes. The causes and prevention thereof concerned the metallurgist; the ultimate effect concerned the inspector, and owing to the indeterminate surface indications of internal lamination considerable care was necessary even for an experienced man to detect this very serious defect. Where, however, separation had been noticed during the ingot or slab stages no hesitation should be shown in condemning the steel for structural work. "Ringing," *i.e.*, striking the plate with a metal hammer, would usually disclose the presence of separations, but this test was not an infallible guide. Spills could be detected readily in ingot, bloom or billet stages of manufacture, and the material so affected should be eliminated by inspection at either stage. Possibly this was attempted at rolling mills, but the frequent appearance of the defect in finished material should demonstrate to works inspection departments that more stringency in the early stages might obviate rejection of material after all the work of rolling and length cutting had been done.

Roll marks, discernible in the form of longitudinal lines, were not usually of serious moment since no separation of metal occurred, but patches of slag or oxide adhering to rolls would cause ugly marks on the finished material, and in the case of sheet bars, intended for re-rolling into sheets, rejection was desirable, otherwise the appearance of the finished sheet would be spoilt, apart from the possibility of such patches inducing local weakness. There was apparently a fixed belief, especially in Continental rolling mills, that "spilliness" in the finished material was of no particular importance; in any case of insufficient importance to warrant rejection. When rejection for the presence of this defect was contemplated attempts would be made to rectify the bad spot by a vigorous application of a cold set. Sometimes a "rectified" section was put forward with as much as $\frac{3}{16}$ in. thickness of metal chipped away from the web of a joist mid-length, or the tension flange of a beam due for holing near the bad spot. Works foremen resented the rejection of material which by drastic chipping away exposed nice bright shining steel in place of a spilly spot. Not all spills, however, were serious enough to justify rejection; men of equally wide experience were likely to differ in their verdict on this point. The current British standard specification for structural steel devoted only one short clause (No. 2) to this important phase of inspection—the detection and classification of defects. Clause No. 2 stated:—

> "All finished steel as sent from the mills shall, subject to the provisions of Clause 18, be well and cleanly rolled to the dimensions, sections and weights specified or required, shall be sound and free from cracks, surface flaws, laminations, rough, jagged and imperfect edges and all other defects, shall be finished in a workmanlike manner, and shall in all respects comply with the tests and requirements herein mentioned applicable to the description of material (*e.g.*, plates, sections, bars, rivets, &c.), required or specified."

A literal interpretation of the clause in the absence of an exact definition of "surface flaws, rough, jagged and imperfect edges, and all other defects," would lead to the rejection of all sectional material ever rolled or ever likely to be rolled. A reasonable and safe decision could only be arrived at by inspecting engineers of long and diversified experience. Such experience matured slowly. Bad shapes in beams were a not infrequent cause for rejection. It was not necessary to labour the point to an audience of structural engineers who would be aware of the trouble caused by flanges out of square with webs.

Rolling margins were not often exceeded in British mills, but check weighings of heavy sections were always desirable. Continental mills, however, often claimed greater margins than plus or minus 2½ per cent., and instances had been known where medium heavy joists contracted for to British standard specification had been rolled 10 per cent. light, the loss usually being in depth of joist where the absence of metal was presumably of the greatest importance. Most Continental rolls were, naturally enough, machined to metric sizes, and their coincidence with British dimensions were less frequent as the section became heavier. Hot rolled round bars—reinforcing rods, for instance—were generally free from serious defects, although spilliness occurred here in common with sectional steel. Diameter limits were usually imposed by consultants in addition to quality tests, but modern bar rolling practice in Great Britain had reached such a pitch of perfection that limits plus or minus 2½ per cent. in weight presented no difficulties in bars ¼ in. diameter and upwards.

Continuous mills of the Morgan type turned out remarkably uniform rounds from $\frac{5}{16}$ in. to 1½ in. diameter, and where defective billets were weeded out by previous inspection it was a pleasure to inspect the finished bar, which compared favourably with any similar rolling in the world.

ANNUAL DINNER.

Major James Petrie, O.B.E. (President) presided at the annual dinner of the Institution of Structural Engineers at the Criterion on Monday evening. About three hundred members and guests were present, including the Rt. Hon. the Earl of Birkenhead, the Rt. Hon. J. R. Clynes (Lord Privy Seal), H.S.H. le Duc de Chateau-Thierry, Mr. P. G. H. Fender, the Rev. F. H. Gillingham, Mr. Phillip Connard, A.R.A., Col. H. V. Kent, Mr. E. J. Buckton, Sir Henry Tanner, Sir Charles T. Ruthen, Brig.-General M. Mowatt, Mr. J. Mitchell Moncrieff, Mr. W. H. Patchell (President of the Institution of Mechanical Engineers), Mr. J. I. Davidson (President of the Surveyors' Institution), Mr. L. R. Ford (President of the District Surveyors' Association), Mr. H. T. Holloway (President of the London Master Builders' Association), Mr. H. Matthews (President of the National Federation of Building Trades Employers), Mr. E. Fiander Etchells, Dr. Oscar Faber, O.B.E., Mr. R. J. Barratt, Mr. E. J. Partridge (President of the Society of Architects), Mr. C. McArthur Butler (Secretary of the Society of Architects), Mr. A. Goddard (Secretary of the Surveyors' Institution), Mr. H. Kempton Dyson, Mr. Gower B. R. Pimm, Mr. J. T. Saunders, F.R.I.B.A., Mr. A. S. Spencer, Mr. E. Monkhouse, Mr. Ewart S. Andrews, Mr. J. H. Beaumont, Mr. H. B. Newbold, Mr. Harold H. D. Anderson, Mr. Maxwell Ayrton, F.R.I.B.A., Mr. E. Vincent Harris, F.R.I.B.A., Sir Malcolm McAlpine, Mr. E. J. Tanner, F.R.I.B.A., Mr. T. J. Gueritte, Sir F. G. Rice, Dr. J. S. Owens, Mr. M. G. Kiddy (Secretary), Mr. S. Bylander, Mr. Ormond Anderson, Mr. E. O. Williams, Mr. P. M. Stewart, Mr. Herbert E. Brooks, Mr. George Earle, Mr. W. H. Morgan (County Engineer, Essex), and many ladies.

In reply to the toast of "His Majesty's Ministers," proposed by the President, Mr Clynes, referring to the industrial position, said both employers and employed should try to reach a point of mutual agreement before resorting to strikes or lock-outs. The Labour Government was anxious to inculcate the spirit of arbitration, which was the British spirit as opposed to the Prussian spirit of strikes and lock-outs. Peace, rather than force, would be as beneficial in the intimate affairs of Britain as it would be in the affairs of mankind the world over. That spirit of fair play was as strong in the minds of the workers as in the minds of employers. The Government appealed for a greater measure of reason, and that industrial troubles should be settled by arbitration rather than by force. And just as they on the labour side asked that reason should prevail, so employers were entitled to ask that lightning strikes and suddenly-sprung demands should cease.

Sir Charles Ruthen proposed "The Guests," to which the Earl of Birkenhead and Mr. P. G. H. Fender responded. Lord Birkenhead said, considering the fact that the Government was now composed mainly of men who had risen from the ranks of the workers, it was not so certain that there was anything fundamentally wrong with the institutions of a country which had given such opportunities for talent to rise from such difficult beginnings and environments.

"The Institution" was proposed by the Rev. F. H. Gillingham, and replied to by the President, who said it was their ambition largely to increase their membership this year.

Notice of Removal.

On and after Thursday, March 20, the general offices (26, Portugal-street), and warehouse (57a, Carter-lane), of The Library Press, Ltd., will be transferred to new and larger premises at 83, Southwark-street, London, S.E. 1.

NEW BUILDINGS IN LONDON

Queen Anne's-gate. — Redecoration. — The interior of 26, Queen Anne's-gate is being re-arranged and redecorated, the general contract being in the hands of Messrs. Holloway Bros. Among the sub-contractors are: Messrs. Alliance Electrical Co., electric light, &c.; Messrs. Rosser & Russell, heating and hot-water supply; Messrs. Fenning & Co., marble paving; Messrs. Benham & Sons, ranges; Express Lift Co., passenger lift; Messrs. John Bolding & Sons, sanitary fittings; The "Veitchi" Co., Ltd., composition floors; Messrs. Henry Hope & Sons, skylights. Messrs. Detmar Blow & Fernand Billerey, 10, Grosvenor-road, are the architects.

Regent-street.—Building.—A new building is now being erected at 94–98, Regent-street. The sub-contractors are: Constructional steel-work, Messrs. David Colville & Sons, Ltd., Glengarnock; Portland stonework, Messrs. The Bath & Portland Stone Firms, Ltd.; hollow block floors and roof, Messrs. Horace W. Cullum & Co., Ltd., King's Cross; metal casements, Messrs. W. James & Co., Willesden; artificial stone staircases, Mr. W. Baxter Elliott, Lewisham; asphalting, Messrs. The Ragusa Asphalte Paving Co., Ltd., 25–27, Oxford-street, W. Mr. S. Gordon Jeeves, 4, George-street, Hanover-square, W., is the architect. The builders are Messrs. Ford & Walton, Ltd., of Kilburn.

ACTION BY BUILDING CONTRACTORS

Henry Boot & Sons (London), Ltd., *v.* Uttoxeter Urban District Council.

In this case, heard on March 5, the defendants appealed from the judgment of Mr. Justice Bailhache in favour of the plaintiffs, who brought the action to recover damages for alleged breach of contract in connection with defendants' housing scheme.

The plaintiffs were the contractors for the erection of 154 houses for the defendants under the scheme, by a contract dated October, 1920. Plaintiffs complained that in January, 1922, the defendants, when only about seventy houses under the scheme had been completed, gave them notice of their intention to terminate the contract. The plaintiffs maintained that the notice was invalid, as not being in accordance with the requirements of the contract; while the defendants contended that the notice was a valid one, having regard to the fact that, as the Ministry of Health had only allowed the Council £75,000 for seventy-five houses and gave the Council notice that the number of houses to be erected under the scheme was to be limited to seventy, the plaintiffs were bound by it.

Mr. Justice Bailhache held that the notice was not a time notice as required by the contract and therefore was invalid. He, however, said he regretted having to come to that conclusion, because in the circumstances he thought it was an eminently reasonable notice for the defendants to have given. He accordingly entered judgment for the plaintiffs for £5,000 damages with costs, and from that result the defendants now appealed.

At the conclusion of the arguments, Lord Justice Bankes gave judgment allowing the appeal, holding that the notice in question was such as was contemplated by both parties when they entered into the contract.

Lord Justice Scrutton concurred.

Lord Justice Sargant, however, dissented, holding that the notice was bad, as it did not enable the plaintiffs to know with certainty when the obligations under the contract would be determined.

By the majority of the Court, therefore, the appeal was allowed with costs, and the judgment of the Court below set aside and entered for the defendants with costs.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 478).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

MARCH 22.—**Barnsley.**—HOUSE.—For the erection of a detached house, Back-lane, Carlton, near Barnsley. Apply Messrs. Crawshaw & Wilkinson, 13, Regent-street, Barnsley.

MARCH 22.—**Barnsley.**—HOUSES.—For the erection of a pair of semi-detached houses, Burton-road, Monk Bretton. Apply Messrs. Crawshaw & Wilkinson, 13, Regent-street, Barnsley.

MARCH 22.—**Edinburgh.**—TELEPHONE EXCHANGE.—For erection of a new telephone exchange at Morningside, for Commissioners of H.M. Works. Architect, H.M. Office of Works, 4-5, Drumsheugh-gardens, Edinburgh. Deposit £1 1s.

MARCH 22.—**Lanercost.**—ADDITION.—For addition and alterations to the Primitive Methodist Chapel, Calees, Lanercost. Rev. J. A. Smith, Bourne House, Brampton.

MARCH 22.—**Middlesbrough.**—HOUSES.—Erection of 27 houses on the Marton-grove Housing Estate and 30 houses on the Acklam-road Garden Colony, for T.C. Mr. S. E. Burgess, Borough Engineer, Municipal Buildings, Middlesbrough.

MARCH 22.—**Milford Haven.**—TEMPLE.—For building a new Masonic temple at Milford Haven. Mr. J. Howard Morgan, F.R.I.B.A., 24, King-street, Carmarthen.

✱MARCH 22.—**Montgomeryshire.**—CONCRETE BRIDGE.—Erection of a ferro-concrete bridge over the river Severn, at Dolwen, Llandinam, in the county of Montgomery, for the R.D.C. Johnson's Reinforced Concrete Engineering Co., Ltd., 24, Lever-street, Manchester. Deposit £2 2s.

MARCH 22.—**Padstow.**—CONVENIENCE.—For the erection of a public sanitary convenience, for the U.D.C. Mr. Fred A. Williams, Clerk, Urban Council Office, Padstow.

MARCH 22.—**Skegness.**—FIRE STATION.—For the construction of a fire station on land adjoining the Council Offices, for the U.D.C. Mr. R. H. Jenkins, Engineer and Surveyor, Council Offices, Skegness.

MARCH 22.—**Truro.**—HOUSE.—For the erection of a residence, near Short Lanes End, Kenwyn, Truro Mr. Alfred J. Cornelius, architect, Truro.

MARCH 22.—**York.**—BOILER HOUSE.—For the extension of the existing boiler house at the Electricity Generating Station, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

MARCH 24.—**Beeston.**—PUMP HOUSE.—For construction of a small pump house to be erected on Wollaton-road, for Nottingham T.C. Messrs. Booker & Shepherd, Albion Chambers, King-street, Nottingham.

MARCH 24.—**Bolton.**—PAINTER WORK.—For the painting of tramway poles for T.C. Mr. J. Barnard, General Manager, Tramways Office, Bolton.

MARCH 24.—**Bradford.**—PAINTER WORK.—For painter work required at Open-air Baths, Lister Park, and Wakefield-road District Baths, for T.C. City Architect, Town Hall, Bradford.

MARCH 24.—**Brierley Hill (Staffs).**—HOUSES, ROADS AND SEWERS.—Erection of thirty houses, together with the necessary roads and sewers, on the Mill-street Housing Estate, for the Brierley Hill U.D.C. Mr. John Yorke, Surveyor, Town Hall, Brierley Hill, Staffs.

MARCH 24.—**Harrogate.**—WORKS.—Erection of tar macadam works and refuse pulverising works at Central Depot, Dragon Junction. Mr. C. E. Rivers, Borough Engineer, Municipal Offices, Harrogate.

MARCH 24.—**Horsham.**—HOUSES.—Erection of four pairs of semi-detached parlour type houses to be erected at Oxford-road, Horsham, for the U.D.C. Council's Surveyor, Mr. C. G. Atkinson, Town Hall, Chambers, Market-square, Horsham. Deposit £2 2s.

MARCH 24.—**Ilford.**—CONVENIENCE.—For building an underground convenience for both sexes at junction of Goodmayes-lane and Green-lane, for the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford. Deposit £2 2s.

MARCH 24.—**Kirkcaldy.**—PAINTING.—For painting at District Joint Infectious Diseases Hospital. Messrs. D. Forbes Smith & Johnston, architects, 210, High-street, Kirkcaldy.

MARCH 24.—**Llangefni.**—HOUSES.—Erection of eight houses (in two blocks of four each), for the Llangefni (Anglesey) U.D.C. Mr. J. Arfon Jones, Architect, Roby House Chambers, Llandudno.

MARCH 24.—**Ramsgate, Kent.**—ALTERATIONS AND ADAPTATION.—Alterations and adaptations of the remaining portion of the Chatham House County School for Boys at Ramsgate, in the County of Kent. County Education Architect (Mr. W. H. Robinson, F.S.A.), Room 69, Sessions House, Maidstone. Deposit £2 2s., in the form of a cheque payable to the Kent Education Committee, and crossed "National Provincial Bank of England, Ltd."

MARCH 24.—**Renfrew.**—PAINTER WORK.—For painter work of 28 houses in Harvey-street, Yoker, for Upper District Committee. Mr. J. A. M'Cullum, District Clerk, 15, West George-street, Glasgow. Deposit £1 1s.

MARCH 24.—**Swindon, &c.**—PAINTER WORK.—For cleaning and repainting station buildings at (1) Swindon, Chippenham, &c., and (2) Lawrence-hill, Stapleton-road, &c., for Great Western Railway. Engineer, Bristol Station, Bristol.

MARCH 24.—**Westhampnett.**—REPAIRS, &C.—For repointing, exterior painting, and minor repairs to the Council Offices, Pallant House, Chichester. Messrs. Whitehead & Whitehead, architects, 18, South-street, Chichester.

MARCH 24.—**York.**—PAINTING.—For painting work at Children's Home, for the B.G. Mr. G. Sykes, Clerk, Union Offices, York.

MARCH 25.—**Aberystwyth.**—CONVENIENCES.—For erection of sanitary conveniences and shelters near the Marine Parade and Queen's-road localities, for the B.C. Mr. W. D. Puddicombe, Surveyor, Council Offices, Aberystwyth. Deposit £1 1s.

MARCH 25.—**Baslow and Bubnell.**—HOUSES.—Erection of 16 houses at Baslow, for U.D.C. Mr. T. W. Newbold, architect, 70, Surrey-street, Sheffield.

MARCH 25.—**Dartford.**—HOUSES.—Erection of 24 houses at Ship-lane, Sutton-at-Hone, for the R.D.C. Mr. Eustace J. Hobbs, Clerk, Council Offices, West Hill, Dartford. Deposit £2 2s.

MARCH 25.—**Durham.**—ALTERATIONS.—For reconstruction of outbuilding, drainage and substructure in connection with alterations and additions to Sunniside (Crook) Council School, for Durham C.C. Mr. F. Willey, 34, Old Elvet, Durham.

MARCH 25.—**Glasgow.**—PAVILIONS.—Erection of football, tennis, and bowling pavilions at Parkhead Recreation Ground, for the T.C. Mr. Jas. Dalrymple, General Manager, 46, Bath-street, Glasgow.

MARCH 25.—**Nottingham.**—HOUSES.—Erection of 428 houses on Sherwood Estate, for the T.C. City Engineer, Guildhall, Nottingham. Deposit £1 1s.

MARCH 25.—**Pembroke (Ireland).**—CONVENIENCES, &C.—For construction of sanitary conveniences and ambulance room, Merrion-road, for the U.D.C. Mr. Joshua C. Manly, Clerk, Town Hall, Ballsbridge, Pembroke.

MARCH 25.—**Thornaby-on-Tees.**—HOUSES.—Erection of 50 houses on Housing Estate, for T.C. Borough Engineer, Town Hall, Thornaby-on-Tees. Deposit £2 2s.

MARCH 25.—**Tresmeer.**—REPAIRS, &C.—For adaptations, repairs, &c., at Tresmeer Farm, for the Cornwall C.C. County Land Agent, Truro.

MARCH 26.—**Berkshire.**—CONCRETE TANK AND FIRE-ESCAPE STAIRCASES.—(*a*) Concrete water storage tank; (*b*) fire-escape staircases at Pinewood, Wokingham, Berkshire, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 in respect of each work.

MARCH 26.—**Bromley.**—REPAIRS, &C.—For redecoration and repairs to cottages, at Council's Housing Estate, Bromley Common, for one year, for T.C. Borough Engineer, Municipal Offices, Bromley.

MARCH 26.—**Liverpool.**—BATH.—For the construction of an open-air bath, at Newsham Park, for the T.C. Land Steward and Surveyor, Municipal-buildings, Liverpool. Deposit £2 2s.

MARCH 26.—**London, S.E., and Kent.**—CLEANING AND PAINTING AND REPAIRS.—Cleaning and painting works and repairs: (*a*) at South Eastern Fever Hospital, Avonley-road, New Cross, S.E. 14; (*b*) at Joyce Green Fever Hospital, Dartford, Kent, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, London, E.C. 4. Deposit £1 in respect of each work.

✱MARCH 26.—**London, S.W. 17.**—STEEL PARTITIONS.—Supply and erection of steel partitions to the kitchen extension at Tooting Bec Mental Hospital, Tooting, S.W. 17, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4.

MARCH 26.—**Lowestoft.**—COKE STORE.—Extension of existing underground concrete coke store, at St. Luke's Hospital, Lowestoft, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

MARCH 26.—**Nantymoel (Glam).**—HOUSES.—For erection of ten houses, with roads and sewers, for the Ogmore and Garw U.D.C., at Blandy-terrace. Mr. W. T. Ollivant, Engineer and Surveyor, Council Offices, Brynmenin (Glam). Deposit £2 2s.

MARCH 26.—**Pontardawe.**—HOUSES.—Erection of 24 houses at Colbren-road site, Gwaun-cae-Gurwen, for R.D.C. Mr. E. D. Jones, Architect, Council Offices, Pontardawe. Deposit £3.

MARCH 26.—**Ravensthorpe.**—BUNGALOW.—Erection of a bungalow at Ravensthorpe. Messrs. C. H. Marriott, Son & Shaw, architects, Church-street Chambers, Dewsbury.

MARCH 27.—**Bromley (Kent).**—FLATS.—Erection of 60 flats, namely, 32 flats on the south side of Mosul-way, Bromley Common, and 28 flats on the north side of Mosul-way, for the T.C. of the Borough of Bromley. Borough Engineer's Office, Municipal Buildings, Bromley. Deposit £3 3s.

MARCH 27.—**Chryston.**—PAINTING.—For painter work for Chryston Housing Scheme, for the Lanark C.C. Mr. Jas. A. M'Callum, District Clerk, 15, West George-street, Glasgow. Deposit £1 1s.

MARCH 27.—**Newquay.**—BUNGALOW.—For erection of a bungalow residence at Ulalia-road. Mr. L. Winn, architect, 27, Boscawen-street, Truro.

✱MARCH 27.—**Woolton, &c.**—HOUSES.—For the erection and completion of any or all of the following lots of houses:—Woolton, 24; Larkhill Estate, 12, 19, 7, 13, 22, 20; Egg-lane Drive Estate, 19, 46, 17; Springwood Estate, 31, 140, for the City of Liverpool. Housing Officer, Municipal Buildings, Dale-street, Liverpool. Deposit £2 2s.

MARCH 28.—**Burlingham.**—FARM PREMISES.—For the erection of farm premises at Chamery Hall-lane and Burlingham Lodge Farm, on the Burlingham Estate, near Norwich, for the Norfolk C.C. County Land Agent, Shire House, Norwich. Deposit £1 1s.

MARCH 28.—**Leicester.**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange at Leicester for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

MARCH 28.—**Litherland.**—WALLS.—Erection of boundary walls on Sefton-road, for U.D.C. Mr. G. Ponsford, Council Offices, Sefton-road, Litherland.

MARCH 29.—**Navan.**—VARIOUS WORKS.—For structural alterations, additions, repairs, plumbing and extension of drainage, roads and pathways, at the Navan County Hospital, for the County Meath Board of Health. Mr. A. Edward Smith, quantity surveyor, 5, St. Andrew-street, Dublin. Deposit £2 2s.

MARCH 29.—**Wakefield.**—ADDITIONS.—For additional accommodation at Wakefield West Riding Court House for W. Riding Standing Joint Committee. Mr. P. C. Platts, County Architect, County Hall, Wakefield.

MARCH 29.—**Wandsworth, S.W.**—POST OFFICE.—Erection and completion of a branch post office at Wandsworth, S.W., for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

MARCH 31.—**Aberayron.**—PAINTING.—For painting and redecorating the Llwycelen Congregational Chapel for the Trustees. Mr. J. O. Evans, secretary, Cooper House, Llwyncelyn, near Abrayron.

MARCH 31.—**Caerphilly.**—CONVERSION.—For carrying out for the U.D.C. the alterations and additions to "Bronrhiw" necessary to convert same into council offices. The Surveyor to U.D.C., Council Offices, Caerphilly, or Messrs. J. H. Phillips & Wride, architects, 7, Pembroke-terrace, Cardiff. Deposit £2 2s.

MARCH 31.—**Hertfordshire.**—COTTAGES.—Erection of police cottages at Hadham Cross, Hertford Heath, Bengeo, Ware, and Bishop's Stortford, for C.C. Mr. A. E. Prescott, County Surveyor, Hatfield.

✱MARCH 31.—**London, N.19.**—PAINTING AND REPAIRS.—Internal painting and repairs to the Relief Station and Dispensary at Barnsbury-street, Islington, N., for the Guardians of the Poor of the Parish of St. Mary, Islington. Mr. Edmund J. Harrison, Lic. R.I.B.A., 23, Berkeley-road, Crouch End, N.8. Deposit £2.

✱MARCH 31.—**Penrith.**—CONCRETE RESERVOIR.—Construction of a covered reinforced concrete service reservoir (capacity one million gallons) on site at Fairhill, Penrith, for the Penrith U.D.C. Thomas H. Longstaff, A.M.Inst.C.E., Engineer, Town Hall, Penrith. Deposit £2 2s.

MARCH 31.—**Poplar, E. 14.**—TENEMENTS.—Erection of 12 tenements on a site at Lower North-street, for the Metropolitan Borough Council of Poplar. Mr. Harley Hockford, Borough Surveyor, Council Offices, Poplar. Deposit £3 3s.

MARCH 31.—**Ripon (Yorks).**—DISMANTLING, &C.—For following services at nine camps: (1) For the purchase of hutted camps and remove all buildings and debris; (2) purchase of materials resulting from dismantling; (3) for dismantling only; (4) for removal of concrete and other materials left on camps Roads and Communication Officer, Ripon Camp.

MARCH 31.—**Sligo.**—STATION BUILDINGS.—For reconstruction of station buildings at Sligo, for the Midland Great Western Railway Co. Chief Engineer, Broadstone Station, Dublin. Deposit £4.

MARCH 31.—**Southfields and Tooting.**—HOUSES.—Erection of (*a*) 32 houses on the Southfields Housing Estate, Southfields; (*b*) 48 houses on the Furzedown Estate, Tooting, for the Wandsworth B.C. Southfields Estate, Mr. G. L. Elkington, A.R.I.B.A., 7, Laurence Pountney-hill, E.C.4 Deposit £2 2s. Furzedown Estate, Mr. H. B. Elkington, A.R.I.B.A., 7, Laurence Pountney-hill, E.C. 4. Deposit £2 2s.

MARCH 31.—**Stafford.**—HOUSES.—Erection of 20 houses of the non-parlour type, on the Lemmascot Housing Estate, for the Stafford Corporation. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford. Deposit £2 2s.

MARCH 31.—**Wandsworth, S.W.18.**—SPORTS PAVILIONS.—Construction of sports pavilions at King George's Park, Wandsworth, and the Furzedown Recreation Ground, Streatham, for the B.C. of Wandsworth. Mr. E. J. Elford, M.Inst.C.E., Borough Engineer, 215, Balham, High-road, S.W.17.

APRIL 1.—**Bethnal Green, E. 2.**—ALTERATIONS BOILER HOUSE.—Work of altering the Boiler House at their Institution, Waterloo House, Waterloo-road, Bethnal Green, E. 2, for the Bethnal Green Board of Guardians. Mr. C. Faulkner Jones, Clerk to the Guardians, Administrative Offices, Bishop's-road, E. 2. Deposit £2 2s.

APRIL 1.—**Bethnal Green.**—ALTERATIONS.—For converting certain school rooms at schools in High-road, Leytonstone, into dormitories, day rooms, &c., for Receiving Ward purposes, for Board of Guardians. Mr. C. F. Jones, Clerk, Administrative Offices, 79, Bishops-road, Bethnal Green, E.2. Deposit £2.

✱APRIL 1.—**Hammersmith, W. 6.**—FLOORING.—Taking down, placing in store, and subsequently re-erecting and fitting the temporary floor and platform over the First-class Swimming Bath, Lime-grove, Shepherd's Bush, for the B.C. of Hammersmith. Mr. R. Hampton Clucas, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Hammersmith, W. 6. Deposit £2 2s.

APRIL 1.—**London, S.W. 18.**—SANITARY CONVENIENCES.—Construction of sanitary conveniences on Streatham Green, Streatham High-road, for the Wandsworth B.C. Mr. E. J. Elford, Borough Engineer, 215, Balham High-road, S.W. 17.

APRIL 1.—**Pontefract.**—HOUSES.—Erection of 30 dwelling houses at South Kirkby, near Pontefract, for the South Kirkby, Featherstone and Hemsworth Collieries, Ltd. Messrs. Garside & Pennington, architects and surveyors, Pontefract. Deposit £5 5s.

APRIL 2.—**Barnet.**—REPAIRS.—For carrying out neral repairs, re-decorations, sanitary work, &c., at osendale, King Edward-road, New Barnet, for B.G. essrs. White, Son & Pill, 13 and 15 High-street, arnet.

APRIL 2.—**Birkenhead.**—ALTERATIONS.—For altera- ons and additions to No. 63, Hamilton-square, for .C. Mr. C. Brownridge, Borough Surveyor, Town all, Birkenhead. Deposit £1 1s.

APRIL 2.—**Dublin.**—CHURCH.—Erection of a new hurch at Donore-avenue, S.C. road, for the Very Rev. ather Hayes, P.P., St. Catherine's, Meath-street. essrs. Morris & Kavanagh, quantity surveyors, 68, arcourt-street, Dublin. Deposit £2 2s.

APRIL 2.—**Glasgow.**—STAIRS.—For the indenting of airs at various schools. Education Offices (Property ept.), 129, Bath-street, Glasgow. Deposit £1 1s.

APRIL 2.—**Great Yarmouth.**—HOUSES.—For erection f 16 houses on the Southtown Common Estate, and 24 ouses on the North Denes Estate, for T.C. Borough ngineer, Town Hall, Great Yarmouth. Deposit £2 2s.

APRIL 2.—**London.**—POLISHING.—For floor polishing t various London buildings, for H.M. Commissioners f Works. Contracts' Branch, H.M. Office of Works, c., King Charles-street, S.W. 1.

APRIL 3.—**Bristol.**—PAINTING.—For external paint- ig of Bristol Mental Asylum. Mr. A. W. King, eward, Asylum, Fishponds, Bristol.

APRIL 3.—**East Barnet.**—HOUSES.—Erection of 66 mi-detached houses on Long-street Housing Estate, r U.D.C. Mr. T. A. Buckley, Clerk, Council Offices, ew Barnet. Deposit £2 2s.

✱APRIL 4.—**Bognor.**—HOUSES.—Erection of 92 ouses (or thereabouts) in blocks of eight on the Sheep- ash-lane Housing Site, Bognor, for the U.D.C. urveyor to the Council, High-street, Bognor. Deposit 2 2s.

APRIL 4.—**Breconshire.**—RE-MODELLING OF SCHOOL. -For carrying out for the Education Committee the -modelling of Cwmtwrch Council School. Mr. W. ewis Harpur, County Surveyor, County Office, Brecon. eposit £2 2s.

✱APRIL 4.—**Sheffield.**—ALTERATIONS.—Alterations the Head Post Office, Sheffield, for the Commis- oners of H.M. Office of Works. Contracts Branch, .M.O.W., King Charles-street, London, S.W.1 De- osit £1 1s. (Cheques payable to the Secretary.)

✱APRIL 4.—**Southampton.**—NEW SCHOOL.—Erection a new school at Drayton, near Cosham, Hants, for he County of Southampton. Mr. A. L. Roberts, ounty Architect, The Castle, Winchester. Deposit 2 2s., made payable to "The Hants County Council," nd crossed "Lloyds Bank, Ltd., Capital and Counties' ranch, Winchester."

✱APRIL 7.—**Hitchin.**—TENEMENTS AND COTTAGES.— rection of 56 tenements and cottages for the Hitchin .D.C. Town Hall, Hitchin. Deposit £2 2s.

✱APRIL 7.—**Wimbledon.**—HOUSES.—Erection of ve-roomed houses, 12, 24, or 87 in number, on the ousing Site, Toynbee-road, Burstow-road, and Dennis ark-crescent, for the Borough of Wimbledon. Borough ngineer and Surveyor, Town Hall, Wimbledon. eposit £2 2s.

✱APRIL 8.—**London, S.W. 18.**—GLASS ENCLOSURES. -Providing and fixing wood and glass enclosures to fteen sunning balconies at St. James's Hospital, useley-road, Balham, S.W. 12, for the Guardians of he Wandsworth Union. Mr. F. J. Curtis, Union Offices, . John's-hill, Wandsworth, S.W.

✱APRIL 9.—**Friern Barnet.**—HOUSES.—Erection of houses, for the Friern Barnet U.D.C. Mr. F. P. indell, A.M.I.C.E., Council Offices, The Priory, Friern arnet-road, N.11. Deposit £2 2s.

APRIL 10.—**Bentley with Arksey.**—PARTITION.— rection of a folding partition at Cooke-street Council chool, for West Riding Education Committee. Educa- on Department, County Hall, Wakefield.

APRIL 10.—**Bolton-on-Dearne.**—ADDITIONS.—Erec- on of additional classrooms, &c., at Bolton-on-Dearne ighgate Council School, for West Riding Education ommittee. Education Department, County Hall, akefield.

APRIL 10. — **Stocksbridge.** — ALTERATIONS. — For lterations to Stocksbridge Council School, for West iding Education Committee. Education Department, ounty Hall, Wakefield.

✱APRIL 12.—**Reigate.**—HOUSES.—Erection of 30 ouses (in pairs) on the Hooley Mead Estate, Earls- ood, for the T.C. of Reigate. Borough Engineer nd Surveyor, Municipal Buildings, Reigate. Deposit 2 2s.

APRIL 15.—**London.**—RECONSTRUCTION.—For re- nstruction and painting of the Crystal Palace tank ad structure, Sydenham Hill, E., for Metropolitan ater Board. Chief Engineer, Metropolitan Water oard, New River Head, Clerkenwell, E.C.1. De- sit £2 2s.

✱APRIL 22.—**Chichester.**—HOUSES.—Erection of 38 ouses (10 pairs of semi-detached and 3 blocks of 6 r the Chichester Corporation. Messrs. Whitehead & hitehead, 18, South-street, Chichester. Deposit £1 1s.

✱APRIL 23.—**Greenwich, S.E.10.**—HOUSES AND AISONETTES.—Erection and completion of six houses, mprising twelve maisonettes, on a site at the corner Coombedale-road and Westerdale-road, Greenwich, the Council of the Metropolitan Borough of Green- ch. Town Clerk's Dept., Town Hall, Greenwich. eposit £2 2s.

NO DATE.—**Abertillery (Mon).**—REBUILDING.—For rtially rebuilding the Empress Dancing Hall, and res underneath, Alexandra-road. Mr. J. H. Davies, chitect, Pontypridd (Glam).

NO DATE.—**Buxton.**—HOUSES.—For erection of five uses and shops at the Peak Hydropathic, Terrace- ad, for Messrs. Wadsworth, Broadbent & Wads- rth. Mr. C. Flint, surveyor, The Quadrant, Buxton.

NO DATE.—**Chester.**—LODGE.—For erection of a dge at the Isolation Hospital, Sealand-road, for T. C. . C. Greenwood, City Surveyor, Town Hall, Chester. eposit £1 1s.

NO DATE.—**Clifton.**—DEMOLITION.—For the demo- on of Nos. 17 and 19, Queen's-road, for Messrs. dena Cafes, Ltd. Mr. W. J. Stenner, architect, dena Chambers, Wine-street, Bristol.

NO DATE.—**Downham.**—HOUSES.—For erection of houses in pairs at Hilgay (Ten Mile Bank), Southery, Wiggenhall, St. Mary Magdalen, and Wiggenhall St. Peter, for R.D.C. Mr. S. C. Rigg, Surveyor, Lynnwood, Downham. Deposit £1 1s.

NO DATE.—**Greystones (co. Wicklow).**—ALTERATIONS. —For alterations and additions to Clydagh Hotel, for Mr. C. de Groot, Mr. R. M. Butler, architect, 23, Kildare-street, Dublin.

NO DATE.—**Hale.**—HOUSES.—Erection of houses, shops, and alterations of houses into shops, in Ashley-road. Messrs. Lunn & Kaye, architects, Milnsbridge, Huddersfield.

NO DATE.—**King's Lynn.**—HOUSES.—For erection of two pairs of houses in Vancouver-avenue. Mr. L. F. Eagleton, surveyor, King-street, King's Lynn.

NO DATE.—**Ogmore Vale.**—SHOPS.—For erection of two shops at Ogmore Vale (Glam). Mr. G. L. Abbott, Walter's-road, Ogmore Vale.

NO DATE.—**Wombwell.**—PICTURE HOUSE.—Erection of a new picture house at Wombwell. Mr. C. Castleton, 10, Park-row, Leeds.

NO DATE.—**Yorkshire.**—REPAIRS, &C.—For repairs and renovations to Court Houses, Police Stations, Lock-ups, &c., in West Riding of Yorkshire, for Standing Joint Committee. Mr. P. O. Platts, County Architect, County Hall, Wakefield.

FURNITURE, MATERIALS, etc.

MARCH 22.—**Pontefract.**—MATERIALS.—Supply of road materials to the T.C. Mr. J. E. Pickard, Borough Surveyor, Municipal Offices, Pontefract.

MARCH 22.—**Tenby.**—MATERIALS.—For supply to the B.C. of building materials, sanitary ware, &c., for a period of 12 months. Mr. B. Morley, Surveyor, Council Offices, Tenby.

MARCH 22.—**Winchester.**—TOOLS.—Supply of tools for use on main roads for one year, to the Southampton C.C. Mr. W. J. Taylor, County Surveyor, The Castle, Winchester.

MARCH 22.—**Woodstock.**—MATERIALS.—Supply of Hartshell, Leicestershire and Clee Hill stone, to the R.D.C. Mr. A. G. Higgs, Clerk, Woodstock.

MARCH 24. — **Chorley.** — MATERIALS. — Supply of various materials for road-mending for six months, for T.C. Borough Surveyor, Chorley.

MARCH 24. — **Earsdon.** — MATERIALS.—Supply of slag and whinstone, tar macadam and cement kerbing, for the U.D.C. Surveyor, Council Offices, Shiremoor.

MARCH 24.—**Great Yarmouth.**—MATERIALS.—For supply of Guernsey granite, for T.C. Mr. S. P. Thompson, Borough Engineer, Town Hall, Great Yarmouth.

MARCH 24.—**Hemsworth.**—MATERIALS.—For supply of various materials for the upkeep of roads for one year, for R.D.C. Mr. W. T. Lynam, Surveyor, Council Offices, Rotherham-road, Hemsworth.

MARCH 24.—**Hunslet.**—MATERIALS.—Supply of highway material, for the R.D.C. Mr. W. B. Pindar, Clerk, Leek-street, Hunslet, Leeds.

MARCH 24.—**Ilkeston.**—MATERIALS.—Supply of road materials for T.C. Borough Surveyor, Town Hall, Ilkeston.

MARCH 24.—**Tynemouth.**—MATERIALS.—For supply of road and other materials, for six months, for the T.C. Mr. J. F. Smillie, Borough Surveyor, Tynemouth.

MARCH 24. — **Walsall.** — MATERIALS. — Supply of various materials to the R.D.C. Mr. W. P. Young, surveyor, Daw End, Rushall.

MARCH 25.—**Coulsdon.**—MATERIALS.—Supply of road materials for one year, for U.D.C. Mr. R. Chart, Surveyor, Council Offices, Purley.

MARCH 25.—**Great Crosby.**—MATERIALS.—Supply of road and other materials, to the U.D.C. Mr. J. A. Wright, Surveyor, Council Offices, Coronation-road, Great Crosby.

MARCH 25.—**Kenilworth.**—MATERIALS.—For supply of granite, tarmacadam, steam coal, &c., for U.D.C. for six months. Mr. S. Douglas, Surveyor, Council Offices, Kenilworth.

MARCH 25.—**Penarth.**—STORES.—For supply to U.D.C. of general stores, ironmongery and brushes, &c. Mr. J. W. Morris, Clerk, Council Offices, Penarth.

MARCH 25.—**Wallasey.**—MATERIALS.—For supply of Manilla hemp rope, iron, brass, and phosphor bronze castings, for six or nine months, for the T.C. Ferries Manager, Seacombe, Wallasey.

MARCH 26.—**Braintree.**—GRANITE.—(*a*) For supply of 1,000 tons of 2 in. granite, (*b*) for use of steam-roller and scarifier, for U.D.C. Mr. H. H. Nankivell, Surveyor, Vestry Hall, Braintree.

MARCH 26.—**Dunmow.**—MATERIALS.—Supply of granite, gravel, &c., to the R.D.C. Mr. P. E. Furlong, 58, New-street, Dunmow.

MARCH 26.—**Exeter.**—MATERIALS.—For supply of road and other materials for one year for T.C. Mr. T. Moulding, Surveyor, Municipal Offices, Exeter.

MARCH 26.—**Isle of Thanet.**—MATERIALS.—Supply of flints, broken granite and tar macadam, to the R.D.C. Mr. G. L. Butterworth, Surveyor, Birchington.

MARCH 26.—**Malling.**—MATERIALS.—Supply of road materials to the R.D.C. Mr. H. Vickery, surveyor, West Malling.

MARCH 26.—**Ogmore and Garw.**—STORES.—For supply of stores and materials for various public services for U.D.C. for six months. Mr. W. T. O. Jones, Engineer, Council Offices, Brynmenyn, Glam.

MARCH 26. — **Rushden.** — MATERIALS. — Supply of granite, slag and macadam to the U.D.C. Mr. W. B. Madin, surveyor, Rushden.

MARCH 26.—**Southend.**—CHAIRS.—For supply of deck chairs, for T.C. Borough Accountant, Clarence-road, Southend-on-Sea.

MARCH 27.—**Durham.**—MATERIALS.—For supply of road materials for one year, for R.D.C. Mr. G. Gregson, surveyor, 38, Sadler-street, Durham.

MARCH 27.—**Kiveton Park.**—MATERIALS.—Supply of broken slag, granite and tar macadam, to the R.D.C. Surveyor, Council Offices, Kiveton Park, near Sheffield.

MARCH 27.—**London.**—MATERIALS.—For supply of brass-foundry for Commissioners of H.M. Works. Controller of Supplies, H.M. Office of Works, King Charles-street, Westminster, London, S.W. 1.

MARCH 28.—**Ramsey.**—MATERIALS.—For supply of granite, sand, granite chips, tar, &c., for U.D.C. Mr. R. F. Sergeant, Clerk to the Council, Ramsey, Huntingdon.

MARCH 29.—**Belper.**—MATERIALS.—For supply of various materials for maintenance of the highways, for one year, for the R.D.C. Mr. R. C. Cordon, Surveyor, Duffield, near Derby.

MARCH 29.—**Desborough.**—MATERIALS.—Supply of road materials to the U.D.C. Mr. D. Jenkinson, surveyor, Desborough.

MARCH 29.—**Halifax.**—MATERIALS.—For various stores and materials for Highways Department, for T.C. Mr. A. C. Tipple, Borough Engineer, Halifax.

MARCH 29.—**Loughton.**—MATERIALS.—For supply of tar, granite, chips, hoggin, &c., for U.D.C. Mr. H. White, surveyor, Loughton, Essex.

MARCH 29.—**Wycombe.**—ROAD MATERIAL.—For supply of flints and sand, for R.D.C. Mr. A. L. Grant, Surveyor, 15, High-street, High Wycombe.

MARCH 31.—**Barnsley.**—FURNITURE.—Supply of school furniture for a new Central School, for the T.C. Mr. Evan Davies, Director of Education, Education Office, Barnsley.

MARCH 31.—**Bolton.**—STONE.—For supply of hard grit stone, for the T.C. Waterworks Engineer, St. George's-street, Bolton.

MARCH 31.—**Dublin.**—SLEEPERS.—Supply to the Great Northern Railway (Ireland) Co. of Baltic redwood sleepers, 9 ft. by 10 in. by 5 in. Mr. J. B. Stephens, secretary, Amiens-street Station, Dublin.

MARCH 31.—**Edinburgh.**—MATERIALS.—For supply of tar, coal-tar pitch, and pitch oil, for one year, for the Midlothian C.C. Road Office, County Buildings, Edinburgh.

MARCH 31.—**Hartismere.**—MATERIALS.—For supply of granite and pit stones to the R.D.C. Mr. H. Warnes, Clerk, Council Offices, Eye.

MARCH 31.— **Knaresborough.**— MATERIALS.— For supply of tar, tarred slag, and tarred limestone, for one year, for R.D.C. Mr. J. G. Husband, surveyor, 14, Bower-road, Harrogate.

MARCH 31.—**Loughborough.**—MATERIALS.—For supply of granite, slag, concrete slabs, granite kerbs and setts, to the T.C. Mr. A. H. Walker, Borough Surveyor, Loughborough.

MARCH 31.—**Normanton.**—MATERIALS.—For supply of road material for one year, for U.D.C. Surveyor, Council Offices, Normanton.

MARCH 31.—**Waterloo-with-Seaforth.**—STORES.— For supply of road and other materials for one year, for U.D.C.—Mr. J. R. Fothergill, Surveyor, Town Hall, Waterloo.

MARCH 31.—**Woodbridge.**—MATERIALS.—For supply of 400 tons of broken granite, 1½ in. gauge, for the U.D.C. Mr. W. Brooke, Council Offices, Woodbridge.

APRIL 1.—**Durham.**—MATERIALS.—For supply of road materials, also haulage and cartage for one year, for C.C. Mr. A. E. Brookes, surveyor, Shire Hall, Durham.

APRIL 1.—**London.**—PAINTS.—Supply of paint, oxide of zinc, iron oxide and black, to the Director-General, India Store Department. Branch No. 12, Belvedere-road, S.E.

APRIL 2.—**Dublin.**—MATERIALS.—For supply of glazing material for a shed (about 3,000 sq. ft.), for Dublin Port and Docks Board. Engineer's Office, East Wall, Dublin.

April 2.—**Halifax.**—STORES.—For various stores, for the Gas Department. Mr. W. B. McLusky, Gas Engineer, Halifax.

APRIL 3.—**London.**—OIL DRUMS.—For the supply of 100 five-gallon steel oil drums, for Trinity House. Secretary, Trinity House, Tower-hill, E.C. 3.

APRIL 5.—**Edinburgh.**—MATERIALS.—For supply of materials, for use of Lighting and Cleansing Depts., for six months, for the A.C. Inspector of Cleansing, 329, High-street, Edinburgh.

ENGINEERING, IRON AND STEEL.

MARCH 22.—**Dublin.**—BRIDGE.—For the reconstruction of a steel underline bridge and cylinders, between Newbliss and Clones, for the Great Northern Railway (Ireland) Co. Mr. J. B. Stephens, secretary, Amiens-street Station, Dublin. Deposit £2 2s.

MARCH 22.—**Harrogate.**—TANKS AND ECONOMISER.—Erection of two hot water storage tanks (cast iron), also an economiser of 120 pipes, for T.C. Mr. F. W. Whittaker, Consulting Engineer, 40, Sunbridge-road, Bradford.

MARCH 22.—**Portknockie.**—HARBOUR EXTENSION.—For construction of Harbour Extension works, for T.C. Messrs. Lewis & Lewis, 15, Victoria-street, Westminster, S.W. Deposit £1.

MARCH 24.—**Bridlington.**—SEA WALL.—For construction of a new sea wall, promenade, groynes, &c., at Bridlington, for T.C. Surveyor, No. 1, The Crescent, Bridlington. Deposit £3 3s.

MARCH 24.—**Middlesbrough.**—DOCKS, &C.—Construction of docks, wharves, landing-places, &c., at the site of the Ferry, for the T.C. Mr. Preston Kitchen, Town Clerk, Municipal Buildings, Middlesbrough. Deposit £5.

MARCH 24.—**Teignmouth.**—GAS WORKS EXTENSIONS.—(1) Retaining wall, 190 ft. long; (2) retort house and bench of 18 horizontal retorts; (3) carburetted water gas plant; (4) high pressure gas plant; (5) to lay a 4 in. steel main across the bed of the River Teign, for the U.D.C. Mr. H. Higham, Gas Engineer, Teignmouth.

MARCH 24.—**West Riding of Yorkshire.**—BRIDGE.—For construction of a ferro-concrete bridge on the Hennebique system, over the Aire and Calder Canal, in the Urban District of Selby, for C.C. Surveyor, County Hall, Wakefield. Deposit £1.

MARCH 25.—**London.**—BRIDGE STEELWORK, &C.—Supply to the Great Indian Peninsula Railway Co. of (1) steelwork for bridges; (2) steelwork for bridges (four 30 ft. deck spans); (3) cast-iron water pipes, &c.; (4) drawn or extruded brass strips; (5) spare parts of carriages and wagons; (6) miscellaneous articles and materials. Offices, 48, Copthall-avenue, E.C. Charges, £1 for (1); 10s. for (5); 7s. 6d. for (2) and (6); 2s. 6d. for (3) and (4).

MARCH 26.—**Manchester.**—WATERWORKS.—For the construction of a reinforced concrete building and the relaying of 44 in. water mains, &c., near Lostock, for the T.C. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.

MARCH 26.—**Wokingham.**—TANK, &C.—(a) Concrete water storage tank, (b) fire escape staircases, at Pinewood, Wokingham, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1 each contract.

MARCH 27.—**Friern Barnet.**—FIRE ESCAPE.—For supply of a fire escape ladder in three sections, height 45 ft., for the U.D.C. Mr. F. D. Kendell, Engineer, Council Offices, The Priory, Friern Barnet-road, London, N. 11.

MARCH 28.—**Stainforth.**—FENCING.—Provision and erection across land adjoining the cemetery, of about 120 lin. yds. of 5 ft. 6 in or 6 ft. unclimbable fencing. Mr. H. Smith, Clerk, Parish Council, Stainforth.

MARCH 29.—**Monifieth.**—BRIDGE.—For widening Milton Bridge in reinforced concrete, for T.C. Mr. C. A. Mackenzie, Burgh Surveyor, Monifieth.

MARCH 31.—**Boston.**—BRIDGE.—For erection of Hennebique ferro-concrete bridge at Mainridge, for the R.D.C. Mr. A. Barton, Surveyor, Church-street, Boston.

MARCH 31.—**Bridgend.**—DRIVAGE.—For sinking, for the Mid-Glamorgan Water Board, a vertical trial shaft to a depth of about 50 ft., together with lateral trial adits on either side for a maximum distance of 100 ft. from the base thereof. Shaft and adits will be driven in carboniferous limestone near to King's Wood, Schwyll, Bridgend. Messrs. Thomas & Morgan & Partners, engineers, 23, Gelliwasted-road, Pontypridd. Deposit £2 2s.

MARCH 31.—**Chard.**—BRIDGE.—Construction of reinforced concrete bridge over the River Yarty, for the R.D.C. Mr. F. Nicholson, Surveyor, Chard. Deposit £1.

MARCH 31.—**Egypt.**—PUMPING PLANT.—Supply and erection of a pumping plant at Boseili, for the Egyptian Ministry of Public Works. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Westminster, S.W. 1.

MARCH 31.—**Rochford.**—BRIDGE.—For construction of a new bridge at Rawreth Shot, for R.D.C. Mr. A. C. Madge, Surveyor, Rayleigh, Essex. Deposit £2 2s.

MARCH 31.—**Sheffield.**—BRIDGES.—For reconstruction and widening of bridge over Great Central section of L. & N.E. Railway and bridge over Sheffield and South Yorkshire Navigation, Broughton-lane, for T.C. Improvement Surveyor, Town Hall, Sheffield. Deposit £5.

APRIL 2.—**London.**—GIRDER BRIDGES, &C.—For supply of (1) steel rails and fishplates (2) girder bridges, for East Indian Railway. Mr. G. E. Lillie' Secretary, 73–76, King William-street, E.C.4. Charge £1 1s.

APRIL 4.—**London.**—PIPES.—For supply of cast-iron pipes, for South Indian Railway Co. Secretary, 91, Petty France, Westminster, S.W. 1. Charge 2s. 6d.

APRIL 8.—**Southall. Norwood.**—APPROACHES.—For widening of the approaches to Southall Station (concrete on Hennebique system), for the U.D.C. Mr. J. B. Thomson, Surveyor, Town Hall, Southall.

APRIL 12.—**Wallingford.**—HEATING.—For the installation of new calorifiers, mains and accessory works in connection with the heating apparatus at the Institution of the Board of Guardians. Mr. P. C. A. Slade, Clerk, Union Offices, Wallingford, Berks. Deposit £5 5s.

APRIL 14.—**Pretoria.**—STEEL PIPES.—For supply of 12 in., 14 in. and 18 in. steel pipes, for Municipality of Pretoria. Messrs. Beckett, Son & Co., Suffolk House, 5, Laurence Pountney-hill, E.C. 4.

MAY 1. — **China. — BRIDGE. — The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W. 1. Reference 11647/F.E./E.C./2.**

MAY 1.—**Egypt.**—ROOFS, &C.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.

MAY 2.—**Durban, Natal.**—WATER SCHEME.—For supply of large sluice valves, valve tower ironwork, pipes, &c., for Vernon Hooper Dam in Shongweni Water Scheme, for T.C. Messrs. Webster, Steel & Co., 5, East India-avenue, London, E.C. Deposit £5 5s.

JULY 1.—**Chili.**—HARBOUR WORKS.—For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.

ROAD, SANITARY, AND WATER WORKS.

MARCH 22.—**Dunfermline.**—TAR SPRAYING.—For tar spraying various main highways, approx. 80,000 sup. yds., for T.C. Mr. R. M. Morton, Burgh Engineer, City Chambers, Dunfermline.

MARCH 22.—**Middlesbrough.**—SEWERAGE.—Construction of (1) common drains to 27 sites in Valley-road (Marton-grove Housing Estate); (2) sewerage works, common drains, and road works to 30 sites in Mattison-avenue, Greenbank-avenue, Grassholme-avenue, and Northern-road (Acklam-road Garden Colony), for T.C. Mr. S. E. Burgess, Borough Engineer, Municipal Buildings, Middlesbrough.

MARCH 22.—**Newton Abbot.**—WATER MAINS.—For laying about 5,269 yds. of 6 i.n. and 821 yds. of 4 in. cast-iron water mains, for the R.D.C. Mr. F. Horner, Clerk, Council Offices, 64, East-street, Newton Abbot. Deposit £2 2s.

MARCH 22.—**Rochford.**—ROAD.—For the construction of a new by-road at Tarpots Corner, South Benfleet, for the R.D.C. Mr. A. C. Madge, Surveyor, Rayleigh, Essex.

MARCH 24.—**Alnwick.**—DRAIN.—For laying drain at Dunstan, for the R.D.C. Clerk, 24, Fenkle-street, Alnwick.

MARCH 24.—**Bognor.**—ROADS.—For spraying 70,000 sq. yds. of road surfaces with Spramex, for the U.D.C. Surveyor, High-street, Bognor.

MARCH 24.—**Bromley.**—SEWER.—For construction of 160 yds. of 9 in. glazed stoneware pipe sewer, for R.D.C. Mr. L. J. Small, engineer, High-street, Farnborough, Kent. Deposit £1 1s.

MARCH 24.—**Chelmsford.**—WATER MAINS.—(*a*) Supplying 550 yds. of 5 in. internal dia. cast iron pipes, (*b*) laying same at Danbury, for the R.D.C. Mr. James Dewhirst, Surveyor, Waterloo-lane, Chelmsford.

MARCH 24.—**Colwyn Bay.**—MAINS.—For laying about 1,380 yds. of cast iron S and F water pipes, 15 in. internal dia., from Sarn Mynach to Dolwyd, for Conway and Colwyn Bay Joint Water Supply Board, Mr. C. F. Farrington, engineer, Trinity-square, Llandudno. Deposit £2 2s.

MARCH 24.—**Connah's Quay.**—CEMETERY.—For extension of the cemetery at Connah's Quay, for U.D.C. Surveyor to the Council, Council Offices, Connah's Quay. Deposit £2 2s.

MARCH 24.—**Cowdenheath.**—DRAINS.—For construction of 133 yds. of 6 in. and 633 yds. of 7 in. fireclay sewer, at Stevensonbeath and Foulford-road, for the T.C. Burgh Surveyor, Town House, Cowdenbeath.

MARCH 24.—**Doncaster.**—ROADS.—Construction of 72 ft. and 36 ft. roads, and 12 in. and 9 in. surface water drains, in Armthorpe-lane, for the T.C. Mr. F. Oscar Kirby, Borough Engineer, 2, Priory-place, Doncaster. Deposit £5 5s.

MARCH 24.—**Finchley.**—SEWER.—For construction of 1,883 yds. of 21 in. and 1,132 yds. of 24 in. soil sewer, between Lansdowne-road and Totteridge-lane, for U.D.C. Mr. P. T. Harrison, surveyor, 9, The Hawthorns, Regent's Park-road, Finchley, N. 3. Deposit £2.

MARCH 24.—**Haywards Heath.**—ROADS.—For making-up a passage 105 yds. long, known as Petland-gardens, for the U.D.C. Mr. G. Plummer, Surveyor, South-road, Haywards Heath.

MARCH 24.—**Hucknall.**—WATER MAIN.—For construction of about 2,755 yds. of 10 in. cast iron water main, for U.D.C. Mr. E. W. Bostock, Public Hall, Watnell-road, Hucknall, Notts. Deposit £3 3s.

MARCH 24.—**Lancing.**—DRAINAGE.—For the third portion of Lancing drainage for Steyning West R.D.C. Mr. F. Slaughter, Engineer to the Works, Steyning.

MARCH 24.—**Long Eaton.**—SEWAGE.—For new sewage disposal works, for U.D.C. Mr. H. Raven, Engineer, The Hall, Long Eaton. Deposit £5 5s.

MARCH 24.—**South Stonham.**—SEWAGE.—For maintaining small sewage schemes in connection with three housing sites for one year, for the R.D.C. Mr. E. W. Cross, Clerk, West End.

MARCH 24.—**Uttoxeter.**—WATER MAINS.—For construction of 1,300 yds. of 5 in. and 3 in. dia. cast-iron water mains, for U.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £2 2s.

MARCH 25.—**Basingstoke.**—ROADS.—For steam road rolling. Mr. R. Forrester, Chequer's-road, Basingstoke.

MARCH 25.—**Dover.**—ROADS.—For about 3,000 sq. yds. of slag tarmacadam resurfacing and incidental works, for the T.C. Mr. W. Boulton-Smith, Borough Engineer, Maison Dieu House, Dover. Deposit £1.

MARCH 25.—**Ogmore.**—CULVERT, &C.—(*a*) Construction of masonry culvert; (*b*) retaining walls; (*c*) erection of unclimbable iron fencing; (*d*) forming and widening roadway at Pwllcarn, Blaengarw, for the U.D.C. Council Offices, Brynmenyn, Glam. Deposit £1 1s.

MARCH 25.—**Romford.**—SEWERAGE.—For construction of stoneware pipe sewers and sewer connection in the parish of Dagenham, Essex, for R.D.C. Mr. W. Fairley, consulting engineer, Parliament Mansions, Victoria-street, Westminster, S.W. 1.

MARCH 25.—**Southall-Norwood.**—ROADS.—For making-up Manor Way for the U.D.C. Mr. J. B. Thomson, Surveyor, Town Hall, Southall.

MARCH 26.—**Birmingham.**—ROADS.—For (1) Bristol-road (Griffins-hill to far end of Northfield), laying about 23,000 yds. super of tarred slag macadam; (2) making-up Lickey-road, Longbridge. Mr. H. H. Humphries, Surveyor, The Council House, Birmingham. Deposit £2.

MARCH 26.—**Doncaster.**—ROADS.—For the construction of road and sewers between Urban-road and Shadyside, Hexthorpe, for the T.C. Mr. R. E. Ford, Estates Surveyor, 3, Priory-place, Doncaster.

MARCH 26.—**Kirkburton.**—SEWER.—For the digging and filling-in of about 100 yds. of sewer trench, for the U.D.C. Surveyor, Council Offices, Kirkburton.

MARCH 26.—**Manchester.**—WATER MAINS.—For construction of a reinforced concrete building and the relaying of 44 in. water mains, &c., near Lostock, for T.C. Secretary, Waterworks Offices, Town Hall, Manchester. Deposit £2 2s.

MARCH 27.—**Saltash.**—ROADS.—For making-up part of Essa-road, for the T.C. Borough Surveyor, Guildhall, Saltash.

MARCH 28.—**Dunmow.**—SEWAGE.—For construction of small sewage disposal works at Felsted, for the R.D.C. Messrs. Sands & Walker, Milton Chambers, Nottingham.

MARCH 28.—**Newquay.**—ROADS.—For the construction of the Gannel-road (approximately 1,400 yds. in length and 42 ft. in width), from Trenance, Newquay, to Trevemper, St. Columb Minor, for the U.D.C. Mr. A. C. Bedington, Surveyor, Council Chambers, Newquay. Deposit £10 10s.

MARCH 28.—**Whitstable.**—DRAINS.—For construction of reinforced concrete culverts along the stream dyke; also the laying of a 12 in. dia. stoneware drain, for U.D.C. Surveyor, Council Offices, Whitstable. Deposit £1.

MARCH 29.—**Audenshaw.**—ROADS.—For the reconstruction of a portion of Droylsden-road, for the U.D.C. Mr. F. E. Capper, Clerk, Council Offices, Ryecroft Hall, Audenshaw. Deposit £2 2s.

MARCH 29.—**Clacton.**—WEST SEWER OUTFALL.—F repairs to the 12 in. cast iron west sewer outfall, U.D.C. Surveyor, Council Offices, Clacton-on-Sea.

MARCH 29.—**Rowley Regis.**—ROADS.—For wide ing Congreaves-road, Cradley Heath, for the U.D Council House, Old Hill, Staffordshire.

MARCH 31.—**Bridgend.**—SHAFT.—For sinking vertical trial shaft to a depth of about 50 ft., toget with lateral trial adits on either side for a maxim distance of 100 ft., for the Mid-Glamorgan Wa Board. Messrs. Thomas & Morgan & Partners, gineers, 23, Gelliwastad-road, Pontypridd, Gla Deposit £2 2s.

MARCH 31.—**Exeter.**—TAR SPRAYING.—For spraying certain roads within the City boundary, T.C. Mr. T. Moulding, Surveyor, Municipal Offi Exeter.

MARCH 31.—**Liskeard.**—ROADS.—For making roads in connection with Liskeard Borough Hous Scheme, for the T.C. Mr. H. R. Venning, survey Greenbank-lane, Liskeard.

MARCH 31.—**Stoke-on-Trent.**—SANITARY.—Conv sion into water closets of about 190 pail closets Hanley, for the T.C. Chief Sanitary Inspector, Peter's Chambers, Glebe-street, Stoke-on-Trent.

MARCH 31.—**Tiverton.**—ROAD DIVERSION.—For c struction of a new section of road and diversion of existing highway near Ufficulme Cemetery, in the par of Ufficulme. Mr. J. R. H. Warren, Highway Survey Central Chambers, St. Peter's-street, Tiverton.

APRIL 1.—**London.**—SEWER.—For the construct of about 1,400 ft. of 4 ft. and 2 ft. 8 in. brick sew (mostly in tunnel), beneath St. Martin's-le-Grand a Aldersgate-street, for the City Corporation. C Engineer, Guildhall, E.C.2. Deposit £2 2s.

APRIL 5.—**York.**—ROAD.—For construction of a n road, Heworth to Hull-road, 1,010 yds. in length, T.C. Mr. F. W. Spurr, City Engineer, Guildha York. Deposit £2 2s.

✱APRIL 7—**Hammersmith.**—CEMETERY LAY-OUT. Labour and materials required in the lay-out o cemetery at Mortlake, comprising the construction soil and surface drains, gas, water and electric mai roads and footpaths, planting, fencing, &c., for Metropolitan Borough of Hammersmith. Mr. Hampton Clucas, Engineer and Surveyor, Town H Hammersmith. Deposit £3 3s.

APRIL 10.—**Bradfield Loxley.**—SANITARY.—For c version of privies into w.c.'s, at Bradfield Lox Council School, for West Riding E.C. Educat Department, County Hall, Wakefield.

APRIL 10.—**Denton.**—ASPHALT.—For tar asphalt playgrounds at Denton Council School, for W Riding E.C. Education Department, County H Wakefield.

APRIL 15.—**Wolverhampton.**—WATER MAIN For supply of 15 in. and 12 in. cast-iron trunk ma for the T.C. Mr. E. A. B. Woodward, Waterwo Engineer, Town Hall, Wolverhampton. Deposit

APRIL 28.—**Kempton.**—WATER MAIN.—(*a*) For lay 7½ miles of cast iron water main; (*b*) for laying 450 of 52 in. steel pipes and contingent works from Ke ton to Greenford, for Metropolitan Water Board. H. E. Stilgoe, Chief Engineer, Offices of the Bo New River Head, Clerkenwell, E.C. 1. Deposit £2

Competitions.

(*See Competition News, page* 448.)

Auction Sales, Tenders, etc

✱MARCH 24.—**Bloomsbury.**—Messrs. Verya Yates, F.A.I., will sell, without reserve, buildi materials arising from demolition of the Y.M.C. "Shakespeare" Hut, at one o'clock. Auctione 365, Norwood-road, S.E.27.

MARCH 25.—**Dartford, Kent.**—Messrs. Dann Lucas will sell by order of the Proprietor, Mr. G. Ward, freehold, as a going concern, with possess on completion of the purchase, Stone, near Dartfo Kent, the Toll House sand and ballast pits, having area of about 12 acres, with a long road frontage four-roomed cottage and plant and machinery. A tioneers, Dartford, Kent.

MARCH 25.—**London, E.C.**—Messrs. Warmington Co. will sell, at the London Action Mart, E.C., K sington Investment, a commanding and ripe build site of 23,100 super ft., situate on the east side Church-street, frontage of 125 ft. to Church-stre Auctioneers, 1, Dover-street, W. 1.

MARCH 26.—**London, E.C.**—Messrs. Leopold Farr & Sons will sell in lots, at the London Auction Ma 155, Queen Victoria-street, E.C.4, freehold manufact ing premises and land, with valuable free water pow known as Hythe End Mills, Wraysbury, near Stai Middlesex; the whole area of the property covers ab 11 acres. Auctioneers, 46, Gresham-street, Bank, E

MARCH 26.—**London, E.C.4.**—Messrs. Leop Farmer & Sons will sell, at the London Auction M 155, Queen Victoria-street, E.C.4, freehold building s Tyssen-street, Dalston-lane, Dalston, N.E. Auctione 46, Gresham-street, Bank, E.C.

MARCH 27.—**Eastbourne.**—Messrs. Kni Frank & Rutley will sell, by direction of the E bourne Waterworks Co., the freehold commer site of about 4¼ acres, with railway facilities, including detached double-fronted residence factory or warehouse buildings. Auctioneers: Hanover-square, London, W. 1.

MARCH 27 AND 28.—**Wi dsor.**—Messrs. Perry Phillips (in conjunction with Messrs. Buckland & S will sell on the premises, St. Leonard's-hill, Wind the whole of the interior and exterior fixtures fittings previous to the demolition of the mans Auctioneers, High-street, Windsor, 4, Bloomsbury-squ W.C. 1, and 59, High-street, Bridgnorth.

✱APRIL 1.—**Dalston, London, N.**—Messrs. J. Skelding & Co. will sell without reserve at the premi 71, Queen Margaret's-grove, Dalston, N., stock plant of a builder and decorator. Auctioneers, Gresham-street, Guildhall, E.C.2.

✱April 1.—**London, S.W.**—Messrs. Hampton & Sons ill sell at St. James's Estate Rooms, S.W., the valuable eehold property, "The Highlands," Barnet. Auc-oneers, 20, St. James's-square, S.W.1.

✱April 3.—**Surrey.**—Mr. E. C. Clark will sell at astwick Farm Buildings, Lower-road, Great Book-am, Surrey (about 1½ miles from Leatherhead and ree from Dorking), prime timbers and builders, ffects, entirely without reserve. Auctioneers, Bedding-on House, near Croydon.

✱April 7 and Five Following Days.—**London, V.C.2.**—Messrs. J. & R. Kemp & Co. will sell without eserve by order of the liquidator at 4, 6, and 8, Newton-treet, Kingsway, W.C.2, the valuable hire stock com-rising a large quantity of marquees and tents, parquet ooring, lorries, timber, &c. Auctioneers, 125, High olborn, W.C.1.

✱April 8.—**Norfolk.**—Messrs. Joseph Hibbard & ons will sell (by order of Messrs. A. King & Son, who re giving up the saw milling branch of their business), Wymondham, Norfolk, valuable and modern saw mill achinery. Auctioneers, 15 Newington-green, Isling-n, London, N. 16.

April 16. — **Kent.** — Messrs. Knight, Frank & utley will sell, at very low reserves, to wind up estate, at the residence, Otford Court, close to Otford ation (unless previously sold privately), the resi-ential and building property, Otford Court, the whole tending to an area of about 190 acres. Auctioneers: , Hanover-square, W. 1.

May 6.—**London, W.1.**—**Messrs. Knight, Frank & utley, at the Hanover-square Estate Room, situate Wimbledon Common, within half-an-hour by motor the Houses of Parliament. Freehold, Edgecombe Hall, eaumont-road; extensive range of outbuildings, in l extending to over 14 acres. Vacant possession will e given on completion of the purchase. Auctioneers, , Hanover-square, W.1.**

Public Appointments.

March 22.—**Cambridge.**—Clerk of Works required commence duties on March 31st, by the Borough of mbridge. Borough Surveyor, Guildhall, Cambridge.

✱March 24.—**Manchester.**—Three fully-qualified rveyors or Engineers for outdoor survey work in nnection with the planning of new roads required the Manchester and District Joint Town-Planning dvisory Committee. Mr. P. M. Heath, Honorary ecretary, Town Hall, Manchester.

March 24. — **Southend-on-Sea.** — Clerk required in e Borough Engineer's and Surveyor's Department, ilding Inspector's Section, by the Corporation of outhend-on-Sea.

March 25.—**St. Helens.**—Architectural Assistants r a minimum period of twelve months required on using scheme of 450 houses by the Corporation of e County Borough of St. Helens. Mr. Arthur W. adley, Borough and Water Engineer, Town Hall, Helens.

March 26.— **Bromley, Kent.** — (1) Building In-ector, (2) Draughtsman and Surveying Assistant quired by the Bromley R.D.C., Kent. Mr. Leonard Wall, Clerk to the Council, Park House, Bromley, ent.

✱March 31.—**Wakefield.**—Architectural Assistants the office of the Education Architect required by the est Riding Education Committee. The Education epartment, County Hall, Wakefield.

Density of Houses.

A circular recently issued by the Ministry of ealth to housing authorities in England and ales deals with the density of houses.

In a circular, issued on August 14 last, the inion was expressed that a density of approxi-ately 12 houses per acre represented a desirable andard, and that as a general rule, a local thority should not approve the building of ore than 20 houses on any one acre.

"This question," the new circular states, has now been further considered, and, while cognising the necessity of some elasticity in ew of the varying conditions in different stricts, the Minister desires that in future the cal authority should submit for his approval y case in which it is proposed to build houses to grant a subsidy for houses with a density of re than 20 houses on any one acre. Develop-nt work should not be begun by local authori-s and certificates should not be issued to ending builders until the Minister's approval s been obtained. The Minister desires at the me time to re-affirm the view that a density approximately 12 houses to the acre repre-nts a desirable standard." In regard to bsidies for building outside the district, the cular states: "In some cases, local authorities ve found it desirable to subsidise the building houses outside their own districts. Where s is done the local authority should be careful notify the local authority of the district in ich the houses will be built, in order to viate the possibility of the issue of certificates both authorities in respect of the same uses." Copies of the circular may be pur-ased directly from H.M. Stationery Office. ice 1d.

PRICES OF BUILDING MATERIAL.

The Chairman of the Committee appointed by the Ministry of Health to survey the prices of building material has recently issued his report, together with the following covering letter:—

To the Right Hon. John Wheatley, M.P., Minister of Health, and the Right Hon. Sidney Webb, M.P., President of the Board of Trade.

Sirs,—I beg to submit herewith a schedule showing the prices of building materials for the months of January and February, 1924. Following the course adopted in my last report I have set out in full the figures for January, but for February I have only recorded the prices where there has been a change since the previous month. I have again set out, for the purposes of comparison, the prices for April, 1914, and April, 1923.

Between December and January there were no appreciable changes of general application to which attention need be drawn, but it will be seen that since January there have been advances in the price of bricks, ranging from 6d. to 5s. per thousand at Bristol, Manchester. Newcastle, Swansea, and Glasgow. It is further reported from Swansea that the supply of bricks is limited.

There has been a continuance of the rise in the price of lead, to which I have drawn attention in previous reports.

There have been a number of other local fluctuations, of which the most noteworthy is an increase in the price of slates at Edinburgh and Glasgow.

I have the honour to be, Sirs,
Your obedient Servant,
H. J. Mackinder, *Chairman.*

SHEFFIELD MASTER PLUMBERS' ASSOCIATION.

The Sheffield, Rotherham, and District Master Plumbers' Association held their annual dinner recently at Sheffield.

Mr. G. E. Marlow, the President of the Sheffield, Rotherham, and District Building Trades Employers' Association, in proposing the toast of the Plumbers' Association, said it was very necessary that the plumbing business should be controlled by highly practical men, particularly seeing what an important part they had to play in the public health. He was very pleased to see the interest they took in the technical training of their apprentices.

In reference to the shortage of houses, Mr. Marlow mentioned that the building industry intended to get as many apprentices as it possibly could. He appealed to the master plumbers to see that they were not "let down," and to apprentice every boy whom they could get. It was nothing short of a scandal that they had so many people gathered together in houses, and it was necessary that they should apprentice as many boys as possible in order that the housing question could be dealt with.

Responding to the toast, the President (Mr. G. A. Simpson) said the Master Plumbers' Association was not a combine for keeping up prices. Its members all worked independently. One of their main objects was to protect the trade from falling into the hands of unqualified men.

Mr. A. Wylie then proposed the toast of the "City and Trade of Sheffield." to which Mr. R. J. Gordon responded. He paid a tribute to the way in which the Association looked after the technical education of their young craftsmen.

The toast of the West Riding Federation of Master Plumbers' Associations was proposed by Mr. S. H. Uttley. He said some people maintained that there was no need for these Federations, but there was, when they remembered that the plumbing craft bought nearly everything from combines and trusts. If they wanted lead they had to go to the lead combine, and if they wanted metal they had to go to another trust. And so the thing went on right the way through, and they had at the end of it fairly highly-paid labour, which he did not regret so long as they got value for money. They could not build cheap houses under those conditions, and the public should realise this and not blame the master plumber as some of them did. He owed it to the lead combine to mention its generosity in connection with the technical schools. The combine had realised that it had a duty to apprentices, and had agreed to supply lead for the educational authorities practically for nothing.

Mr. G. Wood responded.

The toast of the "Visitors" was submitted by Mr. J. Baxter Corrie, and replied to by Mr. T. Brown, the head of the Sheffield Education Committee Plumbing Classes.

WEST SUSSEX BUILDING ASSOCIATION.

The West Sussex Building and Allied Trades Employers' Association held their annual dinner recently at Littlehampton.

The chair was taken by Mr. H. W. Seymour (Bognor), the outgoing President, and he was supported by Mr. H. W. Bowen (Surveyor to the West Sussex County Council), Mr. Joseph Jubb (Clerk to the Bognor Urban District Council), Mr. J. Draper (Surveyor, Bognor), Mr. J. O. Holt (Chichester), Mr. E. A. Ryan (of the Employment Exchange, Worthing), Captain F. P. Twine, M.B.E., M.C. (Worthing), Mr. Walter C. Patching (Worthing), Mr. E. Taylor (Secretary), Mr. H. G. Williamson, Mr. M. Linfield, Mr. Harry Linfield (Littlehampton), Mr. A. Linfield (Bramber), Mr. R. E. Booker (Surveyor of the East Preston District Council), Mr. W. James (Arundel Park Estate), Mr. A. Booker (Bognor), Mr. W. J. Horton, and Mr. H. Briggs (Bognor).

After the usual loyal toasts, that of "The Association" was given by Mr. Jubb, who said that there was no doubt that the organisation was one that was sadly needed in the county. They knew that in the south organisation was rather slower than in the north, but in all cases of trades and manufactures he did think that organisations of that kind were both necessary and utilitarian. The advice of the architects and builders at a conference was valuable, and the result was that he thought they would have by-laws which would satisfy the builders of the town at large so, they would see in that way their organisation had come in useful.

In response the Chairman said the time had come when they must realise the need of federation, especially in the South of England, and it must be taken into serious thought. They knew little of the federation in the Southern Counties, and did not know really what it meant, but in the early future they could not ignore these organisations; they would have to put their backs into it if they were to hold their own. New things were coming along with a new Government, and time would prove whether they were to be detrimental or beneficial to the trade.

The toast of "The Visitors" was given by Mr. Walter C. Patching, who prophesied that they had a very bad time to go through, but their troubles could be considerably lightened. The professional element could, and surely would, help them in a material degree. It was in their power in every-day business life to assist the federated builder. He thought that all things being equal the federated man should have the preference, for it was he who was bearing the heat of the day. Of the unfederated man he would suggest to him in the first place that he ought not to be outside the federation, he ought to be in helping them.

PROPOSED NEW BUILDINGS & OTHER WORKS *

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABERDARE.—The Merthyr B.G. has decided to erect at Llwydcoed, Aberdare, a recreation hall. The estimated cost is £1,200.

ABERDEEN.—Plans passed by T.C.: Thirteen houses and alterations to premises, at an estimated cost of £17,795.——The T.C. passed the following plans: Six bungalows, Norfolk-road, for Mr. J. P. Miller, per Messrs. Jenkins & Marr, architects; overhead gangway at Rettie's-court, for the Aberdeen Newspapers, Ltd., per Mr. A. H. L. Mackinnon, architect; house, Oakhill-road, for Mr. William Banbury,, per Mr. J. A. O. Allan, architect; house on the south side of Oakhill-road, for Mr. James S. Hamilton, per Mr. J. A. O. Allan, architect.

ABERYSTWYTH.—The T.C. has passed plans as follows: Twelve houses, Smithfield-road, for Mr. Richard Owen; two houses Dinas-terrace, for Messrs. Edwards Bros.——The Council has applied for sanction to erect additional houses under the municipal scheme, and is about to put in hand private street works.

ADWICK.—The U.D.C. has received permission from the M.H. to borrow £15,000 for the purpose of sewerage and sewage disposal works extension. The scheme is estimated to cost £37,000.

ASHINGTON.—The U.D.C. have decided to invite tenders for the erection of 82 houses.

ASHTON-UNDER-LYNE.—Application is to be made to the M.H. by the T.C. for sanction to erect 40 to 50 houses on the Marlboro' site.

ASKERN.—The Askern Colliery Co. is to build about 350 houses.

BARNSLEY.—Plans passed by T.C.: Mrs. Sheriff and Mrs. Blades, house, Woodstock-road; —. Johnson, house, Lamb-lane, Monk Bretton; Mrs. M. Witham, house and garage, Dodworth-road; J. Davis, house and shop, Pontefract-road, Cundy Cross Bar; W. Shaw, 12 houses, Dodworth-road and May-terrace; G. Green, house, Allendale-road; T. & J. W. Beckett, six houses, Shaw-lane.

BARROW.—Plans are now being prepared for the erection of permanent new headquarters for the local detachment of the K.O.R. Lancs. Regiment, in Holker-street.

BATTLE.—Plans passed by R.D.C.: Mr. A. J. Jenner, for Mr. C. E. S. White, of St. Leonards, bungalow at Westfield-road, Baldslow.

BEDFORD.—Plans passed by T.C.: Mr. E. H. C. Inskip for Mr. F. Cirket, bungalow, Elstow-road; Mr. E. H. C. Inskip for Mr. B. Litchfield, two houses, Park-road North: Mr. G. P. Allen for Governors of Harpur Trust, garage, Harpur-street; Mr. G. P. Allen, for Dr. Miller, garage, 8, Harpur-place; Mr. G. P. Allen, for Bedford E.C., cloak-room, Ampthill-road Schools; Mr. F. Corby, house, Bradgate-road; Mr. F. L. Johnson for Mr. A. Davey, house, Kimbolton-road; Mr. E. H. C. Inskip for Mrs. C. Ibbott, garage, Clapham-road; Mr. R. Jeakins, house, Hurst-grove; Mr. R. E. Coulson for Mr. R. Black, house, Park-road, W.——Building subsidies have been granted in respect of the following houses: F. Dickens, 6 houses, Goldington-road; S. Nicholls, two cottages, Brook-street; F. Ashwell, two cottages, Brook-street; E. J. Calladine, six houses, Winifred-road; Jones Bros., two houses, London-road; W. & J. Jones, 4 cottages, Kathie-road; J. Corby & Son, two cottages, Honey-hill-road; R. Jeakings, four houses (Type "B"), Winifred-road; R. Jeakings, four flats, Cutcliffe-grove; J. Sear, two houses, Kathie-road; E. H. C. Inskip, four cottages, Ouseland-road; Mrs. E. M. Terry, cottage, Kathie-road.

BLACKPOOL.—The Building Plans Committee of the Corporation have approved of 80 plans relating to 149 houses.

BLACKWATER.—Subject to grants from the M.T. and the County Councils of Hampshire and Berkshire, the Surrey C.C. agreed to widen Blackwater Bridge on the north side in accordance with a scheme designed to conform with the proposal to construct a loop road and bridge over the railway.

BOWLAND.—The Surveyor contemplates tar-spraying 10 miles of road, at an estimated cost of £60 per mile.

BRIDLINGTON.—The T.C. has decided to make application for sanction to borrow £1,750, the estimated cost of the proposed new bathing pool, together with the erection of the necessary dressing rooms on the Corporation Farm.

BROMLEY.—Plans passed by T.C.: Messrs. Lyons & Co., Ltd., new shop, 41 and 42, High-street; Mr. E. O. Brown, house, Pines-road; Mr. J. S. Dahl, house, Burnt Ash-lane; Mr. W. J. Wood, two houses, Avondale-road; Mr. G. Coe, house, Highfield-road; Messrs. Pearce Bros., four houses. Babbacombe-road.

BURNLEY.—Burnley Victoria Hospital are now in a position to proceed with the building of the new operating theatre. Plans for the work are in course of preparation; the estimated cost is £40,000.

CAMBRIDGE.—Plans passed by T.C.: House, Millington-road, for D. Portway; extension, Hills-road, for G. Hosegood; house and garage, Huntingdon-road, for A. Tavener; house, Highworth-avenue, for F. J. Walker; house, Storey's-way, for Miss H. C. Stewart; house, Milton-road, for A. Sitch.

CARMARTHENSHIRE.—It is reported that extensions are to take place at the Rhandirmwyn Lead Mines, near Llandovery, including the erection of overhead railway from the works to Cynghordy station.——The Carmarthen T.C. proposes to re-roof the market hall, at an estimated cost of £2,000.——The Llanelly B.C. is soliciting offers of a site on which it proposes to erect a public abattoir.——The Lampeter T.C. has approved the project to construct a new street at rear of New-street and the lay-out of road to face Teify Valley. The Council has passed plans for the erection of eight houses, for Mr. Llewelyn Bankes-Price.——The Llandyssul R.D.C. is to invite tenders for the erection of a new bridge at Pontgarreg.——The C.C. has decided to erect a farm institute at Pibwrlwyd at an estimated cost of £14,465.

CASTLEFORD.—Plans passed by U.D.C.: The Surveyor has been instructed to prepare an estimate for the paving of a length of Wheldon-lane with rock asphalte upon a concrete foundation.

DARLINGTON.—Plans passed by T.C.: J. E. Chilton, bungalow, Yarm-road, house and shop, Pierremont-road, and two houses, Pierremont-crescent; T. Boyd, four shops, West Auckland-road; W. W. Lee & Son, 11 houses, Brook-terrace.—The B.G. has decided to proceed with a scheme for providing additional accommodation for the nurses at the Poor Law Institution, according to plans approved by the M.H., at a cost of £1,950.

DARTON.—Six houses, Agnes-road, to be built by G. Haigh, and a bungalow in Huddersfield-road, to be built by A. Sargeant, 4, Plumber-street, Barnsley.

DEVONSHIRE.—The C.C. has adopted a scheme presented by the Bridges and Main Roads Committee for reconstructing and widening some of the chief main roads in the county at an estimated cost of over £1,000,000, of which it is anticipated the M.T. will contribute at least 50 per cent. The period of reconstruction will be spread over five years.

DIDSBURY.—The land adjoining the Elms Farm, on the north side of Stenner-lane, has been handed over to the Manchester Playing Fields Society for recreation purposes.

DORCHESTER.—Plans passed by T.C.: House, Prince of Wales-road, for Miss M. Constance Dyke.

DROITWICH.—Plans have been submitted by the St. Andrew's Parish Council for the approval of the Ecclesiastical Commissioners for the new rectory.

DUKINFIELD.—The Housing Committee are to consider the advisability of acquiring a plot of land bounded by Birch-lane, Yew Tree-lane and Cheetham Hill-road, as a suitable site.

DUMBARTON.—The Council and the L. & N.E.R. Co. have agreed upon the apportionate cost for the erection of an overhead steel bridge at Silverton to dispense with the present level crossing. The total estimated cost is £6,200.

DUNDEE.—Plans and sections of proposed new buildings, &c., have been lodged at the office of the City Engineer: Blackness-road, house, for John Grewar; Broughty Ferry-road, fire escape stairway, for the Northern Agricultural Co., Ltd.; Dalhousie-road, Broughty Ferry, houses, for Thomas Maitland; Jedburgh-road, cottage, for John Thomson; Old Glamis-road, house, for Robert W. Robertson.

DUNFERMLINE.—Messrs. Wilsons and the Clyde Coal Co., Ltd. have decided to erect 124 houses at Saline.

EASINGTON.—The R.D.C. approved the following plans: Seventy-five houses at Wheatley Hill, for the Weardale Coal Co., Ltd.; 27 houses in Thorpe-road, Easington, for Messrs. J. & C. Oliver; and 20 houses at Shotton Colliery, for the Durham Aged Mineworkers' Homes Association.

EAST DEREHAM.—Plans passed by U.D.C.: For Mrs. Olley, house in Baxter-row; Mr. C. Juby, two houses in King's-road.

EAST HAM.—Plans passed by B.C.: Two houses and shops, corners of Bedford, Wall End and Barking-roads, Gale Bros.; house, Chester-road, corner of Katherine-road, C. Manning; three lock-up shops, High-street North, between Burnell Arms and Tennyson-avenue Church, F. Smith; nine houses, 214–230, Masterman-road, H. C. Seymour; eight houses, 65–79, Cotswold-gardens, F. Hamlett; 12 houses, Bedford, Wall End and Barking roads, Gale Bros.; 20 houses, Flanders-road, O. R. Anstead; two houses, 192–194, Dersingham-avenue, J. W. Cooper; two houses, Chester-road, C. Manning.

EDINBURGH.—The Dean of Guild Court has granted warrants to the following, among 19 full petitions that were presented: Alexander Innes, bungalow at Alnwickhill-road, Liberton; Archibald M'Kechnie, bungalow off Saughtonhall-drive; Thomas Rowatt & Sons, reconstruction of warehouses, 126, Fountainbridge; Thomas Ferguson, 45 houses, Colinton-road (interim warrant); Thomas L. Brown, house, 12, Lynedoch-place; A. W. Millar, two semi-detached villas, Lygon-road; Alexander Ketchin, villa, Lanark-road, Kingsknowe; William Smith, villa at Lanark-road, Kingsknowe.

ELY VALLEY (GLAM).—The G.W.R. Co. is to erect a new railway station in the Ely Valley.

ESTON.—The U.D.C. have resolved to negotiate with Messrs. Bolckow, Vaughan & Co., Ltd., for the acquisition of 235 acres of land at Grangetown for a housing site.

ETON.—Plans passed by R.D.C.:—House, Bath-road, Langley, for Mr. J. Kettell; eight bungalows, Hythe End, Wraysbury, for Mr. W. H. Pope; four cottages in Farnham-road, Stoke Poges, for Miss E. Stevenson; bungalow on the Wrexham Wood Estate, for Mr. J. Fry; 70 houses and 30 bungalows on the Richings Park Estate, Iver, for Mr. F. Sykes; bungalow in Ouseley-road, Wraysbury, for Mr. R. Hilder; building near Taplow Railway Station, for Messrs. W. Wood & Son; bungalow in Ellington-road, Taplow, for Capt. B. Pratt-Barlow; roads and sewers on the Ethorpe Estate, Gerrards Cross, for the Ethorpe Estate; bungalow, Langley-road, Langley, for Mrs. Hamilton Field; house and garage in Tilehouse-lane, Denh for the Bailey Hill Development Company; hous Farnham-road, Stoke Poges, for Mr. R. H. Barfie cottages in Cheapside-lane, Denham, for Mr. W. Childs and Mr. C. Fantham; house in Aylesbury-ro Denham, for Mrs. A. Wise; house and shop in Slou road, Langley, for Mr. R. Ransome; bungalow Cippenham-lane, for Messrs. J. K. Hoyle & Co.; bungalows on the Manor Farm Estate, Wraysbury, Mr. A. Reffell; bungalow in Stomp-road, Burnham, Mr. Cameron; three bungalows at Wraysbury, Messrs. Brinkman Bros.; bungalow at "Whiteha Wraysbury, for Mr. H. A. White; bungalow at Hy End, Wraysbury for Mr. H. L. Grout.

FALKIRK.—At a sitting of Dean of Guild Co application was made by the Falkirk Hosiery Comp for warrant to erect, at an estimated cost of £5,00 new hosiery factory at Kerse-lane, Falkirk. petition was granted.

FARNHAM.—The R.D.C. has submitted a sche to the Surrey C.C. for reconstructing and widen Lower Bourne Bridge from 16 ft. to 30 ft., and Council has authorised the work at a cost not exceed £607, conditionally upon the Ministry of Transp providing half that sum.

FEATHERSTONE.—Plans passed by U.D.C.: Hou Whinney-lane, Streethouse, for Mr. H. Brabbs; t houses, Whinney-lane, Streethouse, for Messrs. E. & Briscoe; two houses, Pontefract-road, Purston, Messrs. H. Cuttle and C. Halstead; two houses, Pon fract-road, Purston, for Mr. Fred Hope.—The Surve is instructed to erect a temporary bridge over the b leading to the Streethouse Housing Scheme.

FOLKESTONE.—Plans passed by T.C.: Hou Godwyn-gardens, Mr. J. L. S. Dahl, for Mr. F. Atkins.

GALASHIELS.—The T.C. has decided to proceed w the erection of a new traffic bridge over the Ga between Park-street and Stirling-place, at an estima cost of from £1,572 to £1,722.——The Market-squ is to be remodelled and paved with granite setts concrete foundation, at an estimated cost of £950.

GISBOROUGH.—The R.D.C. have received sanct from the M.H. to grant subsidies in respect to t erection of 50 houses.

GLAMORGAN.—The C.C. is to purchase for £13,0 Duffryn House, Mountain Ash, for conversion, at estimated cost of £20,000 on alterations, into a sec da y school. The Mountain Ash U.D.C. has appli for a portion of the building for conversion to use as art gallery and museum.—The Bridgend U.D.C. h passed plans as follows: Two houses at Merthyrmaw for Messrs. Roberts & Williams; two houses at Bry teg, for Messrs. Isaacs & Jones.—The Merthyr Ty B.C. is to re-apply for sanction to proceed with housi at Abercanaid, and will proceed with house erection the Treharris district.—The Parks Committee is spend £11,500 on the parks, the proposed works cluding the repair of existing buildings and additio park constructions.——The C.E. Committee h resolved upon the following works: Urgent additions Aberdare Girls' and Barry Boys' Intermediate Schoo the provision of a new school at Pyle, a new inte mediate school at Caerphilly, and a new school Ystradmynach.

HALSTEAD.—Plans passed by U.D.C.: Bungalo Stanley-road, for Mr. H. North.

HASTINGS.—Plans passed by T.C.: House Sedlescombe-road South, for the Misses Harvey, p Messrs. Smee & Houchin, architects; bungalow Moscow-road, for Mr. J. W. Hill, per Mr. J. Hu architect; conversion of stables into two cottage "Ledsham Court," Sedlescombe-road, North, for Maj A. S. Collard, per Mr. P. H. Oxley, architect; hou Tower-road West, for Mr. J. King Frost, per Mr. R. Freeman, architect; bungalow, Harold-road, Cli Vale, for Mr. F. Clarke, per Mr. J. Hunt, architect four houses in Berlin-road, for Messrs. Maidwell & Emerton, per Mr. D. B. Sceats, architect; conversio into flats, 45, Eversfield-place, for Trustees of the Ed Hatchett Estate, per Mr. Hy. Ward, architect; hou at St. Helen's, for Mr. J. B. Spiers, per Mr. J. Hun architect; pair of villas, Bexhill-road, for Messrs Cotton & McKae, per Mr. H. Stroud, architect; hou at Brittany-road, for Mrs. L. S. Taylor, per Mr. H. Jeffrey, architect; bungalow at Bexhill-road, for M J. Gasson, per Mr. P. H. Oxley, architect; bungalow Albany-road, for Mr. C. J. Hughes, per Messrs. Callo & Callow, architects; bungalow at Prince's-road, f Miss Hudson, per Mr. C. Hughes, architect; house a stables at St. Helen's Park-road, for Miss Aubrey, p Mr. Hy. Ward, architect.

HAWORTH.—Plans passed: Proposed new R.C church at Craven Royd, for the Rev. J. Twomey.

HAZELL GROVE.—Plans passed by U.D.C.: For houses, Glyn-grove, for Mr. C. J. Allman; two house Torkington, for Messrs. J. & E. Hunslett; hous Bramhall Park-road, for Mr. E. Smith; house, Bram hall-lane, for Mr. S. J. Dawson; house, Maple-road, f Mr. A. Corrie; additions to golf club house, for Bram hall Golf Club; two houses, Offerton-lane, for Mr. W. Beattie; house, Glendene-avenue, for Mr. W. H. Snow

HEBBURN.—The Surveyor to the U.D.C. is to invi tenders for the erection of 11 houses, the first insta ment of a scheme for 50 houses.

HINDLEY.—The Housing Committee are proposi erecting 14 houses on the building site at Atherto road.

HORBURY.—Plans passed by U.D.C.: House, Jenkin-road, for J. Dyson; two houses in Windyridg street, for E. Lord.

HOVE.—The T.C. proposes to erect a pavilion St. Ann's Well Gardens, at a cost of £1,420; and similar building in Hove Park, estimated to cost £1,26 Plans passed: Messrs. Dumbrell, Turner & Wells, f Mr. Ellis, pair semi-detached houses, Erroll-road; M G. B. Carvill, for Mr. C. S. Burton, house, Doroth road; Mr. E. E. Brown, pair semi-detached house Norman-road; Mr. A. P. Fisher, for Messrs. Fisher Bone, pair semi-detached houses, Hallyburton-road Mr. B. James, for Mr. W. Cooper, conversion into flat 2, Eaton-villas; Mr. B. James, for Mrs. Webste

(*Continued on p.* 480.)

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Rottons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	2 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick:—			
2½ in.	11 3 0	3 in.	13 2 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed		D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and	
Stretchers	22 0 0	two Ends	31 10 0
Headers	21 10 0	Two Sides and	
Quoins. Bull-nose and 4½in.		one End	32 10 0
		Splays and	
Flats	28 10 0	Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
In. per yd. super	2 1	3 in. per yd. super	2 11
½ in. "	2 6	4 in. "	3 6

	s. d.		
Thames Ballast	10 6	per yard.	
Pit Sand	14 9	" "	
Thames Sand	15 6	" "	delivered 2 miles radius Paddington.
Best Washed Sand	15 6	" "	
in. Shingle for Ferro-Concrete	14 0	" "	
in. "	15 0	" "	
in. Broken Brick	10 6	" "	
Van Breeze	5 6	" "	

Per ton delivered in London area in full van loads.

	£ s. d.		£ s. d.
Best Portland Cement, British Standard Specification Test £2 18 0 to £3 51/– alongside at Vauxhall in 80-ton lots.			3 6
Ferrorete per ton extra on above			0 10 0
Super Cement			4 8 0
Roman Cement			5 15 0
Portian Cement			5 15 0
Keene's Cement, White			5 15 0
" " Pink			5 10 0
Plaster, Coarse, Pink			3 0 0
" " White			3 12 6
" Fine			5 12 0
Trapite, Coarse			3 9 0
" Finish			3 17 0
Grey Stone Lime			2 10 9
Chalk Lime			2 10 9
Best Ground Blue Lias Lime			2 13 6
Hair			17 0 0
Granite Chippings			1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

	s. d.
COMPTON-WOOD STONE. Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/–
Random blocks from 10 ft. and over "	17/–
Sawn two sides "	27/–
Sawn three or four sides "	32/–
YORK STONE, BLUE—*Robin Hood Quality.* Delivered at any Goods Station London.	s. d.
In. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
In. rubbed two sides, ditto "	5 9
In. sawn two sides slabs (random sizes) "	2 1½
In. to 2½ in. sawn one side slabs (random sizes) "	1 5½
½ in. to 2 in. ditto, ditto "	1 3
YARD YORK— Delivered at any Goods Station London.	
Rappled random blocks Per Ft. Cube	5 6
In. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
In. rubbed two sides ditto "	6 0½
In. sawn two sides slabs (random sizes) "	2 10
In. ditto. ditto "	2 5
In. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded " "	7 9
Sills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches,	per stan.	Inches.	per stan.
11 × 11	£4 0	3 × 6	£25 0
9 × 9	32 0	3 × 11	31 0
8 × 8	27 0	2 × 11	32 0
7 × 7	27 0	3 × 9	30 0
8 × 8	25 10	2½ × 9	30 0
7 × 7	25 10	3 × 4½	25 0
7 × 7	25 0	3 × 4	25 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£36 0
1 × 9	£24 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/–	1¼	33/6
⅞	23/–	1½	38/6
1	26/–		

TONGUED AND GROOVED FLOORING. Inches.	per sq.	MATCHINGS (BEST). Inches	per sq.
1	26/6	½	17/6
1¼	33/6	¾	21/–
1½	28/6	1	26/–

Inches	BATTENS	s. d.
¾ × 2		2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 9
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 12 6
Ditto hand made ditto	5 17 6
Ornamental ditto	0 9 6
Hip and valley tiles (per dozen) Hand made	0 9 0
Machine made	

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
" Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts; carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.	£ s. d.
Common Bars	13 10 0 to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	15 0 0
Staffordshire "Marked Bars"	17 0 0	18 0 0
Mild Steel Bars	12 10 0	13 10 0

METALS (*Continued*).

	£ s. d.	£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	14 0 0
Hoop iron, basis price	16 10 0	17 10 0
" Galvanised	31 0 0	32 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 0 0	16 0 0
" " " 24 g.	16 0 0	17 0 0
" " " 26 g.	18 0 0	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	25 0 0
Sheets Galvanised Flat. Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	47 10 0
Pipe in coils	48 0 0
Soil Pipe	51 0 0
Compo pipe	54 0 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s.6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

	£ s. d.		£ s. d.
Old lead, ex London area, at Mills per ton	35 0 0	..	—
Do., ex country, carriage forward per ton	36 0 0	..	—

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/–	76/–	153/–	246/–	510/– per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/–	92/–	174/–	300/–	588/– per doz.

NEW RIVER PATTERN SCREW DOWN MAIS FERRULES.

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/–	23/–	30/–	42/– per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/–	29/–	36/–	63/– per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/–	56/–	98/–	162/–	228/– per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1¾ in.	2 in.	3 in.
8 lbs. P. traps	33/–	41/–	56/–	101/– per doz
8 lbs. S. traps	35/–	45/–	66/–	126/– "

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin " "	0 2 4	.. —
Copper nails "	0 2 3	.. —
Copper wire "	0 2 4	.. —
TIN—English Ingots "	0 2 7	.. —
SOLDER—Plumbers' "	0 1 2	.. —
Tinmen's "	0 1 4	.. —
Blowpipe "	0 1 6	.. —

PAINTS, &c.

	£ s. d
Raw Linseed Oil, in pipes per gallon	0 3 8
" " " in barrels "	0 3 10
" " " in drums "	0 4 1
Boiled " " in barrels "	0 4 1
" " " in drums "	0 4 4
Turpentine in barrels "	0 6 9
" in drums (10 gall.) "	0 7 0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	61 5 0

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Speedi" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 84 15 0

Red Lead, Dry (packages extra) per ton	50 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocol per cwt.	0 15 6
Size, XD Quality ftn	0 3 0

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
15 oz. fourths	3½d.	32 oz. fourths	8⅝d.
15 ,, thirds	4½d.	32 ,, thirds	10½d.
21 ,, fourths	5d.	Obscured Sheet, 15 oz.	4d.
21 ,, thirds	6½d.	,, ,, 21 ,,	5⅝d.
26 ,, fourths	6d.	Fluted 15oz. 6¾d., 21oz. 9½d.	
26 ,, thirds	7⅞d.	En'lled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
Rolled plate	4½d.
Rough rolled	5⅝d.
Rough rolled	5⅞d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7⅝d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Cuirass Black Enamel		0 7 0

Tidying Birmingham.

A number of Birmingham residents were recently fined 2s. 6d. each, under a new by-law, for littering the streets with paper.

THE SCOTTISH BUILDER

HOUSING, &c., ACT, 1923: BUILDING BY PRIVATE ENTERPRISE.

The Scottish Board of Health has issued the following circular, signed by Mr. Alex. M'Kinna, the Housing Secretary, to local authorities:—

"As some misapprehension appears to exist on the point, I am directed by the Scottish Board of Health to explain that, in terms of Section 2 of the above Act, subsidy is payable only in respect of houses the erection of which has been begun subsequent to the date of the Board's approval of the local authority's scheme. Where, however, prior to that date but subsequent to April 25 last the erection of a house has been commenced on the faith of an assurance given by the local authority that the plans were in order and that the house when completed would be eligible for any subsidy which the local authority might subsequently determine to give, the Board are prepared to agree to subsidy being paid on being satisfied as to the date and terms of the said assurance. In each case, however, an application accompanied by a statement of the facts should be made for the Board's approval."

Montrose Bridge.

At the second conference of the Montrose Town Council and Forfar County Road Board held recently at Montrose, the question of Montrose Suspension Bridge was discussed. Alternative plans for the widening and strengthening of the bridge at an estimated cost of about £40,000, and for the erection of a new bridge at an estimated cost of £88,000, had previously been submitted to the Ministry of Transport, whose representative at Edinburgh replied that the proposal to erect a new structure commended itself to him as being the more suitable one, and added that "it is probable that a grant in excess of 50 per cent. of the estimated cost would be made." The present conference was in favour of a new bridge being erected, provided a grant of not less than 75 per cent. is given by the Ministry, a motion to this effect being made by Provost Foreman, who contended that Montrose Bridge was not only of local but of national importance. Colonel Stewart Fothringham remarked that Montrose Bridge was part of the great road scheme from Edinburgh to Aberdeen, and must be taken into account. A deputation was appointed to interview the Ministry of Transport, and an endeavour was made to get Sir Henry Maybury to visit the bridge.

New Bridge at Dumbarton.

At a recent meeting of Dumbarton Town Council, Provost Garrick presiding, the manager of the L. & N.E. Railway Company wrote stating that to substitute an overhead bridge at Silverton for the present level-crossing would cost £6,200. The structural work of the bridge and the approaches would cost £2,200 and the railway company were prepared to meet that cost and pay a sum of £900 if the Town Council would bear the expense of the remainder of the work, each party agreeing to maintain their respective parts. The Provost said the arrangement the company proposed was one they could not hope to better. It was agreed to remit the matter to the Roads and Bridges Committee with powers, and to apply to the Unemployment Grants Committee for a grant.

Obituary.

The death took place recently of Mr. Elphinstone Forrest, a well-known Glasgow building contractor. Mr. Forrest, who was 65 years of age, was a native of Glasgow, and he set up business in the city as a building contractor over 20 years ago. During the war he undertook a large amount of Government work, and was responsible for the construction of Rothesay Hospital. In recent years several housing schemes were carried out by his firm including the Glasgow Corporation ventures at Greenhead and Coplawhill. Mr. Forrest was at one time President of the Scottish Contractors' Association, and a Deacon of the Incorporation of Masons.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick- Masons' layers'	Plas- terers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Alexandria	1/7½	1/7½	1/7⅞	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2⅔	
Bathgate	1/7½	1/7½	1/7⅞	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2⅔	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2⅔	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/5½	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2⅔	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2⅔	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/ ½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2⅔	
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1 0	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2⅔	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2⅔	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 471.

NEW BUILDINGS IN SCOTLAND

Kirkcaldy.—CINEMA.—It is reported that the properties of 198–206, High-street have been purchased for a site for an up-to-date cinema.

Elgin.—HOUSES.—The T.C. has instructed Mr. Doig, the architect, to obtain estimates for the erection of three blocks of houses to complete the Maisondieu site.

Paisley.—SUB-STATION.—The T.C. are to proceed with the erection of the electricity sub-stations in Ferguslie Walk and Neilston-road.

Ayr.—VARIOUS.—The Dean of Guild Court has passed the following plans: Alexander Stores, Ltd., shop and stores in Alloway-street; F. H. McPherson, houses in Robsland-avenue; J. &. D. Meikle, bungalow at Bellevue Quadrant.

Dundee.—HOUSES.—The Corporation Housing Committee has appointed a sub-committee to consider the question of the erection of concrete block houses.

Cupar Angus.—ADDITIONS.—The Perthshire E.C. has instructed the Master of Works to accept the lowest tenders by local contractors for the erection of a brick addition to Cupar Angus school.

MARCH 22.—**Thurso.**—HOUSES.—For the erection of eight houses for the Caithness C. Architects, Messrs. J. Ross McMillan, 10 Crown-street, Aberdeen, and Sinclair McDonald Thurso.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	25	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1¼ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

		1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets		2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed		1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1½ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	5½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	65	0
Do. Do. in flats	"	63	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7	
Do. service	"	1/10	2/5	2/10	4/3		
Do. soil	"						7/6
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	"	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PROPOSED NEW BUILDINGS

(*Continued from* p. 476.)

conversion into flats, 31, Lansdowne-place; Messrs. F. T. Wilson & Sons, for Mrs. A. L. Wherry, bungalow, Langdale-road; Mr. H. W. Sanders, for Mrs. E. Degg, bungalow, Erroll-road; Mr. F. C. Axtell for Miss E. Rose and Mrs. J. Barnes, house, Hove-street; Mr. B. James for Mr. W. Cooper, conversion into flats, 2, Eaton Villas; Messrs. Dumbrell, Turner & Wells, for Mr. Rice, bungalow, Erroll-road; Mr. W. Whiteman for Mr. L. M. Hotton, house, Glebe Villas; Mr. F. C. Axtell for Mr. S. Lorie, conversion into flats, 49, St. Aubyns; Messrs. Turner & Wells for Mr. B. A. Pigott, bungalow, Erroll-road; Messrs. Dumbrell, Turner & Wells, pair semi-detached houses, Erroll-road.

KING'S LYNN.—Plans passed by T.C.: Four semi-detached houses, Loke-road, for Messrs. Foreman & Sons; house, Loke-road, for Mr. T. Ollett; house, Vancouver-avenue, for Mr. R. Woodbine; six semi-detached houses, Vancouver-avenue, for Messrs. T. Ives & Sons; four semi-detached houses, Vancouver-avenue, for the King's Lynn Gas Company.

KIRKCALDY.—The Council's waterworks are to be extended, at an estimated cost of £85,000.

LONDON (GREENWICH).—Eight houses, Shooter's Hill-road, for P. B. Dannatt.

LOWESTOFT.—Plans passed by T.C.: J. Knights Jones, shop and house, Beccles-road; E. Lacon & Co., new licensed house, Water-lane; J. M. Barnard, bungalow, Cotmer-road; A. Mitchell, additions, "The Lodge," Hall-road, Oulton Broad.

LYNMOUTH.—Ashington Colliery Co.'s development plans have been approved for a new hotel at an estimated cost of £12,000. The Colliery Co. also propose to complete the erection of 800 houses during the next two years.

LYTHAM ST. ANNES.—The T.C. are considering the provision of a suitable site for a public cemetery within the borough, instead of utilising the site off Clifton-drive North.

MACCLESFIELD.—The R.D.C. have approved plans for the erection of nine houses at Poynton.

MALLING.—Plans passed by R.D.C.: Bungalow at Mackenders-lane, Eccles, for Mrs. C. Baker; bungalow, Pilgrim-road, Trottiscliffe, for Mr. J. E. Woden; bungalow, at Blue Bell Hill, Burham, for Mr. J. F. Kane; bungalow, Birling-road, Snodland, for Mr. L. Perkins; house, Ham Hill, Birling, for Mrs. P. Eastwood.

MANCHESTER.—Plans passed: House, Spring-gardens, Didsbury; house, Clinton-avenue and Park-field-road, Withington; house, Clowes-street, Withington; house, Wilbraham-road, Chorlton-cum-Hardy; house, Rye Bank-road, Chorlton-cum-Hardy; six houses, Egerton-road South, Chorlton-cum-Hardy.

MARGATE.—Plans passed by T.C.: House, Lower Northdown-road, for G. Pettman; five houses, Lower Northdown-road, for C. R. Elcome; house and garage, Laleham-road, for Wiles Bros.; house, Ethelbert-road, for C. S. F. Palmer.

MILNROW.—Plans have been approved for a house in Shaw-road, New Hey, for Mr. G. M. Parker; and a pair of villas, in Buckley Hill-road, for Mr. A. Ogden.——The E.C. Sub-Committee reported that an arrangement had been made with the Newhey Co-operative Society to lease from them a plot of land in Berry's Mill-road, for the erection of a transformer sub-station.

MONMOUTHSHIRE.—A public meeting held at Pontypool has authorised the U.D.C. to press forward its scheme to widen George-street.——The Rhymney U.D.C. has referred to its Housing Committee a proposal that 90 additional Council houses be erected, and is considering the erection of a public abattoir.——The Mynyddislwyn U.D.C. is to apply for tenders for the erection of stores building for the electricity department.

MUNDESLEY.—Bungalow, for Mr. G. Cheeson.

NEWPORT (MON).—The question is being considered by the B.C. of the construction of a swing bridge alongside the temporary bridge.

OLDHAM.—Plans passed by T.C.: A. Kershaw, 8 houses, Melling-road; G. B. Hardy, house and shop, corner of Manley-road and Langham-road; J. Makin, eight houses, Lynn-street.

PEMBREY.—The Carmarthenshire E.C. has given notice to acquire land to erect a new school.

PEMBROKESHIRE.—The Narbeth Council is to put in hand at once the work of erecting new Felinfach bridge and the construction of Vicar's Mill; Vargwr and Maenclochog bridges will be put in hand immediately plans have been completed.

PENARTH.—The U.D.C. has applied to the M.H. for sanction to put in hand at once the work of reconstructing the pier.

PENMAENMAWR.—Plans passed by U.D.C.: Two houses in Treforris-road, for Messrs. Henry & Lowe; two houses on Esplanade, for Messrs. Hughes & Lloyd; house in Station-road East, for Mr. J. Sambrook; three houses off Celyn-street, for Major J. R. Williams; six houses in Marlandir Isaf, for Mrs. Cemlyn Jones.

PONTEFRACT.—The Central Miners' Welfare Fund has made a grant of £7,500 to the Pontefract Miners' Welfare Scheme for the conversion of "Thornycroft," a large residence in Halfpenny-lane, into an up-to-date institute. The estate, including the residence and other buildings, is six acres in extent.——Plans passed by T.C.: Two houses, Swanhill-lane, for Mr. T. W. Hill; lay-out of building estate, for the exors. of the late Mr. B. Hartley; 13 houses, Knottingley-road, for Mr. D. Cockshaw; bungalow, Halfpenny-lane, for Mr. F. W. H. Holmes; bungalow, Halfpenny-lane, for Mr. E. H. Clarke.——Plans passed by R.D.C.: Twelve houses, Orchard-place, Glasshoughton, for for Mr. H. Roper; house, Whiteley Bridge, for Mr. A. F. Lindley.——The Yorkshire Electric Power have acquired a site on the Airedale Housing Estate, upon which they propose to erect an electricity sub-station.——The E.C. has submitted proposals to the B.E. for providing additional class-room accommodation at Love-lane Council School, at an estimated cost of £950.

PRESTONPANS.—A new Miners' Welfare Institute is to be erected between Cockenzie and Prestonpans on a site, the gift of the Edinburgh Colliery Co. The institute will comprise billiard-room, lecture-room, &c., with accommodation for hallkeeper.

REDCAR.—The North Riding E.C. is forwarding plans of a central school at Redcar, estimated to cost £8,200.——Active measures are being taken by the T.C. to meet the housing deficit. Sanction has been secured from the M.H. to erect an additional 50 houses.

ROCHDALE.—A special committee has been appointed by the T.C. to negotiate the purchase of the West Hill Estate, as the site of the new fire station and the erection of 30 houses for the brigade.——The Borough Surveyor has been instructed to invite tenders for the new bridge at Hamer.

ROCK.—Plans passed by R.D.C.: Bungalow, for Mr. F. S. Taylor, at Bliss Gate, and bungalow, at Far Forrest, for Mr. T. H. Pratt.

RUISLIP NORTHWOOD.—Plans passed by U.D.C.: House, Howletts-lane, Ruislip, for Mr. J. H. Wallis; house, Sandy Lodge-way, Northwood, for Mr. J. E. Henderson; house, Hilliard-road, Northwood, for Mr. T. White; house and shop, Rickmansworth-road, Northwood, for Mr. R. Churchill, submitted by Mr. W. L. Carr; pair houses, Ruislip Manor Estate, for Ruislip Manor, Ltd.; pair houses, Manor-road, Ruislip, for Mr. C. R. Tinson; house, Church-avenue, Junction with Manor-road, Ruislip, for Mr. Alban Booth, by Mr. A. E. Bullock; house, Manor-road, Ruislip, for Mr. F. W. Sullivan, by Mr. E. Batten; house, Manor-road, Ruislip, for Mr. W. Knapp, by Messrs. G. Reginald Farrow & Turner; pair semi-detached houses, Acacia-avenue, Eastcote, for Mr. S. Swift; house, 42, Eastcote, End Park Estate, for Messrs. Telling Bros., by Mr. Frank Osler; house, Lime-grove, Eastcote, for Mr. R. Chatterton, by Mr. A. V. Low; bungalow, Poplar-avenue, Eastcote, for Mr. C. Davies, by the Home Freeholds; house, Elm-avenue, Eastcote, by Mr. A. Swift; pair semi-detached houses, Eastcote End Park Estate, Eastcote, for Messrs. Telling Bros., by Mr. Frank Osler; bungalow, Manor-road, Ruislip, for Mr. Frank H. Ordidge, by Mr. L. R. Harrison; house, Hilliard-road, Northwood, for Mr. W. Watts, by Mr. W. L. Carr; house, Kingsend-avenue, extension Ruislip, for Mr. G. D. Fryer, by Mr. W. L. Carr; bungalow, Brickwall-lane, Ruislip, for Mr. F. E. Muir, by Mr. H. J. Mark.

RYDE.—The T.C. has decided to apply to the M.H. for permission to erect a pavilion on the Western Esplanade at a cost of £3,000.

RYTON.—The U.D.C. have approved of plans submitted by Messrs. W. Dixon & Son, on behalf of the Greenside Welfare Committee for the erection of a hall and institute.

SHEFFIELD.—Plans passed by T.C.: Four houses, St. Lawrence-road, for Mr. T. H. Bailey; two houses, Rupert-road, for Mr. C. Wellings and Mrs. Florence M. Gray; house, Bawtry-road, for Mr. G. H. Johnson; two houses, Rockley and Hessle-roads, for Mr. B. F. Glossop; two houses, Stubbin-lane and North Quadrant, for Mr. H. Oxspring; two houses, Greasborough-road, for Mrs. E. Stones; two houses, Kennedy, Holmhirst and Chatfield-roads, for Messrs. S. Higton & Sons; house and garage, Firbeck-road, for Mr. A. E. Tyler; house, Overton-road, for Mr. W. J. Patchett; house, Canterbury-avenue, for Mr. H. Downing; house, Carter Knowle-road, for Mr. J. T. Muxlow; house and shop, City-road, for Mr. E. Ryder; house and garage, Stumperlowe Crescent-road, for Messrs. T. Wilkinson & Sons; two houses, Cairns-road, for Miss Meeks.

SOUTH CROSLAND.—Plans passed by U.D.C.: Two houses, Crescent-road, for Messrs. Taylor & Moorhouse.

SOUTHEND-ON-SEA.—Plans passed by T.C.: House Duke of Manchester-drive, J. Wood; house, North-avenue, Welbourn & Sons; bungalow, Undercliff-gardens, A. Taylor; house and garage, Oakleigh Park-drive, Keatinge & Knight; house, King's-road, F. G. Bethley; two houses, Maple-avenue, J. Vesty; three houses, Tankerville-drive, T. E. Gill; three houses, Belle Vue-road and Stromness-place, H. Carter; two houses, Ely-road, L. J. Simpson; two houses, Fairfax-drive, A. Markwick; bungalow, Carlton-avenue, Westcliff, D. Sawkins; house, King's-road, Tomkins & Smith; five houses, Ilfracombe-road, D. J. Standen; 14 flats, Westcliff Park-drive, T. J. Dennis; two houses, Salisbury-road, H. H. Jay; two houses, Chalkwell-avenue, A. J. Cross; house, Marguerite-drive, Miss Coombes; six houses, Beedell-avenue, A. Perry; house, Chalkwell-avenue, J. Ingram; four houses, Victoria-drive, Hart & McCrow; bungalow, Rochester-drive, J. Clayton; two bungalows, Tunbridge-road, G. P. Harrison; two houses, Elmsleigh-drive, J. Wood; house and garage, Fernleigh-drive, A. J. Beecroft; four houses, Lonsdale-road, Welbourn & Sons; house, Chalkwell-avenue, H. E. Frith; tea-room, Thorpe Esplanade, Misses E. & C. Walling; house, Brook-road, V. T. Gurner; house and shop, Westborough-road, F. F. Ramuz; four bungalows, Crescent-road Twitchett & Co.; bungalow, Undercliff-gardens, A. Taylor; house and garage, Oakleigh Park-drive, Keatinge & Knight; three houses, Tankerville-drive, T. E. Gill; house, Chadwick-road, F. G. Bethley; two houses, Maple-avenue, J. Vesty; three houses, North-avenue, D. J. Standen; three houses, two in Inverness-avenue and one in Fairfax-drive, W. R. Wells; house, Salisbury-road, H. Soulsby; four flats, London-road, C. Salmon; two houses, Marguerite-drive, D. Wayland.

SOWERBY BRIDGE.—Plans passed: Houses and shop, for Messrs. Helliwell & Shaw, and two houses and shop, at Plane Trees-road.

STOCKTON-ON-TEES.—Plans passed by T.C.: Pair semi-detached villas on Grange Estate, for S. Grierson and T. Wintersgill, and two bungalows on Blue Hall Estate.——Plans passed by R.D.C.: Sixteen houses, Egglescliffe Village, for Mr. J. T. Gaunt.

SWANAGE.—The U.D.C. has decided to build 30 houses.—Plans passed: Mr. John Parsons, shop and premises, King's-road East.

THORNABY.—The B.S. has placed before the T.C. plans and specifications for 50 new houses, to be built on the Corporation's housing site, and tenders are to be asked for.——The T.C. have approved of 17 houses to be erected by the Co-operative Society on the Cobden estate.

WAKEFIELD.—Plans passed by City Council: House, Barnsley-road, for Mr. W. Noutch; house, Sandal, for Mrs. Pratchett; house, Pledwick-lane, for Mr. Fred. Fitton; three houses, Dewsbury-road, for Mr. R. Schofield; house, Horbury-road, for Mr. L. Rylance; house, Horbury-road, for Mr. A. E. Archer; house, Field's-lane, for Mr. A. E. Wakefield; house Horbury-road, for Mr. A. Fallas; motor showrooms and offices, Wood-street, Chancery-lane and "The George and Crown" yard, for Messrs. Hylands, Ltd.——The City Council have received the approval of the B.E. for the erection of proposed school on the Portobello Housing Estate, off Manygates-lane.——The Housing Committee has recommended to the City Council that, in addition to the ordinary housing programme, they propose to erect 250 concrete houses on the duo-slab principle, at an estimated cost of £125,000. It is also proposed to erect 340 houses, including 100 by private enterprise and 84 for re-housing dispossessed tenants, subject to the approval of the M.H.——Plans passed by R.D.C.: Six houses in Durkan-lane, Criggleston, for Mr. A. E. Shaw, and two houses, Pontefract-road, Sharleston, for Messrs. Harper & Oliver.

WARDLE.—Plans have been approved for the laying-out of the Grosvenor Estate, comprising 103 houses; and also for 20 houses in Gloucester-avenue and Worcester-avenue, off Birch-road.——The Surveyor reported he had prepared a rough plan for the Birch-road widening as a scheme for next winter's unemployment work.

WAREHAM.—Plans passed by T.C.: Two pairs of cottages, Ropers-lane, for Capt. G. H. Marston, R.N.; pair of cottages for Messrs. Strong & Co.; cottage for Mr. Burgess.

WEST LOTHIAN.—The Linlithgow C.C. has resolved to make application for a Provisional Order to authorise the acquisition of ground at Baddensgill for the construction of a reservoir on the Lyne Water, at a cost of £339,000 odds, for the purpose of laying a main to the Bathgate district.

WEST RIDING OF YORKSHIRE.—The C.C. has approved of the erection of new Middle Schools, and enlargements for middle school purposes as follows—Bentley (accommodation 500), at an estimated cost of £20,000; Gisburn (50 additional), £2,000; Crigglestone (300), £12,000; Rossington (500 additional), £20,000; and Edlington (1,000), £30,000.

WHITEFIELD.—Much new work is required at the Sewage Works, the Mersey and Irewell Joint Committee complaining of the effluent at the Moss-lane Works, owing to the bad condition of the sprinklers. Steps are being taken to remedy this.——Plans approved for the erection of 40 houses, off Bury Old-road, for Mr. F. Walker.

WIGAN.—Mr. Gilbert Scott, the architect of the Liverpool Cathedral, is submitting plans to the Corporation for the proposed war memorial, for which up to date nearly £2,800 has been raised by public subscription.——The Miners' Welfare Fund propose to allocate the sum of £25,000 to the Governing Body of the Mining and Technical College, to provide additional buildings, at a cost of £20,000; and laboratory equipment to the value of £5,000.——Allocations for mining education previously announced include a grant of £15,000 for Barnsley Technical School; and one of £10,000 to the Technical College at Stoke-on-Trent.

WOLVERHAMPTON.—Plans passed by T.C.: J. C. Horobin, house, Birches Barn-road; Pidgeon Bros., 12 houses, Albert-road and Walpole-street; J. Baker, three houses, Chetwynd-road; B. Evans, two houses, Goldthorn Hill-road; P. A. Mudd & Co., steel-framed building, Jenner-street; W. Jones, bungalow, Richmond-road; L. Pryce Lewis, house, Goldthorn Hill; Mrs. C. P. Read, house, Lansdowne-road; C. W. J. Walton, house, Westland-road; A. Munslow, house, Birches Barn-road; E. A. Ward, 10 houses, Albert-road; Miss N. Newman and C. W. D. Joynson, two houses, Coleman-street; J. Fullwood, dance room, 17, Chapel Ash; F. Myatt, Ltd., outbuildings, "Navigation Inn," Commercial-road.

WOMBWELL (S. YORKS).—Plans have been prepared and tenders are shortly to be invited for the erection of a picture house. Mr. C. Castelow, Park Row, Leeds, is the architect.

WORKINGTON.—The trade unions of Workington have acquired a site in the centre of the town, about one acre in extent, upon which they propose to erect an assembly hall and shops as a war memorial. The estimated cost is about £30,000.

WORKSOP.—The B.G. has decided to build a new mortuary, to be attached to the Kilton Hill Infirmary.

WORTHING.—Plans passed by T.C.: House, Tarring-road, H. M. Potter, for B. Drayton; conversion of St. Edward's Hostel, Clifton-road, into two flats, J. E. Lund, for Rev. E. Hollands; four houses, Evelyn-road, F. G. Abell, for the Worthing Estates Building Co.; house, Brooklyn-avenue, Sheppard & Stephenson, for P. L. Ellercamp; house, St. Wilfred's-road, H. J. Sparks, for C. I. Leech; two houses, Bulkington-avenue, J. E. Lund, for H. A. Webb; house, Gerald-road, Sparks Bros., for F. B. Vigor; house, Chesswood-road, H. M. Potter, for C. W. Collier; conversion of Warwick Lodge, Brighton-road, into a restaurant, T. R. Hyde, for H. Grice; house, St. George's-road, J. E. Lund, for L. Willment; 37 semi-detached houses, fronting Park-avenue and Homefield-road, for E. H. Barton.

FIRES.

BLACKBURN.—Great damage has been done by fire to the warehouse of Messrs. C. A. Critchley & Co., Cardwell-place.

ELTHAM.—Damage estimated at about £10,000 was caused recently by a fire at the mansion known as "The Chaundrye," Court-yard, Eltham, the residence of Mr. H. Pearce. "The Chaundrye" consists of about twenty rooms, several of which date back to the sixteenth century, and is situated close to the famous Prince John's Palace.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ARNOLD.—For construction of 700 yds. of 9 in. stoneware sewer, and 735 yds. 9 in. surface water sewer, for the U.D.C. Mr. R. E. Clarke, Surveyor, Arnot Hill House, Arnold :—

J. Herring & Son, Ltd., Arnold	£1,682 16 4
A. Wayte & Son, Arnold	1,500 0 0
C. S. Tomlinson, South Normanton	1,464 7 8
E. Somerfield & Sons, West Bridgford	1,464 6 8
*Hodsons, Ltd., Nottingham	1,322 2 7

BEDFORD.—For erection of office building for the Igranic Electric Co., Ltd. Mr. Ivan Daughtry, architect, 1, St. Paul's-square, Bedford :—

C Miskin & Sons, Ltd., St. Albans	£11,550
S. Foster, Ltd., Kempston	10,550
*Y. J. Lovell & Son, Bedford	9,986
Geo. Henson & Son, Wellingborough	9,962

BRIDGNORTH.—For the erection of 16 non-parlour houses, for the T.C. :

*Amies & Sharratt	£6,784

BRIGHOUSE.—For recovering the roof of Thornhill Bridge Mills for Messrs. W. Atkinson & Sons, Ltd. :—

*Tunstall's Rock Asphalte Co., Ltd., Leeds	

CARMARTHEN.—For the erection of Gorslas Elementary School. Mr. W. Vincent Morgan, County Architect :—

G. Mercer & Sons, Ltd., Llanelly	£6,998 0
John Evans, Burry Port	6,700 0
William Evans, Ammanford	6,384 17
Charles Thomas & Co., Llandilo	6,233 0
D. Howells & Son, Llandebie	6,076 10
†Lewis Davies, Wellfield, Penygroes	6,050 0

CAMBRIDGE.—For construction of sewer consisting of 500 yards of 12 in. pipes and 1,828 yards of 9 in. pipes, with necessary manholes, &c., for the Corporation. Borough Surveyor, Guildhall, Cambridge :—

Arthur Negus & Sons, Cambridge	£10,872 0 0
The London and County Public Works, Ltd., Gray's Inn, London	7,241 8 0
G. Percy Trentham, Ltd., Southampton-row, W.C.1	6,774 4 0
Kidman & Sons, Cambridge	6,164 0 0
Shearman Bros., Cambridge	5,941 4 0
Gunn, Macneill, Ltd., Victoria-street, Westminster	5,415 6 0
*G. B. Heap, Northampton	5,087 19 4

CARLISLE.—For construction of concrete retaining wall at Sewage Disposal Works, for the T.C. :—

*John Laing & Son, Carlisle	£1,138

CASTLE DONINGTON.—For construction of sewerage works in Kegworth parish, for the R.D.C. :—

*Jervis, Long Eaton	£4,599

CASTLEFORD.—For carrying out private street works at Crowther-place, for the U.D.C.. Mr. H. V. Slayton, Surveyor :—

*J. C. Rodgers & Sons, Castleford	£646 19 3

DERBYSHIRE.—For erection and completion of six almshouses, Ripley, for the U.D.C. Mr. G. W. Bird, Engineer, Town Hall, Ripley, Derbyshire :—

*Pickard Bros., Nottingham	£2,184
Harris Bros., Marehay	2,520
Short Bros., Waingroves	2,556
F. A. Roberts, Matlock	2,160
Evans Bros., Riddings	2,796
Levi Buxton, Ilkeston	2,810
Chas. Marshal, Belper	2,892

DONCASTER.—For alterations at Grand Stand at the Racecourse, for the T.C. :—

*Hodkin & Jones	£240 10

ERPINGHAM.—For the erection of houses, for the R.D.C. :—

*W. A. Hicks—Six at Northrapps	£2,460
*Gray & Son—Six at Paston	2,711
*Childs & Spink—Two at Runton	893
*H. Sayers—Four at Gimingham	1,765

FELPHAM.—For re-building "The Brewers' Arms," Messrs. Whitehead & Whitehead, Architects, 18, South-street, Chichester :—

Overington & Rapson	£7,485 5
W. A. Gates & Sons	7,369 0
F. G. Harfield	7,268 10
Sandell & Sons	7,306 5
*Bailey, Hartley & Watton	7,091 6

FOLKESTONE.—For supply of stores and materials for one year, to the T.C. :—

*Brotherton, Radcliffe & Co.—Granite kerb and channel	£1,672 17 6
*Road Maintenance & Stone Supply Co.—Broken Cherbourg quartz, &c.	1,728 2 6
*C. Burley—Cement	533 6 8

(Amounts estimated.)

GRIMSBY.—For the erection of houses at Nunsthorpe, for the T.C. :—

*Sprakes & Son, Doncaster—36 parlour houses	£17,496
*R. W. Holmes, Cleethorpes—16 non-parlour houses	7,058

HALE.—For proposed improvement at the Sewage Works, for the U.D.C. :—

*C. Collins & Co., Radcliffe	£9,182 0 11

HALE:—For sewering and making-up Barns-road, Hale Barns, for the U.D.C. :—

*J. H. Smith & Co., Hale	£555

HOUNSLOW.—For the erection of a hall at Holy Trinity Church. Mr. Cyril Farey, architect :—

Thomas Hiscock, Ltd.	£7,581
(*a*)McLaughlin & Harvey, Ltd.	7,552
(*a*)Chessums, Ltd.	7,532
(*a*)E. Plaistowe & Sons	7,424
Mattock & Parsons	7,236
(*a*)Dove Bros.	7,125
Joseph Dorey & Co.	7,112
Norris & Co.	6,923
T. W. Heath, Ltd.	6,828
(*a*)*William Lacey	6,480

Tenders marked with *a* contain a reservation to the effect that the price is based upon the present standard rates of wages and materials, and is subject to adjustment in the event of any variation in such rates.

HOVE.—For erection of 90 houses, Ingram-crescent and Bolsover-road, for the B.C. Borough Surveyor, Town Hall, Hove :—

Kirk & Randall, London	£39,924

LANCHESTER.—For erection of public conveniences (1) Craighead ; (2) Burnhope, for the R.D.C. Mr. J. R. Lupton, Surveyor, Council Offices, Lanchester :—

(1)* Jas. Wears & Sons, Pelton Fell	£353 19
(2)* P. Duffy, Stanley	116 0

LONDON.—For the erection of 48 houses at Charlton, for the Greenwich B.C. :—

	18 houses.	30 houses.
Thomas & Edge	£10,260 0	£13,920 0
James Lenn, Ltd.	9,306 0	14,594 0
A. G. Winters, Ltd.	9,776 0	13,984 0
*Walter Jones & Sons, Ltd.	9,772 16	13,018 2

LONDON.—For paving works in connection with the rebuilding of 57, Charing Cross, for the Westminster C.C. :—

Alexander Thomson & Co. (London), Ltd.	£1,832 9 2
Improved Wood Pavement Co., Ltd.	1,540 18 2
W. Griffiths & Co., Ltd.	1,498 18 4
G. J. Anderson	1,471 4 4
Mowlem & Co., Ltd.	1,390 2 6
*Acme Flooring & Paving Co. (1904), Ltd.	1,383 16 10

LONDON.—For cleaning out the ornamental pond &c., at Tooting Common, for the L.C.C. :—

*R. Neal & Sons, S.W.	£1,730
Howard Farrow, N.W.	1,795
Mears Bros., S.E.	1,859
George Ball & Sons, Ltd., Tottenham, N.	1,995
Hodsons, Ltd., S.W.	2096

(Tender modified to £1,335).

LONDON.—For breaking out foundations of turbo generator, for the Stepney B.C. :—

*Demolition & Construction Co., Ltd.	£128 7 6
British Concrete Breaking Co.	139 15 0

LONDON.—Supply of (*a*) two tons plumber's, and (*b*) half-ton tinmen's solder, to the Stepney B.C. :—

*G. W. Neale, Ltd., E.C.	£282 0
G. Pizey & Son, E.	301 10
T. & W. Farmiloe, Ltd., S.W.	329 11

LONDON.—For provision of wrought-iron fencing and gates at West Park Mental Hospital, for the L.C.C. :—

*Palmer & Co., Merton	about £2,335
Wm. Bain & Co., Glasgow	" 2,567
Bayliss, Jones & Bayliss, London	" 2,591
J. Salway & Sons, Dartford	" 2,867
W. Hayward & Sons, Ltd., Wolverhampton	" 2,956
Hill & Smith, Ltd., Brierley-hill, Staffs	" 2,968
Stock & Collings, Bristol	" 3,420

LONDON.—For the supply of Portland cement for six months to the Bethnal Green B.C. :—

*J. H. Sankey & Son	£2 16 6 per ton

LONDON.—For supply of blue lias lime and grey stone lime for six months for the Bethnal Green B.C. :—

*Young & Son—Blue lime, £2 per ton, and grey, £2 7s. 6d. per ton.

LONDON.—For excavation and foundation works for Town Hall extension for the Wandsworth B.C. (in substitution for previously accepted tender) :—

*W. C. Lole & Co.	£1,738 9

LONDON.—For supply of 4,400 lineal feet of Cornish granite kerb to the Wandsworth B.C. :—

*W. Griffiths & Co.—3s. 5d. per lineal foot.

LONDON.—For making up various roads for the Wandsworth B.C. :—

*E. Parry & Co.—Dawnay-road	£1,769 0 0
*E. Parry & Co.—Dawnay-gardens	472 0 0
*J. Cronk & Sons—Aldrich-terrace	438 0 0
*J. Mowlem & Co., Ltd.—Beclands-road	2,218 2 6
*J. Mowlem & Co., Ltd.—Freshwater-close	326 2 8
*J. Cronk & Sons—Freshwater-road	753 0 0

LONDON.—For painting at Balham and Tooting Baths, for the Wandsworth B.C. :—

*R. A. Jewell, Ltd.	£147

LONDON.—Supplying and fixing oak fencing at Putney Vale Cemetery extension, for the Wands worth B.C. :—

*W. Turner, Riley & Co.—17s. 10d. per yard run.

LONDON.—For supply of various materials to Kensington B.C. :—

*H. Sabey & Co., Cowley gravel—6s. 9d. per ton to Kensal Wharf.
*J. Mowlem & Co., granite siftings—16s. 3d. per ton.
*A. & F. Marvelle, broken blue Guernsey granite—18s. 7d. per ton.
*London Granite Co., broken Quenest granite—19s. 11d. per ton.
*S. Pontifex & Co., street lamps, &c.—£519 1s. 4d.
*H. Sabey & Co., uncrushed shingle—9s. 3d. per ton
*A. C. Woodrow & Co., heavy iron goods—£248 13s. 6d.
*A. C. Woodrow & Co., iron goods—£287 3s. 8d.

MANCHESTER.—For the large extensions to Messrs. Lewis's, Ltd., Market-street, Manchester. Messrs. J. W. Beaumont & Sons, Architects. (Estimated, £1,000,000) :—

*R. Carlyle & Co., Ltd., Old Trafford.

MARGATE.—Erection of meter-house near Quex Park, for the T.C. :—

*J. B. Sharman, Ltd.	£105

MARGATE.—For supply of 468 yds. of 3 ft. iron fencing and two gates, to the T.C. :—

Bayliss, Jones & Bayliss, fencing 10s. 6d. per yd., and gates £4 12s. 6d. each.
*Hill & Smith, fencing 9s. 6d. per yd., and gates £4 9s. 6d. each.

NEWTON-IN-MAKERFIELD.—For erection of 40 type "A" houses at the South Mesnes, for the U.D.C. Mr. J. Elston, Architect, Market Chambers, Earlstown :—

*Clough & Gaskell, Spring Bank.

PETERBOROUGH.—For erection of sub-station, for the T.C. :—

*Jellings	£147

PLYMOUTH.—For alterations and repairs to Harson Villa, for the T.C. Mr. J. Wibberley, Borough Engineer, Municipal Offices, Plymouth :—

A. C. Jones, & Son., 16, Alma-road, Plymouth.

PUDSEY.—For erection of six houses, Heath Grove Estate, for the T.C. Mr. Ralph Brooks, Borough Surveyor, Town Hall, Padsey :—

Kendall & Co., Pudsey	£3,550
R. Farrer, Greenside, Pudsey	3,379
‖Various tenders for different trades	3,166

(‖Subject to modification.)

ROCHDALE.—For the erection of the Thomas Champness Memorial Hall, for the trustees, Wesleyan Central Mission. Messrs. A. Brocklehurst & Co., Architects, Manchester :—

**Steelwork*—Ed. Wood & Co., Ltd., Trafford Park.

ROTHESAY.—For reconstruction of sewers, outfall sewer, 2,610 yards long, for the T.C. Mr. J. B. Brodie, 141, West George-street, Glasgow :—

Kinnear Moodie, St. Vincent-street, Glasgow	£89,000
Charles McAndrew, Hamilton-street, Glasgow	81,000
Clydeside Construction Co., Bridge of Weir	77,000
David Gibson, West Regent-street, Glasgow	68,000
Casey & Darragh, Stirling	67,000
Francis J. C. Lilley, Broomloan-road, Glasgow	64,000
John Best, Warriston House, Edinburgh	60,900
*Peter McBride & Co., Port Glasgow	60,200

SHEFFIELD.—For the erection of concrete foundations of turbo alternator at Neepsend Generating Station, for the T.C. :—

*G. Longden & Son	£2,199

SHEFFIELD.—For supply of 800 4 in. cast-iron water pipes, to the T.C. :—

*Staveley Coal & Iron Co.	£770 3 7

SHEFFIELD.—For the erection of transformer station at Greystones-road, Ecclesall, for the T.C. :—

*H. B. Blythe	£293 8 3

SHEFFIELD.—For the erection of a transformer sub-station at Sheldon-road, Abbeydale, for the T.C. :—

*H. B. Blythe	£1,077 19

SHEFFIELD.—For alterations necessary for the conversion of Upperthorpe Branch Library into open access library, for the T.C. :—

*Ash, Son & Biggin	£1,100

SHEFFIELD.—For painting of greenhouses at Hollow Meadows Institution, for the T.C. :—

*Flint Bros.	£213 5

SHEFFIELD.—For the erection of houses, for the T.C. :—

*Reeves Charlesworth, Ltd.—47 houses on Wincobank Hall	£18,824 11
*Bramwell, Lighthall & Co., Ltd.—54 houses on Woodhouse	21,085 0

SKIPTON.—For rock asphalte paving in Devonshire-road, for the U.D.C. Mr. W. Aldridge, Surveyor :

*Tunstall's Rock Asphalte Co., Ltd., Leeds.

VIRGINIA WATER.—For reconstruction of Ruins Bridge, for the Surrey C.C. :—

*Norris & Co., Sunningdale	£3,487

SLAITHWAITE.—For erection of two semi-detached houses, Longlands-road. Mr. A. Shaw, architect, Golcar :—

Masons—
Englands, Ltd., Old Bank Works, Slaithwaite.

Joiners—
J. Varley & Son, Slaithwaite.

Plumbers—
J. Bamforth & Son, Station-road, Slaithwaite.

Plasterers and Painters—
Wm. Bamforth, Ing Head-road, Slaithwaite.

Concreters—
J. & J. Bottomley, Marsden.

Slaters—
Thos. Allison, Ltd., Market-street, Milnsbridge.
Total—£1,200.

SOUTHCOURT.—For erection of 44 houses, for the Aylesbury B.C. Town Clerk, Town Hall, Aylesbury :—

*Webster & Cannon, Aylesbury—	
28 type "B"	£13,980
16 type "A"	6,808
Total	£20,788

SOWERBY BRIDGE.—For erection of 20 houses, Albert-road Housing Site, for the U.D.C. Mr. J. Eastwood, Surveyor, Council Offices, Sowerby Bridge :

Masons and bricklayers—
*W. Parker, Sowerby Bridge (12 houses).
*C. Longbottom, Norland (8 houses).

Carpenters and joiners—
*J. H. Naylor & Son, Halifax (20 houses).

Slaters and plasterers—
*Robinson Bros., Sowerby Bridge (4 houses).
*J. A. Berry, Sowerby Bridge (16 houses).

Plumbers and glaziers—
*A. Farrar & Son, Sowerby Bridge (8 houses).
*J. S. Akroyd, Halifax (12 houses).

Painters—
*Edward Barker, Luddenden Foot (20 houses).

TORQUAY.—Alterations and additions to 188, Union-street, for Messrs. The United Yeast Co., Ltd. Messrs. E. Appleton & Son, architects, Torquay; quantities by Messrs. Harris & Hills, Paignton and Torquay :—

Edward Green, Torquay	£1,207
R. Wilkins & Son, Torquay	1,140
*A. E. Brock, Torquay	1,100
R. E. Narracott, Torquay	1,090

WATFORD.—For the erection of a house at Buck-avenue. Mr. Frank Nash, M.S.A., architect and surveyor :—

John Goss	£1,380
G. & J. Waterman	1,380
Clifford & Gough	1,350
Jas. Darvell & Son	1,340
Wm. King	1,295
A. J. Edridge	1,245

All of Watford.

WORCESTER.—For repairs to Tudor House, for the Education Committee :—
*Messrs. Pethord £108

WORTHING.—For painting works at the Pier, for the T.C. :—

W. G. Beaumont & Son	£250 0
*H. W. Sandell	234 1

WORTHING.—For erection of 36 houses on the South Farm-road site :—
*J. B. Edwards & Co. ..... £485 per house

WORTHING.—For erection of two shelters on the Parade, for the T.C. :—
*W. J. Cearns, Stratford E. £2,518 15

YORK.—For the widening of Layerthorpe Bridge for the Streets and Buildings Committee of the C.C. :—
*Messrs. Parker & Sharp, York £7,531
(Subject to approval of M.H.)


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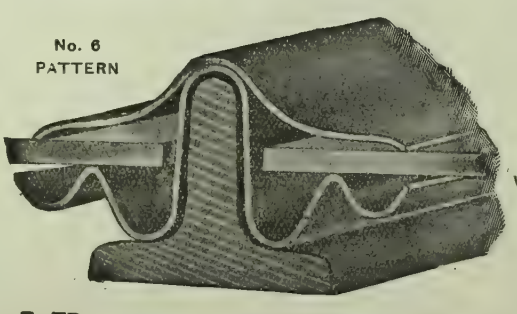
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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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SLOVENLY LONDON

OF all the virtues tidiness is the least inspiring, and when treated as an end in itself it may well become a substitute for initiative. It is well known that many of our greatest men have been famous for untidy habits, but we must not on this account excuse the complete indifference to the slovenly appearance of our towns, which has now become a national attribute. This kind of slovenliness is not comparable with that of the man of science or the artist who is too much occupied with matters of greater moment to consider his personal appearance, but it is rather a symptom of that apathy and indifference to our surroundings which are involving us in perennial trouble and expense, in dirt, squalor and disease. It is difficult for the architect who notices his surroundings to realise how completely blind the normal Englishman has become. He sees nothing unless by the sheer blatancy of vulgarity some advertiser hits on a new "stunt" that forces the passer-by into a momentary gape. It is this absence of any feeling of civic responsibility that is typified by the dirty unkempt appearance of our streets and temporary open spaces. If we knew that it arose from the absorption of the Londoner's mind in such questions as to whether or not we are improving Regent-street, and whether a bridge should be built at Charing Cross or St. Paul's, we might be less ready to condemn—but then we certainly should not be living in the London of to-day!

The moral effect of tidiness is at the present moment being urged in Dublin, where every effort is being made to clean up the city before the visitors arrive for the National Games and the Horse Show in August; and nothing could be a better witness to the changed times. Some steps should likewise be taken in London. Is the vast influx of Wembley visitors to be confronted with the dead cat, the rusty saucepan, and last year's newspaper, which now feature on our vacant sites? Surely, no vested interest finds financial profit in these three commodities. During a time of widespread unemployment, local authorities might well turn their attention to cleaning up our vacant sites, and in order that we may at least look respectable before our visitors our authorities should regulate the advertiser to the best of their ability, and generally initiate a campaign of cleanliness and order. Strata of peeling paper on dishevelled hoardings cannot even claim to be the "working man's Burlington House," a term which the chairman of a well-known company recently appropriated for a popular line of pictorial posters.

A disgusting London habit is that of placing cylinders of garbage, generally uncovered, along our streets, to be emptied into refuse carts at precisely the hour when business men are setting out for the day's work. A walk along Oxford-street at "garbage time"—especially when there is any wind—is a memorable experience. The rates and the lungs of Londoners would be immensely relieved if householders would adopt the recommendations of the various authorities and burn all their combustible refuse. Arising in one's mind out of the garbage is the butcher's shop and the fishmonger's, where perishable food is exposed for sale in the open at the mercy not only of the refuse-laden wind but of flies and other insects, a perpetual source of wonder to foreigners and a constant contradiction to the reputation we have gained as leaders in sanitation and hygiene.

It is curious that whereas local authorities are always prepared to house themselves in buildings of architectural pretensions (even though sometimes misdirected), yet the same authorities, having paid this tribute to architectural dignity, feel apparently that nothing more need be done; too often they fail to grasp that a palatial municipal building in a sordid setting is not a good advertisement for local administration. Napoleon expressed his desire for superior effect by being the only badly dressed man in a splendid court, and some of our authorities might borrow from his dramatic instinct and look after the amenities of their districts a little more zealously.

The backs of our suburban houses are not beautiful, and no doubt Mondays must be consecrated to the family washing; also that new menace, the wireless aerial, has come to stay. But all such features, posts and supports, together with the tool shed and the rabbit hutch, might be erected with some sense of decorum. As it is, they are shoddy and dirty monstrosities and give a depressed idea of the neighbourhood. Pride of home should be innate in everyone, and although it is obviously straining the expression to expect anybody who lives in the normal monotonous terrace to be exactly proud of his house, still he might mend his tumbledown fence, or expend a little ingenuity in making his own section of the terrace kempt, and as pleasing as little adventitious aids can make it—which is not saying or expecting much.

Just as the domestic grate is mainly responsible for the smoke pollution from which we suffer, so the individual house is the most important unit in town life, and if we are to do any good we must begin with the householder. With a view to enlisting his interest the London Gardens Guild exists to encourage the planting of forecourts, of window boxes, and of pots and tubs in the areas. Not only are competitions started, but the cultivators are advised as to suitable plants and assistance is given in obtaining soil. The hideous area and the grimy sill are always with us, so let us be thankful to those who will teach us how to transform them. The popularity and growth of the movement is proof of public response and, as a practical result in the poorest districts, we now find oases of greenery. In the richer residential districts our city is on the whole well kept, and, however tormenting his covenant may appear to the sufferer, the public generally may thank the landlords for the decorating clauses which apply almost universally to the exteriors of West End houses, and which result in keeping the district comparatively clean. This is not to suggest that stucco surfaces requiring constant repainting in a smoky town are suitable or desirable, but as we have them let us enjoy the enforced gaiety of the spring painting, the revived porticoes and the refreshed railings. Eyewash has its reward, and a district is found to respond to its coat of paint as speedily as a man-of-war. It is not "swank" that keeps the shine on the British Navy; the brass, the decks, and the steel work are symbols of efficiency, and English seamanship owes much of its traditional discipline in emergency to the order and polish of its everyday surroundings.

We will not venture an opinion as to whether democratic tidiness is or is not possible. The fragments that remain after a Bank Holiday on Hampstead Heath, or the breakages bill at an hotel after New Year's Eve, would indicate that it is not; but on the other hand the amazing success of the campaign that has eliminated in England the vile habit of spitting would argue that the public is capable of learning a lesson in decency. At any rate, those in control should remove the reproach that they have never made any serious attempt to inculcate civic pride into the masses.

NOTES.

London Traffic Bill.

The London Traffic Bill which is being introduced by the Minister of Transport this week includes several important proposals to "make further provision for the control and regulation of traffic in and near London and for purposes connected therewith." An important Committee, to be called the London and Home Counties Advisory Committee, is to be appointed to deal with an area consisting of the administrative counties of London, Middlesex, and parts of Berkshire, Bucks, Essex, Hertford, Kent and Surrey. Some of the matters which may be referred to the Committee are the co-ordination of all or any forms of transport service, co-ordination between the persons operating the same in the best interests of the public, causes tending to hinder the free circulation of traffic and measures to be adopted in connection therewith, the desirability of the revision and simplification of existing enactments, the development, improvement, or extension of existing systems of road communication, new transport systems, the fixing of building or street lines, and the cost of road schemes.

Road Works.

All these matters are of vital concern to the people of London and the surrounding area, but proposals of special interest to our readers are made in reference to the carrying out of road works. According to *The Times*, in order that the times for the execution of works of road maintenance and improvement by the various road authorities within the London traffic area may be so arranged as to mitigate as far as possible the congestion of traffic due to the closing of streets for the execution of such works, it will be the duty of every road authority within the area to submit to the Ministry every half-year a statement of the works proposed to be begun which will involve the closing to vehicular traffic of any part of any street. These proposals will be referred to the Advisory Committee, who will report to the Minister thereon. The Minister will then draw up schemes prescribing the times during which the various works are to be commenced, the order in which they are to be executed, and prohibiting or restricting the execution of any such works. The Minister will also send to such other authorities which have power to take up the road copies of the proposal of the road authorities, and it shall not be lawful for any other authority within twelve months of the completion of such works to take up the streets unless they can prove to the satisfaction of the Minister that they could not have been executed at the same time.

Obstructions and Barriers.

It is a curious commentary on our methods of government that it needed a 'bus and tramway strike to secure some such enactments which are long overdue, and which have been advocated so often by town-planners and others. Another claim in the Bill which will be welcome to users of our streets is clause 5, giving power to police officers authorised for the purpose to report to the road authority any case where an obstruction is caused by the deposit of excavated matter, or by the construction of barriers beyond an extent that is reasonably necessary. If the road authority is satisfied that there is ground for the complaint it may order the obstruction to be removed within twenty-four hours subject to a right of appeal to the Ministry.

Tidy Advertising.

"Tidiness" suggests rather the careful housewife than the artist, and yet if we substitute the word "order" there is no incongruity in the association and the significance remains the same. "A place for everything and everything in its place" is a worthy maxim that has suffered little by much usage. We were reminded of it by those workmanlike, framed, automatically changing posters to be seen at some of our railway stations. They are instances of the unoffending in the realm of advertisement, and each, as it pauses to make a fresh appeal, makes an imprint upon the memory that the carelessly pasted sheet, unintelligently repeated upon every available blank space, can never aspire to. One feels that here the advertiser is not tres passing and that he gains much in his observance of the decencies. We would be the well-wishing mentors of the adver tiser, whose interests are very much the same as ours, and in this reading of the pulse of public needs there appears to be a vast saving of money at the same time as an improved state of order in our public places.

Area Gardens.

We are glad to note the excellent little article in the current issue of *St. Martin' Review* by the Rev. Roll Meyer, on the London Gardens' Guild There is no need to stress the charm o these brave attempts in areas and boxe to bring back nature where she has bee banished for so long. The results do no disguise dinginess, they transform it and, unlike the same trouble and tast expended inside the home, the pleasur here is spread generously for the passer-b



The New R.I.B.A. Meeting Room : The Entrance Hall. (*See p.* 486.)



Sculpture by Kai Nielsen.
New Residential College, Copenhagen. (*See p.* 490.)

o share. It is probable that most big novements surprise us more by the simlicity of their origin than by the comlexity; their success is their justification, nd by that the London Gardens' Guild is bundantly justified. In Southwark alone here are 3,289 cultivated forecourts. o class in the community can be so much enefited professionally by house and arden pride as the architect, and we hould like to see this movement recogised and encouraged by the bodies which t so much concerns. We join with the riter in the *Review* and congratulate the nnamed originator of the movement on is appointment to a seat in the new abinet.

The "Parliamentary Visitor."

It may appear reactionary, but there are many artists who would prefer the uncertainty of a benevolent utocrat in patronage to the democratic lternative of a committee, or of an official xecuting a public order. The artist is ware that many of the finest works of art n Europe—or, indeed, in the world—were lirectly commissioned as the sport of Kings, nd we in England are further aware that lemocracy introduced herself here allied o a destructive Puritanism. The diary f William Dowsing, "Parliamentary isitor . . . for demolishing the superitious pictures and ornaments of hurches, &c. . . . 1643–1644," extracts f which have been given to us ecently by Mr. Arthur Ponsonby in his elightful anthology of diaries, is in itself n awful warning. "*Clare*: We brake own 1,000 Pictures superstitious; I rake down 200; 3 of God the Father nd 3 of Christ and the Holy Lamb, and of the Holy Ghost like (*sic*) a Dove with ings; and the 12 Apostles were carved n Wood on the top of the Roof which we ave order to take down; and 20 herubims to be taken down; and the un and Moon in the East Windows, by the King's Arms, to be taken down." The fee extracted for these congenial services was, we are told, 6s. 8d., not always paid up. We recommend this entry to the study of our Commissioners of Fine Arts.

The National Gallery.

The centenary of the National Gallery, which occurs this year, reminds us of the extraordinary developments which have taken place since its modest beginning in 1824, when the British Government made under some pressure a grant of £57,000 to start the first public art collection which the nation had ever possessed. From these small beginnings it has reached to its present rich and representative character. At such a time it is well to consider the importance of retaining for the collection the highest prestige, so that, in the words of a contemporary, it continues to "set the highest possible standard and correct the passing influences and fashions of the moment." This is well said, though difficult to sustain. We have noticed a tendency in recent times to depart somewhat from this standard and have seen examples of more than questionable merit finding place in the galleries. England is poorer to-day and the opportunities for purchase will consequently be restricted, but care should be taken that passing fashion, contemporary reputation, and the pressure of groups and schools, all such fallible things, should not influence the decision of the directors. Traditional values and the precedents that belong to the exercise of a wise choice should direct us to be slow in appraising as of permanent importance many of the phases of art which exercise so much influence now. On the other hand, the "old master" needs approaching with an equal caution, lest the prestige of great names lead us to false estimations of value, as in the case of the £70,000 Raphael acquired some years ago. Artificial values created for commercial ends have most often slender relation to the intrinsic values of pictures.



"After the Matriculation."
Decorative Panel for Great Hall, by Professor Axel Iörgensen.
New Residential College, Copenhagen. (*See p.* 490.)

GENERAL NEWS

Professional Announcement.

Mr. Millen, of Messrs. Ernest G. Allen & Partners, has resigned his membership in this firm, and in future the business will be carried on by the remaining partners under the style of Ernest G. Allen & Alfred R. Potter.

The Royal Archæological Institute.

The summer meeting will be held this year at Winchester from July 16 to 23. A preliminary programme will be sent to all members in May.

Easter Tour.

An Easter tour has been arranged by the Garden Cities and Town Planning Association to the Dordogne. The party will leave London on April 16 and return in the week-end April 26–28. Full details of the tour, itinerary, cost, &c., will be sent on application to the Secretary, Garden Cities and Town Planning Association, 3, Gray's Inn-place, London, E.C.1.

Green Lights.

Tests were recently carried out under the supervision of H.M. Office of Works with a new traffic beacon. It gives out an intermittent flashing green light, and an experimental beacon will shortly be erected in the Mall. It is manufactured by the Gas Accumulator Company (Limited).

Romney Marsh Sea Wall.

The authorities of Romney Marsh have given instructions for the preparation of a scheme for the repair and strengthening of the sea wall, considerable damage having been done to the sea defence work during the past winter. It is estimated that the total cost of the work of repair will reach £20,000, but it will probably be carried out in sections in order to lighten the cost upon the taxpayers of the Marsh.

Ayr Memorial.

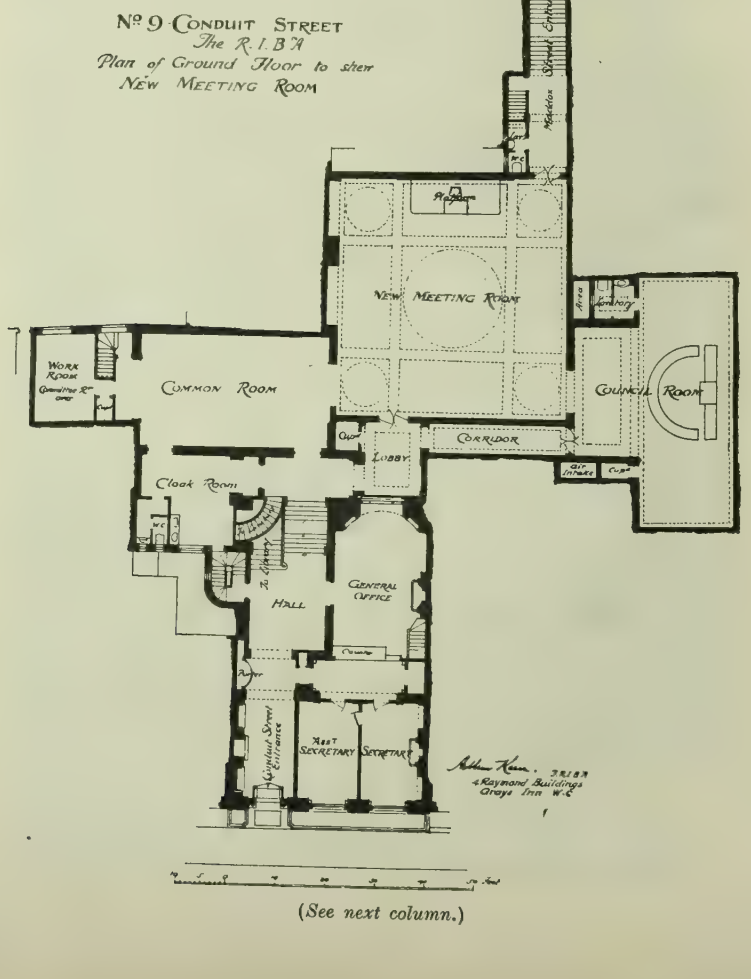
The Ayr War Memorial will be unveiled on April 13 by Air-Marshal Sir Hugh M. Trenchard, G.C.B., D.S.O., honorary colonel of the Royal Scots Fusiliers. The memorial, which was designed by Mr. J. K. Hunter, F.R.I.B.A., Ayr, occupies a site in Wellington-square, and is in the form of an obelisk in Creetown silver-grey granite. It is placed on a granite platform, 25 ft. square, with broad flights of shallow steps, and rises to a height of 27 ft. 6 in. On each of the four sides of the die there are bronze panels. The main panel, facing south, carries the dedicatory inscription, and the remainder of the space of this panel and the other three panels bear the names of the fallen to the number of about 840. The cost of the monument is estimated at £2,000.

Peabody Buildings.

The latest report of the Peabody Donation Fund shows that, at the end of 1923, the Governors had provided for the artisan and labouring poor of London, 16,034 rooms, 6,652 separate dwellings, 299 cottages of five rooms, four tenements of six rooms, 21 tenements of five rooms, 296 tenements of four rooms, 2,196 of three rooms, 2,735 of two rooms, 1,091 of one room, and nine shops with 61 rooms attached. The total amount of the Peabody Donation Fund at the end of 1923 was £2,241,190.

Design for Piccadilly Circus.

The design "Suggestion for the Remodelling of Piccadilly Circus," by Mr. W. Harding Thompson and Mr. P. D. Hepworth, published in *The Builder* of February 15, was specially prepared by them for the February number of *Architecture*, and we should have mentioned the fact had we known it before.



(*See next column.*)

COMPETITION NEW

Heswall Golf Club, Cheshire.

We are informed that the winner of th competition is Mr. Herbert J. Rowse, A.R.I.B.A 9, Cook-street, Liverpool.

Nurses' Home : Kingston-on-Thames.

The President of the Royal Institute of Briti Architects has nominated Mr. Alan E. Munb F.R.I.B.A., as assessor in this competition.

Barton-on-Irwell.

The sending-in day for this competition June 28.

New Masonic Temple.

The Bradford Masonic Association invi designs and estimates for a Masonic Templ to be erected at Bradford. Premiums of £20 £150, and £100 will be awarded to the firs second and third premiated designs. A com mittee appointed by the Association will a as assessors. Sending-in day, June 30. Pla and conditions can be *seen* at the office *The Builder*, but cannot be taken away.

Masonic Peace Memorial.

For full particulars of this competitio see our issue for February 8. No sending-i date has yet been fixed.

Other Competitions.

Other competitions still open include th following (the dates given are, first the sendin in date, and second the issue of *The Builder* i which full particulars were given) :—Industria Designs (June; Dec. 21, 1923). Nationa Theatre (April 26). Monument to Sir Wilfri Laurier (April 3; Dec. 14, 1923). Ross-Smit Memorial (Sept. 30; Feb. 1).

THE NEW R.I.B.A. MEETING ROOM

The reconstruction of the meeting room o the Royal Institute of British Architects a Conduit-street, which was contemplated son two years ago, when a piece of land adjoining th old room was purchased, is now complete an the new room is in use. It is about 47 ft. squar lighted by a central glass dome and by fou small domes in the corners. The approach through a new vestibule at the side of the do into the Common Room, and from this vestibu a corridor leads to the old East Gallery, enlarg by throwing into it a portion of the old meetin room, which is now to serve for the Coun room. The only other alteration has been increase in the lavatory accommodation. M Hope Bagenal was consulted as to the treatme of the meeting room in order to make it a go one to speak in, and the general impression that the results is distinctly satisfactory. the room will be used frequently for exhibitio the walls had to be finished with boarding a canvas, but on the side opposite the platfor the wall is padded with "Cabot" quiltin and the frieze round the room, except ov the platform, is similarly padded, as are t upright fillings under the central dome. T wall behind the platform is panelled in woo so as to form a good reflector of sound.

The heating and ventilating arrangemen have been reconstructed by Messrs. J. Jeffre & Co., Ltd. The electrical work has been do by Messrs. Locke & Soares. The quilting of t walls has been carried out by the May Co struction Company, and the contractors for t general building work were Messrs. Jo Greenwood, Ltd. The roof lights and lante were made by the British Challenge Glazing C The details of the reinforced concrete gird for the roof and elsewhere were made by J Oscar Faber. The Hon. Secretary, Mr. Arth Keen, has acted as architect.

THE CULTURED LAYMAN ON ARCHITECTURE

By WILLIAM DAVIDSON.

Lord Curzon's speech at the opening of the second exhibition of the Architecture Club at Grosvenor House is of great value to the architect for several reasons; but chiefly as it gives the opinions of a cultured layman and one whom architects naturally and rightly consider the ideal type of client.

We have seen his restoration of Tattershall Castle, carried out under the able direction of Mr. William Weir, which shows his soundness in dealing with certain aspects of architectural problems, but in his speech at the Architecture Club he made certain statements which were rather misleading, and which show that even culture, education, and every social and international advantage do not endow the individual with a complete understanding of the architect's point of view or the reasons underlying the success or failure of the work of all generations. For a man of Lord Curzon's wide culture and extensive travel it is rather surprising to find that his study of history has not taught him that architecture can never be ahead of the highest religious, social and intellectual condition of its own generation. Architecture has developed (whether up or down), always developed, since the earliest and crudest form of shelter, varying in each country according to religion, social habits, climatic conditions; and is subject to temperamental considerations and spiritual and intellectual ideals. It has followed the rise and fall of civilisations and will ever do so. This being so, why blame the architect? Blame rather a misguided civilisation.

Lord Curzon's reasons for desiring to be a working architect are excellent. We are well aware that "it needs and demands no small amount of study and research; and, above all, there is scope for creative power and human imagination." Thus far we agree with him; but it is oftener "the horse box" than "the cathedral" and "the cowshed" than "the castle" which the architect of to-day is called upon to design. We wish we could agree with him when he says that the architect who puts up a bad building is damned (in this world we mean). Architecture would progress by leaps and bounds if it were so. We have all met the cultured, university-trained client who prefers the pretentious vulgarity of the mid-Victorian mansion; flamboyant and rococo to the last degree; to the simple, dignified harmonious habitation, finely composed and carried out by some scholarly artist. Taste and culture alone do not always, unfortunately, give the power to appreciate the subtleties and refinements of good work. That being so, the architect who does bad work will always find clients, if he has a personality charming and impressive enough to pass for great erudition. The interest of the public in architecture has certainly increased very greatly within the last 30 or 40 years since the new movements in architectural education were inaugurated, and the great improvement in our architectural magazines took place. Every new student, also, in architecture, proves a new centre and brings his relatives and friends within the scope of its magic and refining circle. Lord Curzon asks if we are capable of producing any new style? Does any qualified architect think it advisable to produce a new style or does he desire to do so? Any new style would be purely artificial unless it originated in some entirely new need or in some new system of civilisation. We are writing, to-day, the history of our own time as surely and truly, in stone and lime, or duo-slab and papier-mâché, as any former age has ever written its history. The civilisation of ancient Greece is stamped on its architectural remains; the social life of Pompeii is everywhere in evidence among its ruins; and the religious fervour and sincerity of the Middle Ages is stamped on every part of its great cathedrals, abbeys and parish churches. Architects of all ages have ever been at the mercy of their clients and never more so than to-day. Phidias, Brunelleschi, Michelangelo, Bramante, San Machaele, Wren, and Adam, to mention only a few, did not invent new styles, and yet they were not mere eclectics. They simply adventured along the lines of natural evolution within the bounds of their structural limitations and utilitarian needs. What less are the best of us doing to-day?

Will posterity not recognise the soundness of the views of such prophets, in the educational world, as Pite, Lethaby, Baldwin Brown, and Anderson; or in the practical world, such workers as Shaw, Bentley, Lutyens, Rickards, Burnet, and Lorimer, to mention a few outstanding men of our own time? Men who, in spite of a multitude of adverse conditions, have expressed the highest and best of their own age. Conditions of a complexity which no former age has ever been called upon to face.



A Reinforced-Concrete Shop Front at Barcelona.

Lord Curzon's remark that the people with money are to-day mostly deficient in taste is only too true, and really strikes at the root of the whole matter. The old aristocracy produced our finest clients. To work for such is indeed a pleasure. The new aristocracy neither know what they want nor will they take the advice of qualified men. There are three reasons why architecture in this country or, in fact, in any country which fought in the Great War is likely to lie under a shadow for a generation or two. First, many of our best men were either killed or died as the result of war service. Second, many more of our ablest men have entered the Civil Service, where they have ceased to be creators. Third, money can only be found for a few of those who remain in private practice to enable them to show what they are capable of producing. Never has the training of the architect received greater attention, but the Church has withdrawn her patronage and the stock exchange and the world of commerce now hold the bank. Speaking of small houses, Lord Curzon is hardly just to the architect of to-day. No country in the world has produced a finer modern domestic architecture than Britain, and it is not entirely due to the hand of one man. We agree with him regarding the beauty of the old Tudor, Elizabethan, Jacobean, and Renaissance domestic work of old England, but here again, in making comparisons, one must consider the relative conditions under which each was produced; the conditions of past ages with those of to-day. Anyone who has measured, sketched and studied, say, the fine old Tudor brickwork of East Anglia or the earlier Renaissance work in Northamptonshire, must agree that their beauty is not a beauty of fine detail, but the beauty of a living tradition; a fitness in all things; setting, environment, local material, traditional standardisation, grouping, composition, and a natural expression of the simple requirements of a simple and apparently contented age. It seems impossible that the mouldings, carving and enrichments of these times were ever designed on paper. The hewer and carver was the designer. His hand transferred his idea direct from the brain to the stone. He only did a little better than his father did before him. Hence the living tradition. As detail, in the architectural sense, it is mostly crude, but the manner of its creation has endowed it with life. And what of the manner of to-day? The detail is sketched out roughly by the master, corrected by an assistant, traced by the youngest pupil, handed to the clerk of works, who hands it to the foreman, who hands it to the hewer. The hewer copies it as faithfully and mechanically as his ability and conscience will permit, flattening out the contours if he thinks he can escape detection. The final result is a clean cut, cast iron, inaccurate reproduction of the designer's intention. Does anyone think that the spandrils in the north porch of Wells Cathedral, or the nave caps at West Walton were done in this way? I think not. No great architecture can be achieved without great craftsmen. Trade unions are too afraid that their members burst a blood vessel to allow them to put their heart and soul into the work of to-day.

Lord Curzon asks for a George and Mary style. He here, surely, reaches the lowest point in appreciating the architect's point of view. A George and Mary style does exist if only we had the eyes to see it. Posterity will see it and classify it. How can it be otherwise? Are we not writing the history of our own time as surely as the Romans did? It may be a miserable history, but it is nevertheless true. Clever firsts in competitions create groups of stylists. These are ultimately swallowed up in the greater whole, advancing or declining as national universal thought advances or declines. Every decade

of our generation will be as clearly discernible and classifiable to the archæologists of future centuries as the periods of Mediæval Gothic are to-day.

In Gothic times, if we compare the work on the coast of East Anglia with the work of, say, St. David's, it seems to have taken about 40 years for a style to cross England. To-day a brilliant first in a competition is flashed from Land's End to Orkney in a week by the aid of our weekly architectural journals. How can two such totally different sets of conditions produce equally good results? Until we have adjusted ourselves to our new conditions our work must always suffer.

We cannot agree with Lord Curzon when he says that a good country house will never be built again. In three generations the descendants of the nouveau riche will be either gentlemen or paupers. (We all came originally from a primitive people.) Architects are ready and willing to turn their hands to the designing of cottages if the heavy hand of the Government and the speculative builder could be removed.

What did Lord Curzon really mean when he said "use an English style in England"? Did any qualified architect ever do, or wish to do, otherwise? Is the difference between, say, French and English Gothic, or Italian and English Renaissance, so clear that the average layman could distinguish the difference? Did any trained architect of any age ever build a French chateau overlooking an English landscape unless some ill-bred, pretentious client demanded it? Surely the evidence of training and qualifications eminently essential for practising the art of architecture are rooted in the perception of fitness and reason in all things. No really great architect was ever "aggressively individualistic." Bernini missed true greatness for this reason. Does any really unprejudiced individual consider that architecture has made no advance since the late Victorian era?

New materials, new methods of construction, new business requirements, will ever naturally lead to new forms of mass and new details in design, but such new forms must be organic and not the deliberate attempt to create new styles. The solution of the problem lies neither in the creation of a new style nor the education of the architect, but the arrival of a new and better type of client. A client who realises the great and noble legacy of many past generations; his responsibilities to posterity, and the artistic reputation of his own country amongst the nations of the world.

For the architect the best advice of all is that given by Prof. Richardson at Cambridge the other day, viz., "the realisation of new truths out of the observation of principles which are eternal" or, as Prof. Lethaby said in a recent letter to the writer, "We need the idea of living, advancing, sufficient structure." Architects to-day are hampered by ignorant clients and by our unbalanced economic and commercial conditions.

Exhibition of Cairo Hospital Competition Drawings.

The drawings submitted by the following competitors in the Qasr-el-Aim Hospital, Cairo, competition will be exhibited in the R.I.B.A. Gallery from Monday, April 7, to Thursday, April 17:—Messrs. H. Percy Adams and Charles Holden; Messrs. Henry V. Ashley and F. Winton Newman; Messrs. J. T. Cackett and R. Burns Dick; Mr. E. Vincent Harris; Messrs. H. V. Lanchester, T. Geoffrey Lucas and T. A. Lodge; Messrs. William and T. R. Milburn; Messrs. Charles Nicholas and J. E. Dixon-Spain (photographs only); Messrs. William A. Pite Son & Fairweather; Mr. J. Reginald Truelove The exhibition will be open daily between the hours of 10 a.m. and 6 p.m. (Saturday, 12th, and Thursday, 17th, 1 p.m.).

CORRESPONDENCE

The Late W. H. Ward.

Sir,—May I add a few reminiscences to Mr. Richardson's sympathetic appreciation of W. H. Ward, whose friendship I enjoyed since the day when he first came to Repton in the autumn of 1881? As a schoolboy he did not make many friends, his rather foreign ways (for his mother came of an old Genevese family) making him suspect to the British boy. But the friends he did make loved him as a brother. From the first he showed signs of great mental ability, and the present headmaster of Harrow (Dr. Ford) once acknowledged that he was the only boy he ever feared in competition. I do not think he ever loved school life; but from the day he entered Clare he became the most devoted of the sons of Cambridge, plunging into the many pools of academic life with never-failing enjoyment. He was one of a group of Cambridge men of brilliant promise (though more than one, alas! died too young)—F. E. Garrett, President of the Union, and Editor of the *Cape Times* during the breathless years which preceded the Boer War; J. C. Iles, one of the four Senior Wranglers of 1887, and H.M. Inspector of Schools; W. G. Clay, barrister-at-law, who was killed in an Alpine accident before he could reach the high honours to which his friends believed him to be destined; J. N. Figgis, brilliant historian and theologian; and the present Lord Almoner's Professor of Arabic and the Norrisean Professor of Divinity. I do not remember the impromptu verse to which reference has been made but his translations from French, German, and Italian poets were eagerly welcomed by his friends, and some of them published in a small book of verse such as undergraduates love to perpetrate. He would almost certainly have taken First in the Classical Tripos if he had not been trammelled by the stupid mathematical requirements of the "Littlego," which in those days held back many a promising Classic student from his proper studies. Ward had always been a good draughtsman; but it was only after a period of schoolmastering at Liverpool College that he determined to devote himself to art. If I remember right, Sir A. Blomfield was very discouraging at his first interview; but after seeing his drawings completely altered his tone. How completely Ward was justified in changing his profession every architect bears testimony. In every profession there are those rare souls whose work commends itself more to his colleagues than to the indiscriminating public. And if there are "poets' poets," and "doctors' doctors," Ward was by all accounts an "architects' architect." But for myself I remember him as a lifelong friend. *Ave, Frater, atque Vale!*

H. L. Ogle.

Modern Architecture.

Sir,—Your comment in the last issue of *The Builder* that such a result as a new national style of architecture will not be achieved in any conscious way, cannot be unduly emphasised. If, as designers, architects endeavoured to express the purpose of building as directly and simply as possible, relying more upon the truth of a building's construction for ultimate effect, and uncompromisingly rejecting meretricious detail, would there not ultimately ensue a harmony, a dignity, and an orderliness in all architecture which would reflect more truly the national character, and though silent in operation, be amongst the most potent of beneficial influences in the lives of city and urban dwellers?

F. Ernest Crutchley.

Hornsey.

Architectural Competitions.

Sir,—With reference to the correspondence in *The Builder* on the subject of the eternal competition question, it has occurred to me that something might be done in the matter of remuneration to each of the unsuccessful competitors.

There is always a tremendous expenditure of energy and talent and of time by each competitor in every competition; and, however good, bad or indifferent those designs may be it is obviously impossible for all to be successful.

Under these conditions would it not be fair to everyone if each *bona-fide* competitor were to receive an honorarium, say, of two or three guineas, for the trouble and labour involved in preparing the drawings. It would, at least, ohow that the promoters appreciated the efforts sf the competitors. Elfric H. Smith.

Future Building.

A letter on "The Principles of Future Building," by Mr. William Davidson, together with a reply by Professor A. E. Richardson, are given on p. 504.

MEETINGS.

Friday, *March* 28.

Chadwick Public Lectures.—Mr. J. T. Quinton on "The Sanitary Inspector in the Machinery of the Public Health Service." At Old County Hall, Charing Cross, W.C.2. 8 p.m.

Saturday, *March* 29.

Architects' and Surveyors' Assistants' Professional Union.—Visit to Messrs. Liberty's new premises, Argyle-place, W.1. Meet at premises at 2 p.m.

Monday, *March* 31.

Royal Institute of British Architects.—Mr. H. S. Goodhart-Rendel on "English Gothic Architecture in the Nineteenth Century." At 9, Conduit-street, W.1. 8 p.m.

Edinburgh Architectural Association.—Annual General Meeting of the Associates' Section. At 15, Rutland-square.

Wednesday, *April* 2.

Architecture Club.—Sixth Dinner. At Grosvenor House, Upper Grosvenor-street, W.1. 7 p.m.

L.C.C. Central School of Arts and Crafts.—Sir Banister Fletcher on "Byzantine Architecture." At Southampton-row, W.C.1. 6 p.m.

Institution of Heating and Ventilating Engineers.—Mr. S. J. Benham on "Lay-out of Kitchens in this Country and America." At Engineers' Club, Coventry-street, W.1. 7 p.m.

Thursday, *April* 3.

Incorporated Institute of British Decorators.—Annual General Meeting. At Painters' Hall, E.C.4. 3 p.m.

Town-Planning Conference and Exhibition.

The programme of the Town-Planning Conference and Exhibition, to be opened at University College, Gower-street, W., on March 31, at 5 p.m., by H.R.H. Prince Arthur of Connaught, K.G., K.T., G.C.M.G., G.C.V.O., C.B., is as follows:—Tuesday, April 1, 5.30–7.30 p.m.: Dr. Raymond Unwin, F.R.I.B.A., will open a discussion on "Zoning Requirements of Town-Planning Schemes under the Act"; chairman, Mr. Alfred Gotch, President of the Royal Institute of British Architects. Wednesday, April 2, 5.30–7.30 p.m.: Mr. G. I. Pepler will open a discussion on "Technical Requirements in the Preparation of Schemes"; chairman, Mr. Thomas H. Mawson, President of the Town-Planning Institute. Thursday, April 3, 5.30–7.30 p.m.: Dr. I. G. Gibbon, C.B.E., will open a discussion on "Town-Planning Schemes in their Relation to Regional Development"; chairman, The Rt. Hon. Neville Chamberlain, M.P. Friday, April 4, 5.30–7.30 p.m.: Mr. George Topham Forrest, F.R.S.E., F.R.I.B.A., F.G.S., Architect to the London County Council, will deliver an address on "Architectural Interests involved in the Making of Town-Planning Schemes"; chairman, Mr. Andrew T. Taylor, J.P. F.R.I.B.A., F.S.A., former Vice-Chairman of the London County Council.

The Exhibition will open as follows:—March 31, 5 p.m.–8 p.m.; April 1 to April 4, 10 a.m. to 8 p.m.; April 5, 10 a.m. to 5 p.m. Admission will be without fee or ticket.

ENGLISH HOMES*

Mr. Avray Tipping's latest volume fully sustains the character of former publications in the fine series of books descriptive and illustrative of English homes in past times. In dealing with the Early Tudor period, 1485-1558, he is able to include such well-known and much admired mansions as Compton Wynyates, Warwickshire; Layer Marney, Essex; the great Abbeys of Lacock, in Wiltshire, and Wenlock, in Shropshire, beside many other houses of surpassing interest. Some of these buildings have been described before, but the collection of many examples of art of one period, differing from one another in material, in design, and in the details of their execution, makes possible a comprehensive survey of building craft at the time of the Early Renaissance in England.

Details of construction are shown in some few instances, but the appeal of the book, as of others of the series, is to those who wish to study finished effects and the contribution of the relative parts to the whole. The illustrations normally include distant views, exterior details, and interior details of each house shown in a series of splendid photographs. Detail drawings and small block plans are also given in some cases, but the camera has been relied upon in general with consistently good results. Picturesque grouping of masses and attention to tone and colour values characterise the building work of the period, and these important elements of architecture are often better suggested by photography than by the use of architectural diagrams.

The peculiar charm of bricks of rough surface texture and slightly irregular edge bordered by wide creamy white mortar is referred to in the text, and this combination of texture and colour does indeed lend extraordinary interest to the actual buildings; it cannot, however, be portrayed in any satisfactory fashion except by photography.

Great skill and patience must have been expended, too, on obtaining clear views of carving and detail in dark interiors filled with furniture and colour decoration, in spite of reflections from windows and picture glasses. Although the illustrations, perhaps, occupy the greater space, the letterpress is no mere padding, but is arranged as a series of separate articles upon the several great English homes and the affairs of some of their original builders and occupiers.

In the conditions existing in England under Henry VIII, when possessions were changing hands with something like oriental suddenness, many notable buildings were erected in what may be described as a workmanlike style. The technique of the artificer was allowed greater scope than, perhaps, had been the case at any former period. Carving and colour decoration, showing originality and imagination and a love of richness rather than delicacy or precision, are to be seen in almost every example. The old religious restraints were relaxed, the vaulting system of construction had passed away, and with it the necessity of thoughtful consistency of thrust and abutment. The formality of the more mature Renaissance was as yet unknown in England. The master craftsmen engaged to build great mansions for the newly rich inclined somewhat towards exuberance, towards quantity rather than refinement, and above all towards speed of production.

The executed work bears evidence of the qualities as well as the defects of the guild system, of direct contact between the building owner and the craftsmen without the intervention of paper designs for every detail. The quaint grotesques vigorously if crudely carved on a beam at the Marquess of Granby Inn, Colchester, certainly have an unpremeditated spontaneity that savours of the chisel rather than the pencil. No two adjoining turns of the scrollwork contain similar leaves or beasts, and while the bracket under one end of the beam is decorated with one squatting figure, two upright figures are carved upon the other. This free trade in design has its fascination for many persons to whom more severely stylistic architecture is repellent, and if the most finished art is beyond the reach of these spontaneous efforts the sense of easy achievement preserves them from the weight of criticism that visits the failure of more pretentious and ambitious work.

The tendency of art and architecture towards worldliness and fun only reflected the spirit of the time, which had infected even the religious establishments, and gave to Henry VIII some colour of excuse for his scheme for their suppression. As Henry VIII is sometimes accused of acting without due reason, under the spur of greed and selfish interests, readers of Mr. Avray Tipping's book will be interested in the quotations from contemporary writers upon the subject of scandals in the unreformed Church.

The mixtures of style found in so many of the historical mansions under review gives occasion for the introduction of matter dealing with both earlier and later periods than that marked upon the title page, and a very amusing account of the introduction of new building in the "Gothick" style appears in connection with the hall, staircase and gateway of Lacock Abbey. The illustration (405) of the interior of the hall sufficiently indicates the dangers of revivals, the effect being insipid in the extreme. The description of St. Osyth's Priory, Essex, on the other hand, contains mention of a genuine vaulted chamber of the first quarter of the thirteenth century. An illustration (298) shows the extraordinarily slender supports of the stone roof as well as the beauty of the simple cross-groin ribbed vaulting.

All readers may not agree in approving one passage in the book where the author contrasts the excellent work done by Sir Aston Webb and Sir William St. John Hope in conserving the ruins of Cowdray House, Sussex, with the methods employed by H.M. Office of Works in dealing with monuments in the charge of their Historic Buildings Branch. The comparison the author makes is unfortunate, for H.M. Office of Works certainly does not treat the ruined buildings according to "a few official rules," but investigates each problem afresh upon its merits. Unlike most of the other countries of Europe where Government interference too often spells complete restoration, England happens to be served in this respect by a Government Department capable of dealing sympathetically with ancient monuments, which are, in many cases, handed over voluntarily to its care. As to the "grim greyness" of Tintern Abbey, anyone who takes the trouble to investigate the walls already treated by H.M. Office of Works will see that lichens are already creeping back upon their surfaces and will soon mellow them again. Those who have stayed any length of time in the neighbourhood of Tintern and have tried to sketch the Abbey will know by experience that—probably owing to the peculiar lighting effects in the Wye Valley—Tintern Abbey never looks the same colour for two days together. It should be remembered also that the structural problems at Tintern Abbey are so exceptionally difficult that the demolition of large portions had already been sanctioned and actually commenced in the interests of public safety before the building was placed in the hands of H.M. Office of Works and the demolition put a stop to forthwith.

* *English Homes.* Period II. Vol. I. Early Tudor, 1485-1558. By H. Avray Tipping, M.A., F.S.A. (London: Published at Tavistock-street, Covent Garden, W.C. 2; and by George Newnes, Ltd., Southampton-street, W.C. 2. New York: Charles Scribner's Sons.) 1924. Price £3 3s. net.

Chippendale at South Kensington Museum.

A loan collection of Chippendale furniture, with contemporary silver and glass, and needlework and Spitalfields silks, will be on exhibition at South Kensington Museum until April 3.



New Residential College, Copenhagen: Main Entrance. (*See p.* 490.)

NEW RESIDENTIAL COLLEGE, COPENHAGEN

By GEORG BRÖCHNER.

From whatever angle it is viewed the new residential college in Copenhagen, the Studentergaarden, as is its official Danish name, possesses peculiar and interesting features. Architecturally it has further enhanced the fame of its designer Professor Martin Borch.

Although a scheme had been more or less vaguely mooted, it was left for the world-famed surgeon, Professor Thorkild Rovsing, as Rector Magnificus of the Copenhagen University, to endow it with a definite plan and to see that this plan was realised. He proposed that one hundred men should each defray the cost of an apartment to bear his name or a name he suggested. The donation was fixed at 15,000 kr. (about £825) each, the King, himself an old student and at times present at the students' functions, heading the list, Professor Rovsing and three other Professors being the next contributors. Others promptly followed, both private individuals and public funds and institutions, and the plan was extended from 100 to 110 resident students. A number of men, famous in different walks of science, in the Church, in politics, etc., of the past and the present, have had their names perpetuated in this dignified and appreciative manner. The names are found on a stone slab above the respective entrance doors, and the fitness of things has been subtly observed in the connection between the donors and their nominees.

The Corporation of Copenhagen presented a well-situated site of about 40,000 sq. ft., and the main building is a three-winged, massive edifice, in red brick, a material thoroughly Danish and now again much in vogue. This imposing block contains accommodation for 110 students and the "Efor" or Rector, whilst the lower gate house is intended for the Vice-Efor, etc. The courtyard between the gate house and the main building will have its chestnut tree, as the old students' college (the Regensen), built 300 years ago by that master-builder, King Christian IV, has the historic lime tree in the midst of its courtyard. Public funds and private individuals have contributed handsomely to the artistic adornment of the Studentergaarden. Professor Axel Iörgensen, the painter, is engaged upon the composition of a number of scenes in the life of Danish students, and Kai Nielsen, the eminent sculptor, has undertaken the sculptural decorative work, both in the matter of larger compositions and of busts of several famous Professors, conspicuous amongst which are the characteristic head of Professor Höffding and the portrait of Professor Rovsing. The grand hall, when completed, will be exceedingly rich in artistic decoration of great merit, and there are a number of other attractive features, loggia and pergola, and a kind of belvedere pavilion, commodious reading room, music room, etc. For a self-contained residence in this home of good things, and many attractions, each student, *alumners* they are called, pays the modest annual sum of 300 kr. (£16 10s.), the rest of the upkeep being defrayed from a State subsidy and the interest on the residue of the capital, after the buildings have been completely paid for.

EXHIBITION NOTES

THE WATER-COLOUR SOCIETIES.

The two prominent water-colour societies have opened their summer exhibitions during the last week, and we must say they have both caused us much disappointment. At the Royal Society in Pall Mall we have generally found much that upheld its worthy tradition, but this year is one of the poorest in our recollection. There is plenty of able technique, such as in the work of the President, but there is an astonishing lack of good subjects and a large proportion of work which hardly seems to justify itself on the walls of an exhibition. The attractive galleries of the Institute at first sight make a brave show, but it is a dull round we have to make of the five hundred exhibits. The President, Sir David Murray, is an idealist, and his large picture in the principal gallery, with its delicate glow of sunlight, calls us to a world of ideal charm. Unfortunately we feel that he has overdone the point of interest in his picture and the result is not so broad and satisfying as it might have been. He has another picture, with Wells Cathedral as its central object, and in some respects that is better, and in another interior view at Wells he has triumphed over less obvious technical difficulties in the handling of architectural detail. What the verdict of painters would be in the fine picture of "The Coming of Night" (437) we do not know, but Mr. Spenlove-Spenlove has certainly given us a scene of mystery and admirable colour with a telling effect of breadth and impressiveness. Miss Lucy Kemp-Welch has probably never done better than in her picture where the tense action of a team of horses is very graphically expressed. Mr. H. Richter treats us to fine decorative effects of flowers in blues and greys in two pictures. The architectural effect of the Court of the Lions (the Alhambra) is powerfully portrayed under moonlight by A. Van Anrooy (367). Mr. A. Cox can always be relied on for good colour, as in his admirable "By the Sea of Galilee" (373). A clever little sketch of Notre Dame by Fred Lawson shows that even a hackneyed subject may often hold a fresh interest. Both in subject and treatment Mr. Terrick Williams generally succeeds, and he shows in "Twilight and Rain" what charm may come in a picture of conflicting lights in a cloak of enveloping purple and blue. This artist contributes two or three other dainty drawings. Several pictures might be named which help to give character to the exhibition, but it seems to us that the honours this spring will be with the exhibitions of individual artists.

WATER COLOURS.

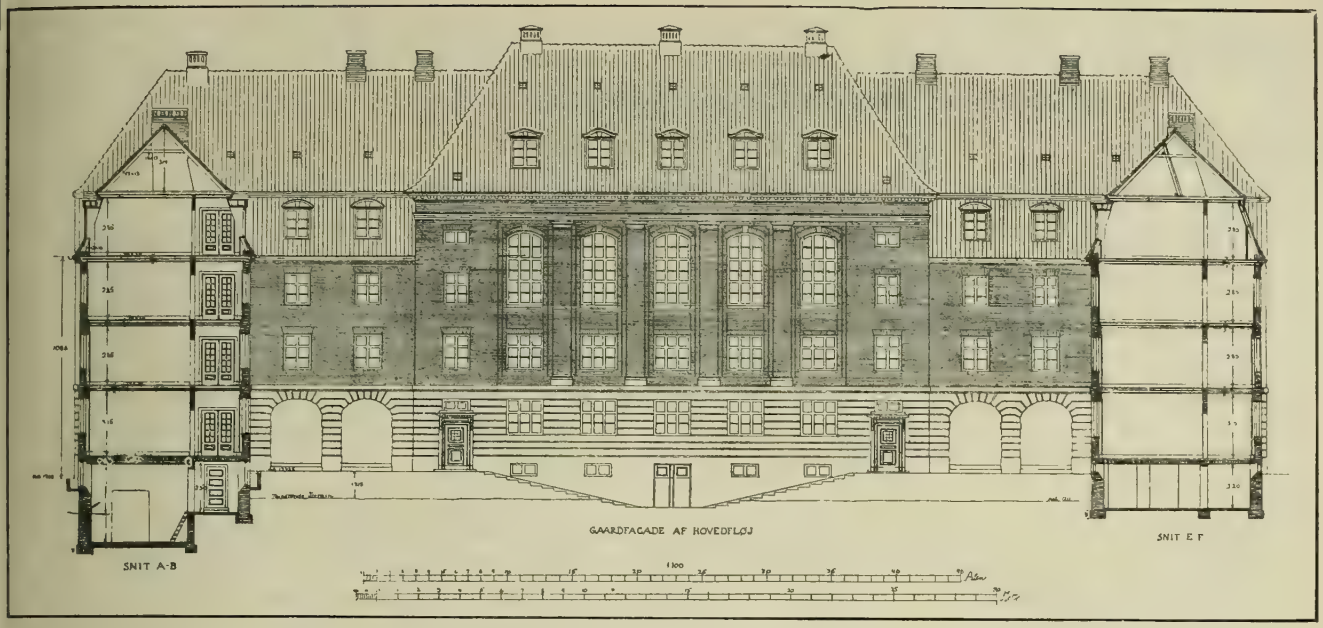
One of the most successful exhibitions of flower paintings we have seen is the collection of water-colour drawings of the Tyrol, Italy, and England, by Rosa Wallis at the Walker Galleries. There are singularly pure and attractive drawings of various scenes in which the colour value of flowers is the chief attraction, from the campanula and ox-eye daisies in the Tyrol (12) to the garden of the post office, Bishopstone (8). There are over fifty drawings shown, in which one could hardly count one failure, and they have breadth of handling and a certainty of colour value which lifts them far above the average quality of exhibition work, and one is inclined to applaud and appreciate the modesty of the artist and the moderation of her prices. The fact is that we are turning out some creditable work even in these modern and decadent times.

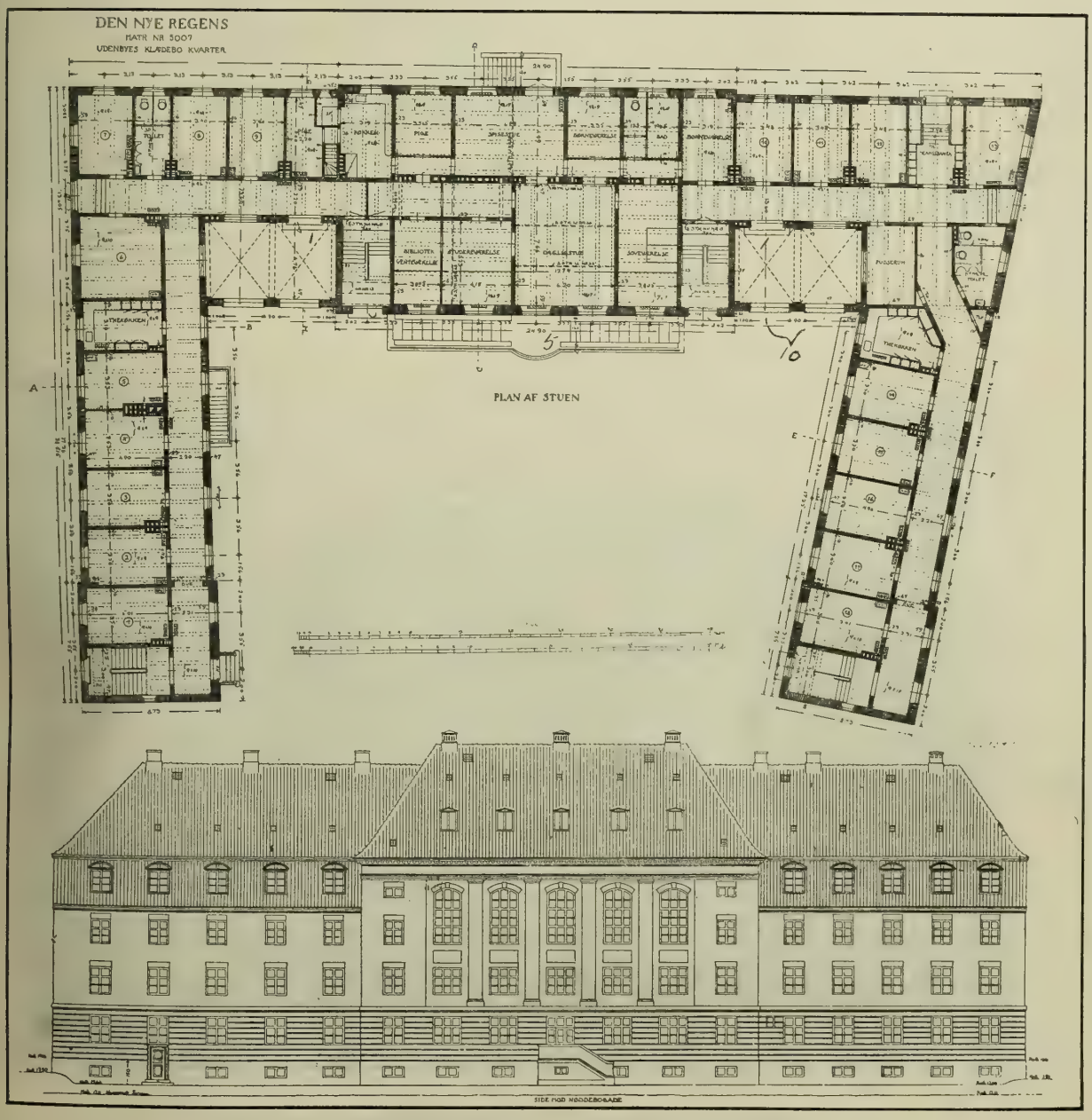
The water-colours by Wilfrid R. Wood reveal a good deal of interest in architectural subjects (as well as the Dolomites), and the architect will dwell with interest on such a subject as the "Pal. Comunde, Arezzo" (37) or the excellent drawing of Blakeney High-street, Norfolk (32), which has a quiet charm in both its subject and its tone.

In the collection open at the Walker Galleries the drawings from Italy, Switzerland and England, by Harry Goodwin, look slightly overdone in comparison with the other collection; but at his best, like "The Sunrise from the Righi," the artist can exert a poetic fascination.



New Residential College, Copenhagen. By Professor Martin Borsch.





New Residential College, Copenhagen. (*See p.* 490.)

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ILLUSTRATIONS

"Kilnfield," Puttenham.

This house faces Puttenham Common, with a distant view of Hindhead. It is built of local brick of varying tones, with a roof of hand-made tiles. The staircase and some of the flooring is of chestnut. Mr. Jackson, of Compton, was the builder, and Mr. Alfred B. Yeates, F.S.A., the architect.

School at Welwyn Garden City.

The school at Welwyn is designed to give the maximum amount of light and ventilation, together with efficiency of organisation. Economy has everywhere been studied both in plan and in construction. The circulation is by means of open verandahs, facing south towards the play-grounds. The assembly hall is placed on the main north and south axis of the plan, and is lighted from the south; there are additional windows for extra light and for cross ventilation in the east and west walls. The entrance is in the south wall, and sliding doors are provided in order not to choke the circulation outside. Four emergency exits are provided. The class-rooms are lighted from the north by large windows, pivot hung at the top, and having hoppers at the bottom. The chief lighting is from the north owing to the even and steady light from that quarter, and the desks thus face east in order to receive a left-hand light. The question of cheerfulness and sunshine has been studied, and a large window (fitted with blinds) facing south over the verandah has been provided. The south wall has glazed and hinged doors opening out into the verandah, in which are placed hoppers for use when cold weather prevents the complete opening of the doors. The class-room floors are raised 4½ in. above the verandah floors. The class-rooms themselves may satisfactorily be used as play-rooms. Cloakrooms are provided with pivot hung north and south windows for cross ventilation. Entrance and exit is affected by doors which can be fixed open for extra ventilation without interfering with the circulation. Heating: The heating system provides for the necessary changes of air, and a point is made of running heating pipes in floor channels across door openings of class-rooms, in order to warm the incoming air when the doors are open during temperate weather. The system of construction consists of timber framing treated to resist decay, with two thicknesses of concrete slabs forming the walls between. The walls are plastered inside and treated with "Waterex" outside. Flat roofs are adopted as they allow economy in timber, drainage, and simplicity of construction, and there is an air space in ceilings and walls both external and internal, adding to thermal properties and negating the possibility of disturbances by sound as between the class-rooms. Electric lighting is used and gas points provided, where required. Mr. Louis de Soissons, A.R.I.B.A., is the architect.

Taunton War Memorial School Competitio

We give this week the design submitted Messrs. W. & T. R. Milburn, FF.R.I.B.A. the Taunton War Memorial School Competit and commended by the assessor. Messrs. burn's report states:—

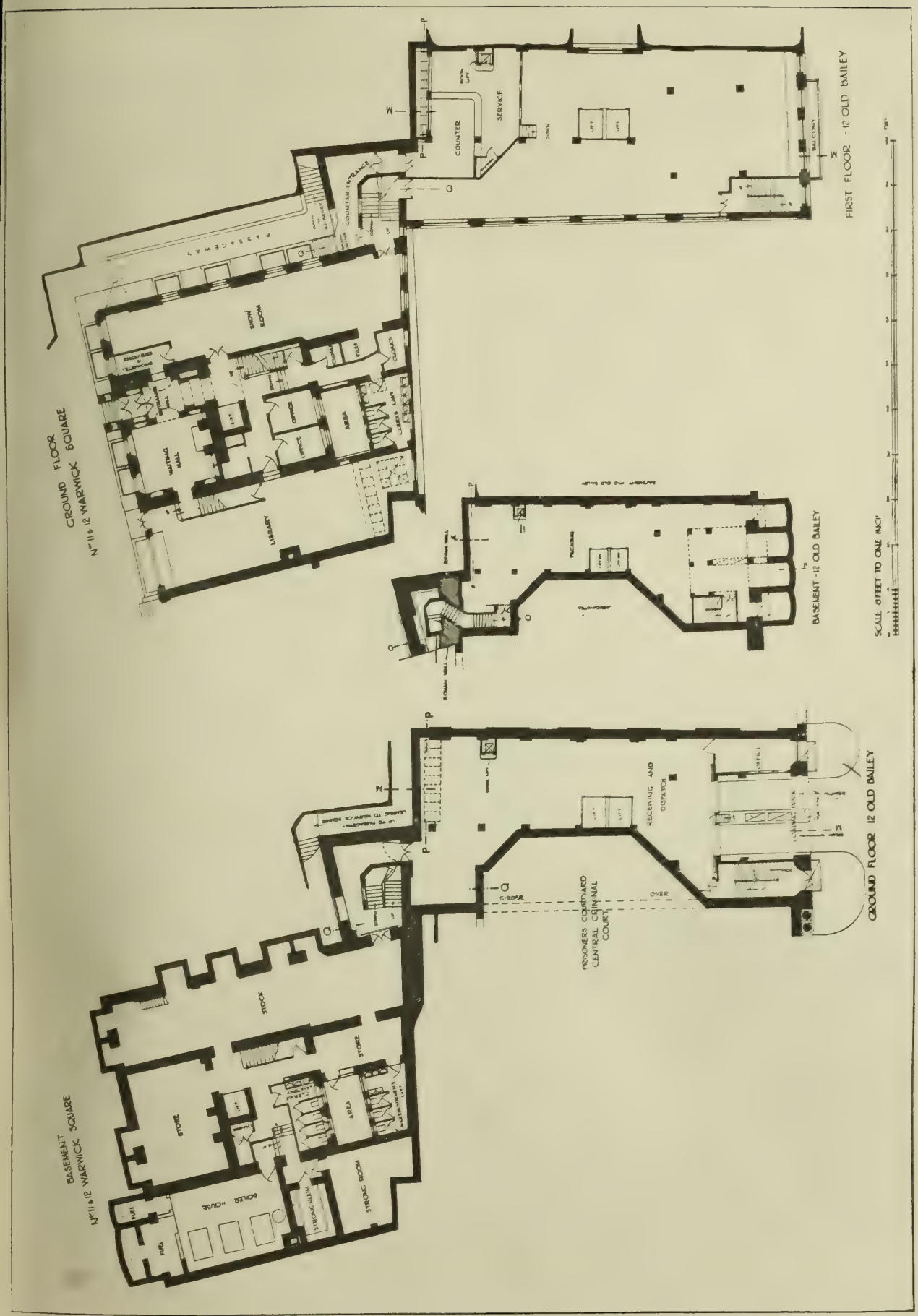
It was realised that the most rigid econo in planning and construction would have to adopted, and in the first place it was deci that it would be necessary to concentrate u the accommodation specified in the conditi as "essential," together with the necess subsidiary rooms, and discard altogether extra laboratories, &c., which competitors w allowed to treat as optional. Special attention been paid to lighting, and direct cross ventilat obtained for all laboratories and lecture roo The memorial inscription has been provi for in the most conspicuous place in the entra hall, where it is proposed to fix a suitable bro tablet, on which, in raised letters, will inscribed the names of the fallen. The elevati are finished in rough-cast, with stone entra porch, base and dressings, in harmony with existing school buildings. The cost is estima at £9,860, including architects' fees.

"Amen House."

This building, situated in Warwick-squ and Old Bailey, E.C., is the new home of Oxford University Press, and will be kno as "Amen House." Its office entrance is Warwick-square. This house (No. 12), wh has been adapted for offices, is of the Restorati period, and the old outlines remain and so internal features of interest have been preserv In one of the corridors leading from the ho to the new warehouse a piece of London W has been left uncovered. The house has a w staircase with some fine carving, and on the fi floor is a panelled room with a carved ceili and fireplace. The panels have been painted the manner of the period. Contiguous to th houses a seven story warehouse has been bui Mr. Harvey Dyball, F.S.I., is the architect.



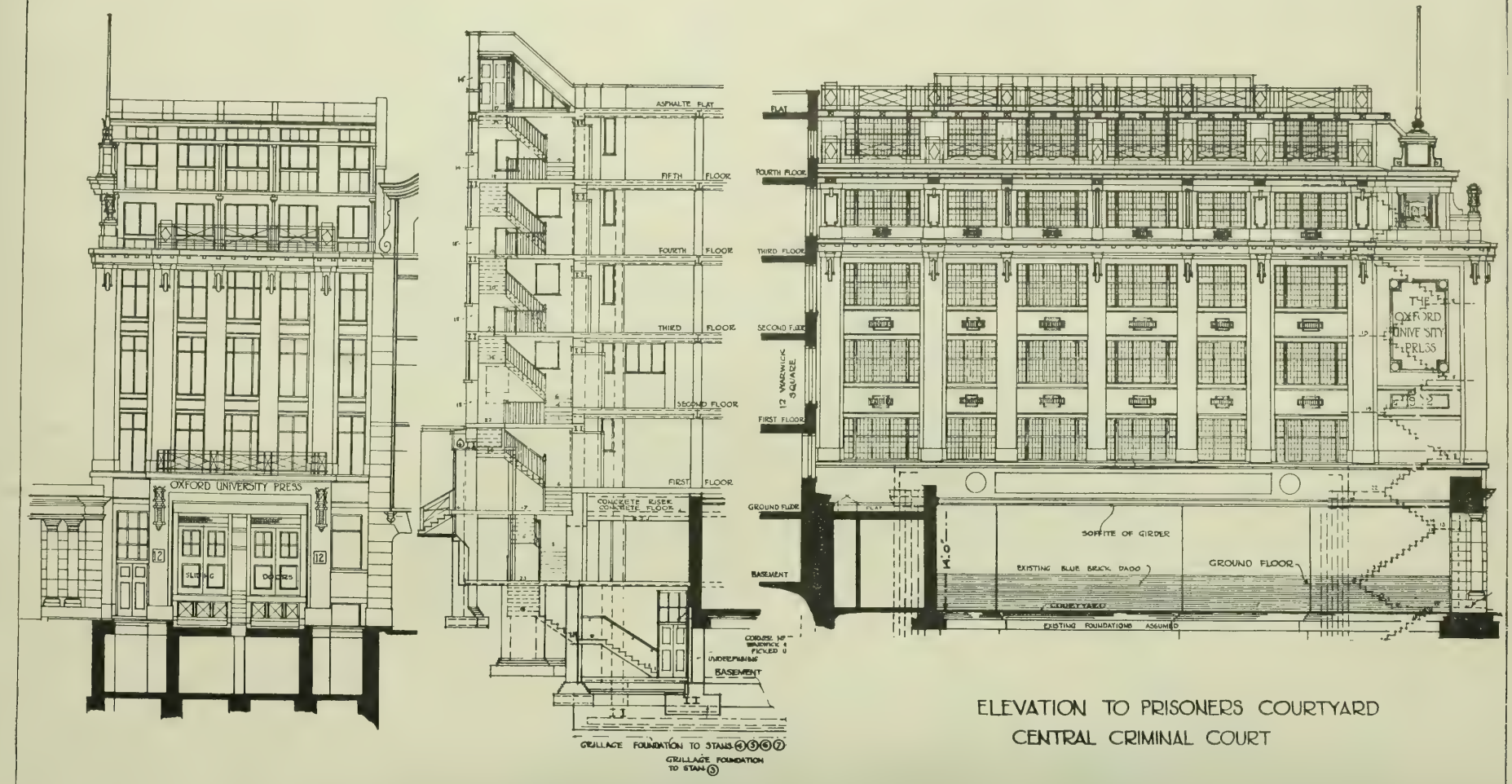
"Kilnfield," Puttenham. Mr. Alfred B. Yeates, F.S.A., Architect.



"Amen House," Warwick-square, E.C. Mr. Harvey Dyball, F.S.I., Architect. (*See p.* 492.)



From a Sketch by Mr. F. W. Knight, A.R.I.B.A.



ELEVATION TO OLD BAILEY

SECTION Q Q

ELEVATION TO PRISONERS COURTYARD
CENTRAL CRIMINAL COURT

SCALE, 8 FEET TO ONE INCH

"Amen House," Warwick-square," E.C. Mr. Harvey Dyball, F.S.I., Architect.

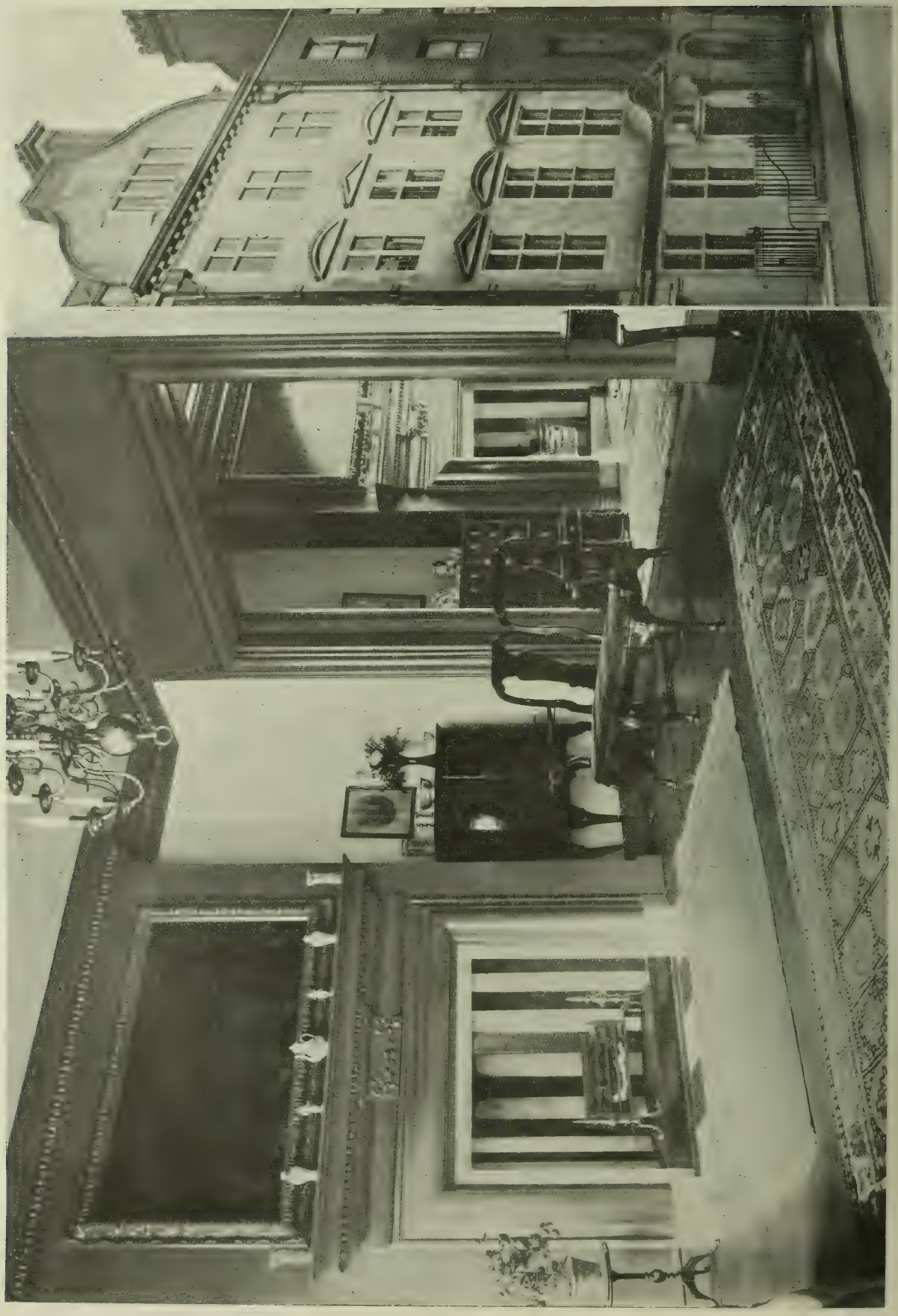


Stock Rooms in Old Bailey.



Entrance in Warwick-square.

"Amen House," Warwick-square, E.C. Mr. Harvey Dyball, F.S.I., Architect.



No. 36, Queen Anne-street, Cavendish-square, W. Mr. Anthony Wilson, Architect.



"Kilnfield," Puttenham. MR. ALFRED B. YEATES, F.S.A., Architect.





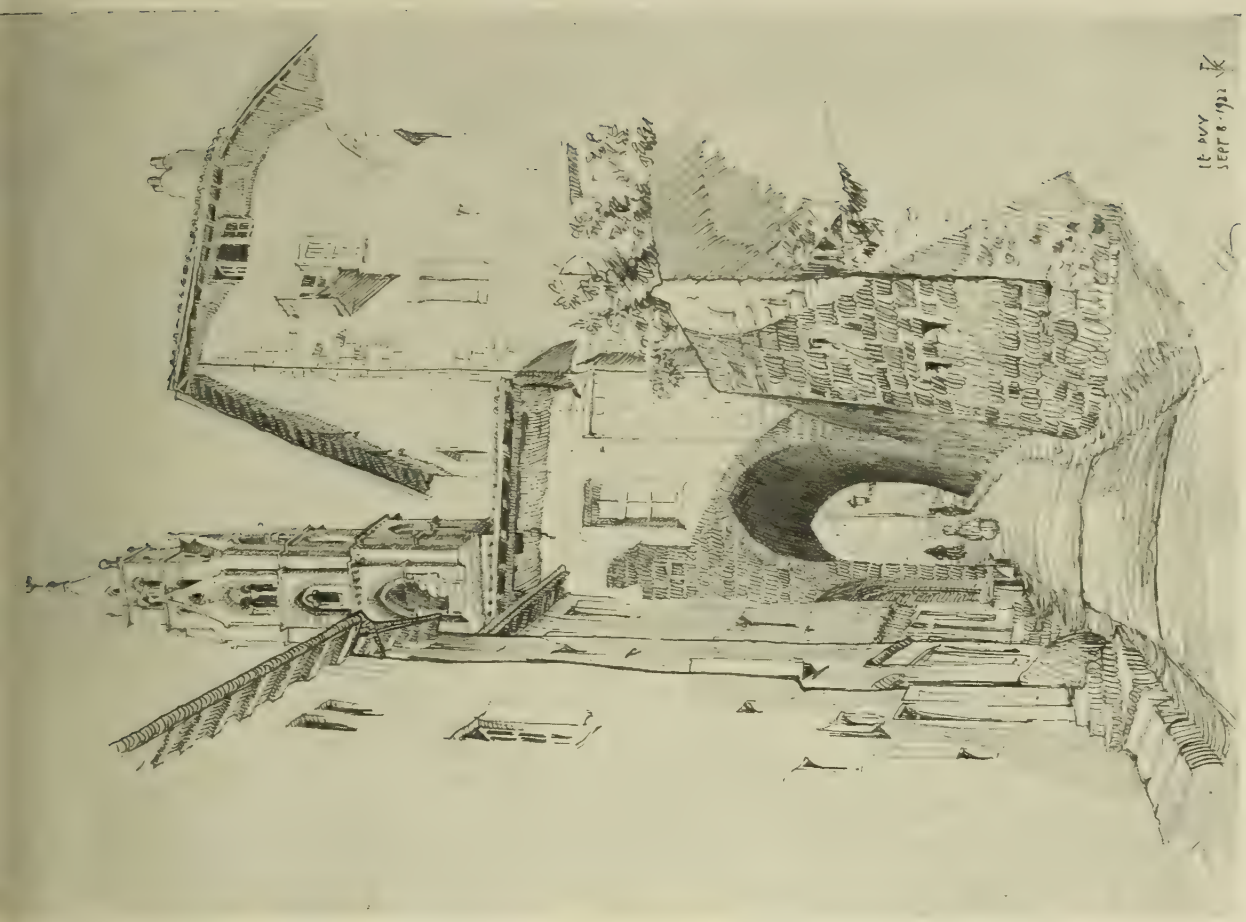


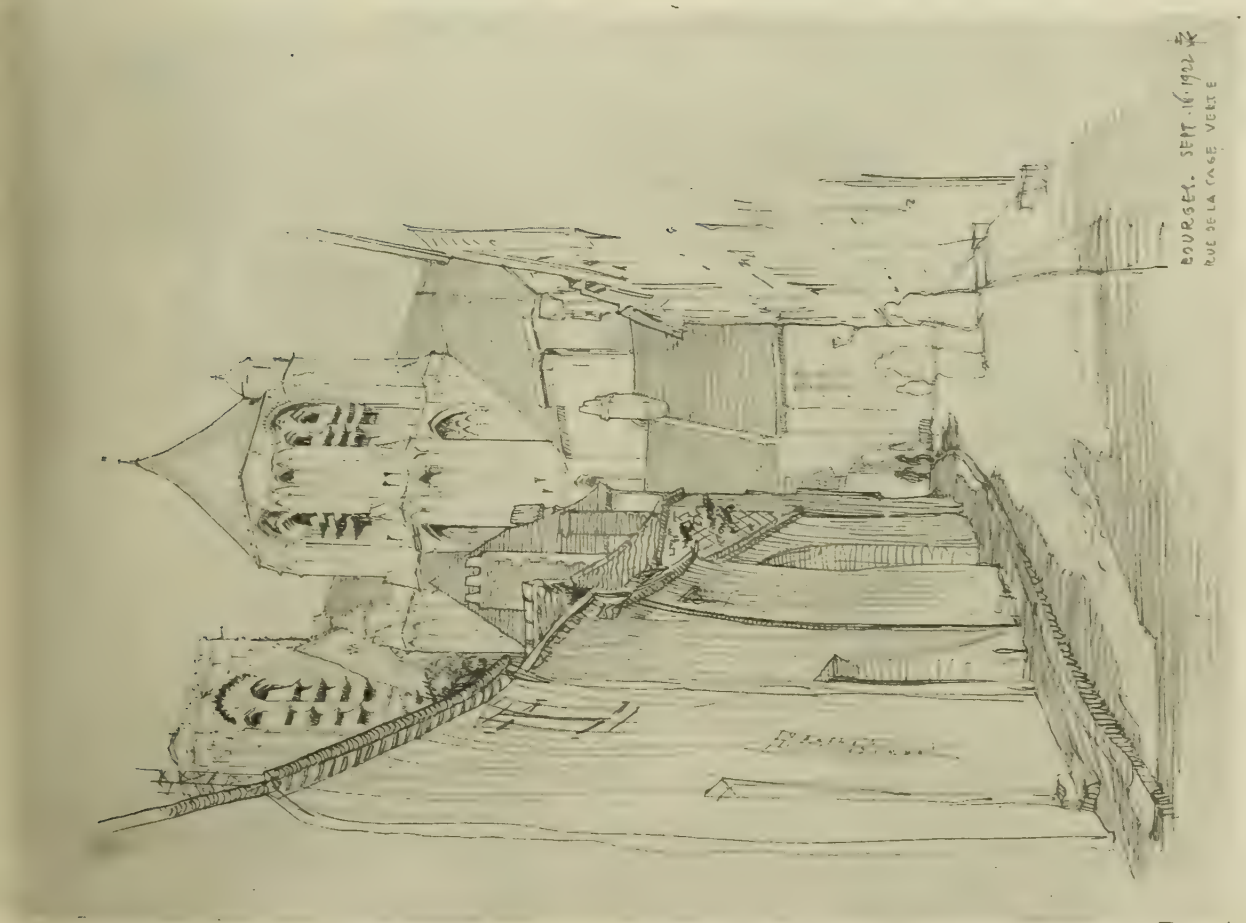






Open-Air School, Welwyn Garden City. Mr. Louis de Soissons, A.R.I.B.A., Architect.





From Sketches by Mr. F. W. Knight, A.R.I.B.A.



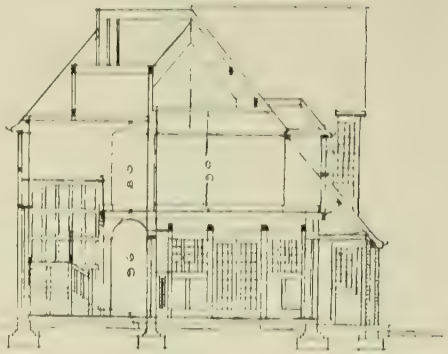
North Elevation.



West Elevation.



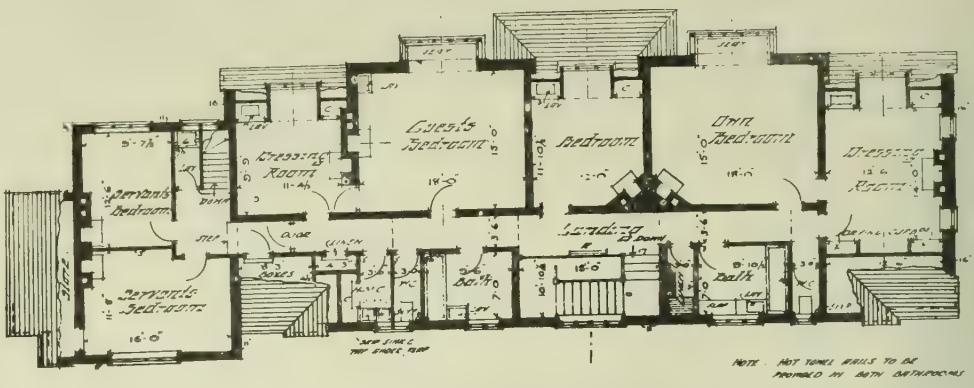
South Elevation.



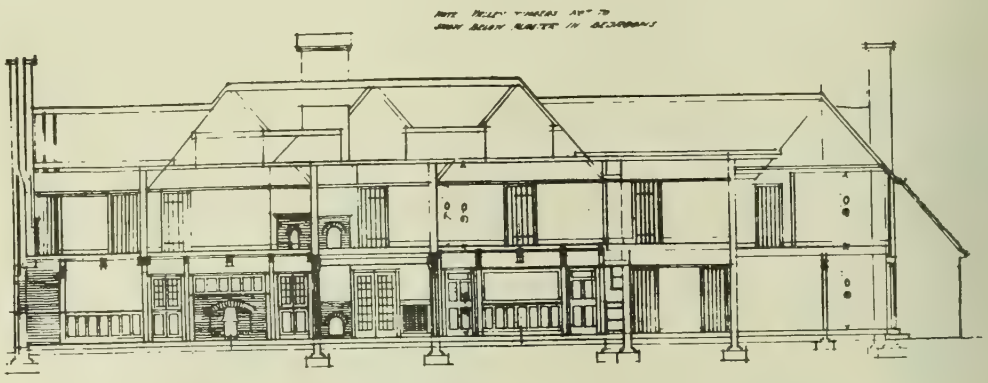
Cross Section.

House at Lesbury, Northumberland.

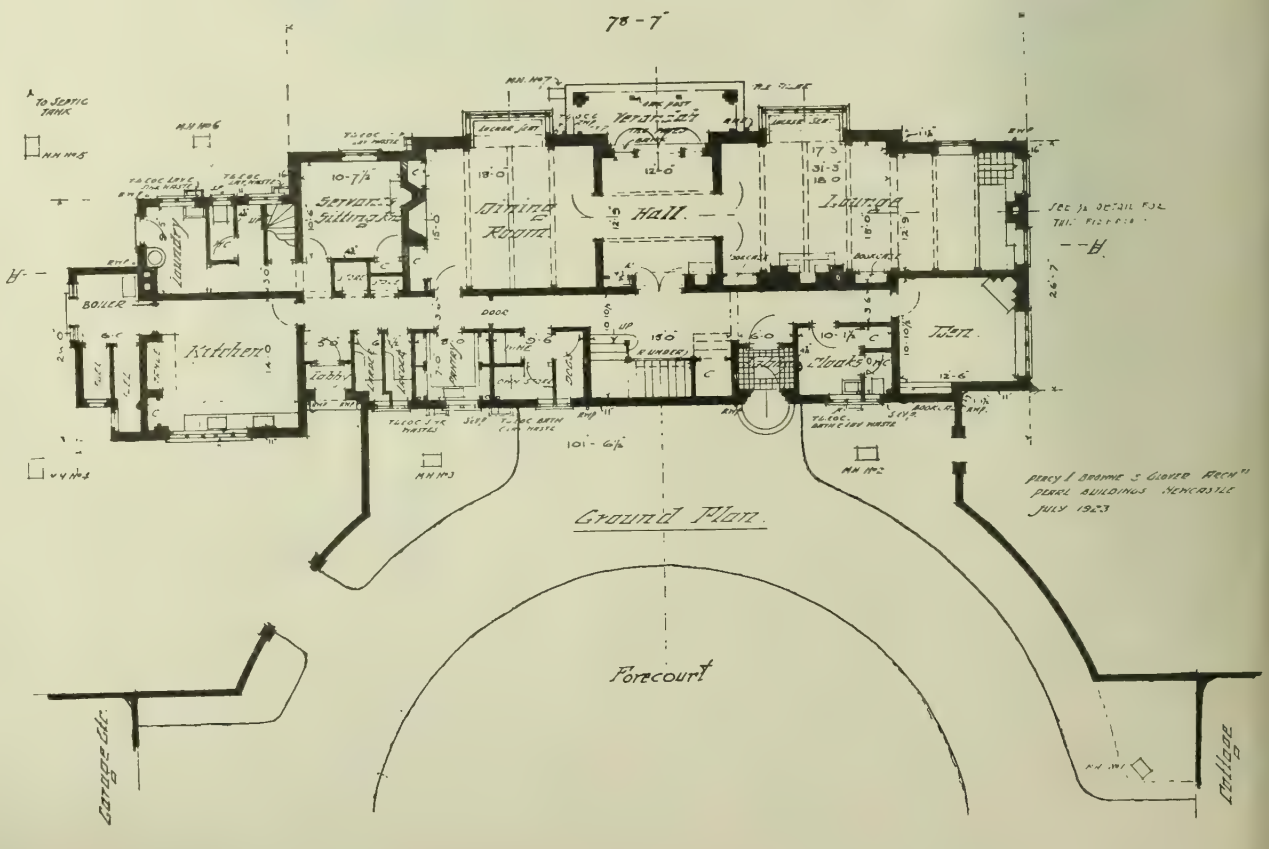
MESSRS. PERCY L. BROWNE & GLOVER, Architects. (*See p.* **497.**)



First Floor Plan



Longitudinal Section AA



Ground Plan

House at Lesbury, Northumberland.

MESSRS. PERCY L. BROWNE & GLOVER, Architects. (*See p.* 497.)

THE LATE W. DE GRAY BIRCH, F.S.A.

A TRIBUTE BY H. J. D. ASTLEY.

By the courtesy of the Editor, I am enabled to pay the following tribute to the memory of an old friend who I knew for more than thirty years.

I first knew him as a member of the British Archæological Association, of which he was Secretary, and editor of the Journal for twenty-two years, and I can see him now as he sat at the Council table in the old rooms in Sackville-street, discussing in his quiet manner and with inimitable dignity some problem of archæological interest.

In 1897 I succeeded him as editor of the Journal, and I shall ever gratefully remember the generous help he gave me, not only in the duties of editor, but also in pointing out from the stores of his well-stocked mind sources and references for any paper I myself happened to be writing.

Though his principal business up to 1902 lay in the MSS. Department of the British Museum and in the study of palæography, and afterwards in cataloguing and arranging the library and MSS. of the late Marquis of Bute, the range of his interests was a wide one, and there was no branch of archæology in which he was not an efficient and competent guide. Dr. Birch was always a student, and his views on most subjects were definite and decided, though they were not always accepted by his fellow-archæologists. For many years there was no annual congress of the British Archæological Association which he did not attend.

Dr. Birch was always an interesting talker, and it was a privilege to listen to him in his own home, as he sat back in his armchair, with legs outstretched, fingers touching and eyes half-closed, discussing some abstruse problem of religion or science, when archæology or history was not to the fore. Some of his views on the former subject would not have altogether met with the approval of the "orthodox," but he could always advance good and plausible reasons for any views he expressed in either. He was not at all enamoured of the modern feminist movement, and its later developments made him look forward with some dread to the prospect of a coming "monstrous regiment of women," as Shakespeare puts it, in our ancient and time-honoured institutions!

He was always fond of travel, though he had not had many opportunities for extended sojourns abroad in the course of his long and useful life; but latterly he had spent most of his winters on the Riviera in the company of his devoted eldest daughter, and among the projects of his old age was the formation of an Anglo-French Society to investigate the Roman and other remains of antiquity in the South of France, now, alas! destined never to be fulfilled.

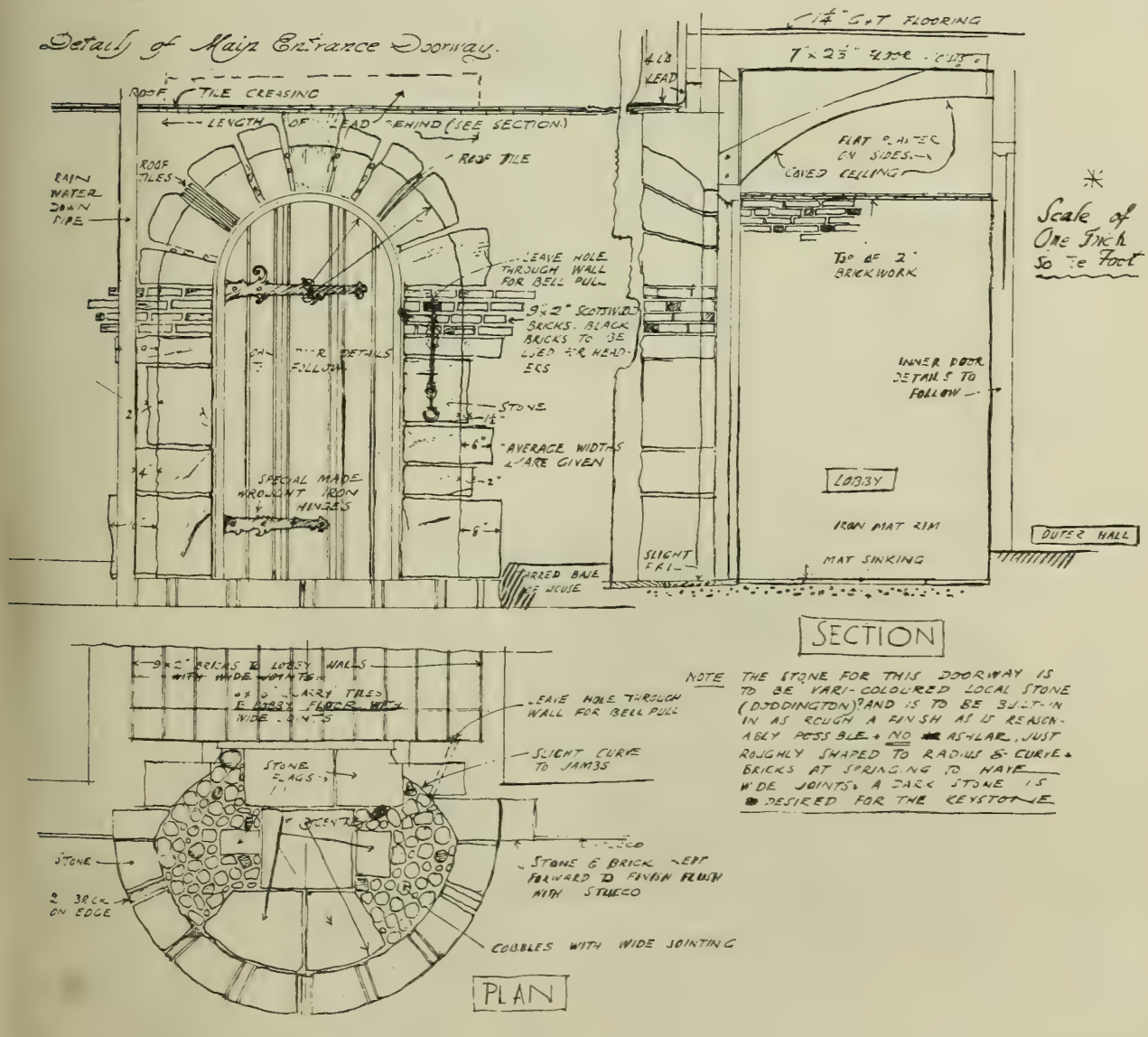
Thus one by one the links with the past are broken and the survivors are left to carry on their appointed tasks till they too, in the old Latin phrase, are numbered with the majority.

HOUSE AT LESBURY, NORTHUMBERLAND

This house is now being erected on a site sloping south to the river Aln, and is four miles from Alnwick.

The materials used are Scotswood hand-made sand-faced 2 in. bricks for facings; the walls generally are to be finished with lime roughcast left from the wood float, sand-dashed and distempered white, and Collier's orange-red tiles on the roof. Oak is being used for beams and joinery in the principal rooms.

The general contractors are Messrs. Carse, of Amble and Morpeth; and the architects are Messrs. Percy L. Browne & Glover, F. & M.S.A., of Pearl Buildings, Newcastle-on-Tyne, and 27, Newman-street, London.



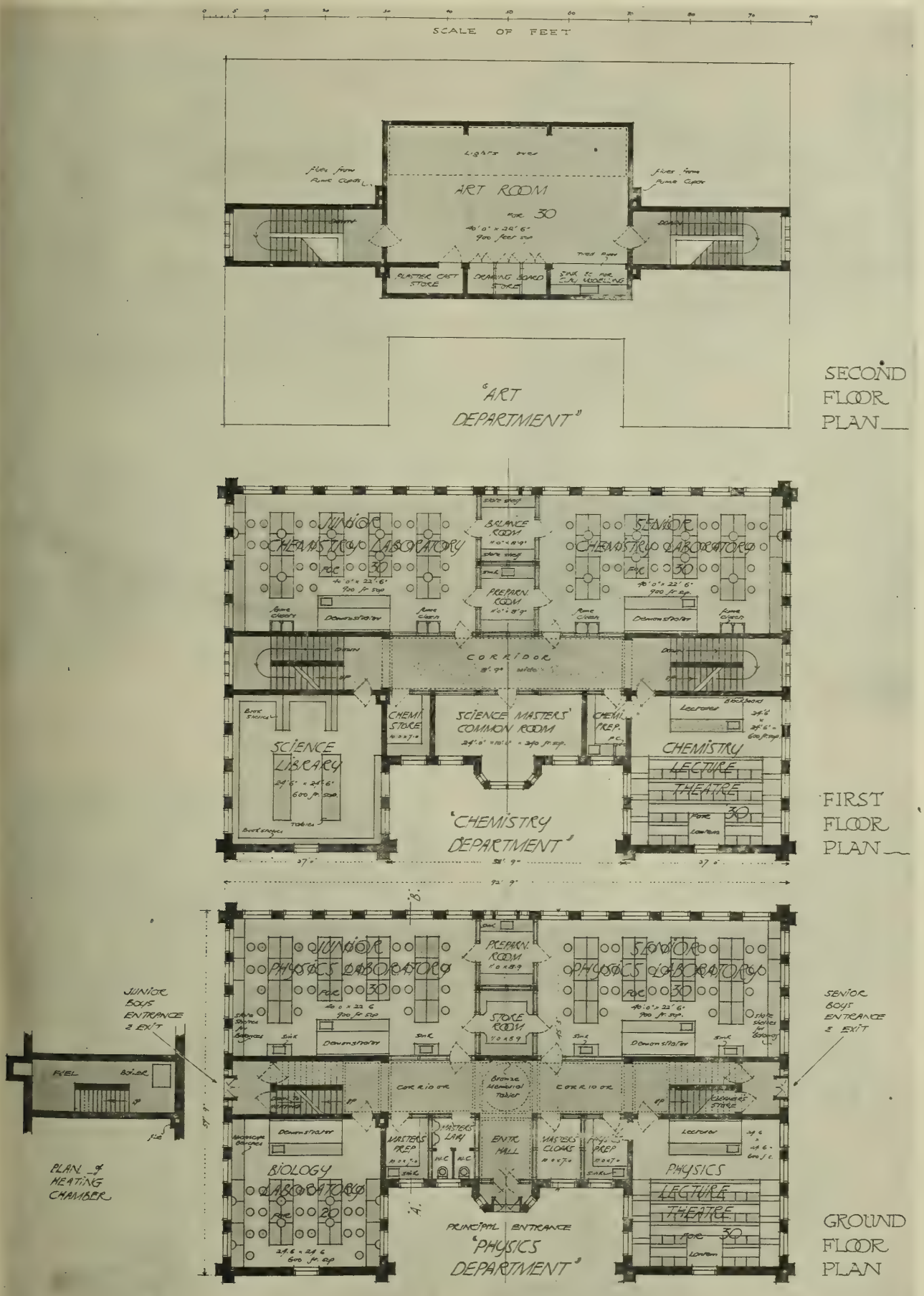
House at Lesbury, Northumberland. Messrs. Percy L. Browne & Glover, Architects.



Taunton War Memorial School Competition.

Commended Design: Submitted by Messrs. W. & T. R. Milburn, FF.R.I.B.A. (*See p.* 492.)

[The design placed first in this competition, by Mr. E. Vincent Harris, F.R.I.B.A., was given in our issue for January 4.]



Taunton War Memorial School Competition.

Commended Design: Submitted by MESSRS. W. & T. R. MILBURN, FF.R.I.B.A.

Fig. 1.—State of Ruins Prior to German Bombardment.

Fig. 3.—State of Ruins Six Weeks after Bombardment. Stair Turret Fallen. Entrance Door a Shapeless Mass of Rubble Core.

Fig. 2.—Entrance to the Abbey immediately after Bombardment.

Fig. 4.—Entrance to the Abbey immediately after

Reproduced by permission of H.M. Office of Works.

WHITBY ABBEY

By WILLIAM HARVEY.

In connection with the reconstruction of rtain parts of Whitby Abbey that had been rown to the ground by shell-fire during a rman naval raid, I have received the fol- wing criticism of the methods adopted by M. Office of Works:—

"I cannot but regard with mixed feelings photographs showing the ruins of Whitby bey before and after restoration. It will be membered that the Abbey was damaged by German naval raid of December 16, 1914. is so evidently desirable to preserve those pressive remains of ancient piety which lie ttered through the country that I shall not accused of disregard for them in doubting ether their preservation is secured in such way as to retain any really authentic record. solemnly rebuild the jagged edges of muti- ed masonry; to imitate the gradual dis- egration of time by artificially creating a nous appearance, other than the authentic e, appears to me somewhat of a vain labour. e are told that the reconstruction has been ried out by the Office of Works 'in accord- ce with the original details,' but what thentic details were at hand in restoring tilated wall-work already in a dismantled dition? It is probably very well done as stage-ruin, but there is something pathetic d almost superstitious in spending such ns on these ghosts of the past, and at ch a time. It raises the consideration ether the money spent in such a way is t better contributed to living needs, leaving past to bury its own dead."

As the views here expressed seem to be presentative of an opinion held by a great ny persons interested in the preservation of "impressive remains of ancient piety," I came curious to learn just how this excep- nal piece of restoration came to be executed a body of conservators who have in other ses consistently set themselves to preserve storical evidence with a minimum of altera- n and to avoid restoration at all costs. The storic Buildings Branch of H.M. Office of orks granted full facilities for this inquiry, d have permitted publication of drawings d photographs in illustration of the actual cts of the case.

It would be difficult, in view of the terrible amples of restoration that have been mis- applied to Gothic buildings both in England and elsewhere during the past century, to speak one word in favour of restoration at the present moment now that architectural and popular opinion, so seldom joined, happen to be unanimous in its condemnation.

Whatever forms of architecture are desir- able, dummy restorations of a past and dead style are not of them, and the many judici- ously executed works of repair carried out by H.M. Office of Works sufficiently demonstrate the sympathy of that body with the popularly accepted view. But it is one thing to establish a rule for guidance and quite another thing to obey it blindly when it has been established. Each case must be judged on its merits, and no building is subjected to treatment by H.M. Office of Works until a searching inquiry into its circumstances of structural stability and artistic suitability has been first carried through.

As far as is compatible with safety, a ruined building in the custody of H.M. Office of Works is left severely alone, but it is not to be expected that many ruinous buildings will be so substantial as to need no attention whatever, and where works have perforce to be undertaken the least conspicuous methods are chosen in preference to the obvious and the intrusive. At Whitby an extensive ruin of the Abbey Church remains unroofed and mutilated and bearing evidence of the less artistic and more obvious repairs executed in former times in the crude masonry piers that have been built in the triforium arcades by other custodians of the building (Fig. 7).

The damage done by the German shells was fortunately confined to one part of the group of ruins, but though the West gable, princi- pally affected by the disturbing effects of the projectiles, is separated from the other parts of the ruin by a length of nave almost com- pletely demolished, the upstanding masses of its masonry are valuable since they serve to indicate the ancient limits of the building, and it is distinctly desirable in the interests of the whole scheme that this western outpost should be retained. The crumbling heaps of falling débris showed clearly enough that decay was actively at work before the time of the Ger- man raid. Nature proceeds relentlessly with the work of destruction scientifically set in train at the Dissolution, but we cannot afford to allow her operations to be completed with- out a protest. These ruins may be considered "dead" in that they no longer perform some part of their original function, but they are still very much alive in other respects.

Survivals from the past, they maintain a standard of achievement of more than his- torical interest, and it is not necessary to be an antiquarian or a technical expert to appre- ciate Gothic architecture, or to realise that its direct expression of artistic beauty intimately associated with constructional strength is something different from and something finer than our composite architecture of steel skeletons and applied decorations after the style of any desired period. Altogether apart from any respect which may be due to the interests of the religious communities for which the buildings were erected, it is possible to recognise a spiritual quality in the ruins of such abbeys as that of Whitby, and it need hardly be said that sincerity in architecture is as precious as it is rare. Evidences of clear thought and vigorous art are not dead things of the past to be buried in due course without concern or regret, and it is to the credit of the present conservators that they are fully alive to this appeal of the ancient monuments to be considered as matters of practical impor- tance to people of to-day.

The prosaic test of the turnstile demonstrates a very real popular interest not confined to any one class, but shared by all, and repairs are undertaken in the light of these experi- ences. Ruins allowed to moulder beyond a certain point become matters of indifference, and the German bombardment artificially pre- cipitated a great part of the wrought masonry facings, the mouldings and tracery of the west front of Whitby Abbey, to the ground. At the same time, the remainder of this part of the ruin was so disintegrated by the shock as to threaten almost immediate collapse. The stair turret was breached and left with the upper portion of its surrounding wall corbelled out above a gaping cavity, remaining frag- ments of tracery in the window of the N.W. aisle gable were thrown out of position and were only saved from falling by a curious accident (see Figs. 1 and 2). The central doorway of the west front was almost entirely demolished, its arch and moulded and panelled tracery falling in a heap on the ground.

That the effects of decay are cumulative as well as immediate is clearly shown by a photo-



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Whitby Abbey.

Fig. 7.—General View, showing the Extensive Nature of the Ruins. The Piers Propping up the Crowns of Triforium Arches are Forms of Support which the Historic Buildings Branch now seeks to Avoid.

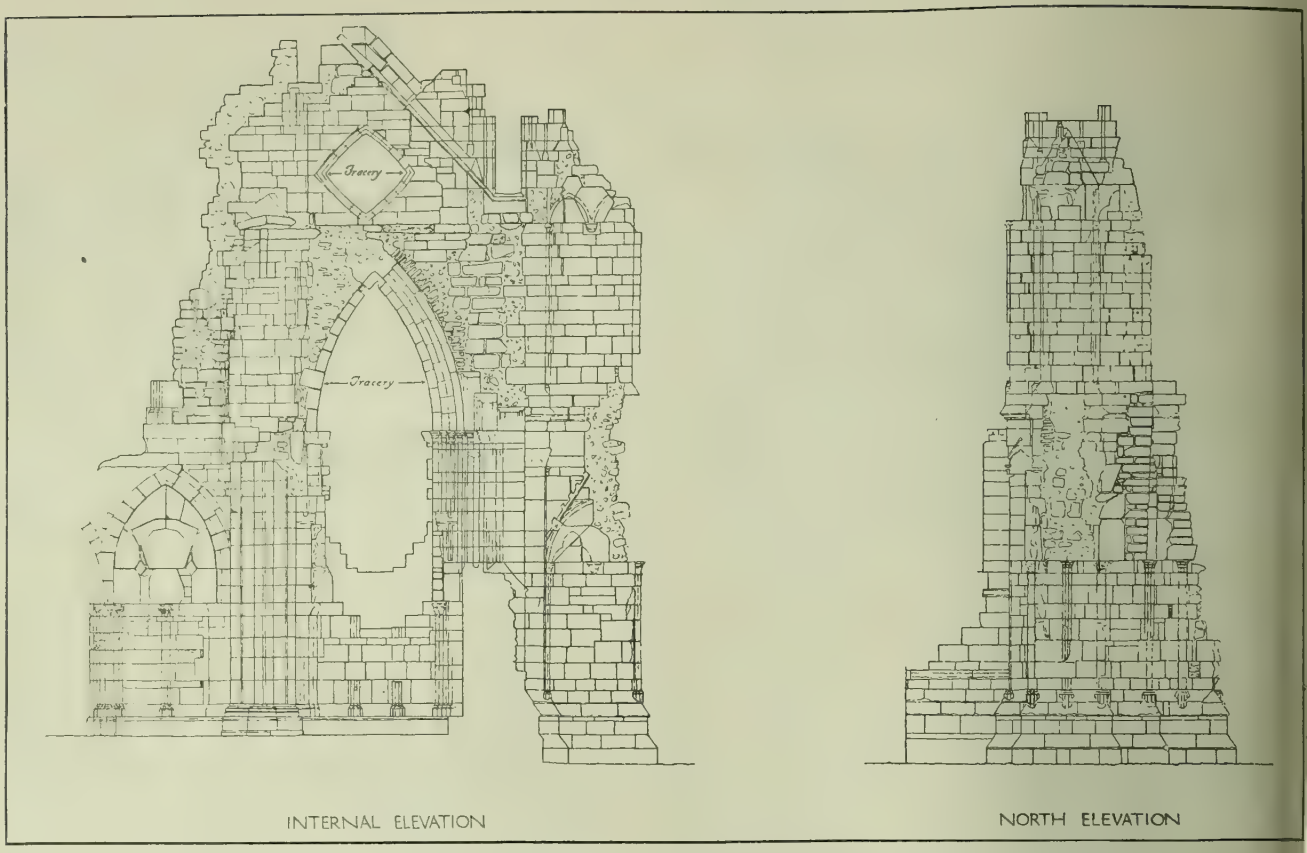
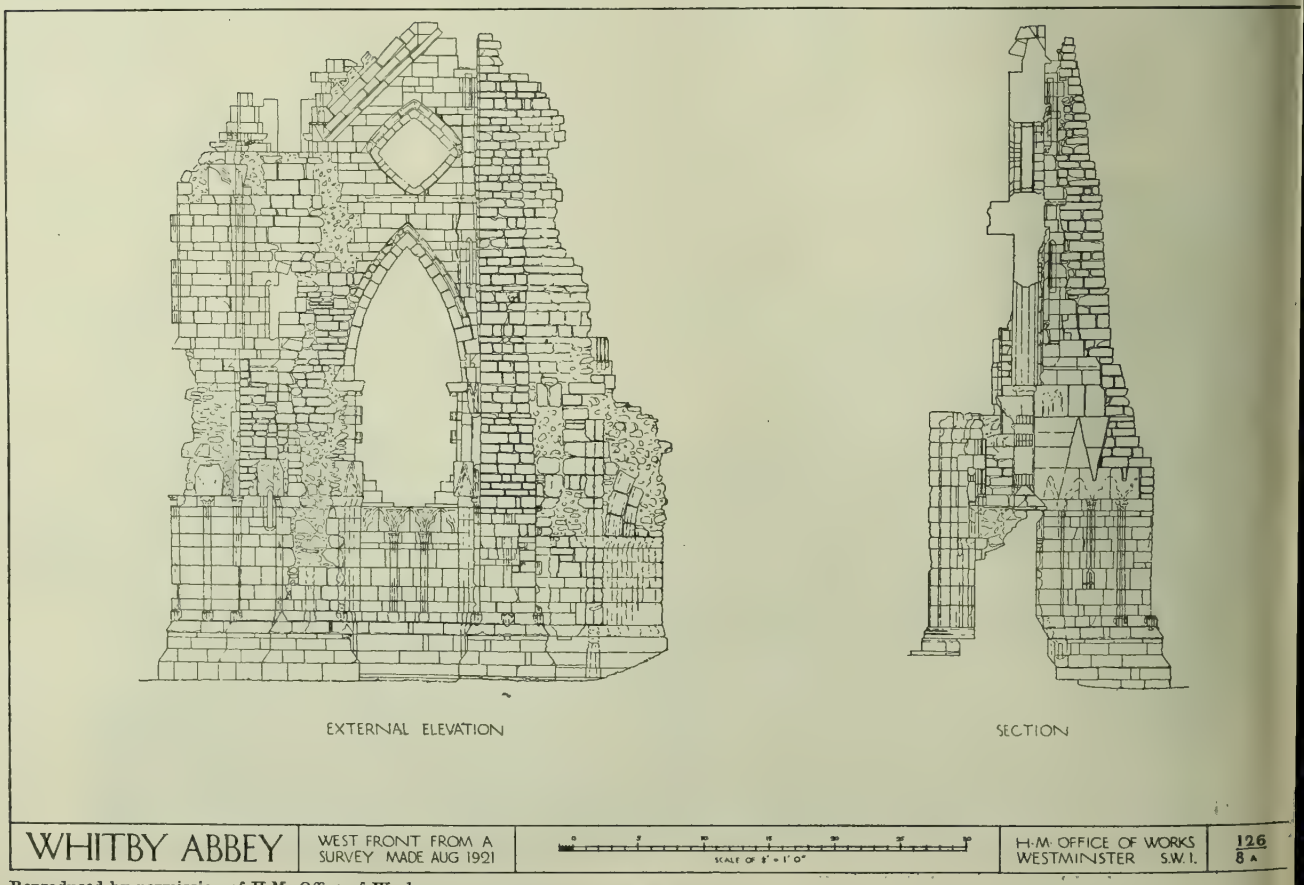


Fig. 5.—Line Drawing of Ruins of Entrance. These Survey Drawings are made as Records of Fact, but also serve as a basis of Calculation of Pressures and as a Guide to the Masons in Replacing any ashlar stones it is found necessary to remove in the course of the Repairs.



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Fig. 6.—Part of Set of Survey Drawings made in connection with the Repairs.

Reconstruction of Whitby Abbey.

graph (No. 3) taken six weeks after the bombardment. The upper part of the stair-turret has fallen, bringing with it the moulded jamb of what was once the great west window, and every atom of moulded tracery has dropped from the face of the wall on each side of the central door. The state of the masses of rough core was such as predicted other falls of material in the near future, and the reduction to a formless mound of what had been even in its ruined state an object of very great beauty. The preservation of what remained demanded that some treatment should be undertaken, and under the normal conditions of natural decay the problem would have been limited to the processes of upholding the ruin in a safe structural condition by the least conspicuous means.

The special nature of the case presented certain other aspects for consideration. Much of the ashlar, mouldings, and tracery that had fallen were found to be still in a recognisable condition, and could be identified, piece by piece, by means of detailed photographs which had been taken of the ruin before bombardment (see Fig. 1).

Except for the necessity of greater care in supervision, very little more labour would be involved in replacing these genuine fragments in position than in removing them to some place apart, and dealing with the mounds of core in such a way as would maintain them merely in position and as little unsightly as might be. Had the fragments of tracery and moulded work been removed to storage some appropriate place would have been required to be set apart for their preservation, and, to display them to advantage under museum conditions it would have been necessary to erect them somehow or somewhere. It was decided (on grounds of suitability) to erect them again in the positions they had occupied previous to the bombardment, and not through any rage for "restoring mutilated wall-work already in a dismantled condition." The writer of the criticism need not doubt the authenticity of the preservation, for the work has been carried out with the utmost fidelity to the state of ruin as indicated on pre-war photographs. Where original material was lacking and new had perforce to be supplied, and in places where the masonry had already become formless, sufficient rubble stonework was put into position to maintain equilibrium and continuity of support. There is a fundamental difference between the reverent replacing in position of veritable ancient details and the so-called "restoration" that begins with the purposeful demolition of old work and ends in the production of something glaringly brand new, to a design prepared to show how the old fellows would have done the work if only they had possessed our modern resources.

The criticism raises the question "whether the money spent on these ghosts of the past is not better contributed to living needs," and that is, of course, a matter concerning which opinions are bound to differ. Excavations of great interest are being undertaken at Whitby Abbey, and the repair of the west front is part of a larger scheme aiming at maintaining the whole group of ruins in safe condition.

OBITUARY

The late W. E. Willink.

Mr. Willink, whose death occurred recently, was one of Liverpool's most prominent architects. He was born in 1856 at Tranmere, and began his education at Liverpool College, and from there went to King's College, Cambridge.

After serving his articles with Mr. Alfred Waterhouse, R.A., he came to Liverpool and set up in practice for himself in 1882. Two years later he was joined by the late Mr. Philip F. Thicknesse and practised under the style of W. Willink & Thicknesse. In collaboration they designed many buildings, among the more important being the Cunard Building, Liverpool; Parr's Bank, Castle-street, Liverpool, in conjunction with Mr. Norman Shaw, R.A.; three elementary schools in Liverpool; secondary schools at Goole, Wallasey and Macclesfield; additions to King William's College, I.O.M.; laboratories at Liverpool University, Lancaster County Asylum Hospital and sundry branch banks for the Bank of Liverpool. They also did a large amount of ecclesiastical work, and contributed much work to the internal decorations of ocean liners for the Cunard Steamship Co., and the Booth Steamship Co. Mr. Willink was elected an Associate Member of the Royal Institute of British Architects in 1885 and a Fellow in 1898. He was also President of the Liverpool Architectural Society from 1897 to 1899. In 1920 Mr. Willink was joined in partnership by Mr. Harold A. Dod, and practised under the style of Willink & Dod. In conjunction they were responsible for the reconstruction of the Liverpool and London and Globe Insurance Co.'s offices, Liverpool; internal decorations of steamships for the Cunard Steamship Co., and the Anchor Donaldson Line; Messrs. W. Vernon & Sons' offices in the Cunard Building and sundry war memorials, &c.

ARCHITECTURAL SOCIETIES

THE EXAMINATION SYSTEM.

On March 21 Professor Beresford Pite, Hon. M.A. (Cantab.), F.R.I.B.A., lectured on "The Tendencies of Architectural Education," under the auspices of the Edinburgh Architectural Association, at 15, Rutland-square. Mr. T. Aikman Swan, A.R.I.B.A., F.S.A. (Scot.), presided.

In the course of his remarks the lecturer said the last century, and the latter portion of it, with which some of them had had a personal connection, could not be credited with the inheritance or the initiation of a systematic architectural training. By contrast with their Continental neighbours they had hardly any educational processes at all. The architect's education should, he considered, be directed by a recognition of the ultimate co-ordination of science and art, and that gave proper weight to the advantage of everything in the light of actual practice, and envisaged an ideal teacher in the person of an experienced and sympathetic practitioner. The tendency of schools of architecture should become essentially individual in dealing with history—schools of thought, not merely schools of design. With heavy examination schedules the student could not risk free excursions into fields of study; and freedom of artistic inspiration fainted and sometimes expired. The specialised education of the profession in its output should have no other deliberate aim than the standard of a first-rate office. Let them equip the student with a true estimate of the values and essentials of the buildings of the past, but let them insist upon the value of the predominant present; make him an honest representative of, not a rebel against, the age in which he lived. And let them set themselves the task of making architectural schools living centres in which the problems of to-day were educed in the concentrated light of the past, tending always to the ever-living present.

Sir John R. Findlay, in moving a vote of thanks, said Lord Curzon had recently been inclined to lament the fact of the disappearance of the cultivated patron, and the tendency for large buildings to be done by commercial bodies. He, personally, was not quite certain that Lord Curzon was well advised in that, and he was pretty well certain that with the so-called commercial patronage the architects of to-day and to-morrow had probably a wider scope and a greater assurance of lack of interference than they ever had under any regime of well-instructed private individuals. In a private capacity they might have their views and prejudices, but the moment they were up against the architect in any public capacity they dare not in that capacity express any opinion on a matter of taste, and set themselves in antagonism to the authority of the architect. The result was that more and more on the body of architects would rest the responsibility for the architecture they got in this country, and responsibility in the matter of their interest and care for architectural education.

Principal Laurie said the moral of the lecture appeared to be, down with the R.I.B.A. examinations. A good deal of what the Professor complained of was probably due to the external examinations; to the fact that they had one body of examiners and another body of teachers.

ULSTER SOCIETY OF ARCHITECTS.

A general meeting of the Ulster Society of Architects was held recently at Belfast. The President, Mr. R. M. Young, F.R.I.B.A., occupied the chair. On the motion of Mr. R. M. Young, seconded by Mr. R. I. Calwell, the secretary was instructed to send a letter of sympathy to the widow of Mr. S. Stevenson, C.E. The members agreed to become subscribers of the Wren Society. The Council of the Society has been in communication with the Royal Institute of British Architects regarding the shortage of skilled labour in the building industry, and reported on its effects locally. The council also reported on the action it had taken in regard to the proposed building scheme of the Belfast Education Committee, in which it had sent a deputation to that committee.

At the conclusion of the business, Mr. T. W. Henry, F.S., gave a lecture entitled "Some Reminiscences of a Recent Holiday on the Continent."

THE EARLY DAYS OF THE CHURCH

Sir Banister Fletcher, in a recent lecture at the Central School of Arts and Crafts on "Early Christian Architecture," said in the whole of human history there was no phenomenon so striking as the rise and progress of the Christian faith and its spread through the civilised world. Originating in a humble sphere of the community in Syria, a distant Roman province, it was by the fourth century of its era the recognised State religion of the Roman Empire—in spite of opposition and persecution from the learning, wealth and power of the most enlightened nation. The first Christian churches were of perennial interest as the forerunners of all the wonderful development in architecture and craftsmanship devoted to the service of the Christian religion throughout the world.

The Early Christians were poor at first—they had neither funds nor churches—and craftsmanship, too, was at a low ebb. Paganism was passing away and many of its temples were falling into disuse and so to ruin. Those ruins became the quarries from which the Christian church-builders obtained material more or less ready for service. A study of their churches revealed long lines of columns with dissimilar shafts, often supporting various types of capitals, surmounted by architraves formed of pieces placed side by side to form a continuous line regardless of their variety of carved ornament. The detail was mixed, but the general effect was dignified and imposing, and led the eye surely and directly to the sanctuary and the high altar, the centre of Christian ceremonial. The purpose of Christian churches was different from the purpose of the Pagan temples, for while one was erected as a shelter for the statue of the god, the other was required for the shelter of a congregation. The old style was thus adapted to the new purpose with as little waste and as much economy as possible, and this in itself gave those churches a special character. Sir Banister summarised the theories as to the origin of the basilican church plan, whether from the atrium of a Roman house, where persecuted Christians often met, from the scholae or meeting-places for the learned, or from the Roman basilica or hall of justice, with a semicircular apse for praetor and assessors. This style, both in respect to its predecessors and successors, illustrated the continuity of architectural development.

PRINCIPLES FOR FUTURE BUILDING

MR. WILLIAM DAVIDSON, A.R.I.B.A., writes, in reference to our report on the 7th inst., of Professor A. E. Richardson's lecture on this subject:—

Sir,—In Professor A. E. Richardson's brilliant and fascinating lecture at Cambridge there are many points of great interest, several of which, however, might be challenged.

For instance, how does he arrive at the percentage of qualified architects in this country—viz., 10 per cent.? If this is a fact, as he states, is it wise, in view of the present attempts to secure registration, to disclose this fact? Will the spreading of this statement be likely to increase the confidence of the public in the profession? I think the inferences are fairly obvious. If registration is to be merely a form of trade unionism it will assuredly fail.

It is quite needless to go over all the pros and cons for and against registration. What we want to get at is better building. History shows that every age gets the architecture it wants. This age is getting the architecture it wants. An architect is unlike the sculptor and artist in this respect—that he must have a client. Architecture is no longer inspired by religious and intellectual ideals but by economic and commercial considerations. We are trying to revive artificially, by schools and educational systems, an atmosphere which it is hoped will lead to the creation of good work. This will never succeed. The conditions which produced such gems as the Parthenon, the temples at Paestum, Karnac and Balbec, and other ancient and mediæval masterpieces can never be revived, nor, if possible, are they to be desired. They were produced under conditions of serfdom and slavery (not by men who were continually asking for 2d. an hour rise). Their greatness is largely due, also, to the use of fine material, and their beauty to the final fruition of generations of experiment, elimination of ugly features and generations of unrealised thought finally bursting forth through the subconscious mind into a material existence. What we want is not to create an artificial atmosphere but the right type of client.

I do not believe that the evolution of tradition has ever wholly died out at any time since Noah built the Ark. Here and there, in obscure places, some humble worker has kept alive the lamp of progress. In any case a good eclectic school is better than bad originality. There is no original work in ancient or mediæval art in the modern sense. Everywhere in past centuries we see evolution. Mr. John Begg, in a recent lecture on "Architecture in India," told us that, in some parts of India to-day, the tradition was so alive that an architect could hand the ⅛-in. scale and ½-in. scale drawings to the craftsmen and get the work carried out without detail drawings. (This might be called standardisation in the traditional sense.) That is an ideal state of affairs, and was probably the manner in which all, or nearly all, ancient and mediæval buildings were carried out.

In obscure parts of Britain, no doubt even to-day, there are still working at the building crafts men whose ancestors worked on the great cathedrals, abbeys and castles of past centuries. Might I even suggest that many of our best architects of to-day are directly descended from such mediæval builders? If so, they have the seed of the truth, evolution and progress in them. Great architects were produced without schools, and great architecture will be produced in spite of schools.

Beresford the novelist, in one of his stories, tells of an architect who was overworked. His nerves were so affected that every time he took out a blank sheet of paper to make a new design he saw the design already finished on what he knew to be a blank sheet of paper. As he could not remove it with rubber he realised that it was an illusion. His end is told in the story. This is very much our case to-day. We have studied the Greek, Roman and other orders, and Gothic detail until some of us can draw the orders upside down from memory, and string off the vertical and horizontal measurements like the multiplication tables, and tell the date of a Gothic moulding or carving to within half an hour (so we think).

As soon as we are confronted with a sheet of blank paper our imagination covers it with colonnades, arcades, entablatures, archivolts, imposts, pedestals, superimpositions of the orders and other stock details. This preconceived idea is certainly detrimental to honest design, evolved from structure and use of the building in question, and only leads to endless variations of old themes.

It may be, as Professor Richardson says, that these themes are played out, but a mere clothing of structure is not architectural art. Such a material as concrete blocks may produce good buildings, useful for their particular purposes, but it can never produce great architecture. In the sense of building material concrete blocks are a substitute. Professor Richardson is certainly wrong when he says that all the archæologist has done for us is to tabulate the styles. We know the conditions which produced the temples, mediæval cathedrals, abbeys, parish churches and castles—viz., religious sincerity, ritualist formula, monastic discipline, domestic arrangements and implements of war. The structural and geometric principles and decorative enrichments were not arrived at by applied mechanics, graphic statics, mathematical formulas and haphazard and meaningless design, but by natural evolution from the first mud hut, by failure, experience, tradition and an intellectual perception of the power and beauty of allegorical and symbolic representations of religious and chivalrous ideals.

This is a vast subject, and cannot be treated within the scope of one letter. The proportions of such buildings as Salisbury Cathedral and King's College, Aberdeen, were obviously not arrived at by mere mathematical formulas but by generations of experiment and traditional experience. To-day we have not the support of the sculptor and decorative artist which builders had in bygone ages. The beauty of the Parthenon is greatly enhanced by its exquisite sculptured frieze. The nobility of the Medici Chapel is largely, if not entirely, due to its superb sculptures.

To-day sculpture is mostly applied, rarely organic. The brothers Adam are responsible for this in Scotland. Their carving is merely marble and plaster ornament applied to stonework. (The originals may be seen in the museums at Rome and Naples.) The great glory of Gothic is its early stone carving. Chartres Cathedral, Wells Cathedral (north porch spandrils), Stone Church, Kent, Christchurch Priory, and the Angel Choir at Lincoln, to mention a few, and particularly the nave caps at West Walton, Norfolk, are perfect specimens of architectural sculpture. They exhibit at its best the great principle of acceptation of the limitations of the medium.

In education, as Professor Richardson says, we cannot ignore the past in architecture any more than in other departments of science and art, but during the last thirty years architectural education has tended to produce more antiquaries than designers. Much has been said on this subject, and much more might be said. The old pupilage system produced some of our best men, and the value of schools is that it gives pupils in second-rate offices a chance of acquiring some knowledge of the work of the great masters of the past. Our aim should be, as Professor Richardson so ably says: "The realisation of new truths arising out of the observation of principles which are eternal." We do not need to invent a new style of architecture, but, as Professor Lethaby said in a recent letter to the writer "We need the idea of living, advancing sufficient structure"—a full appreciation o present-day requirements and structura problems and a right use of new materials Religion, unfortunately, has ceased to inspir us, and the church is no longer our mai client. Building is now in the hands of com merce; but it must ever be remembered tha the rise and fall of national ideals (spiritual intellectual and economic) are mirrored in country's architecture.

[As we received Mr. Davidson's letter to late for publication in our last issue, w obtained the following reply from Professo Richardson]:—

Sir,—I must thank Mr. Davidson for ampli fying my remarks. In his letter he states, wit precision, the attitude of many towards th scientific art of building. In the midst of s much learning there is apt to be confusion o thought. Architects and others have been s occupied thinking about good taste and deport ment that they have ceased to care about th main stem of the scientific art, which i rational building. Architecture to-day i reminiscent, but it is lifeless; there is littl joy in it, because the popular idea is that form alone matters. Surely it is reasonable to hol the opinion that use and function determin plan, and that the horizontal or cellular trac of the plan provides the nucleus of the struc ture, which can be developed in these dimen sions at will. In this line of thought will b seen an approach to the true theory of organi building, irrespective of style, period, taste or any other catchword.

The attitude of artists and laymen to-da seems to be that of the collector of antiques all desire a good specimen, and, failing th genuine article, they fall back on exact repro ductions.

Variety and change are the soul of vita architecture. All organic structures that ar something more than crude building are the result of the interaction of established theories and ideas; agents of tradition and factors o environment. The ever-changing conditions o life, corresponding to life itself, offer the necessary stimuli. The conditions and the en vironment should shape the organism. The curious thing is, so few understand the mean ing of structure, which, rightly comprehended, is architecture.

BOOKS RECEIVED.

EXAMPLES OF MODERN ARCHITECTURE. By C. M. Crickmer and Allen Foxley. (Cheltenham Ed. J. Burrow & Co., Ltd.) Price 2s.

PENCIL DRAWING. By Charles Marriott (London: The Brook-street Art Gallery, Ltd. Price 5s.

EXAMPLES OF MODERN ARCHITECTURE, No. 10 By Trehearne & Norman. (Cheltenham Ed. J. Burrow & Co., Ltd.) Price 5s.

PATTERN DESIGN. By Lewis F. Day. (Lon don: B. T. Batsford, Ltd.) Price 10s. 6d.

A HISTORY OF ORNAMENT. By A. D. F Hamlin. (London: B. T. Batsford, Ltd. Price 24s.

THE STYLES OF ORNAMENT. By Alexande Speltz, revised and edited by R. Phené Spier (London: B. T. Batsford, Ltd.) Price 20s.

MODERN ENGLISH ARCHITECTURE. By Charle Marriott. (London: Chapman & Hall, Ltd Price 21s. net.

THE MAKING OF THE NATIONAL GALLERY 1824–1924. By Sir Charles Holmes and C. H Collins Baker. Price 1s. 6d.

MODERN WOOD MACHINERY. By Staffor Ransome. (London: William Rider & Son Ltd.) Price 12s. 6d. net.

THE LAW AND PRACTICE OF TOWN PLANNIN By Sydney Davey and Francis C. Minshul (London: Butterworth & Co.) Price 25s. ne

EXAMPLES OF MODERN ARCHITECTURE, No. 8 By Pick, Everard and Keay. (Cheltenham Ed. J. Burrow & Co., Ltd.) Price 2s.

PITTURIA ITALIANA. By Alfredo Melan (Milan: Ulrioc Hoepli.)]



Cottage Homes at Knaresborough.



Cottage Homes at Scarborough.

Mr. Stephen Wilkinson, A.F.C., F.R.I.B.A., Architect of the North-Eastern Area of the L.N.E.R.

[The homes at Scarborough were recently opened by Mr. William Whitelaw, Chairman-Director of the L.N.E. Railway, and those at Knaresborough by Mrs. Stevenson, of Harrogate. These Homes will be occupied by railway servants who were incapacitated in the war. The accommodation in all cases consists of: ground floor—living room, and scullery, &c.; first floor—three bedrooms and bath, &c. During the last two years some forty of these homes have been opened at various centres of the L.N.E.R. system.]

LEGAL SECTION

NOTES ON CURRENT CASES

The Private Street Works Act.

THE recent case of Mayor of Chester *v.* Briggs (1924 1 K.B. 239) raises a point of some importance in connection with the Private Street Works Act, 1892. The appellants as the urban sanitary authority for the city and county of Chester had resolved to do certain street works to a street known as Grange Road, and the Surveyor had prepared specifications with plans and sections and an estimate of the expense and a provisional apportionment based on frontages alone amongst the premises to be charged under the Act.

The estimated cost of the proposed works was £3,933 13s., including a 5 per cent. commission or profit for the appellants, and the proposed works were to be constructed to cope with the present heavy traffic on the road, and on the basis that this road would in future relieve the traffic on a first-class main road repairable by the appellants, and the expense of the proposed works was greater on this basis than would be the case if such road were only to be constructed in accordance with a specification required to cope with traffic on roads similar in class to that road.

The appellants had not resolved, as they had power to do under section 15, to pay any portion of the expenses out of the rates.

The respondents, who were some of the owners to be charged, had lodged objections under section 7 in which many points were raised, but the following seem to be those material to the actual decision delivered in the case—(*c*) that the provisional apportionment was incorrect in respect of the degree of benefit to be derived by users of the road or the value of the work already done by the owners of certain premises. (*e*) That the estimated cost of the new 9-in. sewer had been levied on the whole of the frontagers notwithstanding the fact that a sewer to which some of the objectors' property was connected already existed, and the cost of any repair to the existing sewer should be borne by the Council. (*i*) That the estimate was more costly because of the user of the said road by certain heavy traffic and that the owners of such heavy traffic should pay such additional cost occasioned by such traffic.

The justices had found that the proposed street works were necessary, but that having regard to the designed object of such road as a relief road it was unreasonable that the owners (including the respondents) should bear the whole expenses of such works, that a portion of the expense of such works should be borne by the appellants, and that under section 15 the appellants could, had they so chosen, have resolved at any time to contribute a portion of the expense of the proposed works and that section 8 subsection (1) empowered the justices to amend any resolution of the appellants passed by them as an urban authority under the said Act, and that the resolution should be amended so as to make the Council contribute 15 per cent. of the cost of the works.

The Divisional Court held that, in the absence of a resolution by the urban authority under section 15 that portion of the expenses shall be paid out of the district fund or general district rate or other rate, the justices have no power so to amend the resolution which is before them as to add this provision, as that would, in fact, amount to the justices passing a resolution for the urban authority. The justices can, however, it was held, under section 8 decide on proper objection taken (section 7) that certain works are unreasonable, and the case was remitted to the justices with a direction that section 15 gives to the urban authority and to that authority alone the discretion on the question whether there shall be a contribution on the part of the urban authority to the expenses of the works, and the justices have the duty of considering the questions raised before them by the objections with the knowledge that whatever else they may lawfully do they cannot act as if a resolution under section 15 had been passed.

Mr. Justice Salter is reported to have said in giving his judgment, "This is a Statute which imposes upon individuals the cost of works which are partly for their own benefit and partly for the benefit of others. In considering an objection under section 7 (*d*) that the proposed works are unreasonable, the justices are entitled to consider amongst other things whether the proposed works are reasonable in the sense that it is reasonable that such works should be done at the frontagers' expense."

It may be useful to set out the objections permitted by section 7 and to refer to some of the objections in this case other than those set out above, and to then further consider the effects of this case.

By section 7 notice of objection may be given on any of the following grounds—

(*a*) That an alleged street or part of a street is not or does not form part of a street within the meaning of the Act.

(*b*) That a street or part of a street is (in whole or part) a highway repairable by the inhabitants at large.

(*c*) That there has been some material informality, defect, or error in, or in respect of, the resolution, notice, plans, sections, or estimate.

(*d*) That the proposed works are insufficient or unreasonable or that the estimated expenses are excessive.

(*e*) That any premises ought to be excluded from or inserted in the provisional apportionment.

(*f*) That the provisional apportionment is incorrect in respect of some matter of fact to be specified in the objection, or (where the provisional apportionment is made with regard to other considerations than frontage as hereinafter provided—section 10) in respect of the degree of benefit to be derived by any persons or the amount or value of any work already done by the owner or occupier of any premises.

Besides the objections we have set out above as raised in this case there were many others of which we will mention two. It was objected that no consideration had been given in the preparation of the apportionment to the provisions of section 10 (*a*) of the Act and that the apportionment in apportioning the cost of making the street should include premises which do not front, adjoin, or abut on the street or part of the street but access to which was obtained from the street which would be benefited by the said works. It was also objected that a part of the said road had been repaired by some of the owners of property fronting thereon and that such owners should not pay as much per yard frontage as other owners who had not contributed to such repair.

These are questions of great importance to those owning property abutting on roads which have not been taken over by the local authority. Building estates are frequently laid out with one principal road running through the estate and with subsidiary roads leading into it, and on such estates the owners or occupiers of property are under covenant to contribute to the maintenance of the roads as a whole quite apart from the property abutting on any particular road. These covenants are not rigidly enforced and the roads get out of repair, and when traffic owing to the development of the district comes upon them the local authority decides to make them up either under the Public Health Acts or t Private Street Works Act. Having regard the common liability of the owners *inter* towards the roads under the covenants bindi the estate it would seem equitable in such ca that the local authority should avail the selves of the powers given them in section of the Private Street Works Act to inclu in the apportionment properties which do abut on the street but which will benefit the contemplated works, and to consider a what work has already been done on t street by the owners and occupiers; and, wh the works are more extensive owing to t desire of the local authority to make t street capable of relieving other roads repa able by the authority, to contribute towa the works themselves.

As regards this latter point in these days high rates local authorities are hardly inclin to place a burden upon the rates which th can place on the shoulders of private indi duals, and the decision in this case that t justices cannot enforce any contribution in t absence of a resolution to contribute seems leave the private individual without adequ protection unless the decision can be read enabling the justices to hold under the obj tion section 7 (*d*) that in the absence of su a resolution the proposed works are "unre sonable or that the estimated expenses excessive," and although we express no opin on the point this seems arguable from t judgment of Mr. Justice Salter, who, as quot above, put it that the justices can consid amongst other things "whether the propos works are reasonable in the sense that it reasonable that such works should be done the frontagers' expense."

As to the other two objections as to fro tagers only being charged with the apportio ment, and the consideration of work alrea done, it has been held that where the loc authority have not resolved that the apportio ment of expenses shall be otherwise th according to frontage the justices have power to apportion the expenses otherwi than according to frontage (Bridgwater C poration *v.* Stone (72 J.P. 487)), and in t same case it was also held that if the loc authority have passed no resolution gard shall be had to the degree of benefit the amount of and value of work already do the justices in hearing objections under secti 8 (1) to the provisional apportionment can reduce the apportionment in respect of t degree of benefit or the amount and value work already done.

These two latter questions are not precis on the same footing as the question of cont bution under section 15 by the local authori the subject of direct decision in this ca for they are dealt with in sections 7 and

Under section 7 the grounds of objection paragraph (*f*), which we refer to above, material. That paragraph provides that jection may be taken "that the provisio apportionment is incorrect in some matter fact to be specified in the objection or (wh the provisional apportionment is made w regard to other considerations than front as hereinafter provided) in respect of the gree of benefit to be derived by any pers or the amount or value of any work alre done by the owner or occupier of any mises." The words " as hereinafter provide refer to section 10. That section provides t the apportionment of expenses against premises fronting, adjoining, or abutting on street or part of the street in respect of wh the expenses are to be incurred *shall* un the urban authority otherwise resolve be portioned according to the frontage of respective premises, but the urban autho *may* if it thinks just resolve that in sett the apportionment regard shall be had (*a*) the greater or less degree of benefit t derived by any premises from such wo

(*b*) the amount and value of any work already done by the owners or occupiers of any such premises. "They may also if they think just include any premises which do not front, adjoin, or abut on the street or part of the street, but access to which is obtained from the street through a court, passage, or otherwise, and which in their opinion will be benefited by the works, and may fix the sum or proportion to be charged against any such premises accordingly."

We referred to this section in our issue May 26, 1922, and showed that it included a private road made primarily for the purpose of giving access to the street (Newquay Urban District Council *v.* Richard, 1911, 2 K.B. 846, *The Builder*, Nov. 24, 1911).

From the above observations we hope we have made it clear that where a private street is not sewered, levelled, paved, metalled, flagged, channelled, made good and lighted to the satisfaction of the urban authority, if the authority act under section 6 prima facie the expenses will be apportioned on the premises fronting, adjoining, or abutting upon such street, that the local authority has power under section 10 to make it a term of the resolution passed under section 6 that the degree of benefit to be derived from such works by any premises and the amount and value of any work already done by owners or occupiers of such premises shall be taken into consideration, and also by resolution to include other premises as specified in the Act which do not actually front, adjoin, or abut on the street, but that in the absence of resolutions to that effect the justices cannot either reduce the apportionment in respect of the degree of benefit of work done, nor make an apportionment on premises not fronting, adjoining, or abutting on the street.

Further, that under section 9 the urban authority may include in any works to be done under this Act any works which they think necessary for bringing the street as regards sewerage, draining, level, or other matters into conformity with any other streets whether repairable or not by the inhabitants at large: that under section 15 they may pass a resolution to contribute out of the rates to the whole or any part of the expenses of private street works, but that in the absence of a resolution to that effect the justices cannot make an order as though a resolution had been passed.

It will be seen that an almost absolute discretion is vested in the local authority in these matters, and although this may not be so material where the resolutions only go to apportioning liability between two classes of property frontagers and those having access and benefiting by the works, it does certainly appear that some further powers should be given to justices where additional works for the public benefit are included and a resolution on a point in which the local authority itself is directly interested as to contribution from the rates is withheld.

An Action against Building Contractors.

A case recently reported in the *Times*, Brandon and Wife *v.* Osborne Garrett & Co., Ltd., and George Parker & Sons, Ltd., raised a rather unusual point as to damages. The plaintiff and his wife had visited the first defendant's premises on business, they all being in the same line of business as hairdressers, and had been directed to a department which had a glass skylight in the roof. Whilst they were standing there the skylight fell and a piece of glass struck the male plaintiff. It did not cut him nor even penetrate his hat, but he had been a sufferer from neurasthenia, and he sustained injuries by shock. His wife was not touched by the falling glass, but, seeing what had happened, she endeavoured to pull her husband out of the way and sustained a strain which set up an old trouble in her leg, the consequence of thrombosis.

The cause of the skylight falling was that some men in the employ of the second defendants were engaged in repairing the premises and were working on some leading which ran alongside of and six feet above the skylight. A hole had been cut in the roof in order to enable builder's material to be brought up, and in covering this hole with a tarpaulin a piece of wood had fallen through on to the skylight, thus breaking it. The negligence consisted in not having taken precautions by covering the skylight with boards and in allowing the piece of wood to fall on to it, and the proceedings seem eventually to have been continued against the contractors alone.

The point raised upon which it was said there was no direct decision in the English Courts was whether, as no direct injury had been done to the wife by the negligence of the defendants' servants, she could recover damages in respect to an injury sustained by her in her voluntary efforts to save her husband from injury, as she herself was not trying to escape any impending danger. Some Scottish cases and an American decision were cited, and in the result the Court held that in such circumstances it was a question of fact to be determined, first, whether the injury to the plaintiff was the natural and probable consequence of the act of the defendant, and, secondly, whether the plaintiff had been guilty of contributory negligence. The female plaintiff in this case was not herself in a position of perfect safety. She might reasonably have anticipated that some of the glass would fall upon her, and the Court held that acting in such circumstances instinctively to save her husband there was nothing wrong in that act and she had not been guilty of contributory negligence. The Court awarded damages £35 to the husband and £25 to his wife.

In the course of his judgment the learned judge is reported as having said that in the American case, Eckhert *v.* Long Island Railway (43 New York 502) it had been held that there was an obligation on the plaintiff in that case to try and save a child who was on the track of an on-coming train if he thought he could do so without injury to himself, but without going so far as that he (the judge) considered "that where one person saved another through a combination of acts, some his own and some another's, it was for the jury to say whether the injury was the natural and probable consequence of the defendant's act, and whether there had been contributory negligence." It is a little difficult to say on this judgment as at present reported what this passage means and whether the fact that the wife herself was in the danger zone was material or not, but it would appear inferentially that it was, for being herself in a position of danger from the act of the defendant she acted instinctively to save another in the same position, and we think that when, as quoted above, the judge is reported as having said, "through a combination of acts some his own and some another's," he must have been referring to the original act of negligence on the part of the defendant and the act of the plaintiff, for, if the injury has to be the natural and probable consequence of the defendant's act of negligence, it appears that the plaintiff must himself be within the danger zone of that act of negligence and not voluntarily have come into it even to save another, and this limitation for liability for an act of negligence, at any rate where the defendant is a private individual not under statutory obligations to the public, would appear reasonable.

LAW REPORT.

Architect's Action for Fees.

Mr. Justice Rowlatt recently gave judgment in an action brought by Mr. Frank Harold Bromhead, an architect, of East Retford, against the Kirby Moorside Rural District Council to recover fees for professional work done by him as an architect for the defendants in connection with a housing scheme.

His lordship said the appointment was subject to an agreement in writing, but no such agreement was ever made. In the meantime, the plaintiff went on with the work. The scheme, however, fell through and the plaintiff claimed his fees. The defendants were willing to pay £336 and brought that sum into Court, but for anything further they said they were not liable because their contract was not under seal. But the defendants were a Rural District Council and therefore they were not limited by the Section of the Statute which had reference to Urban Councils. They were not protected against a claim of *quantum meruit* for work done which they had actually had the benefit of, and whether the plaintiff could recover on that basis was the question in the action. The point had been taken that *quantum meruit* had not been sufficiently pleaded, but he did not share that view. He thought it was sufficiently pleaded. The real point set up by the defendants was that there was no contract at all. The agreement in writing was never entered into, but work was done pending the contract. It was done at once and at the request of the defendants, and it was done by a professional man whose time was his livelihood. He could not work for nothing. Defendants said that the plaintiff was employed on the basis of "houses erected" for them. That was in the defendants' resolution which they passed, but it was never communicated to the plaintiff. In the events that had happened there was nothing which said that the plaintiff should do 18 months' work for nothing. He was not bound by the resolution at all. Then the defendants said that the whole thing was contingent to the scheme going through. In his opinion the plaintiff must be regarded as a stranger to all this. The broad justice of the case was that the plaintiff must be paid for the work he had done. The question of amount was a troublesome one. Housing was a national matter in 1918, when the scheme was started, and everyone was anxious that work should be proceeded with.

In the circumstances he awarded the plaintiff £675 and judgment would be entered for that amount with costs. The £336 paid into Court would be paid out to the plaintiff.

LONDON COUNTY COUNCIL SCHOLARSHIPS

The London County Council is prepared to consider applications for the following scholarships from British subjects, provided their parents or guardians live in the County of London:—

1. Intermediate Technical or Art Scholarships, providing free tuition at recognised schools in London and, in some cases, a maintenance grant, for students from 16 to 18 years of age in engineering, technical optics, architecture and building, chemical trades, art, &c. Candidates must possess scientific or artistic ability, and their general education must be up to matriculation standard.

2. Senior Scholarships in Science and Technology, or Art and Artistic Crafts providing free instruction at full-time day courses at institutions of University rank or at which advanced instruction in science, technology, art, &c., is given. They will enable students who are engaged in trades or occupations, and have attended evening classes for at least two years to give up their day work and pursue a course of advanced instruction related to their employment. In some cases a maintenance grant, assessed on the merits of each individual case, will be provided, but it will not exceed £160 a year. If the candidate is over 21 years of age and is self-supporting, he, or she, must be ordinarily resident in London. Candidates must be not less than 18 years of age.

3. Free Places at the Imperial College of Science and Technology for candidates at least 18 years of age desirous of taking a post-graduate course in chemistry, engineering, &c.

4. An "Archibald Dawnay" Scholarship in Civil Engineering of the value of £110 a year, providing training for two or three years at an approved polytechnic or technical school for a student between 16 and 18 years of age.

Forms of application and detailed particulars may be obtained from the Education Officer, The County Hall, Westminster Bridge, S.E. 1.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

*** We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.*

Restoration of Old Cottages.

[Reply to Inquiry in Last Issue.]

Sir,—I note "Restorer's" query in your last issue. I have carried out several of these operations in the course of my practice. The first was one of making a pair into one house. My method in each case was to insert a stoneware vitrified and glazed dampcourse in cement to the thickness required, for one course of the bricks (I am assuming "Restorer's" cottage wall is of brick) in such short lengths as the wall permitted according to its soundness. This dampcourse is also ventilating for wood floors near ground. In one case the wall was 18 in. thick and about 70 years old. All the attempts were quite successful and no settlement occurred. I prefer above to blue brick: (1) it may be the brick is too thick for an old-time brick course; (2) there are more joints for leakage in the wall; (3) all blue bricks are not damp-proof; (4) if ventilation is wanted other provision has to be made. Should the earth outside cottage wall be level with or above floor line, remove the earth for about 18 in. wide to 3 in. or more below the new dampcourse and pave with brick or concrete to a fall away from house.

"Practice."

A firm of manufacturers of a patent insulating building board has sent us suggestions for an alternative treatment to the proposed cutting in of a dampcourse to the old cottages to be restored. They suggest placing their product against the existing surfaces and then covering same with plaster, or a one-eighth coating of Sirapite or similar preparation, which they claim will prove efficient and economical. We have forwarded these particulars to our correspondent, who will be able himself to judge their merits.

Damage by Workmen.

[Reply to Inquiry in Last Issue.]

An artisan, or other workman, in the law is classed as a servant, and it is his bounden duty to take all due and proper care of the property entrusted to him by his master. A workman impliedly warrants that he possesses and will exercise in the task he undertakes reasonable skill and competence. Should the workman fail to exercise reasonable care and skill, and such failure results in damage to his employer, or, again, when property is injured by the gross negligence of the workman, then an action at law for negligence lies.

If the work is so negligently done by the workman as to be useless, no remuneration is recoverable by him.

Where the workman is habitually neglectful in respect of his duties, he may be dismissed.

There is, however, no neglect or breach of duty when the loss is occasioned by mere accident or circumstance beyond the servant's control.

The word "accident" is often used loosely. It is a question of degree, and depends on the circumstances of the case; also whether the so-called accident could have been prevented by taking precautions necessitated by the circumstances.

In general it would appear the loss falls on the employer, who is primarily responsible in the first instance.

The popular idea of the relationship of employer and employee now is such that the latter is looked upon as saved from any action the employer is entitled to take at law.

The following cases might be referred to:—Countess of Salop *v.* Crompton (1600) Cro. Eliz. 777, 784; Stumore Weston & Co. *v.* Breen (1886), 12 App. Cas.; Sease *v.* Prentice (1807), 8 East 348; Combe *v.* Simmonds (1853), 1 W.R. 289; Purdow *v.* Webb (1842), Car. and M. 531; Walthew (1707) 11 Mod. Rep. 135; Nickson *v.* Brohan (1713), 10 Mod. Rep. 109, 111.

Sir,—The employer is certainly liable for damage or breakage by accident on the part of one of his workmen. Where culpable negligence can be proved, it is, of course, a different matter.

X. Y. Z.

Hard-wearing Dado.

[Reply to "Landlord."]

We have received suggestions from two firms of specialists recommending their respective materials, both of which are in the form of building boards. In one case the material is polished to a fine surface after fixing and the upkeep consists simply of removing dust with a stiff brush to restore the polish from time to time and an occasional application of polish. In the other the material is afterwards coated with one of the new plaster paints, the claim being that this will provide an indestructible job needing no upkeep. We have sent on these particulars to our correspondent.

Washed Sand.

[Reply to F. J. Robertson.]

Washed sand does not imply "screening" unless so specified, but only refers to the operation of passing a stream of water through the material to carry off loamy impurities, which is not in every case necessary where the sand is by nature clean and free from impurities. Sand or mortar should not be too fine, but the architect has power to exercise reasonable discretion in rejecting any which is too coarse for building purposes. If any special gauge for screening is required it should be specifically stated.

Measurement of Brickwork.

Sir,—The use of the rod as the unit of measurement of brickwork, as also the reduced standard thickness of 1½ bricks, seems to me to be very unwieldy and complicated, particularly after experience in the provinces, where the yard one brick thick is the unit. Can any reader inform me of the reason for this custom and any advantage served by its use?

"Puzzled."

Removing Paint from Brickwork.

Sir,—Can any reader advise me the best and cheapest method of removing several coats of paint from outside brick walls of houses which are to be cement rendered two coats?

H. Taylor.

THE ARCHITECTURE OF HOUSING

On March 13, Mr. Manning Robertson, A.R.I.B.A., lectured at the Architecture Club on this subject.

In the course of his remarks he said the average man, when he heard the word housing, even used apart from the question of slums, conjured up the vision of a dull array of figures; he pictured the inevitable social reformer, he associated housing with endless terraces of monotonous dwellings, and—ran away. This attitude towards the subject was natural, excusable, wrong, and disastrous to the country The chasm that had recently opened between architecture and housing must be bridged They must realise that architecture should be a live present-day art that concerned all building, and, since housing was building in its widest and most universal application, architecture should apply to housing most of all.

Most people believed that architecture was an art that concerned cathedrals, memorials, tombs, and fountains, but how could they reconcile this belief with the charms of their old English towns and villages? Could anyone visit Lewes, Chester, and Bibury without realising that small houses and shops could be as beautiful architecturally within their limitations as any other building? They must face the unpleasant fact that their materialistic commercial outlook had made urban England the ugliest country in the world when the same money spent with vision might have made it the most beautiful. If they wanted to produce really telling arguments in favour of adequate housing they had to say that it was cheaper to spend a little more on housing than to build vast prisons, asylums, and workhouses to deal with the wreckage that their lack of human interest otherwise necessitated.

This might seem rather remote from the subject of the architecture of housing, but it was really the root of the matter. It could be proved that it was quite as cheap to build a cottage of good architectural character as one of the monstrosities to which they were accustomed, but he felt the utter indignity of having to argue as if the beauty or ugliness of their surroundings were worth nothing, and of having to beg that since beauty cost no more than ugliness they might as well avoid ugliness. The increased joy and interest in life thus rendered possible to themselves and to their neighbours should be quite enough to make them decide to bow no more to the god of ugliness.

In regard to the architecture of the small house, the lecturer said he wished strongly to emphasise that there was nothing alarming, nothing terrible, about the elementary principles of architecture, and that everyone could understand them. If the great cathedrals were the symphonies, their cottages and village greens were (or should be) their folk-songs.

The main principles of architectural expression were based on proportion, texture of materials, and colour, including the play of shadows. Their best method of approach was to ask themselves why it was that old English cottage work always succeeded in achieving these principles, and why in the last century they completely failed to achieve any one of them. Was it because industrialism induced an overwhelming interest in money-making, and thus ousted man's natural interest in his surroundings? An old cottage always looked as though it had had care and affection bestowed upon it; the nineteenth-century dwelling represented a house built solely as an investment. They could see at once that the only interest it inspired lay in the money that it represented.

A comparison of the usual suburban house and cottage with eighteenth-century and with better twentieth-century work showed at once how completely the suburban house missed all architectural character. The purely utilitarian house was rarely seen to-day except in the converted Army hut, but the greatest enemy to architecture to-day was the utilitarian house made beautiful at considerable expense—a process that arose because it had been found to pay to add any sort of frippery by the yard in order, if possible, to conceal the loss of all the fundamental qualities of architecture.

The lecturer concluded by urging everyone to take an active interest in the small architecture of to-day. Architecture, he said, should be a subject of common discussion and should not be classed with those technical subjects that concerned nobody but the professor and the student.

The "Municipal Year Book."

The *Municipal Year Book* for 1924 contains information of a very useful character about the various towns from a municipal point of view, such as whether they own the principal public services.

It mentions what has been done in housing since the war, and gives the civic administrator and the names of the departmental officers under whose guidance the town is governed while the laws under which the various classes of authorities work, such as municipal corporations, county councils, urban district councils, rural district councils, Scottish burghs, &c., and the control exercised over them by such Government departments as the Ministry of Health, Ministry of Transport are given.

THE WEEK IN PARLIAMENT

Westminster, *Wednesday.*

The Rents Bill.

The Standing Committee of the House of Commons which considered the Labour Rent Restrictions Bill, on Wednesday, March 19, decided to adjourn for a week in order that representations might be made to the Government to appoint the Attorney-General as a member of the Committee. Members feel that they are completely in the dark as to the Government attitude, and it is contended that the attendance of a law officer is essential.

Housing Policy.

Sir Kingsley Wood asked the Minister of Health when the Government's housing proposals would be presented to the House.

Mr. Greenwood (Parliamentary Secretary to the Ministry of Health) said that good progress was being made with the preparation of these proposals, but he was unable at the moment to state when it would be possible to present them to the House.

Four Years' Figures.

In reply to Sir N. G. Doyle, Mr. Wheatley said that 168,966 houses had been erected under the provisions of the Housing, Town-Planning, &c., Act, 1919. The average all-in cost was estimated at £1,040 per house, and the average rent (excluding rates for all types) for England and Wales was 9s. 8d. per week, or if the Metropolitan area was excluded, 8s. 8d. per week. In addition, 39,184 had been erected with the aid of the subsidy to private builders under the Housing (Additional Powers) Act, 1919; and 3,148 houses had been erected under the Housing, &c., Act, 1923. From the information available he could not say how many houses had been erected for £500 each. The average price for houses included in contracts let by local authorities under the provisions of the Housing, &c., Act. 1923, to the end of January, excluding cost of land development, &c., was £363 for non-parlour type and £418 for parlour type. It was estimated that the loss in respect of 100,000 houses, costing £500 each and let at 9s. per week including rates) might be approximately £1,500,000 per annum for sixty years, which would not necessarily all be borne by the State.

January and February Details.

Mr. Wheatley informed Sir J. Nall that during January authority was given by his Department to housing proposals under the Act of 1923 covering 2,560 houses to be built by local authorities, and 8,119 by private enterprise, a total of 10,679. For February, the corresponding figures were: Local authorities' houses, 3,429; private enterprise, 9,376; total, 12,805.

The £500 House.

Mr. A. M. Samuel asked the Minister of Health if he would state the aggregate total monetary loss over a habitable life of fifty years per house in respect of the 200,000 houses to be built at a cost of £500 each, and to be let at 9s. a week (including rates), such total to allow for interest at five per cent. per annum, sinking fund, provision for repairs and all outgoings, and rates at the present average for the whole country; and if he would state on whom it was proposed that the loss should fall.

Mr. Wheatley said that on the assumptions suggested, it was estimated that the annual loss might amount approximately to £3,500,000 per annum. As regarded the last part of the question he suggested that the hon. member should await the statement which he hoped to be in a position to make shortly on the Government's general housing proposals.

Highest Rents.

Mr. Wheatley informed Mr. E. Brown that the highest rents agreed for "A" and "B" types of houses included in schemes under the Housing and Town-Planning Act, 1919, were 16s. and 15s. 6d. per week in respect of certain houses in the inner London area. The approximate annual deficits on the houses were £40 and £55 per annum respectively.

Evictions.

Mr. Wheatley informed Mr. Hudson that he was considering the introduction of a short Bill suspending temporarily the power of eviction from house property for which payment of rent continued to be made.

Houses in Scotland.

Mr. Adamson (Secretary for Scotland) informed Sir Wm. Sutherland that the total number of new houses erected in Scotland under the post-war Housing Acts was 24,021. The total sum paid or to be paid out of national revenues up to March 31 next in respect of these houses was £2,542,516. Under post-war legislation sanction had been given to schemes which would provide for 2,060 new small holdings and 1,065 enlargements, of which 1,556 new holdings and 782 enlargements had been formed and handed over to settlers. It was estimated that the gross expenditure to be incurred by the State in respect of these 3,125 holders would be approximately £2,600,000.

New Bill.

Mr. Adamson has introduced a Bill to amend the law of Scotland relating to payment by instalments of sums awarded in small debt courts and to the arrestment of wages. The measure permits the payment of arrears of rent by instalments.

Alternative Accommodation.

In answer to questions, Mr. Clynes said that the Government were considering the question of introducing a short Bill to make provision that suitable alternative accommodation should be provided in all cases before eviction orders were granted by the Courts.

Building Trade Negotiations.

Mr. Lumley asked the Minister of Health if he could make any announcement as to the progress of the negotiations with the building trade on the question of the dilution of building labour.

Mr. Wheatley said he hoped to be in a position to make an announcement shortly.

Councillor or Builder.

Mr. Nixon asked the Minister of Health whether his attention had been called to the fact that if a councillor serving on a borough council built houses in the borough for which he was a councillor and received the subsidy he would be disqualified for being a councillor under the Municipal Corporations Act, 1882, and would he take steps to remove this disqualification.

Mr. Wheatley said he was advised that the legal position was as stated, but he could not undertake to introduce legislation for the purpose referred to.

Direct and Indirect Labour.

Mr. Greenwood, in reply to Mr. Baker, said the information available was not yet sufficient to enable a proper comparison to be made between the cost of houses built by direct labour and the cost of houses built by contract. A fair comparison could only be made if all the conditions such as time, place and type of house were precisely similar. So far as final accounts in respect of schemes under the Act of 1919 had been settled up to January 1 of this year, it appeared that the average cost, exclusive of the cost of land and development expenses of 2,662 houses erected by direct labour was £861, and of 47,356 houses erected under lump sum contracts was £915. But in the absence of fuller data he should hesitate to say that any deductions could safely be drawn from these figures.

Weekly Rents.

Mr. Greenwood informed Mr. E. Brown that the remunerative rents (excluding rates) for A and B type houses erected at the average cost for the month of January (as shown by tenders submitted to the Ministry), allowing for cost of land, roads, sewers and management expenses, &c., would be 12s. and 13s. 6d. per week. The addition for local rates depended to some extent on the assessments fixed by the Local Assessment Committees, but might be estimated at half the exclusive rent. The inclusive remunerative rents required would, therefore, be approximately 18s. and £1 0s. 6d. per week respectively.

American Plastering Machine.

Mr. A. M. Samuel asked the Minister of Health whether he was aware that an American company had invented a plastering machine which in one hour performed the work of eight skilled plasterers with six helpers.

Mr. Wheatley said he had not particulars of any machine for successfully executing internal plastering work.

Unoccupied Dwellings.

Mr. Greenwood informed Mr. T. Thomson that statistics were not available as to the number of unoccupied dwelling-houses in England and Wales, but 218,833 structurally separate dwellings were vacant on the night of the 1921 Census. These dwellings, however, were not all necessarily untenanted and included dwellings unoccupied through the temporary absence of the usual occupier.

Continuity of Employment.

Major Moulton asked the Minister of Health whether before he gave any undertaking to the building trade as to continuity of employment on the Government housing scheme the House would be given an opportunity of considering and approving the terms of such undertaking?

Mr. Wheatley said that any undertaking which he might give must of course be subject to the approval of Parliament.

Evictions.

The Prime Minister, replying to a number of questions, said that the alarming increase in applications for eviction orders and notices to quit had nothing whatever to do, he was informed, with the Rent Restriction Bill, but was in consequence of recent legislation changes, the prolongation of bad trade and the great shortage in houses. The Ministry of Health and the Scottish Office had been striving to meet the matter without legislation which at the present moment presented unusual difficulties. A draft Bill was now, however, under consideration.

WAGES IN THE BUILDING TRADE.

A conference between the executive of the National Federation of Building Employers and of the Building Trade Operatives' Federation met at the Young Men's Christian Association recently to consider the demand of the workmen for an advance of 2d. per hour on the basic rate of wages. Mr. A. J. Forsdike presided. The claim was put forward early in February, and was rejected by the employers. It was later referred to a special meeting of the National Wages and Conditions Council, which failed to reach an agreement. The negotiating committee of the men and the representatives of the employers held separate meetings. At the joint meeting it was agreed, after several hours' discussion, that the demand be referred for further consideration by a sub-committee of five members of each side, with the secretaries. After the sitting, Mr. Coppock (the men's secretary), stated: "There has not been a breakdown in negotiations, though at one moment in the discussions we thought it would occur." The meeting for further consideration was held on March 25. Mr. W. H. Nicholls, Chairman of the National Allied Building Trades Employers, presided. At the conclusion of the proceedings both parties declined to say whether a satisfactory decision had been reached, but they will report the result to their respective executive councils. If a deadlock finally results it will be open to the men to give the employers 14 days' notice of their intention to take such action as they may decide upon in order to enforce their demands. Over 700,000 men would be directly affected in the case of a strike.

THE BUILDING TRADE

THE RATING AND VALUATION BILL

Report of the Council of the Surveyors' Institution.

The Council of the Surveyors' Institution has now issued a report on the draft Rating and Valuation Bill, which is deserving of the closest study, as this is the work of a special Committee set up by the Council, composed not only of surveyors practising mainly in rating questions, but also of those engaged in other branches of the profession, including the management of rural and urban estates. In addition to this, the Council circulated copies of the Bill to the County Branches throughout England and Wales, desiring them to place their views before the Special Committee.

The Committee, on November 1, issued an interim report, pointing out that the Bill provided for such long-needed reforms as (*a*) Periodic revision of values throughout the country; and (*b*) all rates and taxes being charged on values appearing in one valuation list, and recommending that these general principles should receive the support of the Institution; and this interim report was approved by the Council. The final report has been since submitted to the Council, and they have now issued a report commenting on the Bill in detail. This report is a very carefully considered document, even suggesting drafting amendments, and we can only indicate the main points suggested in it.

It indicates first in general terms that it is favourable to other general principles embodied in the Bill besides the two mentioned in the interim report, as follows: (*a*) The proposed enlargement of the rating area; (*b*) the consolidation of local rates; (*c*) the formation of fairly extensive valuation areas, with an assessment committee for each valuation area; (*d*) the amendment of current lists during the quinquennium, even where no new works have been carried out nor change of user has taken place; (*e*) the giving of the revenue officer a *locus standi* in connection with the preparation of the valuation lists on the ground that they will also be used for imperial taxation purposes; (*f*) the setting up of a special machinery for dealing with the assessment of railways.

This general approval is, however, qualified as being wholly dependent upon the values appearing in the valuation list being accepted as conclusive for both rating and taxation purposes, and the report states that the Memorandum issued by the Department leaves some doubt whether the subsequent Finance Bill will do this. The report emphasises the point that, unless this is the case, the simplification of procedure and machinery upon which the approval of the Council is based would not be attained, confusion in the minds of rate and tax payers would result, and the great changes proposed would be without justification.

Uniform Assessment.

It is pointed out that the revenue officers could exercise a most useful influence in the direction of uniformity of assessment throughout the country provided that the taxes for which they are responsible were calculated upon the values appearing in the valuation lists, but unless these values were conclusive for that purpose, the incentive would be lessened as there would be an inclination by the revenue officer to deal with differences of opinion between himself and the rating authority by means of additional assessments rather than by negotiation with the rating authority and representations before the Assessment Committee. The principle reason for adopting the proposals in the Bill has been the desire to escape from the complications and reduplications attaching to the existing system, and unless this desideratum is attained the only change necessary as regards valuation and valuation procedure would be the provision for a quinquennial valuation.

The Report recognises that in the event of the valuation lists being made conclusive for valuation purposes, owners who have let their properties for more than the true annual rental would escape taxation on the excess, but it is submitted that the number of these instances would not suffice to counteract the advantages of simplicity and uniformity.

The Revenue Officer.

Although the Report recognises that the revenue officer must be given a recognised *locus standi* in connection with the preparation of valuation lists if they are to be applicable to the dual purpose, the Council is of opinion that the local rating authorities must continue to be the bodies responsible for these local valuations and that apart from railways, which are dealt with in another section of this Report, all classes of property should be valued locally, and it suggests that if the revenue officer's powers were not to exceed those exercised by the inspector of taxes under the Valuation (Metropolis) Act, 1869, there would be no departure from this principle, but the definition of "revenue officer" contained in clause 60 of the Bill is too wide as it might cover members of the staff of the Valuation Office, and the introduction of the official Government valuer for this duty is deprecated. This first part of the Report, which so far we have been referring to, is confined to considering the general principles of the Bill, but this question of Valuers is also dealt with in more detail when the clauses of the Bill are considered separately, and in connection with clause 37 the report, referring to the serious disadvantages of employing the Government valuation staff for purposes other than in support of the revenue officer before the Assessment Committee or in appeals, thus summarises other disadvantages which would ensue if the Government department and not the local authority became responsible for the local valuations.

(*a*) The employment of a Government valuer might be viewed with suspicion by the ratepayers on the ground that he might be influenced (1) by valuations made by him for other purposes and (2) by the desire to meet the requirements of the National Exchequer.

(*b*) A comparatively small number of Government valuers have experience in rating work which is highly specialised in character.

(*c*) If the proposals made in this Report as to the assessment and rating of Government property are approved the Government valuers would necessarily be called upon to value a large amount of Government property for rating purposes and thus be acting in a dual capacity.

This latter objection is founded upon a proposal put forward in this Report that Government property now exempted for rating purposes should be assessed and rated in the same manner as all other hereditaments.

In the detailed portion of the Report it is suggested that members of the valuation staff should not be brought into these matters except as witnesses for the revenue officer on appeal or in support of the officer in laying facts and opinions before the assessment committees.

The Report goes through the Bill in detail and suggests many drafting amendments, but we are compelled to confine our observations to some of the principal points raised.

Gross Estimated Rental.

In the Memorandum issued with the Bill it is stated that the valuation lists are to show the gross and rateable value of each hereditament and that the "gross value" will be the "gross estimated rental" of the past, viz., the annual rent which a tenant might reasonably be expected "taking one year with another, to pay, the landlord bearing the cost of maintenance and the tenant paying the usual tenant's rates and taxes"; and the rateable value will be the operative rateable value, i.e., the actual amount upon which rates other than special rates in rural parishes are to be paid.

The Report points out that the elimination of "gross estimated rental" would tend greatly towards simplification, as in the case of many classes of property the net annual value has to be found in the first instance, the gross being built up afterwards by the addition of allowances in respect of repairs, and it suggests that the old "rateable value" might be called the "net annual value," which would mean the net annual rent which a tenant might reasonably—taking one year with another and with reasonable prospect of a continuance of such tenancy—be expected to pay for a hereditament, he undertaking to pay all tenant's rates and taxes and tithe commutation rent charge, if any, and to bear the cost of repairs, insurances and other expenses necessary to maintain the premises in a state to command that rent. The operative rateable value of the Bill (Clause 16) might then be designated the "rateable value." Schedule A tax, inhabited house duty, land tax, and license duty should be collected on the net annual value as defined above, and there should be no difficulty in adjusting—if and when required—the poundage in the case of taxes and duties now levied on gross value so as to secure a return equal to that at present obtained and to meet the reduction in the values upon which these imposts are now assessed. The report then goes on to say that if the above recommendations are adopted "gross value" will be abolished and there would be no difficulty in arriving *directly* at the net annual value for insertion in the valuation list, and therefore no scale of deductions would be necessary. This appears an important suggestion and it must be remembered that the Central Landowners' Association, in their report (*The Builder*, January 18), took exception to the scheme for fixing deductions from gross values in respect of maintenance.

Rating of Owners.

The present Report, like most of the other Reports we have noticed, takes objection to any extension of the principle of the rating of owners, and contains a detailed criticism of clause 8 of the Bill, which deals with this question. It recognises that it is impossible to collect rates from small weekly dwelling-house property, but it points out that any extension of the system of rating owners, to classes of property not at present within the principle of compounding, is strongly to be deprecated, and it criticises the clause in detail.

Special Properties.

There are some important suggestions as to the valuation of Special Properties, which if carried out would drastically alter the Bill. It is recommended that railways, including docks and canals owned, occupied or worked by railway companies, should be valued by a central authority, but that that authority should be elected, save as to the chairman, by the assessment committees of England and Wales from members of their own bodies, and that authority should be designated "The Railway Assessment Committee." The indirectly productive works such as stations, sidings, &c., should be valued locally by the rating authorities, under the direction and control of this Railway Assessment Committee. All other special properties should be valued locally by the assessment committees, joint committees being formed to deal with properties extending into more than one area.

The Report objects to the question as to what are to be deemed "special properties" being left to be determined by the Minister and, rightly in our opinion, considers that they should be defined in the Bill, and the following definition is proposed: "Hereditaments comprised in the undertakings of tram, gas, water, electric light

nd power, and hydraulic power undertakings, nd in those of docks and canals other than those wned, occupied or worked by railway com- panies." Any question as to what is a special roperty to be settled by the Railway Assess- nent Committee, whose decision should be final. n connection with this subject it is suggested hat a special tribunal of appeal should be stablished to deal with appeals in respect of pecial properties.

This is only a brief survey of some of the uggestions contained in this Report, which ppears the most comprehensive yet issued. t will prove a difficult task to collate the arious reports and extract the best solution rom the opinions offered. So far it appears hat the majority of opinion does not reject he principle of a single valuation for rates and axes, but that there is a consensus of opinion hat serious modifications must be made in the Bill as to the methods by which this should be ut in practice.

SHORTAGE OF TIMBER

Mr. R. L. Robinson (Forestry Commissioner) ectured recently before the Society of Arts on his subject. Lord Clinton presided. During the ourse of his remarks, Mr. Robinson said the otal extent of the North American forest was ,500 million acres, of which 770 million was n Canada and Newfoundland, 550 million in the Jnited States, 70 to 150 million in Alaska, and 4 million in Mexico. It would appear, said the ecturer, from those figures that the area of orest in North America was about double that f Europe, but from the point of view of timber upply great deductions had to be made from the otal. The area of effective forest was estimated t 750 million acres. In addition to the wood emoved for use enormous quantities were de- troyed annually by fire and by the ravages of nsects and fungi. Estimates had been made of he quantity of timber removed from the forests by all agencies, and the latest figures indicated hat the total volume was in the neighbourhood of 32 thousand million cubic ft. annually. On his basis, if there were no growth at all, and all he forest was accessible, it would all be used up n, approximately, thirty-five years. Very ittle had been done to replace the destruction. Natural regeneration to be successful required egulating, in order that the most useful species night be secured. As a rule some assistance n the form of planting was necessary. Those were the first stages in systematic sylviculture, nd so far had received very little attention; he area which was being planted in North America averaged under forty thousand acres; t was not double the amount in Great Britain. t seemed clear there must be considerable tringency in the supply of forest products in North America within the next twenty or thirty ears. The continent would absorb all the orest products it could grow, and the eastern states of the Union might even become com- petitors with the United Kingdom and Western Europe for the soft woods of Northern Europe. This might become a serious matter for the Jnited Kingdom since the present exportable nargin for Northern Europe was not capable f very great expansion. In regard to hardwoods, o doubt increasing demands would be made on ropical forests.

In the discussion that followed, Lord Clinton aid it was important for them to form some eal idea of what was to be done when the ountries from which they now obtained their mber required their whole production for heir own use. The softwood supply was a atter of great difficulty, but he was not sure iat the hardwood supply would not be a matter even greater difficulty. In regard to native ik they were working on timber planted a ndred years ago and more; little or no anting had been done for the last seventy ears.

Mr. G. R. Courthope, M.P., said in a few ears they must not expect to get any timber all from North America. In Europe the rate consumption of softwood timber exceeded e rate of production by something like 3½ ousand million cubic ft. a year, and at that rate there would be nothing left in about seventy years. Most of them would live to see the time when commercial softwoods would not only become very expensive but would be almost unobtainable, because directly exporting countries realised the danger of the present rate of exhaustion, they would place restrictions on export.

TRIBUNAL OF APPEAL

On March 25, at the Surveyors' Institution, 12, Great George-street, Westminster, the Tribunal of Appeal under the London Building Act, 1894, heard an appeal made on behalf of the North British & Mercantile Insurance Co., Ltd., against the refusal of the London County Council, dated the 9th day of February, 1924, of an application for rebuilding at Nos. 61 and 62, Threadneedle-street, City, to a greater height than that provided by Section 47 of the said Act.

Mr. C. Henderson, K.C., appeared for the British Mercantile Insurance Co., and Mr. Dimes for the London County Council.

Mr. Dimes, for the L.C.C., said, in order not to waste the time of the Tribunal he had a preliminary objection to the hearing of the appeal; it had not been lodged within the proper time.

Mr. Henderson, for the British Mercantile Insurance Co., said the appeal was lodged within 21 days of February 9, and was, therefore, in order. An application was made on behalf of the Insurance Company on October 12 last, as follows: "Our clients are reconstructing the greater part of their premises, and we are instructed to apply for permission to rebuild; the height of the building being the same as the proposed new Post Office." On November 17 the Council gave their decision as follows: "With reference to your application, I have to inform you that the Council has refused to permit the addition at 61 and 62, Threadneedle-street, as it is undesirable." However, at an interview on December 18, Mr. Thompson saw the Superintendent Architect, and showed him the original drawing of the proposed façade. In a letter, however, the Council stated they were not prepared to vary their decision. On January 8 Messrs. Thompson & Walford had a telephone message from the Superintendent Architect asking them to attend before a meeting of the Building Committee to be held on January 14. On this date they attended before the Building Committee and explained the needs of the Company, and the reason for their application for the extra height of building. At that meeting Mr. Taylor made a suggestion that the front wall should be lowered to 80 ft., with the upper part of the sixth floor incorporated into the roof under the seventh and eighth floors. After a further application from Messrs. Thompson & Walford that the original design be approved, the Council wrote saying that they were not prepared to alter Sections 175 and 178 of the London Building Acts. On February 14 Messrs. Thompson & Walford wrote saying that they could not consider the decision of the Council irrevocable, as the increased height had been allowed to the Post Office; and that the Council had already given consent on other occasions for the erection of buildings of a higher nature. The Post Office, Mr. Henderson said, were not required to submit plans, but as a matter of courtesy they did so, and the Council said they had no observation to make at all. Mr. Henderson submitted if on November 17 the final refusal was made by the Council, the only remedy for the Company would have been to come to the Tribunal at once. It was difficult to see why further correspondence should have been received from the Council. He contended there had never been a suggestion from the Council that they had finished with the matter; but at the interview on January 14 a suggestion had been made that the plans might be modified. As the Council had carried on negotiations he could not understand why a technical objection on the point of appeal should be made. He maintained that the Council did not finally conclude the matter until February 9.

The President said he outlined the position of Mr. Henderson as follows: (1) The Council could reconsider a decision; (2) fresh facts had been put before the Committee; (3) appellants had been brought into their position by the action of the Council themselves.

Mr. Henderson said it was not his position that the Council had consistently refused his petition, but that the Company had put fresh facts before the Committee; therefore the matter was not closed.

Mr. Dimes, for the L.C.C., said the suggestion made to Mr. Thompson was that he should modify his building in order to do without the Council's consent. If the parapet were 100 ft. high, it contravened the Act; but Mr. Taylor suggested if the parapet wall were stepped back behind an angle of 75 deg. in the roof, two stories could be built without contravention of the law.

All the Council had had were amplifications of the original scheme. If, when the Council made a suggestion in order to help an application, it were construed as a fresh decision, it would upset the basis of all negotiations.

The Tribunal allowed the preliminary objection of Mr. Dimes to the appeal.

BOOKS

Specification: For Architects, Surveyors, Engineers, &c. Edited by Frederick Chatterton, F.R.I.B.A. No. 26. 1924. (The Architectural Press, London, S.W. 1.)

This massive volume well sustains its reputation. It is quite unique amongst technical works relating to building matters, and the publishers can rightly claim—as they do on the title page—that "Specification is as necessary to the architect as an encyclopædia is to the man of letters." Within its covers is found a mass of information which is not to be found in any other one volume. Wherever we have been able to test it the information given is thoroughly reliable. Travellers are not always welcome in architects' offices. At the same time it is absolutely necessary for the modern architect, to keep up with modern methods of construction, and here will be found such particulars as will enable him to form a judgment as to their merits and suitability for any special class of work.

The special articles referring to hotels, half-timber construction, timber roofs and the Housing Acts are well worthy of study and include some interesting drawings and photographs of ancient and modern examples. Folding plates of brickwork, tiling and joinery add to the value of the work.

Effect of the Shape and Surroundings of a Hot Surface on the Radiation from it. By A. H. Barker and M. Kinoshita. (University College, London.) Bulletin No. 1, 1923.

This report is in part a résumé of Mr. Kinoshita's earlier paper on "The mathematical theory of heat exchanges, as applicable to practical work," and is published with the financial help of the Institution of Heating Engineers and the Industrial Research Department. The authors deal first with primary emission and absorption, and give a useful table of emission co-efficients for different materials, and the net energy gained and lost by a body due to heat transference is discussed. Mathematical reasoning is applied to various examples, such as the determination of the amount of heat received by different bounding surfaces in a room possessing a radiator. Interesting data on the comparative efficiency of column radiators of different types are given.

The last half of the work—some thirty pages—deals in an appendix with the distribution of emitted and absorbed heat over a surface of uniform temperature. This research is of an advanced and mathematical character, and beyond the scope of the layman, but should be of value and interest to the heating engineer and designer who wish to gain a fuller insight into the difficult problems of efficient heating apparatus.

EDUCATION IN HEATING AND VENTILATING INDUSTRY

In the course of their report the Education Committee of the National Joint Industrial Council of Heating and Domestic Engineers state that the education movement originated from, and was rendered necessary by, the scheme instituted by the National Joint Industrial Council for training heating and domestic engineer apprentices, according to the following specimen indenture :—

"And they further covenant with the employers that the said apprentice will, during his term of apprenticeship, regularly attend the classes for technical instruction where practicable, and diligently study the subjects that are applicable to his trade, and will present himself for examination at all such examinations held in connection therewith as students are required, or expected, to attend, and that he will satisfy his employers as to the subjects taken and to his regular attendance and study thereat, and the said employers shall provide all necessary fees required for the said classes."

At a Council meeting, held on January 8, 1920, it was remarked there were no courses of classes in being, and the Council resolved in the first instance to form local education committees, and, after investigation, the following centres were decided upon: London, Manchester, Birmingham, Leicester, Liverpool, Sheffield, Newcastle-on-Tyne, Bristol, Norwich, Brighton, and Nottingham.

Careful consideration was given to the curriculum to be adopted, which was so arranged that tuition should be a continuance of the education already attained by the prospective student, satisfy the requirements of the industry, and be adaptable to the existing arrangement of classes held in evening technical schools provided by the Board of Education. The Committee adopted for the first four years' training the junior and senior courses (two years each) of engineering set out by the Board of Education, which met the required conditions and were provided by almost every polytechnic, technical or science school throughout the country that included engineering as part of their ordinary curriculum. The Committee devised and adopted a final two year specialised course in heating, ventilating and domestic engineering, and building construction drawing, to meet the particular requirements of the industry.

The Committee prepared and issued a booklet, entitled "Advice to Intending Students as to Courses of Study," a copy of which can be had on application to the Secretary (price, 2s.). Mr. J. Scholes Hague, M.Sc., Principal of the Municipal Technical Schools, Liverpool, in the course of a letter expressed his interest and appreciation.

The Local Education Committees experienced many difficulties, the principal being: The small number of apprentices to enrol, apprenticeship not being a general custom of the trade; the variety of ages from fourteen to forty-five years of students wishing to enrol; the small number of students of all ages who had acquired any previous technical education; the dropping off of attendances at the classes during the session from waning or lack of interest or want of comprehension; and dropping off of attendances through the student being absent from home on country jobs.

The Committee later, at a conference, passed unanimously the following resolution: "That an endeavour be made to encourage technical education in day schools one day each week for apprentices up to eighteen years of age, and that employers be approached with the object of keeping students up to eighteen years of age in their respective towns during the winter months."

They are pleased to report that this resolution has been approved and confirmed by the Council of the Employers' Association and circulated to its members.

In conclusion, the Committee state it has laid the foundation stones of the technical education movement, and that the success and extension of the movement will largely depend upon the result of the work done in the various centres, which, in turn, devolves upon the encouragement, careful teaching and nursing by the Council, the Committee, the Local Education Committees, their Secretaries, and others, who may be interested.

THE RENT ACT: RENT BELOW STANDARD RENT

In the recent case Dufty *v.* Palmer, very briefly reported in *The Times*, March 14, an important point has for the first time been directly raised under the Rent Act, 1920. That point is whether where premises have been let at a rent less than the standard rent the landlord can, notice to quit having first been given, increase the rent up to the standard rent. Incidentally, it also raised the question on what basis the permitted increases should be made. The plaintiff was the landlord of certain premises the standard rent of which in August, 1914, was £68 per annum. In 1918 these premises had been let to the defendant at £40 per annum, and in January, 1922, the landlord had given notice to terminate the tenancy on July 25, and thereafter to increase the rent to £68, the standard rent. In September of the same year notices were served of increases under the Act and this action was brought to recover the rent and the increases made upon it.

It came before a Divisional Court on appeal from the County Court, where judgment had been given for the defendant, the tenant. The Divisional Court held there was nothing in the Act which authorised in addition to the increases specified in section 2, the increasing of an agreed rent to a higher standard rent. The intention of the Act was to give fixity of tenure, and payment of the agreed rent was a term of the original contract of tenancy which was consistent with the provisions of the Act. It was held that the plaintiff was entitled to 13 months' rent at £40 a year and the permitted increases in rent which, however, must be based on the standard rent of £68 per annum.

The point appears a difficult one and it has never been directly decided before, although it was raised in the case Glossop *v.* Ashley (1922, 1 K.B. 1), which will be found noted in the Court of first instance in *The Builder*, April 15, 1921, but was subsequently carried to the Court of Appeal. In that case the tenant had been in occupation of the premises since or before August, 1914, but there had been variations in the rent as the house was a "tied" public house and at one time since 1914 the rent had been lower than the rent on August 3, 1914. It was held both in the Court below as well as in the Court of Appeal, that as the tenant had been in occupation continuously since August, 1914, (which distinguishes that case from the case we are considering), the rent he then paid was the standard rent, but in the course of the case it was raised as a query whether where a tenant is paying less than the standard rent the landlord could without the tenant's assent raise the rent to the standard rent. Mr. Justice McCardie intimated that there was nothing in the Rent Act to prevent the landlord so doing. In the Court of Appeal Lord Justice Bankes left this point open; Lord Justice Scrutton thought the rent could be so increased, whilst Lord Justice Atkin was of the contrary opinion.

The Divisional Court has now decided the point, as it arose directly in the case under consideration, and from the short report of the case the judgment appears to have been founded upon the argument that there is nothing in the Act to authorise any addition to the increases permitted by section 2 and by a reference to section 15, which enables a tenant to retain possession on condition that he observes the terms and conditions of the tenancy agreement, but the Act is certainly not clearly drafted on this point, for if the question be put in another way, what is there to prevent such an increase, it seems difficult to answer.

Section 1 only restricts increases in rent which exceed by more than the permitted increases the *standard rent*, and the amount of such excess is made irrecovable from the tenant, and by section 14 it is only such excess that can be recovered by the tenant. Section 15 is to apply only so far as the terms and conditions of the tenancy are "consistent with the provisions of the Act," therefore it is difficult to see any provision which brings an increase only up to the standard rent and not above it within the machinery or provisions of the Act.

The nearest approach the Act makes to this point perhaps is contained in section 12, subsection (1) a. which deals with progressive rents under an agreement and makes the maximum rent payable under such agreement the standard rent, but provides that where at the date by reference to which the standard rent is calculated the rent was less than the rateable value, the rateable value at that date shall be the standard rent.

The point raised in this case should at any rate have been dealt with in this subsection of the Act. It has, however, now been definitely decided by a Divisional Court and the case provides one more instance of the difficulty of legislating on such a subject as rent restriction.

Building Industry.

At a recent meeting of the Darlington Rotary Club Mr. J. J. Blackett gave an address on "Getting Back to Pre-War Conditions in the Building Industry."

Mr. Blackett expressed the opinion that building was the greatest of all industries, as the happiness and comfort of the nation depended upon it. It dated back to the days of the Babylonians. The Romans introduced it into this country, and many of their buildings were still standing. The industry was first organised in this country by Sir Christopher Wren and his colleagues. The advent of cement, steel and electricity had done much to rob the industry of its craftsmanship. Pre-war domestic work in this country was often termed "jerry" building, but it was much better than a great deal of the work done under Dr. Addison's scheme a few years ago. Under that scheme every Tom, Dick and Harry who had the least idea of building was received with open arms, and the result was disastrous to the industry. It was a God-send when the Ministry of Health called a halt, for now they were slowly getting back to pre-war methods.

Fleetwood Builders' Association.

The Fleetwood, Poulton, Thornton and District Building Trades Employers' Association held their annual dinner recently at the North Euston Hotel, Fleetwood. The newly-elected President, Councillor C. H. Riley, said they all felt proud of the elevation of their retiring President to that of President of the North Western Federation, one of the best organised Federations in the world. The Federation has 70 local associations, with a membership of 3,500.

Mr. R. Leach, responding for the North Western Federation, said they were met together with a cloud hanging over them. At the present time they were having difficulties with the operatives, who demanded an increase of 2d. per hour over the present rate of wages. The employers were convinced the wages were quite high enough, and intended to resist the claim. The operatives, who were taking advantage of the shortage of labour in the building industry. In regard to the question of the shortage of houses, he considered it was the result of the high cost of materials, coupled with the shortage of labour in some of the crafts of the building trade, and if wages were increased at the present time it would seriously retard the progress of building. The Government were endeavouring to erect houses for the working men, but until the Government decided to take into their counsel the employers, operatives, and architects, it would be a long time before they obtained the number of houses they required.

Mr. S. Wigham, speaking on the demand for increased wages, expressed the hope that the Association and the rest of the associations in the area would follow the policy laid down by the leaders, whatever it might be.

HE TREATMENT OF THE DEATH-WATCH BEETLE IN TIMBER ROOFS

Ir. H. Maxwell-Lefroy, M.A. (Professor of tomology, Imperial College of Science and hnology), recently read a paper before the yal Society of Arts on this subject.

n the course of his remarks, he said during last ten years it had been realised that the st, actual or future attacks of the death-watch tle on all structural timber were of real portance, and if they were to hand on to er generations the fine timber constructions he past four or five centuries some definite ps must be taken to deal with this insect. He thought all who had been concerned with care of old timber roofs knew that the nage might be extremely serious, and so ch was common knowledge on this point t he need not stress it; but there were three nts which needed special consideration: w did the roof become infested? Why did attack stop? How could they recognise attack deep in an inaccessible structure?

The way in which an attack commenced was great interest, and he offered them three jectures; they were:—

1) That the original timbers were infested en put in place;

2) That at any time after construction the ect was brought in with renewals, repairs, resh timber objects, such as floors, pews, &c.;

3) The insect itself came in.

They had, unfortunately, no knowledge of third; beetles did fly and might come o buildings, but it was unlikely and ill orded with what they knew of the beetle's bits. All the cases he had seen had pointed the use of originally infested wood, or the roduction at some time of infested wood for pairs, renewals, church furniture, flooring, or e like.

The next point was why an attack ceased; undoubtedly did cease without reference finitely to anything that had been done to op it; these cases showed an abundance attack (which one could date, for instance, th reference to definite emergences of beetles rough a layer of lime wash put on at a known te), abundant further timber to attack, and evidence of actual attack at the present date. hat had happened? Had the beetles come t, flown away, and gone elsewhere? Had the ibs perished inside? Had the wood become o dry, or had the yeast perished? They did t know, but they must take account of the enomenon. A great sum of money had en spent on buildings in which all attack had ased; and cases were under observation now here the assumption was that no further tack was proceeding, and the risk was being finitely taken of doing nothing at present to al with the pest, merely on these grounds.

There were two sources of evidence that the tack was in progress in timbers; one was the oles in the wood from which the beetles had merged, and which were unmistakable; the her was the absolutely characteristic oval ttened pellets of excreta, which might pour t of a big roof joist, and which indubitably oved the presence at some time of the beetle.

TREATMENT.

Prevention of Infection.

The first and most obvious protection was to ake sure that nothing was brought into a ilding that would bring in the insect, whether be worked or unworked timber to be used for newal or repair, or it be wood furniture or oring. There was, unfortunately, evidence at quite ancient roofs, not hitherto infected, d been infected in this way.

Surface Treatment.

They then came to treatment of wood *in situ*, here it was possible to get at nearly all or solutely all surfaces, and where any damage ing on could be located, minimised or stopped by a surface treatment. This meant that if an attack were going on, the beetles either could not get out or could not get in to a fresh surface.

He knew of no other treatment but a chemical one: one could not heat timbers to 130 deg. F. when *in situ*; one could not, as a rule, use a vapour or any electrical action; and they knew so little of the beetle they had no way of enticing it out.

The ideal surface treatment should have these properties:—(1) Penetration, due to wetting power (*i.e.*, to low surface tension in regard to the interfacial action of liquid and wood); this meant only that the liquid would wet evenly all cracks, shakes, crevices, &c., not that it would actually penetrate across the grain into the wood itself. (2) Killing power on eggs or grubs at the surface. (3) A permanent poison to emerging beetles. (4) Deterrent to wandering beetles seeking shelter or a place to lay eggs. (5) Permanent, not chemically changing or altering in colour in course of time. (6) Reasonably non-inflammable. (7) Not a virulent poison to man while in application. (8) Not a permanent virulent poison which could, for instance, come off choir stalls or lecterns on to moist fingers—corrosive sublimate was a case in point which had been used in this way. (9) Not be a varnish solvent for cases where varnished or polished wood was concerned. (10) Comparatively simple and cheap. (11) Not too odorous. (12) Give off a vapour toxic to insects inside the wood. (13) Not corrosive to metal used in strengthening or bolting up. (14) Applicable as a liquid, as a spray, swab or cream. (15) Not form a dust on drying which would eventually dust out. (16) Not affect the colour of the wood.

Very stable and permanent soaps, which were non-poisonous, had been made with metallic elements, such as barium, zinc, &c., which could also be emulsified with paraffin wax and other ingredients in water as a medium; it was cheaper to use water to the extent, say, of 80 to 85 per cent., if it would carry paraffin wax, a metal soap and a deterrent oil. A typical formula which he suggested was as follows:—Zinc, or barium oleate, 3; cedar wood oil, 3; soap, 1; paraffin wax, 10; water, 83. This was applied liquid to surfaces with a brush or spraying machine; it left a film of the wax, soap and metallic oleate, invisible, not affecting colour or varnish, not dusting out, not a human poison. Where colour was immaterial one might use a copper oleate; one could also add a volatile poison, such as dichlorbenzene.

A mixture used in some buildings had been linseed oil and turpentine; this was an excellent temporary local application, the turpentine driving the insect in, but beetles came freely through it when the turpentine had gone.

Internal Treatment.

Cases did arise where one might have to work on a roof *in situ* where all principal timbers were to be left undisturbed, yet where there were believed to be colonies of insects at work deep inside. His suggestion was that one could cautiously penetrate into infested wood with a $\frac{3}{8}$ in. augur, screw in a pipe, and pump in a liquid which would do three things: it would give off a poisonous vapour, penetrating the burrow systems and killing larvæ; it would leave a permanent poisonous deposit against future attack; it would strengthen badly decayed wood.

The second point was to prevent re-infection, and one could use a wide range of poisonous substance inside wood, particularly if colour were immaterial; one would use creosote but for its smell and its lack of permanency; but he thought some form of the mineral soap such as copper, barium or zinc oleate was the best.

Thirdly, could one put in a liquid that would strengthen the much decayed timber and still carry a poison and disseminate a vapour? The simplest suggestions were cellulose acetate, synthetic resins, fluosilicates, hard waxes, and silicon ester.

Ventilation.

A last point of general treatment was one that was impossible to prove experimentally without abundant time, but frequent observation impressed it on one; it was the enormous influence of ventilation; wood that was kept well ventilated, even if attacked, would not ultimately perish. In two prominent buildings in London, of about the same date, one was attacked at the base of the principal rafters only, where they ran into the walls; the other had been attacked, but the attack had ceased, the whole timber structure being remarkably ventilated. He thought that this point was continually coming up, and observation did correlate ventilation and immunity in a decisive way. Perhaps insufficient attention had been paid to this point, and perhaps there might have been cases where it would have been a sound policy to improve ventilation, to watch at intervals for evidence of attack, and to exercise patience before actually dealing structurally with a roof or floor; when an insect reproduced only at two or three year intervals, it took a long time for an attack to develop, and one could afford, perhaps, to wait awhile and see whether improved ventilation alone would not prevent serious extension of damage.

NEW BUILDINGS IN LONDON

Coventry-street.— Alterations.— Structural alterations and redecoration will shortly take place at the Elysee Restaurant, Coventry-street. These premises are to be turned into a cabaret. Mr. Bertie Crewe is the architect.

Queen Anne's-gate.—Redecorations.—Further to the list of sub-contractors employed in the redecoration of No. 26, Queen Anne's gate, given in our last issue, Messrs. Thomas Faldo & Co., Ltd., are responsible for the asphalte work.

East Sheen.—Houses.—The plans are now being prepared for the second group of houses on the Barker estate. The architect of the estate is Mr. S. E. Castle, of 40, Albemarle-street, W.1. Messrs. C. & E. Melville, of East Sheen, are the agents dealing with the disposal of these houses, which will be of the three or four bedroom type, with two sitting rooms and the usual offices on the ground floor.

Builder's Estate.

Mr. Francis Read, of Royland-road, Loughborough, Leicestershire, builder (net personalty, £8,374), £10,183.

Wages on Public Works.

The Public Works Conciliation Board has fixed the award, dated March 21, for the London Area, namely: The City and County of London and the whole of the districts of all the local authorities the whole or any part of whose district lies within the Metropolitan Police district.

The award fixes the rate of wages to be effective for the three months, April, May and June, as follows:—Blacksmith, 1s. 8d.; Concrete Leveller, 1s. 3½d.; Duct or Earthenware Drain Layer, 1s. 4½d.; Fitter, 1s. 8d.; Granite Mason Kerb, &c., 1s. 9d.; Granite Sett Dresser, 1s. 8d.; Jointer, 1s. 4½d.; Kerb Fixer, 1s. 8d.; Pavior, 1s. 8d.; Petrol Locomotive, Petrol Roller, or Petrol Air Compressor Plant Driver, 1s. 5½d.; Pipe Jointer (iron up to 6 in.), earthenware or concrete pipes and conduits, 1s. 4½d.; Pipe Jointer (iron) above 6 in. diameter, 1s. 5½d.; Platelayer, 1s. 4½d. to 1s. 5½d.; Platelayer Labourer, 1s. 3½d.; Pneumatic Pick Operator, 1s. 4½d.; Rammerman, 1s. 4½d.; Scaffolder, 1s. 6½d.; Screeder, 1s. 4½d.; Steam Roller Driver, 1s. 7½d.; Street Mason and Flag Dresser, 1s. 8d.; Tarpot Man, 1s. 3½d.; Timberman, 1s. 4½d.; Wood Block Layer, 1s. 4½d.; Men working in "boots," 1d. per hour extra; Watchman, 7s. 6d. per shift minimum day or night. The hours of labour and overtime rates remain as before.

INSTITUTE OF CARPENTERS

ON March 22 the British Institute of Certified Carpenters held their annual dinner at Pritchard's Restaurant. Sir Frederick G. Rice presided.

After the loyal toasts had been honoured, MRS. BACK proposed "The Institute," coupled with the Hon. Secretary (Mr. G. T. Preston).

MR. G. T. PRESTON, responding, said their numbers were increasing, although they were bound to be limited as only about 70 men qualified annually. However, of these the Institute had about 30 as members. He hoped the time would come when architects would say, "Is this man a member of the British Institute of Certified Carpenters?"

MR. W. COX, proposing "The Worshipful Company of Carpenters," said it dated from the time of Edward IV—about the fifteenth century. In the old time there was need for some protection of the craft of carpentering; also to ensure that proper work was done. The Company had not only powers of search which enabled them to find out whether the material was of the right quality, but also they had the power to see that the work was done in a proper way. In the 'seventies certain of the old Guilds began to doubt whether they were necessary: the Carpenters' Company came out unscathed. He wished to emphasise that the Worshipful Company gave particular encouragement to the Institute. The time would come, perhaps, when their qualified men would have the privilege of joining the Worshipful Company. As craftsmen they should be enabled to make their own laws as to what had to be done.

SIR FREDERICK RICE, responding, in the absence of Mr. H. Blackborow, said among the members of the Worshipful Company were many men who had served in the joiners' shops. The Worshipful Company was always pleased to recognise the work of the Institute, and to do what they could for their interests.

MR. H. E. GIBBS, V.P., then proposed "The Ladies," to which LADY RICE responded.

MR. GEORGE AYRES, V.P., proposing "The Chairman," said Sir Frederick had been a member and vice-chairman of a Commission to consider lead poisoning; also chairman of the Moratorium Committee. He had also, when examiner in carpentering, suggested to the Institute of Builders that it would be a wise thing to provide prizes for practical work. Mr. Ayres then referred to the fine examples of oak at the Metropolitan Water Board, a building erected by Sir Frederick's firm.

SIR FREDERICK RICE, responding, said in regard to prizes the Institute of Builders had eagerly fallen in with his suggestion; also that prizes should be given to other trades. He had high regard and esteem for the work of the Institute of Carpenters, and hoped they would have many members pass through their examinations, which, he was glad to say, they insisted on: it kept up the high status of the Institute. In regard to the Metropolitan Water Board Offices, the oak was removed from the old oak room that had existed for some 300 years, and consisted of a new oak room with an old ceiling and old panelling. It was original Grinling Gibbons carving. Continuing, Sir Frederick said it was due to the Institute of Carpenters that they should be represented in the House of Commons; it was one reason why he had put up for Parliament. If successful in the future, it would be his desire and pleasure to regard the work of the Institute with special care; he would consider it a privilege to safeguard the interests of the carpentering trade.

Mr. C. Gordon Huntley, A.M.I.E.E., M.I.H.V.E., has relinquished his connection with the consulting engineering practice of Messrs. Huntley & Wood, and has joined the echnical staff at the London office of Messrs. Davidson & Co., Ltd., Central House, Kingsway, W.C.2.

RATES OF WAGES IN THE BUILDING TRAD

The following are the rates of wages in the building trade in England and Wales. E endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur

	Masons.	Brick-layers.	C'p'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 531).

CONTRACTS, COMPETITIONS, &c.

some contracts still open, but not included in this List, see previous issues. Those with an asterisk ivertised in this number. Certain conditions beyond those given in the following information nposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any r; that a fair wages clause shall be observed; that no allowance will be made for tenders; and leposits are returned on receipt of a bona-fide tender unless stated to the contrary.

date given at the commencement of each paragraph is the latest date when the tender, or the names e willing to submit tenders, may be sent in; the name and address at the end is the person from whom ce where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

RCH 29.—**Navan.**—VARIOUS WORKS.—For struc- alterations, additions, repairs, plumbing and ex- n of drainage, roads and pathways, at the Navan y Hospital, for the County Meath Board of . Mr. A. Edward Smith, quantity surveyor, Andrew-street, Dublin. Deposit £2 2s.

RCH 29.—**Wakefield.**—ADDITIONS.—For additional modation at Wakefield West Riding Court House, . Riding Standing Joint Committee. Mr. P. O. , County Architect, County Hall, Wakefield.

RCH 29.—**Wandsworth, S.W.**—POST OFFICE.— on and completion of a branch post office at sworth, S.W., for the Commissioners of H.M. of Works. Contracts Branch, H.M.O.W., King s-street, London, S.W.1. Deposit £1 1s. ble to the Secretary).

RCH 31.—**Aberayron.**—PAINTING.—For painting decorating the Llwycelen Congregational Chapel, e Trustees. Mr. J. O. Evans, secretary, Coopers , Llwyncelyn, near Abrayron.

RCH 31.—**Aspatria.**—SHOP.—Erection of a branch for Aspatria Industrial Co-operative Society, Mr. H. Oldfield, architect, Workington.

RCH 31.—**Beckenham.**—PAVILION.—For the on of a wooden pavilion (28 ft. × 21 ft.), at the ndra Recreation Ground, for the U.D.C. Sur- 's Department Offices, Beckenham. Deposit £2.

RCH 31.—**Caerphilly.**—CONVERSION.—For carry- it for the U.D.C. the alterations and additions to nrhiw" necessary to convert same into council . The Surveyor to U.D.C., Council Offices, hilly, or Messrs. J. H. Phillips & Wride, archi- 7, Pembroke-terrace, Cardiff. Deposit £2 2s.

RCH 31.—**Chesterfield.**—HOUSES.—Erection of ouses at Stavely, and 25 houses at Heath, for . Mr. P. B. Houfton, architect, Furnival- bers, Chesterfield. Deposit £1 1s. for each contract.

RCH 31.—**Great Yarmouth.**—LAVATORIES,—&C.— rection of offices, lavatories, &c., at St. George's r Mixed School, for the T.C. Borough Engineer, outh.

RCH 31. — **Halstead.** — COTTAGES. — For the on of four pairs of semi-detached cottages, for .D.C. Mr. W. A. Nicholson, Surveyor, Halstead, . Deposit £1.

RCH 31.—**Hertfordshire.**—COTTAGES.—Erection of cottages at Hadham Cross, Hertford Heath, o, Ware, and Bishop's Stortford, for C.C. Mr. Prescott, County Surveyor, Hatfield.

RCH 31.—**Huddersfield.**—PAINTING.—For painting side and inside of shops and weights and measures , Victoria-street, and Bull and Mouth-street, for Borough Architect, 26, Ramsden-street, Hud- ld.

RCH 31.—**King's Lynn.**—NURSES' HOME.—Erec- f a nurses' home to accommodate 24 nurses, for Norfolk and Lynn Hospital Board. Mr. H. M. rd, hon. secretary, West Norfolk and Lynn tal.

RCH 31.—**Lincoln.**—HOUSES.—For the erection houses, on the St. Giles' Estate, for the T.C. . Hill, 10, Mint-street, Lincoln. Deposit £3.

RCH 31.—**Liskeard.**—PAINTING.—For painting orswater Chapel. Mr. J. Strong, Hazel Dean, rd.

RCH 31.—**London, N.19.**—PAINTING AND RE- —Internal painting and repairs to the Relief n and Dispensary at Barnsbury-street, Islington, the Guardians of the Poor of the Parish of St. Islington. Mr. Edmund J. Harrison, Lic. A., 23, Berkeley-road, Crouch End, N.8. Deposit

RCH 31.—**Martlesham.**—CLUB ROOM.— For the on of a club room (50 ft. by 25 ft.), in the parish rtlesham. Police Station, Martlesham.

RCH 31.—**Northenden.**—PAINTING.—For (*a*) paint- d decorating the interior, and (*b*) alterations to oms at Rose Hill School, Longley-lane, for ians of the Manchester Union. Mr. E. Hargreaves, ntendent of Works, Union Offices, All Saints, ester.

RCH 31.—**Penrith.**—CONCRETE RESERVOIR.— uction of a covered reinforced concrete service ir (capacity one million gallons) on site at , Penrith, for the Penrith U.D.C. Thomas H. aff, A.M.Inst.C.E., Engineer, Town Hall, Pen- Deposit £2 2s.

RCH 31.—**Poplar, E. 14.**—TENEMENTS.—Erec- 12 tenements on a site at Lower North-street, e Metropolitan Borough Council of Poplar. arley Hockford, Borough Surveyor, Council Poplar. Deposit £3 3s.

RCH 31.—**Port Glasgow.**—PAINTING.— For the work of 27 blocks of 98 houses in course of at Chapelton, for the T.C. Messrs. Duncan & , architects, 160, Hope-street, Glasgow.

RCH 31.— **Ripon (Yorks).**—DISMANTLING, &C. ollowing services at nine camps: (1) For the e of hutted camps and remove all buildings oris; (2) purchase of materials resulting from ling; (3) for dismantling only; (4) for of concrete and other materials left on camps. and Communication Officer, Ripon Camp.

RCH 31.—**Sligo.**—STATION BUILDINGS.—For re- ction of station buildings at Sligo, for the Mid- reat Western Railway Co. Chief Engineer, one Station, Dublin. Deposit £4.

MARCH 31.—**Southfields and Tooting.**—HOUSES.— Erection of (*a*) 32 houses on the Southfields Housing Estate, Southfields; (*b*) 48 houses on the Furzedown Estate, Tooting, for the Wandsworth B.C. Southfields Estate, Mr. G. L. Elkington. A.R.I.B.A., 7, Laurence Pountney-hill, E.C.4 Deposit £2 2s.; Furzedown Estate, Mr. H. B. Elkington, A.R.I.B.A., 7, Laurence Pountney-hill, E.C. 4. Deposit £2 2s.

MARCH 31. — **Stafford.** — HOUSES.—Erection of 20 houses of the non-parlour type, on the Lemmascote Housing Estate, for the Stafford Corporation. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford. Deposit £2 2s.

MARCH 31.—**Stoke-on-Trent.**—WORKSHOP, &C.—For the erection of steel frame and brick panelled workshops, stores, &c., at the Etruria Gasworks, for the T.C. Chief Engineer, Gas Works, Etruia, Stoke-on-Trent. Deposit £1.

MARCH 31.—**Wandsworth, S.W.18.**—SPORTS PAVILIONS.—Construction of sports pavilions at King George's Park, Wandsworth, and the Furzedown Recreation Ground, Streatham, for the B.C. of Wandsworth. Mr. E. J. Elford, M.Inst.C.E., Borough Engineer, 215, Balham, High-road, S.W.17.

✱MARCH 31.—**Welwyn.**—HOUSES.—Proposed erection of 40 houses for the working classes at Welwyn. Builders and contractors willing to tender apply to the Architect, Mr. H. G. Cherry, 97, Jermyn-street, St. James, S.W.1.

APRIL 1.—**Bethnal Green, E. 2.**—ALTERATIONS, BOILER HOUSE.—Work of altering the Boiler House, at their Institution, Waterloo House, Waterloo-road, Bethnal Green, E. 2, for the Bethnal Green Board of Guardians. Mr. C. Faulkner Jones, Clerk to the Guardians, Administrative Offices, Bishop's-road, E. 2. Deposit £2 2s.

APRIL 1.—**Bethnal Green.**—ALTERATIONS.—For converting certain school rooms at schools in High-road, Leytonstone, into dormitories, day rooms, &c., for Receiving Ward purposes, for Board of Guardians Mr. C. F. Jones, Clerk, Administrative Offices, 79A, Bishops-road, Bethnal Green, E.2. Deposit £2.

✱APRIL 1.—**Chesterfield.**—HOUSES.—Erection of 25 houses at Staveley and 25 houses at Heath, in separate contracts, for the Chesterfield R.D.C. Mr. Percy B. Houfton, architect, Furnival Chambers, Chesterfield. Deposit £1 1s. for each contract (crossed cheque).

✱APRIL 1.—**Dudley.**—HOUSES.—Erection of 52 non-parlour type houses, Woodside site, Stourbridge-road, Dudley, for the County Borough Council of Dudley. Mr. F. H. Gibbons, M.Inst.M. & C.E., Borough Engineer and Housing Director, Town Hall, Dudley. Deposit £2 2s.

APRIL 1.—**Easington.**—ALTERATIONS, &C.—Additions and alterations to Easington House, Coronation-street, Murton Colliery, for the R.D.C. Mr. F. W. Green, Surveyor, Easington, Co. Durham.

APRIL 1.—**Hammersmith, W. 6.**—FLOORING.—Taking down, placing in store, and subsequently re-erecting and fitting the temporary floor and platform over the First-class Swimming Bath, Lime-grove, Shepherd's Bush, for the B.C. of Hammersmith. Mr. R. Hampton Clucas, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Hammersmith, W. 6. Deposit £2 2s.

APRIL 1. — **London, S.W. 18.** — SANITARY CONVENIENCES.—Construction of sanitary conveniences on Streatham Green, Streatham High-road, for the Wandsworth B.C. Mr. E. J. Elford, Borough Engineer, 215, Balham High-road, S.W. 17.

APRIL 1.—**Pontefract.**—HOUSES.—Erection of 306 dwelling houses at South Kirkby, near Pontefract, for the South Kirkby, Featherstone and Hemsworth Collieries, Ltd. Messrs. Garside & Pennington, architects and surveyors, Pontefract. Deposit £5 5s.

APRIL 2.—**Athlone.**—HOUSES.—For completing 14 houses, for the U.D.C. Mr. P. J. O'Loughlin, engineer, Court House, Athlone.

APRIL 2.—**Barnet.**—REPAIRS.—For carrying out general repairs, re-decorations, sanitary work, &c., at Rosendale, King Edward-road, New Barnet, for B.G. Messrs. White, Son & Pill, 13 and 15 High-street, Barnet.

APRIL 2.—**Birkenhead.**—ALTERATIONS.—For alterations and additions to No. 63, Hamilton-square, for T.C. Mr. C. Brownridge, Borough Surveyor, Town Hall, Birkenhead. Deposit £1 1s.

APRIL 2.—**Cupar.**—DEMOLITION.—For the demolition of the Tontine Hotel building, Cupar, for the Fife C.C. Mr. C. R. Douglas, surveyor, Prudential Chambers, 15, East Port-street, Dunfermline.

APRIL 2.—**Dublin.**—CHURCH.—Erection of a new church at Donore-avenue, S.C. road, for the Very Rev. Father Hayes, P.P., St. Catherine's, Meath-street. Messrs. Morris & Kavanagh, quantity surveyors, 68, Harcourt-street, Dublin. Deposit £2 2s.

APRIL 2.—**Glasgow.**—STAIRS.—For the indenting of stairs at various schools. Education Offices (Property Dept.), 129, Bath-street, Glasgow. Deposit £1 1s.

APRIL 2.—**Great Yarmouth.**—HOUSES.—For erection of 16 houses on the Southtown Common Estate, and 24 houses on the North Denes Estate, for T.C. Borough Engineer, Town Hall, Great Yarmouth. Deposit £2 2s.

APRIL 2.—**Hoylake.**—EXTENSIONS.—For extensions to engine room, boiler house and bunkers, at Electric Power Station, for U.D.C. Mr. C. J. Turner, Electricity Works, Carr-lane, Hoylake.

APRIL 2.—**Huddersfield.**—WORKSHOP.—Erection of cabinet workshop and offices in Back Water-street. Messrs. Lunn & Kaye, architects, Milnsbridge, Huddersfield.

APRIL 2.—**Lanchester.**—HOUSES.—For the erection of seven class "A" two-storey houses, at Ebchester, for the R.D.C. Mr. T. E. Taylor, L.R.I.B.A., Union-Offices, Lanchester.

APRIL 2.—**London.**—POLISHING.—For floor polishing at various London buildings, for H.M. Commissioners of Works. Contracts' Branch, H.M. Office of Works, &c., King Charles-street, S.W. 1.

APRIL 2.—**Sheffield.**—HOUSES.—Erection of 146 houses on the Manor Estate, City-road, Intake, for T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £2.

APRIL 3.—**Bradford.**—CONSERVATORY.—Erection of new conservatory in Horton Park, for T.C. City Architect, Town Hall, Bradford.

APRIL 3.—**Bristol.**—PAINTING.—For external painting of Bristol Mental Asylum. Mr. A. W. King, Steward, Asylum, Fishponds, Bristol.

APRIL 3.—**Cheshunt.**—ALTERATIONS, &C.—For alterations to superintendent's house, new mortuary, &c., at burial ground, for the Cheshunt Burial Board. Mr. J. Lawrence, 100, Turner's-hill, Cheshunt.

APRIL 3.—**East Barnet.**—HOUSES.—Erection of 66 semi-detached houses on Long-street Housing Estate, for U.D.C. Mr. T. A. Buckley, Clerk, Council Offices, New Barnet. Deposit £2 2s.

APRIL 3.—**Richmond.**—PAINTING, &C.—For painting works and repairs to buildings on ground of the Richmond Athletic Association. Mr. H. Rockett, Secretary, Athletic Ground, Kew Foot-road, Richmond, Surrey.

✱APRIL 24.—**Amersham.**—VARIOUS WORKS.—For (*a*) building works (confined to firms carrying on business within the area of Amersham Union); (*b*) engineering works; (*c*) water softener; (*d*) laundry equipment, for Amersham Union. The Clerk, Amersham Poor Law Institution, Amersham, Bucks. Deposit, £10 10s.

APRIL 4.—**Bognor.**—HOUSES.—Erection of 92 houses (or thereabouts) in blocks of eight on the Sheepwash-lane Housing Site, Bognor, for the U.D.C. Surveyor to the Council, High-street, Bognor. Deposit £2 2s.

APRIL 4.—**Breconshire.**—RE-MODELLING OF SCHOOL.—For carrying out for the Education Committee the re-modelling of Cwmtwrch Council School. Mr. W. Lewis Harpur, County Surveyor, County Office, Brecon. Deposit £2 2s.

APRIL 4.—**Drayton.**—SCHOOL.—Erection of school, for the Hants C.C. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £2 2s.

✱APRIL 4.—**Hammersmith.**—REPAIRS TO PROPERTY.—Carrying out of repairs to the property included under the housing schemes for the following alternative periods:—(1) May 1, 1924–March 31, 1925; (2) May 1, 1924–March 31, 1926; (3) May 1, 1924–March 31, 1927, for the Metropolitan Borough Council of Hammersmith. Town Hall, Hammersmith, W.6.

APRIL 4.—**Nancledra.**—SCHOOL.—Erection of Council School, for Cornwall E.C. Mr. F. G. Drewitt, architect, Lennards-chambers, Penzance. Deposit £2 2s.

APRIL 4.—**Sheffield.**—ALTERATIONS.—Alterations to the Head Post Office, Sheffield, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1 Deposit £1 1s. (Cheques payable to the Secretary.)

APRIL 4.—**Southampton.**—NEW SCHOOL.—Erection of a new school at Drayton, near Cosham, Hants, for the County of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £2 2s., made payable to "The Hants County Council," and crossed "Lloyds Bank, Ltd., Capital and Counties' Branch, Winchester."

APRIL 7.—**Cardiff.**—CHURCH.—Erection of Wesleyan Church in Cowbridge-road. Messrs. J. H. Phillips & Wride, 7, Pembroke-terrace, Cardiff. Deposit £2 2s.

APRIL 7.—**Hitchin.**—TENEMENTS AND COTTAGES.—Erection of 56 tenements and cottages for the Hitchin U.D.C. Town Hall, Hitchin. Deposit £2 2s.

APRIL 7.—**Holmfirth.**—ADAPTATION.—For the adaptation of room as gymnasium at Holmfirth Secondary School, for the West Riding E.C. Education Department, County Hall, Wakefield.

APRIL 7.—**Probus.**—FARMHOUSE.—For the erection of a farmhouse at Tregenna, Lamorran, Probus. Mr. Alfred J. Cornelius, architect, Truro.

APRIL 7.—**Wimbledon.**—HOUSES.—Erection of five-roomed houses, 12, 24, or 87 in number, on the Housing Site, Toynbee-road, Burstow-road, and Dennis Park-crescent, for the Borough of Wimbledon. Borough Engineer and Surveyor, Town Hall, Wimbledon. Deposit £2 2s.

APRIL 7.—**Wombwell.**—HOUSES.—Erection of 30 houses, construction of roads and sewers at Wombwell, for the Dearne District Light Railways Joint Committee. Messrs. Garside & Pennington, architects, Ropergate, Pontefract. Deposit £1 1s.

APRIL 8.—**Gellygaer.**—HOUSES.—Erection of (*a*) 50 houses and (*b*) 26 houses, on Bargoed Heolddu Site, for U.D.C. Mr. P. Jones Williams, Architect, Council Offices, Hengoed, Glamorganshire. Deposit £2 2s.

APRIL 8.—**Hengoed, Glam.**—HOUSES.—(*a*) Erection and completion of 50 houses on the Bargoed Heolddu site, (*b*) erection and completion of 26 houses on the Bargoed Heolddu site, for the Gellygaer U.D.C. Mr. P. Jones Williams, Architect to the Council, Council Offices, Hengoed, Glam. Deposit £2 2s.

APRIL 8.—**Kirkburton.** — PAINTING. — For outside painting of various buildings at the various buildings at the Storthes Hall Mental Hospital, Kirkburton, near Huddersfield, for West Riding Mental Hospitals' Broad. Mr. W. E. H. Burton, Architect, West Riding Mental Hospitals' Board Offices, Wakefield.

APRIL 8.—**London.**—PAINTING, &C.—For painting, renovations, and sundry works at the Institution premises, 2A, Bow-road, E. 3, for the City of London B.G. Messrs. Gleed, Sons, & Co., 8-9, Martin-lane, Cannon-street, E.C. 4. Deposit £5 5s.

April 8.—**London, S.W. 18.**—Glass Enclosures.—Providing and fixing wood and glass enclosures to fifteen sunning balconies at St. James's Hospital, Ouseley-road, Balham, S.W.12, for the Guardians of the Wandsworth Union. Mr. F. J. Curtis, Union Offices, St. John's-hill, Wandsworth. S.W.

April 9.—**Friern Barnet.**—Houses.—Erection of 32 houses, for the Friern Barnet U.D.C. Mr. F. P. Kindell, A.M.I.C.E., Council Offices, The Priory, Friern Barnet-road, N.11. Deposit £2 2s.

April 9.—**Rowley Regis.**—Painting.—For painting and renovating exterior of Girls' Department, Old Hill Macefield Council School, for U.D.C. Secretary, Council House, Old Hill.

April 9.—**Whixley.**—Repairs, &c.—For (1) erection of covered fold yard, and (2) repairs to farm buildings and house, at Fir Tree Farm, for West Riding Small Holdings' Committee. County Land Agent, County Hall, Wakefield. Deposit £1.

April 10.—**Bentley with Arksey.**—Partition.—Erection of a folding partition at Cooke-street Council School, for West Riding Education Committee. Education Department, County Hall, Wakefield.

April 10.—**Bolton-on-Dearne.**—Additions.—Erection of additional classrooms, &c., at Bolton-on-Dearne Highgate Council School, for West Riding Education Committee. Education Department, County Hall, Wakefield.

April 10. — **Stocksbridge.** — Alterations. — For alterations to Stocksbridge Council School, for West Riding Education Committee. Education Department, County Hall, Wakefield.

★April 10.—**Worthing.**—Fences.—For the erection of stone piers and wrot-iron boundary fences at Beach House Park and Denton Gardens, for the B.C. Borough Surveyor, Municipal Offices, Worthing.

April 11.—**Paignton.**—Shop.—Erection of a shop and flats at Preston, Paignton, for Messrs. Squibbs, Ltd., Bridgwater. Mr. F. W. Vanstone, architect, Torbay-chambers, Paignton.

★April 11.—**Somerset.**—Wireless Station.—Erection of a Post Office wireless station at Burnham-on-Sea, Somerset, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

★April 12.—**Preston.**—Garage.—Erection of proposed motor bus garage on the Moor, Deepdale, for the County Borough of Preston. Borough Surveyor, Town Hall, Preston.

April 12.—**Reigate.**—Houses.—Erection of 30 houses (in pairs) on the Hooley Mead Estate, Earlswood, for the T.C. of Reigate. Borough Engineer and Surveyor, Municipal Buildings, Reigate. Deposit £2 2s.

April 12.—**Westhampnett.**—Houses.—For the erection of ten houses at Woodgate, in the parish of Aldingbourne, for the R.D.C. Clerk, Council Offices, Pallant House, Chichester.

★April 14.—**Croydon.**—Houses.—Erection of 48 houses (comprising 62 tenements) at Thornton-road, Thornton Heath, in two sections, of 24 houses each, or as one tender for the whole, for the County Borough Council of Croydon. Borough Engineer, Town Hall, Croydon. Deposit £2 for each section, or £4 for both sections.

April 14.—**Fleetwood.**—Extensions.—For the erection of extensions, of semi-permanent construction, at the Fleetwood Secondary School, for the Lancashire C.C. Mr. Henry Littler, Architect, 16, Ribblesdale-place, Preston. Deposit £2.

★April 14.—**Stoke Newington.**—Extension.—For the erection and completion of extensions to the Electricity Sub-station, in Edward's-lane, N.16, for the Metropolitan Borough. Borough Surveyor, Town Hall, Stoke Newington. Deposit, £5s.

April 15.—**London.**—Reconstruction.—For reconstruction and painting of the Crystal Palace tank and structure, Sydenham Hill, E., for Metropolitan Water Board. Chief Engineer, Metropolitan Water Board, New River Head, Clerkenwell, E.C.1. Deposit £2 2s.

April 15.—**Rosslare.**—Offices.—For the erection of offices at Rosslare Pier (about 40,000 cub. ft.), for the Great Southern and Western Railway Co. Chief Engineer, Inchicore, Dublin. Deposit £1 1s.

★April 16.—**Lambeth, S.W.2.**—Demolition and Clearing Site.—(*a*) The demolition of Bloomfield Hall, Central Hill, Upper Norwood, and (*b*) the clearing of site of timber, &c., preparatory to the erection of houses thereon Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (Chartered Civil Engineer), Borough Engineer, Brixton Hill, S.W.2. Deposit £1 1s.

April 16.—**Ormskirk.**—Houses.—For erection of 20 houses on the Tank-lane Site, for U.D.C. Mr. H. W. Chadwick, Surveyor, District Council Offices, Burscough-street, Ormskirk. Deposit £2 2s.

April 22.—**Chichester.**—Houses.—Erection of 38 houses (10 pairs of semi-detached and 3 blocks of 6 for the Chichester Corporation. Messrs. Whitehead & Whitehead, 18, South-street, Chichester. Deposit £1 1s.

April 23.—**Greenwich, S.E.10.**—Houses and Maisonettes.—Erection and completion of six houses, comprising twelve maisonettes, on a site at the corner of Coombedale-road and Westerdale-road, Greenwich, for the Council of the Metropolitan Borough of Greenwich. Town Clerk's Dept., Town Hall, Greenwich. Deposit £2 2s.

★April 23.—**London, N.**—Shops and Dwellings.—Erection of nine shops with dwellings over (similar types) in Lordship-lane, on the White Hart-lane, Tottenham, for the London County Council. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £2 to the Cashier of the Council.

★April 25.—**Southampton.**—Police Cottages.—Erection of two police cottages, one at Marchwood and one at Pennington, for the County Borough, Council of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £1 1s. for each set of plans, by cheque, payable to Hants. County Council, and crossed "Lloyds Bank, Ltd., Capital and Counties' Branch, Winchester."

No Date.—**Barnsley.**—House.—Erection of detached house and garage in Dodworth-road. Mr. F. Birkinshaw, architect, 30, Pogmoor-road, Barnsley.

No Date.—**Gilfach Bargoed.**—House.—For erection of a house at Aeron-place. Mr. Preece, Aeron-place, Gilfach, Bargoed.

No Date.—**Littleport.**—Painting.—For painting of ironwork, &c., of Sandalls Bridge, Littleport, for the Ouse Drainage Board. Engineer, 90, Hill-road, Cambridge.

No Date.—**Ravensthorpe.**—Painting.—For painting all woodwork and ironwork of the Dewsbury and Savile Cricket Club Ground. Mr. A. Fisher, Secretary, 719, Huddersfield-road, Ravensthorpe.

No Date.—**Shepley.**—Houses.—Erection of two houses on Heymoor Common. Mr. A. Wigglesworth, Far Bank, Shepley.

No Date.—**Swadlincote.**—Houses.—For 20 houses, in pairs, proposed to be erected by Hall's Collieries, Ltd., at Cadley Hill, Swadlincote, near Burton-on-Trent. Messrs. Forshaw & Palmer, architects, 1, Market-place, Burton-on-Trent.

★No Date.—**Whitehaven.**—Houses.—Erection and completion of 50 houses at Thornhill, in the parish of St. John's, Cumberland, also a further 50 at Moresby, Cumberland, for the Whitehaven R.D.C. Mr. W. J. Goode, Council's Surveyor, Union Hall, Whitehaven. Deposit £2 2s.

FURNITURE, MATERIALS, etc.

March 29.—**Belper.**—Materials.—For supply of various materials for maintenance of the highways, for one year, for the R.D.C. Mr. R. C. Cordon, Surveyor, Duffield, near Derby.

March 29.—**Desborough.**—Materials.—Supply of road materials to the U.D.C. Mr. D. Jenkinson, surveyor, Desborough.

March 29.—**Halifax.**—Materials.—For various stores and materials for Highways Department, for T.C. Mr. A. C. Tipple, Borough Engineer, Halifax.

March 29.—**Loughton.**—Materials.—For supply of tar, granite, chips, hoggin, &c., for U.D.C. Mr. H. White, surveyor, Loughton, Essex.

March 29.—**Wycombe.**—Road Material.—For supply of flints and sand, for R.D.C. Mr. A. L. Grant, Surveyor, 15, High-street, High Wycombe.

March 31.—**Altrincham.**—Materials.—For supply of road and other materials, for U.D.C. Surveyor, Town Hall, Altrincham.

March 31.—**Barnsley.**—Furniture.—Supply of school furniture for a new Central School, for the T.C. Mr. Evan Davies, Director of Education, Education Office, Barnsley.

March 31.—**Bolton.**—Stone.—For supply of hard grit stone, for the T.C. Waterworks Engineer, St. George's-street, Bolton.

March 31.—**Cromer.**—Materials.—Supply of broken granite, tarred slag and tarred limestone, for the U.D.C. Mr. Robert Croome, Surveyor, Council Offices, Cromer.

March 31. — **Dublin.** — Materials. — For tar macadam, tarred chippings, and steel reinforcements, for the T.C. Mr. John J. Murphy, Town Clerk, Dublin.

March 31.—**Dublin.**—Sleepers.—Supply to the Great Northern Railway (Ireland) Co. of Baltic redwood sleepers, 9 ft. by 10 in. by 5 in. Mr. J. B. Stephens, secretary, Amiens-street Station, Dublin.

March 31.—**Edinburgh.**—Materials.—For supply of tar, coal-tar pitch, and pitch oil, for one year, for the Midlothian C.C. Road Office, County Buildings, Edinburgh.

March 31.—**Faversham.**—Materials.—Supply of granite, chippings and slag to the T.C., and for surface dressing 20,000 sq. yds. of road. Borough Engineer, Faversham.

March 31.—**Hartismere.**—Materials.—For supply of granite and pit stones to the R.D.C. Mr. H. Warnes, Clerk, Council Offices, Eye.

March 31.— **Knaresborough.**— Materials.— For supply of tar, tarred slag, and tarred limestone, for one year for R.D.C. Mr. J. G. Husband, surveyor, 14 Bower-road, Harrogate.

March 31.—**Loughborough.**—Materials.—For supply of granite, slag, concrete slabs, granite kerbs and setts, to the T.C. Mr. A. H. Walker, Borough Surveyor, Loughborough.

March 31.—**Normanton.**—Materials.—For supply of road material for one year, for U.D.C. Surveyor, Council Offices, Normanton.

March 31.—**Oakham.**—Materials.—Supply of road materials to the R.D.C. Mr. W. Bates, clerk, Catnes-street, Oakham.

March 31.—**Waterloo-with-Seaforth.**—Stores.— For supply of road and other materials for one year, for U.D.C.—Mr. J. R. Fothergill, Surveyor, Town Hall, Waterloo.

March 31.—**Woodbridge.**—Materials.—For supply of 400 tons of broken granite, 1¾ in. gauge, for the U.D.C. Mr. W. Brooke, Council Offices, Woodbridge.

April 1.—**Durham.**—Materials.—For supply of road materials, also haulage and cartage for one year, for C.C. Mr. A. E. Brookes, surveyor, Shire Hall, Durham.

April 1.—**London.**—Paints.—Supply of paint, oxide of zinc, iron oxide and black, to the Director-General, India Store Department. Branch No. 12, Belvedere-road, S.E.

April 2.—**Dublin.**—Materials.—For supply of glazing material for a shed (about 3,000 sq. ft.), for Dublin Port and Docks Board. Engineer's Office, East Wall, Dublin.

April 2.—**Halifax.**—Stores.—For various stores, for the Gas Department. Mr. W. B. McLusky, Gas Engineer, Halifax.

April 2.—**London.**—Files, &c.—For supply of files, (2) steel materials, (3) wheels and axles, for Indian Railway. Mr. G. E. Lilley, 73, King William street, E.C.4. Charge £1 1s.

April 3.—**London.**—Oil Drums.—For the supply of 100 five-gallon steel oil drums, for Trinity House Secretary, Trinity House, Tower-hill, E.C. 3.

April 5.—**Edinburgh.**—Materials.—For supply materials, for use of Lighting and Cleansing Dept. for six months, for the T.C. Inspector of Cleansing, 329, High-street, Edinburgh.

April 5.—**Enfield.**—Materials.—Supply of materials to the U.D.C. Surveyor, Public Offices, Enfield.

April 5.—**Worsley.**—Materials.—For supply of road materials, for U.D.C. Mr. J. Howard, Surveyor, Town Hall, Walkden.

April 6.—**Southampton.**—Granite.—Supply of broken granite to the T.C. Mr. J. A. Crowther, Borough Engineer, 33 & 35, French-street, Southampton.

April 7.—**Romford.**—Materials.—Supply of broken granite, granite chippings, granite dust, and for the R.D.C. Surveyor, 16A, South-street, Romford.

April 7.—**Runcorn.**—Materials.—For supply of granite macadam setts, kerbstones and sanitary for one year, for R.D.C. Mr. G. F. Ashton, Council Offices, Runcorn.

April 7.—**Tenterden.**—Materials.—Supply of granite or other approved macadam, Kent rag and tar to the R.D.C. Mr. W. L. C. Turner, Deputy Surveyor, Town Hall, Tenterden.

April 8.—**Leeds.**—Macadam.—For supply of tons of 2½ in. granite macadam, for T.C. Mr. Hamilton, Highways and Permanent Way Dept. Swinegate, Leeds.

April 8.—**Middleton.**—Steam Pipes.—For supply 6 in. and 4 in. flanged cast iron steam pipes, &c. T.C. Engineer, Gas Offices, Townley-street, Middleton.

April 12.—**Bootle.**—Materials.—Granite chairs kerbs, &c., for T.C. Borough Engineer, Town Bootle.

April 21.—**Sefton.**—Materials.—Supply of hig materials to the R.D.C. Mr. F. Pool, surveyor Evered-avenue, Walton, Liverpool.

ENGINEERING, IRON AND STE

March 29. — **Monifieth.**—Bridge.—For wid Milton Bridge in reinforced concrete, for T.C. C. A. Mackenzie, Burgh Surveyor, Monifieth.

March 31.—**Boston.**—Bridge.—For erectio Hennebique ferro-concrete bridge at Mainridg the R.D.C. Mr. A. Barton, Surveyor, Church-s Boston.

March 31.—**Bridgend.**—Drivage.—For sinkin the Mid-Glamorgan Water Board, a vertical trial to a depth of about 50 ft., together with lateral adits on either side for a maximum distance of from the base thereof. Shaft and adits will be d in carboniferous limestone near to King's Schwyll, Bridgend. Messrs. Thomas & Morg Partners, engineers, 23, Gelliwasted-road, Pontyp Deposit £2 2s.

March 31.—**Chard.**—Bridge.—Construction o inforced concrete bridge over the River Yarty, for R.D.C. Mr. F. Nicholson, Surveyor, Chard. posit £1.

March 31.—**Egypt.**—Pumping Plant.—Su and erection of a pumping plant at Boseili, for Egyptian Ministry of Public Works. Inspe Engineer, Egyptian and Sudan Governments, Q Anne's Chambers, Westminster, S.W. 1.

March 31.—**Penrith.**—Reservoir.—For con tion of covered reinforced concrete service reserv the U.D.C. Mr. T. H. Longstaff, Town Hall, Pe Deposit £2 2s.

March 31.—**Rochford.**—Bridge.—For constru of a new bridge at Rawreth Shot, for R.D.C. Mr. Madge, Surveyor, Rayleigh, Essex. Deposit £2 2

March 31.—**Saltcoats.**—Sea Walls, &c.—Con tion of sea walls, landing stair, concrete terracing for the T.C. Mr. Spurgeon Brown, Burgh Sur Nineyard-street, Saltcoats. Deposit £1.

March 31.—**Sheffield.**—Bridges.—For recon tionand widening of bridge over Great Central sec L. & N.E. Railway and bridge over Sheffield and Yorkshire Navigation, Broughton-lane, for T.C provement Surveyor, Town Hall, Sheffield. Depo

★April 1.—**Stoke-on-Trent.**—Iron Railing Gates.—Proposed new iron railing and gates Central Power House, Bethesda-road, Hanley, County Borough of Stoke-on-Trent. Borough veyor, Town Hall, Stoke-on-Trent. Depos Treasury note.

April 2.—**Clacton-on-Sea.**—Various Works the installation of an engine bed, foundation f service tank staging, and silencer pit, &c., at th tricity Station, for the U.D.C. Electrical En Electric Parade, Clacton-on-Sea. Deposit £1 1s

April 2.—**Llandyssul.**—New Bridge.—For c for the Llandyssul R.D.C. a new bridge over th Haven at Pontgarreg, in the Llangranog Parish J. P. Lewis, Surveyor, Llandyssul, Carmarthens

April 2.—**London.**—Girder Bridges, &c.—F ply of (1) steel rails and fishplates (2) girder b for East Indian Railway. Mr. G. E. Lillie, Sec 73–76, King William-street, E.C.4. Charge £1

April 2.—**Manchester.**—Materials.—Supply tons steel sheets, 10 tons flat mild steel, 10 to tional mild steel and 2 tons of cotton engine Mr. Robert Williamson, Superintendent of the Cl Department, Town Hall, Manchester.

April 4.—**London.**—Pipes.—For supply o iron pipes, for South Indian Railway Co. Sec 91, Petty France, Westminster, S.W. 1. 2s. 6d.

April 5.—**Felinfach (Pemb).**—New Bridge erecting for the Narbeth R.D.C. a new bridge boundary of the parishes of Bletherston and Lla Mr. William Lawson, Felinfach, Pemb.

APRIL 5.—**York.**—BRIDGE.—For the widening of onk Bridge and approach roads over the River Foss, r the T.C. Mr. F. W. Spurr, City Engineer, Guildll, York. Deposit £2 2s.
APRIL 8.—**Carlisle.**—RAILWAY SIDING.—Construcn of a railway siding for new electricity generating tion. Willow Holme, for T.C. Mr. H. C. Marks, rveyor, 18, Fisher-street, Carlisle. Deposit £1 1s.
APRIL 8.—**Southall, Norwood.**—APPROACHES.—For dening of the approaches to Southall Station (conete on Hennebique system), for the U.D.C. Mr. J. B. omson, Surveyor, Town Hall, Southall.
APRIL 10.—**Manchester.**—STEELWORK.—For conructional steelwork at (1) Denton sub-station, and Miles Platting sub-station, for T.C. Mr. C. Cradock, mmittee Secretary, Electricity Dept., Town Hall, anchester. Deposit £1 1s. each contract.
APRIL 12.—**Manchester.**—AIR COMPRESSOR.—For ction of an air compressor at the Withington sewage rks, Chorlton-cum-Hardy, for T.C. Secretary of the vers Dept., Town Hall, Manchester.
APRIL 12.—**Wallingford.**—HEATING.—For the tallation of new calorifiers, mains and accessory rks in connection with the heating apparatus at e Institution of the Board of Guardians. Mr. P. C. A. de, Clerk, Union Offices, Wallingford, Berks. Desit £5 5s.
APRIL 14.—**Pretoria.**—STEEL PIPES.—For supply 12 in., 14 in. and 18 in. steel pipes, for Municipality Pretoria. Messrs. Beckett, Son & Co., Suffolk ouse, 5, Laurence Pountney-hill, E.C. 4.
MAY 1. — **China. — BRIDGE. — The Commercial uncillor at Peking has forwarded to the Department Overseas Trade copies of the official text of a call for nders by the Hai Ho Conservancy Commission, for e erection of a bridge over the Hai Ho at Tientsin. nders must be in the hands of the Commission before on on May 1, 1924. The cost of erecting the new dge has been roughly estimated at Tls. 700,000, say 05,000. Department of Overseas Trade, 35, Old een-street, S.W. 1. Reference 11647/F.E./E.C./2.**
MAY 1.—**Egypt.**—ROOFS, &C.—Construction of eel roofs and shelter of Alexandria new station, for e Egyptian State Railways. Inspecting Engineer, gyptian and Sudan Governments, Queen Anne's ambers, Broadway, Westminster, S.W. Charge 3s.
MAY 2.—**Durban, Natal.**—WATER SCHEME.—For pply of large sluice valves, valve tower ironwork, pes, &c., for Vernon Hooper Dam in Shongweni ater Scheme, for T.C. Messrs. Webster, Steel & Co., East India-avenue, London, E.C. Deposit £5 5s.
JULY 1.—**Chili.**—HARBOUR WORKS.—For the work improvement of the Harbour of Constitucion, Chili. ilian Legation, 22, Grosvenor-square, W.1.
NO DATE.—**Kidderminster.**—ROOFING. — For the el and iron work in connection with roofing of the ve Stock and Wholesale Produce Market, and for w cattle pens, pig pens, weighbridges, concrete ving, &c. Mr. J. Hawcroft, Borough Engineer, own Hall, Kidderminster.
NO DATE.—**Somerset.**—RAILWAY.—For construction about one mile of standard gauge railway including o ferro-concrete road bridges. Messrs. Roads Reconuction, Ltd., Engineering Dept., Stoneleigh House, ton Park, Bristol.

ROAD, SANITARY, AND WATER WORKS.

MARCH 29.—**Audenshaw.**—ROADS.—For the reconstruction of a portion of Droylsden-road, for the U.D.C. Mr. F. E. Capper, Clerk, Council Offices, croft Hall, Audenshaw. Deposit £2 2s.
MARCH 29.—**Clacton.**—WEST SEWER OUTFALL.—For airs to the 12 in. cast iron west sewer outfall, for U.D.C. Surveyor, Council Offices, Clacton-on-Sea.
MARCH 29.—**Rowley Regis.**—ROADS.—For widen- Congreaves-road, Cradley Heath, for the U.D.C. ncil House, Old Hill, Staffordshire.
MARCH 31.—**Bridgend.**—SHAFT.—For sinking a ical trial shaft to a depth of about 50 ft., together h lateral trial adits on either side for a maximum ance of 100 ft., for the Mid-Glamorgan Water rd. Messrs. Thomas & Morgan & Partners, Engers. 23, Gelliwastad-road, Pontypridd, Glam. posit £2 2s.
MARCH 31.—**Exeter.**—TAR SPRAYING.—For tar ying certain roads within the City boundary, for Mr. T. Moulding, Surveyor, Municipal Offices, ter.
MARCH 31.—**Kensington.**—PAVING.—Providing and ng an asphaltic or bituminous surfacing material to carriageways of Finborough-road, Penywern-road, ley-crescent, Walmer-road (Lancaster-road to nley-road), Clarendon-road (Lancaster-road to n-crescent), for the B.C. Borough Engineer, Town Kensington, W.8.
MARCH 31.—**Liskeard.**—ROADS.—For making-up s in connection with Liskeard Borough Housing me, for the T.C. Mr. H. R. Venning, surveyor, nbank-lane, Liskeard.
MARCH 31.—**Stoke-on-Trent.**—SANITARY.—Conver- into water closets of about 190 pail closets in cy, for the T.C. Chief Sanitary Inspector, St. 's Chambers, Glebe-street, Stoke-on-Trent.
MARCH 31.—**Tiverton.**—ROAD DIVERSION.—For conction of a new section of road and diversion of the ng highway near Ufficulme Cemetery, in the parish iculme. Mr. J. R. H. Warren, Highway Surveyor, al Chambers, St. Peter's-street, Tiverton.
APRIL 1.—**Hessle.**—SEWER.—Construction of 496 yards of 12 in. pipe sewer for the U.D.C. Mr. W. on, Surveyor, Parish Hall, Hessle.
APRIL 1.—**London.**—SEWER.—For the construction out 1,400 ft. of 4 ft. and 2 ft. 8 in. brick sewer ly in tunnel), beneath St. Martin's-le-Grand and gate-street, for the City Corporation. City eer, Guildhall, E.C.2. Deposit £2 2s.
APRIL 2.—**Lanchester.**—ROADS.—For strengthening surfacing with tarred slag about 1,277 lin. yards lay, for the R.D.C. Highway Surveyor, Lanr, Durham.

APRIL 4.—**Doncaster.**—ROADS.—For the widening and reconstruction of Mexborough-road, Adwick-on-Dearne, for the R.D.C. Mr. W. R. Crabtree, Nether Hall, Doncaster.
APRIL 4.—**Neath.**—ROADS.—For strengthening foundations and surfacing with tar macadam, and alternative tenders for surfacing with asphalte approximately 7,000 sup. yards of Class I roads. Mr. H. A. Clarke, Borough Engineer, Neath.
APRIL 4.—**Wadebridge.**—WATER SUPPLY.—For the provision and laying of about 4,800 yards of 2 in. to 1 in. W.I. weldless tubes, pumping plant, and house, low earthen dam, and contingent works, for St. Enodoc Golf Club. Capt. C. J. Jenkin, 5, Princes-square, Plymouth. Deposit £3.
APRIL 5.—**York.**—ROAD.—For construction of a new road, Heworth to Hull-road, 1,010 yds. in length, for T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.
APRIL 7—**Hammersmith.**—CEMETERY LAY-OUT.—Labour and materials required in the lay-out of a cemetery at Mortlake, comprising the construction of soil and surface drains, gas, water and electric mains, roads and footpaths, planting, fencing, &c., for the Metropolitan Borough of Hammersmith. Mr. R. Hampton Clucas, Engineer and Surveyor, Town Hall, Hammersmith. Deposit £3 3s.
APRIL 7.—**Normanton.**—ASPHALTING.—For asphalting at Girls' High School, for the West Riding E.C. Education Dept., County Hall, Wakefield.
APRIL 7.—**Prestwich.**—SEWERS.—For the construction of approximately 180 yards of sewers along Bury Old-road, for the U.D.C. Surveyor, Town Hall, Prestwich. Charge £1 1s.
APRIL 9.—**Fulham.**—ROAD.—For making up and paving of Rosedew-road as a "New Street," for the B.C. Mr. A. F. Holden, Borough Surveyor, Town Hall, Fulham, S.W.6.
APRIL 9.—**Honiton.**—SEWAGE WORKS.—For the construction of about 3,150 yards of stoneware, iron pipe sewers, and erection of sewage disposal works, for the T.C. Messrs. W. H. Radford & Son, Albion Chambers, King-street, Nottingham. Deposit £3 3s.
APRIL 10.—**Bradfield Loxley.**—SANITARY.—For conversion of privies into w.c.'s, at Bradfield Loxley Council School, for West Riding E.C. Education Department, County Hall, Wakefield.
APRIL 10.—**Denton.**—ASPHALT.—For tar asphalting playgrounds at Denton Council School, for West Riding E.C. Education Department, County Hall, Wakefield.
APRIL 10.—**Wharfedale.**—SEWER.—Construction of about 1,700 lin. yards of pipe sewers, 9 in. and 12 in. diameter, in the Parish of Adel, for the R.D.C. Mr. E. J. Silcock, 10, Park-row, Leeds. Deposit £5.
APRIL 12.—**Glenties.**—WATERWORKS.—Construction of a concrete intake well in Lough Anna and a concrete tank in the Townland of Dorria, for the R.D.C. Mr. Michael M'Nelis, Clerk, Glenties.
★APRIL 14.—**London, E.C.2.**—SEWER WORKS.—Construction of about 280 ft. of 4 ft. by 2 ft. 8 in. brick sewer (mostly in tunnel) and contingent works, comprising the filling-in of the existing sewer, the reconstruction of gulley and house drains, and connections to existing sewers, &c., beneath Well-street, Cripplegate, for the Corporation of London. Office of the City Engineer, Guildhall, E.C.2. Deposit £2 2s.
APRIL 15.—**Wolverhampton.**—WATER MAINS.—For supply of 15 in. and 12 in. cast-iron trunk mains, for the T.C. Mr. E. A. B. Woodward, Waterworks Engineer, Town Hall, Wolverhampton. Deposit £2.
APRIL 16.—**Guildford.**—ROADS.—For making up Alexandra-terrace, for the T.C. Borough Surveyor, Tuns Gate, Guildford.
★APRIL 16.—**Lambeth, S.W.2.**—FOOTPATHS AND ROADWAYS.—Forming new footpaths and roadways, together with the incidental works in the making up of the new streets known as Baytree-road and Claverdale-road, Brixton, S.W.2, for the Lambeth Borough Council. Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (Chartered Civil Engineer), Borough Engineer, Brixton Hill, S.W.2. Deposit £1 in respect of each roadway.
APRIL 28.—**Kempton.**—WATER MAIN.—(*a*) For laying 7½ miles of cast iron water main; (*b*) for laying 450 yds. of 52 in. steel pipes and contingent works from Kempton to Greenford, for Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, Clerkenwell, E.C.1. Deposit £20.
NO DATE.—**Easington.**—PLAYING GROUNDS.—The Easington Colliery Committee of the Miners' Welfare Scheme invite children's playing grounds and adults' recreation ground. Mr. Thos. Moreland, Secretary, 15, Twelfth-street South, Easington Colliery, co. Durham.

Competitions.

(*See Competition News, page* 486.)

Auction Sales, Tenders, etc.

★APRIL 1.—**London, N.**—Messrs. J. T. Skelding will sell, on dissolution of partnership, at 71, Queen Margaret's-grove, Dalston, N., stock and plant of a builder and decorator. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.
APRIL 1.—**London, S.W.**—Messrs. Hampton & Sons will sell at St. James's Estate Rooms, S.W., the valuable freehold property, "The Highlands," Barnet. Auctioneers, 20, St. James's-square, S.W.1.
★APRIL 2.—**Brixton Hill, S.W.**—Messrs. Hooker & Rogers will sell, in the rear of Calder's-row, opposite New Park-road, timber and fittings, in lots. Auctioneers, 4, High-street, Croydon, Surrey.
APRIL 3.—**Surrey.**—Mr. E. C. Clark will sell at Eastwick Farm Buildings, Lower-road, Great Bookham, Surrey (about 1½ miles from Leatherhead and three from Dorking), prime timbers and builders' effects, entirely without reserve. Auctioneers, Beddington House, near Croydon.
APRIL 7 AND FIVE FOLLOWING DAYS.—**London, W.C.2.**—Messrs. J. & R. Kemp & Co. will sell without reserve by order of the liquidator at 4, 6, and 8, Newton-street, Kingsway, W.C.2, the valuable hire stock comprising a large quantity of marquees and tents, parquet flooring, lorries, timber, &c. Auctioneers, 125, High Holborn, W.C.1.
★APRIL 7 & 8.—**Bloomsbury.**—Messrs. Veryard & Yates will sell, without reserve, building materials arising from demolition of the Y.M.C.A. "Shakespeare" Hut, Gower-street. Auctioneers, 365, Norwood-road, S.E. 27.
APRIL 8.—**Norfolk.**—Messrs. Joseph Hibbard & Sons will sell (by order of Messrs. A. King & Son, who are giving up the saw milling branch of their business), at Wymondham, Norfolk, valuable and modern saw mill machinery. Auctioneers, 15 Newington-green, Islington, London, N. 16.
★APRIL 9.—**Essex.**—Mr. F. H. Clark will sell (in conjunction with Hubert F. Finn-Kelcey), without reserve, at the Central Stores Depot, 95, Dagenham Dock, Essex, final sale of timber and material contained in the National Box Factory, Dagenham Dock. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W. 18; and Lyminge, Folkestone, Kent.
APRIL 16. — **Kent.** — Messrs. Knight, Frank & Rutley will sell, at very low reserves, to wind up an estate, at the residence, Otford Court, close to Otford Station (unless previously sold privately), the residential and building property, Otford Court, the whole extending to an area of about 190 acres. Auctioneers, 20, Hanover-square, W. 1.
MAY 6.—London, W.1.—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.
★MAY 27.—**Near Gerrard's Cross (Bucks).**—Messrs. Knight, Frank & Rutley will sell, by direction of Commander J. A. L. Hay, R.N., freehold agricultural and sporting property, known as Pickeridge Farm, about 171 acres; also about 18 acres of building sites. Auctioneers, 20, Hanover-square, W. 1.
★AT AN EARLY DATE.—**London, N.**—Messrs. J. T. Skelding & Co. will sell, *re* S. Brown & Sons, Ltd., by order of the liquidator, Mr. Walter Boniface, upon the premises, 22, The Broadway, Lower Edmonton, N., unreserved clearance sale of the whole of the capital builders' and contractors' stock and plant. Auctioneers, 48, Gresham-street, Guildhall, E.C.2.

Public Appointments.

★MARCH 31.—**Maidstone, Kent.**—Architectural Assistant required in the office of the County Education Architect (Mr. W. H. Robinson, F.S.Arc.) by the Kent Education Committee. Mr. E. Salter Davies, Director of Education, Springfield, Maidstone.
MARCH 31.—**Wakefield.**—Architectural Assistants in the office of the Education Architect required by the West Riding Education Committee. The Education Department, County Hall, Wakefield
★APRIL 3.—**Christchurch.**—CLERK OF WORKS.—Clerk of Works required by Christchurch Union. Mr. Percy C. Ford, Clerk to the Guardians, Fairmile House, Christchurch, Hants.
★APRIL 3.—**London, S.E.**—CLERK OF WORKS.—Clerk of Works required in connection with extensive structural alterations and additions to the Newington Institution. Westmoreland-road, Walworth, S.E., to act under architects, for the Guardians of the Southwark Union. Mr. A. P. Stanwell Smith, Clerk to the Guardians, Guardians' Offices, Ufford-street, Blackfriars-road.
★APRIL 19.—**Wolverhampton.**—Clerk of Works required to superintend erection and completion of engineering block of new Technical College, Wolverhampton, for the Joint Committee of the Staffordshire County and Wolverhampton County Borough Councils. Director of Education, Wolverhampton, endorsed "Clerk of Works."
★NO DATE.—**County of London.**—Architectural Assistants required for temporary engagements in the Architect's Department of the London County Council. Architect to the Council, The County Hall, Westminster Bridge, S.E.1.

Change of Name.

The name of the Thames Paper Co., Ltd., has been changed to Thames Board Mills, Ltd. The change is one in name only, and does not involve any alteration whatever in the directorate, management, or personnel. They consider that as the company does not manufacture paper proper, the title is something of a misnomer, that the new name would be more appropriate, and would more clearly describe their operations, which are, briefly, the manufacture of fibre boards for various purposes, including "SX" board for constructional work.

Messrs. Ruston & Hornby, Ltd., inform us that, owing to the expansion of business passing through their City office, they have found it necessary to change their London address. On and after March 31 it will be: Imperial House, 15–17–19, Kingsway, London, W.C. 2.

PROPOSED NEW BUILDINGS & OTHER WORKS *

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABRAM.—Further tenders were opened and considered for the erection of a mortuary. The surveyor is to prepare estimates for carrying out the work.

ANNFIELD PLAIN.—The U.D.C. have adopted a recommendation of their H.C. that 56 houses be erected on land owned by the Council at Catchgate.

ATHERTON.—A Manchester civil aviation company has been granted a twelve months' licence by the Air Ministry for an aerodrome to be situated off Bee Fold-lane, Atherton.

AXMINSTER.—The M.H. has approved the housing scheme for Colyton of the R.D.C., and sanctioned the borrowing of £1,500 for granting subsidies under the Housing Act.

BARNSLEY.—The Governors of the Beckett Hospital and Dispensary have decided to proceed with an extension scheme, comprising a new block containing wards for women and children, at an estimated cost of £12,000.

BILLINGE.—The Surveyor recommended that the new main sanctioned by the Ministry some time ago be laid to Summit, and that 6 in. cast-iron pipes be used. He also recommended a new 5 in. main from this point to Mount Pleasant, estimates of the cost were accepted. It was resolved that tenders for the material required should be advertised for.

BISHOP'S STORTFORD.—Plans passed by U.D.C.: Bungalow, Warwick-road, for Mr. F. Markwell.

BLAYDON.—The U.D.C. have decided to seek sanction to lay out the whole of the Bleach Green Estate, showing 300 houses.——The Consett Iron Co., Ltd., submitted plans for 60 houses they propose to erect at High Spen.

BOGNOR.—Plans passed by U.D.C.: House, Marshall-avenue, for Mrs. L. C. Baldwin; house, Victoria-drive, for Mrs. A. C. Turnham; house, Cavendish-road, for Mrs. Dinnage; house, Marshall-avenue, N., for J. Brown; lock-up shop, Ockley-road, for J. Richards; office, Longford-road, for F. W. Jenkins; shop and dairy, High-street, for A. Kuhn; six houses, Linden-avenue, for A. A. W. Tribe; cottage, Cavendish-road, for Mrs. Fairfax; two houses, Green-lane, for B. Geall; house, Chichester-road, for W. R. Metcalfe; house, Linden-avenue, for Mr. Martin; bungalow, Nyewood-lane, for Mrs. E. Pedder; two houses, Parklands-avenue, for P. N. Gibbs.

BOLTON.—The trustees of the Foundry-street Mission are proposing to rebuild their Mission hall at an estimated cost of £1,200, towards which funds are being raised.

BO'NESS.—The T.C. has acquired the Clydesdale Hotel for the purposes of conversion into municipal offices.

BRADFORD.—An inquiry has been held by Mr. M. G. Weekes into the Corporation's application for sanction to borrow £29,795 for works of sewage, including the construction of an inverted syphon across the Aire Valley, in connection with the Esholt Works.

BRECONSHIRE.—The Builth R.D.C., in conjunction with the Tregaron R.D.C., has applied for grant toward cost of erecting a proposed new bridge at Nantstalwen.

BRIDGEND.—Plans passed by the U.D.C. are as follows:—Two houses, Brynteg, for Mr. G. Jones; two houses, Brynteg, for Messrs. Hawkins & Thompson; bungalow, Suffolk-street, for Mr. Taunton; two houses, for Mr. E. Clarke.

BRIGHOUSE.—Plans passed by T.C.:—Hargreaves, Longroyd-road, Calder & Hebble Navigation, house, Brighouse Wharf; W. D. Earnshaw, bungalow, Bracken-road West; Trustees of Chas. H. Macaulay, new street, Slead Hall Estate.

BURY.—The Sewering, Paving and Streets Committee have approved plans for 16 more houses in various parts. For the purpose of carrying out extensions and alterations at the Rochdale-road substation, application is being made to borrow £5,000.

CALLINGTON (CORNWALL).—The U.D.C. passed plans for eight houses.

CARLISLE.—Plans passed by R.D.C.: Misses A. and M. Little, of Watch Cross, near Crosby-on-Eden, for two cottages at High Crosby; Mr. M. Cowan, of Grinsdale, on behalf of the Building Committee, for the erection of a public building at the village of Grinsdale.

CARMARTHENSHIRE.—The Carmarthen and Llandilo R.D.C.s have decided to erect a joint girder bridge at Panteg.——The St. Clears-Langharne road is to be reconstructed at an estimated cost of £12,200 by the C.C. Grant of £9,150 has been promised by M.T. toward the cost.—— The Landovery T.C. has granted land to the Cottage Hospital Governors for erection of a new hospital.

CHESTERFIELD.—It has been decided to construct a new ward at the Royal Hospital.

CLITHEROE.—The T.C. has approved a plan for the widening of Lowergate and application is to be made to the M.T. for a grant towards the cost of the work. Plans for the erection of three pairs of villas in Pimlico and Waddington roads were approved.

CLOWNE.—Plans passed by R.D.C.: House, Boughton-lane, for Mr. H. Rayworth; pavilion at Miners' Welfare, Barlboro'; two houses, Elmton-road, Creswell, for Mr. T. Ducker; bungalow, Elmton-road, Creswell, for Mr. J. Shakespeare; 11 houses, Brookhill, for Mr. F. J. Hutchings.

COVENTRY.—The B.G. has consented to an expenditure of £1,500 for the erection of a children's ward at the Infirmary.

CUDWORTH.—The U.D.C. is applying for sanction to borrow £13,200 for the erection of 34 houses.——Plans passed: Bungalow, off Darfield-road, for Mr. Wardle.

DARLINGTON.—The Streets and Buildings Committee of the T.C. have approved plans for the erection of 10 houses in Bowman-street, Harrowgate-hill; two in Linden-avenue; and also additions to the Park Hotel, Victoria-road.——Plans have been prepared for 30 houses, which are to be erected at Brinkburn-road, in connection with the L. & N.E.R. Co.'s scheme for its employees.

DONCASTER.—There is an important proposal afoot to considerably enlarge the Doncaster Station. The present scheme, it is understood, is being considered in official quarters of the L. & N.E.R., and would be a very costly scheme.——The B.S. has been instructed by the Public Health Committee to prepare plans for the erection of an infectious diseases hospital on the Common-lane, Balby, site.——The Governors of the Royal Infirmary have decided that the proposed new infirmary shall be built on the Thorne-road site.

DUBLIN.—Plans passed: 29, Lower Pembroke-street, new premises, Mr. J. J. Higgins; South Circular-road, steelwork for No. 2 Tobacco Factory, Messrs. J. Clarke & Sons; corner Hollybrook-road and Strand-road, Clontarf, shop and dwelling, Mr. P. Somerville.

EASTRY.—Messrs. S. Pearson & Son have informed the R.D.C. that they will shortly be building some houses near Betteshanger Colliery.

EDINBURGH.—The Dean of Guild Court has granted warrant for a scheme by James Robb to construct in all 24 houses at West St. Alban's-road, and 20 self-contained houses at Plewlands-avenue by the Scottish Provident Property Company. Included in the petitions granted warrant were the following:—Edinburgh Corporation, tennis pavilion at Saughton Park, Gorgie-road, and tennis pavilion at Rosefield Park, Portobello; J. Russell Greig, villa at Kirk Brae, Liberton; M'Kendrick & Co., Ltd., six continuous houses at new arterial road off Saughtonhall-drive; St. Cuthbert's Co-operative Association, Ltd., convert dwelling-houses into shops at Hamilton-place; Wainwright & Williamson, three blocks flatted houses, Greenbank-avenue and Greenbank-crescent.

EGHAM.—The subscribers to the War Memorial Fund have decided that about £2,000 shall be spent on structural alterations, decorations, &c., at the present hospital.

FALKIRK.—The Falkirk Iron Co. are to erect a new pattern shop at their works.

GLAMORGAN.—Caerphilly U.D.C. is to put in hand private street works at Abertridwr.——The Maesteg U.D.C. has Ministry assurance that sanction will be given, on submission of scheme, for immediate erection of 50 houses and that consideration will be given to a request for sanction to erect a further 80 houses.—— The Penybont R.D.C. is to erect 20 houses at Llangynwyd.——The Ystrad Mynach Welfare Committee has applied for a site from the Gellygaer U.D.C. for lay-out as a recreation ground. The welfare scheme is estimated to cost £40,000.——The Gower R.D.C. has applied to borrow £5,000 for reconstruction of the Llanmorlais road.——The G.W.R. Co. has notified the Cardiff Corporation that it will widen the bridges at South Park-road, Lake-road West and Lake-road East.——The Llantrisant Council is to borrow £7,250 for private street improvements.

GLASGOW.—The directors of the Glasgow Hospital for Diseases of the Ear, Nose, and Throat, per Mr. D. N. Mackay, 144, St. Vincent-street, were granted the sanction of Dean of Guild Court to demolish the existing buildings at 306-308, St. Vincent-street, and to erect a new hospital on the site. The estimated cost is £40,000. Among other applications granted were the following:—Glasgow Corporation Housing Department: Houses and form streets and sewers at Dumbarton-road, Earl-street, and Balmoral-street, Scotstoun; Mr. Robert Buchan, 47, Brownlie-gardens, Tollcross, three semi-detached villas at Brownlie-gardens; Messrs. Charles Gray & Son, Ltd., 393, Alexandra-parade, seven semi-detached houses at Fernleigh-road, Newlands; Messrs. Taylor & Wilson, Halfway, Paisley-road, Cardonald, eight terrace houses at Essex-drive, Kent-avenue, Jordanhill; Mr. John Ross, 52, Windsor-street, and others, trustees for the New City-road Congregational Church, church and hall in West Cumberland-street.

GREAT HARWOOD.—The renovations to the chapel and school of the Primitive Methodists in Orchard-street are estimated at £500.

GUILDFORD.—Plans passed by T.C.:—House, Millmead-crescent, Messrs. Knapp-Fisher, Powell & Russell, for Mrs. Wheeler, 4, Rectory-place; pair of houses, Grange-road, Mr. T. Dyer for Mr. W. Penfold, Manor-road; house, Aldershot-road, Mr. H. Ashenden, for Mr. A. F. O. Robinson, 36, Midleton-road; pair of houses, Joseph's-road, submitted by Mr. T. Dyer, for Mrs. A. E. Donovan; house, Ennismore-avenue, Messrs. Stanley Ellis, Ltd., for Miss Dyer; house, Mount-street, Messrs. Knapp-Fisher, Powell & Russell, for Mr. C. M. Powell; house, Glebe House Estate, London-road, Messrs. J. M. Rutter & Co., Woodbridge-road; pair of houses, Stoke Park Estate, Stoke-road, Messrs. Hodgson Lunn & Co., for Messrs. Prickett & Ellis; house, Warren-road, Messrs. Universal Housing Co., Ltd., Rickmansworth, for Mrs. A. Stewart; pair of houses, Woking-road, Mr. T. J. Capp, for Mr. G. H. Knevett and Mr. A. C. Roake; two houses, Boxgrove-road, Messrs. W. Capp & Son, Artill terrace, for Mrs. S. Capp; house, Edgeborough Est Mr. D. Grazebrook, High-street, for Mr. O. E. Dunc house, Avonmore-avenue, Mr. H. Ashenden, for G. A. White; house, Stoughton-road, Mr. H. Ashen for Mr. G. C. Clark; house, York-road, Mr. A. Allen Lodge, 21, Westminster-drive, Westcliff-on- for Mr. A. Woodward; dwelling-house, Avonm avenue, Messrs. H. W. Frampton & Co., 75, No street, for Mr. Davies; four flats, Mountside, for Field, Wherwell-road.

HALIFAX.—Messrs. John Whiteley & Sons proposing extensions to their cotton and wea departments by the erection of a new weaving s at Brunswick Mills.

HULL.—It has now been decided by the Corp tion to proceed with the construction of a new N Bridge, the estimated cost of which is £200,000.

HURST.—The D.C. has decided to bring to the n of the C.C. the desirability of the improvement of Moseley-road, at the bottle-neck portion near stone yard. Plans for a bungalow to be erecte Green-lane, by Mr. J. E. Adams, and ten houses t built in Higher King-street, by Messrs. Marshal Sons, Ltd., were approved.

KEIGHLEY.—Plans passed by R.D.C.: Two ho Altar-drive, Riddlesden, for Messrs. W. & T. War house, Bailey Cote, Morton Banks, for Mr. F. Ray.- Plans passed by T.C.: Shop, Haincliffe-road, Mr. Wilfred Tebb; two houses, Oakworth-road, Messrs. W. Hird & E. Hitchin; two houses, View-r for Mr. F. Waterhouse; house, Glenlyon-drive, for Hy. Firth; four houses, Chong Lee-lane, for Mr. H Brown; bungalow, Devonshire-street, for Mr. Bairstow; warehouse, Chesham-street, for Colo Combing Co.

KIDDERMINSTER.—Plans passed by R.D.C.: Bu low, Patchett's-hill, Dowles, for Mr. J. H. Humphers bungalow, Wribbenhall, for Messrs. H. & N. E Swindell; two houses, Stourport-road, for Mr. Hunt; bungalow, Dowles, for Mr. J. Wilks; cottages, Churchhills, for Lord Cobham.

KILMARNOCK.—The T.C. has decided to proc with a further scheme of housing, comprising 12 bl of four houses each and three blocks of four hou at Gibson-street; four blocks of four houses and t blocks of four houses each at east end of Mill-ro four blocks of four houses and one block of four ho at Granger-road, Riccarton. The Council also poses to erect 26 houses at Holehouse-road and Sc road.

LITTLEBOROUGH.—The D.C. intend advertising tenders for the erection of eight houses in Cal avenue, and also for eight houses in Moorfield-ave Plans and estimates are to be prepared for the wide of Todmorden-road, opposite the Summit Inn. T will be submitted to the C.S.

LLANELLY.—The B.C. is considering provision third reservoir under the Gwendraeth Water Sup Scheme. The Council also proposes to erect a f bridge at Old Castle-road and grant from Steelwo Co. has been promised toward cost of construction

LONDON.—The L.C.C. proposes expending £12,5 on the extension of the fire brigade workshops.

LONDON (BERMONDSEY).—Plans passed by B.C. Factory, Crimscott-street, Messrs. Joseph, for Crosse Blackwell.

LONDON (ELTHAM).—Six bungalows, Glenesk-ro for Mr. T. Rees.

LONDON (HAMMERSMITH).—The B.C. proposes proceed with the Mortlake Cemetery scheme, at a of about £30,000.——Houses and shops, abutting Foxglove-street, Old Oak-road and Western-ave for J. F. Franck.

LONDON (LEWISHAM).—Plans passed by B.C. A. Marsh, 11 houses, Cliffview-road; H. E. Redn 11 houses, Perry-rise; W. Reynolds & Co., four ho Ashgrove-road; Arthur W. Wise, four shops buildings, Southend-lane; W. H. Laxton & S two houses, Cranston-road; T. H. Sawyer & S school at rear of Wyberton House, Lee-terrace; H. Hobson, house, Winn-road.

LONDON (POPLAR).—The L.C.C. has sanctio the B.C. borrowing £30,759 for housing purposes.

LONGBENTON.—The U.D.C. have decided to application to the M.H. for permission to erec houses on the Glebe Estate at Forest Hall, at an e ated cost of £44,000.

MANCHESTER.—The Public Health Committee cided to remove the City's tuberculosis office Hardman-street to a site it is proposed to acqui Lincoln-grove. The E.C. have no objection to proposed site of St. Malachy's School, Collyhurs

MANSFIELD.—Plans passed by T.C.: H. J house, Sandhurst-avenue, and two houses, B lane; Hampshire & Sons, warehouse, Plants street; —, Coupe, conversion of house into l and shop, Rosemary-street; Mansfield and S Co-operative Society, lock-up shop and store-r Chesterfield-road; H. Oakland, bungalow, Nottin road; Blythe & Son, four houses, Edgar-ave F. H. Moore, two houses, Little Barn-lane; J. E house, Dallas-street; G. Moseley, bungalow, Soutl road.

MIRFIELD.—The E.C. is urging the West Ridin to erect a new central school in the Northorpe

MONMOUTHSHIRE.—The Chepstow U.D.C. extend the sewer at Mountain-road.——The Vale U.D.C. is to erect a sub-station and repair sub-stations.——The Tredegar Institute Comi has applied for grant from the Central Miners' W Committee to erect a sub-institute at Dukestown The Llanover Estate is considering building hou Abercarn.

NEWPORT (MON.).—The Tredegar Arms Ho to be rebuilt. The lessees are Messrs. Lloyd & Y brewers, Newport.

NEWTON ABBOT.—Plans passed by R.D.C.: dence, Cofton, for Messrs. Densham & Son; Bishopsteignton, for Mr. W. E. Fey; bun Bovey Tracey, for Messrs. E. J. Manning & house, Chudleigh, for Mr. G. H. Armitstead;

* See also our List of Contracts, Competitions, etc.

iphay, for Mr. G. Banbury; house, Kingsteignton, r Mr. Hewings.

OLDHAM.—Plans for 23 houses were passed. It as decided to make application to the M.H. for bsidy for a further 200 houses.

PEMBROKESHIRE.—Plans passed by the Fishguard .D.C.:—House for Mr. J. O. Richards.

PENARTH.—The B.G. has applied for sanction to roceed immediately with the work of extending the andough Hospital.

PRESTON.—Lancashire E.C. propose to ask for a an of not exceeding £20,000 for enlarging Stretford igh School for Girls.

RAWMARSH.—The Council has accepted tenders for ection of ten houses at Haugh-road, for £4,460.

ROCHDALE.—It is proposed to lay out the slopes tween the Church steps and Church-lane, at an timated cost of £4,500. Agreement has been reached ith the M.T. regarding the Milnrow-road improve- ent scheme. It is proposed to erect a new laundry Marsland to deal with the combined washing of the ree Corporation Hospitals. The E.C. are to acquire ldditional land adjoining Lowerplane Council School r an extension to the building for increased accom- odation.

SHENLEY.—Middlesex C.C. has approved of the rchase of Porter's Park estate, for £80,000, as a site r a new mental hospital and a mental defectives' lony. The estate comprises 1,160 acres, and includes rter's Park Golf Club and course.

SHEPLEY.—Plans passed by U.D.C.: Two houses, eymoor Common, for Messrs. A. & W. Wigglesworth; ngalow, Station-road, for Mr. H. Noble.

SKIRBECK.—The Parish Church Council have con- lered the plans and estimates prepared by Mr. Leslie oore for a new church chancel.

SOUTH MOLTON.—The M.H. has sanctioned the rrowing of £5,040 by the T.C. for housing pur- ses.

SOUTH SHIELDS.—The R.D.C. has received sanction om the M.H. to erect 175 additional houses. The arton miners propose to erect 150 of the number nctioned, and the remaining twenty-five will also be ilt by private enterprise.

STIRLING.—Proposals have been made to the T.C. r the erection of a maternity hospital at an estimated st of £7,000. Plans are being prepared.

SWANSEA.—Plans passed by T.C.:—House, Bath- ad, Morriston, for Mr. S. Davies; house, Cecil- reet, for Mr. John Roberts; house, Mary Twill-lane, ngland, for Mr. B. H. Ladd; two houses, Sketty- ad, for Messrs. Jones Bros.; two houses, Sketty- ad, for Messrs. J. R. Banfield & Son; house, Park- ern-road, for Mr. E. MacKinnell; house, Sketty-road, r Mr. M. G. Newsholme; house, Sketty-road, for r. J. Godfrey; two houses, Queen's-road, Sketty- ad, for Mr. J. R. Thomas; two houses, Cwmgwyn state, for Messrs. T. & G. Spragg; two houses, New- ad, off West Cross-lane, for Messrs. Stephens & avies; two houses, Glanmor-road, for Messrs. T. & Spragg; house, Neath-road, Morriston, for Mr. hn Harris; two houses, Parkwern-road, for Messrs. Evans & B. Rees; house and garage, Limekiln- ad, Mumbles, for Mr. B. F. Hoppe; four houses, ythryd-avenue, for Mr. W. J. Thomas; bungalow, ntardulais-road, for Mrs. E. Griffiths; four houses d shops, Penygraig-road, for the Housing Committee.

TENTERDEN.—Plans passed by R.D.C.: Conversion house at Appledore, for Miss J. B. Mollett; detached use at Brogues Wood, Biddenden, for Mr. Wilson ldecote.

TWECHAR.—In order to provide for additional men their Twechar Collieries, Messrs. Wm. Baird & Co. ve decided to proceed with the erection of 200 houses ere, offers for the erection of which have just been epted.

TYNEMOUTH.—Plans passed by T.C.:—Eight houses its), Rosebery-avenue, Preston, by Messrs. Dixon Bell, for Mr. J. R. Hogg; semi-detached villas, ngsway, Kenners Dene Estate, Mr. A. K. Tasker, Mr. H. D. Burton; semi-detached dwelling-houses, w-row, Albert Edward Dock, for Tyne Improve- nt Commission; 40 houses, Burdon-street and St. hn's-terrace, Percy Main, Mr. J. R. Wallace for . H. D. Burton.

WALLSEND.—The T.C. have approved plans sub- tted to them for the erection of a Maternity Hospital connection with the existing Nurses' Training ntre of the Northumberland County Nursing Associa- n at Willington Quay. Plans prepared by Mr. J. A. an, surveyor and architect for the Northumberland C. The area of the proposed new home is 3,159 yds., and the estimated cost is £5,000.

WANDSWORTH.—Plans passed by B.C.: J. Dawson, e houses, Alston-road; Mr. W. E. Silk, house, rtfield-avenue, Putney; Phœnix Construction Co., se, Keswick-road, Southfield; Messrs. Andrews & drews, garage, 14, Rutford-road, Streatham; Messrs. D. Falkner & Sons, additions to The Blue Bird ndry, Stonhouse-street, Clapham North; Messrs. C. Jones & Co., eight houses, Conyers-road, Streat- m; Mr. Russell A. Taylor, conversion into shops 76, Upper Richmond-road, Putney; Mr. A. Pierce, houses, Luttrell-avenue, Putney; Mr. C. H. pson, additions to Messrs. Brandon's Putney wery, Felsham-road; Mr. O. Kennard, stable and te, 266, Wandsworth-road, Clapham North; Messrs. fern & Seddon, re-building of the Manor Arms lic-house, Mitcham-lane, Streatham; Messrs. loway Bros. (London), Ltd., six houses, Herondale- nue, Springfield; Mr. W. F. Goodchild, garage, Brodrick-road, Springfield; Messrs. W. Mason & s, three garages, between Nos. 23 and 27, Fontaine- l, Streatham; Mr. H. Wright, house, corner of kersteth-road and Brightwell-crescent, Tooting; ndsworth, &c., Gas Co., erection of brass foundry painter's shop at the Gas Co.'s premises, Fairfield- et; Messrs. W. J. Coleman & Co., seven houses, don-road, Balham.

WEST HARTLEPOOL.—Plans passed by T.C.: Mrs. d, house, Stockton-road; Mrs. M. J. Morris, ngalow, Caledonian-road.

WEST LANCASHIRE.—Plans passed by R.D.C.: Pair of houses, Chapel-lane, Banks; two bungalows, Fermor-road, Tarleton; pair of bungalows, Halsall; pair of cottages, Bescar; bungalow, Chapel-lane, Hesketh Bank; two pairs of cottages, Hesketh Bank.

WHALLEY BRIDGE.—The D.C. has decided to build a bridge over the canal at Furness Vale.

WHITBY.—House, Ruswarp Hall Estate, for Messrs. Kidd & Son.

WHITWOOD.—Plans passed by U.D.C.: Cottages, for Messrs. J. Lumb & Co., Ltd., on the north side of Cutsyke-hill; two houses, Lumley-street, and pavilion on the Cricket Ground at Hightown, for the Castleford Cricket Club.

WIGAN.—The B.C. are proposing extensions and reconstruction of the sewage works at the Pemberton and Hoscar Sewage Farm.

WILLESDEN.—Plans passed by U.D.C.:—Factory premises, corner of North Circular-road and Edgware-road, Cricklewood, by Mr. P. M. Frazer, for Messrs. Staple & Co.; six houses, North Way, Kingsbury, Garden Village, Neasden, for Mr. F. Marks; two houses, Chatsworth-road, Cricklewood, Messrs. G. Head & Co., for Messrs. Godson & Sons; factory and shed, 62A, Crownhill-road, Harlesden, for Mr. Benjamin Guest; two houses, Anson-road, Cricklewood, for Mr. H. Potter; cottage and garage, "Rosedene." Christchurch-avenue, Brondesbury, by Messrs. Constantine & Vernon, for Mr. Henry Sampson Clark; 20 houses, Geary-road, Dudden-hill, Willesden, by Mr. G. A. Sexton, for Mr. E. H. Sadler; workshop and store, Mordaunt-house, Shrewsbury-road, Harlesden, Mr. H. Shaw for Mr. S. W. Byers; four houses, Melrose-avenue, Cricklewood, Messrs. Done, Hunter & Co., for Mr. Jesse Catton; two houses, A.B., Mount Pleasant-road, Kensal-rise, for Mr. W. Glanville.

WORSBOROUGH.—Plans passed by U.D.C.: Two houses, White Cross, for Messrs. E. Pickering and W. J. Sutton; house, Silvester-crescent, for Mr. H. Haigh.

FIRES.

CLERKENWELL.—The premises of Orthopædists, Ltd., foot appliance manufacturers, Granville-place King's Cross, have been gutted by fire.

CRAWLEY.—The building works of Messrs. J. Longley & Co. were burnt down recently, and the whole of the machinery, worth some £50,000, was destroyed.

LEICESTER.—Damage amounting to many thousands of pounds was caused by a fire at Leicester recently at the factory of Messrs. Rawsons. It was only possible to save a small portion of the premises.

LITTLEPORT.—A serious fire has occurred at the chaff factory of Messrs. D. A. Fyfe & Co.

LUTON.—The premises of Mr. S. Farr, hat manufacturer, Silver-street, have been destroyed by fire.

NEWTON ABBOT.—The West of England Sawmills, the property of Messrs. S. Payne & A. Kirby have been seriously damaged by fire.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

W. T. WHEELER & SONS, LTD. (194,939). Registered January 7. Parkfield Works, East Bergholt, Suffolk. Builder and contractor, plumber, decorator, and dealer in stone, sand, hardware, and other building requisites, now carried on by William Thomas Wheeler at East Bergholt, Suffolk, under the style of W. T. Wheeler & Sons. Nominal capital, £2,000.

J. JONES (LONGSIGHT), LTD. (194,935). Registered January 7. 1, Green-street, Longsight, Manchester. Cabinet maker, builder and furnisher, now carried on by John Jones at 1, Green-street, Longsight, Manchester, under the style of J. Jones. Nominal capital, £1,000.

FOWEY DIRECT BUILDING CO., LTD. (194,934). Registered January 7. 27A, Fore-street, Fowey, Cornwall. Carpenter, builder and contractor, joiner, undertaker, &c., lately carried on by Henry Charles Billing (now deceased) at North-street, Fowey, Cornwall, under the style of H. C. Billing. Nominal capital, £100.

E. G. PADFIELD, SON & CO., LTD. (194,991). Registered January 9. Builders, contractors, plumbers, and whitesmiths, &c. Nominal capital, £10,000.

BLUE BRICKS (OLDBURY), LTD. (195,047). Registered January 12. Brades Village, Oldbury, Worcester. Brick and tile manufacturers. Nominal capital, £5,000.

SOUTHERN SILICA, LTD. (195,035). Registered January 11. To enter into an agreement with Swan Syndicate, Ltd. To carry on the business of quarry masters, silica stone, gravel, sand, lime, and general merchants and contractors, &c. Nominal capital, £30,000.

BROADWATER BUILDING CO., LTD. (195,322). Registered January 25. 7, High-street, Worthing, Sussex. Builders and general contractors, &c. Nominal capital, £2,000.

PATENTS.

APPLICATIONS PUBLISHED.*

207,251.—G. H. Mobbs: Casement and transom stay and sash and door-holder.

207,295.—H. Dodge: Apparatus for heating buildings.

207,372.—I. P. Sainrapt and Soc. Des Tuyaux et Agglomeres Centrifuges: Joints for ferro-concrete pipes.

207,389.—W. Carpmael (W. F. Barns): Resilient road surfaces and floorings.

207,423.—J. M. Whiteside: Struts for floor joists.

207,432.—C. E. Jamet: Jointed metal fittings for folding furniture.

207,438.—W. G. Thomson and G. M. Steele: Tool for cross-cutting wood.

207,452.—Internationale Siegwart Balken-Ges: Method of producing upwardly-tapering concrete poles.

207,579.—J. E. Hobbs and Ransome Machinery Co. (1920), Ltd.: Machines employed in the construction of roads, and in building and like operations.

207,594.—W. H. Ponter: Preparation for removing paint and varnish.

207,599.—F. W. Schroeder: Pin tumbler locks.

207,602.—H. F. Greener: Ball castor.

207,616.—A. C. Holzapfel: Manufacture of coating-compositions, paints, or varnishes.

207,625.—S. J. Perry, A. E. Jerram and S. W. Pearson: Water-heating systems.

207,685.—W. Barnard: Water-waste preventers for the flushing of lavatories and urinals.

207,714.—F. A. Macdonald: Concrete and reinforced-concrete hollow pre-cast tubes.

207,719.—G. E. Heyl: Apparatus for the recovery and utilisation of products of cauldrons for road-making materials and mastics.

207,844.—H. Laughton: Combined door lock and electric switch.

207,848.—W. J. Mellersh-Jackson (Clark Bros. Bolt Co.): Manufacture of bolts.

207,853.—W. Kennard: Ball taps.

207,863.—Ransomes & Rapier, Ltd. (E. C. B. Walton): Sluice gates or weirs.

207,864.—R. Thomson: Walling.

207,866.—W. Cooper: Device for removing paint from doors and window frames.

207,875.—E. C. Leachman and R. G. Bradshaw: Method of and means for illuminating interiors.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

Shortage: Materials or Bricklayers.

At a recent meeting of the Hammersmith Guardians, Councillor White said it was folly to suggest there was a shortage of bricklayers. He had, he continued, in his employ, bricklayers who were forced to remain idle because he could not obtain supplies of bricks under a fortnight's notice. He urged that the Government should be informed of the fact that the lack of supplies was holding up the building industry, and said there had been an increase of 5s. per 1,000 bricks.

Hartlepools Builders' Association.

Mr. Sydney Pearson presided over the annual meeting of the Hartlepools Master Builders' Association, held at West Hartlepool, at which the following officers were appointed for the ensuing year:—President, Mr. F. R. Turnbull; vice-presidents, Messrs. D. Corbett and F. M. Gibbon; Northern Federation representatives, Messrs. F. M. Gibbon, R. Mothersdale, S. Pearson, A. Stephenson, and W. H. Thompson. The *ex-officio* member is Captain Tweedle.

New Housing Scheme.

The Minister of Health, speaking at Liverpool recently, said he realised the desirability of bringing the unemployed into the service of the nation in the provision of houses, and was hopeful of being able to submit a practical scheme for overcoming the difficulties.

PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose ..	9 10 0
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick :—
2½ in. ..... 11 3 0 | 3 in. 13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6
51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0	10	0
Super Cement	4	8	0
Roman Cement	8	15	0
Parian Cement	5	15	0
Keene's Cement, White	5	15	0
„ „ Pink	5	10	0
Plaster, Coarse, Pink	3	0	0
„ „ White	3	12	6
„ Fine	5	12	0
Sirapite, Coarse	3	9	0
„ Finish	3	17	0
Grey Stone Lime	2	10	9
Chalk Lime	2	10	9
Best Ground Blue Lias Lime	2	13	6
Hair	17	0	0
Granite Chippings	1	12	0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.
Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-
YORK STONE, BLUE—*Robin Hood Quality.*	

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	32 0	3 × 11	31 0
4 × 8	27 0	2 × 11	32 0
4 × 7	27 0	3 × 9	30 0
3 × 8	25 10	2½ × 9	30 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	25 0	3 × 4	25 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£36 0	1 × 9	£34 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
⅞	23/-	1½	38/6
1	26/-		

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	26/-	⅝	17/6
1¼	33/6	¾	21/-
1½	38/6	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 9
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube ..	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt. ..	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in...	13 10 0
⅜ in.	14 10 0	⅝ in. to 2¾ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¼	11d.	3¼d.
3½ in.	1/2¾	1/0¼	3¾d.
4 in.	1/4	1/1¼	3¾d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¾	1/5¼	5d.

O.G. GUTTERS.

3 in.	1/6¼	1/2¾	3¼d.
3½ in.	1/6¼	1/2¾	3¾d.
4 in.	1/7¾	1/4	3¾d.
4½ in.	1/9¼	1/6¼	4d.
5 in.	2/1¼	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¼	1/8
2½ in. „	1/9¼	1/4	2/0½
3 in. „	2/1¼	1/8	2/5¾
3½ in. „	2/6½	1/11¼	2/10½
4 in. „	2/11¼	2/4¼	3/5¼

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0
Hoop iron, basis price	16 10 0	..	17 10
Galvanised	31 0 0	..	32 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g...	15 0 0	..	16 0
„ „ „ 24 g...	16 0 0	..	17 0
„ „ „ 26 g...	18 0 0	..	19 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in.	20 10 0	..	22 0
(under 3in. usual trade extras.)			

METAL WINDOWS—Standard sizes suitable for co plete houses, including all fittings, painting t coats, and delivery to job, average price about to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s.
LEAD—Sheet, English, 4 lb. and up	46 10
Pipe in coils	47 0
Soil Pipe	50 0
Compo pipe	53 0

NOTE—Country delivery, 30s. per ton extra: lots und 3 cwt., 2s. per cwt. extra and over 3cwt. and unde cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. ext

Old lead, ex London area, at Mills ..... per ton	33 10 0	.. —
Do., ex country, carriage forward ..... per ton	34 10 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz

NEW RIVER PATTERN SCREW DOWN STOP COCKS UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANI SCREW.

	1½ in.	1½ in.	2 in.	3 in.	
8 lbs. P. traps ..	33/-	41/-	56/-	101/-	per d
8 lbs. S. traps ..	35/-	45/-	66/-	126/-	„

COPPER—	£ s. d.		
Strong Sheet ....per lb.	0 2 3	..	—
Thin .... „	0 2 4	..	—
Copper nails .... „	0 2 3	..	—
Copper wire .... „	0 2	..	—
TIN—English Ingots „	0 2 10	..	—
SOLDER—Plumbers' „	0 1 3	..	—
Tinmen's .... „	0 1 5	..	—
Blowpipe .... „	0 1 7	..	—

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes .....per gallon	0 3
„ „ „ in barrels .... „	0 3
„ „ „ in drums	0 4
Boiled „ „ in barrels	0 4
„ „ „ in drums	0 4
Turpentine in barrels	0 6
„ in drums (10 gall.)	0 7
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	61 15
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms" "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	85 5
Red Lead, Dry (packages extra) ....per ton	50 0
Best Linseed Oil Putty .....per cwt.	0 16
Filocol .....per cwt.	0 15
Size. XD Quality .....fkn.	0 3

(*Concluded on next page.*)

* The information given on this page has been specl compiled for THE BUILDER and is copyright. Our aim this list is to give, as far as possible, the *average* pr of materials, not necessarily the highest or lowest. Qua and quantity obviously affect prices—a fact which sh be remembered by those who make use of this informa

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
21 oz. fourths	3½d.	32 oz. fourths	8½d.
,, thirds	4½d.	32 ,, thirds	10½d.
,, fourths	5d.	Obscured Sheet, 15 oz.	4d.
,, thirds	6½d.	,, ,, 21 ,,	5½d.
,, fourths	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
,, thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

Extra price according to size and substance for squares not from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Pale Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 12 0
Best Black Japan		0 12 0
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 9 0
Berlin Black		0 14 6
(Bottling patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Brass Black Enamel		0 7 0

New Hospital for Glasgow.

The directors of the Glasgow Hospital, 144, St. Vincent-street, were granted the sanction of the Glasgow Dean of Guild Court recently to demolish the existing buildings, 306–308, St. Vincent-street, and to erect a new hospital on the site. The estimated cost is £40.000.

EDINBURGH'S CONCRETE HOUSING SCHEME

BUILDERS are active in Edinburgh suburbs at present with villa residences. The two- or three-roomed houses for those who are forced to leave slum localities are being erected by the Corporation. Messrs. Angus & Son have 60 villa houses being erected in a field close to the canal at the terminus of the Craiglockhart tramways, on the Colinton-road. The feature of these buildings is that there is no stone being used, but concrete blocks and inside brick partitions. The outside walls are all of concrete made on the spot. Mr. Robb and Mr. Grahame have a similar class of house being built at Blackford-avenue, on the south side. Builders are busy, too, at Corstorphine, Liberton, and other suburbs.

The Secretary for Scotland, in reply to a question by Mr. Duncan Miller, the other day, said that the number of houses proposed to be erected under schemes put forward by Scottish local authorities under the Housing (Town-Planning), Act, 1919, was 115,674. The total number sanctioned for erection by local authorities under that Act is 25,129, and of these 21,011 had been completed at January 31, 1924. Partly for speed and cheapness, Edinburgh Corporation is building houses with the duo-slab system of building at Lochend, on vacant ground between the town and Leith. Messrs. Airey & Son, contractors, Leeds and London, are building these houses, in the duo-slab system, which admits of the utilisation of unskilled labour. It is expected that the Corporation will go on with at least 1,000 of these houses. Messrs. Airey & Son have executed, or at present are executing, similar contracts at Leeds, Crossgates, Cardiff, and Kirkstall. The Edinburgh houses consist of blocks for four families, each house having scullery, a living kitchen, parlour-bedroom, and bedroom. There is considerable space between each block of four houses. On a visit to the houses of the Greater Edinburgh Club, a display was given by a machine with the nozzle which distributes under pressure the rough casting on the walls. The method of erection, with space in the wall between the slabs, avoids the chance of damp. These concrete houses are intended in the first place to rehous the people turned out from slum areas in Cowgate and Grassmarket.

Mr. A. Horsburgh Campbell, Director of Housing, is satisfied that such houses of concrete. two or three stories high, are as substantial as houses built of brick. The city's recent experience with the concrete houses at Wardie was a local demonstration in proof of that point.

Boulevard for Edinburgh.

A boulevard scheme for Princes-street was presented recently before a committee of the Edinburgh Town Council. The project will come up at a later date for the Council's approval. The scheme is to dispense with railings on the gardens side of Princes-street and extend the width of the street by the medium of a terrace. The terrace, which would have to be built up from the gardens level, would be 36 ft. broad and 1,600 ft. in length. The cost is estimated at about £50,000.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½		
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Arbroath	1/6½	1/6½	1/7½	1/6½	1/6½	1/6½	1/5½	1/1½		
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½		
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½		
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—		
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
Dumfries	1/6	1/6	1/6	1/6	1/6½	1/6	1/5½	1/1 to 1/1½		
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½		
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2		
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½		
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½		
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2		
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½		
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½		
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
Larkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0		
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½		
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Stirlingshire East District	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Renfrew	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 514.

NEW BUILDINGS IN SCOTLAND

Port-Glasgow.—SCHOOL.—The Roman Catholic Church authorities have purchased Glenbank House as provision for a new school.

Beith.—CHURCH.—It was stated at the U.F. Presbytery meeting, held in Paisley, that the plans and estimates for the proposed new church at Beith had been submitted. The proposed building is to accommodate 800 persons and the total cost is estimated at £10,408. The plans were referred to the Church and Manse Building Committee, with the recommendation that a grant be given.

Forrestfield.—SCHOOL.—The Lanarkshire E.C. has passed plans for temporary school at Forrestfield. the estimated cost of which is £1,500.

Dundee.—EXTENSION.—The Royal Infirmary were granted power to carry out the reconstruction schemes in Ward 10 and Maternity Block, the estimated cost of which is £2,200.

Coupar Angus.—ADDITIONS.—The T.C. is considering a proposal to erect additional municipal offices at a cost of £1,000. The Council has approved of plans for the extension of the pavilion at the bowling green.

Deskie.—HALL.—A public hall is to be erected at Deskie.

Forres.—SCHOOL.—The Moray E.C. has approved of the modified plans for the erection of a secondary school, at an estimated cost of £14,000.

Glasgow.—EXTENSIONS.—An appeal is to be made for £60,000 for the extension to the Royal Children's Hospital.

Brechin.—BATHS.—The T.C. has requested a report on the question of the provision of public baths for the town.

Housing Progress in Scotland.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to February 29, 1924:—

	Completed.	Under Construction.
1919 Act	21,428 ..	2,920
Private Subsidy Schemes	2,323 ..	—
Slum Clearance Schemes	334 ..	1,175
1923 Act	37 ..	1,476
	24,122 ..	5,571

Of the total number of houses, completed and under construction under the 1923 Act, 619 are by the local authorities and 894 by private enterprise.

Obituary.

The death took place recently at Edinburgh, at the age of 72, of Mr. William Anderson, a well-known Edinburgh architect. Born at Selkirk in 1854 he was educated at the Burgh School. In 1874 he went to Edinburgh and in 1878 to Galashiels, where he joined, as principal draughtsman, the firm of Messrs. Herbertson & Son, with whom he remained for ten years.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	10
Axed in stocks	" "	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	1	1
Setting ordinary register grates and stoves	each	1	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.
Deal wrot moulded and rebated	per foot cube	14

		1"	1¼"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

		s.
Housings for steps and risers	each	0
Deal balusters, 1 in. × 1½ in.	per ft. run.	0
Mahogany handrail; average 3 in. × 3 in.	" "	6
Add if ramped	" "	11
Add if wreathed	" "	23

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2
Sash fasteners	11½d.	Mortice locks	5
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	1
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.
Rolled steel joists	per cwt.	17
Plain compound girders	"	20
Do. stanchions	"	23
In roof work	"	28

RAIN-WATER GOODS.

		3"	4"	5"	6
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4
Ogee Do. Do.	"	2/4½	3/1	3/10	4
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4
Do. nozzles for inlets	"	2/2	2/7	3/10	4

PLUMBER.

		s
Milled lead and laying in flashings and gutters	per cwt.	64
Do. Do. in flats	"	62
Extra labour and solder in coated cesspools	each	6
Welt joint	per ft. run.	0
Soldered seam	" "	1
Copper nailing	" "	0

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7	
Do. service	"	1/10	2/5	2/10	4/3		7/8
Do. soil	"						8/2
Bends in lead pipe	each					3/3	
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.
Render, float and set in lime and hair	per yard sup.	2
Do. Do. Sirapite	" "	2
Do. Do. Keen's	" "	3
Add sawn lathing	" "	1
Add metal lathing	" "	2
Portland cement screed	" "	1
Do. plain face	" "	3
Mouldings in plaster	per 1 girth	0
One-and-a-half granolithic pavings	per yard sup.	5

GLAZIER.

		s.
21 oz. sheet plain	per foot sup.	0
26 oz. Do.	" "	1
Obscured sheet	" "	1
⅜ in. rolled plate	" "	0
¼ in. rough rolled or cast plate	" "	0
¼ in. wired cast plate	" "	1

PAINTER.

		s.
Preparing and distempering, 2 coats	per yard sup	0
Knotting and priming	" "	0
Plain painting 1 coat	" "	0
Do. 2 coats	" "	1
Do. 3 coats	" "	1
Do. 4 coats	" "	2
Graining	" "	2
Varnishing twice	" "	1
Sizing	" "	0
Flatting	" "	0
Enamel	" "	1
Wax polishing	per foot sup.	0
French polishing	"	1
Preparing for and hanging paper	per piece	2/- to 4

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*

ALLOA.—For erection of two blocks of four houses, for the T.C. Messrs. J. Melvin & Son, architects, Mar-street, Alloa. Quantities by Architects :—

Brick Work—
*A. R. Syme, Clackmannan £998 14 10
Carpenter and Joiner—
*David Henderson, Alloa 709 11 8
Slater Work—
*John Walker, Alva 123 6 0
Plaster and Cement—
*Peter Ramage, Alva 407 3 4
Plumber Work—
*James Young, Alloa 422 15 0
Painter Work—
*T. & J. Henderson, Alloa..... 85 19 11
Fencing Work—
*J. Hamilton, Alloa..... 56 17 5
Gas Mains—
*Alloa Town Council 15 2 9

BIGGLESWADE.—For erection of semi-underground public convenience, for the U.D.C. Mr. F. R. Howitt, Surveyor and Engineer, Council Offices, Biggleswade :—

Arthur Cole, Ltd., Luton £1,032 0 0
*Chas. Wright & Son, Langford.. 950 5 11

BRADFORD.—For conversion of shops in Market-street and Tyrrel-street, for the Bradford Third Equitable Building Society. Messrs. J. Young & Co., architects, Market-street, Bradford :—

*S. Wray & Co., Bradford.

BRIDLINGTON.—For erection of houses, for the T.C. :—

*W Witting, Bridlington 10 houses, £435 each
*R. Shaw ..... 8 „ £435 „
*Smallwood & Son..... 10 „ £429 „

BRIGHTON.—For erection of secondary school for girls, for the E.C. Messrs. Thomas Simpson & Son, architects, 16, Ship-street, Brighton :—

	Main estimate.	Roads and paths and main drain.
Patman & Fotheringham, Ltd., Islington	£58,324 ..	£1,900
J. W. Woolnough, Ltd., Eastbourne	58,150 ..	1,816
Holloway Bros., Westminster	57,870 ..	1,940
Wooldridge & Simpson, Oxford	57,185 ..	1,800
Holliday & Greenwood, Battersea	56,775 ..	1 790
Edwin Archer & Sons, Northampton	56,760 ..	1,752
Field & Cox, Brighton.....	56,493 ..	1,924
J. W. Falkner & Sons, London	55,870 ..	1,860
James Barnes & Sons, Brighton	55,811 ..	1,868
Allen Fairhead & Sons, Enfield	54,987 ..	1,856
J. Parnell & Son, Rugby.....	55,200 ..	1,643
O. P. Drever & Son, Ltd., London	54,542 ..	1,898
Richard Cook & Sons, Crawley	53,735 ..	1,600
Walter Lawrence & Son, London	53,456 ..	1,744
Jas. Bodle, Ltd., Eastbourne	53,396 ..	1,584
Albert Monk, Lower Edmonton	52,650 ..	1,900
*F. & H. F. Higgs, Ltd., Herne Hill	52,725 ..	1,732

CUDWORTH.—For telescoping gasholder, for the U.D.C. :—

*Newton, Chambers & Co..... £1,496

DURHAM.—For (*a*) extension to board room and (*b*) erection of fire escape staircases at Hospital, for the Board of Guardians :—

F. W. Goodyear—(*a*) £508, and (*b*) £317 12s. 6d.

GOLCAR.—For erection of a house in Leymoor-road. Mr. A. Shaw, architect, Golcar.—

Masons and Concreters—
H. Firth & Co., Swallow-lane, Golcar.
Joiner—
Ed. Garside, Swallow-lane, Golcar.
Plumber—
H. E. Burgess, Whiteley-street, Milnsbridge.
Slater—
Thos. Allison, Ltd., Market-street, Milnsbridge.
Plasterers—
G. Hy. Day & Sons, Market-street, Milnsbridge.
Painter—
Frank Smith, Leymoor-road, Golcar.
Electricians—
Murrant & Smith, Town End, Golcar.
Total—£750.

GUILDFORD.—For the erection of 29 pairs of non-parlour houses, for the T.C. :—

Perry Bros., Ealing..... £830 per pair.

GUILDFORD.—For improvement works in North-street, for the T.C. :—

Henry Osman & Co..... £5,434 14 6
Gunn, Macneill, Ltd..... 3,898 0 0
L. J. Speight, Ltd. 5,132 1 2
*John Douglas, Southampton .. 4,649 15 0
F. Mitchell & Sons, Ltd. 5,194 2 3
David Weston & Co., Ltd..... 5,812 8 3
Franks, Harris Bros., Ltd. 5,546 8 7
Streeter & Co. 4,988 8 9
Sir William Prescott & Sons, Ltd. 5,560 15 6

GUILDFORD.—For fencing 50 houses being erected at Guildford Park, for the T.C. :—

*Astolat Co., Guildford..... .... £301 0 10

ISLINGTON.—For repairing 36, 38 & 40, Wakeham-street, Essex-road, N. 1, for the Metropolitan Borough of Islington. Mr. E. G. P. Monson, Architect to the Council, Finsbury Pavement House, 120, Moorgate, E.C. 3 :—

Bennett & Co., Hornsey-rise, N. .. £122 0
Randall & Son, Holloway-road, N... 120 0
Ruscott, E., King's-green, N..... 98 12
Saunders, R., & Sons, London, N. 4 98 7
*Yeoman & Richardson, Hornsey-road 97 0

ISLINGTON.—For the erection of extensions to the Municipal Buildings, for the Metropolitan Borough of Islington. Mr. E. C. P. Monson, Architect to the Council, Finsbury Pavement House, 120, Moorgate, E.C. 2 :—

Young's Construction Co., Essex-road, N. 1 ..... £69,139
Vigor, Arthur, Ltd., Knightsbridge, S.W. 67,076
Monk, Albert, Edmonton, N. 9 65,000
Shaw, S., Barnsbury, N. 1 64,881
Jones, Walter, & Sons, Victoria-street, S.W. 64,412
Architect's estimate, Finsbury-pavement House, E.C. 2 64,000
Lawrence, W., & Sons, Finsbury-square, E.C. 63,889
Rice & Sons, Stockwell, S.W. 9..... 63,627
Chessums, Ltd., Tottenham, N. 15.. 63,317
Shillitoe, T., Seven Sisters-road, N. .. 62,995
Bovis, Ltd., London, W..... 62,375
*Bollom, Geo., Acton, W. 60,777

KEGWORTH.—For the erection of sewage works :—

Lane Bros., Notts. £5,780 0 0
C. S. Tomlinson, South Normanton 5,677 6 9
G. F. Tomlinson, Derby 5,489 0 0
A. H. Price & Co., Nottingham.. 5,280 16 8
A. Graham & Sons, Huddersfield 4,780 6 0
H. H. Barry, Notts. 4,680 10 0
W. Moss & Sons, Loughborough 4,615 0 0
*Jervis, Ltd., Long Eaton 4,599 0 0

KIRKBURTON.—For erection of detached residence, Storthes Hall Mental Hospital, for the W.R. Mental Hospital Board. Mr. W. E. H. Burton, architect, Wakefield; quantities by Architect :—

Builder—
*J. Radcliffe & Sons, Ltd., Huddersfield £875 0
Joiner—
*Lazenby Bros., Leeds 447 15
Slater—
*James Season, Leeds 116 10
Plumber—
*George Garton & Son, Huddersfield.. 189 0
Plasterer—
*T. B. Tunnacliffe, Huddersfield 107 0
Painter—
*T. W. & H. Spivey, Huddersfield .. 45 0

LEEDS.—For erection of a super-garage at Oakwood, Roundhay, for Mr. Chapman. Mr. C. Castelow, architect, Park-row, Leeds :—

*L. Harpham, Leeds.

LEEDS.—For extensions to their works in Torre-road, for the British Oxygen Co. :—

Mason—
*S. Flockton, Leeds.

LEEDS.—For erection of a warehouse in Park-place, Leeds, for Messrs. Sheldons, Ltd. Mr. J. Harper Bates & Son, architects, Calverley Chambers, Leeds :—

Masons—
*Messrs. J. T. Wright & Sons, Leeds.
Joiners—
*Ledgard & Co., Leeds.

LEEDS.—For erection of a sports pavilion at Lawnswood, for the Leeds Grammar School :—

*Armitage & Hodgson, Leeds.

LONDON.—For supply of ballast and Thames shingle to the Bethnal Green B.C. :—

*C. & A. Knifton (trading as H. Crane)—Unscreened Thames ballast, 9s. 6d. per yard; Thames shingle, 12s. 6d. per yard.

LONDON.—For the supply of Thames sand, screened for ballast, to the Bethnal Green B.C. :—

*Sankey & Co. ..... 12s. per yard

LONDON.—For constructing a new kitchen, bath room and w.c. at 2, Wellington-road, N.W., for Mrs. Wright :—

A. A. Webber £560

LONDON.—For the supply of bricks for six months to the Bethnal Green B.C. :—

*John Knowles & Co.—Fletton bricks, £2 7s. 6d. per thousand.
*A. H. Lavers & Co.—Best blue Staffordshire, £9 1s. per 1,000.
*Erith & Co.—Blue Staffordshire stable bricks, £8 17s. 6d. per 1,000, less 2½ per cent.

LONDON.—For the supply of sewer ironwork for six months to the Bethnal Green B.C. :—

*F. Bird & Co.—Side entrance doors, &c., £4 7s. 6d. each; c.i. inspection covers, 6s. 6d. and 8s. 6d. each; lamp columns, £4 and £4 15s. each.
*A. C. Woodrow & Co.—Marble covers 9s. 9d. per cwt. large flushing box covers 9s. 6d. per cwt.; small flushing box covers, 12s. per cwt.: Walker's patent sewer valves, £1 8s. 9d., £1 2s., and 15s. each; tree gratings, 11s. per cwt.
*J. Gibb & Co.—Manhole covering plates and gulley grates, 8s. 9d. per cwt.; w.i. foot irons, 1s. 3d. ea: Clark's patent gullies, £2 7s. 6d.; small castin: 14s. per cwt.

LONDON.—For supply of 320 gallon tar-spraying machine, for Bermondsey B.C. :—

*Wicks & Dale £148

LONDON.—For erection of school at Ealing, for the E.C. Mr. W. R. Hicks, Borough Engineer, Town Hall, Ealing, W.5 :—

Nox, Ltd., Paddington £14,277
A. Roberts & Co., Ltd., Kensington .. 14,100
J. Elliman & Son, Ltd., Beckenham 13,990
A. Monk, Edmonton 13,490
Perry Bros., Ealing 13,140
T. Millman, Ltd., Ealing..... 13,135
F. D. Hidden & Co., Ltd., Brentford 13,131
*W. J. Dickens, Ealing 12,400

LONDON.—For the erection of the first section of a new elementary school at Eltham, for the L.C.C. :—

Thomas & Edge, Woolwich..... £11,708
Geo. Parker & Sons, Ltd., Peckham .. 11,684
Douglass, Halse & Co., Ltd., Woolwich 11,675
Wm. Akers & Co., Ltd., South Norwood 11,389
H. Groves & Son, Greenwich 11,340
Prestige & Co., Ltd., Grosvenor-road 10,992
*T. D. Leng, Deptford 10,982
John Garrett & Son, Balham 10,895
J. & C. Bowyer, Ltd., Upper Norwood 10,894
G. E. Wallis & Sons, Ltd., Maidstone 10,888
F. & T. Thorne, Isle of Dogs 10,547
W. Harris, N. Woolwich 10,485

LONDON.—For the scavenging of the Thames embankments and bridges for a period of twelve months, for the L.C.C. :—

H. Boyer, Terminus Wharf £1,591
Wakeley Bros. & Co., Ltd. 1,555
S. West, Ltd. 1,486
A. E. Gains & Sons 1,457
*A. Pannell, 104, Fentiman-road, S.W. 8 1,402

LONDON.—For the execution of pipe-laying work, repairs, &c., in the districts indicated, for the period of twelve months, for the Metropolitan Water Board :—

Northern district ..... *William Press & Son.
Southern and Kent districts *John Mowlem & Co., Ltd.
Western district ..... *Whittaker Ellis, Ltd.

LONDON.—For the supply of sewer ironwork for one year to the Hackney B.C. :—

*F. Bird & Co. £525 12 3
Messenger & Co., Ltd. 639 14 6
W. E. Horsman, Son & Co. 613 15 0
Dover Engineering Works, Ltd.. 677 11 8
Wm. Murrell & Co., Ltd..... 728 0 0
J. Meaham & Sons, Ltd..... 822 11 6

LONDON.—For carpeting part of carriageway in Westbourne-terrace with asphaltic material, for the Paddington B.C. :—

*Constable, Hart & Co..... £1,008

LONDON.—For repairs at 71, Surrey-square, Walworth, for the Metropolitan Water Board :—

*H. & E. Lea, Ltd..... £119 0 0
Gledhill Bros. 164 15 6
Sidey & Harvey 169 0 0

LONDON.—For stores for the Metropolitan Water Board :—

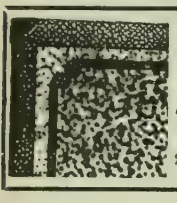
*Grey & Marten—soft pig lead £365 0
*McLachlan & Co.—steel tipping wagons 472 10

STALLINGBOROUGH.—For erection of police houses, for the Lindsey C.C. Messrs. Scorer & Gamble, architects, Bank-street Chambers, Lincoln. Quantities by Architects :—

	Stallingborough.	Great Coates.	Mareham-le-Fen.	Wildmore.
F. W. Atkinson & Son, Brigg.....	£674 0 0 ..	£685 0 0 ..	£720 0 0 ..	£720 0 0
T. R. Catchpole & Sons, Stickford	—— ..	—— ..	584 12 2 ..	——
*A. S. Coppock, New York, Lincs.	—— ..	—— ..	*580 0 0 ..	589 0 0
*S. K. Cott & Son, Stickney	—— ..	—— ..	590 0 0 ..	*580 0 0
E. E. Dale, Cleethorpes	830 0 0 ..	827 0 0 ..	—— ..	——
Emerson & Truman, Healing.....	749 0 0 ..	785 0 0 ..	—— ..	——
Wm. Greenfield, Boston	—— ..	—— ..	842 0 0 ..	892 0 0
Markwell Holmes, Hull	690 0 0 ..	725 0 0 ..	—— ..	——
G. W. Horton, Horncastle	—— ..	—— ..	701 6 0 ..	705 13 6
Wm. Ion, Grimsby	683 0 0 ..	700 0 0 ..	—— ..	——
W. Kirton & Sons, Grimsby	649 0 0 ..	679 0 0 ..	—— ..	——
James Leafe & Son, Boston	—— ..	—— ..	—— ..	741 17 6
Mawer Bros., Louth	—— ..	—— ..	770 0 0 ..	775 0 0
Ibbott Sargeant, Sibsey	—— ..	—— ..	647 17 6 ..	640 10 6
Swaby & Walsham, Grimsby	725 0 0 ..	748 0 0 ..	—— ..	——
J. H. Thompson & Sons, Grimsby.....	735 0 0 ..	760 0 0 ..	—— ..	——
J. T. Turner & Sons, Wainfleet.....	—— ..	—— ..	720 0 0 ..	735 0 0
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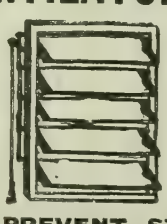
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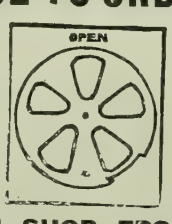
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OL. CXXVI.—No. 4235. APRIL 4, 1924.

ATTRACTING PUBLIC INTEREST

THERE has recently been some attention paid to the matter and manner of exhibiting architectural drawings, probably coincident with the very desirable discussion of the fact that the public really knows little or nothing about architects or their art. We have always felt that press boosting (to use an Americanism) was undesirable, but there seems no reason for allowing the people to be more ignorant of architecture than of other kinds of artistic work, particularly when architecture is one of the most intimate of all things connected with their lives—do we not all eat, sleep, work, worship, and enjoy our leisure in surroundings for which the architect is responsible—or should be? It is probably very largely the profession's own fault, but while publicity of the ordinary journalistic kind may not be what we would seek, there is no reason why the man in the street should know less of a building than a picture. The fact that he does shows that we have allowed a delightful art to be neglected.

We think we are right in saying that amongst the lay press only one or two daily and weekly journals give regular and well-informed attention to architectural views or matter, but it is an excellent augury that at least one well-known provincial journal, which is admitted to be of the highest intellectual standing, frequently gives attention to buildings of importance. On the other hand, when the Royal Academy opens, or when any other interesting exhibition of pictures is announced, every newspaper and most weeklies give it some attention, and the leading picture is produced on back pages, while important illustrated weeklies publish selections of the exhibits—the artists are interviewed, and generally a great deal of delightful and sometimes foolish chatter and palaver is caused. We do not think our friends, the artists, are always conscious of the value of this in placing their names before the world, and there is certainly nothing undesirable in keeping people interested and therefore informed. But the public never have a proper opportunity of discussing or appreciating current architecture, although, as we have said before, it is the most intimate of the arts. It is not *its* fault that it is not given so much opportunity to speak of architecture as it is of the possible but speculatory constitution of the inhabitants of Mars.

Undoubtedly one of the reasons for this is the very small opportunity that is given to the public to examine and appreciate architectural drawings. We have only to notice how keenly interested they become when the opportunity is given them to realise that we are neglecting them. One of the reasons for this is probably that, as they are supposed to see certain buildings every day, or may sometimes see a photograph of one, they do not need such facilities for being informed. But this is an erroneous idea. While the general public seldom enter an artist's studio, they have a very good idea of the way in which he works, artists being supposedly romantic: they figure neatly in current popular fiction, which again familiarises the public with their work. Not so fortunate the architect. His work and life is not so known. The average person has no more idea of his ways than he has of "the religious scruples of a cannibal," as we heard it expressed once. The public, therefore, ought to have some opportunity of seeing the drawings and appreciating, as they readily do when given the opportunity, the grace and beauty of the processes by which a building is conceived and designed.

There are art galleries in most of the important towns, many of them with both permanent exhibits and exhibits which vary from time to time. In a very few cases architecture receives some consideration, but it is not common, and is more or less purely by chance. Recently the Manchester Art Gallery had two exhibitions of architectural drawings, the public interest in which was very marked, but it is not habitual for them to do so. Why should not the committees of these galleries allow a space for the most interesting of current architectural matter? It seems quite reasonable to suggest that the room or a portion of one room might be so utilised, and if, for instance, the suggestion made by a contributor in our issue of February 22, 1924, were put into effect the drawings of the medal buildings in that district might become semi-permanent exhibits, giving place from time to time to the needs of space, since if each year the medal design was hung in perpetuity the amount of architectural drawings might override their proper quantum of space.

We see no reason why the National Gallery should not provide for one room of architectural drawings—there are many interesting drawings hidden away in fusty libraries, where they can only be seen after a ceremony reminding one of the inspection of a vault at the Bank of England—which would be utilised much more usefully if they were displayed in some suitable place, properly protected from the effect of light, where all and sundry could see them. An exhibition of such drawings from the earliest known to some of our last great draughtsman's work would be most interesting and instructive, and we doubt if anyone has ever seen a set of such drawings grouped in this way, although there must be enough in existence to make a most interesting show. The Tate Gallery might have a room for architectural drawings, and it could contain, as in its pictures, the best of the modern school of work, with examples of some of our foremost perspective artists' drawings. Here would be an excellent place to display the medal drawings of London's medal buildings, as at present being selected by the Institute, in periods of, say, ten years, at the end of each ten years the best of the ten to be retained.

If some such scheme as this could be carried out, especially if it were done coincidently with a scheme for selecting the most interesting buildings of the year in different districts, there is no doubt that a great deal of legitimate attention would be attracted from the public itself, and intelligent comment from the lay population would be fostered. It would be a great advantage also to those of the public who are potential clients of the architects to have a more enlightened outlook on the work of the profession. It would clear away a great quantity of misunderstanding of the functions of the architect, and we might no longer be congratulated by intelligent friends on our "tender for designing and building" having been accepted.

One does not hear the public speak of asking competitive prices from barristers, solicitors, and doctors; while it is quite a common thing for a member of the public to imagine that they are astute and getting some "architect" (who, of course, is no architect) to "do" a design for them "cheap," and lay the blame for the inevitable disastrous result on the profession. What, in short, architects sadly need is a little more publicity, not so much as individuals, but as a body; and it is by such means as we have suggested that the public will learn to know more of, and to appreciate, a great profession and the art it represents.

NOTES.

The Government's Housing Plans.

The housing proposals of the Government have been stated in some detail in a portion of the daily press, and we understand that the report of the Committee appointed to consider the housing question is to be presented immediately. The Government scheme is for the erection of three million houses in the course of fifteen years, and it is proposed, we are told, "to set up a statutory committee, composed of representatives of building trade manufacturers, building trade operatives and building material manufacturers," which is not very explicit, unless by "building trade manufacturers" is meant building trade employers, who appear to have some claim to be represented on such a committee! The Committee is to be responsible to the Government for carrying out the housing programme, except as to finance, which will be dealt with by the Treasury and the Ministry of Health. On the question of cost, the Committee recommend, it is stated, that the minimum floor space of any house built under the scheme should be 850 superficial feet, and the cost not more than £450 per house. Houses of 950 superficial feet, the Committee state, should not cost more than £515 per house. In the absence of the text of the Report, we accept these statements with reserve, though we may remark that the minimum floor space proposed is a great improvement on the proposals of the late Government in their Housing Bill as introduced. The Report also deals with the shortage of labour and the allocation of work, the control of prices, and the "guaranteed week." It will be noted that the three million houses in fifteen years are the 200,000 houses per annum which it is known the Government desire to provide, but, according to the statement made in the House of Commons, 200,000 houses per annum would exhaust the supply of bricks available for all classes of building.

Waterloo Bridge.

We are now seriously faced with the problem of London bridges. The opposition to St. Paul's Bridge steadily grows in strength and influence; and the, various suggestions for dealing with Waterloo Bridge are discounted by the announcement that a vote of a million pounds is to be brought forward for strengthening and widening it. We have been expecting the blow to fall for some time, for Waterloo Bridge was clearly inadequate to the immense volume of traffic passing over it. The present state of affairs in regard to London bridges' traffic affords a striking illustration of the lack of foresight in the management of our affairs. We cannot help wondering how it is that so fatal a misapprehension exists as to the importance of road approaches to existing and projected bridges. The whole question of the bridges is inevitably linked up with the general development of road traffic in and about them, and in the interests of the future well-being and growth of London it is of the utmost importance that the relation of its bridges to its road traffic should be seriously considered at once. If we have wasted the expenditure on Southwark Bridge, and are going to waste more on St. Paul's, and spend more still on Waterloo, what can be said of the wisdom of this present wide-awake time? It certainly behoves all those who have worked strenuously for a better London to take some urgent measures for an official recognition of the seriousness of the situation. The L.C.C. has done so much for London that we may reasonably hope it will consider well proposals affecting one of the finest bridges in the world.

Looking Ahead.

We are fairly certain have a new bridge over Thames in the near fut whether it be St. Paul's Charing Cross. May we raise our v in time with a warning prompted memories of the waste places of Aldw and Kingsway, which we suffered so lo and which even yet have not enti given place to decency? These brid will mean the laying out of many streets and the demolition of many a which may lay in their ugliness for m years before the slow tide of eve washes them clean. Surely the wea of the metropolis can stand for the c paratively slight expense of laying such areas as temporary parks and garde so that the long process of metamorph may be made tolerable? Or are never again to look tidy?

The Wembley Strike.

The building trade str at Wembley is signific of the attitude of mind some sections of labour, is to be regretted for more reasons t one. The known desire to complete Exhibition for the opening day appe to have had much to do with the act of the men, but we are glad to know t the union repudiates this action. A well known, a national demand has b made on behalf of the building tr operatives for an increase of 2d. an ho and it appears to be part of the calculat of the strikers at Wembley that the str will induce employers elsewhere to c cede the national demand, but there really no analogy between the Wembl undertaking and building work in oth parts of the country. At Wembley t operatives have been receiving more th the current rate of wages, and labour been attracted there to the detrim of employers in other districts, and doubt whether these employers will any more willing to-day to pay the

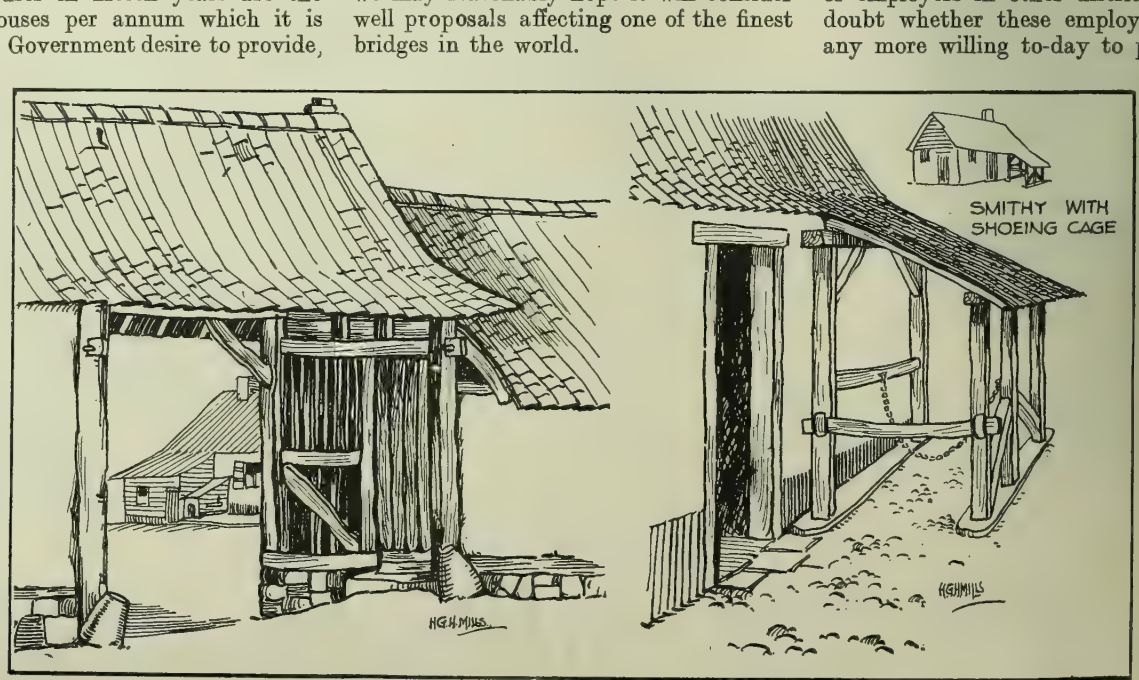


Fig. 3. Fig. 4.

From Sketches by Mr. H. G. H. Mills. (*See p.* 528.)

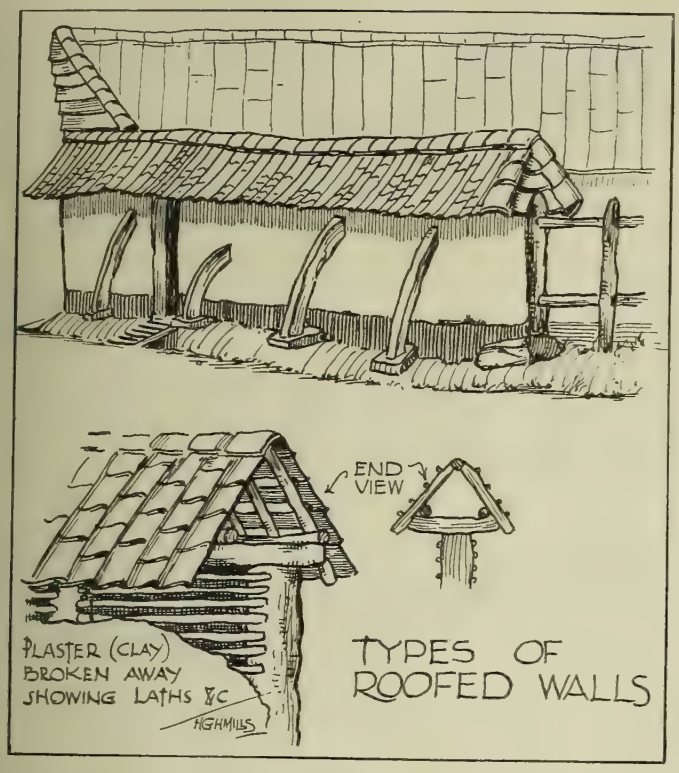


Fig. 5.

From Sketches by Mr. H. G. H. Mills. (*See p.* 528.)

ease demanded than they have been in cent months, and certainly not by ich a strike brought about in such a ay.

The Rent Bill.

The new Rent and Mortgage Interest Restriction Bill has now been issued, and its second reading has been oved by the Minister of Health. A more astic measure affecting one class of operty-owners it is difficult to imagine, d the Government can have little hope carrying it in its present form. The ıuse which will excite the greatest ıount of opposition decrees that the urt shall not make or grant an order r the recovery of possession of a dwelling-house or for the ejectment of the tenant therefrom on the ground of non-payment of rent in any case where it appears to the Court that the non-payment is due to the inability of the tenant to obtain employment, unless the Court is satisfied that greater hardship would be caused by refusing to grant such order or judgment than by granting it. If tenants are to be exempted from paying rent on account of unemployment, why should they pay for anything else?

A Wasted Opportunity.

The Architecture Club exists to promote interest among laymen in current architecture, and the admirable exhibition now at Grosvenor House is directed to that end. It is much to be regretted that the series of informal lectures given every afternoon should be so little known and so poorly attended. The panel of speakers has been carefully chosen, and the subjects are popular in character. We are certain that if this series had been advertised amongst "arrangements for the day" in the general Press the exhibition would have benefited by an increased attendance, and that many people would have enjoyed the opportunity to learn something about the varied facets which the subject presents. As it is, the few casual visitors who happen to be at the exhibition during the lectures glance into the lecture room and assume the alarmed expression which overcomes the sensitive tourist when escaping from a professional guide. There is no notice outside the room to explain who the lecturer is and what is the subject, or to make it clear that admission is free. While congratulating the Club on its initiative, we wish it would take steps to secure a wider field for its influence.

London's Sunshine.

Dr. J. S. Owens, in a recent letter to *The Times*, draws attention to the steady improvement that has taken place in the records of London's sunshine as calculated from the Meteorological Office records. The percentage of sunshine in London as compared with that in the rural stations of Oxford, Cambridge, Geldeston and Marlborough, is shown on a table which we illustrate in graphic form on p. 528. The table forcibly brings home Dr. Owens' statement that, in spite of the improvement, the air in our cities is still vitiated to an intolerable degree. It also occurs to us that the improvement may be partly illusory on account of the increased smoke in the towns of Oxford and Cambridge. Our comparison places should be situated outside the effects of smoke altogether.

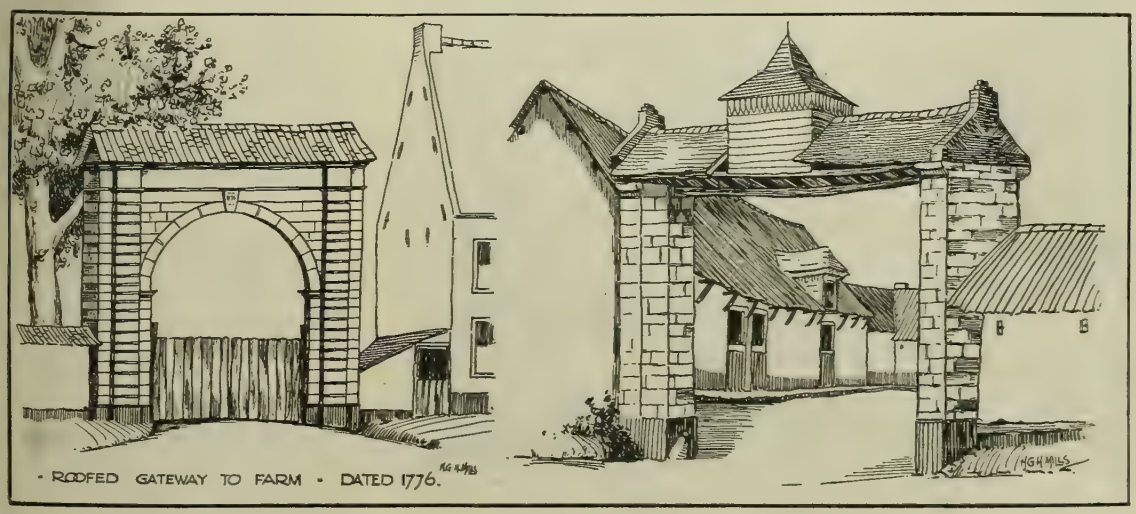


Fig. 1. Fig. 2.

From Sketches by Mr. H. G. H. Mills. (*See p.* 528.)

GENERAL NEWS

Professional Announcements.

Messrs. Cooke & Davies, F. & A.R.I.B.A., architects, have removed to No. 44, Great Russell-street, W.C. 1. Their telephone number remains the same (Museum 4136).

Mr. Wallace J. Gregory, L.S.A., has removed to 7, Carteret-street, Queen Anne's-gate, Westminster, S.W. Telephone number: Victoria 4093.

Messrs. Lionel U. Grace, F.R.I.B.A., and W. G. Farmer, M.S.A., have removed from 114, Queen Victoria-street, E.C.4, to 3 and 4, Wardrobe-place, Doctors Commons, London, E.C.4.

The address of Mr. F. C. W. Stacey, quantity surveyor, is now 176, High-street, Acton, W.3.

Architect's Estate.

Mr. A. E. Mullins, of Wilton, Mickleburgh Hill, Herne Bay, Kent, for many years an architect and surveyor at Peckham (net personalty, £5,501), £5,651.

St. Paul's Bridge.

A deputation of the Royal Institute of British Architects will attend a meeting of Metropolitan Members of Parliament at the House of Commons on April 8 to impress upon them arguments against the proposed St. Paul's Bridge scheme.

New Thames Port.

Plans have been prepared by the Thames Land Co., Ltd. (a subsidiary of S. Pearson & Sons, Ltd.), for a new industrial town and port, with a deep-water wharf a mile long, at West Thurrock, on the Thames, near Tilbury. The property extends inland for 4½ miles, and is intersected by the L.M. & Scottish Railway, with which line railway connections will be made to the wharf and factories which it is hoped to develop. The cost of the wharf is estimated at £1,200,000; and of the railways, £270,000. It is understood that Parliamentary powers are being sought, and that constructional work will be begun as soon as possible.

The Walls and Gates of Peking.

The beauty of the City Gates of Peking, their importance as characteristic elements in some of the finest views of the Chinese capital, their wonderful setting amidst old buildings, fresh trees and decaying moats, their decorative architectural character, are well known to those who have visited the city, but no adequate representation of them has yet appeared in this country. Professor Osvald Siren of Stockholm, with the permission of the Chinese Ministry of the Interior, has devoted several years to a faithful study of the subject. He has now brought to England 110 photographs and 50 architectural drawings made by Chinese draughtsmen under his supervision, which illustrate with remarkable completeness the artistic and historic importance of these ancient gates and walls. These drawings and photographs will be exhibited in the Galleries of the Royal Institute of British Architects (9, Conduit-street, W.1) from Monday, March 31, to Saturday, April 5. The Exhibition will be open (free) between the hours of 10 a.m. and 6 p.m. (Saturday 1 p.m.).

Victoria and Albert Museum.

The roodloft from the Cathedral of St. John, at Bois-le-Duc ('s-Hertogenbosch), in North Brabant, Holland, which was pulled down in 1866–7 and ultimately purchased by the Victoria and Albert Museum in 1871, has been moved from its old position in the Cast Court of the Museum and re-erected across the East Hall. This excellent example of decorative architecture was erected in 1610-13 by Coenraet van Noremberg, of Namur, after the pattern of the roodloft in Antwerp Cathedral, which is now destroyed.

It is composed of red, black and grey Belgian marbles with figure sculpture and decoration in alabaster—the original contracts for the work, which are still preserved in the archives at Bois-le-Duc, stipulate that some of this alabaster was to be English. The west side has figures of five virtues (Faith, Charity and Hope in the west face, Justice on the north, and Peace on the south); between these are four smaller figures holding shields charged with the arms of Brabant, Duke Godfrey of Bouillon (the founder of Bois-le-Duc), the Archduke Albert and Isabella, and Bois-le-Duc. Small panels set under the balustrading are carved with scenes from the life of Christ, beginning with the Nativity and ending with the Ascension. This series is continued on the east side with the Last Judgment and the Seven Corporal Works of Mercy. Above the pairs of columns which support the arches of the roodloft are statues of the Virgin and Child, St. Peter, St. Paul, and St. John the Evangelist. This latter figure has been ascribed, on the analogy of the figures on the monument of William the Silent at Delft, to the Dutch sculptor, Hendrick de Keyser (1565-1621), and it seems possible that the St. Peter and St. Paul may also be by him.

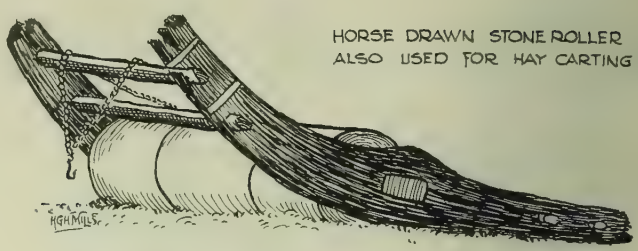


Fig. 6. Sketch by Mr. H. G. H. Mills.

SKETCHES IN FRANCE

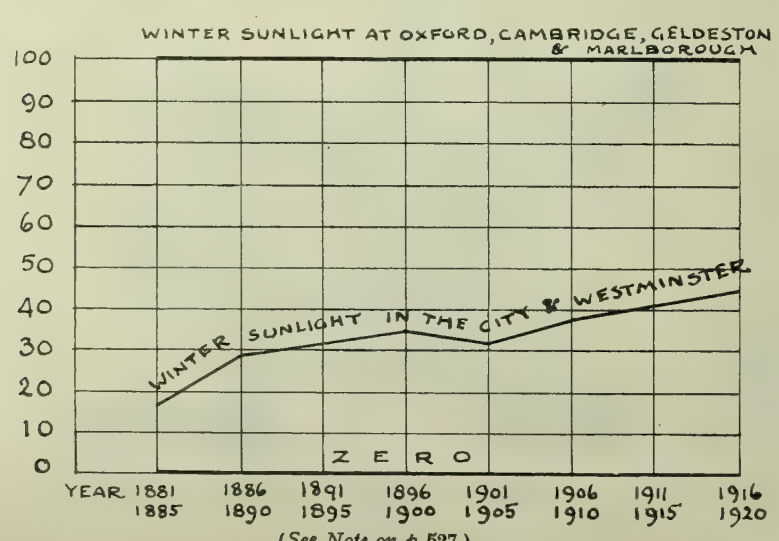
The sketches on this page and on pp. 526–5 are by Mr. H. G. H. Mills.

Figs. 1, 2 and 3 are different types of roof entrances to farms. Fig. 1, dated 1776, bei pre-Revolution, was probably originally t entrance to a chateau, and has some slight pr tension to Classic design, while Fig. 2 w probably built for its present purpose, but sho indication of either having been restored or t roof rebuilt. Fig. 3 is practically a cartw through the end of the barn—of the usual timb and plaster type—another barn adjoining, a both having entrances from the cartway. The farm buildings, built round three or four sides a rough square, are invariably raised, with cobble path outside, necessitated by the centr square being the general manure and refu heap, and drainage being largely consider superfluous.

Fig. 4 shows an interesting arrangement f shoeing horses, in that the movement of t horse is considerably restricted when placed the cage. A chain passed loosely under t animal further restricts movement, while if hind hoof is to be shod it is firmly lashed wi rope to the crossbar at the end.

Fig. 5 shows two types of roofed bounda walls in one of which is a doorway into th farmyard. The other indicates the gener method of construction, the posts and stru being thick branches or roughly squared timbe

Fig. 6 is a very simply constructed and in teresting horse-drawn stone roller, and is fre quently used as an aid to harvesting by pra small holders, who will harness a horse to an thing that will move and transport hay, even small quantities.



(See Note on p 527.)

COMPETITION NEWS

Salford Baths and Washhouse.

The Baths Committee invite applicatio from architects for permission to submit co petitive designs for public baths and a was house. Applications to be sent not lat than April 22 to the Town Clerk.

Hollbrook School.

The Board of Admiralty propose to inv six architects with experience in the planni and erection of large schools to enter into limited competition for a school to acco modate 1,100 boys. The Board will consi the names and qualifications of those will to compete, who should send in their names the Director of Greenwich Hospital, Admiral 48, Cornwall-gardens, S.W.7, on or before Ap 11. The professional adviser is Sir Ast Webb, P.R.A.

Kingston Union Nurses' Home Competition

We understand that particulars of this Co petition, details of which have yet to be arrang are not available at present, but will be issu later in such form as the promoters thi desirable.

Other Competitions.

Other competitions still open include following (the dates given are, first the sendi in date, and second the issue of *The Builde* which full particulars were given) :—Indust Designs (June; Dec. 21, 1923). Natio Theatre (April 26). Ross-Smith Memo (Sept. 30; Feb. 1). Bradford Masonic Tem (June 30; March 28).

CORRESPONDENCE

Professor Pite on Architectural Education."

Sir,—Professor Pite, in his scholarly treatment the subject of architectural education at the inburgh Architectural Association, recently, urally assumed that the primary object education is to enable the rising genera- n to produce better work than the present ieration (an idealistic and altruistic motive); t there are other aspects of the question which peal more to the commercial mind of to-day. t has been truly said that the mind only sees at is in itself. Our contact with the world is y within the limits of our physical and mental periences. Education may appeal to the ividual for several reasons:

1) The increased capacity it gives for doing ter work.

2) The increased enjoyment it gives to our nan relations and contact with the world erally.

3) The increased capacity it is supposed to e to earn a livelihood.

The first is the ideal reason, but as Professor e said: "Ideals die when economy takes the is." No past age has ever seen such economic os introduced into the world of art as we e to-day. Few of us have remained un- ited by the pressure of economic circumstances. What is the attitude of the student of to-day? finds himself in a world where scholarship no ger receives its due reward. On every hand hear the same story. The student of to-day not the enthusiasm of the student of 20 or years ago.

The failure of the R.I.B.A. Studentships to act competitors is only a sign of the times, we have not yet seen any statement which ears to me to give the real reason of their ure to attract competitors. The student of lay on looking round sees men who have er been trained—perhaps an ex-clerk of ks—carrying on, as architect, contracts of e amounts, or an ex-joiner acting as arbiter a competition; or half-baked architects are civil and Corporation draughtsmen ying on contracts of (presumably in their time?

e (the student) sees architects who have r received any academic, classic, or technical ning with touring cars and living in large ses built by themselves.

he student of to-day naturally asks: "How these things be?" He sees men who spend their afternoons loafing in the smoke-room billiard-room at the club with a large and unerative practice. Again he asks: "What ne use of perseverance and scholarship?"

venture to suggest from our contact with rising generation that these considerations ainly greatly influence the mind of the lent of to-day.

eedless to say, Professor Pite's lecture was masterpiece of clear thinking and sound oning, but he took the high ground of the list and altruist for his outlook. He hinted he futility of our present system of exami- ons. No lover of the profession would like e men like Wren or Kemp (I do not say Kemp was a great architect) debarred from practice of architecture because they had not through some academic mill with its dule of examinations, but so long as anyone call himself an architect by putting up a the futility of trying to close the doors into profession by means which do not ultimately a man of culture and training some guaran- f adequate return for years of labour and acrifice are futile. Certainly it has been ly demonstrated that the laborious study work does not necessarily produce a great en a moderately efficient architect. We all men who have ignored the academic way have turned out masters in their art; no t because of some inherent traditional n which gave them that natural intuition of s in all things.

e thing seems clear: no system of school or ersity education will of itself produce any- but academic rearrangements of old styles s it is founded on the practical needs of nt-day requirements, structural necessities, and present-day economic limitations, into which are infused some element of spiritual ideals and intellectual vision. The architecture of the Egyptians, Greeks and Romans died when the people lost their vision. So will the architecture of Britain die when ideals of beauty as an end above price cease to exist.

To acquire a practice, personality is a greater asset than scholarship, and an agreeable manner than great erudition. Of what use, then, is a cold-blooded system of academic examination? So asks the student.

William Davidson.

Whitby Abbey Restoration.

Sir,—As the writer of the letter which is referred to at the beginning of Mr. Harvey's article on this subject in your last issue, I must intervene with a brief rejoinder. He writes with such evident sincerity that I am reluctant to criticise what seems to him a reasonable procedure, though the artistry of faked ruins is not one I can endorse. The frank recognition of the impossibility of restoration in such a case is much better expressed in what the writer calls "crude masonry" repairs than in any plausible attempts to imitate the original—and what is to be said for imitating ruins? Here is a new form of revival the Gothicist never dreamed of. To rebuild ruins which have been blown down by Hun fire in the name of preserving the past produces a sort of cerebral disorder in the mind, which cannot grasp it. To hasten the disappearance of the ancient remains in this way, in the belief we are conservators, paralyses the understanding? The writer tells us that "it is possible to recognise a spiritual quality in the sincerity of fine craftsmanship," in speaking of ancient monuments, but what evidence of such recognition is conveyed in raising up a new ruin out of the old one? The artistry of such ruins I am unable to appreciate, because they blot out this very quality. Is it being alive to the appeal of ancient monuments to obscure their message in this ridiculous way? It is pathetic to think of such restoration as that bestowed on the entrance to Whitby Abbey by the Historic Buildings Branch appearing to anyone as preserving the "spiritual quality" of these old ruins. If ruins, as the writer suggests, become matters of indifference to the public, unless kept in this sort of repair, is it not better that they should be indifferent rather than misled and the ancient monuments disfigured? Such restorations as imitating ruins, &c., falsify history and the spirit of old work, accustoming us yet more fatally to shams; and the argument of the "turnstile" as evidence of popular interest is no justification for these grotesque resuscitations. To re-establish decay is not preservation of the spiritual quality the writer so justly values, but a kind of body snatching. Let us rather prefer to see these old ruins rest as they are, baring our heads before their inspired endeavour, which forbids such sacrilege and disturbance; and if repairs are made, to prop a wall or stay collapse, let them be limited. As the repairs at Whitby Abbey, we are told by the writer are only "part of a larger scheme," the imagination recoils at the possibilities that may be in store for us.

The Correspondent.



Beverley War Memorial. Mr. F. L. Pearson, Architect.

[This memorial, executed by Mr. Robert Davison of London, was unveiled in the Soldiers' Chapel of Beverley Minster.]

Mr. J. A. Gotch (President) occupied the chair on Monday at 9, Conduit-street, W., at an ordinary meeting of the Institute.

Mr. A. Keen (Hon. Secretary) announced the decease of the following members: Mr. Albert Edward Murray, R.H.A., elected a Fellow 1889 and placed on the list of Retired Fellows in 1923. Mr. Murray was a Past-President of the Royal Institute of the Architects of Ireland and represented that body on the R.I.B.A. Council during the Sessions 1911–1912 and 1913–1914. Mr. William Edward Willink, M.A., Cantab., elected Associate 1885, Fellow 1898. Mr. Charles Stuart Delfosse, elected Associate 1882. Mr. William Charles Antcliffe, elected Associate 1909. Mr. John William Key, elected Licentiate 1912. It was agreed that the regrets of the Institute be entered on the Minutes and a message of sympathy conveyed to the relatives.

GOTHIC ARCHITECTURE OF THE 19th CENTURY.

Mr. H. S. Goodhart-Rendel then gave an address on "English Gothic Architecture of the 19th Century," in the course of which he said Gothic architecture, as everyone knew, was the only architecture in this country from the acceptation of the pointed arch until the gradual perversion at the end of the sixteenth century of the style of the Renaissance. This successful style gradually ousted Gothic from its place and power. The Church of England held to the old way of building for a century or so, compelling even Sir Christopher Wren to its occasional practice, and it was not until the second half of the eighteenth century that new Gothic buildings for ecclesiastical or educational purposes became unusual.

Very soon after this conscious revival began, sometimes as serious as in the octagonal churches built in 1756 at Hartwell in Buckinghamshire, any little thing Gothic became the fashion among the *beau monde*. Gothic hermitages and Gothic parlours with traceried wall-papers, with Gothic baths in noblemen's parks, might not seem very robust descendants of the ancient lines of Canterbury and Westminster, but it was impossible to find any point at which the succession broke. In itself it must be admitted that this revival of Gothic forms was of little importance. It contributed, however, towards something quite important, when considered together with the revival of the constructional in Gothic which could be seen appearing in the humble building tradition of England during the seventeenth and eighteenth centuries.

In the year 1800 James Wyatt, the leading architect of the day, had already been at work for four years upon William Beckford's palace, Fonthill Abbey, in Wiltshire. Of this building, which cost more than a million pounds, and upon which at one time 460 men were at work in day and night shifts, not a stone now remained.

This prodigious house was the most magnificent and the most famous of a large number of similar buildings which the Gothic taste brought into being at the beginning of the last century. Europe had turned from reason to romance, and men of true sensibility sickened at the sight of porticoes, even in France, where the architectural elements of Roman antiquity had become embodied in a living and fertile style; the call of the Middle Ages broke up for a time the academic camps.

Almost contemporary with the works of James Wyatt were those of John Nash—afterwards famous for his London improvements during the Regency. Nash was, like Wyatt, a great picture-maker, but he was incorrigibly idle or ignorant in his choice of details. James Wyatt and John Nash had many imitators, among the earliest of whom William Wilkins, William Porden and William Atkinson were conspicuous. Many old houses of post-Renaissance design were recased within Gothic exteriors—generally absurdly enough. Mulgrave Castle, in Yorkshire, for example, was so treated by Atkinson, and Hawarden Castle in North Wales, by James Cundy, architect of Grosvenor House. The high fever of castle-house building upon which the last century opened did not at first infect any other department of architecture. There was, if anything, a falling-off in the normal supply of new buildings for public and educational purposes. Speculative building of small houses, which was to change the face of England after Waterloo, had not yet been dreamed of. Nor had the wildest dreamer foretold the battle between the "Gothic" taste and the established "Grecian." Almost the only churches of the passing period which they could esteem as of architectural merit were those designed by that distinguished student and theorist of mediæval architecture, Thomas Rickman. Rickman was a Quaker with a passion for Gothic churches. In 1812 he published some literature on Gothic architecture which was republished five years later in the form of that handbook which had been, ever since, the accepted primer of English Gothic. Perhaps his chief claim to commemoration was his invention of those terms, "Early English," "Decorated" and "Perpendicular," by which three phases of English Gothic continued to be commonly designated.

In 1825, John Chessel Buckler designed Costessey Hall in Norfolk in a Gothic style which, unlike Wyatt's, comprised no features of ecclesiastical architecture, and unlike Nash's, made no pretence of castellation. The new fashion became instantly successful; everywhere the castle gave way to the manor-house. The mention of this coquetry with the Renaissance was necessary because this backsliding from the Gothic faith was one of the things which roused the wrath of the great reformer, Augustus Welby Northmore Pugin. At the age of fifteen Pugin designed the furniture for the new rooms at Windsor Castle; at 32 he was the best-known church architect in Europe. At 39 he went mad, and at 40 he died. His enormous power of draughtsmanship, his love of the stage, his skill in religious polemic, his passion for the sea, and his humour as a writer, all emerged in the memorials of him compiled by his friend, Benjamin Terrey.

Pugin's true principles, disentangled from his untrue prejudices, had since been accepted even by the descendants of the neo-Classical school which he so strongly condemned. The foundation of them all was his message to a self-tortured architecture that it was not necessary to suffer to be beautiful. Plan your house to suit your habits, he said, in fact, and let your plan suit your elevations.

Pugin's friend and exact contemporary, Richard Cranwell Carpenter, was the architect hope of the Tractarians. Of the few churches which he lived to build, St. Paul's, Brighton, and St. Mary Magdalene, St. Pancras, were the best known. Carpenter was a true artist without the fire or the precocity of Pugin, but perhaps with more discretion in design.

In 1845, Derick acted as Dr. Pusey's architect in the planning of St. Saviour's Church at Leeds. This building is markedly in Pugin's style, and other works of its designer showed the same influence. The Tractarians, however, appeared not to have been satisfied for long with Derick's abilities, and as the movement progressed he dropped out. The Cambridge Camden (afterwards Ecclesiological Society) controlled the architectural taste of the T tarians, and propounded about 1845 a d which Pugin could scarcely have suppo This dogma was the exclusive claim amon Gothic styles of the Middle Pointed for m adoption.

In conclusion, the lecturer said to the stu of religion there was nothing more intere in the history of the nineteenth century the unconscious Puritanism of many o early Tractarians. This was not hard to u stand considering the circumstances under the Tractarian movement began. Butte was its only exponent in architecture. buildings never condescended to please. fact, they often seemed intended to a Strange and harsh outlines, violent con of colour, and heavy masses com in his works with great vigour and nobili form, and a constitutional logic very fin unswerving. No artist could fail to be unn by the great mass of St. Matthias's Chur Stoke Newington.

Discussion.

Professor Beresford Pite, in proposing a of thanks to the lecturer, said the extent acquaintance with the work of the last ce was remarkable and the paper would be e ordinarily valuable in their record. It strange how rapidly things moved and how all that was stimulating and virile passed the scene; how rapidly the architectural scape changed. Mr. Goodhart-Rendel confessedly dealt with an era which was although he concluded with the hope tha Gothic work would still live. This revie important; it was not merely intere The amusement with which some of its had been received was scarcely well t It behoved them, in their modern la enthusiasm, in their modern scepticism regard to architectural ideals, in the v impotence of their imaginations—all of were abundantly proved by the competitio the past twenty years and by the desig the students in the most recent day—to with the greatest respect and to seek to as consistently and earnestly as they could extraordinary mental vigour, imagina agility and fertility of the Victorian archi Nothing was more deplorable than to cultivated men and women of the present unable to appreciate the standpoint of a pre generation and unable to perceive what architects thought when the buildings erected which they unhappily had to inh Respect, piety, not to say affection for ancestors, was a decency of ordinary life. cynicism of some of the lecturer's referen the successful architects of the last centur been dignified by the justness of his criti There was a great deal which was hum about Sir Gilbert Scott's zeal for business that was not strange to them now; and everything had been discounted, the g grandeur and completeness of his achiev as a great architect was patent. Th Pancras buildings were certainly remarka any review of European art, and their disti originality, the way every detail had thought out and brought out, and the g success of the grouping were most suf testimony to the mastery which Scott exe But apart from the smaller buildings, was remarkable that that age produced at on Houses of Parliament—surely the most be group of modern buildings in Europe—a Royal Courts of Justice (extraordinary ir power and scholarship and freshness of ou Place with these the churches and the cha work of Norman Shaw and its influe country houses, and they must be co that they were face to face with an archit period of immense importance and prodi ness, and the work was that of a group equal in vigour and outlook to the architects of the fifteenth century.

Professor A. M. Hind (Slade Professor Arts, Oxford) seconded the vote of than said he did not feel that the designs o younger architects and students showe

of greatness which one found in the Victorian
To him they gave very considerable hope
he formation of something of a real style of
itecture. One of the great hopes of archi-
ural designers of the present day was that
was no money to waste. Professor Hind
red to the assistance which had been given
he Institute in connection with the starting
course of architectural lectures at Oxford
ersity. He did not think there would be
velopment of a School of Architecture at
rd, but he felt it important to give men
were studying history and the humanities
thing of a better basis of knowledge in
d to styles of architecture.

. E. P. Warren said as an old pupil of
ey he supposed he had inherited a great
of the Gothic tradition. What he felt with
d to the whole of the school was that they
one extremely envious characteristic, which
heir intense conviction that what they were
was the real and the only thing. The
ic revivalists of the nineteenth century
tly tried to get away from the bad tradi-
which had arisen and did their best to
honestly. The churches of St. Luke's,
ea. and St. John's, Fulham, for instance,
honestly built of good materials.

Charles Nicholson considered that the
e revivalists were too near our time for
value to be appreciated properly. If their
lasted, as he hoped they would, in another
red years they would have architectural
nts measuring them just as now they
ired St. Paul's Cathedral.

A. T. Bolton said he believed Mr. Good-
Rendel had visited every London church
ad the names of the architects, and he
he would add that as an appendix to his
He thought Wyatt turned his attention
thic through the influence of Walpole.
le's house at Strawberry Hill was seen by
one, and did an enormous amount to
arise people with the idea of building
s in the Gothic manner. It was clear that Pugin got his knowledge of Gothic in the first place by working on his father's books. Later on someone asked him how he acquired his knowledge of Gothic and he said, "I lived in three cathedrals." He wished students would bear that in mind, for that was the real way in which the Gothic revival went on—it was the study of actual buildings. England was a built-up country, and much of the work architects were likely to get was the reconstruction of existing buildings, and it was a defect of the present flourishing school that there was not the study of these old buildings there used to be.

Mr. Goodhart Rendel, in reply, said he was compiling a list of all the churches in England and their architects, and he would always be pleased to give information to architects in relation to these.

NOTES FROM THE MINUTES.

We take the following from the Minutes of the R.I.B.A. Council Meeting held on March 17 :—

R.I.B.A. Essay Prize.—The annual value of this Prize was increased from 25 guineas to £50.

The Royal Artillery War Memorial.—It was decided to approach the Fine Arts Commission with regard to the site of the memorial.

Professional Conduct.—Three members having infringed the rule of professional conduct which protects a member from attempts to supplant him in his employment, one of them was censured and suspended for twelve months, one was censured and suspended for six months, and the resignation of the third was accepted.

Newbury Building By-Laws.—It was decided to communicate with the Ministry of Health in support of the Berks, Bucks and Oxon Architectural Association's appeal against an oppressive by-law.

The Manchester Society of Architects.—The admission of the Burnley District Society of Architects as a branch of the Manchester Society was approved.

Reinstatement.—Mr. J. S. Heath (F) and Mr. J. F. Schofield (A) were reinstated.



Memorial Gates at Tattenhall Church, Cheshire.
Messrs. Douglas, Minshull & Muspratt, Architects.
[These gates were executed by Mr James Swindley of Chester.]

R.I.B.A. Diploma in Town Planning.

The Examination for the R.I.B.A. Diploma in Town Planning will be held for the first time on October 15, 16, 17 and 20, 1924. Candidates applying for admission must be either Fellows, Associates, or Licentiates of the R.I.B.A., and applications must be made before May 31. Forms of application for admission, containing the Regulations and Syllabus, may be obtained at the R.I.B.A.

St. Paul's Bridge.

The Royal Institute of British Architects state :—

"It is evident from the reply which was given by the Minister of Transport when he received on March 11 a deputation from the R.I.B.A., the London Society, the Town-Planning Institute and the Architecture Club, that the Government are committed to a financial contribution towards the cost of the approaches of St. Paul's Bridge, if and when the authorities responsible finally decide to proceed with the scheme. At a meeting of the representatives of the abovementioned societies, held on March 17, it was decided that further steps must be taken to acquaint the public of the necessity of opposing the building of a bridge at St. Paul's. At the request of the societies concerned, Sir William Bull, M.P., has invited the Metropolitan Members of Parliament to a meeting in the House of Commons, which the deputation will attend; and selected speakers will impress upon those present the arguments already advanced against the St. Paul's Bridge scheme by letter to the Prime Minister and verbally to the Minister of Transport. The meeting will be held in Committee Room No. 9, House of Commons, on Tuesday, April 8, at 4.30 p.m."

THE LONDON SOCIETY

On March 26 members of this Society visited Chelsea Hospital. The buildings, which, perhaps, few Londoners visit, were designed by Sir Christopher Wren in the reign of Charles I, who died five years after. It consists of two quadrangles, the side next the river being open. The dining-hall and chapel are of similar design, the latter being adorned with some wood-carving by Emmett. The former is not used for dining but is fitted up as a recreation room, and in both are a number of flags taken in the wars of the last century.

There are houses for the Governor—always a life appointment for a General—and a Deputy-Governor. In the absence of the chairman the party was in charge of Mr. Henry Lovegrove, member of the Council, and Miss L. Crum, the assistant secretary.

It is stated that the ugly buildings which disfigure Burton-court will shortly be removed.

EXHIBITION NOTES

The A.A. is to be congratulated on getting together from time to time exhibitions of varied character, which should appeal to all tastes. The present exhibition is a small but interesting show of posters by Mr. F. Gregory Brown. Those executed for Messrs. Bobby & Co. appeal to us as being the most successful; also his "Epping Forest" for the L.N.E.R. This is a broadly-handled woodland scene, with gnarled old trees in sunlight and shadow, effectively handled. Mr. Gregory Brown excels in his treatment of trees and foliage, and his posters do not leave too much to the imagination. The public have not all received an art training, and do not stop to solve puzzles. It is the masses to whom the posters should appeal, and not only the aesthetic and cultivated few. Arresting designs are those advertising Dorking, and the Animals' Welfare Week poster—the latter, a lamb on a strikingly dark backgrounnd, should make an appeal to many. The exhibits collectively are highly meritorious. Some 25 designs are exhibited and remain on view until April 24.

STAIRCASES.—II

(BASED ON THE WORK OF M. GUADET).

By T. P. BENNETT.

HAVING considered the staircase as an architectural detail, it remains to discuss it as an element in architectural composition.

The "perron" first claims attention, and it should be said at the outset that, although its effect is extremely monumental, it will be found that in many cases it is accompanied by a small and unobtrusive staircase, which actually provides the principal communication between the ground and the first floor, the "perron" or external staircase being reserved for entrance and exit on important occasions only. It is an important architectural element designed for a crowd and suitable only where many people are using it.

External staircases are very varied in form. Broadly speaking, they consist of straight flights forming a direct approach as at St. Paul's Cathedral in London, the Madeleine in Paris, and many Roman temples. Secondly, of straight flights, parallel to the face of the building as at the Mansion House, London, the Capitol at Rome, and the Palais de Justice, next to the Place Dauphine, Paris (Fig. 1). Thirdly, of those which are a combination of both these forms, as at University College, Gower-street, and fourthly, of stairs which are of special shape and design, as in the Great Court of the Cheval Blanc at Fontainebleau (Figs. 2 & 3). In all these cases it is necessary that the slope should be flat and the landings wide and numerous; nothing is more disagreeable than an external staircase with narrow landings, steep risers and mean approaches.

When occasion justifies its use, however, the "perron" is a magnificent feature. It may be enriched by groups of sculpture, balusters, podium walls and other adjuncts; the famous Giants' staircase of the Ducal Palace in Venice (Fig. 4) is a case in point, being a direct approach of considerable height, with two splendid figures at the top which give it a most monumental effect. Or, again, there is the great staircase, almost becoming a ramp, at the Capitol at Rome, the motif being similar to that in the design of the Giants' staircase at Venice, the colossal statues at the top representing Castor and Pollux.

Of much greater breadth and relative importance, but otherwise a "perron" of the same type, is that found in the Old Museum at Berlin, the groups of sculpture in this instance being particularly fine. The simpler treatments in our own city, at St. Paul's Cathedral and the Royal Exchange, are without their architectural interest. It is obvious that such a treatment requires substantial depth in front of the elevation of the building, and this depth is not always obtainable. We get, therefore, the steps which rise parallel to the face of the building and may have one of two different treatments:—

(1) They may commence at the extremities and rise to a central landing.

(2) They may commence in the centre and rise to landings at each end.

The Mansion House is a minor example and the Senators' Palace in the Capitol at Rome an important example, of the former treatment, while the Fountain Court at Fontainebleau is an instance of the latter. Sometimes the height from the ground to the principal floor is such that it is not possible to reach it in one flight, and in these cases a staircase of special character is necessary. London, again, provides instances at the National Gallery and University College, both by William Wilkins, and Paris has the external stairs of the Palais de Justice, designed by François Duc, as a portion of the façade. An internal example of somewhat similar character is a portion of the original work by Hardwicke at Euston Station.

The curved staircase has rarely found favour in England, but in France its ingenuity always appears to excite admiration, the most famous being, perhaps, the Cour du Cheval Blanc at Fontainebleau. At the

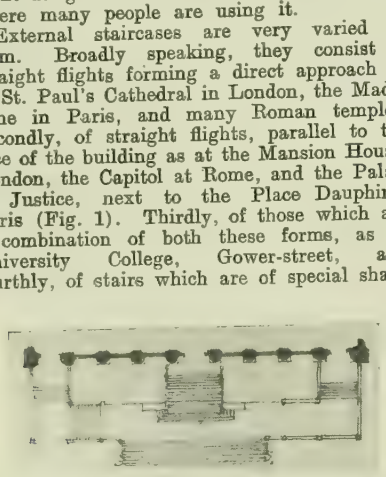


FIG. 1.—EXTERNAL STAIRS, PALAIS DE JUSTICE, PARIS.

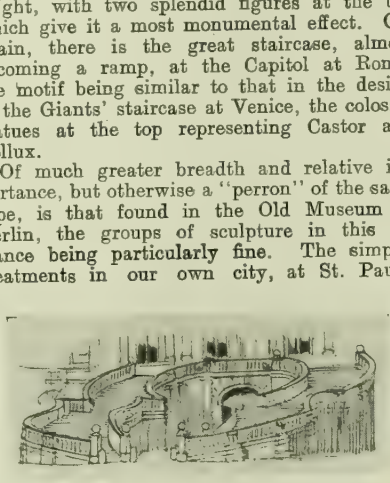


FIG. 2.—GREAT COURT OF THE CHEVAL BLANC, FONTAINEBLEAU.

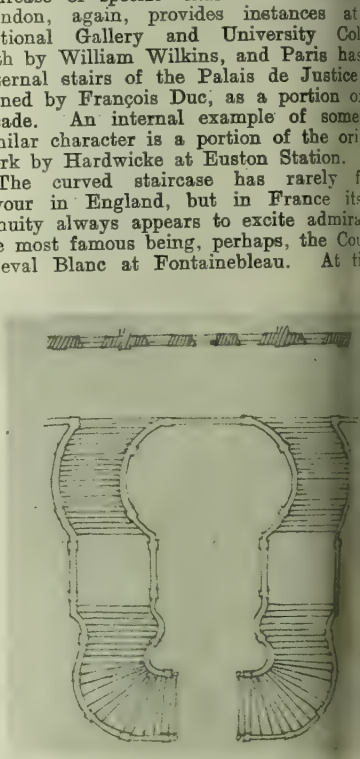


FIG. 3.—PLAN OF GREAT COURT OF THE CHEVAL BLANC, FONTAINEBLEAU.



FIG. 4.—THE GIANT'S STAIRCASE, VENICE.

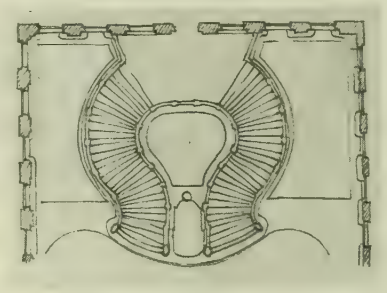


FIG. 5.—HORSE-SHOE RAMP AT THE LOUVRE.

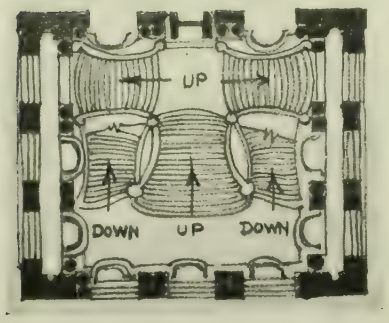


FIG. 6.—GRAND STAIRCASE, THE OPERA HOUSE, PARIS.

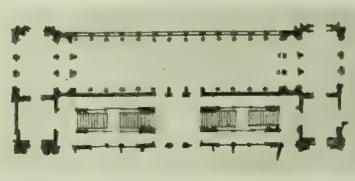


FIG. 7.—STAIRCASES AT THE OLD TOWN HALL, PARIS.

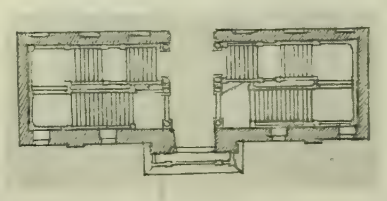


FIG. 8.—STAIRCASES AT THE CONVENT OF THE BENEDICTINES, CATANE.

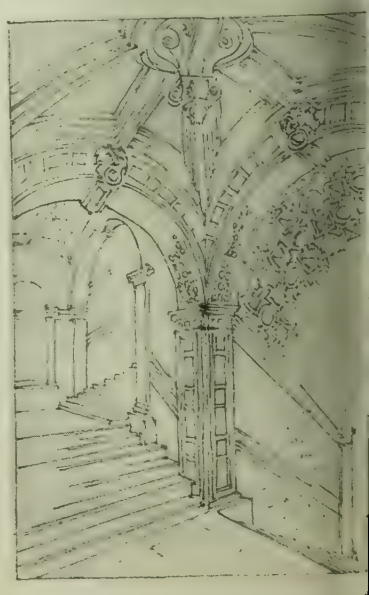


FIG. 9.—STAIRCASE FROM BURGHLEY [illegible] NORTHAMPTONSHIRE.

owever, the curved form is more suitable r the ramp which is required to take traffic, , for example, the Horseshoe Ramp at the ew Louvre in Paris (Fig. 5) and the Ramp the Opera House. The difficulties of deal- g with ramps on curves are emphasised by e latter example, which is rarely used on count of the difficulties experienced in unting by vehicular traffic. There are ny examples of the use of a few steps to e from the ground to the ground floor ich have been made the basis of an effec- e exterior design. These call for no special

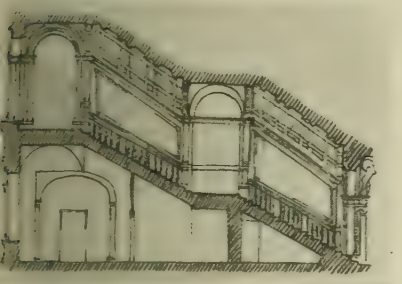


Fig. 10.—Scala d'Oro, Venice.

ervation, the only difficulty which will, babbly, be encountered is the necessity for ple space. All external stairs require ce, a fact which should never be for- ten.

nternal staircases have called for the atest possible variations in design. Their cing in the composition is of great im- tance, as is also their architectural effect. is necessary that they should be:—

1) In the centre of the part of the build- to be served.
2) Easily seen.
3) As far as possible rising through all rs of the building in one enclosure.

Monumental staircases which, by their im- ance, must be reserved for the use of one at the most two floors are exceptions to third necessity of staircases.

hen there is more than one staircase in uilding the lateral communication be- n each and the others should be obvious direct. Internal staircases may be clas- d in three groups:—

) "Show" staircases of monumental arance and effect, rising usually from the nd to the first floor; beautiful luxuries h must be used with care and discretion.
) Principal staircases of various grades importance.
) Service stairs.



1.—Staircase at Audley End, Essex.

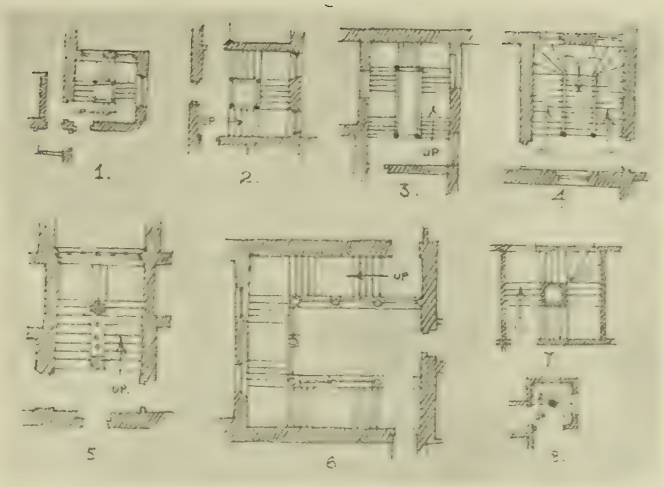


Fig. 12.—Staircases by John Thorpe.

Staircases of all grades must often lead from a landing of departure to one or more landings of arrival by a revolution of the stairs. Thus the landing on each floor level is immediately over the one below, but, at times, monumental stairs and perhaps others

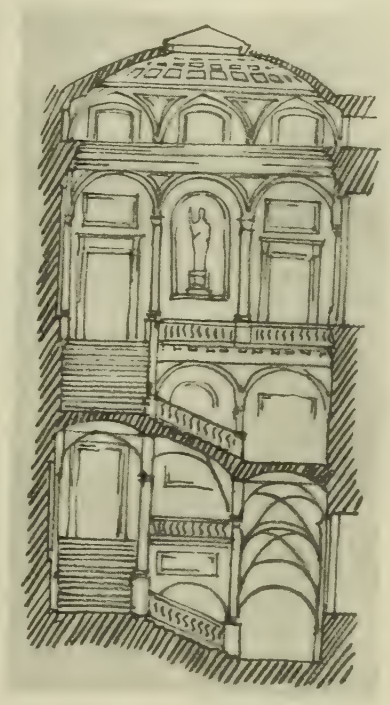


Fig. 13.—Staircase at the Palazzo Braschi, Rome.

of less importance start at one point on plan and land at another which is far distant. The important points, therefore, in the planning of stairs may be summarised as follows:—

(1) Their placing in regard to the plan.
(2) To provide landings where required.
(3) The arrangement of treads and risers of good proportion.
(4) Adequate natural lighting.
(5) Ample but not extravagant width.
(6) Effective design.

In monumental buildings the main or "show" staircases often become structures in themselves. There was a magnificent stair of this character, known as the Staircase of the Ambassadors, at Versailles, and the main staircase at Hampton Court almost rivals it in importance. In such staircases the design is made primarily for effect, and where it is in a staircase hall both ground and first floor will be included in its height, a ceiling covering both and providing a staircase hall of monumental proportions. Such stairs must always be spacious.

Landings, according to their respective purposes, must be ample and communicate with the main horizontal corridors running through the building. Top and side lighting are needed, the windows on the side walls facing, if possible, the more important flights. The shapes created by the line of the stairs on the wall surface bring into existence problems in decoration which are not always easy to solve, and considerable ingenuity has, at times, been exercised to create a straightforward scheme which would give the maximum effect. For instance, Garnier in the stairs of the Opera House, Paris (Fig. 6), kept the strings free from the walls and, therefore, had rectangular spaces to deal with.

Not the least of the difficulties of staircase design is that of lighting. Of necessity the landings at each floor level require to be in the centre of the building to assist economic planning, and this, in many cases, forces the intermediate landings to the outer wall, with consequent difficulty in dealing with regular ranges of windows which are features of a classic treatment of a façade.

The demand for beautiful stairs is relatively modern. Ancient buildings appear only to have known staircases which were useful. As the desire for a rich staircase became felt it was first designed as a straight flight with the walls and roof ornamented, but such straight stairs can only lead satisfactorily from one floor to another. Their disadvantage is the amount of space occupied, which is indicated by the plan of one of the stair-



Fig. 14.—Staircase at the Ecole Militaire, Paris.

cases in the Old Town Hall, Paris (Fig. 7). In buildings with narrow wings this was exaggerated, and in the Luxembourg, after rising from the ground to the first floor, it was necessary to return along one of two narrow galleries to enter the rooms in the wing of the building which lay behind the staircase. One of the most beautiful and most monumental stairs of simple character is to be found in the Vatican. In a few cases it is advantageous to land on the first floor at a point distant from the point of departure on the ground floor, but in many other cases this is a serious disadvantage, and as soon as staircases were constructed to serve many floors, the difficulties became almost insuperable.

When monumental staircases are placed so that the flights are parallel to the main façade there is a tendency to double them as in the case of the Odéon in Paris, or of the Convent of the Benedictines at Catane (Fig. 8). Occasionally this duplication is justified by the effect produced, but more often one staircase or the other appears to be redundant. There is a certain fascination about some of the English stairs constructed on this principle, which is felt in spite of their costly character.

Early staircases, even where they rise in several stories one above the other, have walls on either side and a solid roof. Such is the character of the Henry II's staircase at the Louvre, that at Burghley House, Northamptonshire (Fig. 9), and many other cases, notably, the Scala d'Oro at Venice (Fig. 10), but gradually, as staircase planning developed, the designers realised the possibility of obtaining light from floor to floor by supporting the stairs upon strings. At first the newels which carried the strings ran through the whole height of the building, an instance of which is found at Audley End, Essex (Fig. 11), and it was very soon discovered that these newels need only be of sufficient height to carry the handrail, and they were then reduced in size accordingly. John Thorpe exercised his ingenuity in planning stairs, some of which show unsupported strings while others indicate supports (Fig. 12).

Apart from the detail of design, however, the invention of the stairs with unsupported strings opened up a whole new field of composition, while the construction of such staircases in wood eliminated the need for a costly and elaborate system of arches and vaulting, which is found, for example, in the Palazzo Braschi at Rome (Fig. 13). It is easy to discover the reason for the universal employment of cantilever steps. They are easy to construct, have the greatest possibility of good lighting, and lend themselves most readily to manipulation in relation to the length of flights and the position of landings.

The English appear to have invented the "cut" string so universally employed in the eighteenth and nineteenth centuries, while the French maintain the use of the "closed" string in stone as well as in wood staircases, very fine examples of its treatment being found in many of the important buildings of France. The one illustrated is from the Ecole Militaire, Paris (Fig. 14).

Books Received.

Scottish Architecture, Twelfth to Seventeenth Century. Edited by Thomas Ross and Sir Robert Lorimer. (Edinburgh: George Waterston & Sons, Ltd.)

Practical Cabinetmaking. By Henry G. Phillips. (London: George Routledge & Sons, Ltd.) Price 5s. net.

Acoustics of Buildings. By F. R. Watson. (London: Chapman & Hall.) Price 15s. net.

Empire Forestry Journal, December, 1923. (London: The Empire Forestry Association.) Price 4s. net.

Year-Book of the Design and Industries Association, 1923–24. (London: Ernest Benn, Ltd.) Price 18s. net.

The Swedish Year Book, 1923. (Stockholm).

WATERLOO BRIDGE

In reference to the proposal of the Improvements Committee of the L.C.C. to reconstruct and widen Waterloo Bridge, we take the following extracts from a letter of protest which recently appeared in *The Times*:—

"We, the undersigned, being conscious of the unique artistic significance of Rennie's Waterloo Bridge—one of the finest masterpieces in architecture to which our country can lay claim—are yet aware that a purely negative attempt to preserve its identity after the necessary repairs have been effected would be as little likely to meet with success as the similar appeal, made a short while ago, for a reconsideration of the St. Paul's Bridge policy. The very acuteness of the traffic situation in the present instance, however, happily enables the problem of the preservation of the original Waterloo Bridge to be met with a constructive suggestion instead of with one of a dissuasive tendency only.

"Proposals have recently been put forward (and one of them, at any rate, rewarded with universal public approval) for the erection of new bridges within short distance of Waterloo—namely, upstream at Charing Cross and downstream at the eastern end of Somerset House. Both these proposals have been thrust aside in favour of the St. Paul's and Lambeth schemes, neither of whose warmest supporters have claimed a tithe of the merely utilitarian urgency which in the Strand region is reckoned, it would seem, to demand the lasting disfigurement of Waterloo Bridge. But not only do we hold that the exigencies of communication in this area would be more aptly, more permanently, and more economically met by splitting up the traffic and diverting some—preferably the heavier—over a new bridge, than by concentrating the whole of it upon Waterloo (especially without a remodelling of the Strand approaches), but we see in the construction of the proposed temporary bridge an expenditure justified by not the smallest return, and one which either of the above permanent bridges might, given sufficient forethought and expedition, render unnecessary.

"A new metropolitan bridge between Westminster and Blackfriars, in fine, has suddenly ceased to be a matter for public advocacy and enlightened suasion—a promising germinal idea to be gradually matured, enriched, and fortified. It has instead become a question of immediate urgency in which the promptest action is patently requisite. Each of the schemes mentioned above has its peculiar merits, the one for the eastern bridge being perhaps destined to stand in a closer relation to Waterloo Bridge itself, while the Charing Cross proposal is one of incalculable importance to the life and the greatness of London. Our business here, however, is primarily to point out how the brutality of the measure now contemplated, ruthless though it may appear, is altogether equalled by its inadequacy and probably by its ultimate extravagance as well."

Patrick Abercrombie	Ralph Knott
Charles Aitken	H. V. Lanchester
Squire Bancroft	Sidney Lee
Christian Barman	E. V. Lucas
Arnold Bennett	D. S. MacColl
Laurence Binyon	H. W. Massingham
James Bone	C. H. Reilly
Frank Brangwyn	J. C. Squire
Martin Conway	J. St. Loe Strachey
A. Trystan Edwards	Charles Walston

The following, while dissociating themselves from any reference to positive proposals made in the above letter, join in protesting against the threatened vandalism.

Edwin L. Lutyens J. A. Spender

Sir Reginald Blomfield, in the course of a reply in *The Times*, states:—

"The proposed reconstruction of Waterloo Bridge is undoubtedly a matter for the gravest consideration, but I venture to suggest that the protest appearing in *The Times* has rather overshot the mark. Apparently signatories wish to repair the bridge, and le it as it is, and to construct a new bridge, or new bridges, 'upstream at Charing Cross downstream at the eastern end of Some House.'

"In regard to repair, the cause of the su dence in the pier between the fifth and si arches is the increased scour due to the Emba ment, which has gradually washed away bed of the river round the foundations. W has happened to this pier may happen to the and I am informed by the engineers that various reasons it is impracticable to deal the pier as it stands, and that the only co open is to reconstruct the bridge. If that i it might be an immense gain from the poi view of public convenience to widen the br and the question then arises whether this would outweigh the possibly injurious effe would have on the architectural value of bridge. It is, of course, taken for granted if widened, the existing granite façades arches would be re-erected stone for stone new work being in the centre. This pro is a serious matter, but to talk of it in terms as 'ruthless' and 'brutality' does help things much.

"As to the proposed new bridges, desc by the signatories as 'a promising germ idea,' a bridge between Waterloo and Blackf would be useless, and the Charing Cross sc has been familiar for years, and has been st ously advocated by many of us, but the n sary data of cost, alignment, and the other d of so vast an undertaking are not yet avail and till they are, it seems rather futile to ag about this 'germinal idea.' Meanwhile, L traffic has got to get across the river some and neither Waterloo nor Lambeth Bridg wait for Charing Cross. The signatories s in disparaging terms of the 'merely utilit urgency' of Lambeth Bridge. They do seem to realise that Westminster Bridge, w it has to relieve, was designed before the of heavy and speedy motors, and that, wh it is, it is inadequate for the traffic that passes over it.

"It goes without saying that we are all ag and have been for generations, as to the sup architectural quality of Waterloo B Personally, and from the æsthetic point of I believe it to be the finest bridge ever built I would suggest that before these violen not quite intelligible protests are issued, inquiry should be made into the actual In the absence of this knowledge, this p seems to me to be beating the air."

Mr. Andrew T. Taylor (Chairman Improvements Committee of the London Council) stated in the Press recently it was only from sheer necessity and with regret that the Improvements Committee London County Council decided on the they have taken. No member of that mittee would consider any tampering wi beautiful bridge had it not been for the put before them by their Chief Engineer, n that the bridge was in a dangerous conditi that in view of the safety of the public steps must be taken without delay. Th mittee had no alternative but to report t bridge must be taken down and rebuilt. felt that the dislocation of traffic would great for the bridge to be closed. In cons the proposed widening it had to be reme that it was only 42 ft. 6 in. wide; while friars Bridge was 105 ft. wide and other bridges were also wider. He could not c of anyone seriously urging that this should be re-erected only 42 ft. 6 in. wide, of present and future traffic.

Housing Costs, 1924-25.

The Ministry of Health's estimate for during 1924-5 is: Housing grants £8,05 decrease of £597,500 on 1923-4.

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ILLUSTRATIONS

Royal Masonic School Competition.

We give this week the design submitted in e recent competition for the Royal Masonic stitution School for Boys, Bushey, by essrs. H. T. Buckland & Wm. Haywood, F.R.I.B.A. The estimated cost was £240,377 th an additional £3,500 if covered ways were ovided for communication.

The design placed first by Messrs. Davis & nanuel and Henry C. Smart was given in our ue of February 22.

The design by Messrs. Gotch & Saunders, P. d F.R.I.B.A., with S. C. Kirby, A.R.I.B.A., as given in our issue of February 29.

Palais de Danse, Croydon.

This building was specially erected for its rpose. The front elevation is in "Atlas hite" cement on brickwork. The interior s a maple sprung dancing-floor, black com-sition jointless flooring for the surround, corative fabric wall panels, fibrous plaster lumns and pilasters. Concealed lighting is ed throughout; the light, emanating from hind the cornice, is reflected on to the ceiling, thout a single naked lamp being visible. The chitect has endeavoured to produce the grace d purity of the Greek outline without its companying severity, and the atmosphere of iting comfort so essential to a building of s nature. The question of economy had of cessity to be considered, and the lowest nder works out at about 1s. 5d. per foot cube. . H. Victor Kerr, L.S.A., is the architect.

"Conway," Byfleet.

This house is now nearing completion. vantage has been taken in the planning and -out of a natural fall in the ground. The terials used are local bricks, and the roof is ered with antique tiles. Mr. Gerald Warren, S.A., is the architect, and the builder Mr. G. Tarrant, of Byfleet.

Coventry Colliery Housing Scheme.

The houses (illustrated on pp. 544–547) are ng erected on the outskirts of Coventry adjoining the new Coventry Colliery in parishes of Keresley and Exhall. The tractors engaged on the construction of the ses are Messrs. H. Clarke & Sons, of nation-road, Coventry, and Messrs. Pearson Burden, of Coventry. The sub-contractors ployed are: Electric wiring, Burbury & Co., entry; slating and tiling, Wormells, Coventry; grates, baths and sanitary fittings, Messrs. Cornes & Haighton, Messrs. Parker, Winder & Achurch, Ltd., and Messrs. W. E. Farrer, Ltd.; steel casements, The Crittall Manufacturing Co., Ltd.; street works and sewers, Messrs. Kelley & Son, of Coventry; the main electric cables are being laid by Mr. R. M. Russell, of Glasgow, to the specification of the consulting electrical engineers, Messrs. Mountain, Son & Wood, of Newcastle-on-Tyne. Mr. S. J. Oldham, M.S.A., of Coventry, is the architect.

WAGES AND UNEMPLOYMENT

There is much worthy of consideration in the discussion at the Conference of the League of Nations Union on Unemployment. Mr. G. N. Barnes expressed the view, as reported, that, having regard to the present world conditions, except in a relative sense, hours and wages had little bearing on the question of unemployment, and he pointed to countries where long hours were worked but yet there was unemployment, notably Germany. He, however, recognised that continual employment depended upon the largest production of goods, regard being had also to demand. High wages and short hours are compatible with large production, and the above statement must be qualified by this consideration, and Professor Bowley made this point clear when he said that the practical problem as it appeared to him was to obtain 54 hours' product for 48 hours' labour.

Professor Bowley also observed that he supposed it was too late in industrial history to lay stress on the obvious fact that the balance between wages and leisure would vary greatly as among individuals, according both to their temperament and their needs, since a common rule in an industry had inevitably become very general. This is a fact lost sight of by the wage earners as a class. The professional classes and the masters of industry have no fixed hours and work as occasion demands, and the wage earners fail to appreciate the fact that this is the reason that they are not mere wage earners. Intense application and unlimited hours of work have placed them in the position they occupy, and a slavish adherence to trade union rules has formed no part in the progress of the master of industry towards the position he occupies.

Both Mr. W. L. Hichens and Mr. P. J. Pybus laid emphasis on the point we have always urged in these columns, that it is the world's trade we have to consider, and it is that which must in the long run dominate industrial conditions in this country, and we cannot be parochial in our economic conditions.

Mr. Pybus pointed out that the export trades have to produce to meet the world price and the remuneration of the worker must be governed by that price, but the group immune from foreign competition calculated what it considered a fair rate for labour with no international check whatever on the efficiency of the labour, and this created an obviously improper difference between the standard of life amongst workmen doing precisely the same kind of work in the two great groups, and he instanced the case of the fitter in the railway workshops who was in receipt of 16s. more per week than a similar workman engaged in the export group, and he pointed out that the selling price in the export groups was determined by principles which were economically sound, whereas in the protected groups the method was economically unsound.

This is a most important point, and it must be observed that it is the group whose remuneration is fixed on uneconomic principles which is the most restless and apt to resort to the strike to intimidate the public. In the protected groups it is sometimes urged that speeding up is a ground for demanding increased pay, but this must depend upon whether speeding up shows increased revenue to the undertakings. Speeding up which results in greater output or greater revenue may well be a ground for increased wages, but it is a characteristic of the protected groups to demand increased pay without any regard to the results obtained by their industry. The equalisation of the standard of wages and living between the two groups is the problem of the day, and both Mr. Hichens and Mr. Pybus laid great stress upon this.

Besides this there is the question of the world's trade to consider, and Mr. Hichens expressed the view that the lower wages paid per unit in other countries was the main, though not of course the only cause of our inability to compete in prices, whilst as regards hours of labour, the principle must be accepted that it was the duty of everyone to work as long and as hard as he could to contribute as much as possible to the national wealth; when the emergency was past the demand for leisure would rightly come to the fore again.

These are truths which we have repeatedly put forward in these columns. It is extraordinary that a nation which has performed prodigies in the war should have relapsed into a condition of apathy after the war is won, before it has consolidated its position in the peace. Artificial standards of living are set up, and wages are demanded to attain them regardless of the fact that after a great war the standard of living, following on the depletion of capital, must of necessity be lowered. Every increase in wages forces up the standard of living, and if it takes place in an export trade drives away trade which is not plentiful but which has to be bid for in the foreign market.

OBITUARY

Mr. Charles Sebastian Nelson, of Leeds, died recently on his 80th birthday. He was a member of the firm of C. S. Nelson & Birkinshaw, Articled in Bradford as an architect, he commenced business in offices in Park-row, Leeds, where Beckett's Bank now stands, and although there had been several enforced removals Mr. Nelson never left Park-row, where he was in practice for between fifty and sixty years.

The death, at the age of fifty-seven, took place recently of Mr. H. J. C. Cordeaux, F.R.I.B.A., of the firm of Cordeaux & Farrow, East London, Cape Colony.

We regret to announce the death of Mr. William Frowde Young, F.R.I.B.A., of 12, Norfolk-street, Strand, W.C.2, which took place suddenly at his residence early on Thursday last week. Mr. Young was a student at the Royal Academy Schools, entering about the year 1890, and practised for thirty years as an architect and surveyor. He was the architect for a building scheme at Abingdon, and domestic work at Crawley, Dorking, Shirley, Hayes and various other places. He became a Fellow of the Institute in 1904, and practised up to the day before his death. His funeral took place at Brockley Cemetery on Tuesday last, and was attended by many personal and professional friends.

MEETINGS.

Friday, *April* 4.

Royal Society of Arts.—Mr. G. M. Booth on "The Amazon Valley and Its Development." At 18, John-street, Adelphi, W.C.2. 4.30 p.m.

Monday, *April* 7.

Architects' & Surveyors' Assistants' Professional Union.—Mr. H. R. Sayer on "Municipal Engineering Quantities." At 92, Victoria-street, S.W.1. 6.30 p.m.

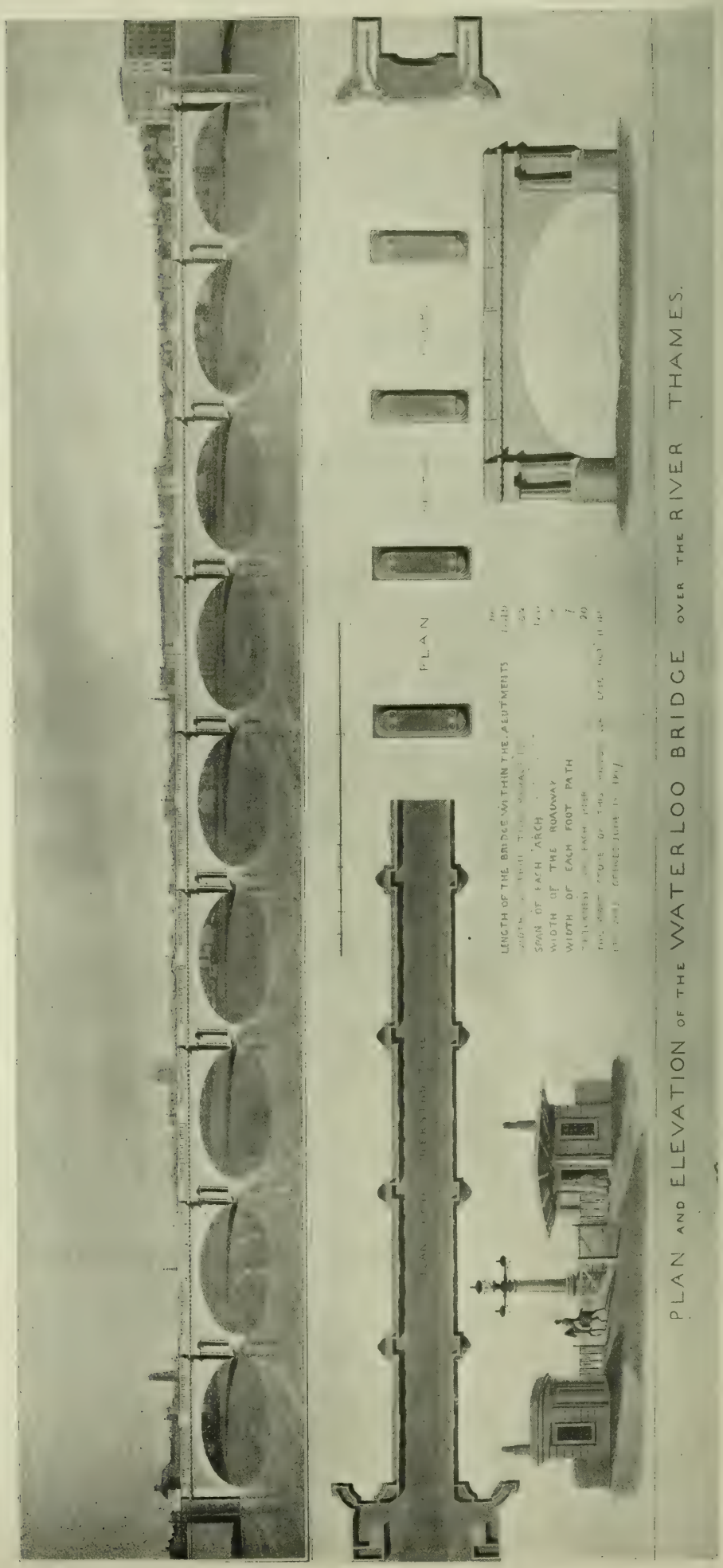
Surveyors Institution.—Mr. C. H. J. Clayton on "The Place of Arterial Land Drainage in Agriculture." At 12, Great George-street, S.W.1. 8 p.m.

Tuesday, *April* 8.

Surveyors Institution.—Annual Dinner. At the Connaught Rooms, Great Queen-street, W.C.2. 6.30 p.m.

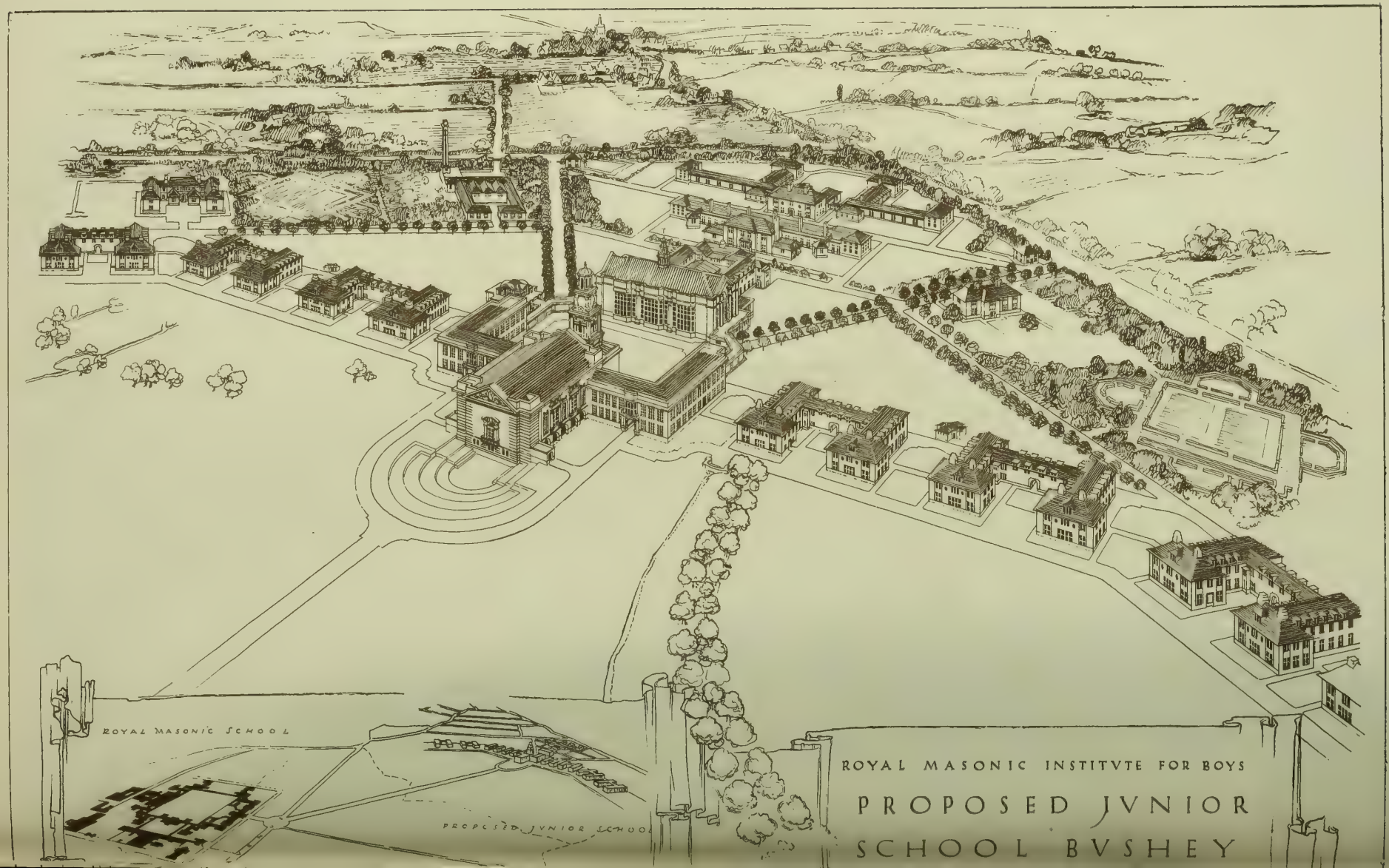
Thursday, *April* 10.

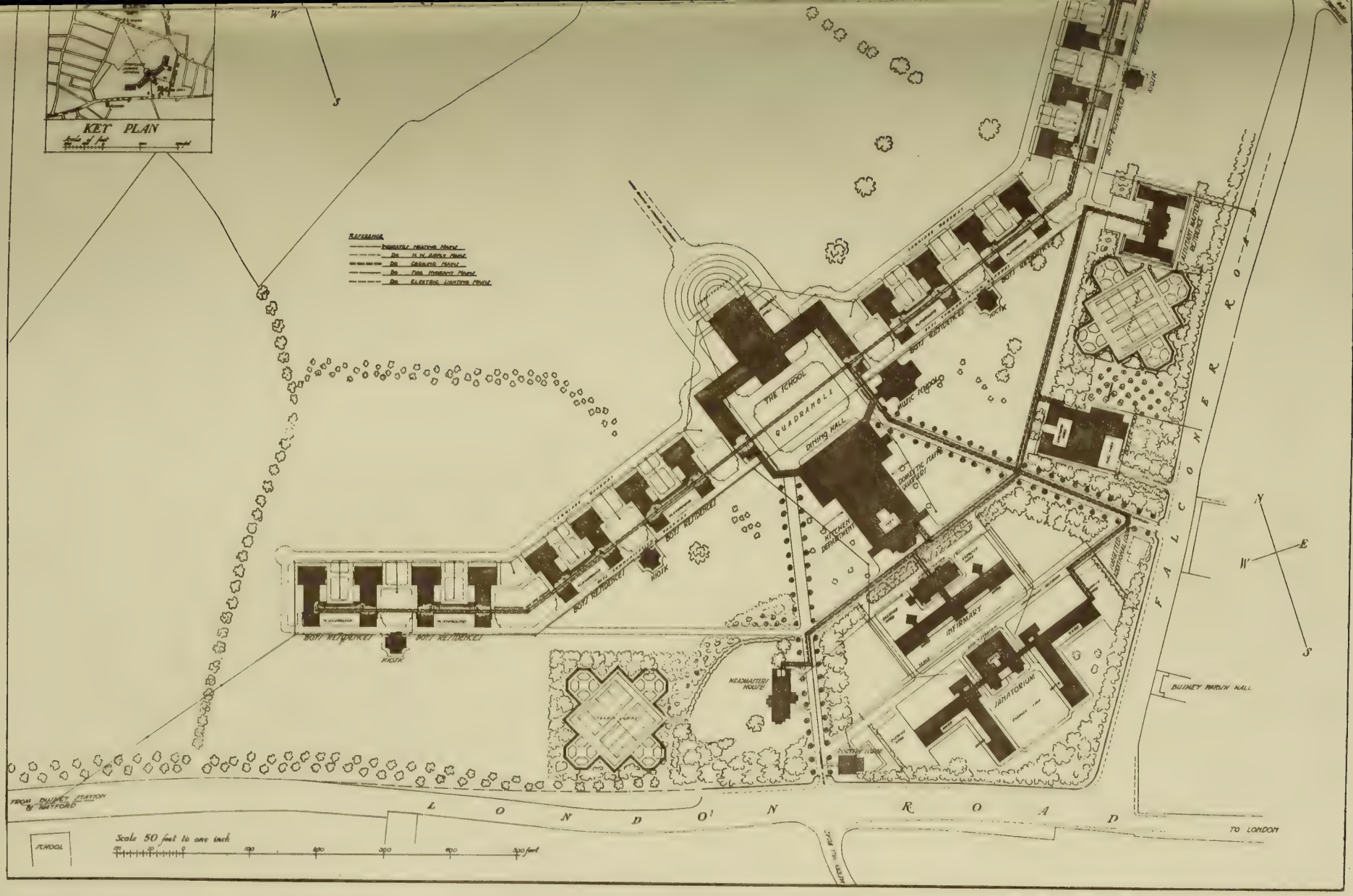
Society of Antiquaries.—Ordinary Meeting. At Burlington House, Piccadilly, W.1. 8.30 p.m.



Rennie's Waterloo Bridge.
From a Contemporary Print.

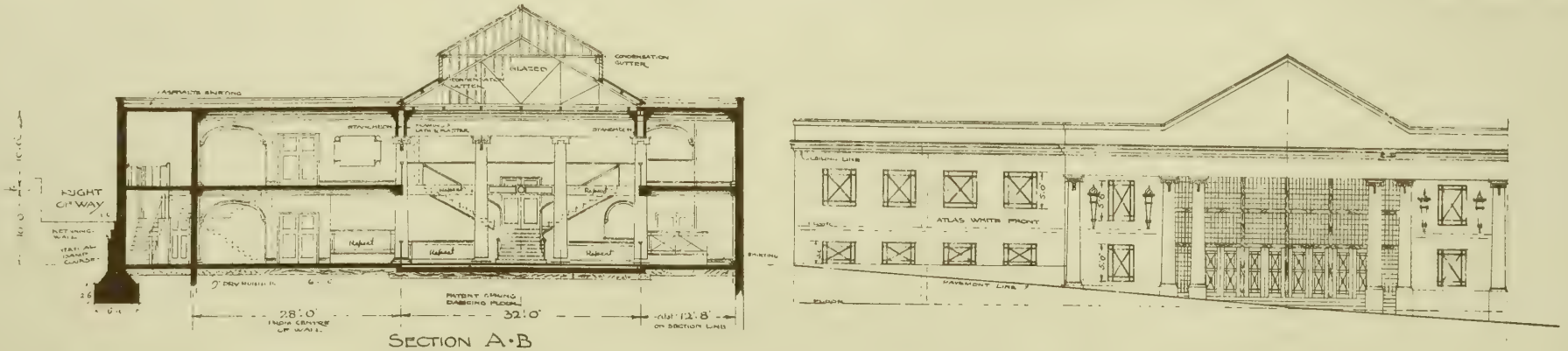



ROYAL MASONIC SCHOOL
PROPOSED JUNIOR SCHOOL
ROYAL MASONIC INSTITUTE FOR BOYS
PROPOSED JUNIOR
SCHOOL BUSHEY



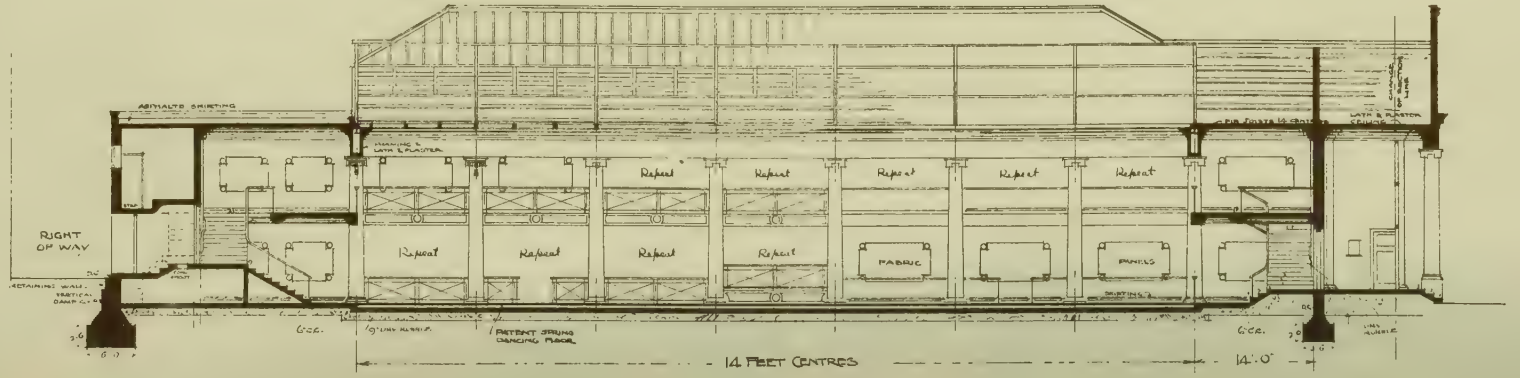
ROYAL MASONIC INSTITUTION FOR BOYS: PROPOSED JUNIOR SCHOOL, BUSHEY.

DESIGN BY MESSRS. HERBERT T. BUCKLAND & WILLIAM HAYWOOD, FF.R.I.B.A., ARCHITECTS.



SECTION A·B

DATUM LINE 19'.53 BELOW 3RD FLOOR OR 20.00 BELOW THRESHOLD ON OPPOSITE SIDE OF DRUMMOND ROAD.

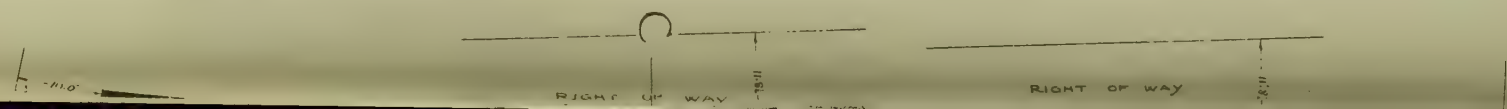


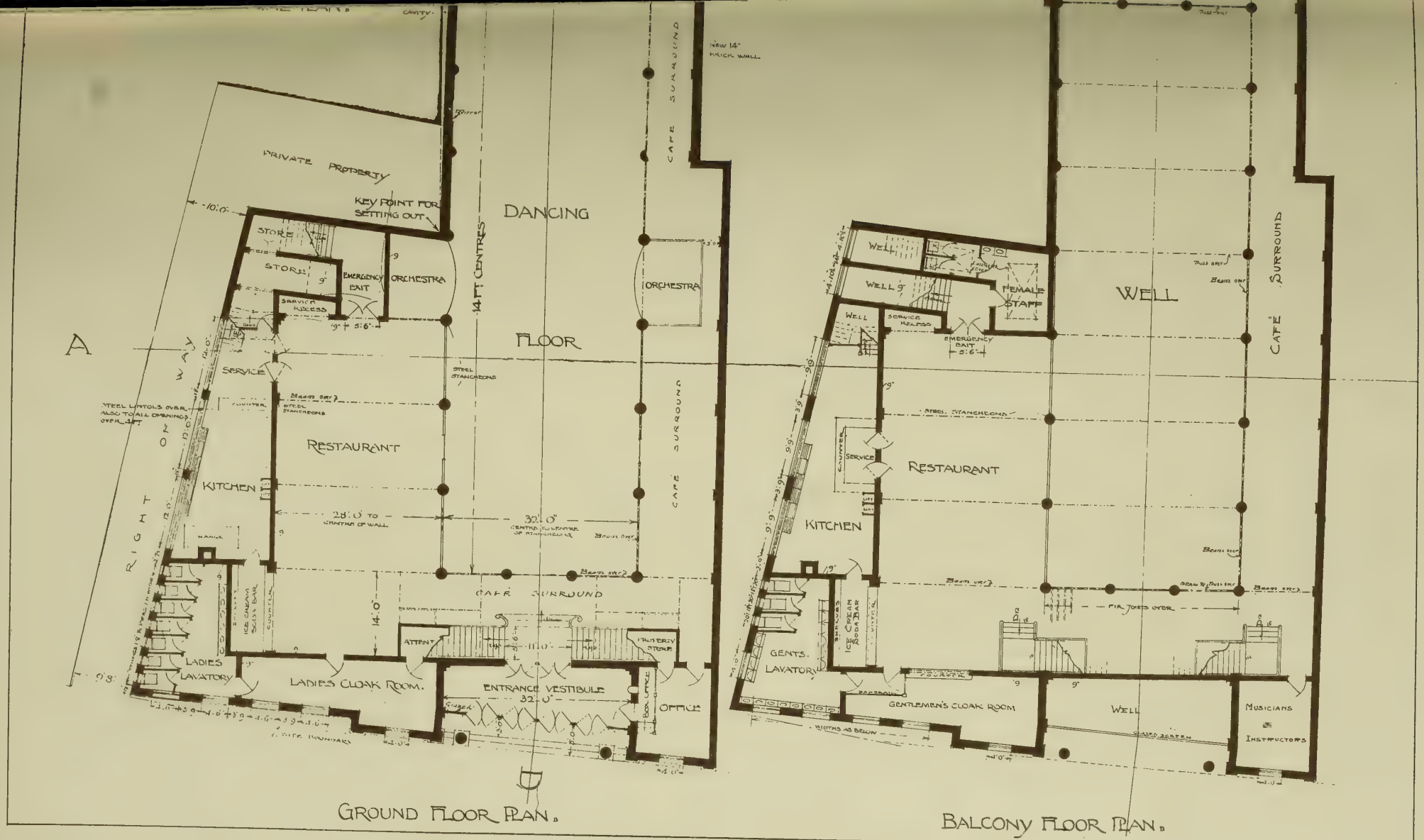
SCALE. 8 FEET = 1 INCH.

SECTION C·D

H. VICTOR KERR – ARCHITECT.
L.S.A. A.R.I.B.A.E.
22 OLD SQUARE – LINCOLNS INN – W.C.

DATUM LINE





GROUND FLOOR PLAN.

BALCONY FLOOR PLAN.

PALAIS DE DANSE, CROYDON. MR. H. V. KERR, ARCHITECT.

THE BUILDING TRADES EXHIBITION

THE Building Trades Exhibition is to be opened at Olympia by the Right Hon. John Wheatley, M.P., Minister of Health, on Friday, April 11, the chair to be taken at 12 noon by Mr. J. A. Gotch, President of the Royal Institute of British Architects. The Exhibition promises to be of considerable interest, and in order to provide our readers with a ready and convenient means of reference to the position of Stands, we give below a full list of exhibitors and their Stand numbers, and on the reverse side, plans of the main and new hall. For visitors' convenience we give it as a loose supplement.

A

Acme Ladder Co. (Stand No. 173, Row J).
Adamite Co. (Stand No. 98, Row E).
Adams, Robert (Stand No. 58, Row D).
Aeronautical and Panel Plywood Co., Ltd. (Stand No. 183, Row H).
Aerostyle, Ltd. (Stand No. 122, Row F).
Alabastine Co. (Stand No. 138, Row G).
Alexander & Co., Ltd. (Stand No. 221, Row L).
Allan Taylor & Co. (Stand No. 268, Row O).
Allen-Liversidge, Ltd. (Stand No. 292, Row Q).
Anderson Grice Co., Ltd. (Stand Nos. 256, 257, Row O).
Anderson & Sons (Stand No. 118, Row F).
Anti-waste Appliances, Ltd. (Stand No. 235, Row M).
"The Architect" (Stand No. 103, Row E).
Architectural Press (Stand No. 94, Row E).
Art Metal Equipment Co. (Stand No. 108, Row F).
Ashley Trading Co. (Stand No. 124, Row F).
Associated Crafts, Ltd. (Stand No. 274, Row P).
Australia Concrete Machinery Co. (Stand No. 125, Row F).

B

Baldwins, Ltd. (Stand No. 306, Row R).
Banger, Henry (Stand No. 264, Row O).
Barnett, H., & Co. (Stand No. 73, Row D).
Bath Artcraft, Ltd. (Stand No. 162, Row H).
Batsford, B. T., Ltd. (Stand No. 86, Row E).
Bayley & Halstead (Stand No. 319, Row S).
Beaver Board Co., Ltd. (Stand No. 307, Row R).
Bellman, Ivy & Carter (Stand No. 113, Row F).
Bell's Poilite and Everite Co., Ltd. (Stand No. 279, Row P).
Birnwell Iron Co. (Stand No. 14, Row B).
Bland, J. W., & Co. (Stand No. 300, Row Q).
Blay, George (Stand No. 320, Row S).
Board, John, & Co. (Stand No. 174, Row J).
Boby, Wm., & Son (Stand No. 99, Row E).
Borst Bros. (Stand No. 308, Row R).
Bowden, Wm. (Stand No. 22a, Row B).
Bramston, Geo. (Stand No. 288, Row P).
Brenta, Louis (Stand No. 8, Row B).
Briggs, Wm., & Sons, Ltd. (Stand No. 34, Row C).
"British Builder" (Stand No. 84, Row E).
British Fibrocement Co., Ltd. (Stand No. 144, Row G).
British Home and Office Telephone Co. (Stand No. 257a, Row O).
British Opalograph Co., Ltd. (Stand No. 301, Row Q).
British Paving Brick Association (Stand Nos. 237, 238, Row M).
British Uralite Co., Ltd. (Stand No. 134, Row G).
British Vacuum Cleaner Co., Ltd. (Stand No. 182, Row J).
Bruster, O. (Stand No. 220, Row L).
Bryce, White & Co. (Stand No. 194, Row J).
"The Builder" Newspaper (Stand No. 126, Row F; Stand No. 245a, Row N).
Builders' and Contractors' Plant, Ltd. (Stand Nos. 250, 251, Row N; Stand No. 261, Row O).
"Builders' Merchants' Journal" (Stand No. 216, Row K).
"Building News" (Stand No. 259, Row O.
Burlington Slate Quarries (Stand No. 248, Row N).
Buss & Elston (Stand No. 225, Row L).
Butters Bros. (Stand No. 317, Row S).
Byrd, A. A., & Co. (Stand No. 239, Row N).

C

Cakebread, Robey & Co. (Stand No. 51, Row C; Stand No. 209, Row K).
Callender, G. M., & Co. (Stand No. 67, Row D).
Camp & Co. (Stand No. 276, Row P).
Cardon & Co. (Stand No. 54, Row C).
Carron Company (Stand No. 164, Row H).
Carson, Walter, & Son (Stand No. 207, Row K).
Carter & Co. (Stand No. 105, Row F; Stand No. 298, Row Q).
Cayless Bros. (Stand No. 177, Row J).
Cement Marketing Co., Ltd. (Stand No. 117, Row F).
Central Chemicals, Ltd. (Stand No. 30, Row C).
Chadwick & Shapcott (Stand No. 145, Row G).
Charrier & Marbut Carvings, Ltd. (Stand No. 275, Row P).
Chemical and Engineers' Products (Stand No. 271, Row P).
Churchill, Charles, & Co. (Stand No. 291, Row Q).
Clarkhills, Ltd. (Stand No. 219, Row L).
Climbing Steel Shuttering (Stand No. 318, Row S).
Cohen, M., & Son (Stand No. 255b, Row N).
Collier, S. & E., Ltd. (Stand No. 59, Row D).
Colthurst, Symons & Co. (Stand No. 191, Row J).
Compendium Publishing Co. (Stand No. 50, Row C).
Concrete Utilities Bureau (Stand No. 115, Row F).
Cooksley, Alfred (Stand No. 88, Row E).
Cornbrook Rubber Co., Ltd. (Stand No. 244, Row N).
Cornes & Haighton (Stand No. 232, Row L).
"Country Life" (Stand No. 169, Row H).
Courtrai Tile Co. (Stand No. 148, Row G).
Crittall Manufacturing Co. (Stand No. 153, Row G).
Croft Granite, Brick and Concrete Co., Ltd. (Stand No. 165, Row H).
Crosby, Lockwood & Co. (Stand No. 17, Row B).
Cuirass Products, Ltd. (Stand No. 188, Row J).

D

Davis Gas Stove Co., Ltd. (Stand No. 154, Row H).
Dawson & Co. (Stand No. 277, Row P).
"Decorator," The (Stand Nos. 21, 22, Row B).
Dening & Co. (Stand No. 19, Row B).
Diamond Tread Co. (Stand No. 187, Row J).
Dominion Machinery Co., Ltd. (Stand No. 75, Row D).
Dreadnought Fireproof Co. (Stand No. 2, Row A).
Drew, Clark & Co. (Stand No. 204, Row K).
Dreyfus, Ltd. (Stand No. 38, Row C).
Drummond Bros. (Stand No. 42, Row C).
Drytone, Ltd. (Stand No. 61, Row D).

E

Eagle Range and Grate Co. (Stand No. 229, Row L).
"Easilit" Blow Lamp Co., Ltd. (Stand No. 214a, Row K).
"Easiwork" (Stand No. 218, Row L).
Eastwoods, Ltd. (Stand No. 310, Row R).
Eclipse Rail Track Co. (Stand No. 315, Row R).
Educational Supply Association, Ltd. (Stand No. 309, Row R).
Elliott, Samuel, & Son (Stand No. 190, Row J).
Elsan Manufacturing Co. (Stand No. 79, Row D).
Evans & Ronald (Stand No. 23, Row B).
Ewart & Son, Ltd. (Stand No. 198, Row K).
Expanded Metal Co. (Stand No. 151, Row G).

F

Falkirk Iron Co. (Stand No. 201, Row K; Stand No. 228, Row L).
Farmiloe, Geo., & Sons (Stand No. 66, Row D).
Fassio Marble (Stand No. 44, Row C).
Fawcett Construction Co. (Stand No. 180, Row J).
Fenlon & Son (Stand No. 29, Row C).
Fernden Fencing Co. (Stand No. 41, Row C
Ferodo, Ltd. (Stand No. 60, Row D).
Fildes, Thomas (Stand No. 289, Row Q).
Fleetwood Chemical Co., Ltd (Stand No. 319, Row S).
Flexible Drive and Tool Co. (Stand No. 215, Row K).
Four Oaks Spraying Co. (Stand No. 24, Row B).
Fowler, John, & Co. (Stand No. 241, Row N).
France, John, & Sons (Stand No. 289a, Row Q).
Frawley & Coyle (Stand No. 189, Row J).
Freeman, Sons & Co. (Stand No. 312, Row R).
Frys (London), Ltd. (Stand No. 284b, Row P).

G

Gawthorp & Sons (Stand No. 270, Row P).
Gay, R., & Co., Ltd. (Stand No. 140, Row G).
Gelesco Paint Co. (Stand No. 214, Row K).
Gliksten & Son (Stand No. 91, Row E).
Greeff, R. W., & Co. (Stand No. 89, Row E).
Gripwell Staging Co. (Stand No. 212, Row K).
Guilliet, Sons & Co. (Stand No. 266, Row O).

H

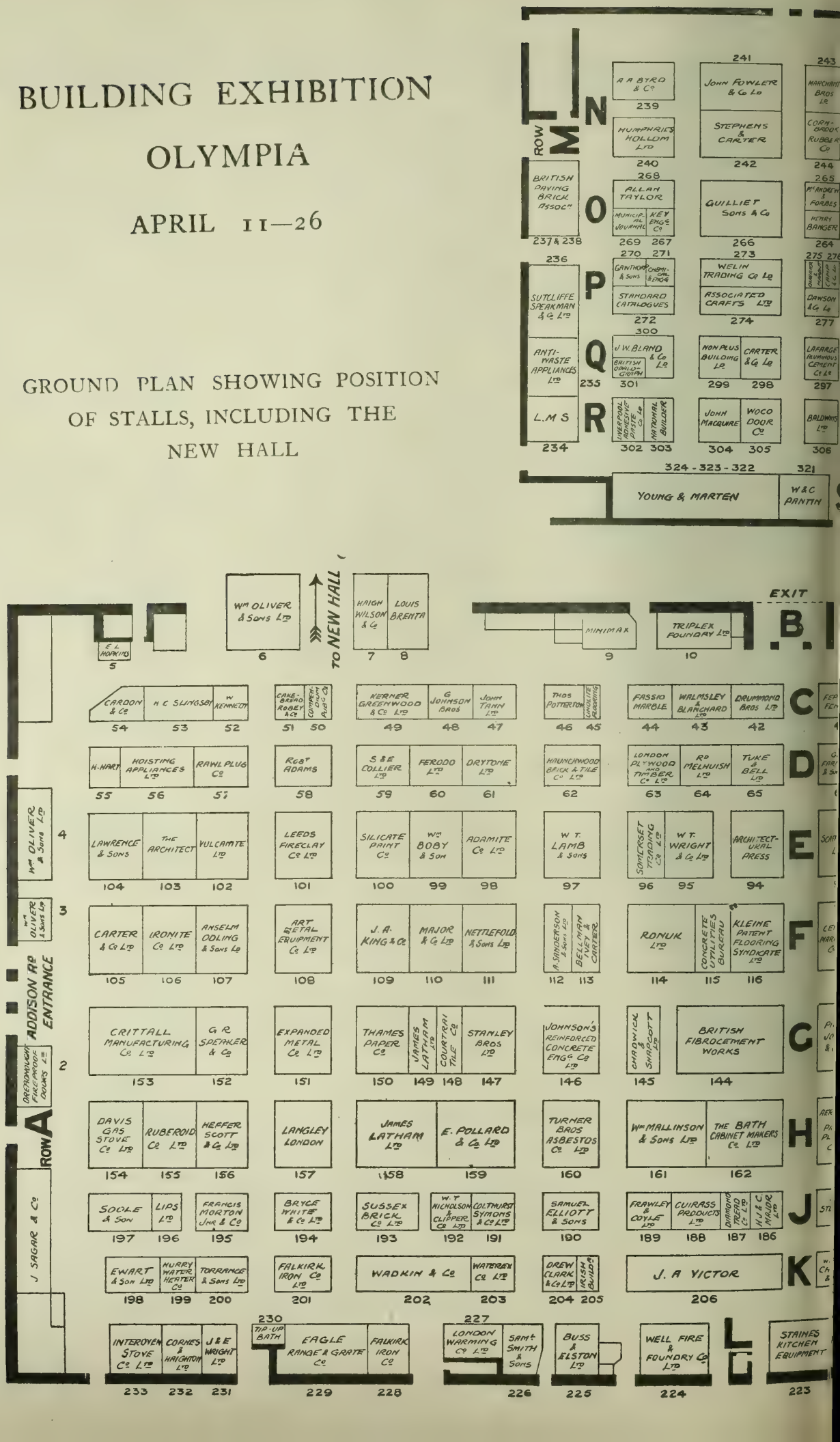
Haigh (Oldham), Ltd. (Stand No. 208, Row K).
Haigh, Wilson & Co. (Stand No. 7, Row B).
Hanrez, A. J. (Stand No. 27, Row C).
Hart, H. (Stand No. 55, Row D).
Haskins, S., & Bros. (Stand No. 278, Row P).
Haunchwood Brick and Tile Co. (Stand No. 62, Row D).
Heffer, Scott & Co., Ltd. (Stand No. 156, Row H).
Hemel Hempstead Patent Brick Co. (Stand No. 119, Row F).
Hildander Employment Specialists (Stand No. 284a, Row P).
Hill & Co. (Stand No. 284, Row P).
Hoisting Appliance Co. (Stand No. 56, Row D).
Hoole, Henry E., & Co., Ltd. (Stand No. 201, Row K).
Hooley Hill Rubber and Chemical Co. (Stand No. 37, Row C).
Hopkins, L. (Stand No. 5, Row B).
Hopton Wood Stone Co. (Stand No. 246, Row N).
Howell, W. R., & Co. (Stand No. 257b, Row O).
Hoyle, Robson & Barnett (Stand No. 260, Row O).

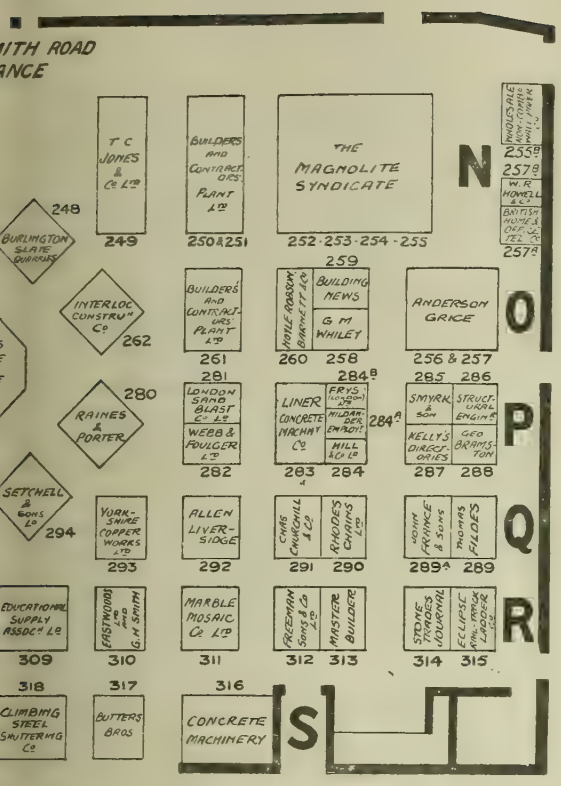
BUILDING EXHIBITION

OLYMPIA

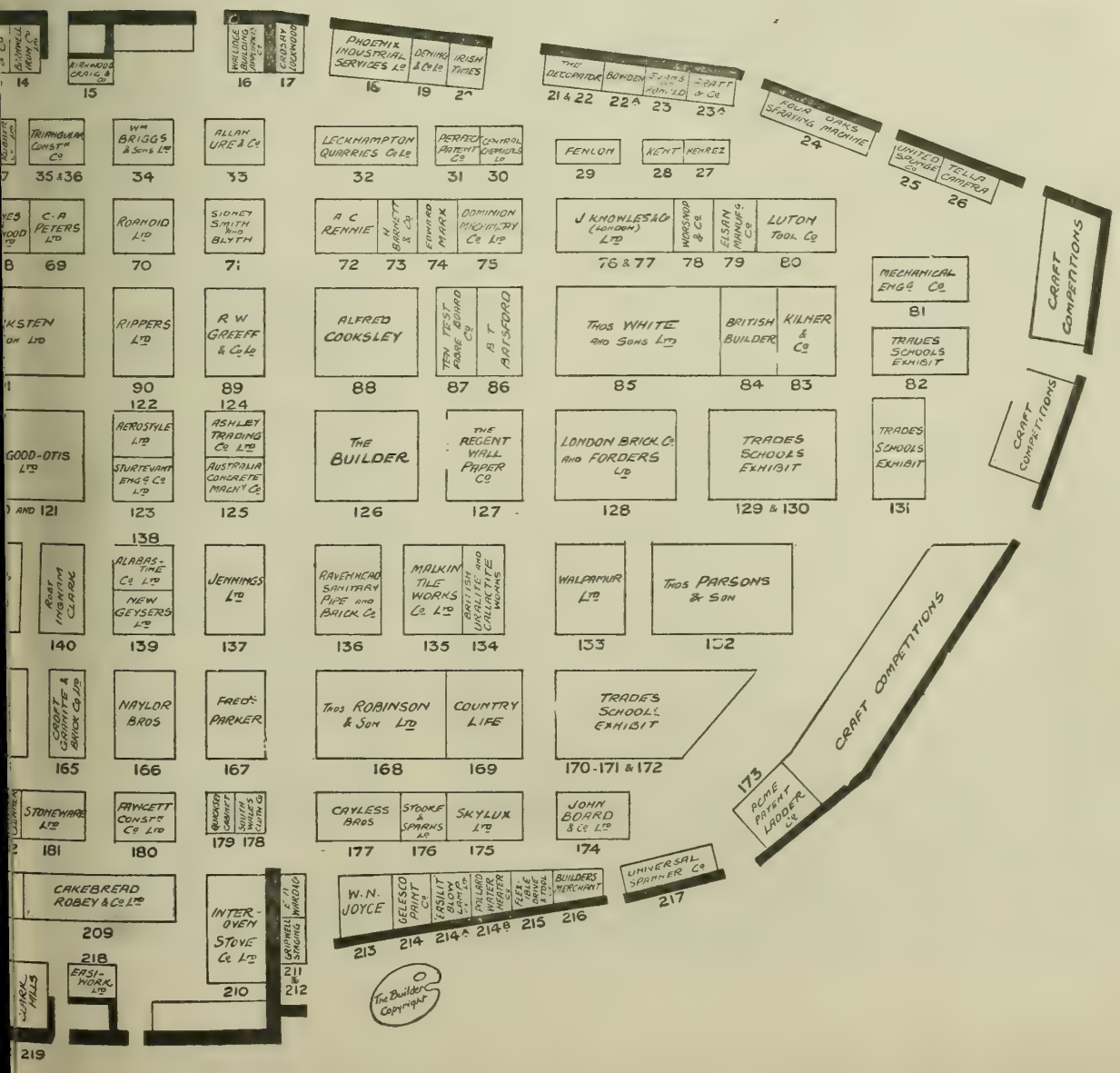
APRIL 11—26

GROUND PLAN SHOWING POSITION OF STALLS, INCLUDING THE NEW HALL





A COMPLETE LIST OF EXHIBITORS AND STAND NUMBERS WILL BE FOUND ON THE BACK OF THIS SHEET



Humphries Hollom, Ltd. (Stand No. 240, Row N).
Hurrywater Heater Co. (Stand No. 199, Row K).

I

"Industrial Daily News" (Stand No. 18, Row B).
Ingham, Robert, Clark & Co., Ltd. (Stand No. 140, Row G).
Interloc Construction Co. (Stand No. 262, Row O).
Interoven Stove Co. (Stand No. 210, Row K; Stand No. 233, Row L).
"Irish Builder" (Stand No. 205, Row K).
"Irish Oil and Colour Journal" (Stand No. 23a, Row B).
"Irish Times" (Stand No. 20, Row B).
Ironite Co. (Stand No. 106, Row F).

J

Jennings, Ltd. (Stand No. 137, Row G).
Johnson Bros. (Stand No. 48, Row C).
Johnson's Reinforced Concrete Co. (Stand No. 146, Row G).
Jones & Attwood (Stand No. 68, Row D).
Jones, T. C., & Co. (Stand No. 249, Row N).
Joyce, W. N. (Stand No. 213, Row K).

K

Kerner-Greenwood & Co., Ltd. (Stand No. 49, Row C).
Kelly's Directories, Ltd. (Stand No. 287, Row P).
Kennedy, W. (Stand No. 52, Row C).
Kent Building Co., Ltd. (Stand No. 28, Row C).
Key Engineering Co. (Stand No. 267, Row O).
Kilner & Co. (Stand No. 83, Row E).
King & Co. (Stand No. 109, Row F).
Kirkwood, Craig & Co., Ltd. (Stand No. 15, Row B).
Kleine Patent Fire-Resisting Flooring Syndicate (Stand No. 116, Row F).
Knowles & Co. (Stand Nos. 76, 77, Row D).

L

Lafarge Aluminous Cement Co., Ltd. (Stand No. 237, Row Q).
Lamb, W. J., & Sons (Stand No. 97, Row E).
Langley London (Stand No. 157, Row H).
Latham, James, Ltd. (Stand No. 149, Row G; Stand No. 158, Row H).
Lawrence & Sons (Stand No. 104, Row E).
Leckhampton Quarries (Stand No. 32, Row C).
Leeds Fireclay Co. (Stand No. 101, Row E).
Lewbart Manufacturing Co. (Stand No. 11, Row B).
Liner Concrete Co. (Stand No. 283, Row P).
Linolite Composition Flooring Co. (Stand No. 45, Row C).
Lips, Ltd. (Stand No. 196, Row J).
Liverpool Adhesive Paste Co. (Stand No. 302, Row R).
L.M.S. Rly. Co. (Stand No. 234, Row M).
London Brick Co. & Forders, Ltd. (Stand No. 128, Row F).
London Plywood Manufacturing Co., Ltd. (Stand No. 63, Row D).
London Sand Blast Decorative Glass Works, Ltd. (Stand No. 281, Row P).
London Warming and Ventilating Co. (Stand No. 227, Row L).
Luton Tool Co. (Stand No. 80, Row D).

M

MacAndrews & Forbes (Stand No. 265, Row O).
Macquire, John (Stand No. 304, Row R).
Magnolite Syndicate, The (Stand Nos. 252, 253, 254, 255, Row N).
Major, H. J. & C. (Stand No. 186, Row J).
Major & Co. (Stand No. 110, Row F).
Malkin Tile Works (Stand No. 135, Row G).
Mallinson, Wm., & Sons, Ltd. (Stand No. 161, Row H).
Mander Bros. (Stand No. 141, Row G).
Marble Mosaic Co. (Stand No. 311, Row R).
Marchant Bros., Ltd. (Stand No. 243, Row N).
Marx, Edward (Stand No. 74, Row D).
"Master Builder" (Stand No. 313, Row R).
Maxwell, Andrew (Stand No. 247, Row N).
McNeill, F., & Co., Ltd. (Stand No. 184, Row J).
Mechanical Engineering Co. (Stand No. 81, Row D).
Melhuish, R., Ltd. (Stand No. 64, Row D).
Minimax, Ltd. (Stand No. 9, Row B).
Morton, Francis, Jun. (Stand No. 195, Row J).
Moule's Patent Earth Closets Co. (Stand No. 39, Row C).
"Municipal Journal" (Stand No. 269, Row O).

N

"National Builder" (Stand No. 303, Row R).
Naylor Bros. (Stand No. 166, Row H).
Nettlefold & Sons (Stand No. 111, Row F).
New Geysers, Ltd. (Stand No. 139, Row G).
Nicholson Clipper Co. (Stand No. 192, Row J).
Nonplus Buildings, Ltd. (Stand No. 299, Row Q).

O

Odling, Anselm (Stand No. 107, Row F).
Oidas Metals (Stand No. 296, Row Q).
Oliver, Wm., & Sons (Stand Nos. 3, 4, Row A; Stand No. 6, Row B).

P

Pantin, W. & C. (Stand No. 321, Row S).
Paripan, Ltd. (Stand No. 245, Row N).
Parker, Frederick (Stand No. 167, Row H).
Parsons, Thos., & Sons (Stand No. 132, Row G).
Patent Tip-Up Bath (Stand No. 230, Row L).
Perfect Patent Co. (Stand No. 31, Row C).
Perkin & Co. (Stand No. 13, Row B).
Peters, C. A., Ltd. (Stand No. 69, Row D).
Phœnix Industrial Services, Ltd. (Stand No. 18, Row B).
Pinchin, Johnson & Co., Ltd. (Stand No. 143, Row G).
Pollard & Co. (Stand No. 159, Row H).
Pollard Water Heater Co. (Stand No. 214b, Row K).
Potterton, Thos. (Stand No. 46, Row C).

Q

Quicksey Cabinet Co. (Stand No. 179, Row J).

R

Raines & Porter (Stand No. 280, Row P).
Rawlplug Co. (Stand No. 57, Row D).
Ravenhead Sanitary Pipe and Brick Co. (Stand No. 136, Row G).
Regent Wallpaper Co. (Stand No. 127, Row F).
Rennie, A. C. (Stand No. 72, Row D).
Rhodes Chains, Ltd. (Stand No. 290, Row Q).
Ridgeley Trimmer Co. (Stand No. 300, Row Q).
Rippers, Ltd. (Stand No. 90, Row E).
Roanoid, Ltd. (Stand No. 70, Row D).
Robinson, Thos., & Son (Stand No. 168, Row H).
Ronuk, Ltd. (Stand No. 114, Row F).
Ruberoid Co. (Stand No. 155, Row H).

S

Sagar & Co. (Stand No. 1, Row A).
Sanders & Co. (Stand No. 255a, Row N).
Sanderson & Sons (Stand No. 112, Row F).
Scaffolding (Great Britain), Ltd. (Stand No. 93, Row E).
Setchell & Sons (Stand No. 294, Row Q).
Siegwart Fireproof Floor Co., Ltd. (Stand No. 92, Row E).
Silicate Paint Co. (Stand No. 100, Row E).
Skylux, Ltd. (Stand No. 175, Row J).
Slingsby, H. C. (Stand No. 53, Row C).
Smith, G. H. (Stand No. 310, Row R).
Smith & Blyth (Stand No. 71, Row D).
Smith, Samuel, & Sons (Stand No. 226, Row L).
Smith & Wellstood (Stand No. 222, Row L).
Smyrk & Son (Stand No. 285, Row P).
Somerset Trading Co. (Stand No. 96, Row E).
Soole & Son (Stand No. 197, Row J).
South Wales Brattice Cloth Co., Ltd. (Stand No. 178, Row J).
Speaker & Co. (Stand No. 152, Row G).
Spedol Manufacturing Co. (Stand No. 263 Row O).
Staines Kitchen Equipment Co. (Stand No 223, Row L).
Standard Catalogues (Stand No. 272, Row P)
Standard Concrete (Stand No. 316, Row S).
Stanley Bros. (Stand No. 147, Row G).
Stather, John, & Son (Stand No. 295, Row Q)
Steingold, J. & M. (Stand No. 185, Row J).
Stephens & Carter (Stand No. 242, Row N).
"Stone Trades Journal" (Stand No. 314, Row R).
Stoneware, Ltd. (Stand No. 181, Row J).
Stooke & Sparks (Stand No. 176, Row J).
"Structural Engineer" (Stand No. 286, Row P).
Sturtevant Engineering Co. (Stand No. 123 Row F).
Sussex Brick and Estates Co., Ltd. (Stand No 193, Row J).
Sutcliffe, Speakman & Co. (Stand No. 236 Row M).

T

Tann, John, Ltd. (Stand No. 47, Row C).
Tella Camera Co. (Stand No. 26, Row B).
Ten Test Fibre Board Co. (Stand No. 87 Row E).
Thames Board Mills, Ltd. (Stand No. 180 Row G).
Thomas & Bishop (Stand No. 40, Row C).
Torrance & Sons (Stand No. 200, Row K).
Trade Papers Publishing Co. (Stand No. 22 Row B).
Triangular Construction Co. (Stand No. 35 Row C).
Triplex Foundry Co. (Stand No. 10, Row B)
Tuke & Bell (Stand No. 65, Row D).
Turner Bros. (Stand No. 160, Row H).

U

Union Glue and Gelatine Co., Ltd. (Stand No 12, Row B).
United Sponge Co. (Stand No. 25, Row B).
Universal Rubber Paviors' Co., Ltd. (Stand No. 37, Row C).
Universal Spanner Co. (Stand No. 217, Row K).
Ure, Allan & Co. (Stand No. 33, Row C).

V

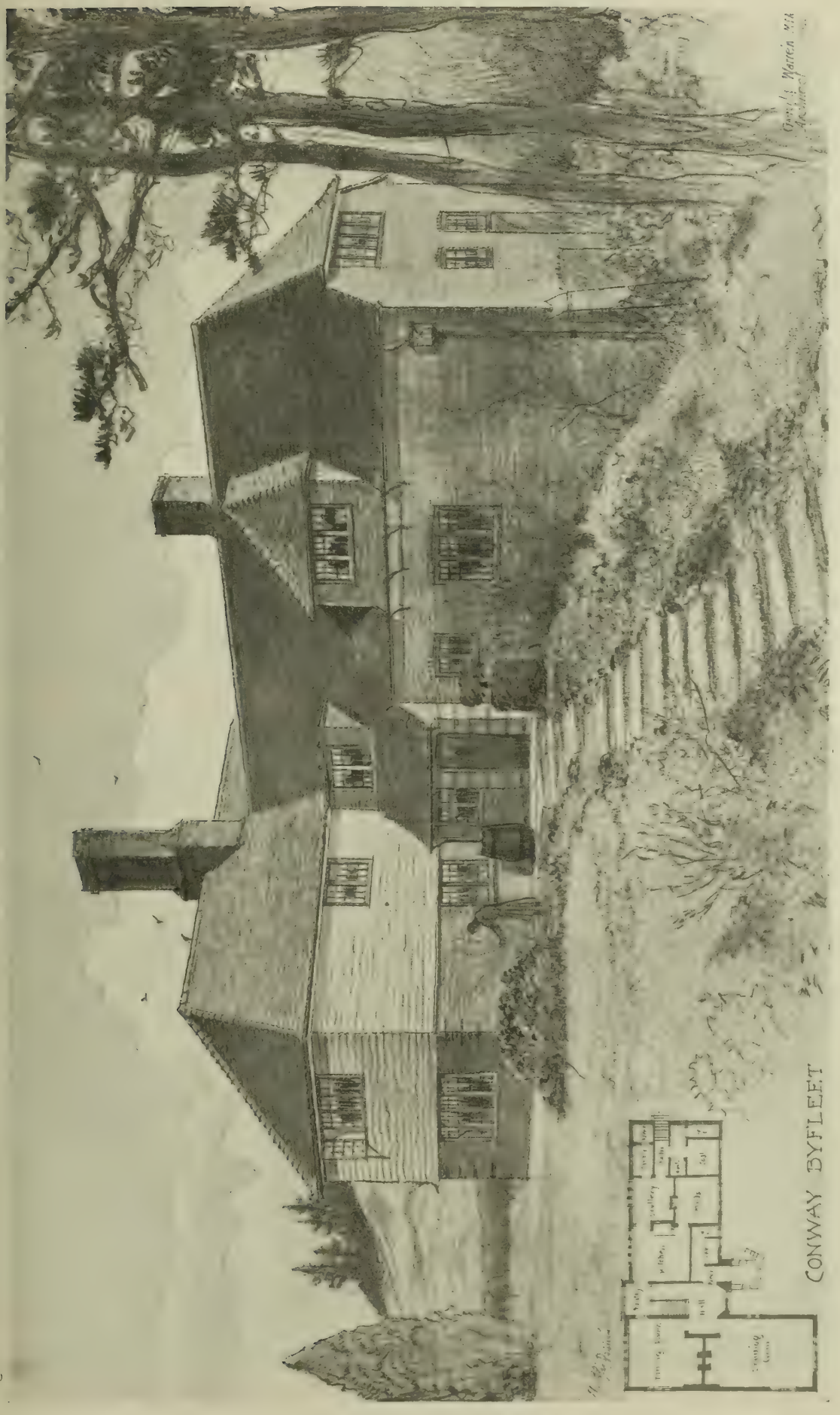
Victor, J. A. (Stand No. 206, Row K).
Vulcanite, Ltd. (Stand No. 102, Row E).

W

Wadkin & Co. (Stand No. 202, Row K).
Walmsley & Blanchard (Stand No. 43, Row C).
Wallidge Building Appliances Co. (Stand No 16, Row B).
Walpurmer Co., Ltd. (Stand No. 133, Row G
Ward, E. A., & Co. (Stand No. 211, Row K
Waterex Co., Ltd. (Stand No. 203, Row K
Waygood Otis, Ltd. (Stand No. 121, Row F
Webb & Foulger (Stand No. 282, Row P).
Welin Trading Co. (Stand No. 273, Row P
Well Fire and Foundry Co. (Stand No. 22 Row L).
Whiley, G. M. (Stand No. 258, Row O).
White, Thos., & Sons (Stand No. 85, Row E
Wholesale Non-Combine Wall Paper (Stand No. 255b, Row N).
Woco Door Co. (Stand No. 305, Row R).
Woodward, James, Ltd. (Stand No. 142, Row G).
Worsnop & Co., Ltd. (Stand No. 78, Row D
Wright, Charles, Ltd. (Stand No. 183, Row J).
Wright, J. & E., Ltd. (Stand No. 231, Row L).
Wright, W. T., & Co. (Stand No. 95, Row E

Y

Yorkshire Copper Works, Ltd. (Stand No. 2 Row Q).
Young & Marten, Ltd. (Stand Nos. 322, 3 324, Row S).



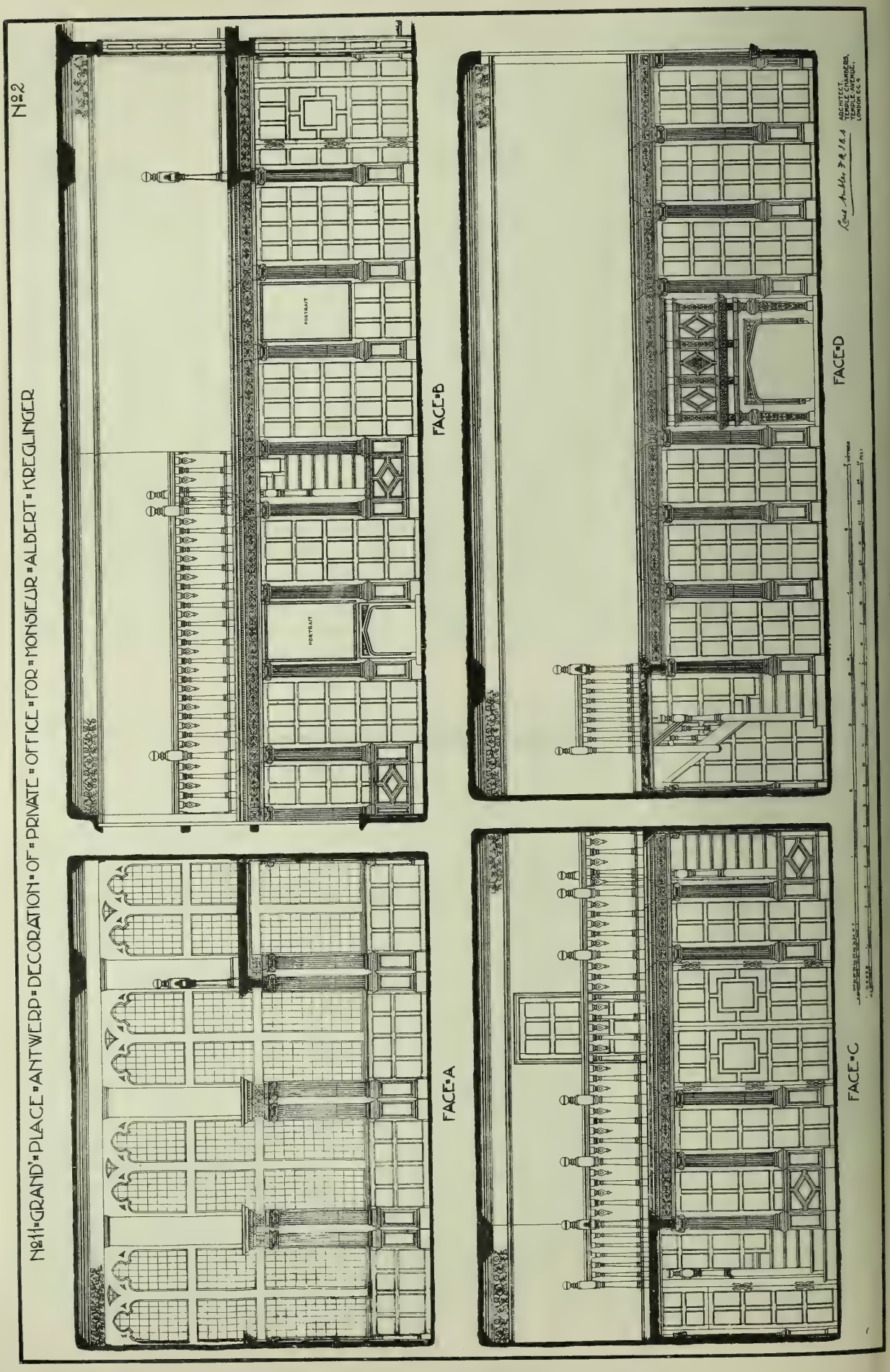
"Conway," Byfleet. Mr. Gerald Warren, M.S.A., Architect.



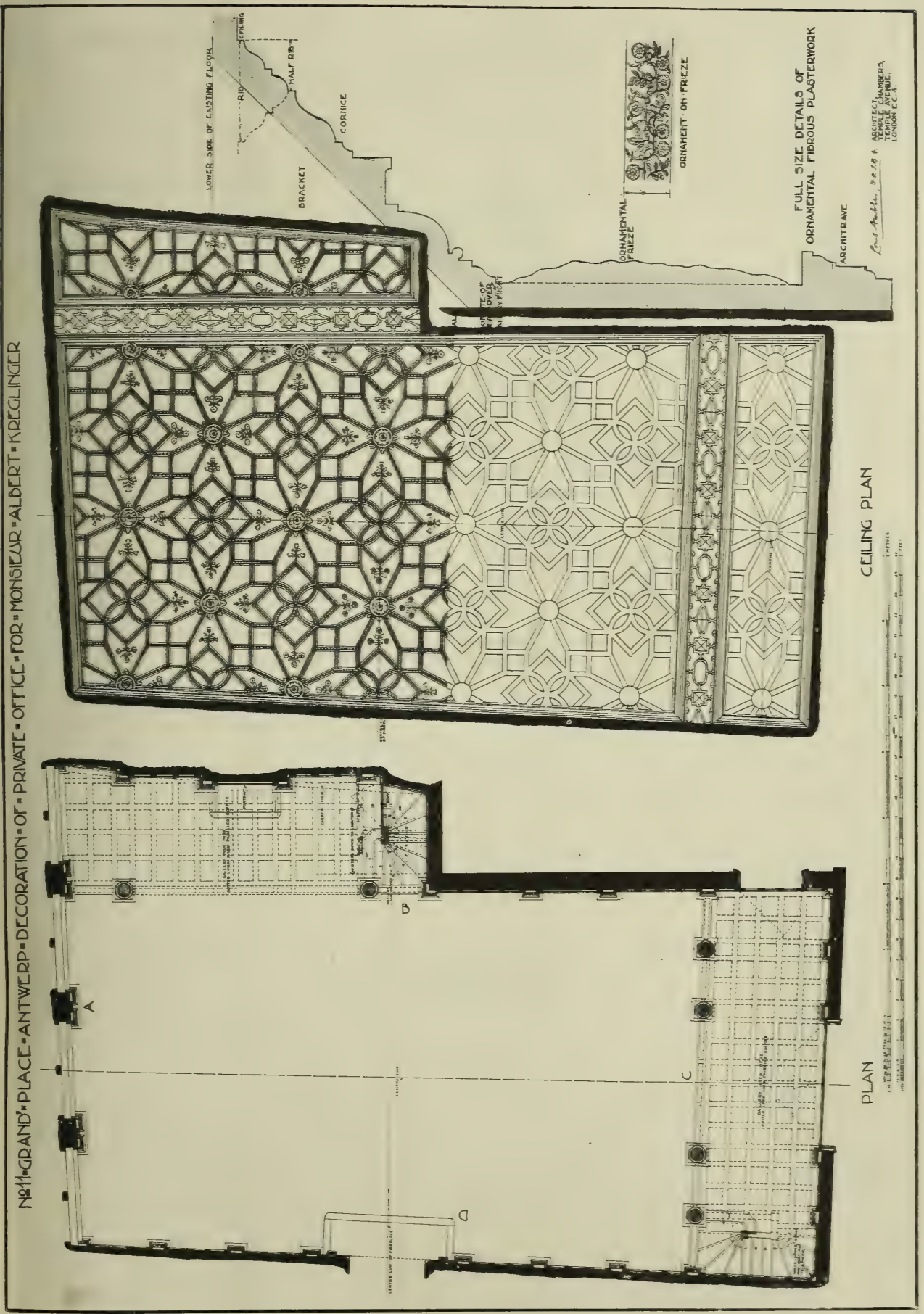


Decoration of Office at Grand Place, Antwerp.

MR. LOUIS AMBLER, F.R.I.B.A., Architect.



Mr. Louis Ambler, F.R.I.B.A., Architect.



Mr. Louis Ambler, F.R.I.B.A., Architect.

WESTMINSTER ABBEY RE-EXAMINED.—II

By W. R. LETHABY.

HENRY THE SEVENTH'S CHAPEL AND THE KING'S MASTER MASONS.

"1502.—*This year in the month of January was the Chapel of Our Lady, standing at the east end of the high altar of Westminster, pulled down; and the tavern of the Sun there also standing with other housing; and the foundation begun of another chapel at the costs of the King*" (*Kingsford, "Chronicles of London," p.* 258: *the date is* 1503 *in modern reckoning*).

My purpose is less to describe what still exists than to discuss what Henry VII's chapel was like when first completed. This chapel, one of the latest of our mediæval works, is also one of the most perfect buildings ever erected in England. It is profusely decorated because it was customary at the time it was built to panel and fret all surfaces, but beneath this system of surface patterning the structure is amazingly frank and energetic. It was clearly seen as building, although it was finished as a sort of cabinet work of stone cutting. The work has always been acclaimed as a masterpiece, even during the dangerous reactions of the generations directly following that in which it was erected. This is well shown in Norden's description (MS. Harl., 570). This, I believe, has never been fully printed, and as it is the longest piece of early building description known to me I give it here from the manuscript. Original spellings are in italic:

"*The new Chappel by whome it was buylded and of the admirable bewtye therof.*"—There is adjoining unto this famous temple, in the east end thereof a chapel erected by H. 7, the beauty and curious contrived work whereof passeth my skill at large to set down so curious and full of exquisite art it is both within and without. And which is not least to be considered the foundation is most artificially proportioned and it showeth most exquisite invention and skill in the builder, for the foundation is the guide to extract a formal and artificial work. Out of this curious foundation groweth, as Leland saith, *miraculum orbis*, the wonder of the world. In regard of the most curious and artificial workmanship thereof, whereof I dare not wade too far in, describing the beauty and form thereof, lest my skill failing me I be forced to retire without performing what I began. Only this much I dare to adventure to report that whoso beholdeth the exterior parts with due consideration of every matter of singular art, will consider it to be a work whereof (be he never so wise or eloquent) he cannot sufficiently demonstrate every particular point of beauty that therein may be noted. But beholding with judgment the body and internal glory he shall find it so admirable both in the *vautinge on the roofe* in regard of the curiosity of work as also in the proportion. And the walls, windows and the rest so exquisitely performed that he will deem them to be the only rare work in the world and as Leland says *the wounder of the worldes*.

"This mirror of *art and architect* is not only in itself beautiful, but it is also beautified with many rare and glorious monuments and curious sepulchres of kings and queens, among whom the founder lyeth, Henry 7, under a most royal tomb framed and most artificially formed wholly of brass richly laid over with gold which now seemeth something to have lost the beauty."

The uncertain use of the new and grand word architect may be noted, but what interests this contemporary of Shakespeare is invention, contrivance, skill, curious and artificial workmanship.

According to Stow, the Chapel was built of stone brought from Huddlestone, Yorkshire, but Wren says "it was performed of tender Caen stone." Neale is probably right in saying that the springers of the flying buttresses were from Huddlestone and the superstructure of Caen stone. Original work fortunately remains in the "Well" between the west window and the great church. This west window is an exceptional work fifteen lights wide and delicately wrought; even on the outside the cusps have terminations of roses, &c. (Fig. 1). Within, the side compartments have a crocketted label added to the tracery and the transomes (as throughout) have little battlements. Neale states that "all the windows except those at the west end were rebuilt and reglazed during the late repairs."

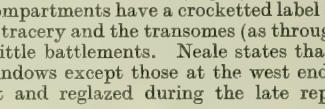


Fig. 1.

A few stones of the original exterior have been found re-used with the wrought face inside, and these show the sharpest and most minute cutting.

There is something wrong with the upper parapet and its row of tall, lean pinnacles. Neale says: "The design for the present parapet was furnished by Mr. T. Wyatt; yet there is strong reason to believe that it bears very little resemblance to the original battlement, which had been entirely destroyed long before the commencement of the late repairs. . . . The whole is terminated by elevated pinnacles, the crockets and finials of which were partly designed from some remnants of ancient ones found among the rubbish; but as they now stand without any merlons between them they are decidedly too high. In some old prints the battlement appears as though perforated by a twofold range of openings. . . . Above the coping was a sort of pierced merlon with an angular termination in the centre."

Carter had collected authorities on this question in the *Gentleman's Magazine* for 1811. The tomb of Prince Arthur at Worcester has such jutting gabled forms in its parapet and the whole tomb has so much in common with Henry VII's Chapel that it may have been designed by the same master. Mr. Sydney Lee had a drawing of Wren's time which showed a bay of the Chapel with the statues and parapet. The parapet of the eastern Chapel at Windsor follows the same tradition (Fig. 2). Those which crown the western towers at Westminster (*c.* 1740) are so like that at Windsor that both seem to have been inspired by the same prototype. At Henry VII's Chapel, however, there seems to have been only one gabled form to a bay.

Again from the old prints it is evident that the pinnacles at Westminster were surmounted by vanes. In the finishing of old buildings there

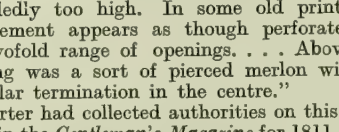


Fig. 2.

were imaginations and a gay play element which are almost impossible for us to think back. A large number of gilt vanes seem to have been one of the ideals of the Tudor time. We know that the King's beasts on the pinnacles of St. George's Chapel supported a similar series of vanes. Some illuminations in books suggest that buildings were stages to carry vanes! Flashing as they turned, they gave a building a sort of life.

The octagonal turrets which surround the aisles housed a large number of statues: three in each of the side turrets and four in those around the apsidal end. They were removed about 1712, but there are names carved on labels attached to the pedestals that once supported them which, so far as they are authentic, show whom the images were intended to represent.

Mr. Micklethwaite, who collected the names (Archæol. xlvii), remarked: "The selection has a very modern look and there seems to be no system of arrangement. Apostles, prophets and kings are all mixed up in the most co plete confusion; but the apostles and ev gelists are all there, as are the greater lesser prophets. For the rest the sole qu fication seems to be that they should mentioned in the Old Testament." On other hand they are all of "holy men old." The kings were, I think, ancest of the Virgin, appropriate to a Lady Cha and care was taken to spread the var classes so that apostles, prophets and ki should not come together. Even the th Hebrews of the fiery furnace did not app as a group in the three niches of one tur but all were separated. The appearance these three, with their names as in *Benedicite*, suggests indeed that the thou behind the sculptures was: "O ye holy humble men of heart, bless ye the Lord. Ananias, Azarias, and Misael, bless ye Lord: praise him and magnify him for eve

The creatures which project at the cor of the turrets and run down the slopes of buttresses are not mere "grotesques," t are the King's beasts.

The structure in its essence is a mausole chapel. According to the original arran ment Henry VII was to have had his to and brazen chantry with its special altar the middle between the stalls, and Henry Sixth, made a saint, was to occupy the east radiating chapel (see *Gleanings*). Marga the King's mother, lies in the southern a chapel, which, as the imagery shows, intended for her, and it was probably expe that the King's successor (Henry VIII) wo lie in the northern aisle-chapel, where Qu Elizabeth's tomb now is.

Before the original arrangement of the st was altered by continuing them eastwards, eastward bays of the aisles or side cha opened to the central area by curved scre similar to those in the next bays eastwar like them doubtless having doors. What now think of as the "nave" was thus be occupied by the bronze tomb of the foun The south chapel contained the bronze t of his mother, and the northern chapel wa contain a corresponding royal tomb. T the original arrangement, made the "aisl count for more in the internal space. opened diagonal lines of sight of great v (Fig. 3 is from a plan *c.* 1600).

Even the "nave arches" of the bays w opened into the aisles are different from others and like those of the eastern cha Traces of the screens in these bays may be seen on the piers. The four originally appropriated radiating chapels were al certainly intended for so many more r tombs and chantries. There were thu have been eight such chantries surroun the central altar of the Virgin.

The other main points in the concep must have been: the miraculous vault structed wholly of thin wrought ston triumph of geometry and of stone cu (notice the way in which the springings pierced to allow of sight of the windo the system of support by a series of octag turrets; the bowed windows between turrets; the brazen chantry in the centr the choir of singers; the great congregatio saints; the ornamentation with the K beasts, Lion, Dragon, Greyhound, and Tudor badges, Rose, Fleur-de-lys, Porte etc.; the profusion of undercut carving; tishings to the window transomes; and flood of light through stained windows

The central object of the whole struc the chantry chapel of the King, in bronze about 20 feet long, was an amaz daring thought and a triumphant piec skilled craftsmanship. Several details v have now disappeared are shown in Ho delicate etching given in Sandford's His We should realise that when new it must been dazzlingly bright, as also would been the beautiful gilt bronze entrance of the "nave."

Beneath the clerestory of the "nave" on the walls of the chapels is a great gregation of images of saints, and under a band of angels guarding the King's re

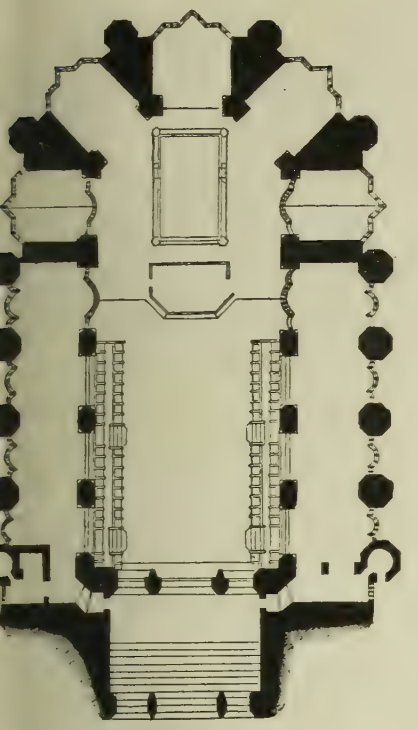


Fig. 3.
Plan from "Gleanings."

ce. That this was one of the root ideas in nning the work is suggested by a passage the King's will:—

"I trust also to the singular mediations d prayers of all the holy company of ven; that is to say, Angels, Archangels, triarchs, Prophets, Apostles, Evangelists, rtyrs, Confessors, and Virgins, and espe-lly to mine accustomed Avouries I call and , St. Michael, St. John Baptist, St. John angelist, St. George, St. Anthony, St. ward, St. Vincent, St. Anne, St. Mary gdalen and St. Barbara. . . ."

Masons.

The structure, begun in 1503, was com-ted in ten or twelve years. In 1506-7 he King's iii Mr. Masons" reported as to cost of the proposed tomb: they were bert Vertue, Robert Jenyns and John bons, and the first-named was probably the ef master in charge of the work. Mr. estlake has recently objected that there is actual proof, and he points out that in the ng's will (1509) Prior Bolton of St. rtholomew's is mentioned as master of the rks. A master of the works, however, was general controller of accounts: Abbot lling was "master of the works" of the ve (Rackham). In the accounts for the nb of the Lady Margaret the Prior of St. rtholomew's is mentioned "for his counsel devising the said tomb and for costs in veying and controlling the workmen at dry times and for sending for workmen ond the sea for making of the said tomb." is was in the fourth year of Henry VIII, the Prior was probably appointed by ry VII in the time of his approaching th. The workmen from beyond the seas e none other than Torrigiano and his panions, and the "Florentine" is men-ed in another passage. All the devising Prior can have done was in the sense of ng down conditions and approving pro-als. Of course every intelligent employer in part the designer of the work he is rested in, but great technical works in sonry can only be designed in the stricter se by a mason. In Neale's day "the dit of designing this chapel" was generally n to Sir Reginald Bray, who seems also have been a master of the King's works, he was one of those who laid the founda-stone of the Chapel.

Correspondences between Henry the VII's Chapel and other works of known craftsmen at Windsor, Eton, Oxford, etc., afford practical proof that one of the three master masons of the King who were consulted on the tomb was the chief "architect" of the Chapel, as naturally would be the case. The vault is a developed copy of the vaults of the Divinity School, Oxford, and of St. George's Chapel, Windsor. By approaching the Westminster work through these we shall be better prepared to consider who was its designer. The Divinity School was erected during the last three years of Edward IV (1480-1483). On the vault is found the monogram of William Orchard, the master mason (Miss Edith Legge, 1924). All that is known of St. George's Chapel is contained in Sir W. Hope's quite perfect account of Windsor Castle. The works at Windsor appear to have been begun as early as 1477, under the direction of Henry Jenyns, King's mason, who may have been a son of the Robert Jenyns who, about 1450, was the master mason of the tower of Merton College, Oxford. Parker remarks in *Gleanings*: "It is on record that the work of the Divinity School in Oxford was suspended for several years in consequence of the skilled workmen being sent for to Windsor by royal writ" (p. 70). Of the relation between Windsor and Westminster, Sir W. Hope wrote as follows:—

"The Lady Chapel built for Henry VII at Westminster, apparently by the same master masons who carried out the work at St. George's Chapel, has towards the east a polygonal apse which is strongly reminiscent of the transepts at Windsor. . . Another feature of the Westminster chapel is the curious series of lofty bay windows that light the side chapels. The prototypes of these are clearly the oriels in Henry VII's tower at Windsor. The masons named in connection with the Windsor work are Richard Nymes and Robert Jenyns. The latter was probably a son or brother of Henry Jenyns, the master mason of the earlier works of St. George's Chapel, and his connection with Westminster is suggested by the fact that he was one of the three master masons who gave estimates for the making of King Henry VII's tomb in 1506-7. Another of these was Robert Vertue, evidently a kinsman of William Vertue who, with John Hylmer, contracted to vault the choir of St. George's, and the Lady Chapel beyond, and by himself apparently set up the fan-vault above the crossing." (This vault, it is added, is dated 1528—p. 586.)

"Robert Jenyns was working upon the King's Lady Chapel at Westminster, and was probably the son of Henry Jenyns, master mason of the work of St. George's Chapel from 1477 to 1484, and perhaps later. The master mason of the Windsor work was undoubtedly the same man who designed the Westminster Chapel and who, after the King's death, began in 1511 the noble mansion-house at Thornbury, in Gloucestershire. He apparently also rebuilt the King's palace at Shene after its destruction by fire in 1497" (p. 247).

Hope had no doubt whatever that the masonry of Henry VII's Chapel was designed by a mason, or of the close relation between it and St. George's Chapel, Windsor. He agreed, also, that the master of Westminster would have been one of the three King's masons consulted as to the cost of the tomb in 1506-7. Without giving any reasons, however, he substituted the name of Robert Jenyns for that of Robert Vertue. In speaking of the three masons as giving "estimates" for the King's tomb Hope may suggest a mistaken view. I should rather understand that they concurred in *one* estimate as to how much a certain project (prepared by a foreigner) would cost. Robert Jenyns, the King's mason at Windsor, might join in a conference as to the cost of a tomb without being engaged at Westminster.

The fact that Robert Vertue is the first named of three King's masons who give their opinion on a Westminster question while the main work was going forward is evidence that he was the master actually in charge.

Robert Vertue is mentioned in the copy of Henry VII's accounts at the British Museum as receiving in 1501, £40 in part payment of £100 for building of a tower in the Tower of London. (Was this the "Brick Tower" on the north side?) Robert Vertue was thus working in London at the very time Henry VII's Chapel was being prepared for. Only the year before this I find Robert Jenyns mentioned in the same accounts as "mason of Windsor." Again, in 1503, £10 was advanced "to Vertue in part payment for a new 'platt' at Greenwich." Later work was done at Windsor itself by William Vertue who was probably a son of Robert. In 1 Henry VIII William was paid £50 in full content for vaulting the chancel of Windsor College. I do not know on what evidence Hope assigned Thornbury Castle (1511) to Robert Jenyns except its obvious resemblance to Windsor.

In the British Museum manuscript room is preserved a drawing on vellum of a tomb in a style very similar to the King's Chapel (Cott. Ang. II, 1). It is lettered in a somewhat later hand, *The Monument intended for Kinge Henry the Sixte*. It is skilfully drawn in a two-sided view that can hardly be called

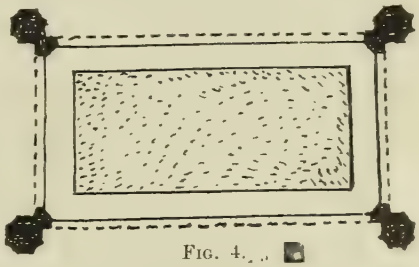


Fig. 4.

perspective and clearly must date about 1500 and be by one of the royal masons of the time. Slender octagonal turrets rise from the angles of the tomb proper. These run up the full height, and are terminated above with ogee curved cappings cut into scales and similar to the turrets of the chapel. Fig. 4 shows the scheme; arches following the dotted lines spring from "turret" to "turret," and above the arches is a tier of rich niches for about twenty statues. It has been said that this stage must have surrounded an upper chantry chapel, but the scale does not allow of this. This range of imagery is again in the manner of the Chapel, and moreover the images were supported on pedestal pillars like the figures of the Chapel. Smaller details like running foliage in the hollow mouldings and rose terminations to the cusps also resemble

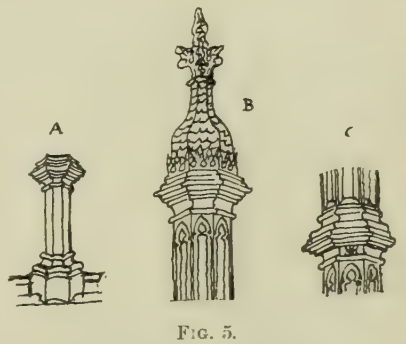


Fig. 5.

details in the Chapel, and I think it is probable that the tomb drawing was by the master mason at Westminster. The supporting "turret" element was a new thing at the Chapel, but it became a great vogue; even the brass chantry has open work octagonal turrets at the angles. In Fig. 5, *A* shows the image pedestals; *B* the tops of the turrets (compare the brattishing to the cornice with that at Westminster); *C* is a band on the turrets (compare those on the brass turrets at Westminster). Altogether I venture to assign this "platt" to the master of Henry VII's Chapel, that is, as I suppose, Robert Vertue.

ARCHITECTURAL SOCIETIES

SOUTH WALES INSTITUTE OF ARCHITECTS.

The annual dinner of the South Wales Institute of Architects was held at Cardiff recently. Mr. Percy Thomas, F.R.I.B.A., presided, supported by the Lord Mayor of Cardiff (Alderman Sydney Jenkins), the Mayor of Newport (Councillor Charles F. Williams), Messrs. J. Alfred Gotch, F.S.A., F.R.I.B.A., President of the Royal Institute of British Architects; Ian MacAlister, B.A., Secretary of the Royal Institute of British Architects; E. J. Partridge, President of the Society of Architects; C. McArthur Butler, F.C.I.S., Secretary of the Society of Architects; Charles Coles, B.Sc., Principal of the Cardiff Technical College; Principal A. H. Trow, University College, Cardiff; Messrs. Gilbert Shepherd, President of the Cardiff Chamber of Trade; A. J. Howell, Chairman of the Cardiff Technical Instruction Committee; Albert K. Foy, President of the South Wales Art Society; I. J. Chorley, F.I.O.B., President of the South Wales Federation of Building Trades Employers; Isaac Watkins, Secretary of the South Wales Federation of Building Trades Employers; James E. Turner, J.P., President of the Institute of Builders, South Wales Branch; J. A. Wilson, Chief Constable, Cardiff; J. C. Gould, M.P. (Cardiff Central); W. H. Jones, Director and Librarian, the Royal Institution of South Wales, Swansea; Douglas Duncan, Director, *South Wales News*; John Davies, President of the Cardiff Master Builders' Federation; William Thomas, Cardiff; E. P. Warren, F.S.A., F.R.I.B.A., President of the Berks, Bucks and Oxon Architectural Association; W. Glen Dobie, A.R.I.B.A., President of the Liverpool Architectural Society; Francis Jones, F.R.I.B.A., President of the Manchester Society of Architects; W. S. Skinner, F.R.I.B.A., President of the Bristol Society of Architects.

The toast of "The Royal Institute of British Architects, the Society of Architects and the Allied Societies" was given by the President.

In response, Mr. J. A. Gotch said it was a pleasure to do anything in a spirit of friendship to unite the Royal Institute with the Allied Societies. The greater the number of architects who distinguished themselves in the provinces, the greater was the need for one representative body to voice their views. The body most suitable for that purpose was the Royal Institute of British Architects, and this applied to other matters in addition to the important one of registration. Whatever might happen with regard to registration—and there was reason to suppose that was attainable—it was necessary to maintain the wide influence of the Institute. This was of paramount importance. The wider its sphere of influence the more efficient would it be in its task of representing architecture. There were innumerable matters outside this question with which the Institute dealt, and one of the most beneficial would be to weld the whole profession into one solid body. In this task the Council had a great opportunity, and they had approached the Society of Architects with a view to carrying out amalgamation. In that they had been singularly successful so far as the two Councils were concerned. Absorption had been practically arranged upon terms that were honourable to both societies. One indispensable condition insisted upon by the Society of Architects was that the question of registration should be pursued to its final issue. That the Royal Institute willingly undertook. The profession ought to speak with one voice, and not with two or more.

Education, competition and a high standard of professional conduct were other objects for which they strove, and in dealing with public authorities they should speak with one authoritative voice. There has been a considerable change in the Institute since it was founded some ninety years ago. Then they were chiefly concerned with London architects, but now they had to give attention to matters such as education and learning to meet the altered conditions in which they lived.

Mr. J. E. Partridge, alluding to the Commission of Fine Arts, said if it had been formed some years ago they would not have been encumbered with the awful entrances to some of their cities. He wished every city were blessed with the same far-seeing government that Cardiff appeared to have. The primary object of the formation of the Society of Architects was to secure registration. Everyone recognised that this was most desirable, not only for the practitioners, but those whom they served. It might be urged that they were trying to form a Trade Union, but they were trying to do nothing of the sort. Their objects were entirely different, and, indeed, in some respects they had suffered from the manner in which Trade Unionism had developed. They were out for the benefit of their craft. If the scheme of registration went through, they, as a society, would cease to exist, and though they felt some little sadness at the prospect, he felt it would be for the good of the profession.

Mr. J. C. Gould, M.P., replying to the toast of "Our Guests," referred to the question of housing. He said he trembled to think of the cost of the schemes which were being advanced. The present proposals of the Ministry of Health did not in the slightest degree take into consideration the question of economic rent. How much were the people of the country prepared to pay to subsidise those schemes if the proposed rent would not meet even the capital interest. He viewed the situation with great alarm. In 1921 they went forward with schemes in the belief that the trade boom would be continued—unfortunately he was one—but when things came down the most courageous thing they could do was to come down with them. He had never seen a time during the past three years such as they had had recently when things industrially had been so good, and yet during the past month that feeling of confidence had been sunk by the strikes that were taking place.

The thirty-fourth annual general meeting of the South Wales Institute of Architects was held at Cardiff recently. The president addressed the gathering on the work which had been accomplished during the past twelve months, particularly with reference to the possible amalgamation of the two leading architectural bodies in the country, the Royal Institute of British Architects and the Society of Architects. The honorary treasurer (Mr. Harry Teather, F.R.I.B.A.) presented the balance sheet, which showed the Institute to be in a very strong financial position.

On the proposition of Mr. C. F. Ward, F.R.I.B.A. (Newport), seconded by Mr. H. C. Portsmouth, F.S.Arc. (Swansea), Mr. Percy Thomas, O.B.E., F.R.I.B.A., was unanimously re-elected as president for a third term of office. The following officers were elected:—Vice-presidents, Messrs. C. F. Ward, F.R.I.B.A., and H. C. Portsmouth, F.S.Arc.; hon. treasurer, H. Teather, F.R.I.B.A.; hon. auditor, C. S. Thomas, F.S.Arc.; hon. librarian, C. H. Kempthorne, Lic.R.I.B.A., hon. secretary, Ivor P. Jones, A.R.I.B.A. Members of the Council (Central Branch): A. G. Edwards, M.S.A., J. P. D. Grant, A.R.I.B.A., W. S. Purchon, M.A., A.R.I.B.A., R. H. Winder, M.A., A.R.I.B.A., F. H. Heaven, A.R.I.B.A., T. Alwyn Lloyd, F.R.I.B.A., J. B. Wride, C. F. Jones, A.R.I.B.A. J. Williamson, A.R.I.B.A.; Associates' representative, L. S. Hatchard. Western Branch: J. Herbert Jones, F.S.Arc., G. R. H. Rogers, E. E. Morgan, A.R.I.B.A.; Associates' representative, G. L. Crocker. Eastern Branch: Horace Jones, F. Swash, F.R.I.B.A.; Associates' representatives, J. E. Lenton.

DEVON AND EXETER ARCHITECTURAL SOCIETY

The annual meeting of this Society, which embraces the counties of Devon and Cornwall and is in alliance with the Royal Institute of British Architects, was held at Plymouth recently. The members present were t President, Mr. Percy Morris (Exeter), in t chair, and Messrs. L. F. Tonar, W. J. M. Thoma son, J. Bennett, O. Ralling, and J. Challice, As Hon. Secretary (Exeter), J. L. Fouracre, A. Bewes, A. S. Parker, A. C. A. Norman, Priestley Shires, R. A. Mill, Victor Prigg, W. May, E. Coath Adams, F. A. Vercoe, S. Ackroyd, H. Watts, B. S. Baily, P. O. Wakeham, J. R. Millman, E. E. Brown, and F. Stilwell (Plymouth).

The minutes of the preceding meeting we read, adopted and signed by the President, a Mr. F. S. Stilwell was duly elected an Associa Member of the Society.

The annual report, which showed a conside able increase of membership—the numbers n being 109—and balance sheet were presente received, and unanimously adopted.

The President, Mr. Percy Morris, F.R.I.B. then delivered his address. In the course of remarks he said when the history of rece years was seen in its proper perspective it wou be noted, he thought, as a curious parado that, at a time when upwards of a million their population were unemployed, and the ne of houses never more urgent, the activities the building industry were curtailed by la of skilled operatives, whose numbers h shrunk nearly 50 per cent. since 1911, and t efforts of this remnant were frequently dissipat by intestine feuds. And the comparison wou be made that in the four years following t war, France had restored 598,000 houses and established the normal population of liberated areas; besides building 20,000 fa tories, and bringing back to cultivation 88 p cent. of her devastated regions. But in reviewi the past, they must also look forward to t future. They could not shut their eyes to t fact that there were post-war elements of t situation which were inimical to rapid recove and the establishment of lasting prosperi Among the most disconcerting features were t lamentable decay of craftsmanship and gene slovenliness of execution, which had become marked since the volume of work increas But another fact was clearly emerging, it w that low grading of wages did not necessar mean economical work, because in the pres state of the labour market a very high perc tage of inefficients drifted to the low-grad districts.

Then there was the high price of materi They knew instinctively that there was conti and cases had been brought to his notice; also of charges by merchants considerably excess of retail prices fixed by manufacture But when these cases were followed up one fou some flaw in the evidence which prevented th being exposed. It was those practices wh kept alive that widespread feeling of mistr and suspicion which was hindering progre and it was hypocrisy to blame labour for ev ill whilst those things pass unchallenged.

But if the future were to bring better c ditions, it could only be by determined ef to organise upon lines better fitted to n modern needs, and by a return to sound cra manship under capable direction. Rec struction must be on lines differing in m respects from those suited to towns and t must be more elastic; there could never that rigid line between different trades wl inter-trades union jealousy fostered, and s simple but reasoned system of estimating pr must replace the present guesswork. Met in setting out and handling work must be brought to bear in eliminating the wast process of trial and error one so freque met with. Co-operative effort, in the direc of depots for the supply of materials and t transport, would save intermediate profits was worthy of consideration.

There remained two fundamental probl The first was the man and his equipment his work; the second, the means by whic was to be retained in country districts. far as the man was concerned, there coul little doubt that the right type was one and reared in the country; and the equipm he needed was education. By educatio this sense, he meant, first, a sound ground

build upon and the knowledge of how to arn, so that education could be continued in ter life if there were ambition. And—equally nportant—the formation and moulding of haracter, and the art of rational amusement in mes of leisure. Second, a return to apprenceship under proper safeguards, and, the comement of this, a course of technical training. echnical schools were invaluable but they ad their limitations, and, alone, would never rn out a completely equipped craftsman for ie work they were considering. There was ope for the right type of man to rise comratively early in life, after passing through ie ranks of apprentice and journeyman, to the osition of a master craftsman; whereas most his confreres in the towns would remain urneymen all their days.

But architecture, too, had entered upon a hase which was pregnant with possibilities. hey recognised that new forces were stirring, nd if in their Western remoteness the scinllations of new planets revolving in the rchitectural system, sometimes in conjunction nd frequently in opposition, were a little azzling to the eyes of those whose orbit lay utside the path of brilliant constellations, et they detected beneath this friendly rivalry ie same enthusiasm as they remembered in ygone days; but it was only when they ompared the opportunities of present-day tudents with those of their own time, that hey realised the width of the gulf which was eing bridged.

Let them look forward to the time when a niversity of the South-West would have its chool of Architecture; and, beyond that, to he day when each school would have its ostgraduate course to keep alive their enthuasm and their knowledge abreast of progress.

At the conclusion a vote of thanks was xpressed to the President for the address, to hich the President responded.

NORTHERN ARCHITECTURAL ASSOCIATION.

An increased membership was recorded at the nual meeting of the Northern Architectural ssociation, held recently at Newcastle, under e chairmanship of Mr. W. T. Jones. The ouncil's report stated that the total membership as 291, as compared with 269 for the previous ssion. Officials for the ensuing session were ected as follows: President, Mr. W. T. Jones; ice-President, Mr. G. Reavell, O.B.E.; Hon. reasurer, Mr. J. T. Cackett; Hon. Librarian, r. F. N. Weightman, M.A.; Hon. Secretary, r. G. H. Gray; Assist. Hon. Secretary, Mr. F. H. Checkley. Members of Council: Messrs. W. Boyd, J. W. Hays, W. Milburn, junr., K. Tasker, and L. W. Taylor. Associate embers of Council: Messrs. G. Talbot Brown, A. Child, R. N. MacKellar.

NCORPORATED SCOTTISH ARCHITECTS

The monthly meeting of the Council of the corporation of Architects in Scotland was d at Edinburgh recently, Mr. T. P. Marwick, .I.B.A., president, in the chair. During the rse of the meeting reference was made by chairman to the recent death of one of the ncil members, Mr. John Watson, F.R.I.B.A. dinburgh), and it was resolved to send tter of condolence to his widow and family. students were elected. A presentation was de by Mr. J. B. Brechin, 131, George-street, inburgh, of 14 large coloured drawings, 13 ng of architectural work carried out by the Mr. David Bryce, R.S.A., and one of the ab of Sir John Crosby, St. Helen's Church, hopsgate, by the late R. W. Billings, architect.

Change of Address.

The British Reinforced Concrete Engineering , Ltd., are removing on April 12 to King's ldings, Smith-square, Westminster, S.W.1.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

*** *We are glad to give questions and answers but cannot accept responsibility for contributed replies, especially on legal matters.*

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in type-script?—Ed.

[Reply to "Hospital."]

The cost of hospital building varies so considerably according to the character of building to be erected, number of patients accommodated, and whether teaching facilities are to be included, that each building must be taken on its merits. For prices ruling before the war there is a list given in a paper in the R.I.B.A. *Journal*, December 23, 1911, on German hospitals. English General Hospitals varied from £300 to £600 per bed. The writer built one hospital in 1914 costing £330 per bed, and another of two pavilions only to existing hospital £150 per bed. The prices at present ruling are about £500 to £1,000 per bed.

"Unit."

Libraries and Inhabited House Duty.

Sir,—We are designing plan for a library building, in which it is desired to have a resident caretaker directly connected to the main library building. If this were done, would the whole building be liable for inhabited house duty? On the other hand, if the caretaker is entirely cut off from the library and has a separate access to the outside, would his house alone be liable for duty and the remainder of the building exempt? "Designer."

Portraits of Inigo Jones.

Sir,—With reference to your list of the portraits of Inigo Jones, published in your issue for March 14, may I supplement this by another example, viz., that in the collection of Lord Mildmay at Berkley-square, but who the artist is, I believe is not known for certain, though it would appear to belong also to the school of Van Dyck.

E. R. Hudson.

London, S.W.1.

Asphalting Zinc Roofs.

[Reply to Inquiry, March 14.]

Sir,—If the zinc has become porous it is probably due to the action of acids contained in the air, soot, &c., of town, as it is not a particularly long-lived material under the conditions obtaining.

I would suggest a thick coat of Portland cement wash, on top of which a good roofing felt should be laid in accordance with the firm's instructions. This will give a good waterproof roof, easily repairable at little cost that will last for years.

W. G. Watkins.

Plymouth.

Planning for Subsidy.

Sir.—The rules governing the eligibility of houses for the subsidy vary in different districts, but generally include a clause that excludes verandahs and porches outside the containing walls of the house from the prescribed floor area. Would you consider that a porch built over on the first floor must be therefore included in such floor area, even if entirely open on the ground floor? or can the "containing wall of the house" be considered to be the inside walls of the open porch in this case?

"Subsidy."

Measurement of Brickwork.

[Reply to "Puzzled."]

Sir,—Building practice takes its lead from the nearest big city—in the case of the Home Counties, from London. Here most building is on a big scale with walls for the most part 18 in., 14 in., and 9 in.—an average of 1½ bricks thick. Recent years experience lead us to forget that brickwork was once cheap, making a higher unit of measurement than the yard more convenient when dealing in round figures, and the square rod, pole or perch comes next above the square yard as a unit of measurement. The yard would certainly somewhat simplify squarings and be very convenient in these days of high prices, and the thickness of one brick be perhaps more handy in an age of activity in small domestic work; but custom is hard to eradicate and different districts will no doubt continue in the methods to which they are used.

"Perhaps."

Removing Paint from Brickwork.

[Reply to H. Taylor.]

We should advise the use of the blow-lamp to burn off the paint. This can be applied more thoroughly than in the case of woodwork as there is no fear of damaging the under surface. The brickwork should then be thoroughly brushed with a stiff wire brush and the joints raked out as a key for the cement.

EARLY CHRISTIAN EUROPE.

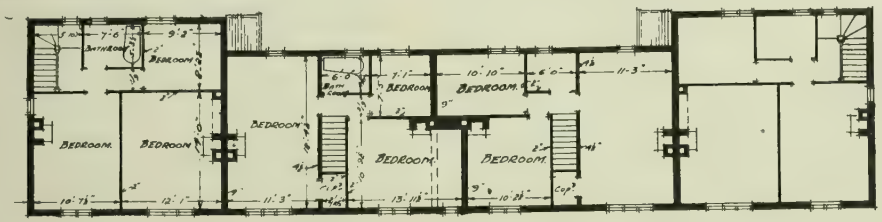
Sir Banister Fletcher, in a recent lecture at the Central School of Arts and Crafts, dealt with early Christian Churches in Ravenna, Torcello, Sicily, Egypt, Syria, and the Near East. After the Peace of the Church he said the Early Christian building epoch through the Roman Empire began in the fourth century. The building activity of the world passed from the hands of empire-builders into the hands of church-builders. In all the provinces of the Roman Empire, just as there were built forums, camps, and amphitheatres, so there were found the remains of these basilican churches in England, in Egypt, and in Syria. In plan and construction these churches were Roman, in detail and decoration they were largely Byzantine, but in purpose and spirit they were entirely and essentially Christian.

The position held by the city of Ravenna, both historically and geographically, made her an important factor in early Christian architecture. There were beginnings of things that became important elements in mediæval church architecture. S. Apollinare Nuovo had a circular tower. It was an instance of an old form adapted to a new purpose, and thus the Early Christians evolved the belfry tower from the fortified watch-tower with its look-out. There, too, was the dosseret block above the capital, which was ultimately to change the concave Classical capital into the rounded Byzantine capital.

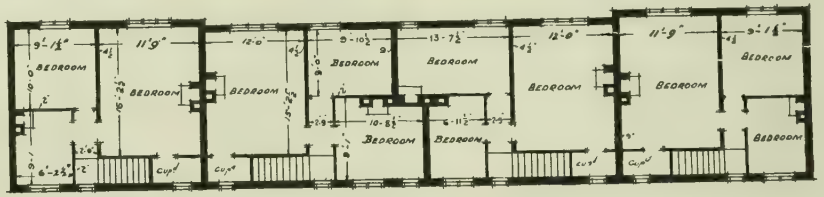
THE WESSEX SOCIETY OF ARCHITECTS.

The first annual general meeting of the Wessex Society of Architects was held at Bristol. This Society has come into existence as a result of the federation of the Bristol Society of Architects (founded in 1850) with its younger sister, the Gloucestershire Architectural Association, and is allied to the Royal Institute of British Architects.

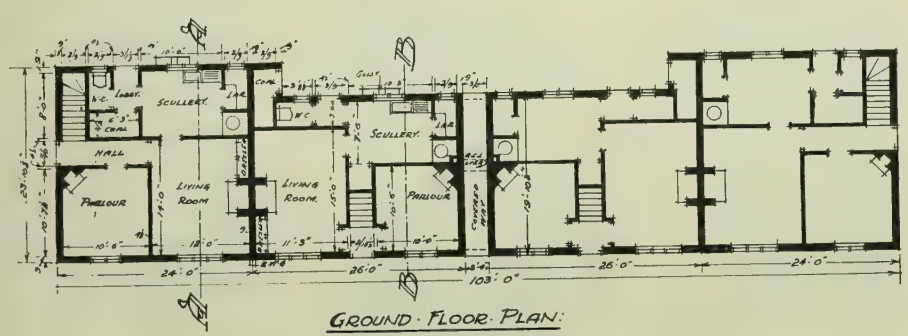
Officers were unanimously elected for 1924–1925 as follows:—President, Mr. G. C. Lawrence, A.R.I.B.A., R.W.A., Bristol; Vice-Presidents, Mr. G. P. Milnes, Stroud (President of the Gloucestershire Architectural Association), Mr. W. S. Skinner, F.R.I.B.A., Bristol (President of the Bristol Society of Architects); Hon. Secretary, Mr. H. Stratton Davis, M.S.A., Gloucester; Hon. Treasurer, Mr. T. A. Skinner, A.R.I.B.A.



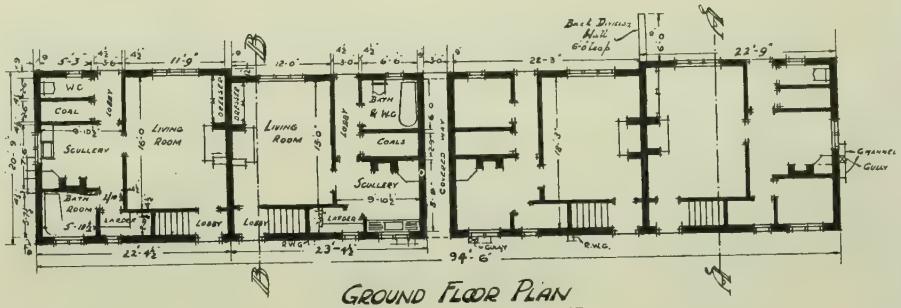
FIRST. FLOOR. PLAN.



FIRST FLOOR PLAN



GROUND · FLOOR · PLAN.



GROUND FLOOR PLAN



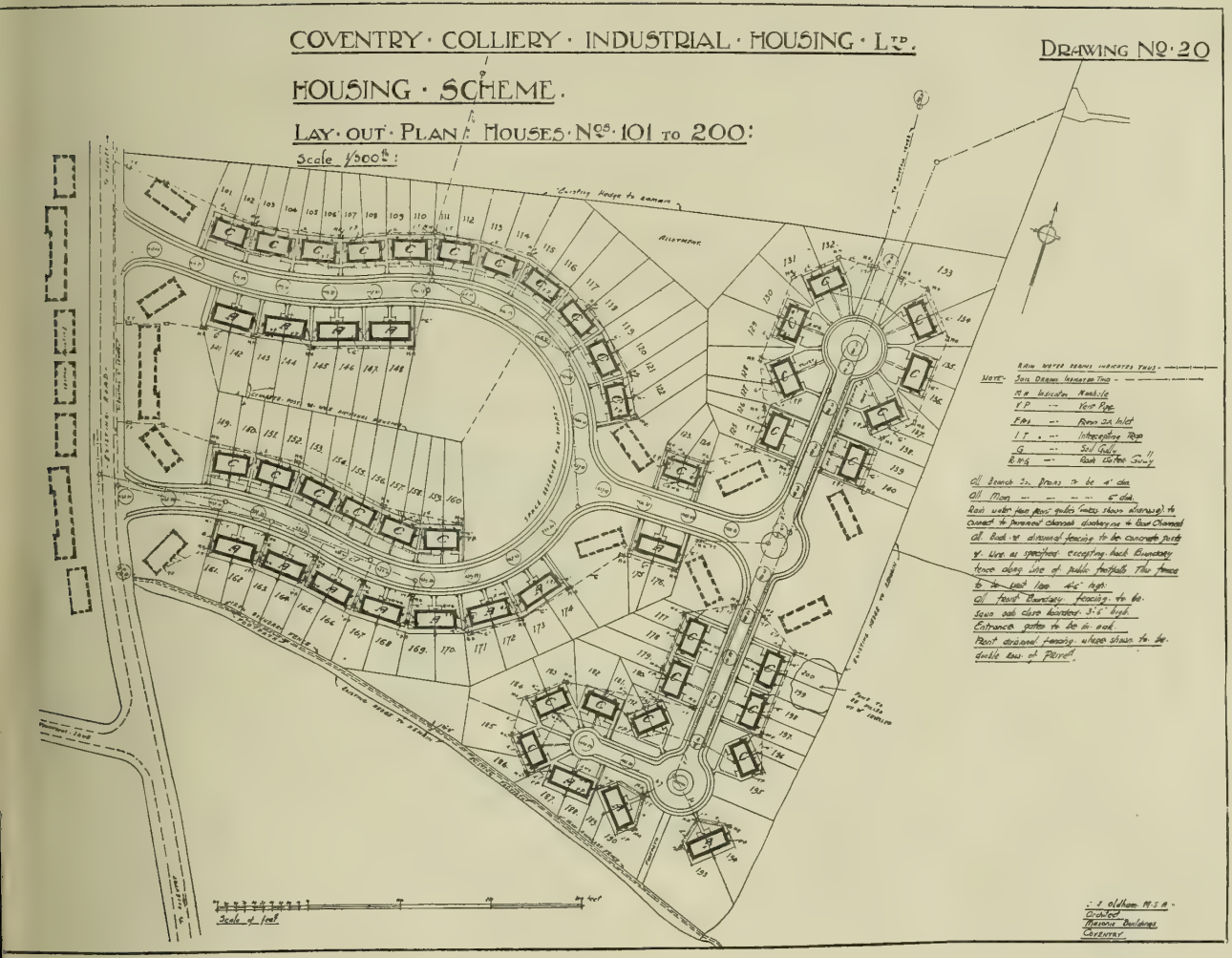
FRONT · ELEVATION

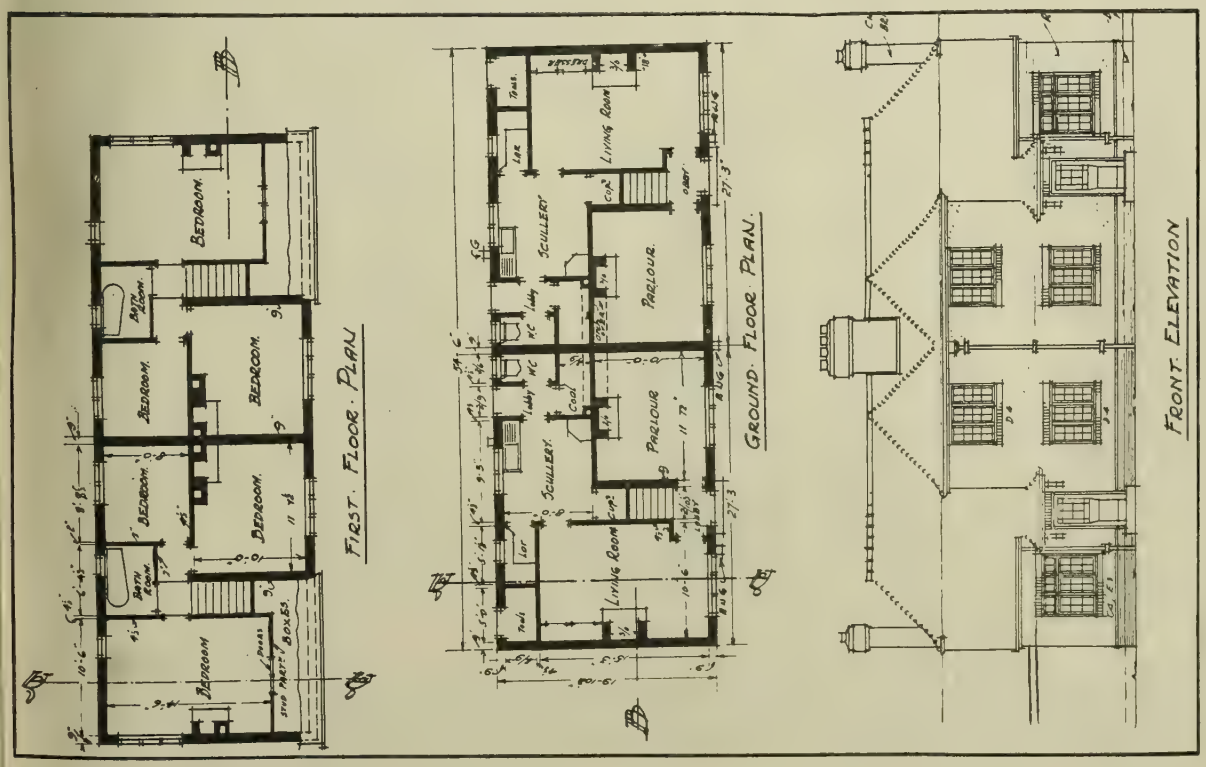


FRONT ELEVATION

Coventry Colliery Housing Scheme.

MR. S. J. OLDHAM, M.S.A., Architect. (*See p.* 535.)





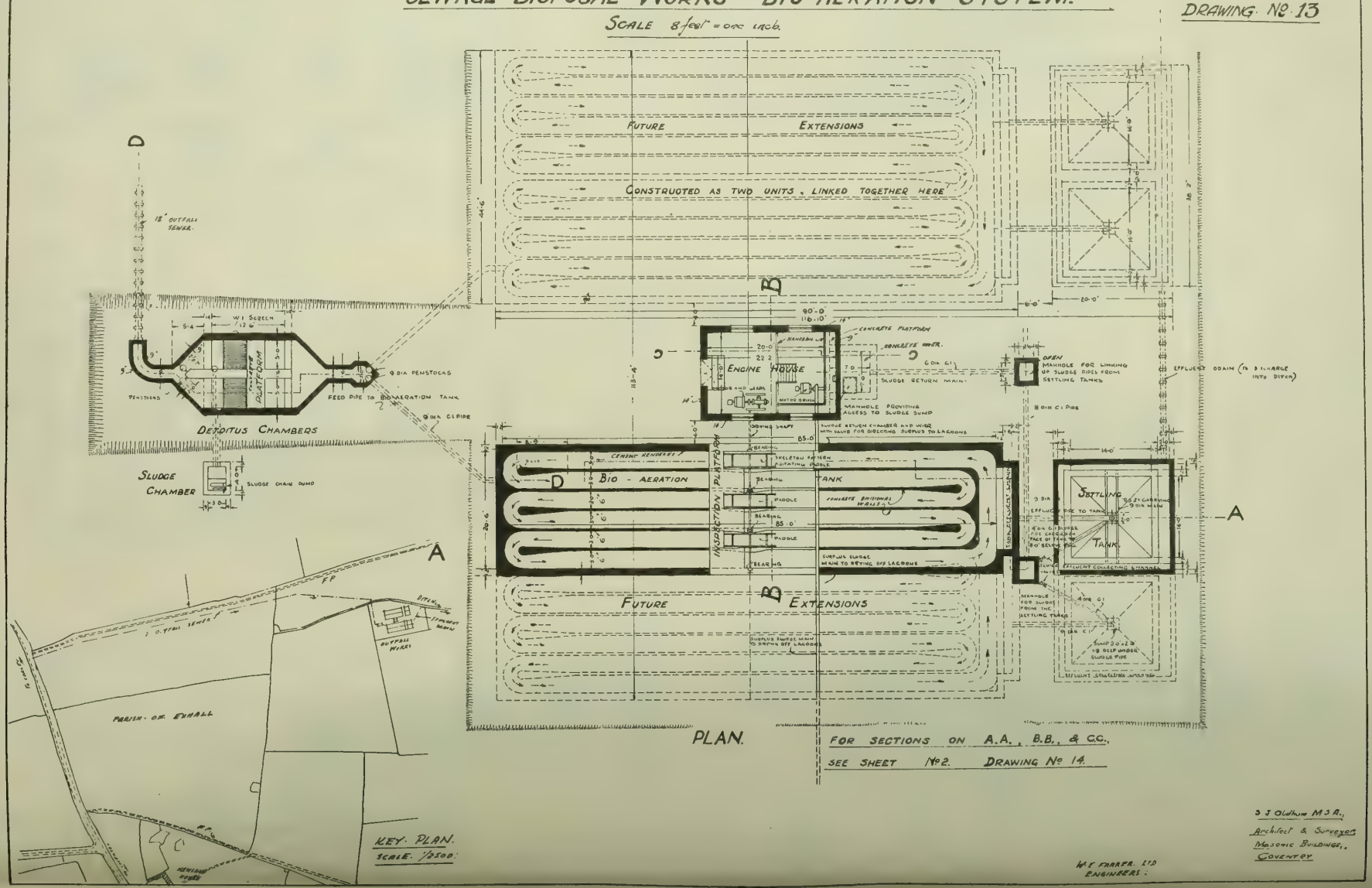
Coventry Colliery Housing Scheme. MR. S. J. OLDHAM, M.S.A., Architect. (See p. 535.)

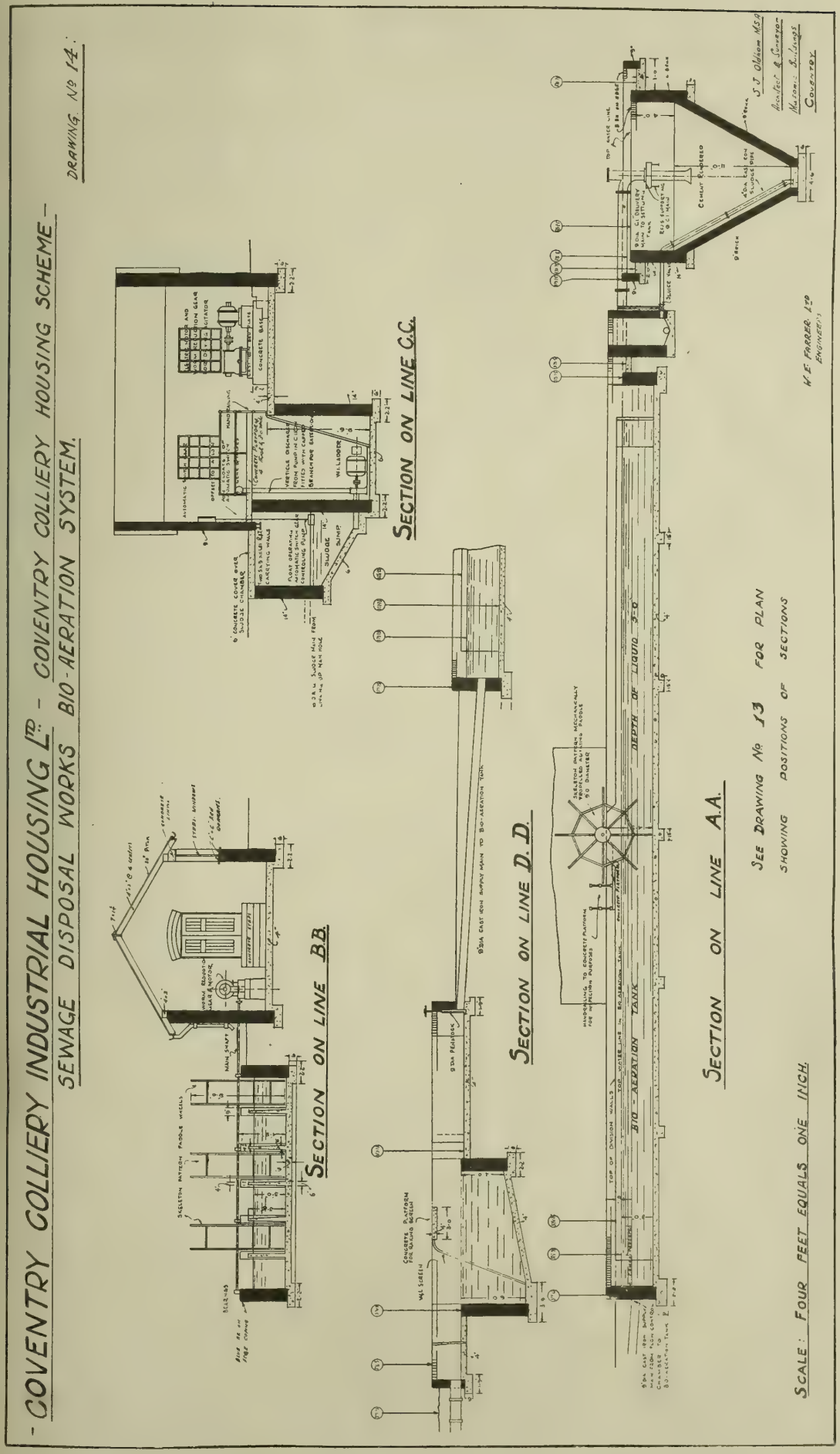
COVENTRY COLLIERY INDUSTRIAL HOUSING LTD - COVENTRY COLLIERY HOUSING SCHEME

SEWAGE DISPOSAL WORKS BIO-AERATION SYSTEM.

DRAWING No. 13

SCALE 8 feet = one inch.





MR. S. J. OLDHAM, M.S.A., Architect. (See p. 535.)

THE TOWN-PLANNING EXHIBITION AT UNIVERSITY COLLEGE

By W. R. DAVIDGE.

Professor Adshead, with his usual thoroughness, has brought together a very fine collection of studies in town planning, carried out largely by present and past students of the Town-Planning Department of University College, under Professor Adshead's own direction.

The larger portion of the work executed is naturally within fairly easy reach of London, and the civic survey work and the actual lay-out plans indicate an exceedingly high level of attainment, in most cases the result of several years of patient and continuous work. Professor Adshead's success with his students is due very largely to the fine measure of enthusiasm which he himself instils; and the pioneer work done by the Town Planning Department of the School of Architecture, London University, is already having, and is certain to have in the future, a very marked effect upon the development of Greater London and of many of our provincial towns throughout the country.

The outstanding features of the Exhibition are the two models made by the students, one showing the Duchy of Cornwall Estate at Kennington, now under reconstruction by Messrs. Adshead & Ramsey, on behalf of the Duchy, and the other showing the interesting London County Council re-housing scheme on the Tabard-street area, which has been carried out under Mr. Topham Forrest, the Architect to the L.C.C..

It will be remembered that the latter consists of five-story blocks grouped round a central open space, and the Kennington scheme of two or three stories only.

Both schemes are excellent in their way in showing what can be done by re-housing on existing areas, however congested, whether in tall blocks or in cottages; and both, although entirely different in character, are interesting object lessons of the way in which the whole of the dilapidated slum areas of London might be, and should be, reconstructed.

The acres and acres of old worn-out residential property which exist all over London, especially around the fringes of the commercial and industrial districts, call for drastic treatment on a big scale, and, although it is not feasible to undertake more than a few of these areas at a time, it is more than ever essential that all such reconstruction work should be carried out as part of a general plan. It must not be overlooked, however, that in both the estates in question there is a benevolent ownership—in the one case the Prince of Wales, in his capacity as Duke of Cornwall, and in the other the greatest municipality in the world, in the shape of the London County Council.

What is wanted is an extension of these magnificently drastic methods to other areas of London, equally squalid and equally in need of attention. The main difficulty is in the multiplicity of small owners, and the fact that even the most drastic of Housing Acts must have respect to the individual rights of the small owner. Confiscation is not possible or desirable; what is wanted is either a system of pooling of interests for the purposes of a common improvement or, preferably, a general plan of reconstruction laid down by a competent authority, to which all owners must conform in due course. With a forty years' programme of consistent progress and improvement, even such sordid and blighted boroughs as Shoreditch and Bermondsey would begin to see daylight, and the hopeless would begin to take hope in the future of our great cities.

A careful study of the civic survey zoning plans of the London Society shows, borough by borough, how the steady pressure of industry and commerce, in its outward expansion, is as steadily worsening the already congested conditions in the adjoining residential areas. These diagrams, too, are useful in showing how diversified are the areas brought into use for business and residence—in many the areas best suited for commerce or factories are already allocated to residential use, and it can only be a matter of a few years before such areas are entirely absorbed for business purposes.

Professor Adshead and his students are to be particularly congratulated on the attractive and graphic way in which the various town-planning proposals are presented. The students have visited and studied on the spot most of the problems which to-day vex the inhabitants of London and Greater London, and they have been particularly fortunate in the happy selection of colours in which the result of their work is recorded.

Probably no town-planning exhibition so far has been so uniformly well presented as the one now to be seen at University College. The Exhibition is not a large one, but is of uniform and high excellence in pictorial presentation, and is in every way a model of what such an exhibition should be, if it is to appeal to the general public through the medium of the eye.

Amidst so much really excellent material it is a little difficult to mention names, but there are several drawings of such outstanding merit that they deserve particular mention. Chief among these may be mentioned the fine work of Mr. W. Harding Thompson, A.R.I.B.A. His drawing of The Great West Road, or Brentford By-pass as we still prefer to call it, is finely shown, and is given a place of honour at the entrance to the Exhibition. His lay-out for the Ramsgate Scheme is also an excellent piece of work, both in planning and in draughtsmanship.

The skilful handling of colours, which is so marked a feature of the work of Prof. Adshead and his students, is shown to particular advantage everywhere in this Exhibition, and the blue waters of the Adriatic are brought to the service of the Thames or the Hamoaze in a most delightful and inspiriting way.

The work of Mr. Blake in constructing the Tabard-street model, with the aid of assistance from the L.C.C. architectural staff, also deserves special mention. As a model it is particularly successful, and when one understands that the whole idea was conceived and carried out in a week or so, it is especially noteworthy as a brilliant piece of work.

Mr. Dixon's model showing the junction of the Great West Road and the Chiswick High Road as it should have been constructed is also interesting as a reminder of the many opportunities which are daily being missed in the development of our arterial roads. It is to be hoped, however, that these valuable suggestions will, many of them, be adopted before the opportunity finally passes. On all our main roads there are many such points where the architectural possibilities are at least as important as the soundness of the road construction itself, and once the matter is so forcibly brought before them, the Ministry of Transport are not likely to overlook so obvious and convincing an argument for architectural assistance in all that they do.

The Civic Survey of Barnet is well shown on a number of well produced drawings, the work of Mr. Fincham and Mr. Heck being particularly good.

Mr. A. G. Waller has also done some very good research work in connection with town planning, and his drawings at the Exhibition show that, although in another field, he has inherited some of the ability of his talented father, the late Professor Waller.

Mr. R. A. Hudson shows a study of the Lydden Valley—a small section of the Kent Coalfield—an area which is undoubtedly destined in the near future to become one of the most important industrial areas of Great Britain.

The work of Mr. B. F. Brueton, an old student of the School of Town Planning, is also noteworthy, and his examples of practical town planning carried out at Bristol under Mr. L. S. McKenzie, the City Engineer, are of interest.

Mr. L. C. Foulkes' work in connection with war memorials at Llandudno and elsewhere also deserve special mention. In the problem of development of our seaside towns there is an ample scope for the present generation of town planners, and it is gratifying to note that the municipal authorities of most of our seaside towns are fully alive to the solid commercial value of good town planning.

Apart from town planning proper, however, there is much of interest to note in the purely architectural side of the Exhibition. Public garages and open-air swimming baths, pergolas and pavilions, offer magnificent scope for the architect, and it is all to the good that there should be the closest of touch between the town planner and the architect or architects responsible for the principal objects of town furnishing.

In congratulating Professor Adshead and his students on this most successful of exhibitions it may perhaps be opportune to remember that the R.I.B.A. itself has recently introduced a special diploma examination in town planning specially adapted to members of the Institute, and such exhibitions as the present, together with the valuable series of conferences with which it is accompanied, serve to emphasise yet once again the essential connection between architecture and town planning. The University of London, together with its sister University at Liverpool, is doing a great work in training the architect of the future in the all-essential principles of town planning and town extension. Neither the municipal engineer nor the architect can afford to ignore the art of town planning, which is here so excellently presented, and there deserves to be a great influx of students in the near future.

With the introduction of compulsory town planning for all towns of more than 20,000 inhabitants, the field for statutory town planning is a wide one, but it is as nothing compared with the need that exists in every community, large or small, throughout the world, for men of capacity and imagination to look ahead and prepare a considered programme of essential work in advance of actual need, so that when the opportunity occurs the plans are ready.

THE OPENING CEREMONY.

In declaring the Exhibition and Conference open, on Monday last, Prince Arthur of Connaught referred to his previous connection with the University College, when he opened the Bartlett School of Architecture. The movement in favour of town planning, he continued, began in the latter part of the nineteenth century as a revolt against the unsightly and ugly buildings springing up everywhere according to the passing whim of the time, or the enterprising but not very artistic conception of the "speculative builder." The Public Health Act of 1875 had no doubt made our towns probably the healthiest in the world, but the standardisation which the universal by-laws created produced an ugliness and monotony little short of appalling. The Town Planning Act of 1909 gave local authorities power to prepare plans the success of which depended on the imagination and foresight of officials, and therefore it was most necessary that they should be highly educated in order to secure the greatest efficiency in administration. Town planning was one of the newest subjects taught at universities, and it was obvious that the education of officials in town planning ranked in importance with that of municipal engineers. Since the war it had been a source of great pride and gratification that Great Britain had led the way in carrying out big housing schemes on town-planning lines, and in spite of all the difficulties which had since arisen in the matter of building these housing schemes would always remain an example to posterity of what town planning really meant. The advantage of town planning became increasingly evident year by year and almost day by day. He would like to tender his congratulations to the official of the Ministry of Health, who had not only set

h standard of administration, but had taken triking lead in the matter of public education. would also draw attention to the services dered to the town-planning movement by fessor Adshead.

Professor S. D. Adshead, in a statement on work of the Department of Town Planning the University of London, said they held that vn planners were about as far ahead of engi- rs as statesmen were of politicians. There s hardly a local authority in and around ndon whose area the students had not visited l decided how things ought to be improved. there were a "fire of London" to-morrow all plans were ready for the rebuilding. He ught they should seek combination of effort, architects, engineers, and surveyors were all essary in the preparation of a widely-con- ered scheme. He hoped in the future to ate the Department more closely to the partments of Engineering and Hygiene. In w of the increasing importance which was ng attached by local authorities to town- nning, it should be an important subject in curriculum of any student who intended to ome a municipal engineer.

Sir John Bradford occupied the chair at the emony, and amongst those present were Sir egory Foster, Sir George Blacker (Dean of the dical School), Mr. E. de Q. Quincey (Treasurer the College), Mr. Andrew T. Taylor (Chairman the Managing Sub-Committee), the Mayor of Pancras, Professor A. E. Richardson, Sir ank Baines, Mr. G. Topham Forrest, Mr. J. alker Smith, Mr. Raymond Unwin, Mr. Paul aterhouse, and Sir William J. Collins.

Zoning.

The first of the series of conferences on town nning subjects, which are being held during week, was opened by Mr. Raymond Unwin, R.I.B.A., on Tuesday. The subject under cussion was "Zoning Requirements of Town- nning Schemes under the Act." The chair s occupied by Mr. J. A. Gotch, President of Royal Institute of British Architects.

In opening the discussion, Mr. Unwin said oning" was a term for indicating the areas land in and about our centres of population ich were to be allocated for certain purposes, restricted in certain ways, or to be limited buildings adapted to certain specific purposes, a limited range of uses, heights and character. e necessity of zoning was urged for the general son that it had been borne in upon them ng to the catastrophic destruction of the enities of towns which took place during the wth of the industrial age during the last tury mainly, but not exclusively. At that e people concentrated their attention on the velopment of industry, and not sufficient ught was given to the effect of that growth the character of the towns and the character the dwellings of the people. It was now lised that in regard to the use of land, rticularly land in districts where human settle- nts might take place, it was of vital impor- ce that each part of the limited area of d should be put to the use for which it was t adapted, and which would most conduce he benefit of the community. If care were taken that land was used in the best and st economical way in the public interest they ht largely destroy the possibilities for an nomical, efficient, comfortable, and beautiful upon such land. It was recognised that the rests of owners of land, as a body, and the lic seldom differed; the interests of in- dual owners might be considerably different the interests of the community, but the rests of landowners, as a whole, very nearly cided with the interests of the community the economic point of view. Anything h ministered to the economic prosperity of community would enhance the value of land he whole of the owners as a class. The e of land depended primarily on the total of the advantages to be derived from g on a certain piece of land instead of ewhere else, and anything which improved total sum of the advantages of a piece of helped both the community and the land- owners. There was no conflict of interest between the landowners as a body, although there might be conflict of interest between the public and any one individual landowner. Zoning was, therefore, based on the consideration that individual owners of plots of land were not in a position to judge what was best in the public interest, and frequently had no immediate interest in zoning. That was where the individual owners of property differed in their point of view from the point of view of the whole of the owners if looked at collectively. The main purpose of zoning regulations in regard to built-up areas and towns, which were at present only included to a limited degree, but for which it was expected further powers would be granted before long, was to secure the regulation of the distribution of different classes of buildings so far as was consistent with the general interests of the town, and gradually to eliminate harmful or incongruous buildings. It was also necessary to improve the existing arrangements by making suitable provision for buildings of different classes which, though not unsuitable, were more or less of a different character from the remainder of the buildings in a town, and to conserve areas over which expansion should be prevented from taking place. At the present time towns grew haphazard, with the result that usually no particular part of a town could grow unless at the expense of another part. That entailed a huge economic waste, because the commercial heart of a town was growing at the expense of another part; it was only possible to get a business area increased by pulling down buildings which were built in a place which ought to have been reserved for the expansion of commercial building. Town planners sought to lay out land so that each part would have scope for expansion. In connection with unbuilt-on areas they thought more of the future, and to secure the orderly development of a town by providing that each area of land might be used, and in some cases reserved, for the exclusive use of the particular range of purposes for which it was best suited, and which was most likely to contribute to the amenity and prosperity of the town. Looking to the future in this way would save the community a great deal of expense in pulling down one class of property to make room for another, and protect owners of property from injury which might arise through owners of neighbouring land putting up incongruous buildings which would reduce the value of existing buildings. Greater attention would also be given to the character of buildings in different areas, and appropriate form and outline, for a growing town as a whole. Sufficient unbuilt-on areas would be preserved for the various growing needs of the community, so that they could expand without clashing with buildings devoted to other purposes. Zoning called for the exercise of imagination and foresight of a high order. The man or community preparing zoning regulations needed to get away from detail, and try to see the problem as a whole. The expanding size of town-planning schemes and their gradual approach to the regional scheme had brought in its train a rather serious dilemma. It was evident that town-planning schemes must protect a very wide area, many times greater than was likely to be developed within a period to which they could look forward with any reasonable knowledge of what was going to happen. The difficulty was that although they must include all that area, they did not, and could not, know which particular part would be the subject of development. It was, therefore, necessary to prepare plans and zoning regulations for whole areas.

On Wednesday Mr. G. I. Pepler opened a discussion on "Technical Requirements in the Preparation of Schemes," and on Thursday Dr. I. G. Gibbon, C.B.E., opened a discussion on "Town-Planning Schemes in their Relation to Regional Development." This evening Mr. G. Topham Forrest, Architect to the London County Council, is to deliver an address on "Architectural Interests involved in the Making of Town-Planning Schemes."

TOWN PLANNING AT WEMBLEY

The Right Hon. J. Wheatley, M.P., Minister of Health, will visit the Town-Planning Exhibition which will be held at the British Empire Exhibition, from April 23 until May 17. The Town Planning Institute is organising a Conference in connection with the Exhibition, and the following programme has been arranged:-

May 5.—11.30 a.m.—Visit to Town-Planning Exhibition by the Right Hon. J. Wheatley, M.P. (Minister of Health). 2.30 p.m.—Subject: "Town Planning in the Dominions and India." Chairman, the Right Hon. Sir Joseph Cook, P.C., G.C.M.G. (High Commissioner for Australia). Papers: "Town Planning in Canada," by Thomas Adams, F.S.I., Past President, lately Town-Planning Adviser to the Commission of Conservation, Canada; "Town Planning in India," by H. V. Lanchester, F.R.I.B.A., Past President; "Town Planning in Australia and New Zealand," by W. R. Davidge, F.R.I.B.A.

May 6.—10.30 a.m.—Subject: "Regional Planning." Chairman, Alderman Thomas Turnbull, D.L., Chairman of the Manchester and District Joint Town-Planning Advisory Committee. Papers: "Planning Industrial Regions," by Professor P. Abercrombie, M.A., A.R.I.B.A., Vice-President; "Regional Planning," by G. L. Pepler, F.S.I., Past President. 2.30 p.m.—Subject: "Town-Planning Schemes." Chairman, The Right Hon. the Lord Mayor of Birmingham, Alderman T. O. Williams, J.P. Papers: "Town-Planning Schemes for Large Cities," by F. H. C. Wiltshire, Town Clerk of Birmingham; "Town-Planning Schemes for Small Towns," by C. J. F. Atkinson, LL.B., Clerk to the Otley Urban District Council.

May 7.—10.30 a.m.—Subject: "City Development." Chairman, Sir Aston Webb, K.C.V.O., Hon. Vice-President. Papers: "Distribution," by Raymond Unwin, F.R.I.B.A., Past President; "City Design," by Professor S. D. Adshead, M.A., F.R.I.B.A., Past President. 2.30 p.m.—Subject: "Roads." Chairman, Sir Henry Maybury, K.C.M.G. Papers: "Planning Main Roads," by J. A. Brodie, Past President Inst.C.E., Hon. Vice-President.; "Planning Estate Roads," by T. Alwyn Lloyd, F.R.I.B.A. 7 for 7.30 p.m.—The Tenth Anniversary Dinner of the Institute will be held at the Savoy Hotel, W.C.2, when the Right Hon. Neville Chamberlain, M.P. (Hon. Vice-President), will be the chief guest. Price of tickets, 15s. each (exclusive of wines). Application should be made to the Secretary for tickets, enclosing remittance, as early as possible.

May 8.—The Conference will be continued by the Garden Cities and Town-Planning Association. 10.30 a.m.—Conference on: The Industrial Penetration of Rural Districts; Local Government Problems. 2.30 p.m.—Conference on: Finance and Machinery of Establishing Garden Cities.

May 9.—The Conference will be continued by the National Housing and Town-Planning Council. Members of the Institute proposing to attend the Conference are requested to inform the Secretary as early as possible in order that they may be provided with papers to be read, and Delegates' Tickets. No Conference fee is payable by members. Entrance to the Conference Room will be free, but the ordinary charge of 1s. 6d. will be payable for the main Exhibition, which will also admit to the Conference Room.

Tenders.

In our last issue we omitted the tender, at £61,166, submitted by Messrs. Patman & Fotheringham, for extensions to the Islington B.C. Offices. The accepted tender was that of Mr. George Bollom, at £60,777.

The tender of Mr. F. A. Roberts for the erection of almshouses at Ripley should have been given as £2,610.

THE BUILDING TRADES EXHIBITION

The forthcoming Building Trades Exhibition, which is to be opened at Olympia on Friday next, April 11, by the Rt. Hon. John Wheatley, M.P., Minister of Health, is the first Building Trades Exhibition to be held at Olympia since the enlargement of the ground floor area, and it promises to be a specially interesting and comprehensive show. The chair will be taken at twelve noon by Mr. J. A. Gotch, President of the Royal Institute of British Architects, who will be supported by many well-known architects and builders. For the ready use of visitors to the exhibition we give in this issue a loose plan of the main hall and the new hall, and on the reverse side a list of exhibitors and their stand numbers, and in the following pages a preliminary account of some of the exhibits. In our next issue we shall give further notices of exhibits, as well as other matter of special and general interest.

Anderson, D., & Son, Ltd. (Park-road Works, Stretford). **Stand 118, Row F.**

Patent Roofings.—The exhibit will comprise all classes of "Red Hand" roofing, sarking and lining felts and damp courses, also "Rok," "Stoniflex" and "Hippo" roofings. The special exhibits consist of a section showing the construction of a "Belfast" roof, and a section demonstrating Anderson's flat roofing system. Both these form the actual roof of the stand, and access to them is gained by a stairway. "Rok" roofing and "Ferro-Rok" are used as roof coverings on the Belfast roof. Wood fencing treated with "Sidol" wood preservative is shown, the stairway to the "Belfast" roof and the flat roof is likewise treated, as also is all other woodwork of the stand.

Associated Crafts, Ltd. (28, Avenue Chambers, Southampton-row, London, W.C.1). **Stand No. 274, Row P.**

Panelling.—"Dekart" is a material which is prepared to bear a close resemblance to any kind of oak or other hard wood, old or new. The likeness is not confined to the surface only, for if chipped exactly the same colour would be exposed as would be in the wood supplanted. "Dekart" panelling is made up in large pieces in the same way as natural wood panelling. It is claimed that it is damp-proof and fire-resisting, can be sawn, will take screws or nails without splintering, and will neither crack, warp nor shrink. On this stand many of the uses of the material will be demonstrated.

Australia Concrete Machinery & Engineering Co., Ltd. (Pordon-road, Brixton, S.W.2). **Stand No. 125, Row F.**

Concrete Machinery.—The principal exhibits on this stand will be the "Australia" concrete block and slab-making machine and the "Tonkin" mixer. The former is a simple type of hand block-making machine. The blocks are tamped by slamming down a hinged cover, and removed by raising the pallet by means of a foot pedal. It is claimed that 400 slabs per day can be made on this machine. The "Tonkin" mixer is of the open-drum type, in which the materials are in view during the whole time of mixing. The capacity of the machine is 3 cu. ft. per batch, and the output 40 cu. yds. per 8-hour day. The drive may be by a petrol engine mounted on the truck or belt.

Bell's Poilite & Everite Co., Ltd. (59½, Southwark-street, London, S.E.). **Stand No. 279, Row P.**

Asbestos Cement Products.—A feature of this stand will be an aerial tower, 60 ft. high, octagonal at the base, the roof of the octagon demonstrating the application of "Poilite" russet-brown pantiles and other forms of "Poilite" tiling. The portion above the octagon will be cladded externally with the new corrugated "Everite" sheeting known as "Everite Big Six." The portion above this will be cladded externally with standard "Everite" corrugated sheeting. The roofing between the two square portions of the tower will show the application of "Poilite" straight-cover slating in various colours, and the top of the tower will be covered with a hipped roof consisting of "Poilite" red standard diagonal tiling. The space under the octagonal roof will be open, the superstructure being supported on piers.

Blay, George (New Malden). **Stand No. 320, Row S.**

Steel Shelters, &c.—This firm will exhibit buildings made of 12 and 14 gauge corrugated steel sheets, self-supporting in that no structural work or bracing of any kind is necessary. They may be easily and quickly erected and complete buildings are supplied in all lengths, widths, and heights. Steel casements and centrifugal, portable electric, and diaphragm, suction and delivery pumps, with an output from 2,000 to 600,000 gallons per hour, will also be shown.

The British Vacuum Co., Ltd. (Parsons Green Lane, London, S.W. 6). **Stand No. 182, Row J.**

Vacuum Cleaners.—The British Vacuum Cleaner & Engineering Co. will show their heavy duty portable and stationary vacuum cleaning plants. This company claims that their positive type vacuum cleaning plant is undoubtedly the most satisfactory for the majority of vacuum cleaning problems. They also supply a turbine or multi-stage fan type of plant for the class of dust removal that requires this type of plant, such as factory work, where there are very rough floors and there is a considerable quantity of small refuse present. They will also exhibit their pneumatic suction plant for dealing with the removal of boiler flue dust.

Bruster, O. (4, Lloyd's-avenue E.C.3). **Stand, No. 220, Row L.**

Water Heaters.—The "Baseco," for use where unlimited supplies of hot water are required; the "Glow-Worm," in two sizes; and a working exhibit will be prominent features of this stand; also for the first time a new boiler, called the "Baby Glow-Worm," which has been introduced to meet the needs of the smaller houses. The "Baseco" boiler is designed so that the maximum efficiency is obtained with a minimum consumption of fuel. The No. 1 "Glow-Worm" will raise 42 gallons of water 100 deg. F. per hour, and the No. 2 size will raise 56 gallons of water 100 deg. F. in the same time.

"The Builder, Limited," will have two stands, namely, No. 126, Row F, where there will be reception rooms; a display of books of interest to the architectural, building and allied professions; models of "Old London Bridge," "Old St. Paul's," "Mill Lock" (the recently discovered second arch of Old London Bridge), "Old Westminster," and models of houses with three and four bedrooms made from the winning designs in *The Builder* Cost of Building Competition; news, lectures and music by wireless; and architectural illustrations displayed by means of a new type of electric optical lantern. The other stand, No. 245a, Row N, will be for the sale of *The Builder* only.

Burlington Slate Quarries (Kirkby-in-Furness, North Lancashire). **Stand No. 248, Row N.**

Slate.—This stand will take the form of a pavilion constructed of slate and stone from the Burlington Slate Quarries, demonstrating the application of these materials in various ways for different purposes. It will be floored with slate flags, some rectangular and others of random sizes and irregular contours. The main piers will be of slate stone in varying thicknesses, having weathered bed-joints in accordance with local custom, and the enclosing walls will be constructed in a similar manner. The roof and the upper parts of the enclosing walls will be covered with slates to illustrate some of the numerous sizes, qualities, and colours produced. The slates are known as "North Lancashire" or "Westmorland Dark Blue," and it is claimed that they constitute the most durable and, wherever a permanent structure is required, the most economical roofing material in the country, that their appearance is unexcelled, and that their texture brings within reach advantages in effect which are otherwise unobtainable.

Byrd, A. A., & Co. (11, Queen Victoria street, London, E.C.4). **Stand No. 238, Row N.**

Metaforms.—This firm will be showing the "Metaform" interlocking steel forms for moulding any shape or form in concrete in situ. A single course 2 ft. high, composed mainly of standard forms 24 in. by 24 in., with an assortment of fractional widths of plates, inside and outside, right-angle corner units and hinged corner units will be set up around the entire stand, forming a wall 2 ft. high, with various projections and recesses. At one or more points a portion of the second course will be erected on top of the first 2 ft. course to illustrate how this and the succeeding courses are dealt with. There will also be samples of the various other standard and special types of "Metaforms" for various classes of concrete construction. A sample section of finished wall will also be exhibited to show the smooth face of the wall as left by the plates when removed. Various other appliances for bending and cutting steel reinforcement bars, &c., will also be shown. A range of the "Wallace" electric bench wood-working machines will also be shown on this stand, and demonstrations will be given with them. All these machines are complete portable units, having ¼ or ½ h.p. electric motors mounted direct on the machine.

Carron Company (Carron, Stirlingshire). **Stand No. 164, Row H.**

Firegrates.—This exhibit will comprise range firegrates, baths, electric and gas cooking and heating appliances. "The Carron" range (fitted with an inner glass oven door) embodies modern improvements, including cast iron flues, hot closet with glass doors, &c. The well-known portable range, the "Beetonette" has its usefulness increased with a high-pressure back boiler. "No. 429" and "Cambrian" ranges will also be on view. A feature will be the "Carronia" combination firegrate (Preston patent). This grate, built on new lines, is, the claim, a revolution in its type. It is slow combustion in action, and has no complicated, troublesome regulating devices. A special feature of the "Carronia" is that all heat is utilised and simply regulated by adjusting the canopy. The oven being heated by hot air, the temperature is quickly raised and easily maintained. The "Carronia" gives a copious supply of hot water and is economical in fuel.

Churchill, Charles, & Co., Ltd. (9–15, Leonard street, Finsbury, E.C.2). **Stand No. 2, Row Q.**

Floor Surfacing.—This stand will be chiefly devoted to the well-known floor surfacing products of the firm. Alundum safety products, showing a range of floor and stair nosing tiles in various colours, plain, and with countersunk screw holes, will be on view, and other exhibits will include mosaic tiles, ¾ in., 1 1/16 in. square and 1 in. hexagon, in various colours; aggregates for treating cement floors and terrazzo to render them slip-proof, in two sizes and various colours; pre-cast terrazzo tiles; reinforced mats suitable for tramcars, omnibuses, trains, &c.; samples of pre-cast stair treads and slabs, some treated with aggregates and others with tiles; aggregates combined; samples of rubbing bricks of various shapes and sizes for rubbing down terrazzo. On this stand will also be shown "Manning" abrasive cloths and papers, waterproof speed-grits for the wet rubbing down of enamels, varnishes, &c.; waterproof flint pa-

or the wet rubbing down of paint; garnet paper or sanding woodwork, and metalite cloth and paper for polishing metal.

Cayless Bros., Battersea (Battersea Park-road, S.W. 8). **Stand No. 177, Row J.**

Ladders.—This firm will show a varied exhibit of ladders, barrows, trestles, hand-trucks and building plant; also a special show of their patent "C.B.B." telescopic ladders in two and three sections, complete with many patented improvements. Emphasis will be placed on the fact that, being actual manufacturers, goods can be supplied direct to the user at first prices.

Elliott, Samuel, & Sons (Reading), Ltd. (Caversham, Reading). **Stand No. 190, Row J.**

Woodwork.—Messrs. Samuel Elliott & Sons (Reading), Ltd., will have some rather unusual features. On approaching through the entrance one will see a classic portico apparently leading to a temple, but this expectation will not be justified on approaching the side of the stand, where it will be seen that the portico rests upon the end of an oak half-timbered building, the surface of the oak being treated in a special manner. The interior will consist of two parts, one being an oak-panelled room, and the other part occupied by panelling executed in mahogany having solid figured panels and to be used in a contract the firm have secured for work in a large public building. The well-known "Anti-Cyclone" revolving door will also form an exit from this part of the stand.

Ewart & Son, Ltd. (346–350, Euston-road, N.W.1). **Stand No. 198, Row K.**

Geysers.—On this stand will be exhibited the "Califont" system of water-heating, which ensures an instantaneous and continuous hot-water service throughout the house, only one heater being required from which a hot-water service pipe can be taken direct to the bath, lavatory or sink; the opening or closing of the hot-water draw-off tap regulates the gas under the heater, and the gas only burns full on whilst the water is being withdrawn. Other exhibits will include the "Lightning" geyser, a standard pattern for bath and domestic use embodying automatic gas controlling valve and safety swing-out burner; the "Victor" geyser, a low-priced bath heater producing water rapidly and conveniently; geysers to heat by oil (paraffin) and fuel (wood or coal) for country districts where gas cannot be obtained; the "Emperor" cowl for the prevention and cure of down draught in chimneys.

The Expanded Metal Co., Ltd. (York Mansion, Petty France, Westminster, S.W.1). **Stand No. 151, Row G.**

Reinforcement.—This stand will show samples of the Company's products and examples of their uses; also photographs of various works carried out on its systems. The types of reinforcement include: (1) "Expamet" steel sheet reinforcement for concrete in foundations, walls, floors, roofs, bridges, culverts, silos, &c.; (2) RR. 6 in. mesh "Expamet" reinforcement for roadways, pavings, &c.; (3) "BB" and "Expamet" lathings for interior and exterior plaster work; also "Ribmet" ribbed lathing; (4) "Exmet" reinforcement for brickwork, concrete block work, partition slabs, asphalte, &c.; (5) mild steel wall ties for cavity walls; (6) section of culvert reinforced with "Exmet," sections of flooring reinforced with "Expamet," section of paving reinforced with RR. 6 in. mesh "Expamet"; (7) brick cavity wall to office reinforced with "Exmet."

Ermiloe, George, & Sons, Ltd. (34, St. John-street, London, E.C.1). **Stand No. 66, Row D.**

Builders' Merchants.—"Oceanic" and "Baltic" glass in white and many tints will be displayed, and a specimen board of lead goods which they manufacture. The stand will be decorated with "Father Thames" genuine white lead paint, white "Stargloss" enamel paint, and white "Eskimo" leadless paints. Two inside walls will be treated with red "Zingessol" washable water paint, and the panels on the exterior of the stand will display many of the tints in which this can be supplied. The firm will also show a small specimen of tile, slate and lead roofs to show how their "Mermetex" can be applied to repairing any kind of roof. Among sanitary goods a special feature will be made of "Lovaine" porcelain enamelled bath with porcelain enamelled fittings. They will also show their "O.C.G." brand of painting brushes and metal casements and leaded lights.

Fernden Fencing Co., Ltd. (Bridge-street, Guildford, Surrey). **Stand No. 41, Row C.**

Fencing.—"Fernden" cleft chestnut pale fencing, of British Standard Specification, will be shown; also a range of patterns in various heights suitable for all purposes; gates to their own registered designs; and selected seasoned timber, including British oak, larch, chestnut, fir, &c., suitable for fencing for every purpose. A speciality will be made of oak park paling, together with palisade, ornamental, post and rail, close boarded fencing, &c. Details of the "Fernden" hard lawn tennis courts will also be exhibited.

Ferodo, Ltd. (Chapel-en-le-Frith, Derbyshire). **Stand No. 60, Row D.**

Stair Treads.—This firm will show a full range of samples of their well-known fabric stair treads with several models showing methods of fixing nosings and treads to various types of stairs. These treads are specially woven from cotton and treated by a process which makes them exceedingly durable and long wearing. They are supplied in various colours which are permanent, and the material retains its non-slipping qualities and good appearance however well worn. Samples will also be shown of "Feroleum" nosings and flooring material, which are made from fine Para rubber and Ferodo fibre both corrugated and plain.

Gliksten, J., & Son, Ltd. (Carpenters-road Stratford, E.15). **Stand No. 91, Row E.**

Timber.—Messrs. J. Gliksten & Son, Ltd., intend exhibiting chiefly: Oak, teak, mahogany, American and French walnut, &c.

Greeff, R. W., & Co., Ltd. (Thames House, London, E.C.). **Stand No. 89, Row E.**

Paint.—Here will be shown "Kronos" titanium white, a new paint material made by the Titan Co., Norway. The capacity of this pigment, which is one of its chief characteristics, will be illustrated by various exhibits, including panels in which it is painted out over differently coloured backgrounds, showing the complete obliteration in one coat. The immunity of titanium white from discolouration by sulphur gases, &c., will form the subject of another demonstration; also its resistance to attack by corrosive gases and acids. Exposure tests of paint made with it will also be exhibited. "Wetordry" water-proof sand-paper will be shown in a large range of grades, from the finest garnet finishing paper to a coarse grit for cutting down the roughest filling.

Hoyle, Robson, Barnett & Co., Ltd. (Amen Corner, Newcastle-on-Tyne). **Stand No. 261, Row O.**

Paints.—This stand, which will house commodities of Messrs. Hoyle, Robson, Barnett & Co., Ltd., and Messrs. John Smith & Son (Haltwhistle), Ltd., will be simply designed, but will show the products of the associated firms in actual use. "Saneros," a useful water paint, "Protecteros," a high gloss finish with special qualities of density and lasting gloss, and Hoyle's semi-prepared paint, will all be shown in various ways on the exterior, while the interior will be given over to a variety of schemes in "Saneros" and "Hoyflat." The qualities of "Tynewhite," and the lustrous qualities of "Tynelac" and "Palusta," will be shown in the decorations and on panels. One half of the interior will be given over to a display of paint making on a machine made by the Brentside Engineering Co., Brentford, London.

Robt. Ingham, Clark & Co., Ltd. and R. Gay & Co., Ltd. (West Ham Abbey, E.). **Stand No. 140, Row G.**

Paint.—The stand representing the associated firms of Messrs. Robt. Ingham, Clark & Co., Ltd., and R. Gay & Co., Ltd., will be composed of five columns arranged around a forecourt having two offices at the back. The columns will be decorated with "Pearline" white enamel. The front of the offices, which will form a background for the white columns, will be decorated with "Gaymatt" flat oil finish of a deep blue colour. A feature of the exhibit will be a door which will occupy a central position, and which has been finished on one side with "Omnilac" varnish, while the reverse side will illustrate the use of flat enamel for interior decorative effects. The sides and back of the stand will be decorated with "Gaymatt" flat oil finish in various shades, while "Walgay" washable distemper will be used on the walls of the offices. "Impenetrable" paint will also be used in the exhibit, and panels illustrating the finish to be obtained with various other products of the firm will also be displayed.

Ironite Co., Ltd. (9 & 11, Old Queen-street, Westminster, S.W.1). **Stand No. 106, Row F.**

Cement.—The uses of "Ironite" cements for flooring and water-proofing will be exhibited. It is claimed that floors laid with this cement are wearproof, dustproof, waterproof and greaseproof, and that they are fire-resisting and repel acid and alkali. This cement is specially recommended by the makers for basements, cellars, subways, lift-wells, tanks, heating chambers, and similar places where there is possibility of damage by water or grease.

Kerner-Greenwood & Co., Ltd. (King's Lynn). **Stand No. 49, Row C.**

Waterproofer.—As at the last exhibition a prominent position on this stand will be given to the apparatus by which cylinders of cement and sand are subjected to water pressures up to 300 lbs. per sq. in. The cylinder of sand and cement waterproofed with "Pudlo" brand powder under test at that pressure for the whole period of the Exhibition will be broken open on the final day in view of all who care to attend. Other exhibits will demonstrate the waterproofing qualities of "Pudlo" when used with cement in mortar or concrete for excluding dampness or flood water from buildings or retaining water in tanks and reservoirs.

The Key Engineering Co., Ltd. (4, Queen Victoria-street, London, E.C.4). **Stand No. 267, Row O.**

Asbestos Roofing.—The principal exhibit of this firm will be a flexible roofing which is supplied in rolls, and can be fixed in exactly the same way as the various bitumen roofing felts on the market, but is made of asbestos woven into a compact felt in place of the organic materials of which the other roofing felts are made. Asbestos is an indestructible mineral so that instead of relying on the impregnating materials for the life of the roofing, the body of the felt is in itself permanent. Also, it is immune to the greatest heat or any action of chemicals in the air. This firm's floating ball steam traps for steam heating and cooking installations and also high-pressure work will be shown; also their samples of "Key" fibre conduit, an impregnated wood pulp pipe used for underground cable ducts and drainage.

Kleine Patent Fire-Resisting Flooring Syndicate, Ltd. (133–135, High Holborn, W.C.2). **Stand No. 116, Row F.**

Floors.—This firm, whose well-known flooring system is being so extensively adopted in all types of modern buildings, particularly office

buildings in the City and West End, where fire-resistance and strength are essential, are showing some typical samples of the different types. A new feature which has been recently introduced will be shown; this consists of a patented method of placing metal washers a certain distance on the rods to ensure that they will be properly covered in cement mortar or concrete, thus making the construction still more foolproof, and practically eliminating any possibility of defective workmanship.

Langley London (161, BOROUGH HIGH-STREET, LONDON, S.E.1). **Stand No. 157, Row H.**

Roofing Tiles.—The exhibit of this firm will include Marseilles, Beauvais, and Du Nord roofing tiles, for all of which they are the sole importers and distributors in the United Kingdom, and of which they carry stocks all round the coast and pay carriage to buyer's railway station, taking the breakage (if any) in transit.

Leeds Fireclay Co., Ltd. (WORTLEY, LEEDS). **Stand No. 101, Row E.**

Fireclay Goods.—"Burmantofts" terra-cotta will be displayed in a central feature, the construction of which will be carried out in several types and finishes of terra-cotta in order to show how this material lends itself to buildings of every class. The plinth of this central feature will be in glazed terra-cotta of a dark neutral blue shade, while the piers and arches will be in "Texture Marmo," the caps being picked out in gold. This "Texture" finish is a new application of permanent colour to architectural treatment. The chequered superstructure will be crowned by a lettered frieze in golden-crimson. A display will be made of Burmantofts "Lefco" terra-cotta fireplaces. The sanitary exhibit will comprise some examples of "Imperial" porcelain white-glazed fireclay ware in the form of a bath and "New Carlton" lavatory, with patent easy-clean porcelain enamelled iron non-discolouring valves, wastes, &c., suitable for public or private use. Together with these will be a w.c. suite, the seat of which is fitted with patent hygienic hinges, enabling it to be immediately detached for cleansing and disinfection. Glazed bricks, tiles, Claridge's asphalte (of which the Company are now the proprietors) will be other exhibits of this stand.

Linolite Composition Flooring Co. (FELSHAM-ROAD, PUTNEY, S.W.15). **Stand No. 45, Row C.**

Composition Flooring.—The Linolite Composition Flooring Co. will exhibit various types of jointless flooring, showing patterns and colours which they manufacture. As this material has now been in use for over seventeen years it will no doubt be familar to many, but a few details may be interesting to the general reader. Linolite is laid in a plastic state and forms a single jointless covering over the whole flooring area, making a solid bond with the foundation on which it is laid, whether wood, concrete, brick, tiles, stone, iron or metal. If desired the floor surface can be carried up the wall to any height, forming a jointless cone skirting or dado and eliminating the sharp angle where the floor meets the wall. Linolite has been used in every type of private and public building, and being fire-proof, damp and vermin-proof, coupled with its lightness in weight, can be used to cover any type of floor.

London Brick Co. & Forders, Ltd. (AFRICA HOUSE, KINGSWAY, LONDON, W.C.2). **Stand No. 128, Row F.**

Bricks.—The London Brick Co. & Forders, Ltd., will exhibit a building constructed entirely with fletton bricks, also samples of all descriptions of fluttons, rustic, white and other facings. Architects, engineers and builders are invited to avail themselves of the opportunity of inspecting this building brick, including such brands as the L.B.C "Phorpres," Forder and Stare. specifications may be had on application to the stand. This year the London Brick Company & Forders, Ltd., will make a feature of their multi-coloured ruff bricks. With this brick they claim to have solved the problem of producing a really cheap facing brick. The "Phorpres" flettons are produced by an entirely new machine recently invented for this purpose. The "Phorpres" multi-coloured ruff brick is made under a registered process, from material selected with the utmost care.

London Sand Blast Decorative Glass Works, Ltd. (BURDETT-ROAD, E.3). **Stand No. 281, Row P.**

Glass.—A comprehensive range of glass will be shown, including glass in different styles and periods; many for windows of banks, skylights (flat or bent), and removable screens for windows; a selection of mirrors, facias, stallboards and pilasters (plate glass in permanently vitrified enamels); illuminated signs of various sizes and shapes; opalite slabs for walls and fittings of bathrooms; plate glass (bevelled, polished and drilled suitable for table tops, shelves, &c.); direction plates and street name plates, interior reflector signs for shop windows, entrance halls, showcases, &c.

MacAndrews & Forbes, Ltd. (65, SOUTH MOLTON-STREET, W. 1). **Stand No. 265, Row O.**

Wallboard.—This exhibit will be a practical demonstration of the well-known "Fiberlic" patent wallboard for ceilings and walls. "Fiberlic" can be applied to ceilings and walls quickly and easily, and economical interiors can be obtained by its use with wooden fillets or mouldings. The material can be painted, stained, enamelled, or distempered; in fact, any treatment that may be applied to wood may be equally applied to "Fiberlic." The Ministry of Health has approved "Fiberlic" for use on any State-aided housing scheme. Immediately the board is erected the rooms are ready for occupation, as there is nothing to dry out as in the case of plaster. The many advantages that the board offers in the matter of general utility will be exhibited on the stand.

McNeill, F., & Co., Ltd. (BUNHILL-ROW, LONDON, E.C. 1). **Stand No. 184, Row J.**

Roofing Felts.—This firm will show an extensive variety of their "Lion" brand roofing and roof lining felts, including asphaltic roofing felt, sarking or slaters' felt, inodorous felt, black and brown sheathing felt. Particular attention will be drawn to the "Combinite" system of roofing for flat or sloping roofs. Models will be shown illustrating the uses of "Slagbestos" for cold storage and thermal insulation. There will also be shown pure bitumen damp-courses for housing schemes; pipe coverings, both of hair felt and canvas; "Slabgestos" with canvas backing; pure bitumen sheeting, for lining reservoirs, aqueducts, tunnels, swimming baths, miniature lakes, ponds, &c.; and "Styxol," a glossy enamel, for protecting and preserving iron and steel work, in black or red.

Mander Bros., Ltd. (WOLVERHAMPTON). **Stand No. 141, Row G.**

Paint.—Messrs. Mander Bros., Ltd., show a large pavilion decorated with their paint and enamel specialities, and have adopted a scheme of colouring consisting of columns in their black ebony finish, panels in cobalt violet "Vernasca," and stiles in egg-shell gloss white enamel, a large fascia being done in a shade of "Suffield Green." This, with the lettering in gold, and a touch of gold on the capitals of the Corinthian columns, will form a harmonious whole. The interior is decorated with aqualine water paint and egg-shell gloss white enamel, and shows a scheme of colouring in dove grey, pale apple green and cream, with a stencilled design in bright green on the panels, the whole forming an illustration of the effects obtainable with comparatively inexpensive materials.

The Marble Mosaic Co., Ltd. (LINMOS HOUSE, CHARLES-STREET, BRISTOL). **Stand No. 311, Row R.**

Mosaics.—This firm will show examples of their mosaics in marble and glass, terazzo, glazed and vitreous wall tiling, "Imperator" (registered) cast marble work for plinths, lavatory divisions, &c., and Linolith jointless flooring. A feature of their stand will be two types of flooring tiles in plain and ornamental patterns. The tiles are new to this country, although they are largely used in Italy. They are exceedingly hard, being made under hydraulic pressure. A large number of designs are available, and prices are moderate.

Moule's Patent Earth Closet Co., Ltd. (1½, GUILDFORD-STREET, LONDON, W.C.1). **Stand No. 39, Row C.**

Sanitation.—This firm will exhibit twelve specimens of their various designs, which embrace the three actions—"pull-out," "pull-up," and "self-acting." Also apparatus for fixing in permanent closets in the house or outside. Suitable for every conceivable requirement.

Parsons, Thos., & Sons (315–317, OXFORD-STREET, LONDON, W.1). **Stand No. 132, Row G.**

Paints.—"H.M.S. Endelline" will be shown again this year, and on it practical examples of Parsons' enamel, varnishes and paints, including: "Endelline" enamel, for interior or exterior use; "Endelflat" enamel (flat), for interior use, producing a soft and almost deadflat finish; "Lacreite" enamel, a cheaper product for either inside or outside work; "Unicote" flat finish, an innovation in wall decorative material, which shows that the surface can be repeatedly washed without deterioration; gloss paint, a varnish paint for general exterior and interior work; undercoating body white, a ready-mixed undercoating paint with a surface particularly adapted to take a finishing coat of gloss or flat enamel, and which can be tinted to suit the finishing colour; "Parso-Glaze," a scumbling paint giving excellent decorative effects; and copal varnishes, as manufactured by the firm for the past 120 years.

Perkin & Co., Ltd. (LEEDS). **Stand No. 13, Row B.**

Woodworking Machines.—Messrs. Perkin & Co. will exhibit a range of their wood-working machinery, but the chief item of interest on their stand will be a newly-patented device called the "Rapid" stair housing attachment, for use on a vertical spindle moulder. By means of this appliance it is claimed a pair of stair strings that would take a skilled joiner 8 hours to rout by hand can be done easily in 25 minutes. The marking-off is practically eliminated, and an excellent job is secured.

Potterton, Thomas (RAVENSWOOD-ROAD, BALHAM, S.W. 12). **Stand No. 46, Row C.**

Heating.—This exhibit will contain a selection of the standardised types of "Victor" gas boilers, and will give a working example of a system supplying hot water for general domestic use. A small installation for warming purposes, with circulating radiators heated by gas, controlled automatically, will be in operation as an instance of supplementary heating equipment for residence or offices, or as an example of treatment for small conservatories, greenhouses, garages, &c. Thermostats, for automatic regulation of gas consumption, both water-type and atmospheric-type, will be seen in action. The "Victor Combination" boiler, using coke or other smokeless fuel, or gas, which is specially designed to meet a need in private houses where a kitchen range is not installed, standard types of sectional boilers for central heating and applied equipment, and water treating plants for the elimination of impurities, &c., will also be demonstrated.

Ravenhead Sanitary Pipe & Brick Co., Ltd. (UPHOLLAND). **Stand No. 136, Row G.**

Bricks.—This firm will exhibit both interior and exterior decoration, the interior will consist of fire surrounds, &c., in their well-known "Rus" and Sandfaced bricks and blocks; the exterior will be in "Rus" for garden decoration, consisting of sundials, vases, garden ornaments, chairs, seats, paving, &c., all in hand-made and hand-carved work.

THE WEEK IN PARLIAMENT

Westminster, *Wednesday.*

The Rents Bill.

When the Standing Committee of the House Commons, which is considering the Labour nt Restrictions Bill, reassembled, it was ınd that the Attorney-General was present a member of the Committee. Discussion was ıumed on Lt.-Col. Fremantle's amendment, ich proposes to give local option to county l county borough areas, and municipal roughs and urban and rural district councils, relation to the continuance of control after 25. Eventually the amendment was defeated 42 votes to seven. During the discussion . N. Chamberlain mentioned that a return of nfidence among housing investors was be- ning under the 1923 Act, but he had received ters showing that the introduction of the new nts Bill had stopped the progress of housing erations.

The Evictions Bill.

Mr. Hayes asked whether the proposed islation to prevent evictions would extend otection to the tenants of Government operty ?

Mr. Wheatley said the provisions of the pro- sed Bill would apply to all houses at present thin the purview of the Rent Restrictions cts.

Foreign Cement.

In the House of Lords, Lord Banbury asked nether the refusal of the Unemployment rants Committee to make to the Middles- ough Corporation the usual grant towards ad-making, except on condition that they rchased English cement for the purpose, met th the approval of the Government. The rporation, he said, required 400 tons of cement l could obtain it from Belgium at about 42s. ton, while the price of English cement was out 53s. per ton.

Lord St. Davids, the Chairman of the Com- ttee, said that when there was a considerable ference between the British price and the eign price, Middlesbrough was allowed to rchase foreign cement, but when the prices proximated each other permission was with- d, and Middlesbrough could buy foreign ment with its own money, but the Com- ttee's grant should be spent in this country.

St. Paul's Bridge.

Sir E. Iliffe asked the Minister of Transport w much, if any, of the grant of £866,000, ocated to the cost of the road approaches to Paul's Bridge, would be available for the proaches on the south side of the river; what thority, if the scheme proceeded, would be ponsible for the preparation of the plan and execution of the work on the south side; ether any estimates of the total cost of the rk on the south side were before the depart- nt; and, if so, could he state the sum in- ded in those estimates for land and com- nsation ?

Mr. Gosling said that the estimate on which maximum grant of £866,000 was based was purely approximate character, and included rovision for the southern approaches, but he not in a position to dissect the figures. The k on the south side was covered in part by powers conferred on the City of London by Corporation of London (Bridges) Act, 1911; r parts of the work would fall within the iew of the London County Council. No prehensive estimates were at present before Department.

More Government Offices.

r F. Hall asked the First Commissioner of ks what was the area of unbuilt-on land een the buildings occupied by Government s in Whitehall Gardens and the Victoria ankment; what use was now made of this ; and whether he would consider the bility of having it laid out as gardens for ic use in extension of the Victoria Embank- Gardens ?

Mr. F. Hall, on behalf of the First Commissioner, said that the area of the land was about two acres. No use had been made of it since the demolition of the temporary hutments which were erected during the war. The First Commissioner feared it would not be practicable to lay out the ground as public gardens in view of the intention of ultimately developing the site for the erection of Government offices.

Building Materials.

Mr. Barnes asked whether the Minister could furnish a Return showing the increase in the price of building materials since January 1; and if he intended to ask Parliament for powers to control the manipulation of prices by rings and combines ?

Mr. Wheatley referred the Hon. Member to the reports for the months of January and February of the Chairman of the Inter-Departmental Committee appointed to survey the prices of building materials which had already been published as a Command Paper. He understood that a return showing the March prices was in course of preparation. As regarded the last part of the question, the matter was under consideration in connection with the Government's general housing proposals.

Replying to Sir K. Wood, Mr. Wheatley said it was quite possible that he would be able to make a statement on housing matters before the Easter adjournment.

Mr. R. Morrison asked what action would be taken with regard to the recent advances in the price of bricks, lead, and slates ?

Mr. Wheatley said that steps were being taken by the Committee on Prices of Building Material to investigate this matter.

Utility Societies.

Mr. Wheatley informed Lt.-Col. Fremantle that no information was available as to the number of houses erected by Public Utility Societies and Housing Trusts in 1913 or without State assistance during the years 1919–1923. The number of houses built with State aid in England and Wales by Public Utility Societies and Housing Trusts during each of the five years 1919–1923 was as follows :—

1919	17
1920	971
1921	2,266
1922	1,153
1923	132
	4,539

Town-Planning Schemes.

Major Ropner asked the Minister whether, in view of the sinking of proposed new pits and the need for the erection of new houses in connection therewith, he would, in those districts ensure, as far as possible, that town-planning on garden city lines were adopted by the authorities concerned in passing the plans for these structures ?

Mr. Wheatley said that he was anxious to encourage town planning schemes in areas of the kind mentioned, and this was being done in a number of cases.

Builders' Wages.

Mr. D. G. Somerville asked the Minister of Health if he would state the estimated effect on his housing proposals of the concession of the demand for an advance of 2d. per hour on the basic rate of builders' wages ?

Mr. Wheatley said he would suggest that the Hon. Member should reserve his point until he was in a position to make a statement on the Government's proposals in regard to housing.

The Subsidy.

Mr. Wheatley informed Mr. Alstead that under the Housing Act, 1923, the State subsidy was equivalent to about £75 per house and provision was made for further subsidy by local authorities. Up to March 1 2,552 houses had been completed by private enterprise with the aid of subsidies under the Housing, &c., Act, 1923, and a further 13,737 were in course of construction. In addition local authorities had issued certificates on approval of plans as eligible for subsidy for a further 24,771 houses.

Building in Blocks.

Mr. Alstead asked the Minister whether he had received any applications from municipal bodies or others to be allowed to build small dwellings in blocks of six or more; and, if so, what was the attitude of the Ministry to such applications ?

Mr. Wheatley said he did not require local authorities to submit to him their proposals for housing schemes under the Housing, &c., Act, 1923, in such detail as the Hon. Member indicated. The numbers of houses which it was desirable to include in a block would depend on the nature of the site and the lay-out, but he was advised that continuous blocks of more than six or eight were not ordinarily desirable.

The Limit of Space.

Mr. Alstead asked the Minister if he was willing to consider the removal of the present limit of 950 superficial feet now fixed in the regulations appertaining to the erection of houses under the subsidy scheme ?

Mr. Wheatley replied : No, Sir.

1923 Results.

Mr. Wheatley informed Mr. Becker that it was estimated that during the year ended September 30, 1923, some 77,000 houses were erected.

Skilled Labour Supply.

Mr. Shaw, Minister of Labour, informed Miss Jewson that the plastering class at the Government Instructional Factory, Norwich, closed in November, 1922, and the bricklayers' class closed last October. Their equipment had been dispersed. The question of the supply of additional skilled labour for the building trade was under consideration by a Committee of employers' and operatives' organisations in that industry.

Another Rents Bill.

On Monday Mr. Wheatley introduced the Rent and Mortgage Interest Restrictions Bill, the object of which is " to amend the provisions of the Rent and Mortgage Interest Restrictions Acts, 1920 and 1923, so far as they relate to restriction on the right to possession."

The Rating Bill.

Mr. Wheatley stated that observations on the draft Rating and Valuation Bill had been submitted by the majority of the representative Associations of Local Authorities and other interests concerned to which the draft Bill was circulated, and were under consideration in his department. He was not at present able to indicate when it would be possible to introduce legislation on the subject.

Housing.

A statement by the Minister of Health on the Government's housing policy is given on p. 563.

According to returns obtained from local authorities in 1919, 2,292 houses were stated to be required during the three subsequent years in the areas of rural district councils in the county.

Under the 1919 Act 806 houses were erected by local authorities and public utility societies in the areas of rural district councils in the county, and under the Housing (Additional Powers) Act, 1919, 543 houses were erected by private builders. 533 houses were included in schemes of rural district councils in the county which had been authorised under the Housing, &c., Act, 1923.

The Engineers' Draughtsman. By H. Varlen. (London : G. Routledge & Sons, Ltd.) 5s. net. The aim of this book is to show in outline the governing principles which underlie mechanical draughtsmanship, and to illustrate the uses of a drawing for conveying information and instruction in the making of machines. Although the volume is intended primarily for mechanical engineering, it contains much that will be suggestive and of interest to those engaged in the structural branches of engineering.

THE BUILDING TRADE

THE SUPPLY OF OPERATIVES IN THE BUILDING INDUSTRY

By T. P. BENNETT

THE housing programme which is being laid down by the present Government, coupled with the steady improvement in trade which is taking place in the country, is again bringing into prominence the question of the ability of the building industry to supply the labour required to erect the commercial buildings and houses which are needed. The study of this subject is hedged around by a large number of difficulties, and it is hard to find evidence which is sufficiently conclusive to form the basis for calculating an adequate yearly supply of labour.

The subject may be divided into five sections, *viz.* :—

1. The number of operatives at present in the industry, compared with the number in previous periods. The most reliable and complete comparison in this case is obtained from the census returns of 1901, 1911, 1921.

2. The average working life of the operative. From this information will be obtained the basis for calculating the yearly supply of apprentices.

3. The amount of labour required for a specified yearly building programme. This may be based upon (*a*) the Government housing programme; (*b*) private housing activity; and (*c*) commercial building.

4. (*a*) Conditions of entry into the building industry; (*b*) restrictions upon the number of apprentices engaged; (*c*) the conditions of work in the building industry which affect the number of those entering.

5. Methods of training which are possible under present circumstances, and alternative methods of training.

1. From this summary it is evident that the first portion of an inquiry into the supply of labour for building must be directed towards an inquiry into the number of men engaged in building; and coupled with this inquiry, must be the examination of the number who were engaged in the industry in previous years and an examination into the ages of the men. By this means it will be possible to discover whether sufficient young men are continually taking up building, and whether the normal number of operatives is still in the industry. In the five key trades of building, *viz.*, bricklayers, carpenters and joiners, plumbers, plasterers and decorators, the following total figures are given:

England and Wales.

	1901.	1911.
Bricklayers	115,995	102,752
Carpenters and joiners	270,660	208,995
Plumbers, excluding gasfitters	64,924	64,968
Plasterers	31,301	25,082
Decorators, including painters, glaziers, paper hangers, and whitewashers	166,638	190,523

(The figures for 1921 are not yet available to the public.)

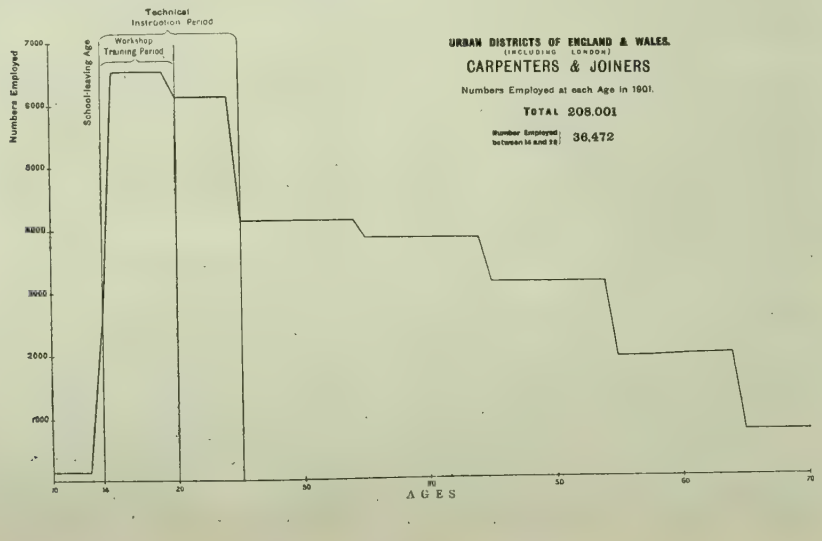
It is generally accepted that the number of men engaged in building in 1921 was substantially below the total in any previous year, and it will be seen from the above figures that, even in 1911, the vital trades of bricklaying, carpentry and joinery, and plastering had a substantially smaller number of operatives than in 1901. The census figures for the Administrative County of London are, however, more complete, and from them the following table can be obtained (Table A):—

TABLE A.—ADMINISTRATIVE COUNTY OF LONDON.

	1901.	1911.	1921.	
Bricklayers	13,726	25,928	15,019	9,233
Labourers	12,202		(including Labourers)	
Carpenters and Joiners	32,934	20,172 (including Labourers)	18,459	Labourers not included: average proportion per cent., 461: total 18,9
Plumbers, excluding Gasfitters	10,766	8,582	—	Category which listed yet discovered
Plasterers	5,160	5,981	Not given separately	2,936 Including Labourers.
Labourers	821			
Decorators, including Painters, Glaziers, Paper Hangers and Whitewashers	38,343	40,925	29,456	Presumably 3,659 "oth workers": to 33,115.

TABLE B.

	1901. Under 25.	1901. Over 25.	1911. Under 25.	1911. Over
Bricklayers	3,024	10,702	1,076	13,9
Labourers	2,953	9,249	(including Labour	
Carpenters and Joiners	7,987	24,947	2,504 (including Labour	17,0
Plumbers, excluding Gasfitters	4,006	6,760	2,170	6,2
Plasterers	1,306	3,854	Not given separa	
Labourers	266	555		
Decorators, including Painters, Glaziers, Paper Hangers and Whitewashers	5,746	32,597	4,386	36,2



These figures show that in 1921 the operative in the whole of the building trades had decrease seriously, in some cases there were less than ha the number of operatives who were workin twenty years before. It is possible that the figures do not accurately represent the pr portional decrease for the whole of the countr The census is compiled upon a residential bas and it may be that more operatives live outsi the county of London than previously liv within its boundaries. When the cens figures for the whole of the country for 19 are available it will be possible to make a mo accurate statement. It is, however, evide that the depletion of operatives places Lond in a serious position in connection with t execution of building work.

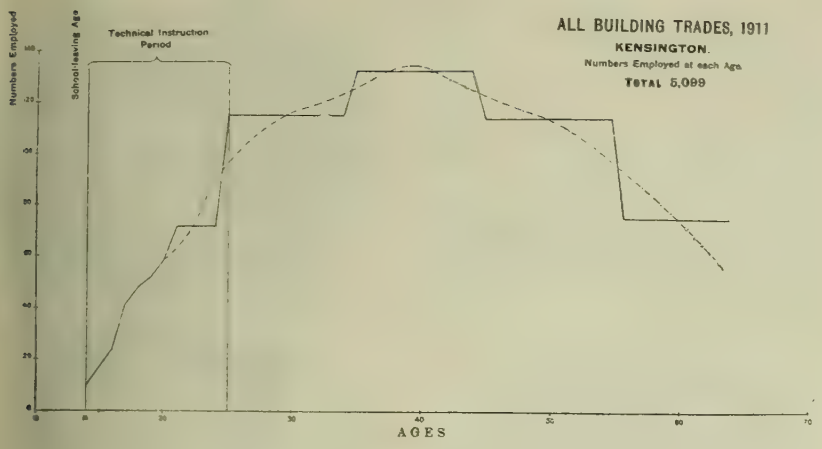
The next point which is of vital importan is the average age of the operative, because there are not substantial numbers of young m coming forward, and the industry is bei constantly depleted, the position must eve tually be disastrous. The age groups of t Census Returns for 1901 and 1911 give t following figures (Table B).

The age groups for the Administrative Coun of London for 1921 are not yet available, a

comparison is, therefore, incomplete, bu 1911 the proportionate number of opera under 25 years of age was considerably less was the case in 1901; in other words, a larger number of old men were being empl even at that date, and there is reason to be that the number of middle-aged and old employed is much greater than it was in 19

From the foregoing information it is that building now maintains a far sm number of operatives than it has for 20 y in spite of the fact that the prospective bui programme appears to be larger than ever be This is a matter which requires serious consi tion, not only at the moment, but permane because the operative requires a lengthy trai

2. Before it is possible to consider the nu of apprentices who might reasonably be sorbed per annum, it is necessary to fin average length of working life of an oper The *Expectation of Life* tables obtained fro Prudential Assurance Company show tha average length of life of all males is 62.3 and that the variations of the expectation



the principal workers in the building trades as under :—

Carpenters and Joiners	+2.0
Bricklayers, Masons, Builders	+1.1
Paperhangers, Plasterers, Whitewashers	+−0
Slaters, Tilers	—1.1
Plumbers, Painters, Glaziers	—0.9

From this it will be seen that the building trade workers live, on an average, to the average normal span of years.

Variation from the Expectation of life to the Expectation of Working Life.—The graphs given in the Report by Mr. J. C. Smail on the Training and Employment of Boys in the Building Trades in London, published by the L.C.C. in April, 1914, indicate that the expectation of working life of the building trade operative is substantially below the total expectation of life. These tables should be examined in detail, as they convey extremely valuable information, on which may be stated as a very rough guide that the average expectation of life is 50 years, and assuming the age of entry to be 14 years, the duration of working life will be 36 years, and subject to confirmation by separate investigation, this would appear to be the figure which should be taken for calculating the total yearly wastage in the industry. A further comparison of these graphs indicates quite unmistakably the remarkable migration of operatives in building from the provinces to London. The graphs for the urban and rural districts of England and Wales (graph 1) show the maximum number of operatives to be between the ages of 15 and 20, but the maximum number of operatives in the London Boroughs shows a progressive increase which in many trades rises to the age of 40 and shows its maximum at that date (graphs 2 and 3). These tables prove conclusively the assumption which has been made on innumerable occasions, that the London building trade employer has not hitherto trained the operatives who are engaged in the building industry in London. If it is assumed that the adjustment of wages and the introduction of "" grade towns will automatically restrict, or even eliminate the migration of the provincial operative to London, then it is evident that the urgency for the training of operatives in London is a vital problem.

Combining the census figures with the working life of 36 years, the yearly number of apprentices in London, assuming the number of operatives given in the 1921 census to be adequate, would be as follows :—

	Crafts-men.	Appren-tices.
Bricklayers	6,787	188
Carpenters and Joiners	18,459	513
Plumbers*	—	—
Plasterers	2,532	70
Operators, including Painters, Glaziers, Paperhangers and Whitewashers	29,456	818

* Not available.

It should be particularly noted that this is the number of Apprentices required to make good the wastage of the seriously depleted number of craftsmen at present resident in the Administrative County of London. It does not allow for any increase in the total number of operatives and it may be found later to be quite insufficient to deal with the number of Operatives required in London and its immediate environs, as possibly London Operatives are now largely resident in suburban districts which are not included in the County of London figures.

THE "SYMPATHETIC" STRIKE

The present state of affairs in the industrial world must draw popular attention to the question of what is termed the "sympathetic strike." The Trade Unions have obtained after a prolonged struggle the right to use the strike in order to be in a position to secure what they consider reasonable terms of employment for their members, and under the Trade Disputes Act, 1906, they were given a privileged position enjoyed by no other body in the Kingdom as regards the law.

Labour in past times having been oppressed by stronger bodies, public opinion recognised that they should be placed in a favourable position to bargain on what terms they should be employed, or in other words, sell their labour.

They have not only been placed in a favourable position, but in a privileged position, in many respects outside the powers of the law of the land, and they are enabled to use the force of the strike to obtain the terms they desire and which they consider the reasonable reward for their labour.

As between the direct employers and their workmen this has become the accepted state of affairs, and there is little doubt that unless the Unions use their powers improperly they will be allowed to retain that privileged position; for the nation has come to recognise that the "labourer is worthy of his hire." But the sympathetic strike appears to stand on an entirely different footing. Men who have no grievance against their own employers are brought into a dispute which in no way affects themselves, or their own earning power, and this at once lends a sinister attitude to the dispute for it introduces a new motive which can only be an attempt to intimidate the public.

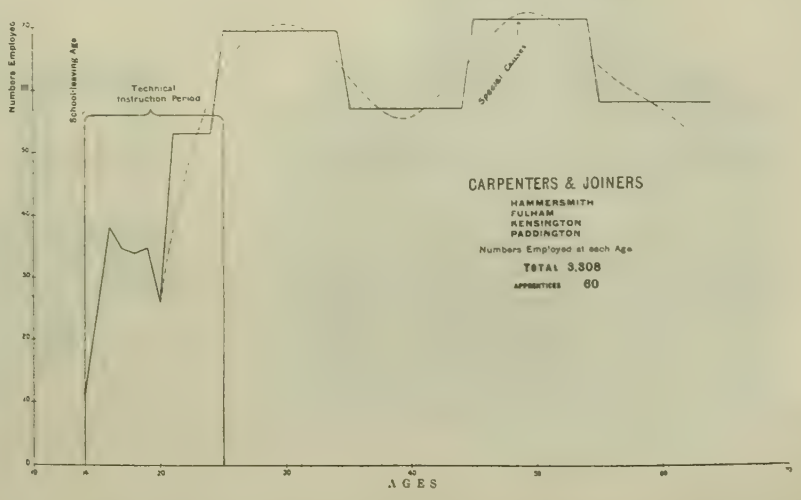
This is an outcome of the Trade Disputes Act which can hardly have been foreseen when that measure was passed in 1906. The Conspiracy and Protection of Property Act, 1875, made an agreement, or combination, by two or more persons, to do, or procure to be done "any act in contemplation, or furtherance of, a trade dispute between employers and workmen" not indictable as a conspiracy, and we believe those words were interpreted as indicating that there must be a dispute between the parties directly concerned. However this may have been it is clear that the Legislature which desired to confer extended powers on the Unions in 1906 considered they might bear that interpretation, for in the Trade Disputes Act, 1906, section 5 subsection (3) the following definition was introduced :—"In this Act and the Conspiracy and Protection of Property Act, 1875, the expression 'trade dispute' means any dispute between employers and workmen, or between workmen and workmen, which is connected with the employment, or non-employment, or the terms of employment, or with the conditions of labour of any person, and the expression 'workman' means all persons employed in trade or industry *whether or not in the employment of the employer with whom a trade dispute arises*, and in section 3 of the last mentioned Act the words 'between employers and workmen shall be repealed.'"

Here we have the legalisation of the "sympathetic strike," which enables workmen with no grievance of their own as against their own employers to lend their support to an industrial dispute, and to claim the immunity granted by the Trade Disputes Act from legal process and to put in force the powers conferred by that Act. It is becoming a question whether such powers of striking should be conferred upon men who resort to force when they have no complaint of their own against their employers, but with the sole view of intimidating the other employers and the public, and indeed whether such powers conferred on a limited body are consistent with the conditions of a highly civilised community.

The public will claim to be entitled to a little of the "sympathy" displayed in the "sympathetic strike," and the Government which is championing world pacification must look askance at the readiness of certain sections of their followers to resort to force by the strike against their own fellow citizens.

Builder's Estate.

Mr. William Lindsay, of Newton-place, Glasgow, brickbuilder and contractor (personal estate), £25,363.



THE ROMANCE OF BUILDING THROUGHOUT THE AGES.—V.

The fifth lecture * on "The Romance of Building Throughout the Ages," delivered by Mr. George W. Thompson before the junior members of the Amalgamated Society of Woodworkers (Liverpool), dealt with the Early Christian, Byzantine, and Romanesque periods.

The lecturer said in the first century A.D. Rome was called "The Mistress of the World." Its Emperor—Augustus Cæsar—boasted that he found it a city of brick, and that he would leave it a city of marble.

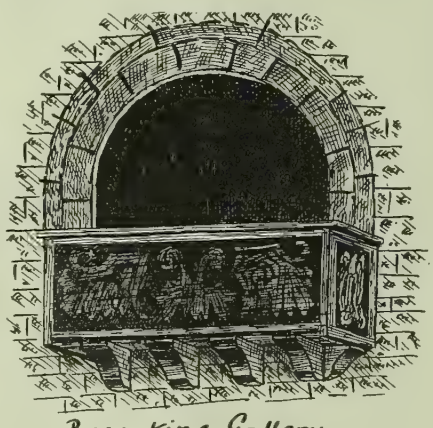
Just about this time, when many temples and statues were being built in honour of heathen gods, the most important human event in the history of the world occurred. Far away in the Eastern city of Bethlehem a little child was born, and His coming was soon to change the subject of art from heathen to Christian. Instead of temples housing Jupiters and Minervas the Christian Church arose decorated with statues and pictures representing the Madonna and Child, the saints and angels, and holy men and women. But it took centuries for this change to be fully brought about.

Christians were persecuted in heathen Rome. Emperors who called themselves gods and desired to be worshipped did not welcome Christianity with its teachings of humility and patience. So the poor Christians, in fear and distress, were forced into the stone quarries under Rome. There they dwelt and worshipped, and died, and were buried.

It was in these catacombs that Christian art began. Upon the walls of the catacombs pictures and carvings were made, *e.g.*, Moses striking the rock, Daniel in the lion's den, Jonah and the whale.

In A.D. 313 Constantine issued from Milan his decree which accorded to Christianity equal rights with all other religions. Afterwards Christians were allowed to worship as they chose, but they refused to use the heathen temples. Thus they were permitted to occupy the basilicas, or halls of justice—named after Basileus, a Greek ruler. These had flat roofs and long, wide halls separated into aisles by rows of pillars. The middle aisle was called nave. At one end was a semi-circular raised platform called an apse. Worshippers stood in the nave and the clergy occupied the apse. Christians imitated these buildings when erecting their first churches. When the apse contained a bishop's chair the church was called a cathedral (cathedra—chair).

These churches became popular. They were more and more decorated inside. The altar was erected on the apse, and seats for bishop, clergy and choir were added. Artists painted incidents in lives of saints on the walls and ceilings, this being done to make the story of saints familiar to those unable to read.



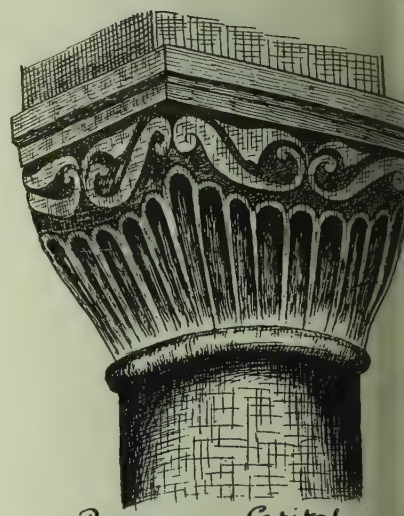
Byzantine Gallery

All Christian churches of the present day contained traces of Roman basilicas.

Byzantine.—The capital of Rome was changed to Byzantium (Constantinople) in A.D. 324, by Constantine. The Byzantine style of architecture was practised until Constantinople fell into hands of Turks in A.D. 1453, when it became the capital of the Ottoman Empire.

The dome was the chief feature in Byzantine architecture. These were placed over square apartments, whose bases were brought to a circle by means of pendentives. Rome used domes over circular apartments only. Bricks were used freely in the construction of walls, but the core of walls, as in the Roman period, was generally of concrete. Interiors were always lined with marble and mosaics, or decorated with paintings.

Windows and doors usually had semi-circular



Romanesque Capital

heads, but segmental and horseshoe arches w sometimes employed.

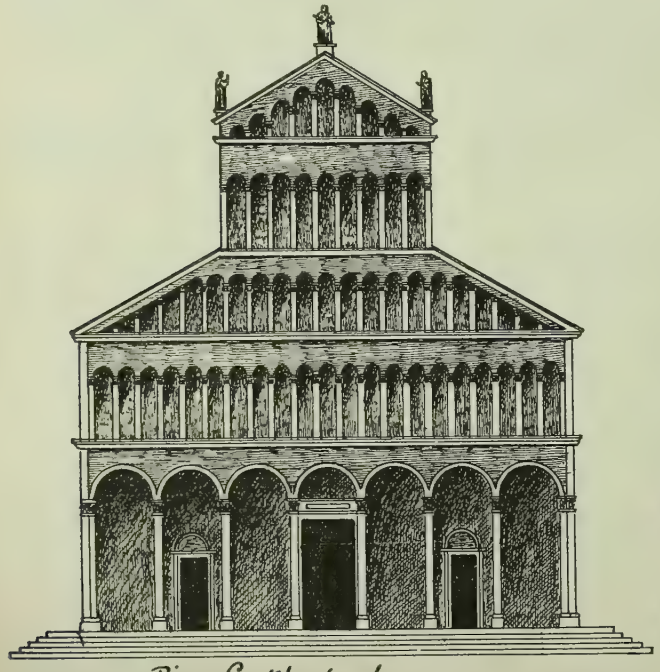
Roofs were composed entirely of do formed in brick, stone, or concrete. Colu were based on Roman Doric and Corinth types, but capitals and bases were distinguis by their "flat" appearance. Incised fol was popular for capitals. Mouldings playe unimportant part in this style. Effect obtained by employing broad flat expanse richly decorative wall surfaces. Mosaics elaborate in the extreme, consisting of colo glass enamel.

St. Sophia was built by order of Justi A.D. 532–537. The great central dome 107 ft. in diameter. In 1453 the follower Mohammed changed it into a mosque. mosaics were plastered over, and above t were placed shields bearing texts from Koran. The cross was displaced by the cres and it still remained a Mohammedan mos

St. Mark's, Venice, A.D. 1063–1071, was by the great wealth of the Venetian merc princes. The facade was a grand mosaic scr Arches were inlaid with mosaic pictures, above the façade rose slender turrets with statues of the saints. The Campanile, or tower standing in piazza in front of St. Ma 300 ft. high, fell in 1902.

Romanesque.—This style grew up all western Europe after the decay of the R Empire. Towers were special features: were either square, octagonal, or circular,

*Earlier lectures in this series were given in *The Builder* as follows:—1, Feb. 1; 2, Feb. 15; 3, Feb. 29; 4, March 14.



Pisa Cathedral

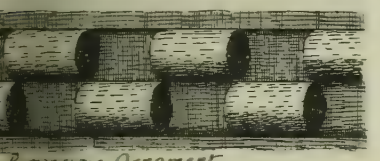


Half Elevation Half Section

Sophia, Constantinople



narked stories, having windows to each
local characteristics of each country in
Romanesque was practised were re-
d in its ornament, mouldings and general
ruction.
cathedral, campanile, and baptistry at
were outstanding examples of Romanesque.
cathedral had a basilica apse, Roman
s, and a Byzantine dome. Its plan was in
of a cross as in Gothic cathedrals. The
anile was one of the wonders of the modern
. It was "out of plumb" to the extent
3 ft., there were eight stories—and 330
in the winding stairs.
e baptistry was 129 ft. diameter, and was
of marble.



Romanesque Ornament

E NORTHERN POLY-ECHNIC INSTITUTE

e distribution of prizes and presentations
ccessful students of the Northern Poly-
Institute, in connection with the
rtment of Architecture, Surveying and
ng., took place last week at Holloway.

Lulham Pound, Bart., presided, and was
rted by, amongst others, Mr. R. L. Roberts,
Sir Sydney Russell Wells, M.P., M.D.,
Alfred Gotch, P.R.I.B.A., Mr. J. Murrey,
Searles-Wood, F.R.I.B.A., Messrs Ernest
al. Martin S. Briggs, Ernest J.
. Keith A. Bracen, Roland B. Chessum,
rnard Cowtan, E. F. Etchells, W. H.
gue, R. F. Gilling, A. Goddard, D. M.
E. Kearney, Reginald Hellyer, J. E.
Ernest Lesser, J. C. Malcolm, W. T.
A. Sage, Ernest H. Selby, H. R. Selley,
Stewart-Greene.
connection with the ceremony an exhi-
of students' work was held. This con-
of specimens of work selected from that
ed by day and evening students attend-
courses of training covered by the work
department, including architects, design-
ene painting, decorating, quantity and
surveying, land valuing, structural
rs, district surveyors, sanitary engineers
spectors, estimating, clerks of works,
foremen, carpenters and joiners, wood-
machinists, plumbing, ornamental lead
and painting and sign writing.
lay, B.A. (the Principal) and Mr. T. P.
(Head of the Department) dealt with
k of the schools of the department of
ture, surveying and building; and
. Gotch (President of the Royal Institute
sh Architects) discussed the architec-
l the art of building; Mr. J. Murrey
ry, London District Council, National
on of Building Trades Operatives),
s Sir Sydney Wells, spoke on "Build-

ennett stated that, but for the strike,
uld have been an audience of 900 there
t, instead of about 500.
rdney Russell Wells then distributed
s to the successful students. In the course of his remarks, he said he had been interested in seeing there a departure from custom, in that none of the students knew who were prize-winners until it was announced that night. That was like life. None of them knew who were to be the prize-winners in life's career. They were all interested in some aspects of the building trade. When they tried to understand old civilisations they examined the bones of the men of old. Another way was to look at the buildings they inhabited, which expressed their outlook. Buildings were the pictures of the spirits and the souls of men.

The earliest buildings were the remains of Stonehenge, representing the devotion of the people of long ago. As architecture varied from age to age they got an idea of how man's religious feeling had varied. It must have been infinitely higher when they built Salisbury Cathedral than when they built Stonehenge. It was interesting to think of the houses of the people in the days when Salisbury Cathedral was built. Evidently men then looked upon their time here as a more temporary thing than they did to-day, when home represented the individuality of the people. Their houses were certainly better than those of the past. One of the most fundamental things making for the health and happiness of the people was healthy houses, and this depended upon the practical work of the builder.

The students there, he said, had a great duty to the State and to their fellow-men, in so far as they built and designed houses that made for the betterment of the people. All their varied aspirations in life were an expression of the desire for happiness in life, that was the sense that one had done a job worth doing and done it well, feeling they had done it without others telling them. Such a form of happiness was due to every one of the students there, and the sense of having done their job well would bring other joys. He congratulated students and teachers on their work and the governors upon the noble institution in which they worked.

The proceedings closed with the usual votes of thanks.

Wages in the Building Trade.

A conference of the Executive Committees of the various unions coming under the National Federation of Building Trades Operatives was held at Golder's Green recently. There were about 150 delegates present from all parts of England. The proceedings were private, but we understand that the Conference decided to reject the employers' offer of an advance of one half-penny an hour, with certain alterations in the working conditions. Further negotiations, however, will take place between the parties.

Building Strike at Wembley.

A mass meeting of the building operatives employed on the site of the British Empire Exhibition at Wembley recently decided to cease work immediately. A claim was put forward by the men for the payment of an extra twopence an hour. Some of the speakers declared that they were desirous of taking advantage of the position to force the hands of the employers. One of the shop stewards, addressing the men, said if they did not strike at once their opportunity would be lost. It was then decided to strike. About 7,000 men are involved.

Mr. R. Coppock, of the National Federation of Building Trade Operatives, stated that the strike was not official. "One of our officials," he said, "went to Wembley to-day to address the members of our federation in order to explain the position and to endeavour to placate them. They declined to be placated, however, and announced their intention of ceasing work that evening. While the official was addressing the men a policeman escorted him off the grounds on the instruction of the Exhibition authorities."

COMPARISON OF PRICES OF BUILDING MATERIALS BETWEEN AUGUST 4, 1914, AND MARCH 31, 1924

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	Feb. 29, 1924. £ s. d.	Mar. 31, 1924. £ s. d.	Rise or Fall during Month. (Per cent.)
Bricks—					
Best Stocks	1 16 6	3 3 6	3 19 0	3 19 0	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 13 6	2 13 6	—
Grey Stone Lime	1 8 0	2 7 0	2 10 9	2 10 9	—
Bath Stone	1 7½	1 7	2 9½	2 9½	—
Portland Stone	2 4½	2 10½	4 4	4 4	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	26 0 0	25 10 0	—1.92
3 in. × 11 in.	15 0 0	50 0 0	34 0 0	31 0 0	—8.82
2 in. × 11 in.	—	51 0 0	34 0 0	32 0 0	—5.88
2 in. × 7 in.	—	46 0 0	26 0 0	25 0 0	—3.85
3 in. × 4 in.	—	—	24 0 0	25 0 0	+4.17
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
R.S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	13 10 0	13 10 0	—
Mild Steel Bars	9 5 0	21 0 0	12 10 0	12 10 0	—
Steel Bars	9 5 0	19 10 0	13 0 0	13 0 0	—
Cut Nails	11 10 0	29 0 0	20 10 0	20 10 0	—
Sheet Lead	22 15 0	40 0 0	47 10 0	46 10 0	—2.11
Glass—					
15 oz. Sheet	2	7	3⅛	3⅛	—
21 oz. ,,	3	8	5	5	—
26 oz. ,,	3¼	9	6	6	—
Raw Linseed Oil	2 4	8 4	4 5	3 10	—13.21
Turpentine	2 6	11 0	6 9	6 9	—
Ground English White Lead	30 5 0	60 10 0	62 10 0	60 5 0	—3.63
White Lead Paint	—	83 10 0	86 10 0	83 15 0	—3.18
Red Lead	28 10 0	47 0 0	50 0 0	54 10 0	+9.00

GOVERNMENT HOUSING SCHEME

It is stated in the Press that the Government proposes shortly to set up a Statutory Committee composed of representatives of building trade "manufacturers," building trade operatives, and building material manufacturers.

The community will be directly represented through representatives from the municipalities.

This Statutory Committee will be responsible to the Government for carrying out a programme of three million houses in all details except finance, which will be dealt with by the Treasury and the Ministry of Health.

The report of the preliminary Committee deals with three main features:—The cost of houses to be built; the supply of labour, and the supply of material.

On the question of cost the Committee recommend that the minimum floor space of any house built under the scheme should be 850 super ft., and the cost not more than £450 per house. Houses of 950 super ft., the Committee state, should not cost more than £515 per house.

The shortage of labour in the industry is to be dealt with by a national apprenticeship scheme. In each district where houses are built each contractor is to receive a proportion of the work to be done. To obviate dilution and to augment the supply of labour, if necessary, the unions have agreed that apprentices of twenty years of age shall only serve three years' apprenticeship instead of the longer period demanded, and those of nineteen four years, at rates of pay already laid down.

The report suggests that the control of building material prices can be made by an adjustment of what are known as "on costs." This is explained by a statement that the continuity and regularisation of work that will accrue under the scheme will have the effect of spreading over a greater amount of work than at present "on cost." Any present or future increase of cost both of labour or material will be met by the larger volume of work, which will, of course, equalise the total cost of production. The Committee suggests that the Government should take into consideration the question of securing reductions in the freight rates of coal and building material.

Manchester's Housing Scheme.

In connection with the strike of municipal paviors at Manchester the whole of the Corporation building trade employees, with whose Union the paviors are associated, struck work recently, the result will be that all work on housing contracts, involving 1,600 houses, will be stopped, and that shortly associated industries like plumbing, painting, plastering, and joinering, will be affected.

The paviors employed in the various departments ceased work a few weeks ago, because it was sought to class them as engineering instead of building trade employees. They claimed that the alteration involved a serious extension of hours, a change which they declared they would oppose at all costs.

£20,000 for Plymouth Housing.

Lady Astor, M.P., has written to the Mayor of Plymouth defining the amended offer which she and Lord Astor are making to the town of gifts to form a housing trust. She offers the sum of £10,000 and Lord Astor an equal amount. The Town Council is to purchase, if necessary, the land considered most suitable for building (a site is suggested), and is to contribute up to £50 per house for the construction of roads, &c.; it is also to pay the Government subsidy to the trust. The Housing and Town Planning Council and the Garden City Association have offered help in preparing an outline for the development of the scheme, and numerous offers of help have been received from architects, builders, and others. After the scheme is started, it is proposed to appoint governors to administer the fund, two of these being the Mayor and the Chairman of the Housing Committee.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam.(Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/8½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/6½	1/2
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/0½
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 565).

CONTRACTS, COMPETITIONS, &c.

or some contracts still open, but not included in this List, see previous issues. Those with an asterisk dvertised in this number. Certain conditions beyond those given in the following information mposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any er; that a fair wages clause shall be observed; that no allowance will be made for tenders; and deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

e date given at the commencement of each paragraph is the latest date when the tender, or the names ose willing to submit tenders, may be sent in; the name and address at the end is the person from whom ace where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

RIL 4.—**Amersham.**— VARIOUS WORKS.—For uilding works (confined to firms carrying on ess within the area of Amersham Union); (*b*) eering works; (*c*) water softener; (*d*) laundry ment, for Amersham Union. The Clerk, Amer- Poor Law Institution, Amersham, Bucks. De- £10 10s.

RIL 4.—**Bognor.**—HOUSES.—Erection of 92 s (or thereabouts) in blocks of eight on the Sheep- lane Housing Site, Bognor, for the U.D.C. yor to the Council, High-street, Bognor. Deposit .

RIL 4.—**Breconshire.**—RE-MODELLING OF SCHOOL. r carrying out for the Education Committee the odelling of Cwmtwrch Council School. Mr. W. s Harpur, County Surveyor, County Office, Brecon. sit £2 2s.

RIL 4.—**Drayton.**—SCHOOL.—Erection of school, he Hants C.C. Mr. A. L. Roberts, County Archi- The Castle, Winchester. Deposit £2 2s.

RIL 4.—**Hammersmith.**—REPAIRS TO PROPERTY. rrying out of repairs to the property included under housing schemes for the following alternative ds:—(1) May 1, 1924–March 31, 1925; (2) May 24–March 31, 1926; (3) May 1, 1924–March 31, for the Metropolitan Borough Council of Hammer- h. Town Hall, Hammersmith, W.6.

RIL 4.—**Nancledra.**—SCHOOL.—Erection of Council ol, for Cornwall E.C. Mr. F. G. Drewitt, architect, oards-chambers, Penzance. Deposit £2 2s.

RIL 4.—**Sheffield.**—ALTERATIONS.—Alterations he Head Post Office, Sheffield, for the Commis- rs of H.M. Office of Works. Contracts Branch, .O.W., King Charles-street, London, S.W.1 De- £1 1s. (Cheques payable to the Secretary.)

RIL 4.—**Southampton.**—NEW SCHOOL.—Erection new school at Drayton, near Cosham, Hants, for County of Southampton. Mr. A. L. Roberts, ty Architect, The Castle, Winchester. Deposit s., made payable to "The Hants County Council," rossed "Lloyds Bank, Ltd., Capital and Counties' ch, Winchester."

RIL 7.—**Alresford.**—PAINTING.—For the re-decora- of the interior of the Old Alresford Parish Church. W. Finnigan, Hon. Sec., Alresford.

RIL 7.—**Banbridge.**—HOUSES.—For the lay-out of round and the erection of houses embraced in the ng scheme, of the U.D.C. Mr. Wm. J. Mulligan, Council Offices, Banbridge, Ireland.

RIL 7.—**Brandon.**—BATHROOMS.—For the erection e bathrooms at Nos. 1, 2, 3, 5, and 6, John-street , Meadowfield, for the Co-operative Society. H. Young, society's engineer, Brandon.

RIL 7.—**Cardiff.**—CHURCH.—Erection of Wesleyan ch in Cowbridge-road. Messrs. J. H. Phillips & e, 7, Pembroke-terrace, Cardiff. Deposit £2 2s.

RIL 7.—**Glasgow.**—ANNEXE.—Erection of Hill- High School Annexe, 12, Sardinia-terrace, for ducation Authority. Education Offices (Property), 129, Bath-street, Glasgow. Deposit 10s. 6d.

RIL 7.—**Hitchin.**—TENEMENTS AND COTTAGES.— ion of 56 tenements and cottages for the Hitchin . Town Hall, Hitchin. Deposit £2 2s.

RIL 7.—**Holmfirth.**—ADAPTATION.—For the adap- of room as gymnasium at Holmfirth Secondary ol, for the West Riding E.C. Education Depart- County Hall, Wakefield.

RIL 7.—**Huddersfield.**—HOUSE.—Erection of house kes-road. Messrs. J. H. Hall & Son, architects, xchange Buildings, Market-street, Huddersfield.

RIL 7.—**Menston.**—PAINTING.—For the outside ng of the two chronic blocks, shelters, &c., at the al Hospital, Menston, near Leeds. Mr. W. E. H. n, Architect, West Riding Mental Hospitals Board s, Wakefield.

RIL 7.—**Probus.**—FARMHOUSE.—For the erection armhouse at Tregenna, Lamorran, Probus. Mr. J. Cornelius, architect, Truro.

RIL 7.—**Southend-on-Sea.**—WALL.—For the erec- a boundary wall and fence and work incidental at the Electricity Sub-station, Leigh-on-Sea, T.C. Mr. Robt. H. Dyer, Borough Engineer, pal-buildings, Southend-on-Sea. Deposit £2.

RIL 7.—**West Hartlepool.**—SCHOOL.—For the n of St. Aidan's Memorial School at Foggy for the Rev. W. J. Knowlden. Mr. J. Hamilton architect, 47, Church-street, West Hartlepool.

RIL 7.—**Whitby.**—HOUSES.—For the erection of welling-houses (two blocks of four), at Gallows Whitby. Mr. A. E. Young, architect, 77 gate, Whitby.

RIL 7.—**Wimbledon.**—HOUSES.—Erection of med houses, 12, 24, or 87 in number, on the g Site, Toynbee-road, Burstow-road, and Dennis eacent, for the Borough of Wimbledon. Borough er and Surveyor, Town Hall, Wimbledon. £2 2s.

RIL 7.—**Wombwell.**—HOUSES.—Erection of 30 construction of roads and sewers at Wombwell, Dearne District Light Railways Joint Com- Messrs. Garside & Pennington, architects, gate, Pontefract. Deposit £1 1s.

RIL 8.—**Gellygaer.**—HOUSES.—Erection of (*a*) 50 and (*b*) 26 houses, on Bargoed Heolddu Site, for Mr. P. Jones Williams, Architect, Council Hengoed, Glamorganshire. Deposit £2 2s.

RIL 8.—**Ilford.**—EXTENSION.—For the erection of nsion to the electricity offices by the addition of a first floor at the Electricity Works, Ley-street, for the U.D.C. Mr. H. Shaw, Surveyor, Town Hall, Ilford. Deposit £2.

APRIL 8.—**Kirkburton.**—PAINTING.—For outside painting of various buildings at the various buildings at the Storthes Hall Mental Hospital, Kirkburton, near Huddersfield, for West Riding Mental Hospitals' Broad. Mr. W. E. H. Burton, Architect, West Riding Mental Hospitals' Board Offices, Wakefield.

APRIL 8.—**London.**—PAINTING, &C.—For painting, renovations, and sundry works at the Institution premises, 2A, Bow-road, E. 3, for the City of London B.G. Messrs. Gleed, Sons, & Co., 8-9, Martin-lane, Cannon-street, E.C. 4. Deposit £5 5s.

APRIL 8.—**London, S.W. 18.**—GLASS ENCLOSURES. —Providing and fixing wood and glass enclosures to fifteen sunning balconies at St. James's Hospital, Ouseley-road, Balham, S.W. 12, for the Guardians of the Wandsworth Union. Mr. F. J. Curtis, Union Offices, St. John's-hill, Wandsworth. S.W.

✱APRIL 8.—**Mitcham.**—PAVILION, &C.—Erection of a tea chalet and pavilion at Tamworth Recreation Ground, Mitcham, for the U.D.C. Messrs. Chart, Son & Reading. architects and surveyors, Union Bank Chambers, Croydon. Deposit £2.

APRIL 8.—**Preston.**—EXTENSION.—For extension of day room at the Ribchester Institution, of the B.G. Mr. T. H. Bentham, Clerk, Preston.

APRIL 8.—**Prestwich.**—PAINTING.—For painting the exterior, &c., of the annexe building at the County Mental Hospital. Steward at Hospital.

APRIL 8.—**Thornton.**—OUTBUILDINGS.—For the erection of outbuildings in the Council Yard, Blackpool-road, for the U.D.C. Mr. Henry Fenton, Surveyor, Council Offices, Thornton-le-Fylde. Deposit £2 2s.

APRIL 9.—**Friern Barnet.**—HOUSES.—Erection of 32 houses, for the Friern Barnet U.D.C. Mr. F. P. Kindell, A.M.I.C.E., Council Offices, The Priory, Friern Barnet-road, N.11. Deposit £2 2s.

APRIL 9.—**Holmfirth.**—DRYING PLACE.—Erection of a yarn scouring and drying place at Ford Mill, Holmfirth. Messrs. Kirk, Sons & Ridgway, architects, Market-place, Dewsbury.

APRIL 9.—**Manchester.**—ROOFING.—For repairs to the roof of the Reference Library, Piccadilly, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

APRIL 9.—**Rowley Regis.**—PAINTING.—For painting and renovating exterior of Girls' Department, Old Hill Macefield Council School, for U.D.C. Secretary, Council House, Old Hill.

APRIL 9.—**Whixley.**—REPAIRS, &C.—For (1) erection of covered fold yard, and (2) repairs to farm buildings and house, at Fir Tree Farm, for West Riding Small Holdings' Committee. County Land Agent, County Hall, Wakefield. Deposit £1.

APRIL 10.—**Bentley with Arksey.**—PARTITION.— Erection of a folding partition at Cooke-street Council School, for West Riding Education Committee. Education Department, County Hall, Wakefield.

APRIL 10.—**Bolton-on-Dearne.**—ADDITIONS.—Erection of additional classrooms, &c., at Bolton-on-Dearne Highgate Council School, for West Riding Education Committee. Education Department, County Hall, Wakefield.

APRIL 10.—**Haslingden.**—HOUSES.—For the erection of 20 brick houses (12 non-parlour and eight parlour type) on the Rising Bridge Site, for the T.C. Mr. A. Brocklehurst, architect, St. James's Chambers, Waterfoot. Deposit £2 2s.

APRIL 10.—**Hexham.**—HOUSES.—Erection of 20 semi-detached houses on Chareway-lane Site, six semi-detached houses in Garden-terrace, and 24 semi-detached houses on Wanliss-lane Site, for U.D.C. Town Surveyor, Priest Popple, Hexham. Deposit £2 2s.

APRIL 10.—**Portmadoc.**—ADDITIONS.—For extensive improvements and additions, and the painter's and decorator's work in connection with the Tabernacle C.M. Chapel. Messrs. O. Morris Roberts & Son, architects, Portmadoc.

APRIL 10.—**Shelf.**—HOUSE.—For the erection of a detached house on the Garden Village Estate, Shelf. Mr. G. R. Oddy, architect, Ward's End Chambers, Halifax.

APRIL 10. — **Stocksbridge.** — ALTERATIONS. — For alterations to Stocksbridge Council School, for West Riding Education Committee. Education Department, County Hall, Wakefield.

APRIL 10. — **Worthing.** — FENCES. — For the erection of stone piers and wrot-iron boundary fences at Beach House Park and Denton Gardens, for the B.C. Borough Surveyor, Municipal Offices, Worthing.

APRIL 10.—**Yeovil.**—HOUSES.—Erection of 12 houses at West Coker, for the R.D.C. Messrs. Petter & Warren, architects, Yeovil. Deposit £2 2s.

APRIL 11.—**Fleetwood.**—SCHOOL EXTENSION.—For the erection of extensions, of semi-permanent construction, at the Fleetwood Secondary School, for the Lancashire C.C. Mr. Henry Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

APRIL 11.—**Motherwell.**—FLOORING.—For relaying of floor of Orange Hall, Milton-street, Motherwell, with hard maple or pitch pine of finest quality. Mr. J. Gibson, 4, Parkneuk-street, Motherwell.

APRIL 11.—**Paignton.**—SHOP.—Erection of a shop and flats at Preston, Paignton, for Messrs. Squibbs, Ltd., Bridgwater. Mr. F. W. Vanstone, architect, Torbay-chambers, Paignton.

✱APRIL 11.—**Near Rugby.**—HOUSES.—For six pair of semi-detached houses at Sidney-road, Hillmorton for the Vendors of Brown's Farm Estate. Mr. C. J. Newman, Lic.R.I.B.A., M.S.A., architect and surveyor, Albert-street, Rugby. Deposit £1 1s.

APRIL 11.—**Sandwich.**—HOUSES.—For the erection of four non-parlour type houses on the Sandwood Estate, for the T.C. Mr. R. Saunders, Borough Surveyor, The Barbican, Sandwich. Deposit £2.

APRIL 11.—**Somerset.**—WIRELESS STATION.—Erection of a Post Office wireless station at Burnham-on-Sea, Somerset, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

APRIL 11.—**Tollerton.**—VESTRY.—For the erection of new vestry, Wesleyan Church, Tollerton. Mr. J. Francis Todd, architect, Easingwold.

✱APRIL 11.—**Tottenham, N.15.**—NEW SCHOOL.— Erection of a new school at Devonshire-hill, White Hart-lane, for the Tottenham Education Committee. Mr. C. E. Blackbourn, M.S.A., architect, 374-5, Old-street, E.C.2. Deposit £3 3s.

✱APRIL 12.—**Birmingham.**—RESTORATION WORK.— Restoration of the tower of Northfield Parish Church, Birmingham, and other incidental work. Enquiries only invited from tradesmen with previous experience in this class of work. Architect, Mr. W. H. D. Caple, F.R.I.B.A., Diocesan Surveyor, Queen's College, Birmingham.

APRIL 12.—**Dewsbury.**—DEMOLITION, &C.—For the demolition of property and building of boundary wall and retaining wall, for the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury.

APRIL 12.—**Dewsbury.**—WALL.—For the re-building of masonry wall at the junction of Staincliffe-road and Heckmondwike-road, for the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury.

APRIL 12.—**Dublin.**—PAINTING.—For painting of the Locomotive Running Shed, Amiens-street Station, for the Great Northern Railway (Ireland) Co. Mr. J. B. Stephens, secretary, Amiens-street Station, Dublin. Deposit £1 1s.

APRIL 12.—**Preston.**—GARAGE.—Erection of proposed motor bus garage on the Moor, Deepdale, for the County Borough of Preston. Borough Surveyor, Town Hall, Preston.

APRIL 12.—**Pudsey.**—HOUSES.—For 100 to 200 concrete houses and bungalows, for the T.C. Mr. Alfred E. Evans, Town Clerk, Town Hall, Pudsey.

APRIL 12.—**Reigate.**—HOUSES.—Erection of 30 houses (in pairs) on the Hooley Mead Estate, Earlswood, for the T.C. of Reigate. Borough Engineer and Surveyor, Municipal Buildings, Reigate. Deposit £2 2s.

APRIL 12.—**St. Austell.**—PREMISES.—Erection of new business premises, Fore-street, St. Austell, for Mr. J. F. Kirk. Messrs. Andrew & Randell, architects, New Inn Chambers, St. Austell.

✱APRIL 12.—**Swansea.**—SEMI-PERMANENT CONSTRUCTION.—Erection of departments of engineering and arts for the Council of the University College of Swansea. Mr. Oliver S. Portsmouth, A.R.I.B.A., architect, Llanfair-buildings, Swansea. Deposit £3 3s.

APRIL 12.—**Westhampnett.**—HOUSES.—For the erection of ten houses at Woodgate, in the parish of Aldingbourne, for the R.D.C. Clerk, Council Offices, Pallant House, Chichester.

APRIL 14.—**Crewe.**—ALTERATIONS.—For the alterations and additions to Broad-street Schools, for the T.C. Mr. E. G. Timbrell, Borough Engineer, Municipal Buildings, Crewe.

APRIL 14.—**Croydon.**—HOUSES.—Erection of 48 houses (comprising 62 tenements) at Thornton-road, Thornton Heath, in two sections, of 24 houses each, or as one tender for the whole, for the County Borough Council of Croydon. Borough Engineer, Town Hall, Croydon. Deposit £2 for each section, or £4 for both sections.

APRIL 14.—**Fleetwood.**—EXTENSIONS.—For the erection of extensions, of semi-permanent construction, at the Fleetwood Secondary School, for the Lancashire C.C. Mr. Henry Littler, Architect, 16, Ribblesdale-place, Preston. Deposit £2.

APRIL 14.—**Greenwich.**—REPAIRS, &C.—For executing repairing and redecorative works to 11 houses in Blackheath and Charlton, for the B.C. Mr. F. J. Simpson, Town Clerk, Town Hall, Greenwich.

APRIL 14.—**Cardiff.**—PAINTING.—For painting, &c. at the Ely Isolation Hospital, for the R.D.C. Mr. William Farrow, surveyor, 20, Park-place, Cardiff.

APRIL 14.—**Hertford.**—HOUSES.—Erection of 24 houses in Ware-road, for T.C. Borough Surveyor, The Castle, Hertford. Deposit £3 3s.

✱APRIL 14.—**Reigate.**—EXTENSIONS TO BUILDINGS, &C.—Extensions to buildings and machinery foundations in connection with the electricity undertaking, for the Reigate B.C. Consulting Engineer, Mr. C. H. Wordingham, C.B.E., M.Inst.C.E., 7, Victoria-street, London, S.W.1. Deposit £3 3s. (payable to Mr. C. H. Wordingham).

APRIL 14.—**Romford.**—COTTAGES.—For the erection of a pair of cottages at Bury Farm, Great Warley, for the R.D.C. Mr. W. J. Grant, surveyor, 16A, South-street, Romford.

APRIL 14.—**Skegness.**—PAINTING.—For painting on housing estate, for the U.D.C. Mr. R. H. Jenkins, Surveyor, Council Offices, Skegness. Deposit £1 1s.

APRIL 14.—**Stoke Newington.**—EXTENSION.—For the erection and completion of extensions to the Electricity Sub-station, in Edward's-lane, N. 16, for the Metropolitan Borough. Borough Surveyor, Town Hall, Stoke Newington. Deposit £5.

APRIL 15.—**Glasgow.**—HOUSES.—Erection of Toll-cross housing scheme, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

APRIL 15.—**Glasgow.**—TENEMENTS.—Erection of tenement houses at Whitefield-road and Brand-street, for he T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

APRIL 15.—**Kirkcaldy.**—ADDITIONS.—For alterations and additions to the Post Office, Kirkcaldy. Architect, H.M. Office of Works, 4–5, Drumsheugh-gardens, Edinburgh. Deposit £1 1s.

April 15.—**London.**—Reconstruction.—For reconstruction and painting of the Crystal Palace tank and structure, Sydenham Hill, S.E., for Metropolitan Water Board. Chief Engineer, Metropolitan Water Board, New River Head, Clerkenwell, E.C. 1. Deposit £2 2s.

April 15.—**Rosslare.**—Offices.—For the erection of offices at Rosslare Pier (about 40,000 cub. ft.), for the Great Southern and Western Railway Co. Chief Engineer, Inchicore, Dublin. Deposit £1 1s.

April 16.—**Hay.**—Market.—For the construction of a cattle market at Talgarth, for the R.D.C. Mr. A. Howard, Clerk, Hay, near Hereford.

April 16.—**Lambeth, S.W.2.**—Demolition and Clearing Site.—(*a*) The demolition of Bloomfield Hall, Central Hill, Upper Norwood, and (*b*) the clearing of site of timber, &c., preparatory to the erection of houses thereon. Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (Chartered Civil Engineer), Borough Engineer, Brixton Hill, S.W.2. Deposit £1 1s.

✱April 16.—**Lingfield, &c.**—Houses.—For the erection of 16 working-class dwellings at Saxbys-lane, Lingfield, 12 at Park Farm, Limpsfield, and six at Hollow-lane, Dormansland, for Godstone R.D.C. Mr. George E. Crowter, Acting Buildings Surveyor, Council Offices, Oxted. Deposit £2 .

April 16.—**Ormskirk.**—Houses.—For erection of 20 houses on the Tank-lane Site, for U.D.C. Mr. H. W. Chadwick, Surveyor, District Council Offices, Burscough-street, Ormskirk. Deposit £2 2s.

April 17.—**Newcastle-on-Tyne.**—Houses.—For the erection of 142 dwellings on the Walker Housing Estate. Housing Architect, 18, Cloth-market, Newcastle. Deposit £2 2s.

✱April 21.—**Bolton-upon-Dearne.**—Houses, Drainage, &c.—Erection of 30 dwelling-houses (14 Parlour, 16 Non-Parlour Type) together with road and surface water drainage works in Barmborough-lane, Goldthorpe, also six dwelling-houses (two Parlour, four Non-Parlour Type) on Lockwood's Farm site, Goldthorpe, for the Bolton-upon-Dearne U.D.C. Mr. William H. Adams, M.S.A., Council Offices, Bolton-upon-Dearne. Deposit 10s. 6d.

April 22.—**Chichester.**—Houses.—Erection of 38 houses (10 pairs of semi-detached and 3 blocks of 6 for the Chichester Corporation. Messrs. Whitehead & Whitehead, 18, South-street, Chichester. Deposit £1 1s.

April 22.—**Roscrea.**—Extension.—For erection of extensive additions to the Roscrea Bacon Factory, Roscrea. Mr. R. P. Gill, Nenagh, or Mr. B. E. F. Sheehy, M.S.A., 57, O'Connell-street, Limerick.

✱April 23.—**Cuckfield, Sussex.**—Infirmary Block.—Erecting a female infirmary block at the West Hylands Institution at Cuckfield, Sussex, for the Guardians of the Poor Law Union of Cuckfield, Sussex. Mr. Wm. H. Overton, F.S.Arc., F.S.I., 22, Ship-street, Brighton. Deposit £1.

April 23.—**Greenwich, S.E.10.**—Houses and Maisonettes.—Erection and completion of six houses, comprising twelve maisonettes, on a site at the corner of Coombedale-road and Westerdale-road, Greenwich, for the Council of the Metropolitan Borough of Greenwich. Town Clerk's Dept., Town Hall, Greenwich. Deposit £2 2s.

✱April 23.—**London, S.E. 2.**—Roads.—Repairs to roads at Goldie Leigh Homes, Abbey Wood, S.E. 2, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

April 23.—**London, N.**—Shops and Dwellings.—Erection of nine shops with dwellings over (similar types) in Lordship-lane, on the White Hart-lane, Tottenham, for the London County Council. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £2 to the Cashier of the Council.

April 23.—**Rothwell.**—Houses.—For the erection of 52 scullery houses on the Rothwell Haigh, Carlton, Lofthouse, and Thorpe sites, for the U.D.C. Mr. W. Dodgson, Clerk, Council Offices, Rothwell, Yorks.

✱April 23.—**Tooting, S.W.17.**—Joinery.—For supplying and delivering prepared joinery to Tooting Bec Mental Hospital extensions, Church-lane, Tooting, S.W.17, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

April 23.—**Winfrith.**—Lych Gate.—For the erection of a lych gate at the churchyard of Winfrith, 3 miles from Wool Station, Dorset. Rector, Winfrith.

April 25.—**Southampton.**—Police Cottages.—Erection of two police cottages, one at Marchwood and one at Pennington, for the County Borough Council of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £1 1s. for each set of plans, by cheque, payable to Hants. County Council, and crossed "Lloyds Bank, Ltd., Capital and Counties Branch, Winchester."

✱April 28.—**Andover.**—Offices, &c.—For the erection of new offices, folding partition, &c., at Andover (New-Street) Girls' and Infants' Council School, for the C.C. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £1 1s, by cheque payable to Hants County Council and crossed "Lloyd's Bank, Ltd., Capital & Counties Branch, Winchester."

✱April 28.—**Southampton.**—Alterations, &c.—Alterations, remodelling, &c., at New Alresford Council School, for the Hants County Council. Mr. A. L. Roberts, County Architect, The Castle, Winchester, on and after April 10, between the hours of 9 a.m. and 4 p.m.; Saturdays 9 a.m. and 12 p.m. noon. Deposit £1 1s., payable to Hants County Council and crossed "Lloyd's Bank, Ltd., Capital and Counties Branch, Winchester."

✱April 30.—**Greenwich.**—Houses.—Erection and completion of 50 houses (some of which are partially erected) on the No. 3 Section of the Housing Estate at Charlton, for the Metropolitan Borough Council of Greenwich, S.E. Town Clerk's Dept., Town Hall, Greenwich. Deposit £2 2s.

✱April 30.—**Southend-on-Sea.**—Schools.—Erection of proposed new secondary schools, Westcliff, for the County Borough of Southend-on-Sea E.C. Mr. H. Farrands, M.A., Director of Education, Education Offices, 20, Warrior-square, Southend-on-Sea. Deposit £3 3s. (cheques to be made payable to the Southend Corporation).

No Date.—**Dewsbury.**—Shop.—Erection of shop premises in Queensway and Northgate, Dewsbury. Messrs. Kirk, Sons & Ridgway, architects, Market-place, Dewsbury.

No Date.—**Dumbarton.**—Painting.—For painter work for 26 houses, for the C.C. Mr. J. Weekes, architect, 88, College-street, Dumbarton.

✱No Date.—**Ilfracombe.**—Premises.—Erection of new premises at 21, High-street, Ilfracombe, for Messrs. Timothy White & Co., Ltd. (Construction Department), 30, Chandos-street, Portsmouth.

No Date.—**Royston.**—House.—For building house, Church-avenue, Royston. Mrs. Rowley, The Green, Royston.

No Date.—**Rugeley.**—Repairs.—For structural repairs at the Heron-court Congregational Church, Rugeley. Mr. F. W. Anderson, City Chambers, Broad-street Corner, Birmingham.

No Date.—**Sawley.**—Chapel.—For the erection of a Wesleyan Chapel at Sawley, near Ripon. Mr. Thomas Stokes, architect, Thirsk.

No Date.—**Penyfai (Carmarthenshire).**—Residence.—For erection of a residence near Penyfai. Messrs. W. Griffiths & Son, architects, Falcon Chambers, Llanelly. Deposit £2 2s.

FURNITURE, MATERIALS, etc.

April 5.—**Edinburgh.**—Materials.—For supply of materials, for use of Lighting and Cleansing Depts., for six months, for the U.C. Inspector of Cleansing, 329, High-street, Edinburgh.

April 5.—**Enfield.**—Materials.—Supply of road materials to the U.D.C. Surveyor, Public Offices, Enfield.

April 5.—**Worsley.**—Materials.—For supply of road materials, for U.D.C. Mr. J. Howard, Surveyor, Town Hall, Walkden.

April 6.—**Southampton.**—Granite.—Supply of broken granite to the T.C. Mr. J. A. Crowther, Borough Engineer, 33 & 35, French-street, Southampton.

April 7.—**Glasgow.**—Materials.—For supply of materials to the Cleansing Dept. Mr. W. Greig, Superintendent of the Dept., 20, Trongate, Glasgow.

April 7.—**Melton Mowbray.**—Materials.—For the supply of about 6,500 tons of broken granite, and about 2,000 tons of broken slag, for the R.D.C. Mr. A. P. Marsh, Clerk, Melton Mowbray.

April 7.—**Rochdale.**—Materials.—Supply of road and other materials to the T.C. Borough Surveyor, Rochdale.

April 7.—**Romford.**—Materials.—Supply of broken granite, granite chippings, granite dust, and tar, for the R.D.C. Surveyor, 16A, South-street, Romford.

April 7.—**Runcorn.**—Materials.—For supply of granite macadam setts, kerbstones and sanitary pipes, for one year, for R.D.C. Mr. G. F. Ashton, Council Offices, Runcorn.

April 7.—**Tenterden.**—Materials.—Supply of granite or other approved macadam, Kent ragstone, and tar to the R.D.C. Mr. W. L. C. Turner, District Surveyor, Town Hall, Tenterden.

April 8.—**Leeds.**—Macadam.—For supply of 5,000 tons of 2½ in. granite macadam, for T.C. Mr. J. B. Hamilton, Highways and Permanent Way Dept., 1, Swinegate, Leeds.

April 8.—**Manchester.**—Sleepers.—For the supply of creosoted red wood sleepers, for the T.C. Mr. Henry Mattinson, General Manager, Corporation Tramways, 55, Piccadilly, Manchester.

April 8.—**Middleton.**—Steam Pipes.—For supply of 6 in. and 4 in. flanged cast iron steam pipes, &c., for T.C. Engineer, Gas Offices, Townley-street, Middleton.

April 9.—**Gravesend.**—Materials.—Supply of road stone and tar to the T.C. Mr. A. Flood, Surveyor, Municipal Offices, Gravesend.

April 9.—**Maldon.**—Materials.—For the supply of slag and flints, to the T.C. for one year. Borough Engineer, Municipal Offices, Maldon.

April 9.—**Walthamstow.**—Tramway Materials.—For supply of materials required for tramways reconstruction, for U.D.C. Mr. G. W. Holmes, Surveyor, Town Hall Annexe, Walthamstow.

April 10.—**Blean.**—Materials.—For the supply of road material for one year, to the R.D.C. Clerk, 4, Tower-parade, Whitstable.

April 11.—**Prestwich.**—Materials.—Supply of road materials to the U.D.C. Mr. M. A. Piercy, Surveyor, Town Hall, Prestwich.

April 12.—**Bootle.**—Materials.—Granite channels, kerbs, &c., for T.C. Borough Engineer, Town Hall, Bootle.

April 12.—**Manchester.**—Seating.—For supplying and fixing seating accommodation in the Boardroom of the Union Offices. Mr. E. Hargreaves, Superintendent of Works, Union Offices, All Saints, Manchester.

April 14.—**Fareham.**—Materials.—For the supply of granite and limestone for one year. Mr. J. F. Whitear, Surveyor, 97, West-street, Fareham.

April 14.—**Maldon.**—Materials.—Supply of broken granite, Kentish flints, and gravel to the R.D.C. Mr. E. J. Ennals, Surveyor, 6, Market Hill, Maldon.

April 15.—**Bridlington.**—Materials.—For supply of hardware, ranges and sanitary fittings for 20 houses for the T.C. Borough Engineer, Bridlington.

April 21.—**Sefton.**—Materials.—Supply of highway materials to the R.D.C. Mr. F. Pool, surveyor, 21, Evered-avenue, Walton, Liverpool.

April 24.—**Worthing.**—Materials.—For supply of tarred slag, and tarred granite chippings for T.C. Borough Surveyor, Municipal Offices, Worthing.

ENGINEERING, IRON AND STEEL.

April 4.—**London.**—Pipes.—For supply of cast-iron pipes, for South Indian Railway Co. Secretary, 91, Petty France, Westminster, S.W.1. Charge 2s. 6d.

April 5.—**Felinfach (Pemb).**—New Bridge.—For erecting for the Narbeth R.D.C. a new bridge on the boundary of the parishes of Bletherston and Llanycefn. Mr. William Lawson, Felinfach, Pemb.

April 5.—**York.**—Bridge.—For the widening of Monk Bridge and approach roads over the River Foss,

for the T.C. Mr. F. W. Spurr, City Engineer, hall, York. Deposit £2 2s.

April 7.—**Sheerness.**—Railing.—For supply yards of unclimbable wrought-iron railing and pairs of gates, for the U.D.C. Surveyor, Offices, Sheerness.

April 8.—**Carlisle.**—Railway Siding.—Con tion of a railway siding for new electricity gene station, Willow Holme, for T.C. Mr. H. C. Surveyor, 18, Fisher-street, Carlisle. Deposit £1

April 8.—**Southall, Norwood.**—Approaches. widening of the approaches to Southall Station crete on Hennebique system), for the U.D.C. Mr. Thomson, Surveyor, Town Hall, Southall.

April 9.—**Romford.**—Bridge.—For reconstr and widening of Oldchurch-road Bridge in rein concrete (Indented Bar System), for the U.D.C. F. G. Beaumont, Surveyor, 73, South-street, Ro Deposit £3 3s.

April 9.—**Rochdale.**—Bridge.—For construct a bridge over the River Roch at Hamer-lane with concrete (Hennebique System), for T.C. Mr. Morgan, Borough Engineer, Town Hall, Roc Deposit £5.

April 10.—**Manchester.**—Steelwork.—For structional steelwork at (1) Denton sub-station (2) Miles Platting sub-station, for T.C. Mr. C. Cra Committee Secretary, Electricity Dept., Town Manchester. Deposit £1 1s. each contract.

April 12.—**Manchester.**—Air Compressor. erection of an air compressor at the Withington s works, Chorlton-cum-Hardy, for T.C. Secretary Rivers Dept., Town Hall, Manchester.

April 12.—**Wallingford.**—Heating.—For installation of new calorifiers, mains and acce works in connection with the heating apparat the Institution of the Board of Guardians. Mr. P. Slade, Clerk, Union Offices, Wallingford, Berks. posit £5 5s.

April 14.—**Pretoria.**—Steel Pipes.—For s of 12 in., 14 in. and 18 in. steel pipes, for Municip of Pretoria. Messrs. Beckett, Son & Co., S House, 5, Laurence Pountney-hill, E.C. 4.

April 16.—**Glasgow.**—Various Works.—(1) moval of a steel sheeted roof, about 10,000 sq. (2) taking down sundry brick walls; (3) replacin repairing railway girders; and (4) re-sheeting 2,000 sq. yds. of roof, at Provan Gas Works, for the General Manager, Gas Department, 30, John-s Glasgow. Deposit £5.

April 18.—**Aberdeen.**—Steelwork.—Supply erection of 90 tons of structural steelwork for e sion of boiler house. Mr. J. A. Bell, City Elec Engineer, Aberdeen. Deposit £2 2s.

April 23.—**Merthyr Tydfil.**—Filters.—For the ply and erection of pressure gravity types of filte deal with 7½ million gallons of water per day of 24 h for the Taf Fechan Water Supply Board. Messr Alex. Binnie, Son, & Deacon, 30, Buckingham Westminster, S.W.1. Deposit £5.

April 28.—**Poole.**—Bridge.—For construction new bridge over the Channel dividing Poole from worthy, for T.C. Messrs. Livesey, Son & Hend 14, South-place, London, E.C.2. Deposit £5 5s.

May 1.—**China.**—Bridge.—**The Comm Councillor at Peking has forwarded to the Depart of Overseas Trade copies of the official text of a call tenders by the Hai Ho Conservancy Commission, the erection of a bridge over the Hai Ho at Tien Tenders must be in the hands of the Commission be noon on May 1, 1924. The cost of erecting the bridge has been roughly estimated at Tls. 700,000 £105,000. Department of Overseas Trade, 35, Queen-street, S.W.1. Reference 11647/F.E./E.C**

May 1.—**Egypt.**—Roofs, &c.—Construction steel roofs and shelter of Alexandria new statio the Egyptian State Railways. Inspecting Engi Egyptian and Sudan Governments, Queen A Chambers, Broadway, Westminster, S.W. C £6 3s.

May 2.—**Durban, Natal.**—Water Scheme.—supply of large sluice valves, valve tower iron pipes, &c., for Vernon Hooper Dam in Shon Water Scheme, for T.C. Messrs. Webster, Steel 5, East India-avenue, London, E.C. Deposit

May 30.—**London.**—Steelwork.—Supply to South Indian Railway Co. of structural steel (Machine Shop). Company's Offices, 91, Petty Fr Westminster, S.W.1. Charge £1.

July 1.—**Chili.**—Harbour Works.—For the of improvement of the Harbour of Constitucion, Chilian Legation, 22, Grosvenor-square, W.1.

ROAD, SANITARY, AND WATER WORKS.

April 4.—**Doncaster.**—Roads.—For the wid and reconstruction of Mexborough-road, Adwic Dearne, for the R.D.C. Mr. W. R. Crabtree, Hall, Doncaster.

April 4.—**Neath.**—Roads.—For strengthening dations and surfacing with tar macadam, and alt tive tenders for surfacing with asphalte approxin 7,000 sup. yards of Class I roads. Mr. H. A. C Borough Engineer, Neath.

April 4.—**Wadebridge.**—Water Supply.—Fo provision and laying of about 4,800 yards of 2 1 in. W.I. weldless tubes, pumping plant, and l low earthen dam, and contingent works, for St. E Golf Club. Capt. C. J. Jenkin, 5, Princes-s Plymouth. Deposit £3.

April 5.—**York.**—Road.—For construction of road, Heworth to Hull-road, 1,010 yds. in lengt T.C. Mr. F. W. Spurr, City Engineer, Gui York. Deposit £2 2s.

April 7.—**Chippenham.**—Roads.—For surface ing of 60,000 sq. yds. of roads with "Spramex T.C. Mr. A. E. Adams, Borough Surveyor, Ch ham.

April 7.—**Dartford.**—Sewage Works.—Fo settling and storage tanks, pumping station, and pipe to river at Stone, and (*b*) settling and storage and outfall pipe to river at Swanscombe, for I Mr. R. Brown, engineer, 4, Prince's Mansion Victoria-street, Westminster, S.W. Deposit £1

L 7.—**Devizes.**—PAVEMENTS.—(1) For laying 24,000 sq. yds. of two-coat asphalte macadam ents, (2) for laying 6,500 lineal ft. of pennant kerb, for T.C. Mr. A. W. Jakeway, Borough or, Town Hall, Devizes. Deposit £5 5s.

L 7.—**Earsdon.**—SEWER.—For providing and of about 625 yards of 9 in. earthenware sewer at rk House Estate, Earsdon, for the U.D.C. or, Shiremoor.

L 7—**Hammersmith.**—CEMETERY LAY-OUT.— and materials required in the lay-out of a ry at Mortlake, comprising the construction of d surface drains, gas, water and electric mains, and footpaths, planting, fencing, &c., for the olitan Borough of Hammersmith. Mr. R. on Clucas, Engineer and Surveyor, Town Hall, ersmith. Deposit £3 3s.

L 7.—**Manchester.**—ROADS.—For making up at Medlock-street Improvement Scheme, and ham-road Estate, for the T.C. City Engineer's ment, District Surveyor's Office, Town Hall, ester. Deposit £1 1s.

L 7.—**Normanton.**—ASPHALTING.—For asphalt- Girls' High School, for the West Riding E.C. ion Dept., County Hall, Wakefield.

L 7.—**Prestwich.**—SEWERS.—For the construc- approximately 180 yards of sewers along Bury d, for the U.D.C. Surveyor, Town Hall, Prest- Charge £1 1s.

L 8.—**Cowdenbeath.**—ROADS.—For the lifting, g and relaying of a portion of the High-street ay, for the T.C. Burgh Surveyor, Town House, nbeath.

L 8.—**Eastbourne.**—ROADS.—For resurfacing in. bituminous carpet various roads within the h, for the T.C. Mr. L. Roseveare, Borough er, Town Hall, Eastbourne.

L 8.—**Enfield.**—SEWERS.—For the construction and surface water sewers in Lavender Hill, The vay, and Hadley-road. Mr. H. R. Crabb, Sur- Public Offices, Enfield. Deposit £2 2s.

L 8.—**Gosforth.**—SEWER.—For laying an 18 in. y pipe sewer, as an extension of outfall sewer, alters Bridge, for the U.D.C. Mr. Geo. Nelson, or, Council Chambers, High-street, Gosforth.

L 8.—**Reigate.**—IMPROVEMENTS.—For widening n end of Rushworth-road, for T.C. Mr. F. T. n, Borough Surveyor, Municipal Buildings, e.

L 9.—**Bushey.**—ROADS AND SEWERS.—For (*a*) action of Herne-road, Part 2, (*b*) improvement of rne-road, (*c*) construction of The Close, (*d*) con- on of sewers in Bournehall-lane, for U.D.C. Mr. Ryder, Surveyor, Council Offices, Bushey. t £2 2s.

L 9.—**Fulham.**—ROAD.—For making up and of Rosedew-road as a "New Street," for the Mr. A. F. Holden, Borough Surveyor, Town ulham, S.W.6.

L 9.—**Honiton.**—SEWAGE WORKS.—For the con- n of about 3,150 yards of stoneware, iron pipe and erection of sewage disposal works, for the Messrs. W. H. Radford & Son, Albion Chambers, reet, Nottingham. Deposit £3 3s.

L 9.—**Maldon.**—ROADS.—For surface tarring yards of roads with refined tar during year. n Engineer, Maldon.

L 9.—**Romford.**—ROADS.—For surface dressing s with "Spramex," for U.D.C. Mr. F. G. nt, Surveyor, Council Offices, Romford.

L 10.—**Bradfield Loxley.**—SANITARY.—For con- of privies into W.C.'s, at Bradfield Loxley School, for West Riding E.C. Education ent, County Hall, Wakefield.

L 10.—**Denton.**—ASPHALT.—For tar asphalting nds at Denton Council School, for West E.C. Education Department, County Hall, ld.

L 10.—**Essex.**—ROADS.—For bituminous sur- f certain roads for the Ministry of Transport. ngineer, Arterial Roads Dept., Ministry of rt, 7, Whitehall-gardens, S.W. Deposit £25.

L 10.—**Southend-on-Sea.**—SEWERAGE.—For con- n of concrete tube sewers for T.C. Mr. R. H. orough Surveyor, Municipal Buildings, South- Sea. Deposit £2.

L 10.—**Wharfedale.**—SEWER.—Construction of ,700 lin. yards of pipe sewers, 9 in. and 12 in. r, in the Parish of Adel, for the R.D.C. Mr. cock, 10, Park-row, Leeds. Deposit £5.

L 10.—**Yeadon and Guiseley.**—ASPHALTING.— to asphalted playground and approaches at and Guiseley Secondary Schools. Education ent, County Hall, Wakefield.

L 12.—**Glenties.**—WATERWORKS.—Construction rete intake well in Lough Anna and a concrete the Townland of Dorria, for the R.D.C. Mr. M Nelis, Clerk, Glenties.

L 14.—**Glasgow.**—ROADS.—For the paving of reets with compressed rock asphalte, for the Office of Public Works, 64, Cochrane-street,

L 14.—**London, E.C.2.**—SEWER WORKS.—Con of about 280 ft. of 4 ft. by 2 ft. 8 in. brick ostly in tunnel) and contingent works, com- e filling-in of the existing sewer, the recon- of gulley and house drains, and connections to ewers, &c., beneath Well-street, Cripplegate, Corporation of London. Office of the City Guildhall, E.C.2. Deposit £2 2s.

L 15.—**Wolverhampton.**—WATER MAINS.— y of 15 in. and 12 in. cast-iron trunk mains, .C. Mr. E. A. B. Woodward, Waterworks Town Hall, Wolverhampton. Deposit £2.

L 15.—**Birmingham.**—ROADS.—For the widening struction of Stoney-lane, Yardley, for the T.C. . Humphries, City Engineer, The Council rmingham. Deposit £2.

L 16.—**Edinburgh.**—PLAYING FIELD.—For the on of the embankments, terracing, roads, and f a new playing field at Murrayfield, for the ootball Union. Messrs. Blyth & Blyth, eers, 135, George-street, Edinburgh. De-

APRIL 16.—**Guildford.**—ROADS.—For making up Alexandra-terrace, for the T.C. Borough Surveyor, Tuns Gate, Guildford.

APRIL 16.—**Lambeth, S.W.2.**—FOOTPATHS AND ROADWAYS.—Forming new footpaths and roadways, together with the incidental works in the making up of the new streets known as Baytree-road and Claverdale-road, Brixton, S.W.2, for the Lambeth Borough Council. Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (Chartered Civil Engineer), Borough Engineer, Brixton Hill, S.W.2. Deposit £1 in respect of each roadway.

✱APRIL 16.—**Sevenoaks.**—SEWERS.—Extension of the Sewer at Hosey Common in the Parish of Westerham, for the Sevenoaks R.D.C. The Surveyor, J. N. Prior, Council Offices, "Inglewood," Oak Hill-road, Sevenoaks. Deposit £2 2s.

APRIL 28.—**Kempton.**—WATER MAIN.—(*a*) For laying 7¼ miles of cast iron water main; (*b*) for laying 450 yds. of 52 in. steel pipes and contingent works from Kempton to Greenford, for Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, Clerkenwell, E.C.1. Deposit £20.

APRIL 30.—**Hemel Hempstead.**—ROADS.—For sewering and making up of a private street about 300 yards long for the T.C. Mr. W. R. Locke, Borough Surveyor, Hemel Hempstead, Herts.

APRIL 30.—**Swansea.**—SEWAGE WORKS.—For construction of sewerage works at Llansamlet, for T.C. Mr. J. R. Heath, Chief Engineer, Main Drainage Dept., Guildhall, Swansea. Deposit £5 5s.

NO DATE.—**Dumbarton.**—ROADS.—For formation of roads in connection with second development of the Alexandrian housing scheme, for the C.C. Mr. J. Weekes, Architect, 88, College-street, Dumbarton.

NO DATE.—**Inverkeithing.**—ROADS.—For street making at Spencerfield Site in connection with the additional ten houses, for the T.C. Mr. Peter Reid, Architect, Park House, Inverkeithing.

Competitions.

(*See Competition News, page* 528.)

Auction Sales, Tenders, etc.

APRIL 7 AND FIVE FOLLOWING DAYS.—**London, W.C.2.**—Messrs. J. & R. Kemp & Co. will sell without reserve by order of the liquidator at 4, 6, and 8, Newton-street, Kingsway, W.C.2, the valuable hire stock comprising a large quantity of marquees and tents, parquet flooring, lorries, timber, &c. Auctioneers, 125, High Holborn, W.C.1.

✱APRIL 7 AND 8.—**Bloomsbury.**—Messrs. Veryard & Yates will sell without reserve (final portion) nearly new building materials from demolition of the Y.M.C.A. Hut, Gower-street, Bloomsbury. Auctioneers, 365, Norwood-road, S.E.27.

APRIL 8.—**Norfolk.**—Messrs. Joseph Hibbard & Sons will sell (by order of Messrs. A. King & Son, who are giving up the saw milling branch of their business), at Wymondham, Norfolk, valuable and modern saw mill machinery. Auctioneers, 15 Newington-green, Islington, London, N.16.

APRIL 9.—**Essex.**—Mr. F. H. Clark will sell (in conjunction with Hubert F. Finn-Kelcey), without reserve, at the Central Stores Depot, 95, Dagenham Dock, Essex, final sale of timber and material contained in the National Box Factory, Dagenham Dock. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18; and Lyminge, Folkestone, Kent.

✱APRIL 10.—**London, S.E.**—Messrs. Veryard & Yates will sell without reserve at 126, Norwood-road, S.E., useful building materials (arising from demolition of commodious shop premises, Balham High-road). Auctioneers, 365, Norwood-road, S.E.27.

✱APRIL 11.—**Purley.**—Mr. C. E. Clark will sell without reserve at Brighton-road, Purley (yard adjoining Tram Depot and corner of Purley Downs-road), prime timbers. Auctioneers, Beddington House, Beddington, near Croydon.

✱APRIL 14.—**Gillingham, Kent.**—Mr. F. H. Clark will sell, absolutely without reserve, at Black Lion Fields, Gillingham, Kent, huts and building materials, steel roof principals, window sashes, &c. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.15.

✱APRIL 15.—**Bournemouth.**—Messrs. Hankinson & Son will sell (unless previously disposed of) at the Central Hotel, Bournemouth, *re* Bournemouth and District Builders' Guild, Ltd., in liquidation, Springbourne, Bournemouth, block of freehold property, builders' yard, freehold cottages, &c. Auctioneers, The Square, Bournemouth, and 8, Southbourne-grove, West Southbourne.

✱APRIL 15 AND 16.—**Bishop's Stortford.**—Messrs. Perry & Phillips, in conjunction with G. E. Sworder & Sons, will sell, on the premises (unless previously disposed of by private treaty), at Hallingbury-place (three miles from Bishops Stortford), interior and exterior fixtures and fittings previous to the demolition of the above mansion. Auctioneers, Bridgnorth and Bishop's Stortford.

APRIL 16.—**Kent.**—Messrs. Knight, Frank & Rutley will sell, at very low reserves, to wind up an estate, at the residence, Otford Court, close to Otford Station (unless previously sold privately), the residential and building property, Otford Court, the whole extending to an area of about 190 acres. Auctioneers, 20, Hanover-square, W.1.

✱APRIL 28.—**Romford (Essex).**—Messrs. Alfred Savill & Sons will sell by order of the Trustees under the will of Mr. D. McIntosh, (deceased) at Winchester House, Old Broad-street, E.C. (unless previously sold by private treaty) freehold building estate known as Marshalls Park, extending to about 117 acres, at Romford (Essex), adjoining the town. Auctioneers, 69, South Audley-street, Grosvenor-square, London, W.1.

✱APRIL 30, AND FOLLOWING DAY.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell in lots at the Merchants' Hall, Baltic Exchange, St. Mary Axe, E.C., contractors' and builders' plant and stock from Tilbury Housing Scheme, by order of Messrs. Trollope & Colls, Ltd., on account of completion of contract. Auctioneers, 11, Billiter-square, E.C.3.

MAY 6.—**London, W.1.**—**Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.**

MAY 27.—**Near Gerrard's Cross (Bucks).**—Messrs. Knight, Frank & Rutley will sell, by direction of Commander J. A. L. Hay, R.N., freehold agricultural and sporting property, known as Pickeridge Farm, about 171 acres; also about 18 acres of building sites. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

✱APRIL 9.—**Bolton.**—Clerk of Works for the new school buildings to be erected in Chorley New-road, Bolton, for the Trustees of the Bolton School. Messrs. Hall & Son, solicitors, 20, Acresfield, Bolton, endorsed "Clerk of Works."

✱APRIL 19.—**Birmingham.**—Architectural Assistant required in the Public Works Dept. of the Corporation. Mr. H. H. Humphries, M.Inst.C.E., City Engineer and Surveyor, The Council House, Birmingham.

✱APRIL 19.—**Birmingham.**—Inspector of Housing Contracts required in the Public Works Department by the Corporation. Mr. H. H. Humphries, M.Inst.C.E., City Engineer and Surveyor, The Council House, Birmingham.

APRIL 19.—**Wolverhampton.**—Clerk of Works required to superintend erection and completion of engineering block of new Technical College, Wolverhampton, for the Joint Committee of the Staffordshire County and Wolverhampton County Borough Councils. Director of Education, Wolverhampton, endorsed "Clerk of Works."

TRADE NEWS.

Mr. Charles Ingram Perkins (the eldest son of Mr. Wm. Charles Perkins, governing director of Messrs. Ingram Perkins & Co., Ltd., timber merchants, 37, Beech-street, E.C.1.) has been appointed a director of the company.

In the announcement regarding the well-known Hutchinson Tyres which appeared in our advertisement columns last week it was inadvertently stated that these solid tyres are guaranteed for 1,200 miles. This was an obvious error, the guarantee being for 12,000 miles, or 15 months. The address of the firm is Hutchinson Tyres, Hutchinson House, 119-125, Whitfield-street, S.W.1.

Musgraves, Ltd., sanitary engineers, extend an invitation to architects and others to visit their new show rooms at 49A, Rathbone-place, Oxford-street. Attention may be drawn to their special food locker, made of white porcelain enamelled fireclay. These lockers are suitable for bungalows, flats, mansions, or institutions. They can be built into the wall, and they are hygienic and thoroughly ventilated. The shelves are loose wire grids, removable, and so ensuring absolute cleanliness.

National Gallery.

The Gallery was closed to the public on Wednesday, April 2, when the Trustees held a reception in connection with the centenary celebrations. Room XXI is now specially hung with a representative group of the Gallery's earliest acquisitions, arranged in the manner customary a hundred years ago. Early acquisitions elsewhere in the Gallery are distinctly labelled. Visitors are thus able to see the relative value and importance of such pictures as those of the Angerstein Collection, the Beaumont Gift and the Holwell-Carr Bequest. In addition, gifts made to the Gallery to celebrate the centenary are on exhibition. The Gallery thus arranged was re-opened to the public on Thursday, April 3rd. From now onward the collection will be open free on Mondays, Tuesdays, Wednesdays and Saturdays, and on Sunday afternoons.

In connection with their centenary celebrations the Trustees have received a gift from Mr. C. Morland Agnew of a portrait by Raeburn representing the well-known statesman, Henry Dundas, first Viscount Melville (1742-1811), the bosom friend of Pitt.

PROPOSED NEW BUILDINGS & OTHER WORKS *

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

Ashton-in-Makerfield.—Plans approved: Two bungalows, Naylor-street, for Mr. T. Harrison.

Ayr.—The Dean of Guild Court has passed the following plans: Mr. P. G. Banton, 23, Marchmont-road, house and cafe, Blackburn-drive; Mr. Hugh Forbes, baker, High-street, shop and tea-room, Tam's-Brig; Mr. James Gilchrist, baker, High-street, bake-house and garage, Carrick-street.

Bangor (Ireland).—The U.D.C. has decided to make application for a loan of £25,000 for the erection of fifty or more workmen's houses.

Basingstoke.—Plans passed by T.C.: Two houses, Worthing-road, for Mrs. Lydia Page; office, Reading-road, for Mr. J. Beckett, junr.

Bath.—Plans approved by T.C.: House, Padleigh-road.

Belfast.—Plans passed by T.C.: Two villas, Grasmere-gardens, for Mr. Thomas McCullough (architect, Mr. Thomas Callender); villa, Sans Souci-park, for Miss Kate McCrory (architect, Mr. Thomas Callender); conversion of stable and store into house, Holywood-road, for the Dixon Estates, Ltd. (architect, Mr. Anthony F. Lucy); villa, Taunton-avenue, for Messrs. S. Ewing & Sons (architect, Mr. W. J. Walsh); 18 houses, Belmont-avenue, for Mr. Frank Mulligan (architect, Mr. R. S. Hill); 18 villas, Hillsborough-drive, for Messrs. Thos. McKee & Sons (architect, Mr. T. Callender); four villas, Irwin-drive, for Mr. James H. Barton (architect, Mr. Robert Barton); nine villas, Stranmillis and Longview roads, for Mr. Wm. Clarke (architect, Mr. T. R. Eagar); stores to mill, Cupar-street, for Messrs. J. & T. M. Greeves; eight villas, Glandore-street and Glassworth-drive, for Mr. Hugh Turtle; shop, house and store, Trillick-street, for Messrs. Macardle, Moore & Co. (architect, Mr. C. McAlister).

Berkhampstead.—Plans passed by U.D.C.: Cottage, King's-road, for Mr. Constable; cottage, Queen's-road, for Mr. N. C. Willmore; cottage, Queen's-road, for Mr. E. Tuffnell; lay-out of land for cottage site, for Mr. D. Pike, near Billet-lane; villa, on the Cross Oak Estate, for the Berkhampstead Co-operative Society, Ltd.; business premises, High-street, for Messrs. Brandon & Sons.

Berwick.—The B.S. has been instructed to provide two shelters, one at Greens Harbour, and the other behind the pier on the north side, not to exceed £250 each.——The provision of a new public abattoir was advanced a stage further by the appointment of an architect to prepare plans, specifications and estimates.

Billingham.—The U.D.C. has adopted a recommendation from its Housing Committee to seek permission to erect 50 houses at Haverton-hill and 30 at Billingham.

Bingley.—Plans passed: House, Holyoak-avenue, for Mr. J. W. Ridsdale; three pairs of semi-detached houses, Beck-lane, for Messrs. W. & S. Bradley; nine houses, Oak-avenue, for Messrs. J. H. Clark & Son.

Birkenshaw.—Plans passed: Bungalow, Bradford-road, for Mr. H. Heaton.

Blackburn.—The E.C. appointed a sub-committee to make inquiries as to a site for a senior or central school in the Witton district.

Bolton.—Plans passed by T.C.: Stafford Haslam, four houses, Chorley Old-road; W. Dodgson, two houses, Rydal-road; P. O. Carter, house, Chorley New-road; Mrs. F. J. Baxendale, house, Regent-road; Benj. Hardy, house, Harpers-lane; Leigh Bros., Ltd., six houses, Cloverdale-square; 14 houses, Dudley-avenue, and 14 houses, Abbotsford-road; Hewitt Morris, two houses, New Church-road; E. & S. Street, Ltd., two houses, St. Michael's-avenue; A. S. Woods, 12 houses, Ainslie-road; Bolton Modern Building Co., two houses, Bradford-road; Phillip Moorhouse, bungalow, Chorley Old-road; C. J. Warwick, bungalow, Chorley Old-road; Rev. Father Chronnell, Catholic school, Eastbourne-grove; Chas. T. Adshead, New Bolton School, Chorley New-road; Earl of Bradford, lay-out plan, south side of Green-lane; Lady Beaumont, new road, off Chorley New-road; A. Booth, house, Chorley New-road; J. Archer, bungalow, Withins-lane; Thos. Blakley, six houses, Green-lane; Leigh Bros., Ltd., lay-out plan, Tonge Park Estate; National Provincial Bank of England, Ltd., extension to Bank, Princess-street; Park Mill Spinning Co., Ltd., extension to mill and cooling tower, Gaskell-street.—The Housing and Town-Planning Committee have approved the general outlines of a scheme for the erection of a further 250 municipal houses.——Plans for the erection of another 63 houses, in Astley Bridge, Halliwell, Smith-hills, and Tonge were approved.——A site has been offered the Corporation for the erection of public baths.

Bournemouth.—The Trustees of the Pokesdown Wesleyan Methodist Church are selling their present site and building to secure a new site in Southbourne-road and erect a new church and school at an approximate cost of £12,000. The M. of H. has agreed to a loan of £1,000 for excess expenditure in connection with the Jumpers sewerage scheme. Application is to be made to the Public Works Loan Board for a further instalment of £1,000 in respect of the Mudeford sewerage scheme.

Bridlington.—Plans passed by T.C.: House, Lamplugh-road, by Mr. R. Carson, for Mr. R. Carson; Mr. L. Stewart, house, Flamborough-road, for Mr. W. Witting; Mr. F. Spink, bungalow, St. James's-road, for Mr. T. W. Faulkner; Mr. F. Vaux, nine houses, New Burlington-road, for Mr. F. Usher.

Bromley.—Plans passed by R.D.C.: Mrs. F. E. Chant, store and workshop, "The Alders," West Wickham; Mr. A. J. Johnson, two houses, Hawes-lane, West Wickham; City of London School, sports pavilion with living accommodation, Grove Park-road, Mottingham; Mrs. Wallace, house, corner Longdon Wood-avenue and Croydon-road, Keston; Miss C. Todd, lock-up shop, Main-road, Biggin-hill, Cudham; Mr. W. J. Pocock, bungalow, Mount Pleasant, Cudham; Mr. H. Barber, bungalow, Norheads-lane, Cudham; Bromley B.G., nurses' home, Wellbrook-road, Farnborough; Mr. E. J. Hawkes, bungalow, St. Peter's-road, Orpington.

Burnley.—The M.T. recommend the Corporation to proceed with part of the construction of the proposed new road, from Colne-road to Brunshaw-road, at an estimated cost of £49,500.

Cambridge.—A reversionary bequest, which it is estimated will exceed £75,000, is left to Downing College, Cambridge, by Mr. Sidney Wynn Graystone, of 57, Knightsbridge, S.W. £5,000 is for a chapel; £5,000 for the erection and equipment of a Graystone library, such library to be rather a reading and recreation and smoking room for the use of students; and the balance for further buildings to be called the Graystone Block.

Cardiff.—The directors of the G.W.R. Co. announce important alterations at Cardiff Docks Station. These comprise the provision of a platform 700 ft. long by 30 ft. wide adjoining Bute-street, to be served by two lines, improved signalling, and goods receiving office with sidings. Two mileage and exchange sidings capable of accommodating a total of 176 wagons will replace the accommodation absorbed. It has also been decided to construct a new goods shed at Ely, together with a mileage yard and horse loading bank for racehorse traffic, and two sidings with independent road access.

Carlisle.—The Health Committee has approved plans for the erection of 32 houses in different parts of the city by private enterprise.

Castleford.—Plans passed: House, Smawthorne-lane, for Mr. L. J. Gallagher; new cinema, Church-street, for the Albion Picture Co.——A scheme has been approved for the reconstruction of the Open Market, whereby new conveniences are to be erected and an arcade of shops built.——The sewers in Fulford street and Herbert-street are to be relaid at an estimated cost of £260.

Chester.—It is proposed to construct a "ring road" round the city for heavy motor traffic.——A sub-committee has been formed to consider the provision of a site for a public hall.——It is proposed to acquire sixty acres of meadow land for providing playing fields.

Chorley.—The Council is to proceed with the proposed extensions to the Chorley main sewerage works at Commons Bank, estimated to cost £50,000.

Clitheroe.—The R.D.C. are proposing to acquire the Whalley Water Works, for which their Consulting Engineer is preparing a scheme of improvement.

Derbyshire.—The E.C. has approved of plans for the erection of new schools at Finbern, Shuttlewood, Stonebroom and Dronfield.

Doncaster.—The Corporation are about to start upon a scheme for the improvement of the shopping centre in town. All the shops from Red House and the corner of St. Sepulchre-gate and West Laith gate, extending to the Arcade in St. Sepulchre-gate are to be rebuilt, thus allowing the frontage line to be brought back 40 ft.

Dudley.—Plans passed by T.C.: Mr. J. Ravenhall, house, Northfield-road, Netherton, Dudley; Mr. W. H. Jakeman, shop and house, corner of Churchfield-street, and Furnace-row, Dudley; Mr. L. Smith, house, Oakham-road, Dudley; Mr. F. Law, house and shop, Adshead-road, Dudley.

Dukinfield.—Details of the proposed housing scheme on land off Birch-lane have been forwarded to the M.H. for sanction.

Eastleigh.—The U.D.C. proposes to extend its offices at a cost of about £12,000.

Edeyrnion.—Extensive works are to be carried out at the Cynwud Waterworks, estimated to cost £1,500. Operations are to be commenced at once.——The new waterworks at Carrog are also to be proceeded with.

Edinburgh.—Warrants granted by Dean of Guild Court: Elder & Wilson, 15 bungalows at Wardie; David Jamieson, house at Lanark-road, Colinton; Kirk-Session of Colinton Parish Church, church hall and office at Dreghorn Loan, Colinton; Henry Cairns, to erect bungalow at Allermuir-road, Colinton; James Fleming & Co., Ltd., factory, &c., at 19, Albert-street, Leith; Thomas Dunbar, coach-house and garages at East Trinity-road; A. B. Fleming & Co., stores at Caroline Park, Granton; St. Cuthbert's Co-operative Store, ovens and reinforced concrete floors and slab doorways at bakeries at High Riggs, Fountain Bridge.

Eye.—The T.C. has before it a scheme for the conversion of the old workhouse buildings into dwellings. Mr. H. Hooper, architect, Ipswich, is reporting on the matter.

Foleshill.—The R.D.C. has approved of the following subsidies: Coventry Colliery, Industrial Housing Co., Ltd., 34 houses; C. Smith, Exhall, 2; Coventry Colliery Industrial Housing Co., Ltd., 70; W. Leyland, Coventry, 1; H. Smith, Collycroft, 2; and Messrs. Pearson and Burden, 2.

Garstang.—A drainage scheme is to be prepared, to include water courses which affect parts of Pilling, Out Rawcliffe, Nateby, Winmarleigh, and Stalmine. The scheme is to be submitted to the County Dr Committee.

Gateshead.—The T.C. has approved of a si plantation at the Carr-hill housing estate f erection of a proposed electricity sub-station County of Durham Electric Power Distributio

Glamorganshire.—The Pontardawe U.D.C put in hand as early as possible the following wo Laying of storm-water drain system at Grai Trebanos; God'regraig building site, develo of roads: Ystalyfera, development of roads Beulah, Cwmtwrch, widening of roads; road ing at Cilybebyll; road widening at Alltwe construction of an approach road to the se farm at Cwmtawe and the laying of storm drains at Rhydyfro.——The Pontypridd U.D expend £4,300 on repairs to school buildin painting of buildings.——Neath T.C. has r Ministry sanction to erect a further fifty house Council will also expend £300 on erection additional ante-room and building repairs Gwyn Hall Art Gallery.——The Caerphilly has decided to improve the Senghenydd-r an estimated cost of £5,000.——The Merthy proposes to proceed with road and bridge estimated to cost £15,850.——The Nelson Committee has requested the Caerphilly U.D hand over the public park for developments un Welfare scheme.

Gleneagles.—A start has been made with t building scheme at Gleneagles; and Mr. W. G. builder, Auchterarder, has secured the contract mason work of the first seven houses. Mr. Jame F.R.I.B.A., Glasgow, is the architect.

Goodmayes (Essex).—There is now a sch extending the Church Hall at All Saints' Ch an estimated cost of £3,000.

Great Yarmouth.—A new municipal scheme is being prepared under which an es North Denes will be developed at a cost of £2

Greystones.—Plans, specifications and estin improving the water supply to the Greystones have been approved by the Rathdown No. 2 D

Grimsby.—The T.C. are seeking applicat sanction to borrow £26,100 for the erection of 5 at Nunsthorpe.

Hackthorpe (West Ward).—Plans hav approved for a villa at Nolan Bank, Patterdale, Hadfield.

Hampshire.—West Hants Water Co. is r further £11,500 for the extension of plant and r

Haslingden.—The M.H. have sanction erection of twenty houses on the Rising Bridge and agrees to the T.C. obtaining tenders.

Hemsworth.—The South Kirkby and He Miners' Joint Committee have asked the for the gift of a piece of land at Bullinshaw Fa which the miners propose to build a hospit funds provided by the Miners' Welfare Sche

Hendon.—The Middlesex C.C. proposes pu the offices of the Aircraft Manufacturing Co. at bury for conversion to a secondary school.

Heston and Isleworth.—Plans passed by Messrs. Hoskins & May, two houses, St. St road; Mr. G. J. Biggs, house and shop, Whitt Mr. Arthur A. Snelling, two houses, Jersey-roa T. Chapman, four houses, Clare-road; Mr. H. two houses, Jersey-road; Mr. Gordon Al New Heston; Mr. A. Lionel Lang, el Borough-road and College-road; Messrs. D Son, Ltd., two houses, Hanworth-passage; M Hodges, house, St. Mary's-crescent; Messrs. Co., two houses, Wood-lane; Mr. A. L. La Wesleyan Church, Twickenham-road; Messrs Son & Chapman, house, Heston-road; Messrs Son & Chapman, two houses, Alexandra-road; P. Chase Gardener & Co., two houses, Th avenue.

Ilford.—Plans passed by U.D.C.: T. S bungalow, "Daydawn," Barley-lane; Harbe two houses, 7–8, Mandeville-gardens, Breamo H. G. Needham, three houses, 32–36, Wards-ro Milbourne & Co., four houses, 96–102, The D Partridge, house and garage, 573, Green-la Butcher, four houses, 1–7, Hatch-lane (avenue); F. Abbott, bungalow, "North C New North-road; Ullyett & Co., lock-up shop lane; L.C.C., two shops and dwellings, Bennetts Castle-lane; F. G. Faunch, five hou Ethelbert-gardens; F. G. Faunch, two hou Kingsville-gardens, Eastern-avenue; H. G. N two houses, 70–72, Wards-road East; S Development Syndicate, house, 281, Kingst W. H. Knox, two houses, 28–30, Parkway Knox, seven houses, 1–5 and 2–8, Westrow E. Meredith, two houses, 29–31, Broomhill-ro

Ilkeston.—Plans passed by T.C.: Pair o Wade-avenue, for Mr. A. Beard; villa, King avenue, for Mr. B. Simpson; house, Scar avenue, for Mr. S. Gregory; house, Sudbur for Mr. J. Burrows.

Kendal.—Plans passed by T.C.: Two Ford-terrace, for Mr. H. Walker and Mrs. Hu two cottages, Aikrigg-avenue, for Mr. Richar son; house, Oxenholme-road, for Mr. C. H cottage, Horncop-lane, for Mr. Harry A new works on Shap-road, for Messrs. Isaac Bi & Son, Ltd. (architect, Mr. H. E. Scarborough.

Kesteven.—The C.C. propose to repair the the Great North-road within their area at an cost of £67,819.

Leeds.—It is proposed to improve th Accommodation at Canal Gardens, Roundh estimated cost of £2,000.——The Electric of the Corporation are inviting tenders for th of two sub-stations, one Moor Allerton Ha the other Buslingthorpe-lane.

Limehurst.—The D.C. are proposing t permanent bridge over the River Medlock, Nook, and have asked the C.C. to make a grar the cost.

Lindsey.—The C.C. has agreed to borro for the following purposes: Repairs to Sa Branston; purchase of land at Crosby, for th

* See also our List of Contracts, Competitions, etc.

...ecting a new elementary school; reconstruction ...outh and Hainton main road, and for other main ... improvements.

...VERPOOL.—The Health Committee is offering to ...Libraries Committee a piece of land at the corner ...Rose-lane and Allerton-road for the erection of ...iblic library, and the E.C. intends to seek the ...tion of the M.H. to the appropriation of the ...ngwood site allocated by the Housing Committee ...the erection of an elementary school.

...ANDUDNO.—Mr. H. Higginbottom is proposing ...rect 22 houses at Craig-y-don.

...OCHGELLY.—The T.C. has adopted a scheme to ...rove the water service at a cost of £20,780.

...ONDON EALING.—The Middlesex E.C. has been ...orised to obtain the necessary furniture and fittings ...the proposed Secondary School for Girls, at an ...nated cost of £1,660.

...NG ASHTON.—The architect to the R.D.C. has ... instructed to prepare plans for the erection of ...six houses.

...ACHERNLLEY.—Extensions are to be carried out ...he Railtgoed quarries by Messrs. Hall, Harber & ...rne, and a scheme for the erection of from 50 to 60 ...es is under consideration.

...ALTON.—The U.D.C. has received plans and ...ns from the North Riding C.C. of the proposed ...path to be built on the west side of County Bridge.

...ANCHESTER.—Messrs. S. & K. Sambrook & Son. ...sail, are erecting houses at Scholes-lane, Prestwich. ...Messrs. Arthur Bradshaw, Ltd., Prestwich, are ...eloping an estate at Whitefield, for the erection of ...es: Mr. J. E. Armstrong, Broughton, is erecting ...es at Sedgley-park, for Mr. Buckley; Messrs. ...H. Brown & Son, Stretford, are erecting 8 shops ...houses in Talbot-road and Gorse-lane, Old Trafford; ...F. E. Drury, architect, Pendleton, has prepared ...s for 26 houses at North-avenue and Kendall-...t, Crumpsall, for Mr. A. Redford; Mr. A. McDonald, ...itect, has prepared plans for alterations to premises, ...Rochdale-road and Angle-street, for Messrs. W. ...ns & Co.: Mr. H. V. Dyson, architect, Bridge-...et, Manchester, has prepared plans for 12 houses, ...gsight, for Messrs. Woolfenden & Saunders; Mr. ...Nowe, Sidney-street, is erecting several large shops ...a site in Dickinson-road, Rusholme.

...ANSFIELD.—The M.H. has given permission to ...T.C. to erect a further 72 houses.

...IDDLESBROUGH.—The Corporation Plans Com-...tee have approved of plans for 51 houses and seven ...galows, which are to be erected in the North ...bby neighbourhood.

...ONMOUTHSHIRE.—Estimates presented to the ...egar U.D.C. include the following works: Erection ...rmary, £200; painting of Bedwellty House and ...cent buildings, £340; repairs to cemetery walls. ...; public convenience erection at Tredegar Station, ...; street improvements, £5,450; and construction ...wmrhos culvert, £1,000.——The Bedwellty U.D.C. ...oses to extend the Council offices at Aberbargoed ...estimated cost of £1,200.

...ORECAMBE.—The Corporation are proposing making ...promenade one uniform width of 175 ft., with sea ...s and marine lakes, &c., on the foreshore, estimated ...ost £120,000.

...EWCASTLE-ON-TYNE.—The Improvements Com-...ee have passed plans for a Jewish Synagogue in ...ensworth-terrace, Westgate-road. Mr. M. K. ...s, 20, Saville-row, Newcastle, is the architect.

...WHAM.—It has been decided to entirely recon-...t and enlarge the public convenience at Market ...e, at an estimated cost of £4,000.——Members of ...Manchester-street Wesleyan Church are raising ...s for proposed extensions and beautifying the ...ch.

...ICL.—The M.T. has decided to increase its grant ...rds the cost of the Mousehole-Newlyn Cliff-road ...me to 60 per cent., and the Cornwall C.C. has ...ed to contribute £1,092. The revised estimate ...the work amounts to £9,000. The U.D.C. is to ...the contract.

...EMBROKESHIRE.—The M.T. has requested to be ...med whether or not the St. Dogmael's Council ...proceed with the Temple Bar road diversion. ...the Council meeting it was stated that Ministry ...would amount to £24,000.——The B.E. has ...ested that the C.E. authority should proceed with ...ing schemes as follows:—New school (central), ...d: Haverfordwest Grammar School, new ...s laboratory: Haverfordwest, erection of new ...al school: new school at Hubberston.

...YMOUTH.—Plans have been prepared for the erec-...upon a suitable site of a boxing stadium.

...OOLE.—The B.C. has been informed by the M.H. ...it is prepared to grant 65 per cent. of the cost of a ...bridge. The Engineer's estimate of cost is £50,000 ...the Council is recommended to prepare the neces-...plans and estimates, and invite tenders for the ... Amongst other proposals before the Council are ...provision of a public abattoir and a recreation ...d at Hamworthy.

...RESTON.—In connection with the scheme for open-...g the land for building purposes between French ...Recreation Ground and Walton Bridge, the B.C. ...posing acquisition of land for improvement of ...iver side, for the provision of a boulevard, and ...d carriage-way (80 ft. wide).——Plans have been ...ed for the erection of dressing pavilions at the ...w open-air plunge baths at Ribbleton and Haslam ...

...SEY.—Plans passed: House, Heath-grove, for ... Firth: house, Scott-hill, for Mr. C. Armitage: ... off Greenside, for Mr. B. Wade.

...CAR.—The T.C. have decided to acquire a site ...dy-lane, from Messrs. Dorman, Long & Co., Ltd.. ...ing sewers. It is suitable for about 60 working-...houses, and the M.H. is to be asked for a grant ...is the erection of these.

...FL.—The County E.C. are considering provision ...gymnasium at the County Intermediate School.

...DALE.—The Housing Committee decided to ...mend the Council to increase from 20 to 50 the ...er of houses to be built.——Plans passed: Nathan Spencer, nine houses, Oldham-road; nine houses, Shaw-road, and four houses, Ash-grove.

ROCHFORD.—A M.H. enquiry has been held into the application of the R.D.C. to borrow £13,946 for sewering the parish of Hadleigh.

ROTHWELL (YORKS).—Plans passed: An electricity sub-station, at Robin Hood, for Messrs. J. & J. Charlesworth & Son, Ltd.; two houses, Churchfields, for Messrs. Moss & Smith; two lock-up shops, for Mr. W. Seanor; house, for Mr. T. A. Idle; house, for Mr. A. Goodison, at Lee Moor.——The Council are urging the West Riding C.C. to provide an Infants' School at Rothwell Haigh.——Plans were approved by Council for extensions to the sewage works at Lemonroyd.

ROYTON.—The Higher E.C. forwarded a resolution to the County authorities, pointing out the desirability of a secondary school for the area of Crompton and Royton.

SAFFRON WALDEN.—Plans passed by T.C.: Six houses in Thaxted-road, for Mr. W. Housden; six houses in Thaxted-road, for Mr. C. R. Downham; six bungalows in Victoria-gardens, for Messrs. Wm. Bell & Sons; and a bungalow in Victoria-avenue, for Mr. H. L. Pountney.

SCARBOROUGH.—Plans passed: Bank premises, for Yorkshire Penny Bank, by Messrs. Chorley & Gribbon, architects.

SHEFFIELD.—The Sheffield Catholics are erecting at Osgathorpe a new secondary school. The architect for the scheme is Mr. J. F. Whitehead, of Sheffield.

SOUTHAMPTON.—The T.C. has been recommended by its E.C. to purchase a portion of the Deanery site for the erection of new schools, at a cost of £6,000.—The Corporation Water Engineer has brought forward an important scheme for extending the Otterbourne pumping station, at an estimated cost of £165,000. The Water Committee recommends the T.C. to carry out the scheme, conditionally on Government assistance being obtained.

SOUTHPORT.—The B.S. has been instructed to obtain tenders for 50 additional houses.

SOUTH STONEHAM.—The B.C. has applied for M.H. sanction to the extension of the cemetery.

SPALDING.—The U.D.C. has agreed provisionally to a sewage scheme prepared by Mr. Franklin Murphy, engineer, estimated to cost £68,000.

STAINFORTH (YORKS.).—A new Wesleyan Church mission hall is to be erected. The estimated cost is £9,000.

STOCKTON-ON-TEES.—Plans passed by U.D.C.: House and two shops, Gray's-road, for Mr. J. Pollock.

STOKESLEY.—Plan passed by R.D.C.: Farmhouse, East Rouston, for Sir Hugh Bell.

SUNDERLAND.—The E.C. propose to erect a central school at Monkwearmouth, on the site of the Workmen's Hall.

SUTTON COLDFIELD.—Plans passed by T.C.: Three pairs of houses, College-road, for Messrs. Jackson & Insley; house, Greenhill-road, for Mr. Cowley; house, Goldieslie-road, for Messrs. A. Francis, Ltd.; house, Green-lanes, for Mr. S. R. Nixon; house, Hollyfield-road, for Mr. G. McCormack; pair of houses, Jockey-road, for Messrs. Salt Bros.; house, Jockey-road, for Mr. Armstrong Cowsill; bungalow, Jockey-road, for Mrs. B. Barrow; house, Ladywood-road, for Mrs. E. M. Hollingsworth; house, Penns-lane, for Mr. C. E. Dodd; house, Penns-lane, for Mrs. Bogle; bungalow, Whitehouse Common-road, for Mr. F. Pearce.

SWINTON (YORKS).—The M.H. has sanctioned the erection of a further fifty houses by the Council.

THIRSK.—Plans are before the justices of a new cinema theatre, for the Regent Theatre Co.

THORNE.—A conference has taken place between representatives of the R.D.C. and the West Riding C.C. with a view of the provision of a new swing bridge.

THURNSCOE.—The U.D.C. are to construct a concrete reservoir. Messrs. W. H. Radford & Son, of Nottingham, are the Council's engineers.

WALLASEY.—Plans passed by T.C.:—Tennis pavilion, Kingsway Lawn Tennis Club; six houses and garages, Rullerton-road, for Messrs. Evans & Williams; 35 houses, Fox Hey-road, and a new road, for Mr. G. A. Lindley; garage, 71, Penkett-road, for Mr. A. Slater; four houses and garage, at "Wirral Mount," off Claremount-road, for Mr. J. W. Bradshaw; four combined shops and houses, Poulton-road, for Mr. R. W. Rowlands; garage, 3?, Seaview-road, for Mr. F. Foster; house, Groveland-road, for Mr. G. A. Lindley; 12 houses, Stourcliffe-road, for Messrs. Chelmick Bros.; two houses, Bellfield-crescent, for Messrs. Horrocks Bros.; two houses, Belgrave-street, for Mr. T. Shallcross; house and garage, Thirlmere-street, for Mr. W. Shaw; two houses, St. George's Park, for Messrs. Tate, Pumford & Doughty.

WEST THURROCK.—A great new industrial centre and port, with a deep-water wharf a mile long, is planned for West Thurrock, 18 miles from London. It is estimated that the cost of the wharf alone will be £1,201,000 and £267,000 will be spent on a railway. Plans have been formulated by the Thames Land Company, Ltd., a subsidiary of S. Pearson & Son, Ltd.

WIMBORNE.—The U.D.C. has had under consideration an offer by W. J. Ayles, Ltd., of Ringwood, to build 40 concrete houses on the Leigh Park land, on certain conditions. The proposal was approved by the Estates Committee.—An old mill at Wastford has been purchased as Scouts' Headquarters, and is to be converted into a gymnasium hall.

TYRONE.—The Ministry of Home Affairs (Northern Ireland) has held an inquiry into the application of the County authorities for loans aggregating £45,000 for the improvement of local Class A roads.

WOOLSTON.—A proposal, which has been referred to the General Purposes Committee, is for the extension of the existing, or building of a new Free Library.

FIRE.

BRADFORD.—Damage to the extent of many thousands of pounds was caused by a fire which burned out mills at Thornton, occupied by Messrs. Priestleys, Ltd., and Messrs. Mark Dawson & Sons.

MR WHEATLEY ON HOUSING.

DURING the discussion on the second reading of the Consolidated Fund Bill, Mr. N. Chamberlain raised the question of housing, and asked the Minister of Health what progress had been made under the 1923 Act. He also urged that the Government should encourage tenants to buy their houses.

Mr. Wheatley, in reply, said that in regard to the adequacy of the subsidy no general complaints had been received with regard to it. But there had been strong complaints from rural districts, and in that part of the country most affected by bad housing conditions—Scotland—the Act had been practically a dead letter, and had contributed nothing to the solution of the housing problem. If the Scottish authorities had not complained it was because they had come to the conclusion that no useful purpose could be secured by doing so. With regard to the forms of assistance granted, out of a total of 41,060 houses, 40,141 had the lump-sum subsidy, 721 received assistance by payment to people who paid the rates, and in 198 cases assistance was given to building societies. In the case of public utility societies, schemes had been authorised in respect of 5,681 houses. Contracts had been let for 3,601 of these, and 529 of the houses had been completed. Loans had been sanctioned to local authorities under Section 5 of the Act in 104 cases, for a total sum of £1,320,429, and under the Small Dwellings Acquisition Act in 81 cases involving £1,469,000. No proposals for the conversion of flats into small dwellings had been received by the Ministry of Health. On the general question he said he quite understood Mr. Chamberlain's anxiety about the 1923 Act. After all, it was his child, and if it had been a somewhat erring child it was loved none the less by the gentleman who brought it into existence. He had tended it with the care that one might reasonably expect from a foster father, but even all his loving attention had not been successful in making it an efficient instrument for the solution of the housing problem. The Ministry of Health, under the Act, had given authorisation to the local authorities for 40,198 houses and to private enterprise for 76,927 houses, a total of 117,125 houses. For these contracts had been let to the number of 66,698, or just about half the number for which authorisation had been granted. There were under construction at the beginning of March 23,498 houses, and there had been actually completed 6,148 houses. There was no indication of the "damping down" of the enthusiasm of local authorities by the Labour Government. He denied that Labour's housing policy was directed to the destruction of private enterprise. Labour did not propose to interfere with private enterprise either in the building of houses or in the manufacturing of building material. Labour only touched private enterprise at one point, and that was in the investment of private capital in the ownership of these rented houses. The Labour Party's housing programme was not a Socialist programme at all. He wished it were. "I wish," he exclaimed, "this country were ready to receive a Socialist programme, and we would show you how much easier it is to solve the housing problem along those lines than in trying to patch up the capitalist system, of which you yourselves have made such a mess!" There was a shortage of men and material, due to the continued instability of the building industry. That was the root cause of the shortage of houses. He hoped that within a week or two he would get from the building industry itself a plan by which—if the House was prepared to confirm the suggestions which he would put before them—the housing problem in this country would be solved within a comparatively short period. He added that he should be delighted when the workers of the country were in a position to own their own houses.

PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose ..	9 10 0
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick:—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
Headers.....	21 10 0	Two Sides and one End	32 10 0
Quoins. Bull-nose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand.....	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „	15 0	„ „
¾ in. Broken Brick.....	10 6	„ „
Pan Breeze	5 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6 51/– alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above.....	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White.....	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime.....	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube.....	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube.....	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R.; and Westbourne Park, Paddington, G.W.R., per ft. cube.....	4 4
Do. do. delivered on road wagons at above stations, per ft. cube.....	4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.
Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/–
Random blocks from 10 ft. and over „	17/–
Sawn two sides „	27/–
Sawn three or four sides „	32/–

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.).....Per Ft. Super	5 3
6 in. rubbed two sides, ditto..... „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... „	1 5½
1½ in. to 2 in. ditto, ditto ..... „	1 3

HARD YORK—
Delivered at any Goods Station London.

Scappled random blocks.....Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.).....Per Ft. Super	5 4½
6 in. rubbed two sides ditto ..... „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags..Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain ..... per ft. cube	6 6
Moulded ..... „ „	7 9
Cills ..... „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	32 0	3 × 11	31 0
4 × 8	27 0	2 × 11	32 0
4 × 7	27 0	3 × 9	30 0
3 × 8	25 10	2½ × 9	30 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	25 0	3 × 4	25 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£36 0	1 × 9	£34 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/–	1½	33/6
⅞	23/–	1¾	38/6
1	26/–		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/–
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
¾	17/6
⅞	21/–
1	26/–

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle			0 2 9
Dry Wainscot Oak, per ft. super, as inch	0 2 0	to	0 2 6
¾ in. do. do.	0 1 6	to	0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9	to	0 2 6
Cuba Mahogany	0 3 0	to	0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0	to	50 0 0
American Whitewood planks, per ft. cube ..	0 14 0	to	0 16 0
Best Scotch Glue, per cwt.	4 10 0	to	—
Liquid Glue, per cwt. ..	4 7 0	to	5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12.....	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11.....	31 5 0	16 by 10	17 12 6
20 by 12.....	29 15 0	16 by 8	13 15 0
20 by 10.....	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in...	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.....	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.....	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.....	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.....	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.....	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.....	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars.....	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
„ Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g...	15 0 0	..	16 0 0
„ „ „ 24 g...	16 0 0	..	17 0 0
„ „ „ 26 g...	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0 0
Sheets Galvanised Flat. Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/6 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	46 10 0
Pipe in coils	47 0 0
Soil Pipe	50 0 0
Compo pipe.....	53 0 0

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 1 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	33 10 0	..	—
Do., ex country, carriage forward ..... per ton	34 10 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/–	45/–	76/–	153/–	246/–	510/– per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/–	92/–	174/–	300/–	588/– per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/–	23/–	30/–	42/– per doz

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/–	29/–	36/–	63/– per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/–	56/–	98/–	162/–	228/– per doz

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	2 in.	3 in.	
8 lbs. P. traps ..	33/–	41/–	56/–	101/– per doz
8 lbs. S. traps ..	35/–	45/–	66/–	126/– „

COPPER—	£ s. d.
Strong Sheet ....per lb.	0 2 3 .. —
Thin „ .... „	0 2 4 .. —
Copper nails .... „	0 2 3 .. —
Copper wire .... „	0 2 1 .. —
TIN—English Ingots „	0 2 10 .. —
SOLDER—Plumbers' „	0 1 3 .. —
Tinmen's ..... „	0 1 5 .. —
Blowpipe ..... „	0 1 7 .. —

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes .....per gallon	0 3
„ „ „ in barrels .... „	0 3
„ „ „ in drums .... „	0 4
Boiled „ „ in barrels .... „	0 4
„ „ „ in drums .... „	0 4
Turpentine in barrels ..... „	0 6
„ in drums (10 gall.) .. „	0 7
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	60 5

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms" "Park." "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots per ton delivered 83 15

Red Lead, Dry (packages extra)....per ton	54 10
Best Linseed Oil Putty.....per cwt.	0 16
Filocol .....per cwt.	0 15
Size. XD Quality.....fkn.	0 3

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

S CURRENT OF MATERIALS (*contd.*)

GLASS.

H SHEET GLASS IN CRATES OF STOCK AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
urths....	3½d.	32 oz. fourths	8½d.
irds	4½d.	32 „ thirds	10½d.
urths ..	5d.	Obscured Sheet, 15 oz.	4d.
irds	6½d.	„ „ 21 „	5½d.
urths ..	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
irds	7½d.	En'lled 15oz. 5½d., 21oz. 7½d.	

ice according to size and substance for squares stock.

H ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft

d plate	4½d.
h rolled	5½d.
h rolled	5½d.
ed Rolled, Oxford Rolled, Baltic, Oceanic, retic, Stippolyte, and small and large	
emish white	6½d.
Ditto, tinted	9d.
d Sheet	6d.
e Rolled Cathedral	5½d.
d do.	7½d.

ast Plate is same price as rough rolled.

VARNISHES, &c.		Per gallon. £ s. d.
nish	Outside	0 14 0
to	ditto	0 16 0
al	ditto	0 18 0
al	ditto	1 0 0
al Carriage	ditto	1 4 0
to	ditto	1 12 0
rnish	Inside	0 18 0
e Paper	ditto	0 18 0
al Cabinet	ditto	1 2 6
al Flatting	ditto	1 0 6
ying Oak	ditto	0 18 0
rd Drying Oak	ditto	0 19 0
al Varnish	ditto	1 0 0
itto	ditto	1 2 0
itto	ditto	1 12 0
an Gold Size		0 12 0
ck Japan		0 12 0
Mahogany Stain (water)		0 12 0
ck Back		0 9 0
lack		0 14 6
(patent)		1 5 0
nd Brush Polish		0 17 0
ryers in Terebine		0 9 0
lack Enamel		0 7 0

NEW COMPANIES.

particulars quoted below have been d by Messrs. Jordan & Sons, Ltd., y Registration Agents, of 116 & 117, y-lane, W.C.2, from the documents e at the Companies' Registry.

. Blood, Ltd. (194,919). Registered 7. Garendon-road, Shepshed, Lough- . Builder and contractor, now carried hepshed, Leicester, under the style of Blood. Nominal capital, £4,000.

nd Housing, Ltd. (195,251). Regis- nuary 23. Cromwell Works, Earlsdon- Coventry. Builders and contractors, ominal capital, £3,000.

R. Cooke, Ltd. (195,280). Registered 24. Broughton Astley, near Leicester. and contractor, plumber and decorator, re carried on by John Robert Cooke, at on Astley, Leicester. Nominal capital,

E, Ltd. (195,268). Registered January , High-street, Uxbridge, Middlesex. hase patents and in particular a secret for the manufacture and laying of a mposition for floors, doors, walls, &c. capital, £10,000.

Wheater (London), Ltd. (195,292). d January 24. Contractors, builders, inal capital, £5,000.

on (London 1924), Ltd. (195,338). d January 26. Builders and decora- minal capital, £500.

rete Co., Ltd. (195,300). Registered 25. The Factory, Broadlands-road, Park, Southampton. Breeze and lock and tile manufacturers. Nominal 3,000.

ry Park Estate, Ltd. (195,352). 1 January 28. 49, Deansgate, Man- Nominal capital, £11,000.

V. J. Saunders, Ltd. (195,462). February 1. The Poltimore Brick hoe, Devon. Brick and tile manu- manufacturers and dealers in building Nominal capital, £24,000.

THE SCOTTISH BUILDER

Forres.—Houses.—Tenders for the erection of houses under the Edward housing scheme were considered by the T.C.

Greenock.—Houses.—The Corporation submitted tenders recently to the B.H. for the erection of 150 houses, to be erected on the Cowdenknowes site. The estimated cost is £66,656.

Yoker.—Houses.—Application was made to the Renfrewshire C.C. to borrow £24,500 for the erection of the 60 houses at Yoker-road.

Renfrew.—Housing.—The H.C. of the T.C. has been instructed to prepare a new housing scheme.

Edinburgh.—Crematorium.—The Corporation Housing and Town Planning Committee considered a motion to utilise the Calton Prison for houses, and it was remitted to the medical officer of health and the burgh engineer to prepare reports. The T.C. is considering a proposal to provide a municipal crematorium. The Dean of Guild Court has passed the following plans:—Bungalows at Alnwickhill-road, Liberton, and Saughtonhall-drive; two villas at Luggon-road; two villas at Lanark-road, Kingsknowe.

North Berwick.—Hall.—The T.C. is proposing to erect a public hall for the burgh, and plans are being prepared for a building to cost not more than £10,000.

Giffnock.—Various.—The Upper District of Renfrewshire Buildings Committee has passed the following plans:—Villa at Langtree-avenue, Giffnock South, for the Glasgow & South Suburban Building Co.; power station at Clarkston, for Clyde Valley Electric Power Co., Ltd., 53, Bothwell-street, Glasgow; villa at King's-road, Auchenlodgment, for James Y. Keanie, Ltd.; cottage at Cochrane Mill, for Mrs. Kirk, Milliken Park; bungalow at Otterbourn-drive, Giffnock; four houses, joiner's shop and offices, and two shops at Kilmarnock-road, Giffnock, for McFarlane & Co., builders, Giffnock; double bungalow, at Tremaine-avenue, Giffnock South, for J. Gibson & Co., Glasgow; and church at Berryknowe-road, Cardonald, for the trustees of the Cardonald U.F. Church.

Dalkeith.—Cottage.—Plans have been passed for a double cottage on Bonnyrigg-road, for Mr. G. Swan Rollo, 2, Lothian-road, Eskbank, Dalkeith.

No Date.—**Fraserburgh.**—Additions.—Additions and repairs to Old Free Church in School-street, Fraserburgh. Mr. J. T. Munro, architect, 62, Academy-street, Inverness.

Theatre Royal, Glasgow.

At the annual meeting of the shareholders it was proposed that several thousand pounds should be spent on structural improvements at the Theatre Royal, Glasgow. It was stated that although a magnificent theatre—one of the finest interiors that could be found anywhere, with perfect acoustics—on the outside it was a hideous excrescence on the street, which necessitated extensive improvements.

International Town-Planning Conference in Holland.

An International Town-Planning Conference is to be held at Amsterdam, from July 2 to 9, 1924. The Conference is being organised by the Federation and the Dutch Housing and Town-Planning Institute, and will be presided over by Mr. Ebenezer Howard. The principal subjects for discussion will be: (*a*) Regional Planning in Relation to Large Cities; and (*b*) Parks, Park Systems and Recreation. There will be a specially selected International Exhibition of plans, pictures and drawings, dealing with the subjects discussed at the Conference. Further particulars may be obtained from the Organising Secretary of the International Garden Cities and Town-Planning Federation, 3 Gray's Inn-place, W.C. 1.

BUILDING TRADE WAGES IN SCOTLAND.*

The following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2¾	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2¾	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2¾	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7½	1/6½	1/7½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2¾	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2¾	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2¾	
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1 0	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2¾	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2¾	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 558.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	" "	5	9	
Do. roofs, floors and partitions	" "	6	3	
Do. trusses	" "	8	3	
		¾"	1"	1¼"	2"
Deal rough close boarding per sq.		38/-	44/-	50/-	80/-
Flat centering for concrete floor, including struts or hangers	"	s. 50	d. 0		
Do. to beams	per ft. sup.	1	0		
Centres for arches	"	1	6		
Gutter boards and bearers	"	1	0		

FLOORING.	¾"	1"	1¼"	1½"
Deal-edges shot per sq.		49/-	58/-	67/-
Do. tongued and grooved "		54/-	65/-	72/-
Do. matchings "	45/-	55/-		
Moulded skirting, including backings and grounds per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.	1¼"	1¾"	2"
Two-panel square framed per ft. sup.	2/1	2/4	2/6
Four-panel Do. "	2/5	2/8	2/11
Two-panel moulded both sides "	2/8	2/11	3/2
Four-panel Do. Do. "	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		1"	1¼"
Deal wrot moulded and rebated	per foot cube		
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

Housings for steps and risers	each
Deal balusters, 1 in. × 1¼ in.	per ft. run.
Mahogany handrail; average 3 in. × 3 in.	" "
Add if ramped	" "
Add if wreathed	" "

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

Rolled steel joists	per cwt.
Plain compound girders	"
Do. stanchions	"
In roof work	"

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

Milled lead and laying in flashings and gutters	per cwt.
Do. Do. in flats	"
Extra labour and solder in coated cesspools	each
Welt joint	per ft run.
Soldered seam	" "
Copper nailing	" "

	½"	¾"	1"	1½"	2"
Drawn lead waste per ft. run	1/2	1/11	2/2	3/10	4/7
Do. service "	1/10	2/5	2/10	4/3	
Do. soil "					3/3
Bends in lead pipe each					
Soldered stop ends "	1/2	1/8	2/1	2/10	3/6
Red lead joints "	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints "	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws "				14/7	19/6
Bib cocks and joints "	6/4	9/7	15/4	41/-	
Stop cocks and joints "	15/4	17/2	25/8	64/-	

PLASTERER.

Render, float and set in lime and hair	per yard sup.
Do. Do. Sirapite	" "
Do. Do. Keen's	" "
Add sawn lathing	" "
Add metal lathing	" "
Portland cement screed	" "
Do. plain face	" "
Mouldings in plaster	per 1 girth
One-and-a-half granolithic pavings	per yard sup.

GLAZIER.

21 oz. sheet plain	per foot sup.
26 oz. Do.	" "
Obscured sheet	" "
⅛ in. rolled plate	" "
¼ in. rough rolled or cast plate	" "
¼ in. wired cast plate	" "

PAINTER.

Preparing and distempering, 2 coats	per yard sup.
Knotting and priming	" "
Plain painting 1 coat	" "
Do. 2 coats	" "
Do. 3 coats	" "
Do. 4 coats	" "
Graining	" "
Varnishing twice	" "
Sizing	" "
Flatting	" "
Enamel	" "
Wax polishing	per foot sup.
French polishing	" "
Preparing for and hanging paper	per piece 2/

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment char percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whol

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TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

† Denotes *accepted*. † Denotes *provisionally accepted*.
Denotes *recommended for acceptance*.
Denotes *accepted subject to modifications*.

ABERDEEN.—For the removal of graving dock at the harbour, for the Harbour Board :—
*J. Sangwin & Son, London.... £24,986 2 7

BARKING.—For erection of about 50 parlour and 3-bedroom type houses, Eastbury Estate, for the U.D.C. Mr. C. J. Dawson, Architect, Clock House Chambers, East-street, Barking :—
E. H. Glenny & Son, Barking.... £25,697 10

BELPER.—For laying about 280 lin. yds. of 9 in. glazed sanitary pipe sewer, Smith, Houses, for the R.D.C. Mr. R. C. Cordon, Surveyor, Duffield, near Derby :—
Harris & Hunt, Derby £375 0
Geo. F. Tomlinson, Derby 350 0
John Mallin, West Bromwich 315 13
H. Sewell, Ilkeston 300 0

BRIDGEND.—For rebuilding culvert (7½ miles from Aberperton Station), for the Hereford C.C. Mr. G. H. Cook, County Surveyor, High Town, Hereford :—
H. J. Whittam, Hereford £398 18 0
John Mallin, West Bromwich .. 355 6 9
A. & J. Herbert, Hereford..... 309 14 1
Wood Bros., Hereford..... 268 17 6
*A. E. Farr, London..... 226 12 11

BRIGHTON.—For the erection of a secondary school, for the T.C. :—
*F. & H. Higgs, London £54,457

BRIGHTON.—For supply of materials to the T.C. :—
Bricklayers' plasterers' and masons' materials—
*Saunders, Brighton..... £365 17 8
Painters' and joiners' materials, &c.—
*Saunders 310 6 4
Plumbers' and glaziers' materials, &c.—
*Saunders 346 6 3
Ironmongers' materials, &c.—
*Saunders 136 4 4
Electrical fittings, &c.—
*Adams Bros., Brighton 102 12 9

BRIGHTON.—Construction of w.c.'s at shops at Isecombe, for the T.C. :—
*R. Cook & Sons £193

BRIGHTON.—For the erection of four cottages Hereford-street, for the T.C. :—
G. Lynn & Sons £2,466
T. R. Braybon (trading as T. J. Braybon & Son) 2,392
John Crewdson 2,391
O. P. Drever & Son (Kettering), Ltd. .. 1,996

BRADLEY.—For machine shops, laboratory and boiler extension to the Oil Well Engineering Co., Ltd., Hall-lane. Plans by own Staff :—
Brickwork.—H. Bardsley & Son, Stockport.
Steelwork.—James Allen, senr., & Sons, Ltd., Glasgow.

CHIPPING NORTON.—For providing and laying about yds. of 2 in. wrought-iron galvanised screwed and socketed water pipe and specials on Burford main for the T.C. Mr. R. Stanton, Borough Surveyor, Chipping Norton :—
D. L. Soundy, London £275 16 9
H. Middleton, Newnham 263 19 0
S. Lewis, Chipping Norton..... 235 19 0
T. Burden, Chipping Norton 185 15 6

DONCASTER.—For the erection of 46 houses at Cusworth, for the R.D.C. :—
Firth & Whittington, Doncaster..... £21,422 15 5

DONCASTER.—Extension of water mains at Bessacarr housing site, for the R.D.C. :—
Firth & Whittington £1,373 19

DUNDONALD.—For erection of one-flatted block of four houses at the School site, for the T.C. Mr. Tullett, architect, Elgin, N.B. Quantities by architect :—
Builder—
*George Mair, Findochty.
Carpenter—
*Wm. Hendry, Buckie.
Plumber—
Charles Dickie & Son, Turriff.
Slaters—
& T. Campbell, Buckie.
Plasterer—
James Ingram, Cullen.
Painters—
Duncan & Son, Buckie.

ELSWORTH.—For erection of 50 houses at Whorpe, including the construction of roads and sewers :—
W. Waller, South Elmsall £24,319

FARNWALL.—For erection of Cleaver Sanatorium for the Governors :—
Lees & Hough, Heswall.

FOLEY.—For erection of houses, Atherton, for the U.D.C. Mr. O. P. Abbott, Architect, Council Offices, Hindley :—
John Watson, Ashton-in-Makerfield.

H.M. OFFICE OF WORKS (accepted during February) :—

Building Works : Aberdare P.O., &c.—Stonework : The United Stone Firms, Ltd., Bristol. Abertillery P.O.—Erection : Dawkins, Harris & Weaver, Ltd., Chepstow. Albert Docks Telephone Exchange—Erection : Galbraith Bros., Ltd., London, S.E. Granolithic Paving, &c. : F. Bradford & Co., London, E. Steelwork : Redpath, Brown & Co., Ltd., London, E.C. Bodmin P.O., Sorting Office and sheds—Erection : W. E. Bennett, Bodmin. Catterick Telephone Repeater Station—Erection : John Laing & Son, Ltd., Carlisle. Plumbing and glazing : J. H. Shouksmith & Sons, Ltd., York. Steelwork : P. & W. McLellan, Glasgow. Edinburgh, Murrayfield Telephone Exchange—Erection : James Crowe & Sons, Edinburgh. Gloucester Telephone Repeater Station—Erection : William T. Nicholls, Ltd., Gloucester. Gosforth P.O., &c.—Steelwork : J. Allan, Senr., & Son, Ltd., Glasgow. Greenwich Tar Distillation Building—Erection : John Slade & Son, London, E. Steelwork : The Aston Construction Co., Ltd., London, N. Hackney Employment Exchange—Joinery : Wm. Duncan Tucker & Sons, Ltd., London, N. Holloway Money Order Office—Granolithic Paving : Stuart's Granolithic Co., Ltd., London, W.C. Leafield Wireless Station—Erection of cottages : Alfred Groves & Sons, Milton-under-Wychwood. Lydney P.O.—Joinery : The Gloucester Joinery Co., Gloucester. Mill Hill Telephone Exchange—Asphalt : The Natural Rock Asphalting Co., London, N. New Malden Temporary Telephone Exchange—Erection : W. H. Cooper & Son, London, W. Palmers Green Telephone Exchange—Asphalt : Wm. Salter, Edwards & Co., Ltd., London, W. Portland stone : The Bath & Portland Stone Firms, Bath. Steelwork : Measures Bros. (1911), Ltd., London, S.E. Radcliffe Telephone Exchange—Plastering and painting : O. W. Williams & Co., Manchester. Plumbing : F. Lewtas, Ltd., Manchester. Swansea, Morriston Housing Scheme—Roads and paths : Penderyn Limestone Quarries (Hirwain), Ltd., Bristol.

Painting : George Dobie & Son, Edinburgh ; Guild Housing, Ltd., London, W. ; John Williams (Liverpool), Ltd., Liverpool.

HORNSEY.—For the erection of 100 houses at Muswell-hill, for the B.C. (in substitution of tender previously accepted from another firm for the erection of 152 cottages) :—
*Rowley Bros. £48,115

HUDDERSFIELD.—For erection of house and shop, Station-road. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield :—
Masons—
A. Firth & Son, Shepley.
Joiner—
Frank Gaunt, Huddersfield.
Plumber—
Willie Townend, Huddersfield.
Plasterer and Slater—
W. E. Jowitt, Huddersfield.
Painters—
Haigh & Lawton, Huddersfield.
Concreter—
J. E. Dyson, Huddersfield.

HYTHE.—For the erection of 10 pairs of houses on the Penny Pot housing site, for the T.C. :—
*R. J. Barwick, Dover.

ILFORD.—For the supply of road materials, for the U.D.C. :—
*Wm. Griffiths & Co., Ltd.—Granite : Guernsey 2½ in., 1½ in. and Dust, at schedule prices
*J. Mowlem & Co., Ltd.—Chippings ½ in., at schedule prices
*Constable, Hart & Co., Ltd.—Tarpaving, Tarred Macadam at schedule prices
*G. E. Gray & Co.—Portland Cement at 56s. per ton less 2½ per cent. delivered to depot or any street.
*J. H. Sankey & Son, Ltd.—Lime, Blue Lias and Fire Clay at schedule prices : G. E. Gray & Co.—Grey Lump, Ground and Chalk Lime at schedule prices.

ILFORD.—For construction of sewer in Ilford-lane, for the U.D.C. (substituted tender) :—
*D. T. Jackson £11,601 8 1

INVERURIE.—For reconstruction of bridge, for the Aberdeen County Council, the Inverurie Town Council, and the Garioch District Committee :—
*W. Tawse, Aberdeen £14,983 6 6

KIRKCUDBRIGHT.—Erection of ferro-concrete bridge on the Dee, for the Bridge Committee of the Southern Committee of the Stewartry C.C. and the Kirkcudbright T.C. :—
*John Angus & Sons, Edinburgh £29,150

LANCING.—For additional sewage works, for the Steyning West R.D.C. :—
*Streeter & Co., Godalming £2,415

LIVERPOOL.—For structural alterations to engine bed at Garston transformer station, for the T.C. :—
*J. Henshaw & Sons..... £640

LIVERPOOL.—For construction of coal silo, drainage systems at Lister-drive power station, for the T.C. :—
J. Henshaw & Sons..... £521

LIVERPOOL.—For taking down and rebuilding wall at 53-55, Cornwallis-street, for the T.C. :—
*F. Gaskin & Son..... £219 10

LIVERPOOL.—For erection of concrete engine bed at Lark-lane transformer station, for the T.C. :—
*J. Henshaw & Sons..... £218

LIVERPOOL.—For repairs, decorations, &c., at new Police Remand Home for Children, for the T.C. :—
*Tiffin Bros., Liverpool..... £1,404

LIVERPOOL.—For the erection of a fire station, firemen's dwellings, &c., at Fazakerley, for the T.C. :—
*W. Spencer, Aintree..... £23,500

LONDON.—The Lambeth B.C. has extended the contract for another year for the reinstatement of asphalte paved tenders, viz. :—
*Limmer & Trinidad Asphalte Co.—

	Per yard super.
2-in. compressible asphalt	11s. 6d. plus 20 per cent.
1½-in. compressible asphalt	9s. 3d. plus 20 per cent.
1½-in. mastic asphalt ..	7s. 6d. plus 20 per cent.
1-in. mastic asphalt ..	5s. 6d. plus 20 per cent.

Supply of mastic asphalt, 68s. per ton, plus 25 per cent.

MALTON.—For the erection of a bridge at Barton-le-Willows, for the R.D.C. :—
*G. T. Oldfield, Norton..... £397 7 6

MELTHAM.—For erection of a dwelling-house at Colne and Holme Joint Hospital, for the Committee. Messrs. J. Berry & Sons, Market-place, Huddersfield :—
Masons—
J. Moorhouse & Sons, Huddersfield.
Joiners—
J. Varley & Sons, Huddersfield.
Plumbers—
Kaye & Bradley, Huddersfield.
Plasterers—
J. Wilkinson & Sons, Huddersfield
Painters—
Haigh & Coldwell, Huddersfield.
Slater—
Alfred Bower, Huddersfield.

MIDDLESEX.—For the construction of the section of the new Watford by-pass road, from the county boundary to Mill Hill, for the C.C. :—
*H. Boot & Sons..... £252,726

MIDDLESEX.—For resurfacing roads with tarred macadam in the Uxbridge and Enfield districts, for the Middlesex C.C. :—

	Uxbridge. *Per yd. super.*	Northolt. *Per yd. super.*	Enfield. *Per yd. super.*
	s. d.		*s. d.*
Tarmac, Ltd. ..	5 6	5 6	5 7
*Wm. Shepherd & Son	5 5	5 6	5 7

MIDDLESBROUGH.—For the erection of 27 houses at Marton Grove, for the T.C. :—
*J. F. Bainbridge, Redcar..... £10,037

MIDDLESBROUGH.—For the work in connection with new ferry landing and docks, for the Sanitary and Ferry Committees :—
*W. & J. Sykes, Middlesbrough £28,209

MIDDLESBROUGH.—For the supply of cement to the T.C. :—
*Caseburn & Co.....£2 10 2 per ton
(The lowest foreign tender was £2 4s. per ton.)

NETHERTON.—For erection of eight dwelling-houses, Bankffot-lane. Messrs. J. Berry & Sons, architects, 3, Market-place, Huddersfield :—
Masons—
Ledgers, Huddersfield.
Joiner—
A. Mellor & Sons, Huddersfield.
Plasterer—
E. S. Jessop, Huddersfield.
Painter—
George Oldfield, Huddersfield.
Slater—
T. B. Tunnacliffe, Huddersfield.

NEWTON ABBOT.—For laying 5,269 yds. of 6 in. and 821 yds. of 4 in. cast-iron water mains, for the R.D.C. Surveyor, Council Offices, 64, East-street, Newton Abbot :—

W. H. Rogers, Willenhall, Staffs.	£3,490 10 0
A. Best, Ltd., Teignmouth	2,691 1 5
A. J. Steer, Ltd., Plymouth	2,411 11 0
A. P. Yeoman, Kingsteignton, Devon	2,366 1 8
H. Middleton, Gloster	2,321 12 1
Fothergill Bros., Ltd., Exeter ..	2,306 15 6
W. H. Smith, Torquay	2,279 6 11
R. C. Brebner & Co., Edinburgh	2,087 19 9
*Heath Bros., Bovey Tracey	2,049 11 3

OLDHAM.—For the erection of new school at Heron-street, for the E.C. The architects are Messrs. Taylor & Roberts :—
**Drainage and brickwork.*—S. & J. Smethurst, Ltd.
**Masonry.*—Alexander Mackay.
**Joinery.*—Squire, Ashton & Sons, Ltd.
**Slating.*—Robert C. Fletcher.
**Plumbing, &c.*—Jonathan Winterbottom.
**Plastering.*—Edward Pearse.
**Painting.*—Robert Chadwick & Sons.
(All of Oldham.)
The total amount of the tenders, including architect's fees, is £16,577.

SALFORD.—For construction of 80 stalls for tenants at Miscellaneous Market, for the T.C. :—
*R. E. Sutton, Salford..... £236

SALFORD.—For supply of materials to the Highways Committee, for the T.C. :—
*T. & R. Williamson—Varnishes.. £251 0 0
*S. Nove, Manchester—Sand .. 787 10 0
*Buxton Lime Firms Co.—Chippings 437 10 0

SALFORD.—For carrying out alterations and additions to Maternity and Babies' Hospital, for the T.C. :—
*A. Fenton..... £612 5 11

SALFORD.—For furnace at Ladywell Sanatorium, for the T.C. :—
*Pillatt & Co. £170

SKEGNESS.—For the erection of fire station, for the U.D.C. :—
*Thornhill & Sons, Lincoln..... £1,022

SUTTON COLDFIELD.—For improvements at the Borough Treasurer's Dept., for the T.C. :—
*G. T. Stephens..... £1,351

TORQUAY.—For laying 14 in. main from Newton Abbot to Torquay, for the T.C. :—
*W. H. Smith..... £5,855 19 6

WALLASEY.—For materials, for the T.C. :—
*Midland Contractors Supply Co.—Granite macadam, 11s. per ton, and granite chippings 12s. 6d. per ton.
*Warrington Slate Co.—Concrete flags at 5s. 5d. per square yard.
*Joseph Parr—Cement 52s. 6d. per ton.

WEDNESBURY.—For adaptation of Wood Green Lodge for secondary school, for the Staffordshire E.C. :—
*A. C. S. Teece, Wednesbury..... £997

WEST AUCKLAND.—For erection of a memorial hall, for the West Auckland War Memorial Committee. Mr. D. Crawford, Architect, Bishop Auckland :—
*Walton Bros., Crook £2,714

WOOD GREEN.—For alterations and refitting of sanitary offices, &c., at the Bounds Green-road Council School, for the Middlesex C.C. :—
*Mattock Bros., Wood Green..... £1,200

Ashton-under-Lyne and District Master Builders' Association.

The Ashton-under-Lyne, Stalybridge, Hyde and Dukinfield Master Builders' Federation has appointed Mr. Edmund Warrington, head of the firm of Messrs. Thomas Warrington & Sons (Hyde), President for the ensuing year. Mr. Warrington has been a member of the Executive of the Federation for the past ten years, and has for many years been its representative on the North-Western Federation of Master Builders' Associations. Other officers appointed by the Federation include Mr. James Ridyard (Ashton-under-Lyne), Vice-President; Mr. J. Dunlop (Stalybridge), Treasurer; Messrs. O. Andrew and J. Jeffreys, Auditors; and Mr. C. H. Mellor, Secretary.

Incorporated Church Building Society.

At the monthly meeting of the Incorporated Church Building Society, held at Westminster recently, the Hon. Sir E. P. Thesiger, K.C.B., in the chair, grants were made towards building a new church at Bournville, Birmingham, £250; rebuilding St. Helens Parish Church, Lancs, £350; and towards enlarging or repairing the churches at Golder's Green (Middlesex), St. Michael, £150; Rochester, St. Nicholas, £100; Shaldon, St. Peter, Devon, £150; and Southend-on-Sea, St. Erkenwald, £100. Grants were also made towards the erection of mission churches at Little Coates, The Good Shepherd, near Grimsby, £100; and Newport, St. Andrew, Mon., £100.

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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

CXXVI.—No. 4236. APRIL 11, 1924.

INDUSTRIAL EXHIBITIONS

CYNICISM is not fashionable nowadays either as a philosophy or as a form of humour. Samuel Butler was the last of the cynics; he smiled at our modern discoveries as much as at our old pretences. We have no intention of appearing to be cynical n we say that the recurrent trades' exhibition has developed a function which the British public has come to expect matter of course. The modern world has committed itself he belief in a continuous improvement, and it looks to the ibition for the latest ideas. The exhibition is a manifestation l a very natural one) of an industrial age which demands licity, and if we care to regard it as a form of advertising, infinitely more desirable in this form than on hoardings in fields. That there is an educational value in an exhibition be admitted, although it would be idle to pretend t we are consumed by a passion for knowledge to make h a venture a necessity. The problem for the interested ividual is to know when the world can advise him better n he can himself. As a generalisation, there is much to be l for the statement that when we are young we do not believe ugh in the wisdom of the ages, and when we are old we believe much in it. At both stages we may fail to discriminate. It is often suggested that these frequent exhibitions are a vy liability upon the manufacturer, and consequently affect prices of his goods. Upon this purely materialistic point of w we have the assurance that an impetus is given to trade, that orders are received which would not reach the manuturer without the publicity obtained by an exhibition. can understand that this would apply to many phases of building industry, though we bear in mind that the comted structure or building is not exhibited for sale in comition with another building of a different type, as is the e, say, with motor cars. The whole complicated process of lding involves many industries which are not an end in mselves; they are involved in the art of building, and the mate object is the finished building. It would seem, therefore, that to a certain extent a building trade exhibition is an ernal affair, though the main object is to stimulate the blic to appreciate and to build.

There are new processes, new materials, new forms of conuction, and complete devices which must receive the attention the architect at some time or other. Brunelleschi, we know, rcised his mind upon the scaffolding and centering of his ous dome in Florence, and his design was influenced ordingly. Many of the newer forms of construction are gned to meet the problems set by architects, and evidence rchitectural thought is to be seen in a number of modern liances and requirements—lift cages, fireproof doors and ens, radiator grilles, electric light and shop fittings are only w which come to mind. Improvements in machinery have ught their own problems for the architect, and, for a time, ity in manufacture may easily outrun the skill of the gner. The simple design with simple tools is a simple problem, t is not necessarily opposed to simple design with complicated s. If we use our machinery properly more people can enjoy beauty of design.

In recent years a great field has been opened for the development of new ideas in labour-saving appliances in the home. Various post-war factors have contributed to focus attention upon the domestic problem, and it is evident to the casual observer that there has been a tendency to concentrate upon certain details to the exclusion of others equally important. Every architect has experience of the client who is obsessed with some particular patent or material, which he has seen or heard of, but about which he is not capable of judging. Herein lies the danger; the appeal from the manufacturer to the public must pass the tests of the architect, and it is essential that he should be informed on these matters if he means to convince and satisfy his clients. It is only beginning to be realised that little titbits from newspapers upon labour-saving in the home are merely expressions of a fashionable craze, and that the blackening of a couple of bath taps and the door-knocker will not simplify life so very much, if we are not in the mind to part with our old brass candlesticks and bed-warmer. The problem is a big one, and some sense of proportion must be observed; the idea must be carried out in every detail of furnishing throughout the house. Much of the criticism of labour-saving experts deals with trivial constructional details, and seldom with furnishing and dirt-provoking household gods.

Despite the shibboleths of the woman housing reformer, and apart from problems of economics and theories of population, it can safely be said that the standard of fitness in quality and design in house building and equipment is on as high a level of excellence as that of any other industry. There are many factors which prevent us having everything we want, but their discussion is outside the scope of this article. Everybody should be interested in the constant developments which are taking place in building appliances and materials, and should be stimulated to take an interest in the art of home building. There is a great shortage of houses in the country, and the real significance and value of a building trades' exhibition is that the public may be encouraged to take a greater interest in one of our oldest crafts and to accept its share of one of the fundamental responsibilities of mankind.

From this point of view we would like to see an exhibition of architectural design forming a necessary adjunct of every building trades exhibition. We have heard a good deal lately of the ideal triple alliance between the architect, the builder, and the client, and surely the building trades' exhibition provides an excellent opportunity to further this ideal. The importance of the manufacturer of building materials and commodities suggests to us that a quadruple alliance would represent a truer combination of factors. An exhibition has an educational value to everyone engaged in the art of building; it has an educational value to the public which cannot be computed in terms of immediate sales. In expressing the hope that every building trades' exhibition will result in a closer collaboration between all parties interested in building, we believe that we are expressing views which embody the ideal we are all striving for, and that we are stating causes of which architecture is the result. On the lines we have indicated we hope every success will attend this exhibition.

NOTES.

The R.I.B.A. Prizes.

How far the strike epidemic has affected the would-be competitors for the Institute prizes we cannot say, but their attractiveness certainly seems on the wane. The ambitions and activities of our students may find worthier objects, or they may be in lazier mood, but the elimination of the competitive spirit would surely be against the popular sentiment, and it is hardly likely to come about yet. The Board have wisely made certain revisions as to the conditions and amounts of the awards, and we shall see during the next two years if the results of effort and expenditure are justified. We hope the quality of design in a practical and artistic sense will be tested by subjects of a simpler kind, and lead to less necessity for large and costly drawings. Students should be encouraged to develop a sense of good proportion and simple distinctive expression. Great sheets of elaborately finished drawings lead to nowhere of great account. It was only the other day we had recounted to us the doings of two architects who collaborated on the competitive designs for a big building some years ago. The first design did not fully please them, though it was very carefully and beautifully set forth. The second one was hurriedly executed, drawn in charcoal, and coloured with the coffee they were using. The second one won the first place in the competition. It furnished no excuse for slovenly drawing, but it showed of how small account drawing was compared with design.

Problems for Students.

MR. PURCHON has made a happy experiment at Cardiff in setting his students the problem of designing a new City Hall. We shall look to Cardiff, with its fine record of modern public buildings, to secure a really fine public hall, and some of our best students are quite capable of giving us valuable hints. As will be seen from this issue, a well-known firm of Cardiff architects have just won an important competition at Bristol, and may not this be a note of encouragement to Cardiff students ?

The Gothic Influence.

THE very interesting paper by Mr. Goodhart-Rendel on English Gothic Architecture should help our architects to a better realisation of the value of their national heritage. If it acco plishes this it will, we believe, be well our art. We may surely hope that broad and enlightened way of envisag our nineteenth-century architecture wh Mr. Goodhart-Rendel has adopted encourage the growth of a like visi amongst our architects. Instead of findi in our nineteenth-century work attempted revival of a dead corp there may be found many who will, Mr. Goodhart-Rendel, "refuse to rega Gothic as ever having died in Englan Surely we cannot follow him in record of names which have given hon to modern work in this country witho realising that a great tradition heritage has survived ?

Waterloo Bridge.

So we are somewhat su denly confronted with rebuilding of Waterl Bridge, which has been approved by County Council, the actual design for rebuilding and widening being not settled. The question of another n bridge at the eastern end of Aldwych in abeyance. Meantime this importa work is considered urgent, whilst the important matter of cross-river traf and the replanning of the southern side the river is in the air. So we go on London !

St. Paul's Bridge.

THE remarks of members the House of Commo called together a few da since by Sir Wm. Bull to consider question of St. Paul's Bridge, seem to ha been practically unanimous in gener agreement with the arguments advanc against the bridge. A resolution carried to the effect that the meeti urgently recommended that before matter went any farther the Minister Transport would give an assurance th no money should be spent on the sche until Parliament had an opportunity discuss it.

The "Steel Frame Act."

MR. EWART S. ANDRE makes some interesting co ments on the "Steel Fra Act" in the course of article entitled "Ten Years of Constr tion," which he contributes to this is (see p. 593). He points out that those were responsible for this Act were nat ally somewhat nervous, with the re that in many respects its provisions unduly stringent and result in unnecess increase in cost. He states that it often cheaper to erect a building desig with the thickness of walls specified un the old Acts for an ordinary brick bu ing, all the internal portion of the build being designed upon a steel frame, t to erect a building designed as a s frame building under the Act. We ag with him that this ought clearly to understood by architects and otl "because when once the building in try realises this fully we are convi that sufficient agitation will arise to f



Scheme for the Development of the Exchange Site, Nottingham.
MR. T. C. HOWITT, Architect; MR. T. WALLIS GORDON, City Engineer. (*See p.* 579.)



Norwich Cathedral.
From a photograph by Mrs. M. E. B. Cox.

authorities to take steps to alter the " The matter is of such importance we invite discussion on the subject.

Bush House.

We need hardly be surprised that Mr. Ralph Knott should question the statet of Mr. J. C. Squire that Bush se is a rebuke to most public buildings. remember we were promised that in House we should find some echo of qualities of Somerset House, but a parison of the two buildings must e most English architects wondering such a promise was held out. There mething to learn from Bush House, if we cannot place it in the same as Somerset House.

---

itects nd mates.

A tale of peculiar hardship was related the other day in reference to an architect's claim for commission an abandoned building enterprise, cost of the work turning out much er than was anticipated. The archisent in an account and was offered than a third of what he had charged. therefore brought an action for the unt claimed and he was not only suited by the judge, but not even ed the amount his clients had tenl him and was saddled with the y costs. It therefore behoves architto protect themselves beforehand liability for the surprise of estimates.

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ctorship esearch lding terials rd, &c.

Dr. R. E. Stradling, M.C., M.Sc., Ph.D., Assoc.M.Inst. C.E., A.M.Am.Soc.C.E., Head of the Department of Civil Engineering, Architecnd Building in the Technical College, ord, has been appointed Director esearch of the Building Materials onstruction Research Board of the nment Department of Scientific and trial Research, London. The Buildesearch Board, according to the Report of the Research Department, was formed in 1920 to consider and direct the conduct of research on building materials and methods of construction. For this purpose a research station at Acton was established in July, 1921, and since that time this station has been in full operation. Having regard to the immediate importance of the housing question, the efforts of the Board at first were directed to research into building materials and methods of construction suitable for small houses. But the Board has considered that its most useful function lay in fundamental research, and with this end in view the work has fallen naturally into two categories: (*a*) fundamental research of an almost purely scientific nature, and (*b*) the attack of practical problems where economic situations enter or are even paramount. Dr. Stradling was appointed as a member of the staff of the Technical College, Bradford, in August, 1922. Since he has entered upon his office in that College he has been responsible for the direction of the whole of the work of the Department of Civil Engineering, Architecture and Building. He has remodelled almost entirely the full-time and part-time courses in the College.

Our Polluted Atmosphere.

Smoke, fog, foul air and vibration are leaving their mark on Southwark Cathedral. The appeal of the Cathedral authorities for help should meet with a ready response, but the need for preventative measures against the source of this damage is an even more urgent affair.

Triumph in the Back Yard.

The new insurance building by the entrance to the Admiralty Arch in Trafalgar-square, now nearing completion, merely underlines the perpetuation of yet another ragged edge to the various efforts we make in the direction of civic planning—efforts which so often give way to exhaustion. Our great ceremonial highway, aiming proudly and axially at our conception of a triumphal arch, is now condemned for at least another generation to debouch on to a back-yard. No wonder the spirited State horses shy and side-step at the sight, and seek an outlet by way of the Horse Guards'-parade! And how the foreigner must laugh! For ourselves, we would weep with humility and shame and hope on for the long-desired plan that will make these things impossible in the future.

Salmon Fly Posters.

If hypocrisy is the homage vice pays to virtue, the improved poster is the compliment trade pays the artist. Chairmen of great companies have been telling their shareholders that far from being high-brow or æsthetic, they encourage the poster artist because it is worth while. Good work makes good. Every advance in taste is a milestone gained; we must consolidate the ground by avoiding either a stereotyped manner or a reaction to the shock tactics from which we have just escaped. Fishermen tell us there are two principles of appeal in the fly-makers' resources, that of natural attraction in the trout fly, and that of the daringly provocative in the salmon allure. At present it is the hour of the Jock Scot, and very good it is. Our advice to the trader is to give the artist his head, and if he is an artist to leave him alone. It may appear captious to criticise, but in this art to have attracted notice is the measure of success.

Village Life.

A Leaflet issued by the Rural Industries Intelligence Bureau sets out in general terms the nature of the problem of village life, and there is a good deal which we can cordially endorse in the views expressed. "No one," as it is said, "who compares village life as it was and as it is, can fail to be struck by the former diversity of its interests as contrasted with the present monotony." It is when we come to the consideration of the remedy for all this that the difficulties appear. The village has decayed with the decay of human relationships, and needs more than economic laws and organisation to restore it. There are some hard sayings in this leaflet for those who regard the problem not as, first of all, one of either economic or administrative character, but as in the main connected with deeper and more vital considerations.



From the Interior of Norwich Cathedral.
From a photograph by Mrs. M. E. B. Cox.

GENERAL NEWS

Professional Announcements.

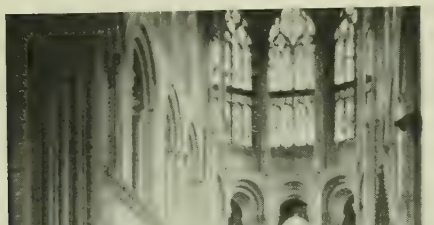
The practice of Messrs. Charles Jackson & Son, chartered quantity surveyors, is now transferred to 75, Princess-street, Manchester.

Mr. Philip Robson, of Westminster and Manchester, has been appointed Consulting Architect to the Wigan Schools' Association.

The address of Messrs. Collcutt & Hamp is now 126, Wigmore-street, Portman-square, W.1. Telephones: Mayfair 4764–5.

Housing at Wembley.

Among their exhibits at the British Empire Exhibition the Ministry of Health will include photographs and plans illustrating the lay-out of approved housing estates and the design of the houses. The examples have been selected from different parts of the country so as to show the difference in design according to local conditions and the materials available. Two large town planning models will be found side by side, one representing a common type of industrial town, devoid of intelligent arrangement, inconvenient, and smoke-blackened, and the other showing what can be accomplished by foresight and skilled design upon the same site. There will also be a set of the maps required for a town-planning



scheme and a perspective plan showing what Margate is expected to look like at some future date. A map is also to be shown indicating the regions in England and Wales where town-planning schemes are being carried out. The exhibit on smoke prevention will show the approximate amount of impurity in town air, and the instruments used for recording and measuring air pollution; charts will illustrate the damage and waste of fuel caused by inefficient combustion.

Carlton Club Reconstruction.

A luncheon was recently given at the Carlton Club, at which Viscount Younger of Leckie presided, to the workmen of Messrs. Trollope & Colls, Ltd., who were engaged on the work of reconstruction. There were bricklayers, masons, carpenters and painters, together with their labourers, who sat with various members of the club.

Mr. Goodman, the general foreman, was received by Viscount Younger, the Chairman of the Club.

Viscount Younger said the Committee thought the best plan to show their appreciation of the way in which the work of refacing the Club had been carried out was to entertain the men to lunch. Viscount Younger coupled with the toast the names of the two foremen, and Mr. Goodman, in response, said that they would all look back upon that day with very great pride.

Building Trade Wages.

A conference will be held in London to-day between the building operatives' trade unions and employers in regard to the operatives' demand for a wages advance of 2d. an hour. The employers' offer of ½d. an hour, with other concessions, has been rejected.

Government Housing Scheme.

A conference on housing in Greater London arranged by the Guildhouse Fellowship was held recently at the Guildhouse, Eccleston-square, on Saturday.

Dr. Raymond Unwin, chief architect to the Ministry of Health on Housing and Town Planning, said a good deal had been achieved in the direction of beauty in building by recent housing schemes. It had been established that a good house could be built with plenty of garden without costing more than many of the nightmares of ugliness and bad types erected by short-sighted people.

Mr. Coppock, general secretary of the National Federation of Building Trades Operatives, speaking of the Government's proposals, said that we were on the eve of a tremendous proposal with regard to housing in this country. The present Government had tackled the problem of housing in a manner entirely different from that of any previous administration.

On the matter of dilution, Mr. Coppock said it was impossible to train a man to any of the crafts after he had got beyond a certain age. Any augmentation must come from boys from eighteen to twenty years of age. Dilution over that age was uneconomical. But in return for training these they demanded a guarantee of employment for some years, and he thought he could say that the guarantee would be fulfilled for a period of at least fifteen years, provided the Opposition in Parliament agreed.

The programme they had set out, he continued, was 2,500,000 houses in a period of fifteen years, which was 500,000 less than they anticipated being able to do. The people tackling it were going the right way about it. Industry was prepared to use every effort to do this work.

Mr. Coppock, speaking on the type of houses that should be built, said that despite all that had been remarked about the Addison house being small and not having a good aspect, it was the best house that had been built for the working classes in this country. But the ones they were going to build would be better, there would be more concern shown for the equipment of the house than for beauty of aspect. Let them spend the money on helping to save drudgery in the house rather than on beautifying the aspect.

COMPETITION NEWS

Bristol Police and Fire Premises.

The assessors, Messrs. W. Curtis Green, F.R.I.B.A., and George H. Oatley, F.R.I.B.A., have made the following awards in this competition:—

(1) Messrs. Jones & Thomas, Cardiff.
(2) Messrs. Ashley & Newman, London.
(3) Mr. E. Vincent Harris, London.
(4) Mr. Harold E. Todd, Bristol, and Messrs. Smith & Hendy, London.

The assessors' report is given on p. 575, and the designs placed first and second are illustrated in this issue.

Fryston Hall.

The South Yorkshire Poor Law Committee recently assessed designs in connection with the scheme for the conversion of Fryston Hall into a mental institution as follows:—(1) £100, Mr. J. Ainley, Huddersfield; (2) £50, Messrs. Percy Brown & Glover, Newcastle-on-Tyne; (3) £25, Messrs. Walter Hanstock & Sons, Batley.



New Premises, Hull.

The assessor, Mr. L. Kitchen, F.R.I.B. has placed the design of Messrs. F. G. Hort H. Andrew, AA.R.I.B.A., first in a limi competition for new premises to be erected the Spring Bank, Hull.

Public Hall, Glasgow.

Designs are invited for a public hall to approximately £25,000. Premiums of £ £100, £75, and £50 are offered respectiv A plan of the site, together with terms conditions can be obtained from the Offic Public Works, City Chambers, 64, Cochr street. Sending-in day, July 4.

Other Competitions.

Other competitions still open include following (the dates given are, first the send in date, and second the issue of *The Builde* which full particulars were given):—Indus Designs (June; Dec. 21, 1923). Nati Theatre (April 26). Ross-Smith Mem (Sept. 30; Feb. 1). Bradford Masonic Te (June 30; March 28). Salford Baths (April April 4).



A FINE OLD CITY

AN APPRECIATION OF NORWICH

By GEORGE KENWORTHY, Assoc.M.Inst.C.E.



...ERE is always something elusive and ...ctive about a place which boasts a nur... rhyme. The real old English nursery ...e dates back to the times before our ...en language as we now know it, when ...ers crooned these little songs to their ...ren in just the same words as they them... ...s had heard them. A city with a nursery ...e bears the hall mark of Father Time. ...yone has heard of the Man in the Moon, ...his search for Norwich.

...en as a child this appealed to me: I ...ed to follow this Dream-Man in his ...h. Now that I am a citizen of this Old ...d city I find that Norwich does not dis... ...nt—it lives up to its reputation. Truly, ...orrow says, "It is a fine old city—per... the most curious specimen at present ...t of the genuine old English town . . . ... can wonder that the children of that fine ...ity are proud of it?"

. . . . . .

... it not contrast which makes life really ...esting? And Norwich is essentially a ...f contrasts. On the one hand, a large ...ltural centre, on the other a ...ng industrial town; the "Charing ..." of the Broads, and the most ...ssible town in England; a city ...ng one of the most inspiring ...d edifices in the kingdom, a city ... flintwork and architecture of ...ost rare abounds; yet a place of ...w winding streets and crazy ...e-down houses; a city in one of ...attest of counties, yet built on ... surrounded by considerable ...s; a city built in a district of ... and marsh-lands, where is ...ed almost the lowest annual ...ll of any place in England!

...wich forms as great a contrast ...en the grey-black industrial ...s of the North as that which ... between the fresh optimism of ...ild and the grave outlook of ...dult. Therein lies its charm. ...after all, those who live out ... lives in the great, bleak ...cities, who are only in... ...ed in—can only talk of— ... and coal, manufacture and labour, miss a good deal of the charm and beauty of life.

One can be efficient, work hard and well at engineering or manufacturing, wonderful and engrossing as these occupations are, and yet know that they are overshadowed by a still greater and more ancient industry—that of agriculture. But Norwich is a manufacturing centre too, and is famed, not only for mustard, but for many branches of engineering, and perhaps most for the manufacture of "my lady's" dainty shoe. Thus Norwich, having wedded the two, may be congratulated on the success and happiness of the combination.

Have you, perchance, seen the "black" country of Staffordshire where, for miles around, neither trees nor grass will grow? Then appreciate the unspoiled natural beauty which lies within and around Norwich.

Have you lived in the big, grey cities where all is rush and noise, where streets are wide and straight, with houses well-built, and yet, withal, of a sameness and an ugliness past description? Then appreciate this picturesque old English city.



Studies of Norwich Cathedral.

[The views of Norwich Cathedral on this and the preceding page are from photographs by Mrs. M. E. B. Cox.]



Consider the wondrous Cathedral, of a grace and delicacy unique in this country. Where is the fraternity of early masons who so tirelessly built, with such unerring skill, a structure whose beauty appeals with poetic power to all that is best in us, stamped and imprinted, as it is, by those builders, with the evidence of their devotion to the Great Architect? In spite of its hoary age, its baptisms of fire, this fine Cathedral might have been built but yesterday!

. . . . . .

Here we have tottering, crazy Tombland Alley, leading to the Maid's Head. As you pass along the narrow causeway, can you not see standing there outside the famous hostelry the coach of the haughty Queen Bess? Yes—and here comes her retinue, and there, the proud Queen herself!

. . . . . .

There is a simple pleasure in watching the boatmen ply their long "quants" as they urge the characteristically quaint wherries along the mirrored surface of the Wensum, past the old Boom Towers, where, giving rein to your fancy, you may conjure up visions of a long-dead past.

. . . . . .

Did not the Viking Sweyn, with his fierce Danes, sail up this very river and carry war, ravage, and fire to the city? Was not Harold, the last English king, governor of the city? and that national hero, Hereward, the last of the English—did not he and his noble band of heroes from these parts defy the proud Normans on the waterways hereabouts?

Trace the old city walls to the Boom Towers and in fancy see the fight—in fancy hear the dull, reverberating thud of the battering-ram, the twang of the cross-bow, the hum of flying arrows, and the fierce cries of the combatants amid the clash and crash of axe and sword.

What tales these crumbling walls would tell if stones could speak!

And the Castle and the Keep, dominating that mighty mound where, so tradition says, King Gurgunt, usurped and enthroned, his treasure about him, lies buried deep!

Do not these stories conjure up visions of the grandeur of the days of old? Of chivalry and gallantry, of songs and revels—aye, and of debauchery, too—recalling the names of Roger Bigod, the Norman builder of the Keep, and his son William, Constable of the Castle, who, with the Conqueror's grandson, Prince William, together sailed and sank in the ill-fated "White Ship."

. . . . . .

Nor must Kett be forgotten. Many a rebel has had a more ignoble cause! Was he not a hero? Was not the battle on Mousehold (where eventually he was routed by Warwick) after which Kett was ignominiously hanged on the city walls—an association of which Norwich need feel no shame, since it was a resistance against unjust land enclosures by the grasping Barons?

. . . . . .

Turning now to more recent times and people, it is not strange that so beautiful a city should have produced one of the few really great landscape painters, John Crome—"Old Crome." Nor is it anything but fitting that Norwich should possess the greatest honour of all—the quiet grave of the Martyred Nurse, who gave her life for her country, and who now sleeps serenely in "Life's Green," beneath the shadow of the city's great Cathedral.

. . . . . .

Yes! Indeed, Norwich may well be proud of its past and of its present. May it be granted full confidence in its future, too!

Yet, I wonder, do its citizens appreciate fully, as they should, the unique beauty of their lovely city?

CORRESPONDENCE

Attracting Public Interest.

Sir,—As a constant reader of *The Builder* I should like to express my appreciation of your article, "Attracting Public Interest," in your last issue. I am not an architect, but plan drawing (ground plans) has been part of the duties of the position I hold and, for many years past, perusal of your paper, with reproductions of architects' details, has always been of great interest, profit and pleasure. (I may also say that many of the advertisements have been instructive and of much interest.) Exhibiting architectural drawings is, in my opinion, of educational value to everybody. This educational process is very necessary from the points you adumbrate, as I have often found the ignorance of even intelligent persons quite detrimental to themselves. So much additional interest is being taken at the present time in housing schemes that it is incumbent on parties having the settlements to be well versed in at least a superficial knowledge of their commitments. The general public, too, when knowing the innumerable details, apart from the necessary expert skill obtained by years of study and experience in most cases, would more willingly pay the fees charged by architects. The architectural art is delightful and elevating, and the more publicity given to all its beauties the more I consider will society benefit in the mass.

Jas. Bolton.

Scarborough Wages.

Sir,—A question has arisen respecting the grading of Scarborough under the National (Town) Grading Scheme which superseded the Area Grading Scheme previously in operation. Under the old Area Grading Scheme, Scarborough was placed in Grade "B," and under the Town Grading Scheme automatically was regraded A 3. The present rate for tradesmen in A 3 towns is 1s. 6d., but in the *Builder* the rate for tradesmen in Scarborough is shown as 1s. 7d., which is the agreed rate for A 1 towns. Will you please let me know if any change has recently been made in the grading of Scarborough and/or other towns in Yorkshire?

L. B. Bagot, Major.

Yorks.

[Scarborough was regraded from A 3 to A 2 with effect from October 1, 1923, and from A 2 to A 1 on and from February 1, 1924.—Ed.]

The Headless Saints in Ely Cathedral.

Sir,—It seems a great pity that no attempt has been made to restore the heads to the beautiful figures in Clunch stone in the superb Lady Chapel. The beheading was the handiwork of Oliver Cromwell, so that it can hardly be reverence for him that prevents the restoration. Perhaps the Dean may take the matter up when he sees the figures that have recently been restored at St. Paul's Cathedral.

Edward Vale.

Weston-super-Mare.

ARCHITECTURAL SOCIETIES

READING SOCIETY OF ARCHITECTS.

The fourth annual meeting of the Reading Society of Architects, which is the Berkshire Branch of the Berks, Bucks and Oxon Architectural Association, was held recently at Reading.

The chair was taken by Mr. W. Galt Millar. The hon. secretary (Mr. C. B. Willcocks) read the annual report dealing with the work of the executive during the past year, in which it was stated that the total strength of the Society now is 102 members, made up as follows:—Fellows, 11 associates, 23 students, 8 associa craftsmen, and 11 honorary members.

The following members were elected to f the executive committee for 1924:—Chairm Mr. H. Whiteman Rising, F.R.I.B.A.; v chairman, Mr. W. Galt Millar, F.S.I.; l treasurer, Mr. W. R. Morris, Lic.R.I.B. hon. librarian, Mr. H. Whiteman Ris F.R.I.B.A.; hon. secretaries, Messrs. C. Willcocks, F.R.I.B.A., and W. J. Freen A.R.I.B.A.; hon. auditors, Messrs. A. S. M.S.A., and E. P. Morgan, Lic.R.I.B members, Messrs. W. R. Howell, F.R.I.B J. T. Saunders, F.R.I.B.A., H. Hutt, F.R.I.B and F. G. Sainsbury, M.S.A.

The following were elected to serve as re sentatives of the Society on the Council of Berks, Bucks and Oxon Architectural Asso tion:—Messrs. W. R. Howell, F.R.I.B.A., F Floyd, F.R.I.B.A., J. G. T. West, M.S.A., C Willcocks, F.R.I.B.A., F. A. Woods, A.R.I.B J. R. Greenaway, F.S.I., and E. P. Morgan, R.I.B.A. Mr. H. W. Rising was nominated election as vice-president of the Berks, B and Oxon Architectural Association.

LEICESTER SOCIETY OF ARCHITECT

The Leicester and Leicestershire Society Architects recently held their annual prize-giv Most of the drawings, especially in the case o "Travelling Studentship Prize," were in the of sketches. The first prize was won by A. L. Sharpe, for a measured drawing of Corn Exchange. Messrs. McL. Keay, E Warren, and S. Smith were each awarded sp prizes. The Nesbit Prize, which was for a of a city terminal for a motor omnibus comp was also won by Mr. A. L. Sharpe, Messrs. Townsend and S. Smith each obtaining a share in the second. The measured dra prize was won by Mr. Frank Brown.

THE LIVERPOOL ARCHITECTURAL SOCI

The annual report of the Council for official year 1923–1924 was submitted to annual general meeting recently. The pr membership of the Society consists of 56 Fe and 68 Associates, a total of 124. There also 3 Hon. Fellows, 13 Hon. Associates, 23 students. Members elected since the of the last report: Fellow, Rowland St Associates, Donald Brooke, B.Arch. A.R.I. Edgar Fryer, A.R.I.B.A., H. H. Hu A.R.I.B.A., R.C.A., R. D. Jones, A.R.I. H. C. Killender, A.R.I.B.A., P.A.S.I., J Lawson, A.R.I.B.A., A. J. Norcliffe, A.R.I. R. A. Threadgold, A.R.I.B.A.

The Honan Scholarship for 1924 was aw to Herbert Thearle. An additional pri £10 was awarded to Theo. Wills who was l second in the competition.

Garston Housing Contract.—The second final report of the Inspector of the Minis Health (Mr. Orchard) on the inquiry int Garston Housing Contract was publishe February 2. . . . The Council are oppos architectural work of the Corporation carried out by architectural staffs unde control of civil engineers, and are satisfie the results to be obtained from such an ar ment can never be satisfactory.

Liverpool Master Builders' Association. Council received a deputation of the Builders' Association who desired to sa arrangements had been made whereby would rejoin the North-Western Federat Master Builders) from May 1. The Depu explained the difficulties of the position respect to apprentices in the building and the efforts that were being made to an increase in members.

In view of the much larger amount of now required for carrying on the building the deputation asked the assistance Council with respect to the issue of i certificates, which it was desired sho issued more promptly as the money due. Where it was intended that a clause should form part of the building co it was asked that it should be so state item in the bills of quantities.



Photo, R. Huth.

[St. Bartholomew-the-Great, Smithfield: View from Apse and Altar, North Ambulatory.

BRISTOL POLICE AND FIRE STATIONS COMPETITION

In the course of their report the assessors te:—"We have carefully examined the enty-eight designs submitted in this competi-n. With notable exceptions the standard ained is disappointing. It is notable that very competitors have been punctilious in adhering the letter of your conditions, and some of se who have come nearest to doing so are thest from architectural excellence. There , however, individual designs of very great rit, the authors of which have kept, if not the er, the spirit of the conditions in such terial points as the positions and areas of cified units in the design.

We recommend that design numbered 9. arded the first premium, be carried out. s is a design of exceptional merit. Not y is it a scholarly and refined work, it has a genuine and legitimate originality based on a sound knowledge of architecture. The rations express in a remarkable degree the pose of the building, and the author should be ouraged and helped to carry out his design h only such minor alterations as may suggest mselves in the process of working the design in detail. A good feature of this design he absence of internal areas. This, and the zzanine floor, the latter necessary to give the ommodation asked for, allows of the yard ng larger than you anticipated. We are of nion that with reasonable care this design, ch in many respects is the simplest and most nomical of those submitted, can be carried within the limits of costs imposed by the ditions.

Design numbered 5 we place second in order merit; the plan very closely adheres to the rictions and conditions, the elevations are nified and restrained, the whole is a con-ntious and highly competent solution of the blem, very economically arranged.

We have awarded the third premium to gn numbered 21. This in some respects is most ambitious architectural composition ny, with many good qualities both in plan elevation.

After these designs there is a considerable p in quality; we award the fourth premium qual parts to designs Nos. 4 and 10. They conscientious but undistinguished attempts olve a difficult architectural problem."

he assessors were Mr. Curtis Green, .A., and Mr. George H. Oatley.

he full result of the competition is given page 572.

e illustrate in this issue the design placed , by Messrs. Ivor Jones and Percy Thomas, R.I.B.A., and the design placed second, Messrs. H. V. Ashley and Winton Newman; R.I.B.A.

the course of the report submitted with r design Messrs. Ivor Jones and Percy mas state:—

An endeavour has been made to solve problem in a bold, simple and straight-ard manner by a single building following outline of the site, and omitting entirely all nal courts or areas." They draw attention ie following features of the design:—

Fire Station.

e provision of a large open practice yard, ding ample space for fire drill and giving dant light and air to the surrounding ings; and the introduction of a mezzanine enabling the space over the workshops offices to be economically used.

e engine house is arranged so as to allow of the thirteen machines to have a clear o the street and to return to its position the yard without moving other machines.

superintendent's, inspectors' and ser-s' offices are placed centrally, and command hole of the engine house, while the watch is on a mezzanine over these offices.

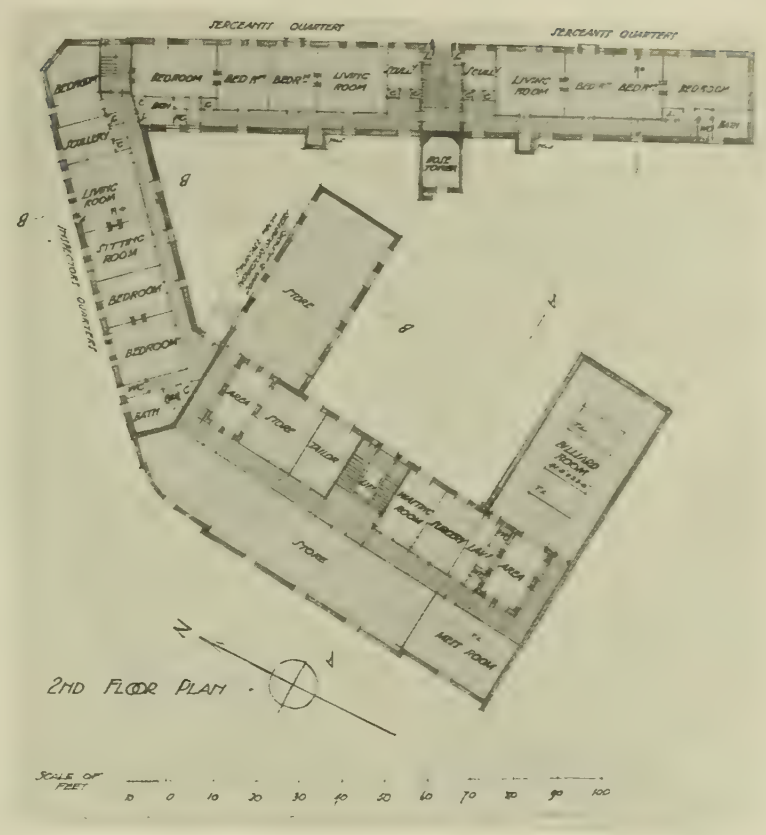
billiard room, reading room, mess room and baths are on a mezzanine floor over the workshops, easily approached from the engine room; the billiard room actually overlooking the engine room.

The hose tower is combined with a practice tower, and placed against the north wall of the police courts, thereby allowing ample facilities for hose and ladder practice. A covered washing space is provided adjoining the tower. Returning machines would proceed direct to this for washing, hoses would be removed for drying, and tanks filled from adjoining petrol filler, and machines would then proceed direct to their stations.

The whole of the married quarters have been provided on two floors. Separate coal houses are provided in the basement. Each of the quarters has a separate entrance from a wide open verandah overlooking the practice yard, and a laundry is provided on the first and second floors with access to the flat roof for drying purposes. Four sliding poles are provided, two opposite the entrance to the sergeants' quarters, on first and second floors, one from inspectors' on second floor, and one from the superintendent's house. All poles land direct into the engine house, and one is available for the occupants of the billiard room.

Advantage has been taken of the necessary large headroom of the engine house to introduce a mezzanine floor in the administrative block adjoining, thus eliminating any projecting wings in the practice yard. Staircase, lift and lavatories are conveniently placed to serve all floors. The first floor extends over the Rupert-street portion of the engine house and provides a large well lighted administrative office, board room, &c., with centrally placed staircase, lift and lavatory block.

The second floor contains billiard room, surgery, classroom, &c., and two store rooms, the third store room being on the mezzanine floor.



Second Floor Plan.

Bristol Police and Fire Stations Competition.

Design placed Second: By Messrs. H. V. Ashley and Winton Newman, FF.R.I.B.A.

Stables.

The stables and hackney carriage department are placed at the corner of Nelson and Silver streets.

"A" Division.

This department has been arranged on similar lines to the plans prepared by the City Valuer, but with the small areas at the back eliminated, and the walls of the parade room carried down, enabling the whole of the cells to be placed facing the internal area at the rear. A wide, easy staircase leads from the charge room to the cells, and the cell corridor communicates direct with the corridor under the police courts. Staircases at either end of the building lead to a large parade room on the first floor, and a mess room over the skittle alley.

It is proposed to construct the building generally of brick faced externally with bath-stone from an approved quarry, the whole of the floors, staircases, &c., being of reinforced concrete. The foundations would be carried on a reinforced raft or piles, depending on the nature of the sub-soil, to ascertain which trial holes will be sunk. A sum of money is set apart to cover any special foundations which may be required.

Each of the three departments, Fire Brigade, "A" and "E" Divisions, would have a separate low pressure hot water heating apparatus, with radiators fixed against the outside walls, and provided with fresh air inlets where possible. The administrative and police offices would also have the vitiated air extracted at ceiling level, and conveyed by ducts to electrically driven centrifugal fans placed on the flat roof. All married quarters would have fireplaces in the principal living rooms.

The total estimated cost of the Fire Station is £45,749, and for "A" and "E" Divisions £64,761, making a grand total of £110,510.

THE WORK OF ALEXANDER THOMSON

By MALCOLM STARK.

There are many architects. The inspired are few; many begin and continue to do well, until commercial considerations prevail, and ideals are too often sacrificed in favour of a lucrative practice. Some, whose works bear the mark of the master-mind, are taken from us at a comparatively early age by the unsparing hand of time. Wm. Burges, J. D. Sedding, Eden Nesfield, G. Gilbert Scott, Junr., and E. W. Godwin (who all left behind a legacy of executed work of a very high order) passed away before reaching the age of sixty. Alexander Thomson—known to the profession as "Greek Thomson"—died at the age of fifty-eight. His contemporary, George Edmond Street, passed away about the same age.

Both of these eminent architects practised with distinction in very different types of architectural art. And while both Thomson and Street respected the traditions of the particular type of art that appealed to them—Thomson of Classic, and Street of Gothic—they exhibited in their executed work a very remarkable power of individuality and variety in design. Street was not attracted to formal Gothic, English and Continental examples were to him but sources of inspiration and suggestion. And Thomson, in common with Street, regarded precedent as a servant and never as a master. It sometimes happens that the early creations of those distinguished in the higher walks of art are more inspired, and consequently more inspiring than their later works. This may be said of a church by Street in Westminster, and a small school at Chatham—they possess a charm that is stimulating and is not to be found in his later ecclesiastical buildings. Thomson's work, on the other hand, improved with experience. To those acquainted with it, they are impressed with the feeling that in some of his early work he is cautiously feeling his way. He designed for a very short period in domestic Gothic; later his work was suggestive of Italian; but when he elected to become the exponent of modern Greek, no consideration would tempt him to forsake his adherence to it—and his sagacity in this direction will find favour with sensible people; perhaps for this reason he was very fortunate in having a most appreciative clientele. He had ample opportunities of meeting and reciprocating the thought of the cultured in science, art and literature. And the personal conduct of his practice, his sacrifice of money through an honourable faithfulness to artistic ideals, and his literary ability doubtless brought him quickly into contact with sympathetic clients, and he soon built up a varied and extensive practice. To the public his conceptions were too vast and too abstract for appreciation; to the connoisseur they were a perennial source of enjoyment. Thomson died just as he finished his most original and most distinguished work—Queen's Park Presbyterian Church, Glasgow. His earliest ecclesiastical erection is St. Vincent-street Presbyterian Church—a structure which, commanding as it does a fine vista to the south, gains much in dignity by being placed on the slope of an eminence, and on a site open on three sides. It is designed with a fine open portico of the Ionic order to the north and south. Its principal feature is a large tower, slightly Egyptian in feeling, rising on the east side as a perfectly harmonious integral part. It is a noble composition, the proportions, profiles and the disposition of the subsidiary parts leaving nothing to be desired.

Very different in character is Caledonia-road Presbyterian Church. The site is a level one, and also open on three sides. The principal front is designed with an open portico of the Ionic order, resting on the ground story; a fine tower, suggestive of an Italian campanile, is placed on the west side of the portico. This work combines in a high degree severity and refinement, and is more academic in its ordered lines than any of the other four ecclesiastical buildings designed by Thomson.

The works of Thomson cover a large field of operation. His tenements, three to four stories in height, and all built of polished ashlar courses of sandstone, line many of the principal streets of south Glasgow—Eglinton-street, Moray-place, Nithsdale-road, Pollok-street, &c. All are typical of his architectural expression of Greek in every line of detail, although it is impossible to find a single repetition of design.

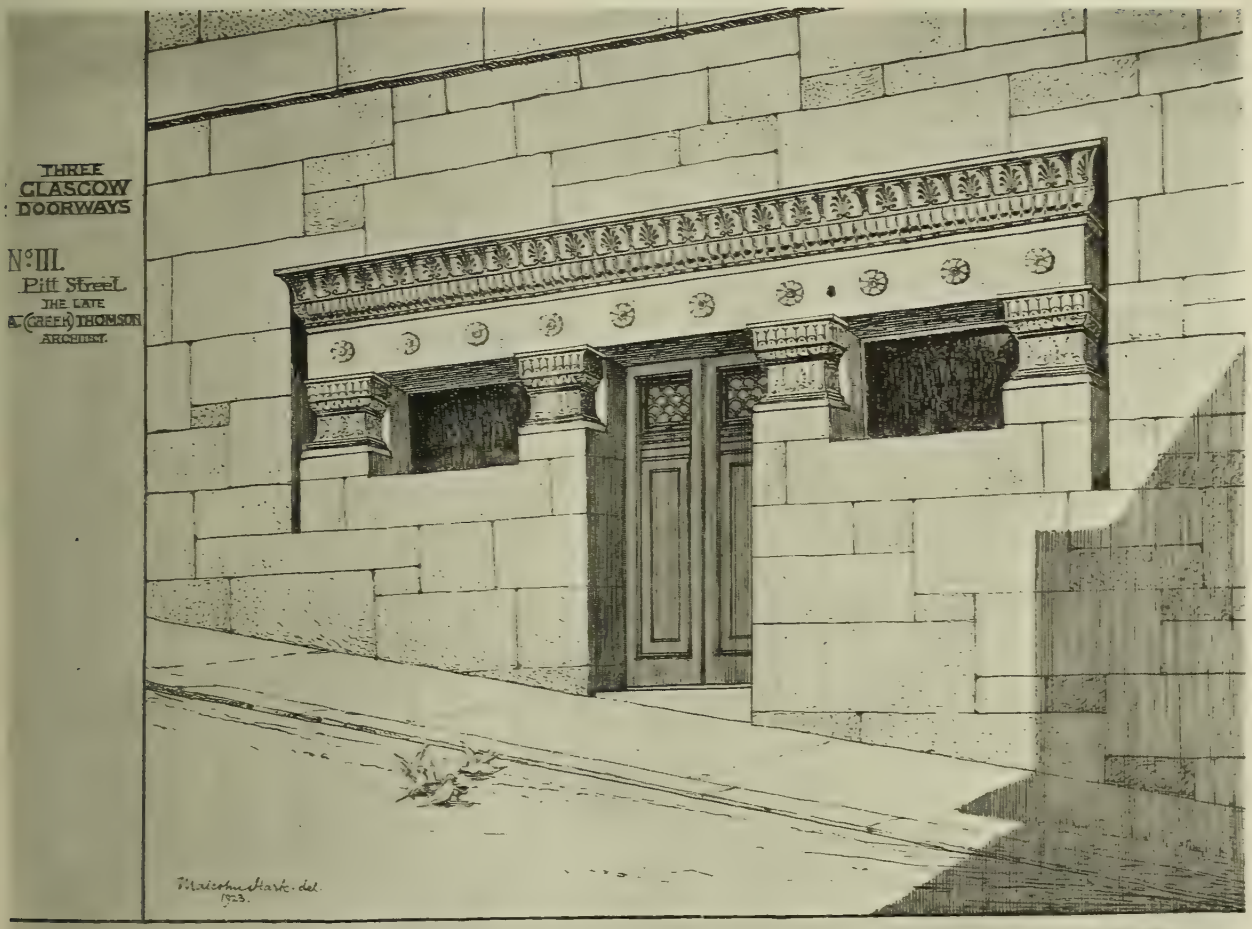
Thomson also erected a large number of warehouses. The largest and finest of these may be said to be the fine block on the east side of Union-street. As a design unbroken by any single feature in its great length, it is remarkable. The fenestration of each story is very fine; the flat surface of the walls is enriched with much incised Greek honeysuckle ornament. This lofty structure, with a cornice of great depth and projection, towers high above its neighbours to the north and south. Placed at regular intervals on the kerb of the pavement in front of it were lamp standards of remarkable design, very original and aggressive, and of great girth. Some time ago, practical considerations urged on the part of the City Corporation led to their removal; only one is now known to exist, where it serves as a lamp standard at the converging point of three thoroughfares at New Cross-gate, London.

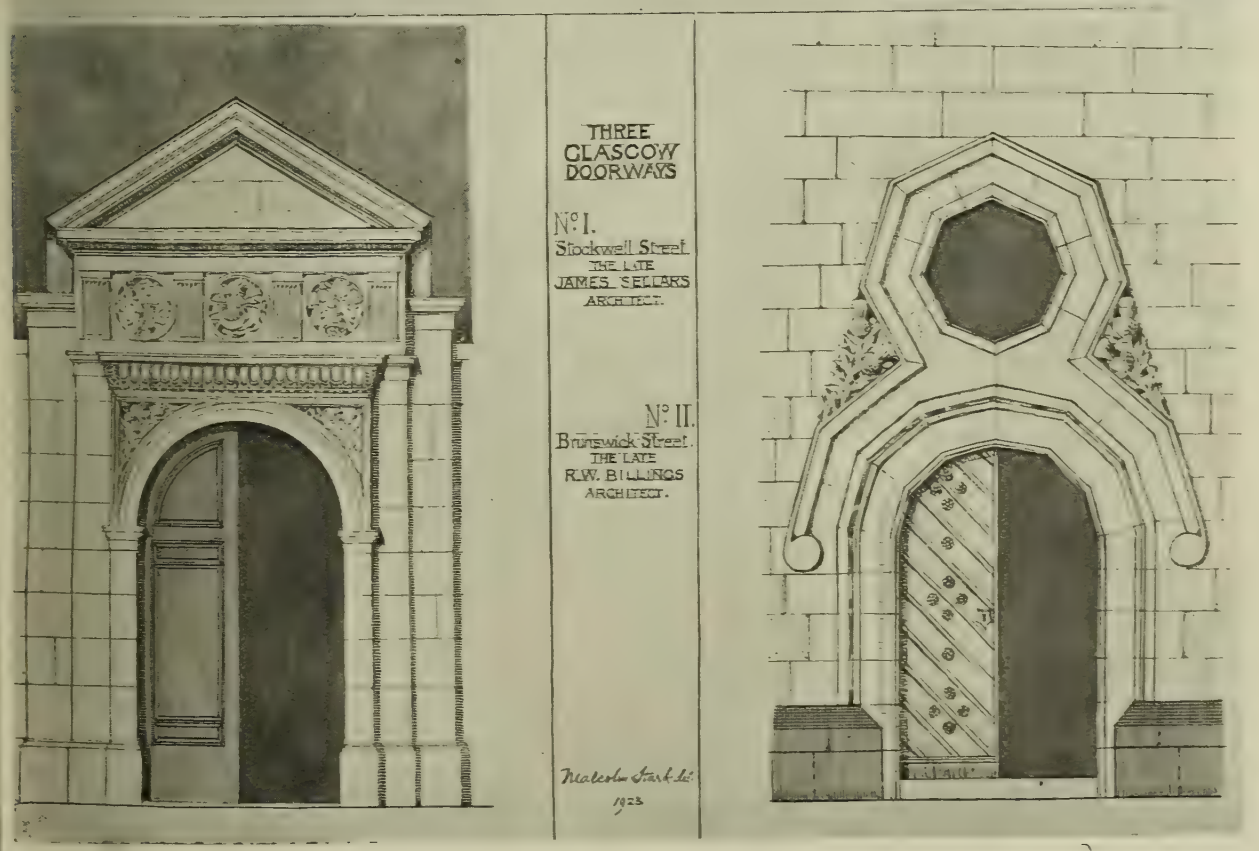
Another great building is the well-known Great Western-terrace, Glasgow. The site is an ideal one, and the opportunity has not been lost of using it to the very best advantage—dignity, scholarly feeling, and refinement dominate this, the finest conception that has come from Thomson's pencil. A well-known critic has said of this work: "In so far as it is possible for any architectural work to be perfect, this superb terrace must surely be considered so. Purpose of thought is in every line of its structure. It is worked out with a single-minded consistency and power that make it a masterpiece for all time. It marks the highest level of Thomson's attainment." Another fine block of terrace houses is Westbourne-terrace, situated a short distance from Great Western-terrace. Here we have a happy blending of the palatial and the domestic—a suave severity is the octave struck. Again, the Ionic order, as at Great Western-terrace, is in evidence; fluted columns are placed at each side of the doorways, guarding pleasant porches, which at once suggest dignity combined with hospitality. These are approached by a short flight of steps which add to the completeness of a beautiful architectural composition, the detail and scale being perfect.

Consistent with a very varied practice, Thomson designed several houses and cottages, principally in Langside and Pollokshields (suburban districts of Glasgow); some of these were published in a volume entitled "Cottage, and Villa Architecture." The subjects were representative of the architecture of the Victorian Age, at a time when perhaps domestic work had its vogue—when the work of Norman Shaw and Philip Webb was at its best. It is a truism to say that the quiet, homely expression of their honest endeavours found a counterpart in Thomson's domestic work. His large houses were never pretentious, and his small ones were never mean. Holmwood, Cathcart, his largest, was built for Mr. Cooper, and is a good example of the application of Greek principles in designing a residence. The provision of light and air, comfort and convenience, have not hindered a fine æsthetic performance in modern Greek. With the Greeks it was but a step from truth to beauty, and undoubtedly Thomson followed them in this—that utility as a primary consideration should always be the basis of an artistic result. Thomson's one edifice of outstanding originality is Queen's Park Presbyterian Church. Of this Church Ford Maddox Brown thought it the finest modern Greek temple in Europe.

It was his latest work and is undoubtedly characterised by a freedom and a concession to the picturesque that is simply startling. T is a playful, yet restrained abandon abo that one could only expect from a genius. horizontal lines on the ground story, with s pilasters, lead the eye along to the corne the front elevation. It is here that one e ences a feeling of disappointment. We fi have been admiring not a building, but a fa the back and side elevations are to narrow and are destitute of feature or detail. It is obvious that such a fine and original conce demands an island site—although its adaptation to its site in plan, its adm contrast of lines, its proportions and cha detail, does much to mitigate our disa ment. It would seem to be an impossibil design a Greek façade without a portic without the Greek order. Here this is a plished. A prominent feature is made main doorway, enclosing two imposts, with the architrave, support an enriched c The upper part of the structure may be s be Egyptian or Assyrian rather than Greek sturdy truncated columns support a frie riched with pateras. Above a cone-shaped feature rises, circular in plan, from an octa surbase. This crowning feature is de with rare skill and subtlety and is finished a simple iron cross. In the interior the or and striking character of the exterior is a apparent. Its simplicity and severity are ever, greatly modified by a soft and harm colour scheme. Thomson employed a L decorator of great ability—Cottier evidently had a free hand; there is a dream of colour, of Pompeian red, peacock sage green and buff; profuse compl stencilling, bound together with dirty and sombre black lines. There is n bizarre. It is clear that the decorator ceived a scheme to produce certain calc effects by a studied use of line and colour priate to a place of worship. The nece limited scope of this article precludes the bility of offering more than a very im description of this architectural triumph. indebted to Mr. Thomson's son, Mr. Thomson, F.R.I.B.A., of Glasgow, fo following information. Alexander Th was born in Balfron, Stirlingshire, in 181 married a daughter of Michael Nicholso was a son of Peter Nicholson, a well- writer on architectural subjects, an architect of many important buildings n land. Alexander Thomson came to Glas an early age, and for a few years his George was associated with him in prac that city. At that time to the student architecture was not very accessible. T literature of any value was a very go a comprehensive work by Stuart and In modern executed work Greek was seen at its best in the scholarly work— Parish Church—and in one of the W churches, the parish church of West N a building with a well-designed porti lantern tower. Cockerell's buildings w tainly infused with the Greek spirit, es in detail. All his work in London and provinces is designed with the most conse regard for the principles of classic. T would often remark that "there are tw conceptions that I can truly say have me a source of inspiration"—St. Georg Liverpool (Elmes and Cockerell) and t School, Edinburgh (Playfair). During his and after Thomson's decease the influen work had a very marked effect on the ture of the city of Glasgow.

Referring to the perspective pen drawing which accompanies this articl be admitted that this doorway of T will always rank as a gem of design. mural surface the effect of a projected tural feature of interest is obtained b into the wall, and at its ends gaining rel short columns which support a fully-reli enriched frieze and cornice, while the r incised conventional ornament on the frieze and cornice is enhanced by p plain mason work by which the do surrounded.





Doorways in Glasgow. (*See p.* 576.)

ITALIAN TRAVEL NOTES—IV.

By THEODORE FYFE.

BOLOGNA, FERRARA, RAVENNA, RIMINI, ANCONA, AND URBINO.

In Italian travel, so many are out for the well-known and obvious places, that it is only the student who has leisure or who is determined to see lesser known but still beautiful and interesting places, who troubles to investigate between Venice and Florence, except perhaps at Bologna and Ravenna. Yet a fascinating country—the Trevisan—is open to him, immediately north of Venice, starting well east at Udine and going westwards to Castelfranco Veneto; served by a railway which takes in Pordenone, Conegliano and Treviso. This is the country of Titian, Giorgione and Cima, full of the joyous spirit of the Renaissance, and with the exquisite background of the Tyrolese Alps that is seen in the paintings of its great sons. All of these towns are picturesque and quite delightful. They are perfect in September, when the first fresh airs of autumn come down the valleys from the high hills.

Or, again, leaving Venetia, the traveller can take a southward course from Padua to Ferrara, some fifty miles away. Another thirty miles brings him to Bologna, the capital of Emilia, and the most important station on the main line from Milan to Bari and Brindisi. Let the student, if he can, swing on to the main line, avoiding the delights of Florence for a season, and investigate some of the fascinating places between Bologna and Ancona. Before Faenza, one changes at Castel Bolognese for Ravenna. Beyond Faenza are Forli, Rimini, Pesaro (for Urbino), and Fano. To see Italy, as one ought to see it, these places should not be neglected.

Bologna and Ferrara are among the most perfect towns that even Italy possesses. Bologna gets attention from many, but one fears that Ferrara is often missed. Yet it is just as distinctive and fascinating in its way as Verona, with an old-world charm that is Ferrarese and nothing else. Here Baldassare Peruzzi built one of his most superb doorways, and one can wander about its brick palaces and its Castello for days. The town is celebrated in the history of painting. Both Titian and Corregio painted there and the native masters include Dosso Dossi, Lorenzo Costa, Cosimo Tura, and Garofalo. The Palazzi Diamanti and Schifanoia are celebrated, and the Cathedral is one of the outstanding buildings of its class in North Italy. At every turn, in Ferrara, one comes across quite unspoiled and delightful work, having for the most part, as a background, a beautiful mellow brick, sometimes relieved with terra cotta. For early Renaissance work in these materials, the town is almost unrivalled in Italy.

Bologna is larger, more sumptuous, more modern, but also with great characteristics that are entirely its own. But if Bologna is modern, it is also ancient, more ancient than Verona. Long before Rome became a power it was the capital of Northern Etruria, and its Etruscan antiquities are remarkable.* It has also old covered ways like Chester, and many leaning towers of brick. The student will find plenty of interesting and sketchable mediæval work in churches like San Domenico, San Giacomo Maggiore, and Santo Stefano; the last a mine of interest, on a site which goes back to remote antiquity.

Of San Petronio, perhaps the less said the better. It is one of those vast umbrellas that Gothic Italy attempted in a style little understood, and one is thankful it was never completed. But it has one immensely interesting feature in the large collection of drawings by Renaissance architects for the completion of the façade, deposited in the Opera del' Duomo. Here are rapidly executed sketches by Baldassare Peruzzi, alongside of more careful drawings by Palladio and others, and a really finished drawing of the lower part of the façade which was actually completed. In Renaissance work, Bologna can show a splendid piece of open-air sculpture—the bronze Neptune by Giovanni da Bologna—and one of the finest palace façades in Italy outside of Rome, the Palazzo Albergati, by Peruzzi.

Very different from Bologna is Ravenna, but if we miss the antique touch, we get a wonderful atmosphere of Italian Byzantine work. Ravenna is a place that should be avoided at certain seasons, as the miasma from the marshes near the sea is unhealthy, particularly in the autumn. It contains six great monuments of Early Christian Art—the basilican churches of San Giovanni Evangelista, Sant' Apollinare Nuova, and Sant' Apollinare in Classe; the Mausoleum of Galla Placidia; the Mausoleum of Theodoric, and the extremely fine octagonal domed church of San Vitale. To these may be added the so-called "Palace of Theodoric," a rare example of Byzantine civic architecture. All of these buildings are interesting and beautiful, though the first-named is largely a matter of modern reinstatement, and there is much incongruous Renaissance work in San Vitale. Sant' Apollinare in Classe is outside the town, but must be visited, as for atmosphere and charm it excels all the others.

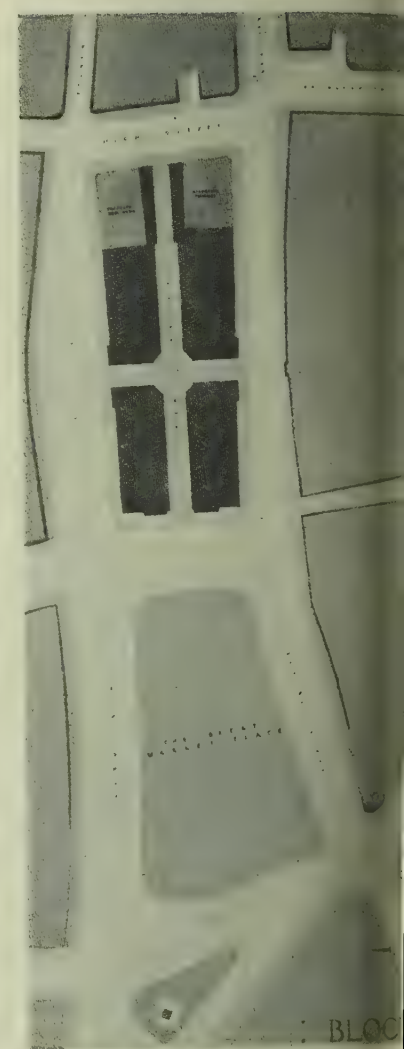
At Ravenna we feel the sea is near, but at Rimini—a much healthier place—we really get to the sea. It is also a very Roman sea, as the town is the rich possessor of two remarkably fine Roman remains—the arch and the bridge of Augustus. It is peculiarly interesting also to see the arch, which is a very fine fragment, in its bearing on the really great building of Rimini. This is the Church of San Francesco, clothed by the genius of Leon Battista Alberti with a Renaissance garment, a feat which he achieved in his great Romano-Renaissance way. In the façade, a princely work, he repeated the roundels in the arch spandrels which were used by the architect of the Augustan arch. The interior is alive with most beautiful early Renaissance detail, and the whole exterior and interior treatment astonishes one with the vigour and delicacy of its handling. One need see only this Church to realise the greatness of Alberti, though his Sant' Andrea at Mantua is even greater.

Further down the coast, on this fascinating main line, we come to Pesaro, the station for Urbino, but we will go on to Ancona, as it is more in our mood after Rimini. Ancona, like Rimini, has great Roman work, the finely preserved Arch of Trajan, forming a gateway to the sea. The situation of Ancona is most delightful, and it is a much frequented bathing centre. It has a splendidly situated Cathedral, perched on a hill immediately above the town. From its western terrace the views both seaward, and inland—towards the Apennines—are superb. The Cathedral itself has a quiet mediæval interior and a noble portal of the best kind of Italian Gothic.

When the student is at Ancona, he should visit Loreto, which is near, and where the great square outside the Casa Santa has some notable cloisters and a well-placed bronze statue. Apart from this, however, the church itself is well worth a visit for the ceiling paintings by Melozzo da Forli and Luca Signorelli.

To pass from these places to Urbino offers one of the fascinating contrasts that are often met with in Italian travel. The road to Urbino is (or was) by a romantic route traversed by a diligence. One penetrates into the heart of the barrier of mountains that separate the coastal towns from the plains inland. In a great degree Urbino is remarkable for one thing, but it is a wonderful

* *See* "Etruscan Bologna," by Sir Richard Burton.



Scheme for the Development of t Exchange Site, Nottingham. (*See p.*

Mr. T. Wallis Gordon, City Engine

thing, the palace of Duke Federigo M feltro (1444-82). Through the length breadth of Italy one will wander far b another palace is found which is so compl representative of the great nobles o Italian Renaissance. Its situation is ro tic in the extreme; its materials exter a beautiful mellow red brick relieve dressings of travertine, or an even finer s internally, a rare grey stone—pietra di c —for the doorways, and the most exqui detailed and inlaid panelling and fitn The stone doors are all, in the main, of lar design, but the carving is various extremely rich and fine. Much of the intarsia work is purely decorative, w flat treatment of figures and foliage. A ticularly fine example is the large d the Sala degli Angeli, where the scheme consists of the dark brown g the old gold of the insertion, ebo greenish wood, and white—sparingly for the vertical stems of flower work. total effect of richness in this door is thing to wonder at.

The study of the Duke is a very room, high-dadoed entirely with intarsi —figure work in panels—and a secre leads from it to one of the fine recesse conies between the towers of the front which a superb view is obtained. The palace is astonishingly of a piece, ori mediæval, but blended from this ceptibly into a pure and beautiful Renaissance. As a town, Urbino has world air, and has a place of pilgrim the house of Raphael, well worth a

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ILLUSTRATIONS

Bristol Fire and Police Station Competition.
We give this week the first and second prelated designs in this competition, by Messrs. or Jones and Percy Thomas FF.R.I.B.A., nd Messrs. H. V. Ashley and Winton ewman, FF.R.I.B.A., respectively. Part of e assessors' report is given on p. 575, and e full result on p. 572.

Nottingham Building Scheme.

A scheme to erect a large arcade of shops, with fices, at a cost of £410,000, on the Exchange te at Nottingham, is under consideration y the Nottingham City Council.

The site comprises an area of approximately 260 sq. yds. On the western frontage is the arket-place, an open space of about five acres; n the Smithy-row frontage the site extends to ne boundary of the land which will be occupied y the National Provincial Bank when these remises are rebuilt in connection with the idening of High-street. The site extends to the ntre of the High-street frontage, with sufficient idth to provide an extrance to the Arcade, and nall shops on each side thereof. On the heapside frontage the site extends from the uilding recently erected by the Commercial nion Assurance Company to the Market-place ontage, opposite Exchange-walk.

The widening of High-street would be conued at its new width of 60 ft. Smithy-row ould be widened, and the building line improved, nd the irregular frontage line of Cheapside also raightened, and the thoroughfare considerably nproved. On the Market-place frontage he building line would be slightly brought rward more satisfactorily to connect up the ne of Exchange-walk with that of King-street nd give a new building front at right angles to line drawn from east to west approximately rough the centre of the market-place.

The design of the intended new building is enaissance in character. The Market-place ont has been designed with a piazza, and two pen balconies have been arranged at the first-oor level on the Great Market-place front.

An important feature is the provision of two rge shopping arcades which would provide mmunication between the Market-place and igh-street, and between Smithy-row and eapside. The arcades are 60 ft. high and have effective width of 28 ft. The intersection of e two arcades is accentuated by the introaction of a glazed dome, surmounted by a wer and outer dome to add greater dignity to e building and importance to the sky-line, and the same time to give the necessary water orage accommodation for automatic fire tinguishers.

The existing buildings on the site have a pp frontage of only 390 ft., whereas the prosed scheme offers a shop frontage of approxiately three times the present amount, viz., 26 ft. A development on the lines suggested uld concentrate the administrative work for shops into the basement, and allow the llest value to be obtained from the ground or space.

A goods entrance for each shop is provided by the introduction of a wide subway under both the arcades, and from the subway an entrance to the basement of each shop would be provided. The subway would be fitted with two extra large goods elevators at the southern arcade entrance, and the use of these could be restricted to certain hours if found desirable. In addition, at the south-eastern corner of the site in Cheapside there would be an inclined road suitable for trolley traffic leading into the subway.

The whole of the ground floor would be constructed so as to allow the greatest possible scope in sub-dividing the area, varying from the small lock-up shop of say, 19 ft. by 15 ft. with a small basement, up to a large shopping store of say, 120 ft. by 50 ft., comprising five or six floors in height. Between the main piers the shop fronts would be arranged exactly as desired by the various tenants and the internal divisions for the shops would be as light as possible to conform with the usual fire insurance regulations.

The approaches to the upper floors would be grouped at the northern and southern arcade entrances in Smithy-row and Cheapside respectively. The upper floors would be finished in skeleton form only, thus enabling the accommodation to be let in tenancies varying from a small single office to a complete suite of offices, comprising three or four floors.

The building would be erected in Portland stone. The shop fronts and the upper windows would be in metal with uniform bronze letters on the shop fascias. The dome would be covered with lead. The whole of the building would be steel framed with fire-resisting floors and a subhollow floor to contain the various electric, heating, telephone, and automatic fire extinguishing services. The arcades would have a glazed roof of special construction, and the arcade paving would be arranged with ventilating and lighting panels to the basement subway.

The scheme has been prepared by the City Engineer, Mr. T. Wallis Gordon; Mr. T. Cecil Howitt is the architect.

MEETINGS.

FRIDAY, *April* 11.

Royal Sanitary Institute.—Sessional Meeting. At Town Hall, Newport.

Town-Planning Institute.—Mr. F. M. Elgood on "Buildings and Building Lines, including Zoning." At 92, Victoria-street, S.W.1. 6 p.m.

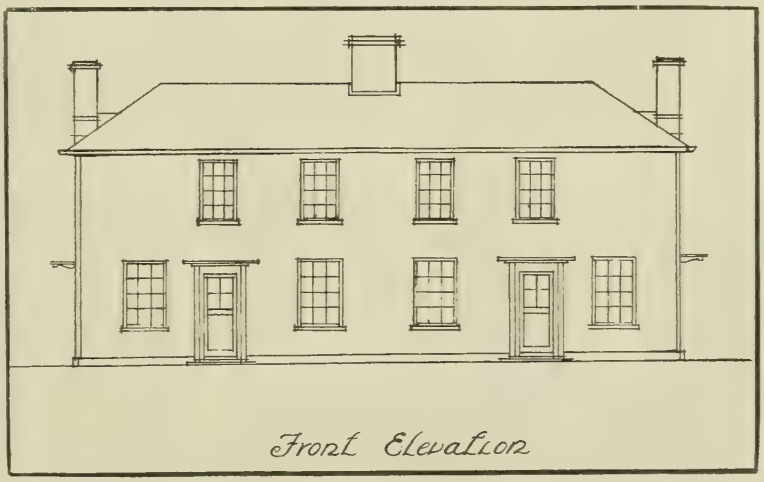
London Society.—Mr. J. Slater on "The Strand and the Adelphi." At 18, John-street, Adelphi, W.C.2. 5 p.m.

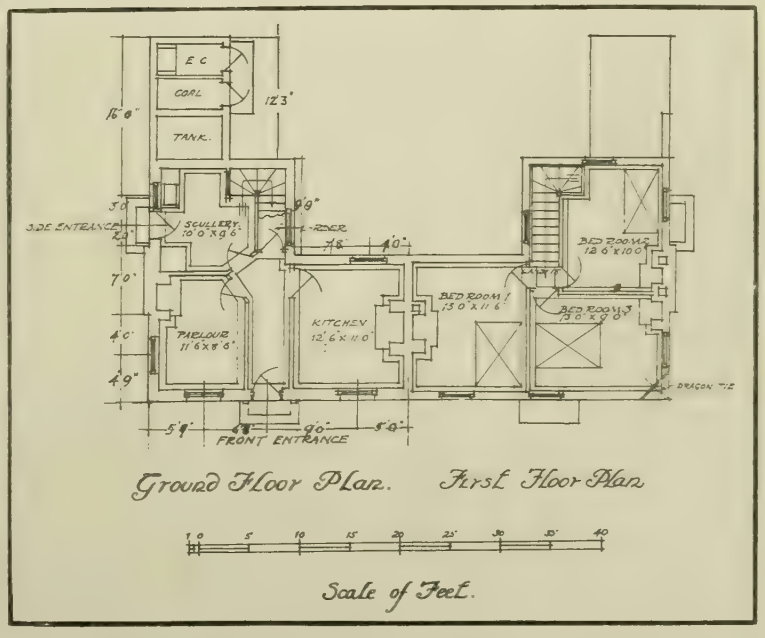
SATURDAY, *April* 12.

Edinburgh Architectural Association.—Visit to Trinity College Church and Canongate Church.

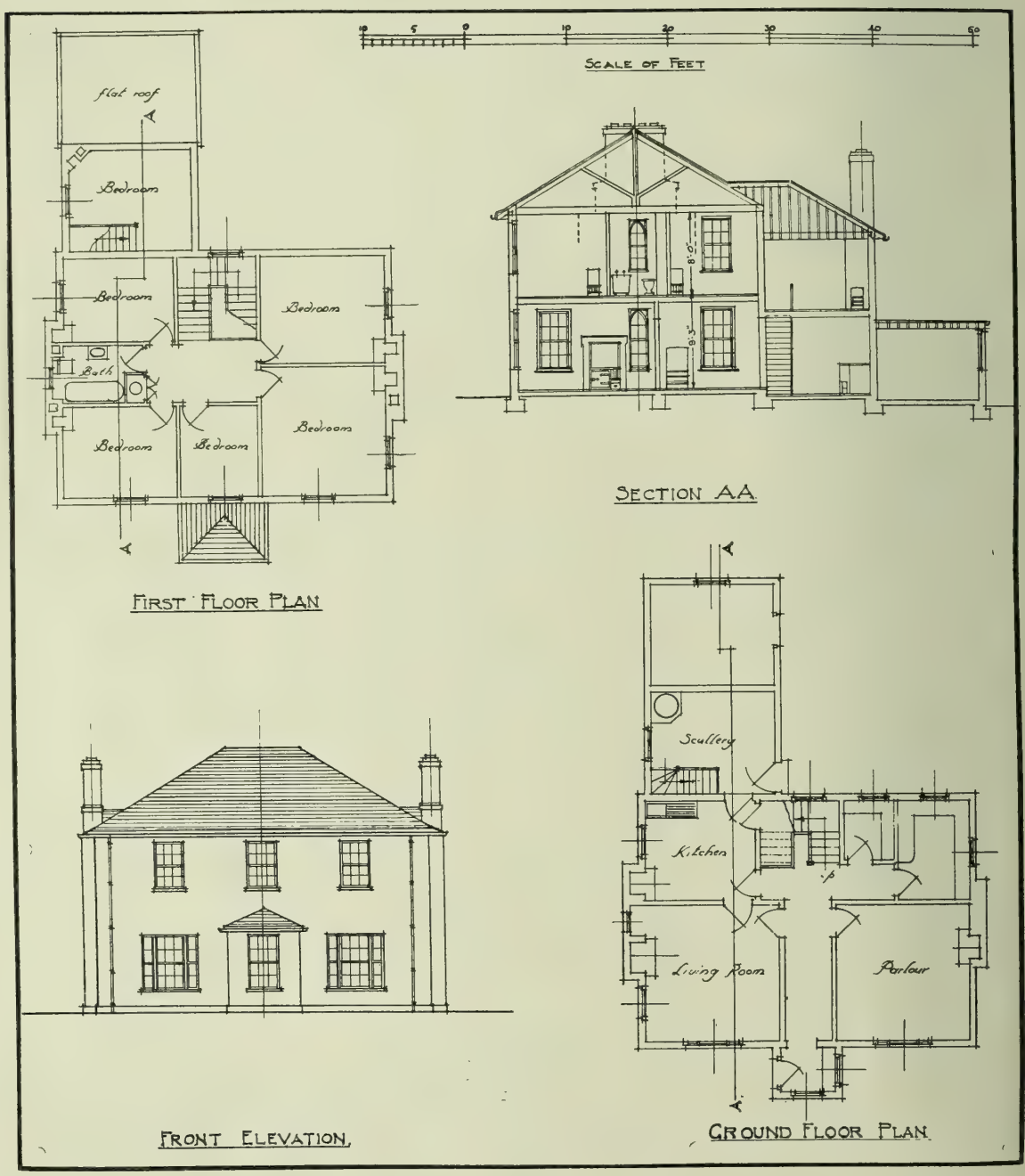
MONDAY, *April* 14.

Royal Institute of British Architects.—Mr. D. F. Slothouwer on "Modern Dutch Architecture. At 9, Conduit-street. 8 p.m.





Pair of Cottages, Holy Vale, Scilly. (*See p.* 580).
MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects.



Dennis Farm, Reterth.

Messrs. Richardson & Gill, FF.R.I.B.A., Architects.

Messrs. Richardson & Gill, FF.R.I.B.A., are the architects for the work now going on for the Duchy of Cornwall. (See also pp. 584-7.)

The Parish Room, at Princeton, is to be built on economical lines. It is to have hollow brick walls and Belfast roof trusses. The accommodation is: A large hall and retiring rooms on the first floor; on the ground floor, two reading rooms, billiard room, kitchen and boiler room. The building externally is to have stucco finish.

Bungalow on the Postbridge-road.—This has been designed as a holiday house, built of local stone and roofed with Delabole slates.

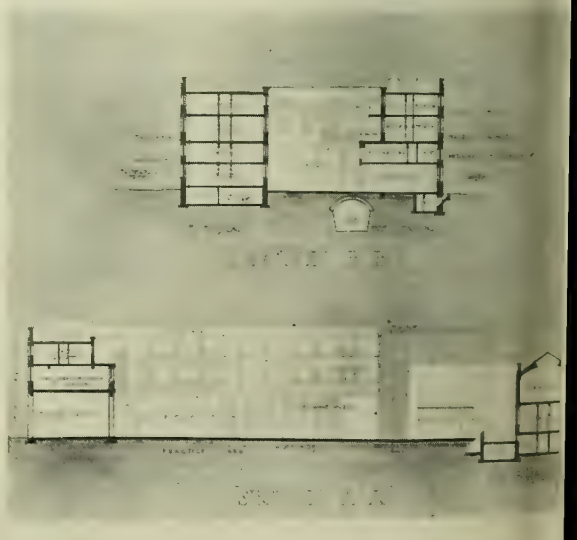
Bungalow at Brownberry, is situated on the Ashburton-road, overlooking the falls of the Dart. This also has been schemed as a holiday home.

A Pair of Cottages at Holy Vale, Isle of Scilly.—To be constructed of concrete blocks, slate roofs,; the cottages have been schemed to meet local requirements.

Dennis Farm, Manor of Reterth.—The design is typical of the small farmhouses built on the Duchy of Cornwall estate in Cornwall.







Bristol Fire and Police Station Competition.

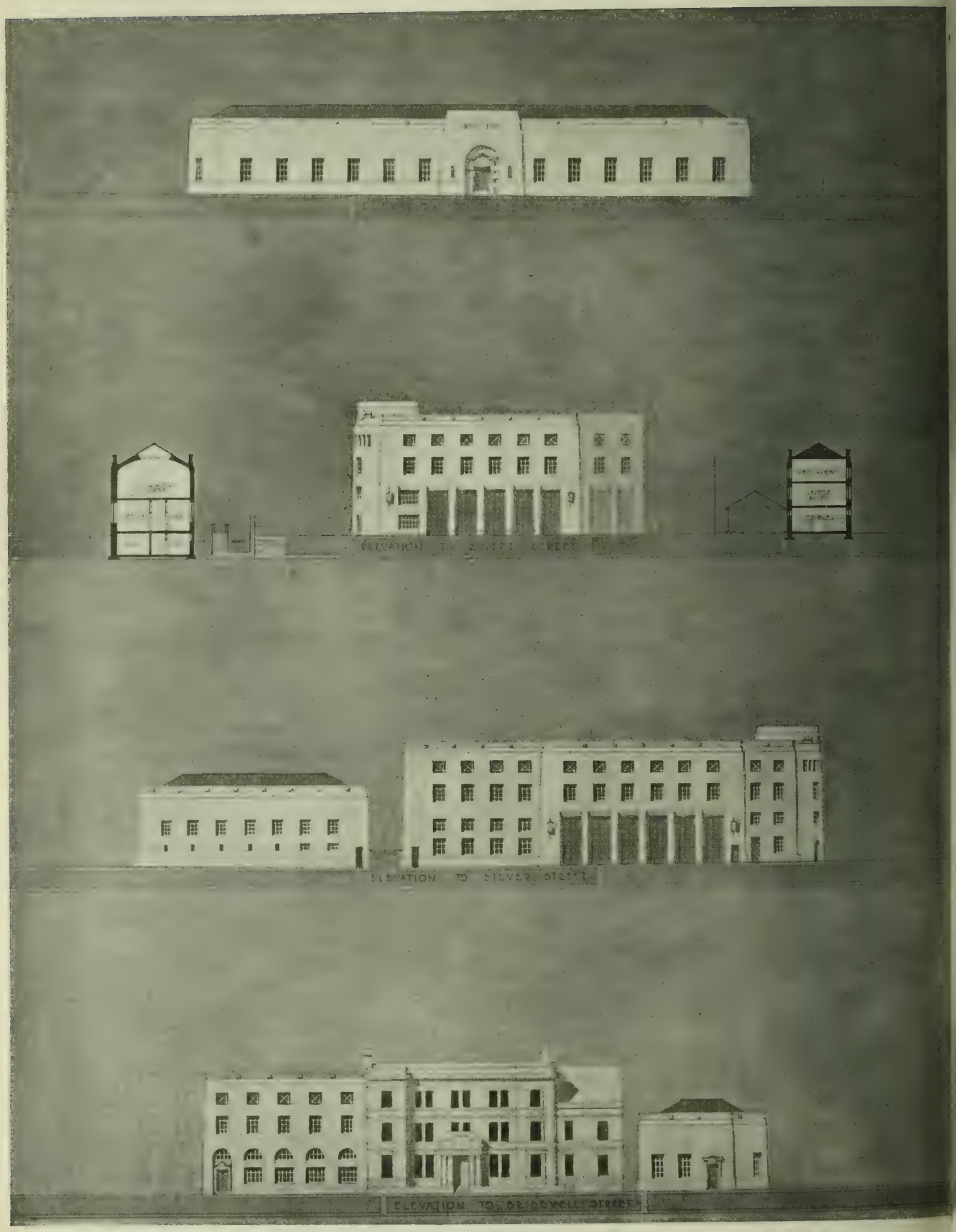
Design placed first: By Messrs. Ivor Jones & Percy Thomas, FF.R.I.B.A. (*See p.* 575.)





Bristol Fire and Police Station Competition.

Design placed first: By Messrs. Ivor Jones & Percy Thomas, FF.R.I.B.A. (*See p. 575.*)



Bristol Fire and Police Station Competition.

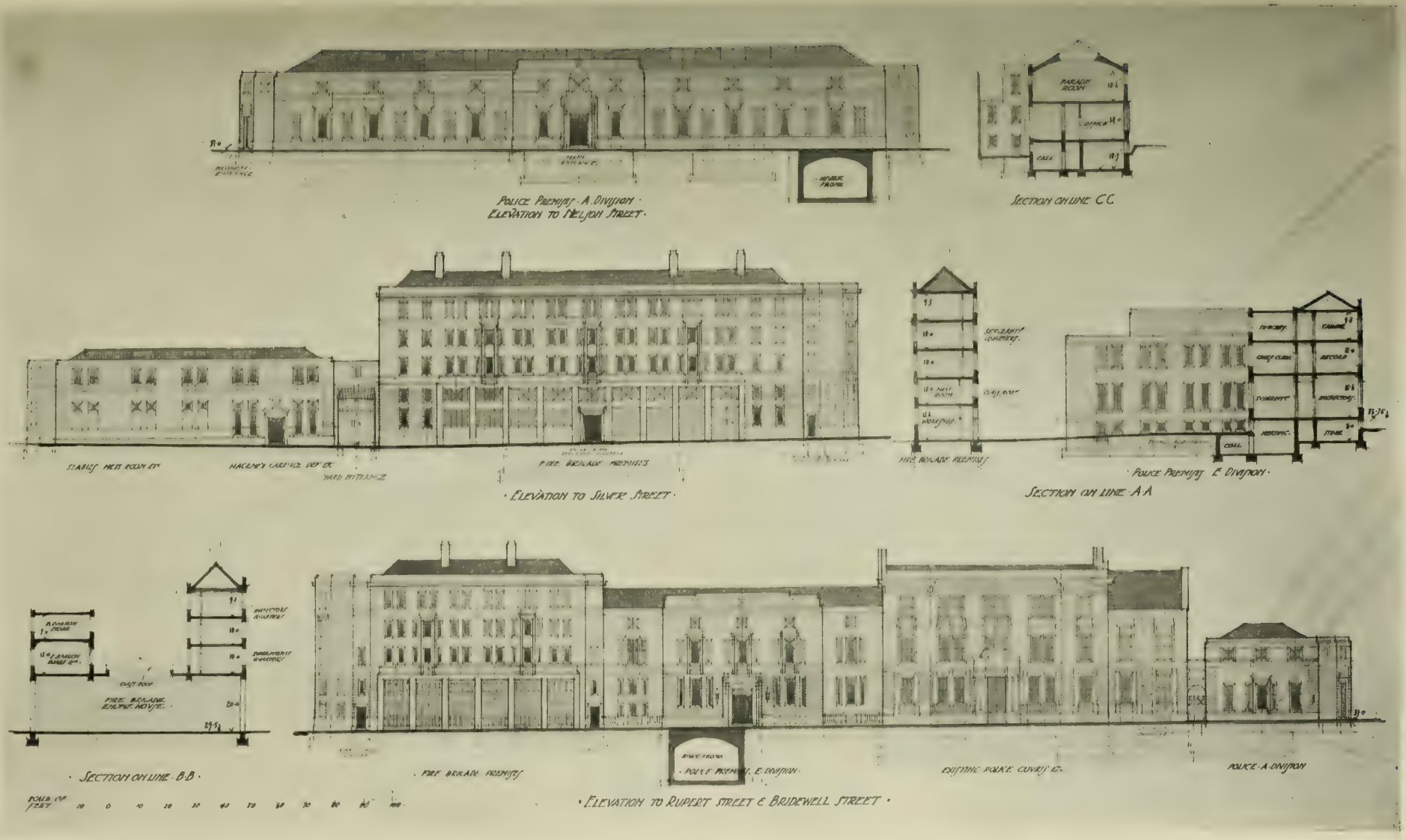
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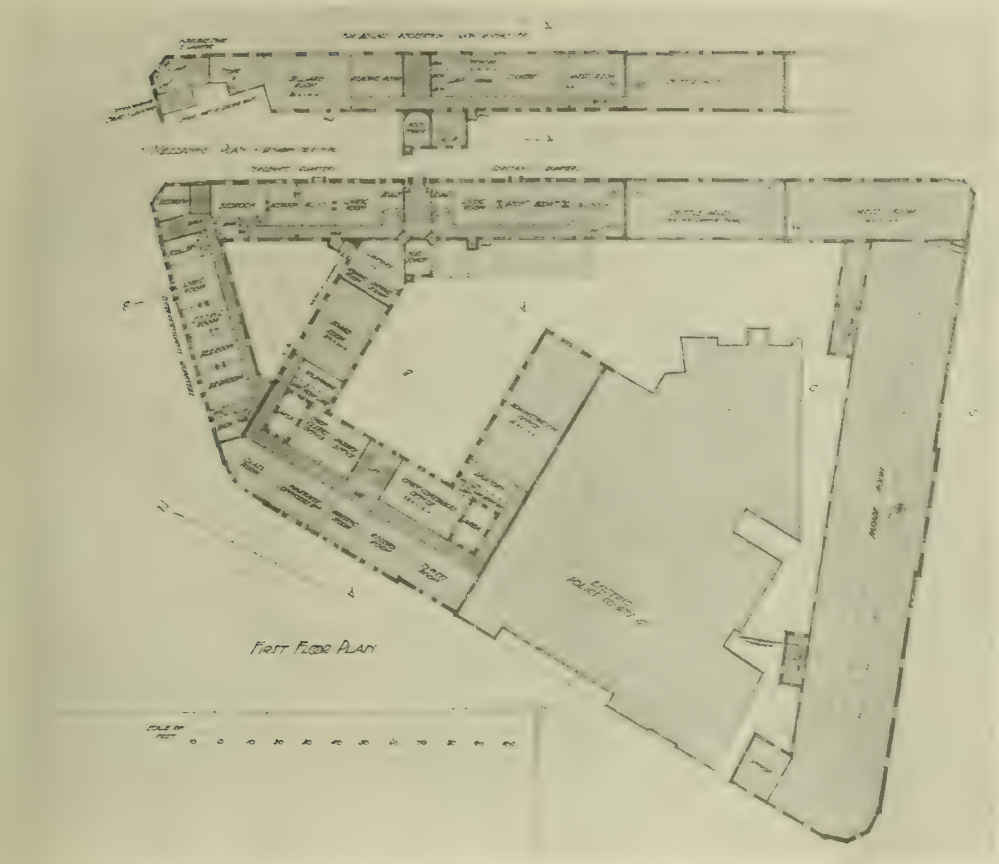
Ayr War Memorial. Mr. James K. Hunter, F.R.I.B.A., Architect.

[This memorial is to be unveiled on April 13, in front of the Ayr County Buildings. It is of Creetown granite. The base is 25 ft. sq., and the height 27 ft. The granite was supplied by Messrs. Stewart & Co., Ltd., of Dumfries; the builders were Messrs. J. & D. Meikle; bronze panels by Messrs. H. H. Martyn & Co., Ltd.]



Bristol Fire and Police Station Competition.

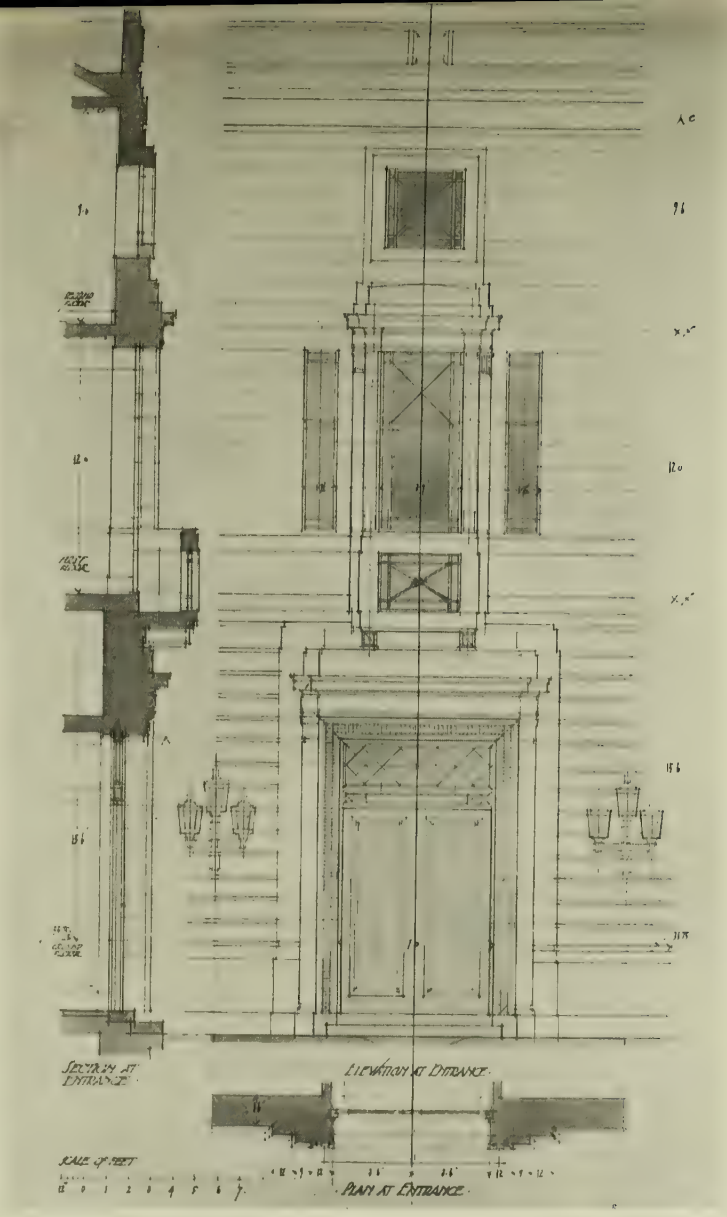
Design placed second: By Messrs. H. V. Ashley & Winton Newman, FF.R.I.B.A. (*See p.* 575.)

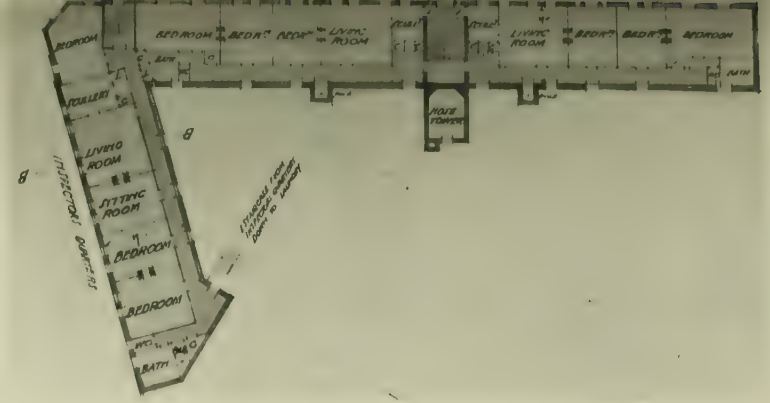




Bristol Fire and Police Station Competition.

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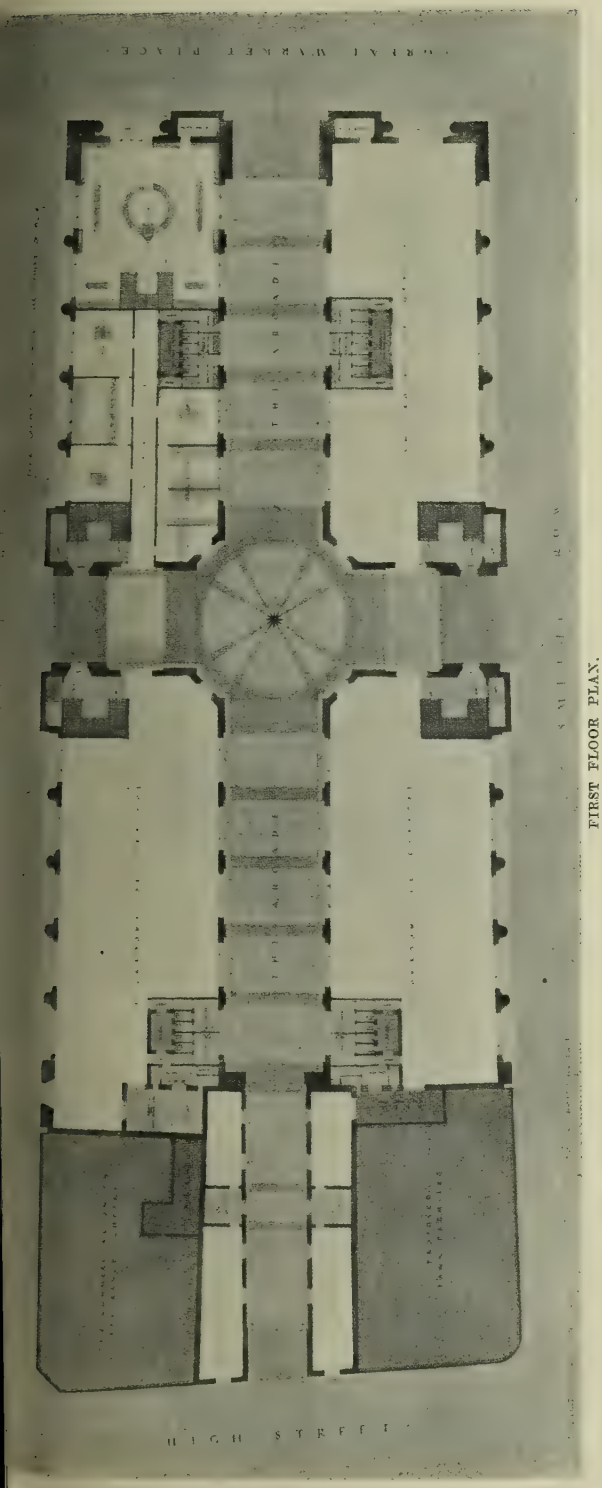




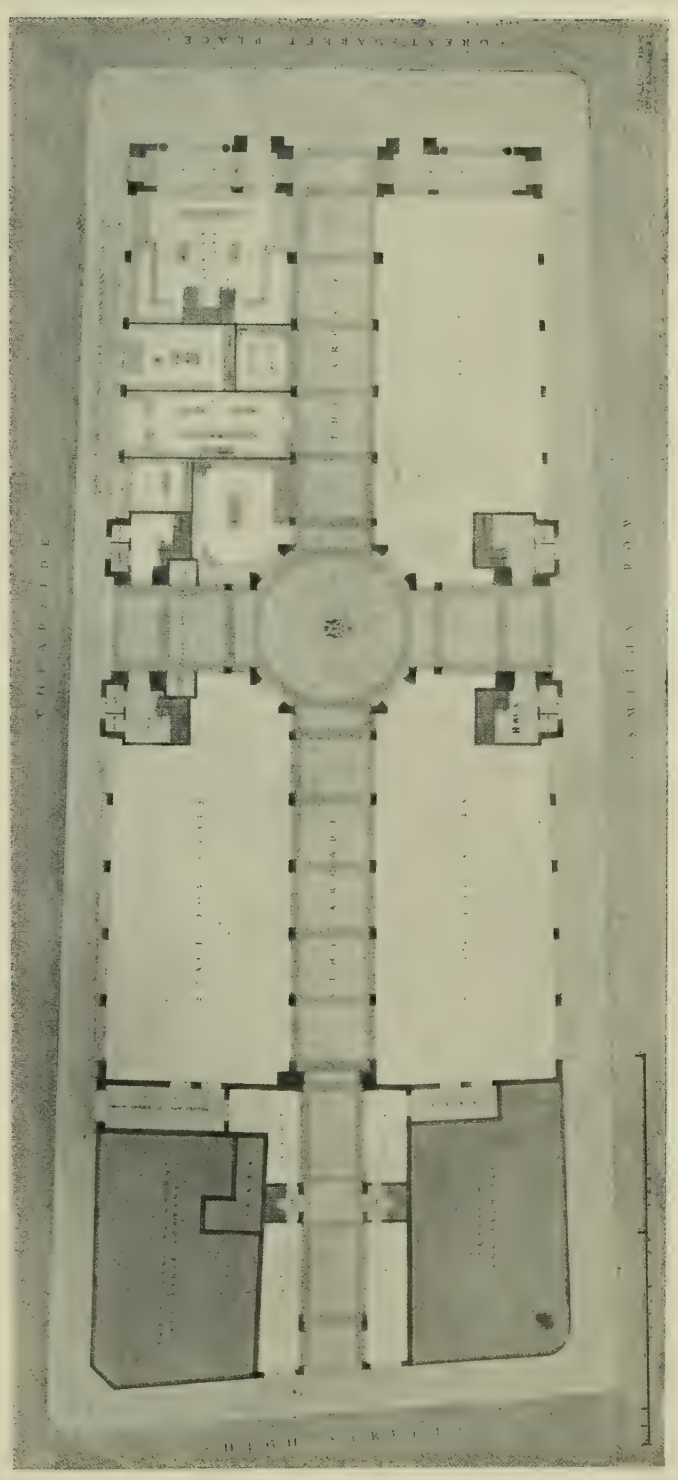
THIRD FLOOR PLAN.



Bristol Fire and Police Station Competition. Design placed second: By Messrs. H. V. Ashley & Winton Newman, FF.R.I.B.A. (*See p.* 575.)



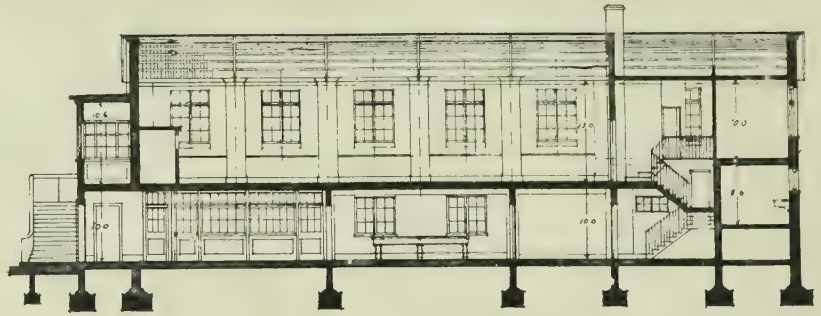
FIRST FLOOR PLAN.



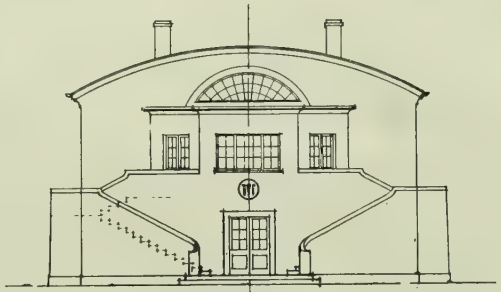
Scheme for the Development of the Exchange Site, Nottingham. Mr. T. Wallis Gordon, City Engineer. (*See p.* 579.)



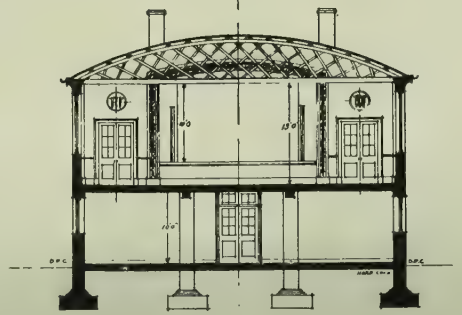
SIDE ELEVATION



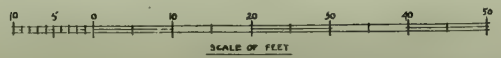
LONG SECTION B B

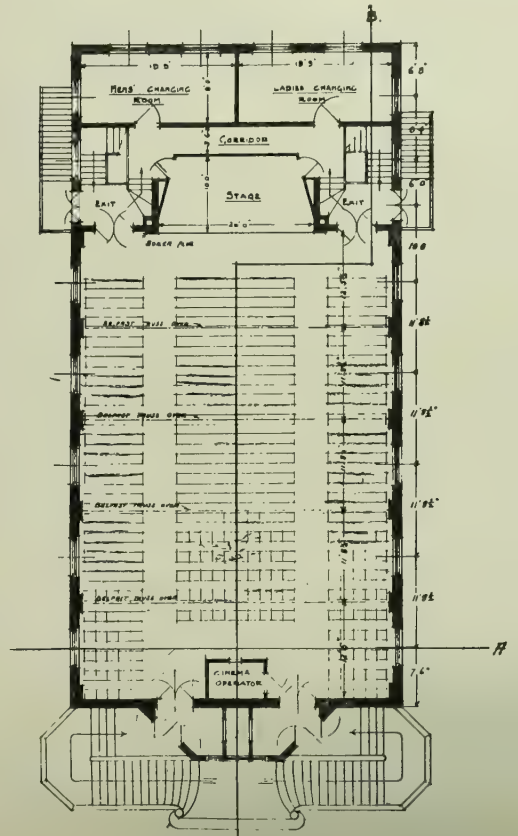


FRONT ELEVATION

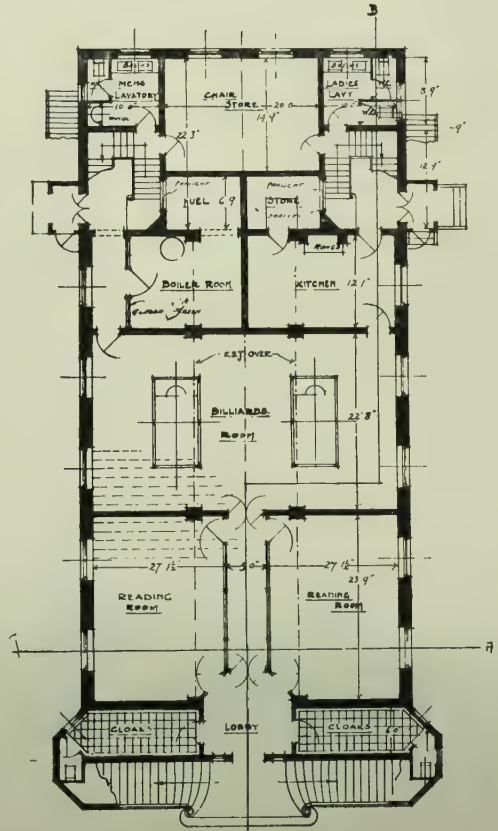


SHORT SECTION A A



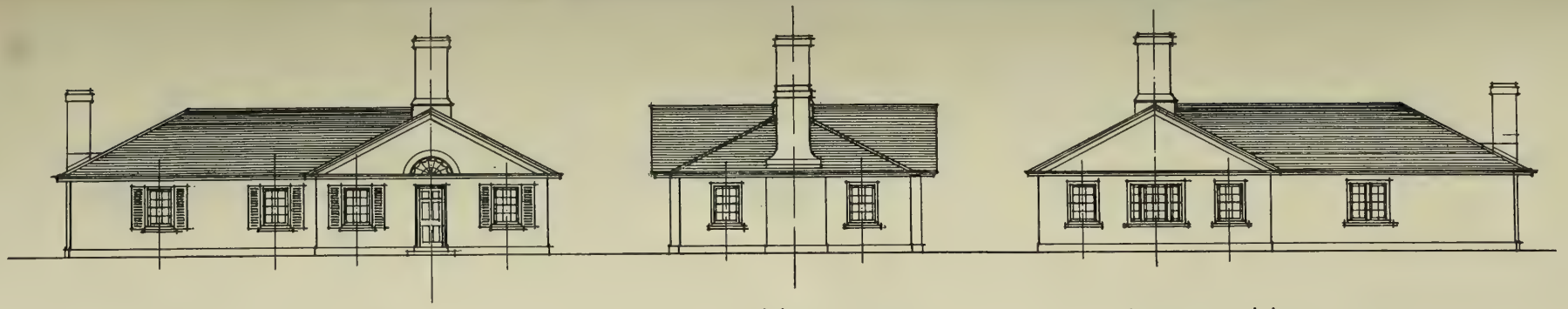


FIRST FLOOR PLAN



GROUND FLOOR PLAN

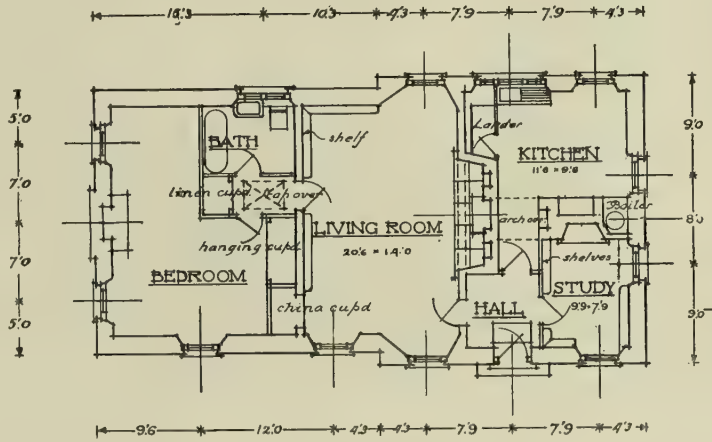
PROPOSED BUNGALOW FOR COMMANDER LAPAGE



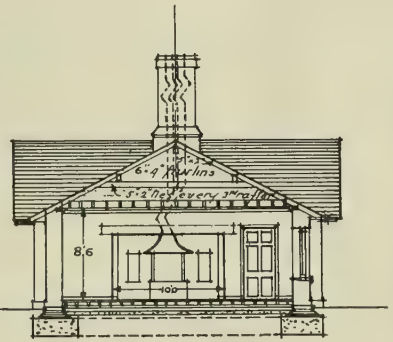
FRONT ELEVATION

SIDE ELEVATION

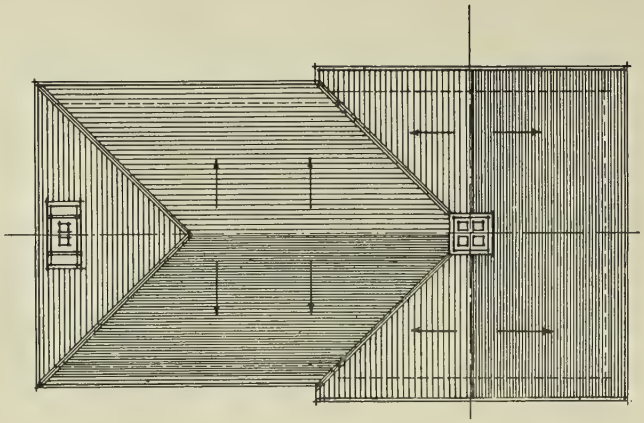
BACK ELEVATION



GROUND FLOOR PLAN



SECTION A-A



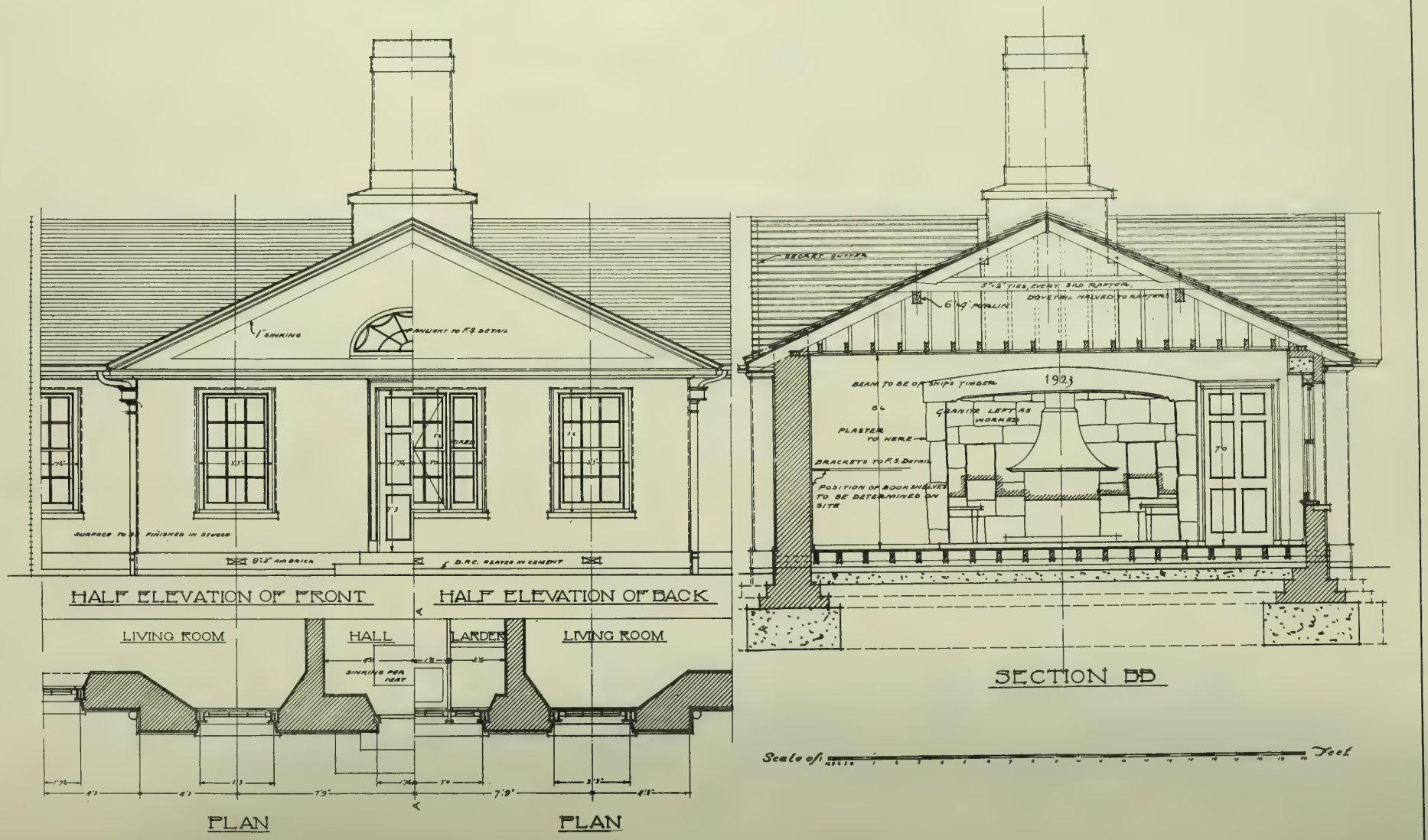
ROOF PLAN

Scale: ⅛" to 1 foot

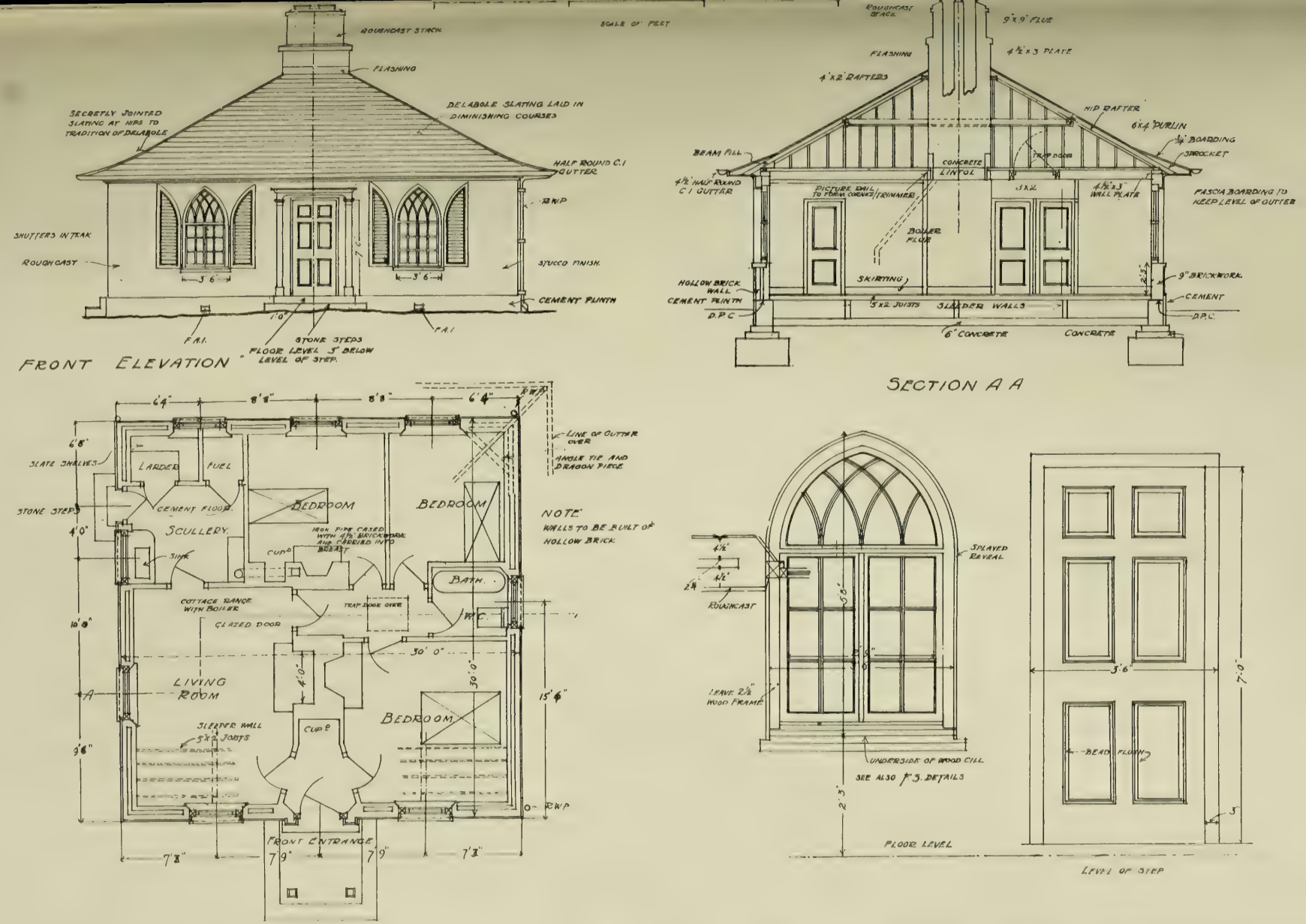
Scale of Feet

Bungalow on Postbridge-road, Princeton.

MESSRS. RICHARDSON & GILL, FF.R.I.B.A., Architects. (*See p.* 580.)



Bungalow on Postbridge-road, Princeton.



Bungalow at Brownberry. Messrs. Richardson & Gill, FF.R.I.B.A., Architects. (*See p.* 580.)

TOWN-PLANNING CONFERENCE

In our last issue we gave a review of the exhibits at University College, where a Town-Planning Conference and Exhibition was held last week. In our last issue we also reported the first conference, opened by Mr. Raymond Unwin, on "Zoning Requirements of Town-Planning Schemes under the Act," held on Tuesday last week.

On Wednesday Mr. G. I. Pepler opened a discussion on "Technical Requirements in the Preparation of Schemes."

Technical Requirements in the Preparation of Schemes.

Mr. Pepler said there were present a number of students as well as those actually engaged in the preparation of town-planning schemes, and he had been asked to talk about the actual presentation of town-planning schemes. On the wall they would see a map showing the notation which had been adopted by the Ministry of Health. Many experiments were made before they arrived at this map. The first point was to define the area of the scheme, and this was done by a blue border line round the area, but not in it. The latter point was of importance, because if the border line was placed inside the area it might conflict with other colours on the map and lead to legal quibbles. The second idea was to have ground colours for densities and hatches for uses. The parts of the area for industrial purposes were always indicated by purple, and from correspondence he had had with people in America, Germany, and other parts of the Continent it would seem that purple was now very generally adopted as the industrial colour. The methods of hatching indicated the restrictions as to industry. Where they got grey and purple it meant that industries were allowed, but that this was not the predominant use. The purple hatching indicated that industrial use was predominant; whilst the grey hatching brought in shops and other things. The parts coloured grey showed they were purely residential. The white area denoted that the predominant use was residential, but they could zone subsequently on a smaller scale for particular uses. Red represented the roads, and the roads were numbered, which was a matter of importance. The green wash indicated existing private open spaces and proposed public open spaces were shown with a green ground and green hatching. For allotments they had a verdi sienna wash with a green hatching across it. The best plan in starting to plan an area was to consider the sequence of events, and the first thing to do was to make a civic survey. Even if they did not make a civic survey at first, they must carefully scrutinise the area and gather information about it; but personally he thought a fairly thorough civic survey was essential, for it seemed presumptous to lay down lines for the future development of a place before knowing all there was to know about it. It was perfectly amazing how little one knew about his own town until one came to set down the facts and study them. It was like many of the problems put forward for the solution of the London traffic problem—the suggestions generally were to add to the facilities, but they would probably add to the trouble. To arrive at a conclusion of a problem they had to get at the causes and then the difficulties might be removed. Generally there was a great deal of data available for a civic survey, but it had not been put into graphic form and had not been prepared. Professor Abercrombie told him that when he undertook the civic survey for Sheffield he found a great deal of information available at the Town Hall, and that he acted as a kind of liaison officer and picked here and there and got a complete picture. Of course they might arrive at wrong conclusions. For example, they might imagine that with a density of houses they would always find a greater percentage of disease and infantile mortality, but on comparing the maps it was found sometimes that was not the case. That led to further examination and they might find disease due to the fact that the site was low lying and was always under a smoke cloud. They might find that the wages question came into it and a number of other things. In London he got from Scotland Yard a chart of the fatal accidents in the streets complete for ten years, and he hoped to arrive at some conclusion as to the cause, but he confessed that so far he had been unable to. The theory of the police was that fatal accidents occured where they got blind corners on an open street with fast traffic. He had hoped that the theory was right, because that was a matter which might be rectified, but it did not prove to be the case when they were plotted out. The symbol he used was a black cross, and the map in many places looked like a black boarded fence. Then he compared it with a map which showed the position of all the public houses and found there was no incidence between them, and it really seemed to confirm the proverb that Providence looked after the drunkard. Well, before they had completed their civic survey they would want to get on and fix the area, and in regard to that he recommended them to take a wide view and be sure they included enough. It was a simple matter to discard part of an area if they had taken too much, but not so simple a matter to add to it if they wanted to include in the scheme land outside the area of the authority for whom they were acting; they would have to get the permission of the Ministry of Health, and to get it they would have to show good reasons. The best way was either to get agreement with the neighbouring authority and establish a Joint Town-planning Committee, and prepare a statutory scheme, or for a much larger group to appoint a Joint Town-planning Advisory Committee. In this matter it was essential to have co-operation, and it was better to do it by joint action. Some areas they might have to exclude. The built-up area of the town, if it was a big town, seemed to be not really within the scope of the Town-Planning Acts, but, all the same, they would plan it, and there were other powers under which they could proceed with regard to the built-up area. In planning, they should first make a diagram, and think of what they would like the town to be. A balance should be kept between the amount of industrial land, the population they were likely to get, and the inter-communication. Let them put down on paper what they would like the town to be, and then see what was practicable. Then they must deal with the zones—it was wrong to deal first with transport and then with the character zoning. Having fixed the uses this would affect all manner of things, such as the laying of water mains, sewage pipes, and the supply of light and power. The general practice was in the first stage to put down only the predominant use, and more detailed zoning could be done by supplementary orders. At Birmingham they showed the big roads on the official map, but in the office they had a map all filled in with schemes, so that if anyone came along they were ready and could make suggestions. With regard to density, the general average seemed to be twelve to the acre. In some places, there seemed to be an attempt to keep the districts select by limiting the number of houses to three or four to the acre, and that was all right provided it was in the public interest, as very often it was. Height zoning had been treated very simply in the Model Clauses by taking an angle of 56 degs. in a mixed area and 45 degs. in a residential area from the centre of the street. So far the question of dealing with the backs had not been dealt with, although that was of equal importance. For open spaces, the diagrammatic method was to be recommended. His personal opinion was that they wanted one acre for every two hundred people, and they should have some flat and dry spaces on which football could be played. In some towns the question of preserving land for agricultural purposes was being tackled, and he thought very wisely. Mr. Pepler d also with the question of the preservation wedges of land, and pointed out that th things should be tackled before communicati were dealt with, otherwise they would sim make such land of building value. In conclus he touched on the question of roads and urg that the planner should carefully survey t proposed roads and should preserve an adequ width of footway. With a road 80 ft. wide, th would have to duplicate the service mai This was being done under the footway, and t Surveyor of Leeds had come to the conclus that in such cases they must reserve 20 from the edge of the kerb to the fence of house. Grass margins should not be less th 5 ft. width, for otherwise people would recognise them as such.

Mr. F. G. Elcegood said it would be an en mous advantage when eventually they arrived a decision to have a uniform method of notati If the Minister of Health was sufficiently sev he supposed it could be brought about co paratively easily for Great Britain. Whet they could by some international action get same notation used in all town-planning schen he did not know, but it would be a pity if stre efforts were not made to secure uniformity the earliest possible moment. He hoped th would be able to provide for some definite ordination of schemes in groups of authoriti so that it was not left to have greater densit only where an authority would have it. densities should be where they ought to be. regard to London, for instance, it was not ri to put the large number of working cl dwellings all together in the East End, when th were magnificent undeveloped areas on northern heights. He knew it was a quest largely of transport, but that was not an surmountable difficulty, and town plann could only justify themselves in so far as th were able to solve these combined proble They must get away from the idea that work insisted on being near their work; although agreed there was a good deal of truth in statement.

Mr. J. A. Rosevear thought that many were now carrying out town-planning schei had not made a proper civic survey, and s had omitted it altogether. As to the enlar ment of areas, he found in the West Cour they were very diffident about looking over fence. One city he knew of was surrounded rural district areas; but would not consider enlargement of its boundaries or the bring in of the rural district councils, althoug seemed to him it had difficulties which co be got over by such means. The questio densities in suburban London was a g difficulty at the present time. They would agree that town planning to be successful n proceed with the good will of everybody, an the present time it would do no good if the went forth that town planning would pres land for others than the working classes. how, the London County Council was plan its Roehampton Estate for the working cla As regarded open spaces they talked a good about compensation, but often forgot the p of betterment.

Mr. C. N. Beale said he was surprised to that whilst a ten-foot unit might be necessar a narrow road with one stream of traffic in direction, yet when they got to wider roads traffic width might be less. Twelve years he investigated the question for himself Calcutta, and came to the conclusion that wide road with three lines of traffic going ir same direction they required a greater ma and they must allow at least 30 ft.

Professor S. D. Adshead said Mr. P had given a mass of information, but had emphasised the importance of some sor development of the technical plan betwee preparation of the civic survey and the prej tion of the map which had been descr Mr. Pepler had referred to a plan of the authority which was in no sense a legal but he would like to know what his real were as to the preparation of something i way of an imaginative and non-statutory for the use of the Council previously to plu into the hard legal issues. There would al

roversy on the subject of placing the
g classes in the best residential districts,
was in sympathy with Mr. Elgood in
it was not fair to drop down millions of
g class people in the most uninteresting
f a great district. He believed that a
art of what was called the spoiling of
ass areas was not the people living in
ses but the poor architecture.

EPLER, in reply, said the most important
as to have a policy about their town
g. They had to think out not only where
should be but the kind of appearance
uld like the town to have. He did not
the enlargement of a town; what he
gest was co-operation. His experience
affic units was different from that of Mr.
It was true he omitted to deal with the
ment plan, but he had that in mind
e spoke of the diagram, which included
ole town.

Regional Development.

sday's discussion was on "Town-Planning
s in Relation to Regional Development."
chair was occupied by the RT. HON
E CHAMBERLAIN, M.P., who expressed his
ion of the importance of town-planning,
erred to the Birmingham town-planning
in which he was interested some twelve
go. As a result of the experience gained
ningham he urged that in all town or
l planning schemes the greatest elasticity
be aimed at, because it was quite impos-
o know what the requirements would
ay, twenty years time. From the small
ngs of town-planning ideas had devel-
ntil it was now realised that regional
ere necessary to embrace many towns
es; he thought that very soon the whole
would be divided into regions for the
of planning, so that ultimately the
uld not be a town plan but a plan for
ole of the country.

I. G. GIBBON said people who talked
f garden city development as though it
he end of town-planning were really
ger to town-planning. Town-planners
ten too conventional and unstimulating;
should be realised that that attitude was
danger in town-planning where there was
h to learn and where the surface had
so far only been scratched. The first
of any town-planning scheme should
proper and most advantageous provision
neans of livelihood; business, not housing,
e kernel of town-planning. When any
nity acquired even a modest measure of
ity it devoted a considerable amount of
n to the decorative elements of its
e; that was another real danger, and
already been found to be a danger.
ecorative element, which was quite
ry, often received so much attention
e problem was seen out of focus, with
ult that various solutions or solutions
ere only half true were produced. That
d an unfavourable influence on the
ment of town planning in this country;
hrown things a little out of the straight
and it would take some time to put
ight. Town-planning in this country
primarily as a housing matter; housing,
e, was one of the chief requirements of
lanning, but it was not the only one.
n had been concentrated on housing
ment to such an extent that com-
ly little attention was given to the
need of the ready access of the worker
work, with the result that the transport
had been so acute that it was hag-riding
own and everyone was becoming im-
with its urgency, but its solution was
r away indeed. If business were the
of town-planning it followed that the
unit for the town plan was the business
ich was the economic unit. It might well
in some areas the economic unit coincided
area of the local authority, but, largely
o the industrial development of the last
years, that was rarely the case, and
instances the economic unit extended much beyond the area of any local authority. The economic unit generally covered the whole of a district or the whole of a region. Thus the need for regional planning was obvious. In some ways the progress made had been satisfactory, and in some ways unsatisfactory. It had been satisfactory in the progress made in forming joint committees up and down the country, and there were now twenty-five such committees. The Manchester Joint Committee represented 89 local authorities; the Birmingham Committee, 64 authorities; the Leeds and Bradford Committee 51 authorities; the smallest committee was that on Tees-side, which represented only three authorities. Considering the range of those committees the total of 25 was not, on the whole, unsatisfactory. Only one of those Committees was empowered to prepare a town plan for the district, and that was the smallest—the Tees-side Committee; the other committees were advisory. What was required at the outset was some common ground where representatives of the various local authorities could meet and have an opportunity of understanding their different requirements, where they could have opportunities of conciliating their differences, where there would be provided a point around which the regional outlook might crystallise, and where the members would gradually learn to think of their problem not in terms of their own areas, whether those areas were wide or narrow, but in terms of the whole of the district covered by the Committee. In conclusion, he said he quite appreciated the importance of amenities, and in fact a good deal more attention should be given to amenities on sound lines. But he would urge that before attention was given to those secondary problems of amenities the fundamental essentials should be set right. It would be found that the proper unit would never be less than a whole region, and that would therefore be the economic unit. Also, proper provision should be made to secure the best opportunities for production and transport, for the means of livelihood upon which inevitably depended the comfort and fulness of the life of the local unit.

Architecture and Town Planning.

On April 4 MR. G. TOPHAM FORREST, Architect to the London County Council, delivered an address on "Architectural Interests involved in the Making of Town-Planning Schemes." Mr. Andrew T. Taylor presided. In the course of his address he said it was not possible to hold a position such as his without becoming very concerned as to the principles to be adopted in the development of towns, if they were to fulfil their purpose in ways that were both practically and æsthetically suitable—for the day was obviously passing when they were to regard the development of towns and cities merely from the utilitarian standpoint. Were it not for the dominance of industrialism and commercialism to so large an extent following the mid-Victorian era—with the consequent practical setting-aside of consideration for the amenities—they would not now be suffering from the unhealthy and squalid slums that seemed almost inherent to the great towns of their country. The comparatively recent revival—if he might put it so—of the town-planning movement was, therefore, most opportune, and was already exerting a tremendous influence in changing the outlook of not only the responsible leaders of imperial and municipal government, but also the general mass of their population, including that most important person whom they called "the man in the street."

The first point he wished to emphasise was that the principle upon which towns and cities should be planned was that the community to inhabit them, though varying in character as individuals, was interdependent, and constituted one thing that could only be suitably expressed by a unified character in the planning of the city, conveying to all those who used or visited it the idea of convenience, unity, and completeness. That principle had not been recognised in this country in the past. They would all agree that many of the mistakes in the building of their towns resulted from the entirely wrong idea that a city could be built up of a number of unrelated separate units. On the other hand, the principle of unity was indeed a principle recognised to a large extent by both the Greeks and the Romans in the classic age. Their view was that the great religious and civic buildings of their cities should be arranged on a spacious, dignified, geometric principle, within the natural dominating centre of the city's life. One had only to think of the obvious cases of the Acropolis at Athens, the Forum Romanum and its other adjacent Fora at Rome—and, on a smaller scale, the Forum at Pompeii—to realise the recognition of this principle before even the Christian era. It was from this they got the regularised, simple dignity that they associated with so many classic cities. In and around those public centres of the city life were placed great religious temples and civic buildings, and towards such centres converged the main arteries of communication from the outer and more domestic quarters. The same general idea was, moreover, recognised in mediæval times, for they were even more familiar with the "Grande Place" in French and Belgian towns, in or near which the cathedral, town and market halls, and other important buildings were grouped in a spacious area that formed the natural place of assembly of the population. They also realised equally the parallel of the great "Piazzi" of Italian towns and cities, of which that of St. Mark of Venice and the Piazza del Campo of Siena were notable instances. It was natural, too, that with a revival of interest in classical art and literature in the time of the Renaissance its effect would be displayed in the grandiose lay-out of open spaces, in axial planning, and in not only the provision of great and noble buildings, but what was at least of equal importance, the formation of approaches and open spaces that would enable them to be seen and their merits appreciated in the most effective way. That, indeed, was the essence of architecture in relation to town planning. The formation of the great Corso at Rome, terminating in the Piazza del Popolo, and Bernini's colonnaded approach to St. Peter's, were two instances of the ways in which such ideas found expression. The laying out of the French city of Nancy was yet another example, while one remembered also Versailles, Renaissance Paris, and Baron Haussmann's more modern development of it.

He might mention, the lecturer continued, that this was the principle he had in view when it fell to his lot to design the lay-out of the London County Council Housing Estate at Becontree. The site covered an area of about three thousand acres, which was greater than that of Brighton. Wherever possible existing roads, farm houses and cottages had been retained and incorporated in the general scheme. Advantage was taken of a park (known as Parsloes Park) in the centre to form a central park for the estate. Arterial roads varying in width from 60 ft. to 120 ft. had been planned, some of which formed part of the Ministry of Transport's Road Scheme for the eastern area, and others for connecting up with Chadwell Heath Station on the Great Eastern Railway and with a new jetty on the river. A civic centre was planned in the centre of the estate, and was designed to form an important architectural feature to accommodate administrative and public buildings necessary for a township of the size contemplated. The radiation from it of three main roads, together with the importance of the buildings to be erected, imparted to the centre a duly impressive and dignified character.

Another estate, much smaller in area than the Becontree estate, which he had to design for the London County Council, was at Bellingham. The site was triangular in shape, and afforded an interesting example of how a peculiarly shaped piece of land might be dealt with on the principle to which he had already referred. A civic centre had been provided from which roads radiated to the main traffic roads running along each side of the estate.

His next point—and it was an obvious one—was that to plan towns in the most architecturally effective way it was necessary to take into account their characteristic natural features—to make use of hills or risings in the ground for the placing of important buildings so that their elevated position might enhance their effect, as, for example, with the Palais de Justice of Brussels, which dominated in a most remarkable way the whole of the city. If a river flowed through the town, that also should influence to a large extent its main traffic lines and the placing of its bridges, buildings and monuments, so as to be most effective. It would, however, be realised that there was little chance of doing anything of this kind on a great scale in an area already built up, such as London, but even in London careful attention should be given to this matter in the development of new housing estates within the county. At any rate, this principle had been adhered to in designing the London County Council estate at Roehampton. In framing the lay-out of that estate special regard had been paid to the preservation of the amenities of the neighbourhood; and natural features, including the finer trees, had been retained and absorbed into the scheme as far as possible. The estate was approached from Upper Richmond-road through a belt of trees, and there was a row of fine trees on the land immediately east of the estate.

The lecturer, in conclusion, dealt with the built-up areas of existing towns and cities. They obviously could not bring existing towns—so many of which had been developed in a purely haphazard way—within the strict limits of their generally Utopian scheme of things; but with all of them it was doubtless possible to create improvements that would, in the course of time, bring them at least a stage nearer the ideal.

At one time in the Tabard-street area, situated in Southwark, they had a labyrinth of mean streets, covering fourteen acres in extent and containing about 650 houses. The mean streets had now been swept away, new roads constructed, healthy re-housing provided, and, perhaps best of all, an open space of five acres created in a district which was altogether inadequately served in this respect. In ways such as this the London County Council was constantly seeking to carry out alterations which should improve London. It would be comparatively easy, he thought, to draw up a plan for the improvement of the whole of London on the bases of the accepted principles of town planning. It would be, perhaps, a good thing to have such a plan, but the actual carrying out of the plan could only be accomplished in the course of many generations, perhaps centuries. Possibly such a plan would enable the man in the street—the man who really counted, after all—to see what London might be, and, in this way, induce him to assist in its becoming so. It would be a wonderful London, but it would have to be the same London. He, personally, would be very much opposed to any changes which would rob London of its own peculiar charm, and that "something" which made it so different from every other city they knew. The town planner was not a destroyer where old cities were concerned. He took the city as it was, and he changed it, but the change was not a change of character. Nothing was lost. The old glory remained, but it was an enhanced glory, making its citizens proud of their inheritance, and prouder still that they had had some part in securing that the city which they should leave behind should be indeed "a joy for ever."

Mr. Andrew Taylor said he considered architectural treatment was the soul of town planning. Without imagination and artistic sense it would become a mechanical matter. There were two methods: one the sheep-track, and the other the formal. Most towns in England were founded on the sheep-track principle: in Chichester and Edinburgh they had examples of careful town planning. London, however, was planned in patches. There were charming little bits, such as Bloomsbury; but as a whole London had been allowed to grow up without planning. He would like to see the vista, well known on the Continent, in English town planning. The Arc de Triomphe and the Opera House, Paris, were fine examples of the successful vista; but in England it seemed studiously avoided—perhaps it was due to sheer indifference.

Mr. Barclay Niven said it was most desirable that round London they should have open spaces. Not necessarily parks; they might have farms, and open breathing spaces for the people that could not be built upon. A good deal could be done to ease traffic by considering things on the outskirts. He suggested taking the hospitals out into the open, clear spaces: many buildings might be placed out beyond the centre. A river was a great asset to a town, but in London full use had not been made of the possibilities of the Thames.

EXHIBITION NOTES

THE WALKER GALLERIES.

The charm of water-colour drawings is sadly missed by many who devote a great deal of time to their production, and we imagine that many who essay this beautiful art would come to much better results in oil or some other medium. The purity, the delicacy, and the transparency which please us so in the best work are so conspicuously absent in a large number of the drawings annually produced that it is difficult to see why so much work of this kind is done, unless it be through sheer ignorance of what is desirable or the way to obtain it. Something of the fine qualities of water-colour art is apparent in nearly all the work of Margaret Bernard, especially nice being Nos. 5, 6, 21 and 23. In 21, "Oreston Quay, Plymouth," we find a simple directness of expression which is very pleasant and attractive, and the quiet reticence in "The Grey Morning, Littlehampton River" (29) betrays no over-conscious effort such as spoils so many drawings. The bold handling of Lillah Fellowes' ninety-one drawings of Italy is justified by results, for this artist has a good sense of colour and a feeling for form and texture which is not allowed to destroy transparency or atmosphere. This is an interesting collection of drawings which vividly reflects local character and detail. Amongst the most attractive drawings are Nos. 2, 14, 36, 40 and 65. If all the drawings by Major Wilkinson had the reserve and unity of effect of "The River at Chelsea" (97) the exhibition of his work would rank much higher. He has produced a good effect of "The Admiralty Arch" (81), and an excellent sketch in black and white of "Ancient Houses, Dinan" (25). His widely extended efforts are generally overwrought and doubtful in colour and drawing.

THE ST. GEORGE'S GALLERY.

When we come to the work of the modern English Water Colour Society at the St. George's Gallery, we can hardly believe the pictures will persuade the public to credit the world with such aspects of colour or drawing. There is certainly one drawing with tone and colour value, "Flask, Walk, Rain," by Charles Ginner. There are several black and white drawings in the gallery, but even these make no adequate atonement for their fellow exhibits.

Collapse of a Crane.

A 60 ft. electric crane used in the rebuilding of part of the Café Royal collapsed recently in Regent-street. Apparently it was either the parting of a steel guy-rope or movement of the bed of the crane, which was on scaffolding 90 ft. high, which caused the accident. The crane was being used in unloading rolled steel bars, and fell across the girders below and on the roof of the rear portion of Oddenino's Restaurant in Regent-street.

Visit to Kensington Palace.

By the permission of H.M. Office of Wor a visit to Kensington Palace has been arrang by the Art Standing Committee, to take pla on Saturday afternoon, April 26. Members a Licentiates who wish to attend should ap to the Secretary R.I.B.A. as soon as possible.

The Annual Dinner, 1924.

The annual dinner of 1924 is to be held May 6, at 6.30 for 7 p.m., at the Trocade Restaurant, Piccadilly, W.1.

Cricket Match.

The Architectural Association Cricket C have challenged the R.I.B.A. to a cricket mat to be played on the A.A. ground at Boreha Wood, on Saturday, July 12. Mr. M. H. Doll has consented to raise the te to represent the R.I.B.A., and would be gl to hear from any playing members who wo be willing to take part. Address: 5, Sou ampton-street, Bloomsbury, W.C.1.

THE ROYAL INSTITUT OF BRITISH ARCHITECT

PRIZES AND STUDENTSHIPS, 1924–19

The following prizes will be awarded January, 1925:—

The Royal Institute Silver Medal and £50, Essays.

The Royal Institute Silver Medal and £50, Measured Drawings.

The Tite Prize: a Certificate and £100, travel and study in Italy. A Design for a Sm Museum is the subject set for the year.

The Pugin Travelling Studentship: a Sil Medal and £75, for travel in Great Britain a Ireland, and study of Mediæval Buildings.

The Godwin Bursary and Wimperis Beque a Silver Medal and £130, for travel outside Gr Britain and Ireland, and study of modern ar tecture abroad.

The Owen Jones Travelling Studentship: Certificate and £100, for the study of ornam and colour decoration.

The R.I.B.A. (Henry Jarvis) Travell Studentship: £250, at the British School Rome.

The R.I.B.A. (Alfred Possom) Travel Studentship: a Gold Medal and £250 and Sil Medals, for the study of Commercial Archi ture in America.

The Grissell Gold Medal and £50, for De and Construction. The subject of a Dance has been set for the year.

The Arthur Cates Prize: £50.

The R.I.B.A. (Archibald Dawnay) Sch ships.

The Ashpitel Prize: £10 (in books).

The R.I.B.A. Silver Medal for Recogn Schools.

Sending-in date 4 p.m., November 28, (except where otherwise mentioned).

The R.I.B.A. prizes pamphlet containing information on the various prizes and stud ships and the detailed programmes for the petitions may be obtained (price 1s.) at R.I.B.A., 9, Conduit-street, W.1.

The prizes this year total in value n £2,000. Since last year the following alterat have been made:—

Candidates who have entered for the S Medallion or the Tite Prize are permitte submit their drawings in place of the problems in design required for the final ex nation.

Candidates who have been awarded the S Medallion or the Tite Prize or who have rec a certificate of Hon. Mention in either of competitions receive exemption from the d portion of the final examination.

The age limits have been extended by years in the case of those prizes for which a limit is stated.

The values of the Essay Prize and the A Cates Prize have been increased to £5 annum each.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

We are glad to give questions and answe
annot accept responsibility for contributed
s, especially on legal matters.

y we appeal to our correspondents to
t their queries on paper of a size easily
and written as legibly as possible, or better
n typescript?—ED.

[*re* LIBRARIES AND INHABITED HOUSE DUTY.]

—Three points are raised by this ques-
(1) Is a library chargeable to the in-
d house duty? (2) Would a caretaker's
rs, directly connected to the library, and
unicating therewith, make the whole
ng chargeable? (3) Would cutting off the
ker's quarters from the library, with
te access to the outside, make the care-
s quarters alone liable to the duty?
regards (1), in Styles *v.* Middle Temple
), 68 L.J. Q.B. 1046, it was held that
all of the Middle Temple is liable to the
and that the library, being essentially
nt from a "hall or office," is not; on
rounds that a "hall or office" is gener-
sed for some business purposes connected
the general objects of the society, com-
or corporation which possesses it,
as a library is a place devoted to books,
g, and study. Both the hall and the
y are used in the daytime only; and
is no sleeping accommodation in either

Clifton College *v.* Tompson (1896),
. 432, and Charterhouse School *v.* Gayler
), 1 Q.B. 437, it was held that a
asium, library, chapel and swimming
used in connection with a school were
chargeable in conjunction with the
r's house.
Edinburgh Life Assurance Company
), 1 Tax Cases 5, it was held that the
ion was to assess all houses which were
ied, not merely by persons residing
n, but also by persons occupying them
g the day for business purposes, and
all museums, colleges, halls, libraries,
, etc., would be included.
Corp. of Glasgow *v.* Inland Revenue
), 18 Sc. L.R. 1, it was held that a
um intended to be exhibited to the public,
free admission thereto, was an inhabited
and chargeable.
regards (2), in the London Library *v.*
r (1890), 38 W.R. 478, 2 Tax Cases 594,
were a library and a reading room used
iembers, and not conducted for profit.
ise of a sitting-room and bedroom were
, in addition to wages, to an attendant
with his wife, dwelt there both by day
at night, for the protection of the
ses. It was held that the library was
xempt.
regards (3), in Foster *v.* Athenæum
room and Library (1907), 97 L.T. 692,
was a library and a newsroom owned by
whole body of members, and not con-
l for profit, but maintained by the mem-
subscriptions. At one end of the build-
iere was a librarian's quarters, and the
an had access therefrom, through doors
passage to the library. No one slept
library. It was held that the proprie-
ere liable for the duty on the whole of
remises, as they constituted one assess-

re is no recognised definition of the
"dwelling house."
de and business houses, or tenements,
distinct properties, solely used for any
or business, or any profession or calling
nich the occupiers seek a livelihood or
are exempt. See Nichols *v.* Malim
, 1 K.B. 272. The exemption is not
y allowing a menial or domestic, or
r person employed by the occupier, to
in the house, solely for its protection.

From the above it would therefore appear:—
1. Any library open to the public is assessable, and a caretaker's quarters, in the same block, with or without separate access thereto, would be assessed as part of it, making one subject. Where the library and quarters were entirely separated, there would be two subjects.

2. A library not open to the public, but used by its owners for the reading of books only, and not run for profit, would not be assessable.

3. If, however, such a private library had attached to it quarters for a librarian or sub-librarian, part of whose salary was the said quarters, then the private library would be considered as part of his dwelling house, and the whole building assessed.

4. But in the London Library *v.* Carter above, it seems suggested that if the person inhabiting such quarters was a caretaker pure and simple, that is, in no sense having charge or part charge of books, then the library portion of the block would be exempt.

The cases would appear to show a parallel to the distinction made when a professional man's whole house (*i.e.*, including, *e.g.*, a surgery, consulting rooms, etc.) is assessable as one subject; but the tradesman or shopkeeper can claim exemption for that part of his premises (factory, warehouse, shop, etc.) which are used exclusively for business, even if they communicate.

READER.

[REPLY TO "DESIGNER."]

SIR,—I think there is little doubt that a caretaker's flat, even though directly connected with a library, would be treated as a separate unit for this purpose much as each flat in a block of flats, though all connected by a common staircase, would be treated as separate. The intention of the law is quite clear and would surely be administered in this spirit.

A. B.

Theatres.

SIR,—I should be obliged if you could furnish me with the following information:—

The position, in relation to the main stage of a theatre, of an apron stage, with two extra proscenium openings. I should also like to be informed of the position of the two extra proscenium openings in relation to the apron stage.

"PERPLEXED."

Miserere or Misericord.

SIR,—Can you inform me which of the following terms is the more correct, "Miserere" or "Misericord." The former is used in Parker's "Glossary of Architecture," and the latter by modern writers.

The latter term has been used to designate the "flesh-eating halls" of the later monasteries.

R. A. B.

Zinc Roofs.

SIR,—I have found that the life of zinc can be extended by an occasional coat of "Siderosthen" solution, which is a form of bitumenised paint, applied after the metal has become rough by a year or more exposure so that the paint may get a grip. Rusted iron also for the same reason is better, provided the rust dust is brushed off thoroughly before painting. For many years I have invariably used "Sideros" for the inside of eaves guttering.

MAURICE B. ADAMS.

Portraits of Inigo Jones.

SIR,—Having before me a portrait, on vellum, in Chinese wash, oval, 4 in. by 4½ in., of this architect, by himself, I send you a line that it may be added to your list. Two drawings by him done in his student days in Italy (small folio) are also of interest.

P. A. ROBSON.

[REPLY TO "SUBSIDY."]

SIR,—The reading of the regulations of the Ministry of Health seems quite clear upon the point rased by your correspondent. I certainly understand by them that building over a porch would bring such porch within the containing walls of a house. The Act is for the purpose of producing a certain type of small house, and is worded with the express intention of preventing a larger type being admitted by any tricks.

"FAIR PLAY."

WATERLOO BRIDGE

A FURTHER report, brought forward by the Improvements Committee, which came before the L.C.C. recently, when the Council took up the consideration of the proposed scheme to widen the bridge at an estimated cost of £1,000,000, states: There is a condition of unstable equilibrium, and it has to be borne in mind that such a condition often tends rapidly to become worse.

The report shows old drawings from which it can be seen that the foundation of each pier and of the abutments consists of timber piles about 20 ft. long, driven in rows. Each row is capped by a whole timber sill or sill piece, across which further whole timber sills are laid, forming a gridwork of timber about 2 ft. deep above the piles, the interstices being packed with stone. The gridwork is covered by a decking of timber about 6 in. thick, upon which the masonry of the piers rests and was built. The bed of the river in and towards the centre is composed of gravel, but underlying the gravel is the London clay, which extends downwards for a great depth. The thickness of the gravel bed is relatively small. Under the masonry of the third and fourth piers from the Lambeth side the gravel is only about 9 ft. to 10 ft., consequently piles of the length shown in Rennie's drawings would pass right through the gravel and be standing in the London clay. It would appear from the original drawings that when the bridge was constructed the tops of the timber platforms were everywhere below the bed of the river. Such is not the case now, however, as in many cases the bed of the river between two platforms has been so eroded or scoured out that it is lower than the top of the platforms—that is to say, it is below the bottom of the masonry of the piers. The erosion or scouring is of long standing, and in 1882-84 the Metropolitan Board of Works expended about £62,000 in laying concrete slabs around the timber platforms with the object of protecting them from erosion or scour. Settlement has occurred practically throughout the bridge, but is far more pronounced at the fourth pier from the Lambeth side than elsewhere. There is, in fact, a condition of unstable equilibrium, and it has to be borne in mind that such a condition often tends rapidly to become worse.

The report adds: Remedial measures are being taken in the hope that the settlement may be arrested, but that it is too early yet to say whether these will be successful. These measures are not being tried with the hope that they may prove a permanent solution of the problem. They are only temporary remedial measures, having for their object the maintenance of the uninterrupted use of the surface of the bridge for road traffic, or the waterways of the bridge for river traffic until a temporary bridge can be provided.

Mr. Barclay Niven, at the recent Town Planning Conference at University College, suggested that if Waterloo Bridge had to be rebuilt, the London County Council, instead of going to the expense of a temporary structure, should secure possession of the Charing Cross Railway Bridge, and use it for vehicular and pedestrian traffic; the payment to the railway company to be reckoned as part of the compensation they would receive for taking their station over the river.

At a meeting of the Council on Tuesday it was decided to proceed with the widening scheme.

THE BUILDING TRADES EXHIBITION

[The Building Trades Exhibition at Olympia is to be opened to-day by the Minister of Health at twelve noon, Mr. J. A. Gotch, P.R.I.B.A., in the chair. The Exhibition closes on April 26. A plan of the Exhibition and a complete list of exhibitors were given in our last issue.]

BUILDING, 1914-24

By T. P. BENNETT, F.R.I.B.A., Hon.F.I.O.B.

Such an event as the Building Trades Exhibition affords an opportunity for taking stock of the position of building. Has it advanced or is it falling upon bad days? Is there vitality or stagnation, sound or execrable design, progress or retrogression? These are fascinating queries and range themselves under a number of heads.

1. The development of design.
2. The kind of buildings which are in course of erection.
3. The materials which are in use.
4. The development of labour-saving equipment.
5. The development of decorative materials.
6. The development of machinery and mechanical appliances.

Development of design is placed first, because if design is dead there can hardly be life in building. An examination of *The Builder* for 1914 and for 1924 proclaims at once that architecture is more full of the breath of life than it has been for many years. With the increasing fire and enthusiasm in the profession has come an ever-increasing standard of architectural journalism and of methods of reproduction. It may safely be said that never before has architecture been so well served in this respect.

In 1914 the Schools of Architecture were just making themselves felt. The first Atelier was working at top pressure under the able guidance of Mr. Arthur Davis and the brilliance of Mr. Chaures. The R.A., Glasgow, Manchester, Liverpool, and other schools were housing groups of enthusiastic students whose work was attracting much notice and attention. This work had still to make its mark upon the actual buildings in course of erection. Many of the buildings illustrated were dull, and others were but slowly throwing off the stiffness and incomplete development of the latter years of the nineteenth century. Here and there a scheme of more than ordinary interest showed that there was life below the surface and that its vitality would soon dominate the architectural world.

The house appeared only in its larger forms. The housing problem as such hardly existed. If it existed, the public were hardly conscious of its existence. Architects rarely turned their attention to the small problems involved, and if they did their efforts were rarely illustrated. Development was taking place in 1914, but it was the slow development of orderly evolution. The machine was moving, but moving ponderously. A few adventurous spirits like E. A. Rickards and Robert Atkinson were appearing as the head of a column of keen students seeking below the surface, straining every nerve to show their capabilities to free architecture from its lethargic state, breathing vitality and energy, and showing by their works that they were going to accomplish something of note in the not far-distant future.

There can be no doubt in the mind of the calm observer that 1924 is far more intense than 1914. That progress has been made and is being made. That the field of architecture has widened considerably and that the general level of architecture is higher. Architectural design seems to have become broader in treatment, more logical, more full of personality, and therefore much more interesting. There is evidence in the press that architects are studying more; they are anxious for more definite and more extensive information; and so is seen a wide range of articles on Italian, French, English and American work, both contemporary and otherwise.

Two kinds of buildings stand out prominently in 1924. One is the group of buildings relating to housing and the other the group relating to commercial buildings. In 1924 the housing problem has returned, but with its return has come a desire on the part of the public to have not merely more houses, but to have better houses and to have each house possess a modicum of personality even though it be small. Whether, therefore, it is through the medium of the men in private practice, through the official architect, or through that unfortunate transitional official, the architectural assistant to the Borough Engineer, there can be no doubt that architectural design has become part of the small house in a way that was unknown in 1914. But the design of the house is only one of its amenities. The planning of the small house has been studied to an extent and with a purpose only faintly echoed in 1914 by Letchworth, Hampstead Garden Suburb, Ealing, Bournville, and Port Sunlight. The house has come to occupy a position in the forefront of architecture, and is no longer its ugly sister. None can doubt that this movement is yet in its youth, for if 1900 saw the birth of the architectural cottage, 1924 sees still only its adolescence.

Side by side with the house has come the architectural development of business premises. In 1914 the Selfridge building in London stood almost alone as an attempt at a serious modern architectural shop. In the city some banks and a few insurance offices were attempting to indicate the fact that architecture need not be the monopoly of the public building, the Government office, the mansion and the country house. In 1924 all progressive business men are realising the importance of distinctive architecture and its value to business. It is even possible to feel that many commercial men are beginning to admire fine buildings for their own sake, and to imagine that the day will come when bad design will carry its own condemnation. This ideal is at the moment but a child of the imagination of the architect, for commercial architecture, like housing, is still in its youth.

The materials of building have suffered a severe and critical examination during the period under review, and it is even yet difficult to determine the precise result of this wholesale questioning of precepts and materials of age-long acceptance. The war created the need for the exploitation at one and the same time of any and every means of erecting structures. Tests were forced upon builders they would never have dared to attempt under normal conditions. Wood, asbestos and terra-cotta vied with brick and concrete for speed of erection, cheapness and solidity; and in 1924 it is time to take stock of these experiments and to try to deduce from them some results of permanent benefit and value.

The plethora of concrete block-making machines which once flooded the market has gone, but there still remain some of the better types. In some cases, no doubt, unsuitable aggregate has been used, and this has brought discredit on the concrete. Brick, however, is generally preferred as a building material for small houses. There are some processes that somehow or other have stood the test of time, and are still in active use. There can be no doubt that sooner or later a system of concrete construction will be evolved that will be cheap and at least as efficient as brick, and will reduce the somewhat unpleasant and tedious task of assembling small units. In this di tion further development in concrete build must be anticipated, the present position be a *hiatus* between the unlimited experiment the years 1918-21 and a future sound, relia and economic method of building small hou in good concrete.

In conjunction with various flooring c pounds designed to take the place of boa marble and similar substances, there can no doubt that a great future lies before artificial building material in its many for All exhibits of this class should therefore examined, because, while perfection has ye be reached, there will come a day when artificial material will be employed upo very extensive scale and will have great vantages over natural materials as rega cost, reliability, speed of erection, and eas handling. Whether these materials will e succeed in giving texture and beauty equa the products of nature remains to be see

The next great group of developments require study are those relating to lab saving equipment. Labour is dear, and likely to remain so. All men want eithe life full of interest or the shortest poss hours of labour. All monotonous or ted tasks must therefore be performed with minimum of effort, at the lowest cost and w out extensive initial outlay. These lab saving appliances range from woodwork brick and stone-cutting and other machine vacuum cleaners, electric and gas equipn of various sorts, and incidental items automatic delivery doors and piano-play In 1914 this great group of important ma was at the beginning of its development, with the exception of woodworking and o machinery, almost unknown. To-day n of the items mentioned have come to stay, there can be no doubt that many other bran of this fascinating subject will receive at tion in the near future. The architect, builder, and the householder should all familiar with development as far as it gone at present.

This decade has, however, also seen pro in the standard of the artistic taste of public and of the demands of the architec more artistic materials. Many decorative ducts have, therefore, received attention. enamels are finer, the colour range is gre the choice of materials available is infi wider than it was at even so recent a da 1914. This artistic development is still t place, and the great group of decorative must therefore be carefully examined t the latest things that are waiting for designer to use, and to suggest new dire in which his skill may be developed an brain evolve attractive finishings for his ings. This group of materials is not co to surfacing: there are vitreous tiles, treatments for wood panelling, new b ware for curbs and hearths, new kinds of and enamel, and a vast range of fittin electric and other lighting which must b and remembered.

For the purely practical man has co mechanical handling of material. Co mixers and depositors, hoisting apparatus and concrete breakers, petrol engines, cranes, and many other products whic the result of efforts to solve the labour p of to-day and to minister to the co demand for speed of erection and econ

As a summary it may be said that the 1914-24 has shown progress in a materials of all kinds, labour-saving equi decorative materials, and in the machi the mechanical handling of building ma These are at the moment the points of progress, and it is to these groups that and interest will be directed.

TEN YEARS OF CONSTRUCTION

By EWART S. ANDREWS, B.Sc., A.M.Inst.C.E., M.I.Struct.E.

Although the war years absorbed half the last decade considerable progress has been made in construction. While it is true that during the war ordinary building work was at a standstill, there was great activity in the building of factories, aircraft buildings, and military buildings of all kinds; and the shortage of materials and labour, combined with the urgent necessity of rapid construction, gave several of the newer forms of construction a more extended trial than they would probably have received in this country if things had continued in the even tenour of their way during this period.

At the end of the war optimistic politicians, surely against the better judgment of their better informed, if less scintillating, technical advisers, promised ideal homes for all and embarked upon a housing programme in which many experiments were conducted and many mistakes were made. When, therefore, there occurred the inevitable bump which pulled the scheme up short, the building industry received a set-back from which it is recovering but slowly. It is now convalescent, but is rather afraid of a relapse.

All kinds of construction were tried during the housing big push; some were ill-digested schemes which ought never to have been started, and others were promising ones which went wrong because their parents tried to make them run before they had mastered the stage of walking. Many valuable experiments were, however, made and some modifications were introduced which will gradually gain recognition as definite improvements in construction.

With regard to the experiments made, largely under the guidance of Government departments, we hope that someone with a flair for digesting data will prepare a review which will put the results in easily digestible form before the building community; it is given to but few to extract much nourishment from Government reports—somehow their very appearance takes away the appetite. But much information of very great value to the building industry has been published in official reports, and yet comparatively few people seem to have studied these reports in sufficient detail to apply the results to practical design.

The building fraternity are a thoughtful people, but they do not like print; practical men in the building industry usually do not believe that the statements in books are true. Their craft was in a flourishing state while Caxton was learning his letters, and they never learnt their trade from books, so how can books be much good? Perhaps some day the scientific bodies and Government departments will have their reports popularised by publicity men.

The principal developments in construction during the past ten years have been in steel frame and reinforced concrete construction, and it may serve a useful purpose if we divide our review into these heads.

Steel Frame Construction.—By a steel frame building we mean one in which the whole of the loads on the building are carried by a steel framework; the walls cease to provide any stability to the building and merely serve to keep the weather out in the case of external walls and to divide the building up into suitable rooms in the case of internal walls.

Steel frame buildings were made permissible in London by the 1909 London County Council (General Powers Act (commonly referred to as the Steel Frame Act); the authorities responsible for this Act were naturally somewhat nervous, with the result that the provisions of the Act are in many respects unduly stringent and result in unnecessary increase in cost—thus taking away much of the advantage of the method of construction which the Act was apparently intended to encourage. In the drafting of the Act the authorities made the blunder of specifying the working stresses and other details of construction. The result is that although experience and further knowledge has, we believe, definitely proved that the clauses are too severe, nobody can relax them until a fresh Act of Parliament has been passed—and Acts of Parliament have a knack of taking a long time. If the Act had left the details of construction to be embodied in Rules made under the Act—as it did for reinforced concrete because, fortunately, the time was not quite ripe to specify the details of design and construction—the detail provisions could have been relatively easily altered when experience had shown amendment to be desirable.

The result of the provisions of the Steel Frame Act is that it is often cheaper to erect a building designed with the thickness of walls specified under the old Acts for an ordinary brick building, all the internal portion of the building being designed upon a steel frame, than to erect a building designed as a steel frame building under the Act. This anomalous fact is one that requires careful explanation to avoid misunderstanding and ought clearly to be understood by all architects, because when once the building industry realises this fully we are convinced that sufficient agitation will arise to force the authorities to take steps to alter the law. We, therefore, think that some useful purpose may be served if we explain at some length how this situation has arisen.

In the first place, we should explain that under the Steel Frame Act the District Surveyors are called upon to see that the provisions of the Act are fully complied with, and full calculations showing the strength of every beam and column (called pillar in the Act) in the frame have to be filed with the Surveyor. At this stage we might point out that it is quite foolish to grumble at the District Surveyor for his requirements that the provisions of the Act shall be complied with; the District Surveyor is a public official who has a difficult task to perform, and who nearly always performs it with remarkable tact and patience, and he has not the authority to alter the Act—he must insist upon its observance. The District Surveyors are not responsible collectively or individually for the provisions of the Act—they are only there to see that they are carried out. It is reported that in the saloons of the Wild West, before the drought, a notice was sometimes put up which read "Please do not shoot at the pianist—he is doing his best"; something of the kind might be put up in the District Surveyor's offices.

The anomaly to which we refer arises from the fact that the floor loads specified in the Steel Frame Act are in most cases unduly high and the working stresses allowed are unduly low in many cases—particularly in the case of columns or stanchions. Then, again, the Act provides that for fire protection purposes the steelwork must be encased in fire-resisting casing, which is usually of concrete; this concrete casing undoubtedly adds to the strength of the steelwork, but no such addition of strength is permitted in the calculations, and as the weight of the casing must be taken into account in the loads its effect is to require still more steel to carry it.

In order to make clear that we are reasonable in our contention as to the low stresses allowed for steel pillars we take the case of a single-story stanchion 12 ft. long, required to carry 70 tons. Under the L.C.C. regulations the District Surveyor would regard this stanchion as equivalent to one having one end hinged and one end fixed and we should have to use a 10 by 8 by 70 section, the permissible load on which, by the L.C.C. Act, is 73.7 tons. If we look up the handbook of a well-known firm we shall find that this stanchion is listed as safe for 123 tons; now the figures given in this firm's handbook are derived on the formula given by Mr. J. Mitchell Moncrieff, M.I.C.E., in a paper which showed a very scientific and exhaustive investigation into the whole subject, including the analysis of thousands of test results, and we have never seen any serious challenge as to the safety of Mr. Moncrieff's figures. As far as we are aware the Borough Engineers all over the country will accept these figures, so that we arrive at the ridiculous result that a stanchion which is only safe for 73.7 tons in London is safe for 123 tons anywhere else.

In advocating amendment in this respect the writer is not advocating a reduction on the real factor of safety of the building, nor does he approve of any attempt to reduce the attention given to the design of the details of joints and connections; he only wishes to avoid the waste of steel which arises from buildings designed under this Act and to make possible the efficient economical design of steel frame buildings. In short, he wishes to see the regulations so drafted that it may, in fact, be possible to employ the steel frame method of construction as a more economical method than that of building with thick brick walls; there is not the slightest doubt that steel frame buildings are more economical than brick buildings for the same strength.

The "Power of Waiver."—There is a tendency to overcome the objections which some engineers have to the Steel Frame Act by extending the "power of waiver" which the London County Council already has under the Act in respect of certain of its clauses. Under this procedure application has to be made to the London County Council for permission to waive or modify these clauses, and the intention appears to be to extend this power to the whole Act. To this course the writer sees very strong objections; in the first place, there is the objection from the engineer's standpoint of having two different sets of officials to deal with. This leads to a division of responsibility which leads to friction between the officials and to great delay in the prosecution of the work. The practice also leads to administration by precedents and leaves it very uncertain as to what may be permitted and what may not.

We object most strongly to having to go to the expense and trouble of applying to the London County Council for permission to do something that arises in everyday practice and that everybody should always be allowed to do. It is like making a law that everyone must wear pink trousers, but that they may apply to the Council if they wish to wear trousers of any other colour. In making this objection to the extension of the power of waiver we hope no reader will infer that we have any complaint to make against the officers of the Council who deal with these matters; we have invariably found them courteous and reasonable.

The Advantages of Steel Frame Construction.—These questions of Building Acts and Regulations are not very interesting; they are, on the contrary, extremely dull, but unfortunately they are very important, and in spite of their dulness we think that all architects and engineers should study them sufficiently to be able to fight against them; this idea of every different town having its own pet regulations is becoming a disease.

We will pass, therefore, to the consideration of the advantages of steel frame construction. The first advantage is speed of erection; not only have we increased speed of erection of the whole building, but the frame may be run up quickly and thus the building can be roofed in at an early stage, thus keeping out the weather and enabling the work to proceed with much greater comfort for the men. The next advantage is saving in cost—although, as we have previously pointed out, the existing L.C.C. Steel Frame Act does not enable this to be fully realised. Another advantage arises from the fact that since with a steel frame building we do not rely upon cross walls for the stability of our building, the planning of the interior portion may proceed upon more elastic lines than are possible with an ordinary brick building.

While speaking of the question of planning we would like to point out to the architect the great advantages arising from consultation with the structural engineer at an earlier stage in the development of the plans than is now usual. One of the great troubles with which the engineer has to deal is that of oft-recurring alterations and modifications, many of which

arise from insufficient time being given to the engineer in which to design the steel frame in detail and to discuss modifications in planning made desirable from considerations of the steelwork. The architect, of course, has his own difficulties in getting his client to come to a decision, but it would help matters if everybody realised the increased trouble and expense involved in leaving the complete design of the steelwork to a period only just before the plans and specifications are ready to go out for tender.

Reinforced Concrete Construction.—Reinforced concrete has made great strides during the past ten years; the method of construction has now been in use for sufficient time to satisfy an apprehensive public as to its lasting qualities, and further experience both in the technicalities of the design and in the practical details of the construction has enabled us to feel more confident than ever of the great value of reinforced concrete as a constructive material.

One of the difficulties under which concrete construction laboured for many years was that architects did not take very kindly to it, with the results that the works carried out were mostly done without the co-operation of an architect and so lacked that character and proportion which characterises the work of a good architect. The buildings looked ugly, therefore, and people at once said that concrete was a hideous material, forgetting how dreadful brick buildings can be made to look when designed, if designed at all, by someone ignorant of architectural treatment. Gradually, however, we are evolving a style of concrete architecture, and in the humble opinion of the writer—a mere engineer—some of the modern reinforced concrete factories have a very fine appearance. Concrete construction is so elastic that it lends itself remarkably well to architectural treatment—you can do anything with it.

The British Empire Exhibition at Wembley has given concrete construction in this country an opportunity of making good which, it is believed, will have a lasting effect upon its increased adoption as a constructive material. In the Stadium and the Machinery Hall we see the excellent effects to be obtained by the combined efforts of a far-sighted and enterprising architect and a capable and ingenious engineer; we do not know who is responsible for the introduction of the "scrubbing-board" finish for the concrete at Wembley, but it is an inspiration.

Reinforced Concrete Floors and Retaining Walls.—In addition to increased use of reinforced concrete as the material for the whole building, the past ten years have seen tremendous advances in the use of reinforced concrete for floors and retaining walls. In most of the steel frame buildings of the present day some form of reinforced concrete flooring system is employed. Several firms of contractors specialise in floor construction and construct a proprietary form of floor which is usually called a "patent" floor. In general, particularly for factory and warehouse work, we believe that the most economical form of floor is the ordinary reinforced concrete floor employing plain bars; in other cases the hollow-tile form of floor is often practically as cheap and possesses special advantages in buildings in which the floor loads are comparatively low. This form of floor has an advantage in sound insulating properties and usually makes a better job for plastering the ceilings underneath; it is therefore particularly useful in offices and hotels.

Pre-cast floor-units of reinforced concrete also have their advocates; they have the advantage in saving centering and also in enabling the floor to be used almost immediately after laying. In some cases, however, we believe that against these advantages we have to place an increased cost compared with ordinary reinforced concrete.

The increase in site values and the limits to the heights of buildings have made it common in London to have one or two floors below ground level; this usually involves the construction of retaining walls for which reinforced concrete is the constructional material *par excellence*. The design of retaining walls is a subject which has some difficulties owing to the variable behaviour of earth in producing horizontal thrust, particularly in cases in which the adjoining ground is loaded either by buildings or by road traffic. It is therefore a mistake to design retaining walls upon rough rules such as those given in some of the older pocket books, but the absence of failures with reinforced concrete walls designed by engineers who are familiar with the theory of the subject should prove that excellent results can safely be expected from a reinforced concrete retaining wall designed upon modern lines.

L.C.C. Regulations.—The erection of reinforced concrete buildings in London is governed by the regulations issued in 1917 by the London County Council, and as most other municipal authorities in this country adopt the L.C.C. Regulations as a standard, a very large amount of the reinforced concrete work in this country is governed by these regulations. They, like the curate's egg, are excellent in parts; but are generally unwieldy and too conservative in respect to some of the units, particularly the columns or pillars. We have no doubt that before long revised regulations will be issued which will enable the cost of reinforced concrete to be reduced to some extent without lowering the factor of safety of the structure.

Some of the remarks which we made with respect to the Steel Frame Act apply equally to the Reinforced Concrete Regulations; for instance, we think that the specified floor loads should be reduced. While we see grave objection, as previously pointed out, to the policy of overcoming the legitimate objections to the regulations by giving the Council a general power of waiver, to be exercised in respect of any of the regulations, we are strongly in favour of the Council having the right to accept designs for new constructions to which the present regulations obviously do not apply. As an example of this we mention the case of "mushroom" floors, for which there is no provision at present, but which the Council should have the power to allow if they are satisfied that the design is satisfactory.

Advantages of Reinforced Concrete.—Reinforced concrete undoubtedly costs more to design properly and requires much more supervision in construction than structural steelwork, and these facts should be fully recognised at the outset. In spite of these drawbacks, however, reinforced concrete in many cases has been proved to provide the most economical construction. If the design is good and the work is carried out under good supervision, we believe that the resulting strength of the building if tested to destruction would be found to provide a considerably greater factor of safety than is commonly assumed, so that there is a very considerable margin to make up for the shortcomings which might arise from failure to fulfil the best conditions for concrete construction.

As a result of the great improvements which have taken place in the manufacture of Portland cement since reinforced concrete first came into use, the cement manufacturers can now guarantee a strength considerably in excess of the minimum called for in the British Standard specification. Engineers have learnt during the past ten years a good deal more about the strength of concrete than they knew before, and the importance of the amount of water used in mixing is now known to be very great. It is easy by using too much water to reduce the strength of the concrete as much as by omitting one-third of the amount of cement in each sack.

In reinforced concrete design great care has to be taken in the exact detailing of the reinforcement to ensure first-class construction, but reinforced concrete develops such great strength when the concrete itself is made under careful supervision and with meticulous care to follow accurately the specification, that slight errors in the design and placing of the reinforcement may not have serious results in the construction. In saying this we do not wish to minimise the great importance of accuracy in the design and placing of the reinforcement; we mention it to allay the fears of some people who point out that in the actual construction the position of some of the rods may be displaced and who imagine that for this reason reinforced concrete is likely to prove unsafe. There is not the slightest doubt that reinforced concrete when carefully designed and carried out with reasonable skill provides an economical structure with a very great margin of strength.

We believe that the next ten years will see even greater developments in reinforced concrete construction than has taken place in the past ten years. Concrete construction has just survived its growing pains, and can look forward to a long and full life—a new stone age has dawned which will leave a lasting mark upon the civilised life of the future.

MEETINGS AND CONFERENCES AT THE BUILDING EXHIBITION

Among the arrangements at the Building Trades Exhibition at Olympia are the following:—

Saturday, April 12.—Visit of Institution of Sanitary Engineers.

Monday, April 14.—Visit of Devon and Exeter Architectural Society and South Wales Institute of Architects.

Tuesday, April 15.—10.30 a.m.: Institute of Clayworkers annual meeting. 11.30 a.m.: Meeting of the National Federation of the Building and Engineering Brick Trade. 11.30 a.m.: Meeting of Employers' National Council for the Clay Industries. 3.0 p.m.: Conference on Brick Paving. 6 p.m.: Lecture, "Old Westminster," St. Stephen's and the Painted Chamber, by Mr. Herbert A. Cox.

Wednesday, April 16.—Visit of Berks, Bucks and Oxon Architectural Society and Royal Sanitary Institute.

Thursday, April 17.—4 p.m.: "At Home" to members of the Royal Institute of British Architects, the Architectural Association, and the Society of Architects.

Saturday, April 19.—Congress and Dinner of Architects' and Surveyors' Assistants' Professional Union.

Monday, April 21.—Congress of A.S.A.P.U. continued. Visit of the Society of Estate Clerks of Works.

Tuesday, April 22.—11 a.m.: International Cement Congress. 1.30 p.m.: Luncheon to Delegates.

Thursday, April 24.—11.30 a.m.: Annual meeting of the South-Eastern Federation of the Building and Engineering Brick Trade. 4 p.m. Reception by the President and Council of the London Master Builders' Association to the members of the Association and the National Federation of Building Trades Employers. 6 p.m.: Lecture, "Westminster Hall," by Mr. Herbert A. Cox.

Popular Lectures.

The Architects' and Surveyors' Assistants' Professional Union will hold a series of popular lectures in the Lecture Hall, at 6.30 p.m. The syllabus is as follows:—

Saturday, April 12.—"The Houses We Live In," by Mr. Raymond Unwin, F.R.I.B.A., and Mr. Alfred Clifford.

Monday, April 14.—"Plays and Playhouses," by Miss Lena Ashwell.

Wednesday, April 23.—"Motor Users and the Roads," by Lord Montagu of Beaulieu and Mr. H. V. Lanchester, F.R.I.B.A.

Friday, April 25.—"The Modern School and the Future Race," by Mr. G. Topham Forrest, F.R.I.B.A.

Admission will be free.

Charing Cross Improvement.

At their next meeting, the Westminster City Council will consider a recommendation by the Works Committee for the removal of part of the island refuge between the Nelson Column and Whitehall, by the King Charles statue. The removal will become necessary when, shortly, the new building at the corner of the Mall approach and Cockspur-street is completed and the footway is set back 25 ft.

SANITATION AS WE FIND IT

By BERTRAM I. HELLYER.

rinciples and the practice of sanitation refers to plumbing and drainage have one no marked change for many years. e the custom of trapping the waste pipes aths, lavatories and sinks before entering ainage system, while allowing the soil o connect direct and to act as upcast tors, little real change has been seen. on age has steadily set in. Iron drains irther supplanted stoneware. Iron soil, and rain-water pipes have still further ed the use of lead, so that the modern r works less than ever in the beautiful ole metal that christened him.

true that during the war there was a demand for leadwork in all varieties of ss, size and shape—towers, tanks, coils, th attendant lead-burning, but this was he special purpose of war plant, and the longer exists.

mental lead work has almost ceased to be , save in the rare instances where an ct can persuade his client that his ive pleasure will compensate his extra e.

ate enterprise—if we except factories or extended for the purposes of war during the war—was as stationary as held up by a policeman's hand, and, released, resumed its former somewhat rprising course. Business premises and have been enlarged or transformed, e sanitary work this has entailed has ced no radically new features. Some s been made of the gravitation system of to cisterns in factories where many have been assembled in close proximity, nges of lavatories back to back have been ith one service pipe and one waste used ly, so that the employees shall waste as ime as possible in fulfilling certain neces- f life.

tion should be made of the greater es now demanded in factories for wash- rposes, and the insistence of drinking supplies direct from the main.

London County Council quite recently llowed within their jurisdiction the use of cast-iron soil pipes and drain vents houses, where formerly only lead pipes llowed. It is not an innovation that y experts are likely to endorse with their g, as such pipes will not last in the way ad pipes will. The majority of iron pipes, which so seldom get coated with their solution at birth as they should be, soon rust, and eventually fail to fulfil their function. It is true that a lead pipe can have a nail driven into it by a careless workman, whereas an iron pipe will point out his offence, but how many instances are recorded? It looks like another nail in the coffin of the worker in lead.

Within the last few weeks I have come across a rather curious discrepancy in views of the size of overflows; on the one hand, in some quantities for a work in the North of England, the overflows to the w.c. cisterns were specified to be ½ in. diameter; and, on the other hand, in the case of some baths for a club in London, these were specified with 2 in. overflows.

Standards of measurements have been arrived at and authorised by agreement between the Surveyors' Institution, the Quantity Surveyors' Association, the National Federation of Building Trade Employers of Great Britain and Ireland, and the Institute of Builders, and I believe these measurements for the time being are approved of also by the National Associations of Master Plumbers, Painters and Decorators, Plasterers, Slaters and Tilers. There has been considerable divergence of opinion in measuring up work, and the laying down of a uniform table of measurements will be welcome, especially to quantity surveyors, as it will no doubt save them many an argument.

The Royal Sanitary Institute has had under consideration the By-laws issued by the Ministry of Health, and the London County Council Drainage By-laws, and a special committee was appointed to go into the matter.

The Reports of this Committee were adopted by the Council and the Institute notes were transmitted to the Ministry of Health and the London County Council.

The suggestions made were not received in time to be incorporated in certain modifications made by the Ministry of Health under date of November 1, 1923, but will receive attention before the next ordinary revision of By-laws is undertaken.

The recommendations include the deletion of earth closets and privies from the urban series, and of privies from the intermediate series, and other changes and amendments intended to modernise existing By-laws and bring them into line with modern practice, and to introduce additional By-laws in regard to sanitary fittings.

I have said that there has been little or no change in the principles of sanitation in recent years, but when sanitary fittings are reviewed a wider field of view opens up, and, although there is little strikingly new in the principles again on which these are made, many more fittings are required, and manufacturers have not been lacking, while providing for this demand, in introducing variant forms of new ideas this last decade.

The housing schemes make a demand for economical fittings that shall be simple in design, and easily kept clean; and at the same time the hotels, restaurants, clubs, business premises, &c., which are putting their houses in order, or extending their accommodation, require their new sanitary fittings to be improvements on what were acceptable a few years back.

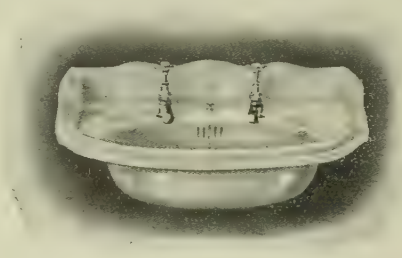


FIG. 2.

In how many of the houses of the artisan class before the war could a bath be found? Now, thanks to the Ministry of Health, it is considered as imperative that the artisan and his family should have a bath at their disposal as those that move in the "upper circles" of society. Going over some of the dwellings in a housing scheme which was carried out during the war I found that all the baths had not been devoted to their original purpose.



FIG. 3.

In this scheme the bath was placed in the kitchen, and to prevent a greater encroachment on space than was absolutely necessary, a folding table cover to it had been provided, which was secured to the wall. In folding this back in some instances the bath was found to have been appropriated as a store bin; indeed, in some cases, it had supplanted the coal cellar, and its waste was clogged up with coal dust. The generation that is growing up, however, will soon see that advantage is taken of this advance on the old order of things.

Hotels no longer can satisfy their *clientele* with a bath on each landing, and the increase in the number of bathrooms is approaching the limit of bathroom per bedroom. A few days ago, to instance the trend of the times, I received a card which proclaimed "a beautifully appointed hotel, with bedrooms with private baths and complete toilet."

The old bathroom up till quite recent years was any room with a bath in it; but now, when economy is not the first and last essential, the best kind of bath in private houses and hotels should fit into the scheme of things, and be part and parcel of the bathroom itself, as in the manner indicated in illustration No. 1.

The bath adjusts itself to the walls and floor of the room, fits into the wall scheme of marble work or tiles, or whatever is employed nowadays, instead of the sodden and pealing paper of the old days. The appearance is distinctly pleasing. With what thankfulness we miss the four legs.



FIG. 1.

Legs are to be seen in all walks of life that yield no joy in the beholding, but what compares for sheer ugliness with the legs on most of the cast-iron baths ?

The advantage does not end with the appearance. There is here no space under the bath where dust accumulates; no splashings to run down on the wall side of the bath and be neglected. Still another point in its favour is that this class of bath does not present the same difficulty for the short or medium size person to get in and out of as one with legs.

Lavatories, perhaps, lend themselves to greater variety than other sanitary fittings. They may be classed in three groups—whiteware basins set in marble tops of all colours of the rainbow; white fireclay or whiteware pedestal lavatories, as shown in illustration No. 1; and the simpler form of whiteware or white fireclay basins on cantilevers. None of these are entirely new forms in the last ten years or so, but all have been improved.

The lavatory basin shown in illustration No. 2 represents the ordinary type of inexpensive basin used some ten years ago, and indeed still being supplied. Compare it with the one shown in illustration No. 3, and mark the improvements in the latter; altogether simpler and more compact in design, with its rounded smooth contours; instead of the mouldings in the former, with an outline which could never have fitted into any scheme of wall design. How much neater the taps of No. 3, with their rounded shoulders, than those of No. 2, with their ledges, and how much more easily kept clean. No. 2 has the old slotted, more or less inaccessible, overflow, whereas this is replaced in No. 3 with a downright visible overflow inviting periodical attention easily given. Between the two lavatories illustrated no invidious comparisons are made, as they are produced from the catalogues of the same firm.

A new feature in lavatory and bathroom fittings is the introduction of a scheme of white throughout. Besides the larger fittings themselves, the taps, brackets, mirror frames, shelves, tables, towel rails, and all the other accessories and gadgets that can possibly be employed, are made in white glazed pottery, or, where metal fittings are required, these are supplied with a white finish. The idea is a sound one, but in private bathrooms personally I am still inclined to prefer nickel-plated valves and towel airers, which are easily kept clean and polished, and have a sneaking preference for glass shelves to break the somewhat drab effect of white everywhere.

A rather striking scheme consists of a range of whiteware basins set in black marble with nickel-plated valves. This would look well in a club lavatory, but would not harmonise with the white fittings and accessories in a bathroom.

There seems to be an increased demand for low level cisterns to be used with the ordinary type of pedestal w.c.'s. They reduce the noise when discharging, and are very useful when there is only a small head of water available.

An innovation traceable to American practice, where water restrictions are less arduous, is the use of a separate flushing valve in lieu of a cistern.

The valve w.c., shown in illustration No. 1, is not in so much demand because the water authorities in London consider it uses too much water, but it remains the best type of w.c. for all that. A w.c. through its soil pipe connects directly with the drain, unlike the waste from the lavatory, bath, or sink, which is not only trapped at the fitting as the w.c., but is again disconnected before entering the drain. The valve w.c., by means of the water standing in the basin, together with the trap underneath, with a ventilated valve box in between, is the best w.c. to guard against the entrance of drain air. It is the most silent, and the least likely to be fouled; the contents are the better submerged; they are entirely retained by means of the flap valve for inspection where desirable by a doctor—a point to which the late Sir Frederick Treves attached considerable importance—and are finally discharged in a "water envelope" through the soil pipe and drain.

HOT WATER SUPPLIES AND HEATING.

By A. C. MARTIN.

THE outstanding fault on many existing cylinder systems of hot water supply is that the poor little fire-back kitchen boiler is not powerful enough to satisfactorily heat the large volume of water in the cylinder. Where the two fittings are out of proportion, and it is desirable to retain the fireback boiler, it is possible to improve conditions by cutting out the primary return connection and reconnecting it at a point higher up the side of the cylinder. This often entails raising the flow connection also. As a circulation within the cylinder can only occur above the point at which the return is connected, the water below will remain cool and unaffected by the heated water above. By this means, instead of the apparatus containing at its best a large volume of luke warm water, the more limited quantity is able to attain a high temperature. There is no difficulty experienced now in making extra connections to cylinders unprovided with manholes, as there is a device on the market which is specially adapted to meet the circumstances.

It is often an economical proposition to provide a variable store of hot water for domestic purposes. For instance, at certain times of the day copious volumes of hot water are required for bathing purposes. Between such times only a very limited volume of very hot water is required for dish-washing, etc. To obtain this smaller volume of very hot water entails in the ordinary way the necessity of heating up the whole hot-store capacity. This unnecessary waste of fuel can be avoided by putting in an extra return connection, as shown at B, Fig. 1. The branch return at A is governed by a valve of fullway pattern. When it is desired that the whole volume of water in the cylinder should be heated, the valve is opened. A circulation will then occur from the boiler between the level at A and the crown of the cylinder. When the smaller volume only is needed the valve is closed. Circulation within the cylinder will then only occur between level at B and the crown of the cylinder. water is a very bad conductor of heat, volume of water below B will remain s nant and cool. The respective volumes heated water needed will be determined whatever point the extra return connectio situated on the side of the cylinder; for stance, assuming a cylinder 3 ft. high holding 60 gals. of water, and that at cer periods the whole capacity is needed and other times 20 gals. will be sufficient, return connection represented at B will made at about 2 ft. from the bottom.

Fig. 2 illustrates, in conventional form apparatus heated by two boilers and prov with double return branches. To heat up sustain the necessary temperature of a l hot store solely by gas is often not economical arrangement in comparison wi boiler which will burn coke cinders and h refuse.

When the whole capacity of the cylind needed—for instance, providing a numbe hot baths in quick succession—the valv the low-return branch is opened and boilers started. When it is inconvenien light up the large boiler the gas boiler, flow and return connections arranged at p on the cylinder as shown, will heat up water in the top portion of the cylinder out undue consumption of gas. A fu advantage given is that the water ma heated up by the solid-fuel boiler, and allowed to die out. The gas boiler will conveniently sustain the temperature to demand. To ensure this provision auto cally the gas supply should be governe an automatic control valve. A popular very satisfactory form of valve is that k as the "Thermostat." This is fixed in a point on the cylinder or in the return When the water in the return pipe bec hot—and this will only occur when the above is well heated—the gas supply is matically cut down by means of a metal alloy rod, having a high expansion contraction property. Fixed in the pipe it actuates the gas-supply valve a ing to the temperature of the water. A by-pass keeps the gas from being comp

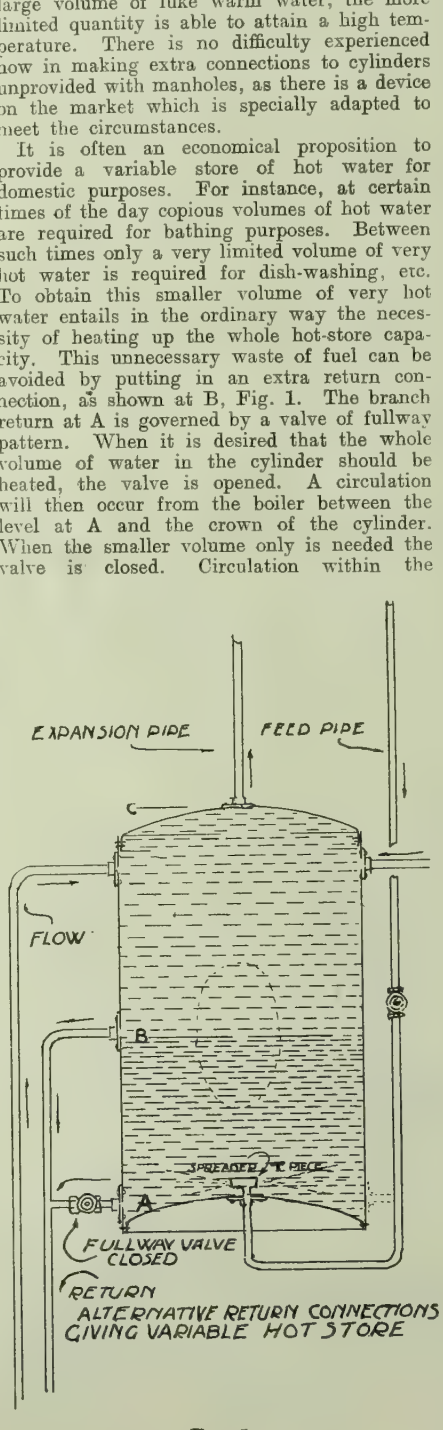


FIG. 1.

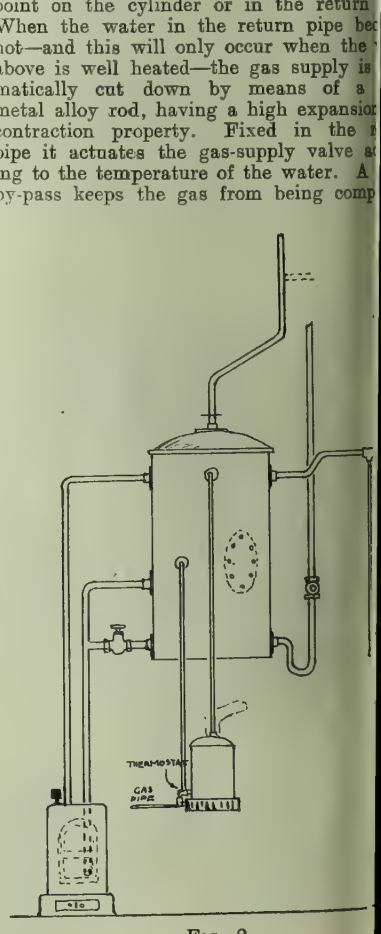


FIG. 2.

hut off, so that when, for instance, a bucket f hot water is drawn off the gas will imme-iately spring full on, owing to the influx of ool water along the return pipe on to the ncasement of the actuating rod.

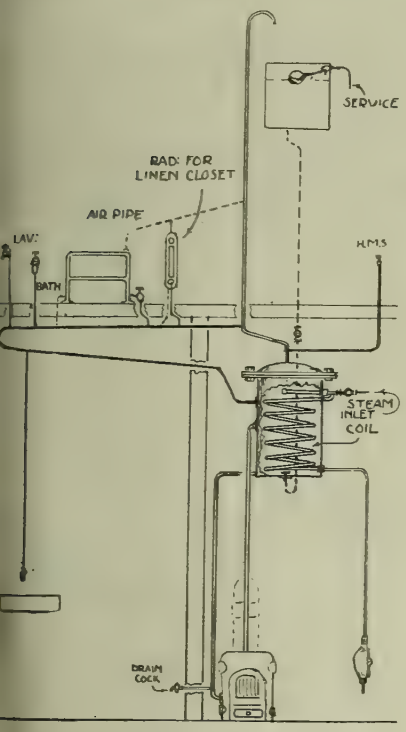


Fig. 3.

Automatic Control to Steam Heaters.

Where steam is generated on the premises r any purpose, advantage of its latent heat alues is often taken to heat up water for omestic or other supplies. The economical ay of effecting this is by blowing the steam irectly into the water. As this procedure accompanied by noises similar to that of battery of machine-guns at work, such a ethod is only employed in slaughterhouses nd factories, where the noise will be no bjection when balanced with the saving in st. The essential factors needed ordinarily re: A constant supply in steam at a good orking pressure; a copper coil or box within jacket, such coil or box to present sufficient rface to raise the water surrounding it to temperature high enough for the require-ents of the establishment; a steam trap to tomatically discharge the condensed steam

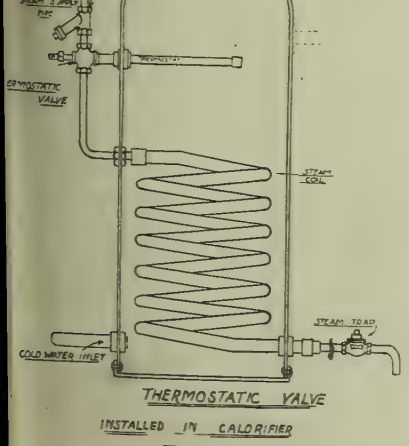


Fig. 4.

to some convenient point. Fig. 3 shows a calorifier fixed to supply hot water to a group of sanitary fittings. A boiler is shown in addition, to heat up the water in the event of the steam being cut off. With a constant supply of live steam at a good working pressure this boiler would be unnecessary. To

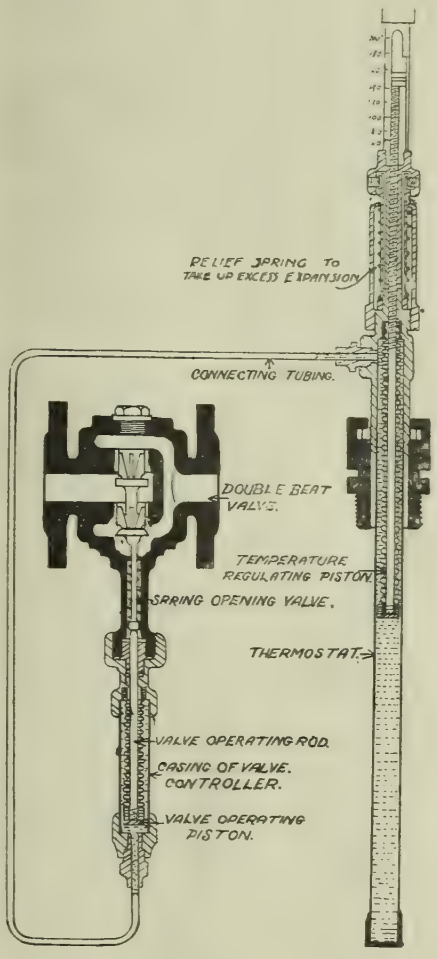


Fig. 5.

prevent overheating and consequent loss of steam the supply is controlled by an automatic valve, which is regulated to cut off the steam when the water in the calorifier is at the required temperature. Steam passes in this case through a copper coil. The steam trap is necessary with all such fittings to automatically discharge the condensed steam and at the same time prevent the escape of live steam. The greater the difference between the temperature of the water surround and the steam within the coil, the more rapid will be the rate of condensation. Where a number of these traps are used it is often convenient to gather the water in a pipe and lead it back to the generating boiler. The advantage of this method is that the water, being hot, it will not take so much fuel to reconvert it to steam in comparison to water direct from the cold service. If a cast-iron radiator, as shown, is fixed on a hot-

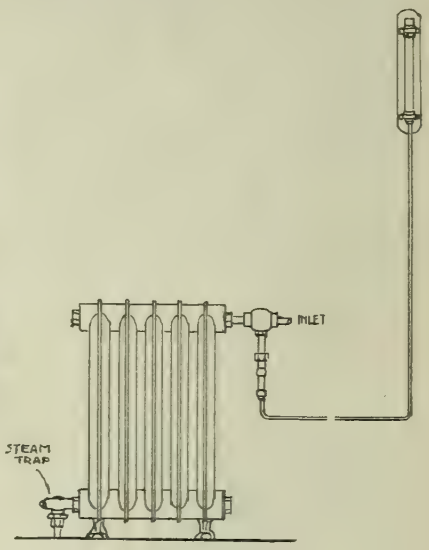


Fig. 6.

supply service to heat a linen store, it should be treated by the "Bower Barrff" process, to prevent rusting of the internal surfaces. This is necessary whether the water is "hard" or "soft." If hard, the lime is precipitated before it gets to the radiator, so that it becomes virtually a soft water. This is a point often lost sight of in hot-water work. The chief objection to the rusting is in the fact that the water drawn off at the taps will be red, and objectionable for all domestic and other purposes. Fig. 4 gives an enlarged sectional view of a similar calorifier fitted with the thermostatic valve; the section of this valve is somewhat similar in construction to that of the following figure. The piston which closes and opens the valve is actuated by a sensitive liquid contained in the sealed tube; where movement is required to smaller fluctuations of temperature the type shown in Fig. 5 is recommended. The section as drawn should be self-explanatory.

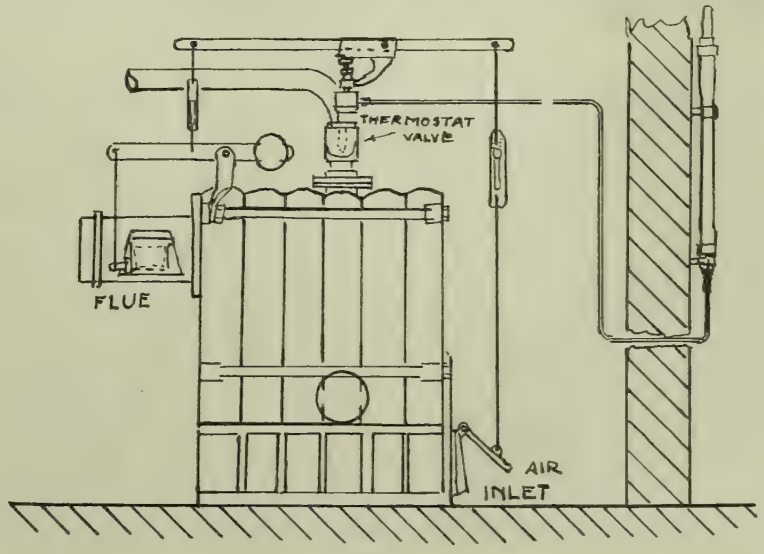


Fig. 7.

The type is used for screwing into a calorifier "known as the liquid type." Another form, "room type," will actuate a valve on a radiator or damper of a boiler by the fluctuations of the temperature of a room or on the external atmosphere. Automatic damper regulation has previously been contrived to shut down at certain boiler temperatures irrespective of outdoor temperature. This method is not ideal when the large fluctuations of temperature, even in this country, is considered. For ideal conditions the temperature of the water in a boiler applied to heating of rooms, and for various drying purposes in factories, should increase with a falling external temperature, and *vice versa*.

This fitting is designed to meet the need automatically. The application is shown in the two following figures. Fig. 6 shows the appliance fitted to regulate the temperature of a single radiator on the temperature of the room in which the thermostat is situated. Fig. 7 shows a similar device fitted on the external face of wall to regulate the dampers on a boiler. The fitting may be applied to the regulation of gas supply, steam, hot

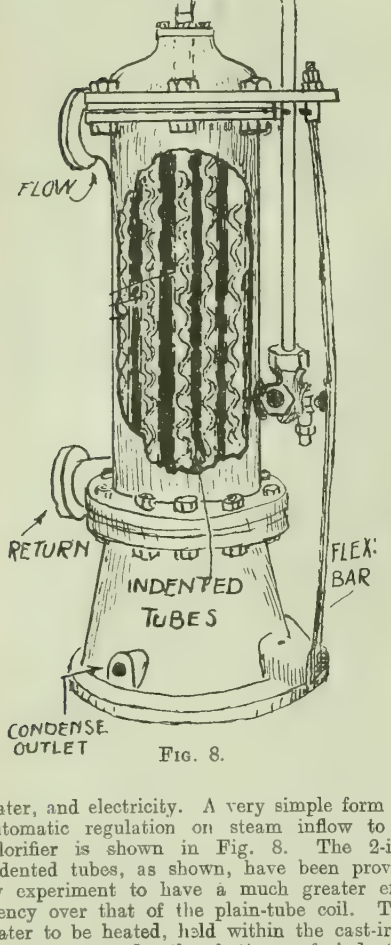


Fig. 8.

water, and electricity. A very simple form of automatic regulation on steam inflow to a calorifier is shown in Fig. 8. The 2-in. indented tubes, as shown, have been proved by experiment to have a much greater efficiency over that of the plain-tube coil. The water to be heated, held within the cast-iron jacket, surrounds the battery of indented tubes. When the steam is turned on this water is quickly heated. The small linear extension of the heated jacket, due to expansion, is sufficient to give appreciable movement to the flexible steel bar connected to the extreme points, to automatically close the steam inlet valve when the desired temperature of the water is attained.

The No. 1 size, standing 3 ft. 6 in. high, will heat up 100 gals. of water per hour from 50° F. to 180° F. with steam pressure at 50 lb. per square inch. This is equivalent to (180 − 50) × (100 × 10) = 130.000 B.T.U. The calorifier may be applied to the heating up of large volumes of water for domestic or other purposes.

MACHINERY AT THE BUILDERS' EXHIBITION

By STAFFORD RANSOME.

The Builders' Exhibition, which opens to the public at Olympia to-day (Friday) and will continue until the 26th inst., promises to be an unusually interesting one, especially as far as the machinery section is concerned. The fact that there has been a gap of two years, since the series of three annual exhibitions terminated in 1922, has allowed more scope for appreciable improvements in designs than is the case when an exhibition is held every year. This particular two years has been what may truly be described as a period of recuperation in the engineering world, a terribly slack time which followed an abnormal post-war rush when the firms concerned had but little time to think of new designs or of anything but getting the work out. During these last two years, however, our manufacturers have been putting their houses in order, have definitely formulated their respective permanent policies and, above all, have realised what they are "up against" in the way of competition at home and abroad. The net result has been that very great and in some cases drastic improvements have taken place in the designs of builders' machinery during the two years in question, and these are very clearly demonstrated at the present show.

Although the Builders' Exhibition is especially an all-round display of builders' requirements generally, we find in each succeeding exhibition a growing preponderance of mechanical exhibits, especially if we reckon them by the amount of space occupied by this class of product. These mechanical exhibits may be divided into two distinct categories, viz., those which are used by the builder himself to assist him in the preparation and erection of his materials and the carrying on of his work generally, and those which form part of the installations which he is erecting, such as ventilating and heating plant, pumping and lighting installations, and so forth.

Although many of these latter are intensely interesting and this class of exhibit is well represented, it is not my purpose in this article to deal with them. I propose merely to consider the former, *i.e.*, the builders' machinery proper. Of these machines, wood-working machinery naturally preponderates in a very marked manner. This in a general way is mainly due to the fact that the manufacturers of wood-working machines, who have no periodical exhibitions of their own, have seized upon the Builders' Exhibition, much as the manufacturers of agricultural machinery have seized upon the annual Cattle Show, as the natural opportunity for displaying their wares to a public which is mainly composed of potential customers.

There may be another reason why in this respect there is a larger quantity of machinery than in the past, and this is that nearly all the firms concerned have decided to refrain from showing at the Empire Exhibition. However this may be, there are at least one hundred and sixty wood-working machines shown by about twenty firms, of whom some fifteen are British and the remainder mainly Belgian and French makers, while there are a few American machines.

If we except log-sawing machines and the very heaviest types of planing machines, and, of course, those many special machines for which the ordinary builder has no use, it would not be unfair to say that this particular exhibition affords perhaps the most complete and varied selection of ordinary general-purpose builders' machinery that has been seen for a long time. And this in spite of the fact that there are several absentees in the way of notable makers whom one might have expected to be showing.

Although log-sawing machines are, with one exception, conspicuous by their absence, modern high-speed re-saws of both British and foreign construction are well represented. These are all of the band or circular-saw variety, mainly the former; and it is a sign of the times and a tribute to the growing ascendancy of the band-saw for this class of work, that there is no such thing as a deal frame among the exhibits. This may be partly because a frame-saw is a cumbersome machine to fix and demonstrate in an exhibition which only lasts a fortnight, or because it may be thought to be too well known to need demonstration; but its total absence seems to point to the suggestion that it is no longer regarded, as was the case in the past, as one of the most essential of machines for the builder who was large enough to require much re-sawing.

There is a great variety of saw benches for all sorts of work, many of which possess new features. There are dimension and roller and sliding-table and chain-feed saws, and in the designs of some of them it will be noticeable that American practice has had some influence, while in other cases it is equally unmistakable that recent Home Office regulations for protecting the blades have affected their construction.

Planing machines are in great variety, from the latest high-speed 4- or 6-cutter planers and moulders down to all types of surfacing and thicknessing machines and combinations of the two. It is particularly in the thicknessing and hand-feed surfacers that the great variety of makers who are directly competing becomes apparent, and one wonders, if all these firms are kept busy on such machines where in the world there can be a market for them. In this respect the planers are surpassed only by the chain mortiser, samples of which will be met with at every turn in this exhibition. There are at least ten firms who are exhibiting one or more of these.

Tenoning, boring, housing, dovetailing, and sand-papering machines, and vertical spindle moulders and lathes are also shown, and among the novelties will be demonstrated certain adaptations of the flexible drive to portable or movable wood-working tools. Small planers and saws and lathes, which can be readily fixed to, and as readily removed from, a bench, and each self-contained with its own electric motor, are an interesting feature, as also machines for truing up and polishing fixed flooring.

General joiners are less numerous than on previous occasions, being represented by only three samples. This seems to confirm a contention recently expressed in these columns to the effect that since electricity has simplified the driving of separate machines there is less demand for the combined machine.

There are the usual assortment of safety appliances and sharpening machines, and two of the most striking features are the developments in electrical driving and the progress that has been made in the manufacture and utilisation of thin high-speed steel cutters.

Prominent among the builders' plant, apart from wood-working tools, are many varieties of concrete plant, including mixers and distributors, and brick, slab and tile-making machines, paint and other pigment grinders, mixers and distributors, stone crushers, derrick and other cranes, hoists, winches, trucks, run-ways, tipping skips, oil engines, and pumps of various sorts.

There are also stone and marble-working machines for sawing by gravity, and other saws, cross-cutting and polishing, and all sorts of saws especially destined to be used on metals. A new and rapid air-acetylene process for removing paint is shown, and a very large assortment of every conceivable builder's tool, including those to facilitate the process of paper-hanging. New methods and appliances for the erection of scaffolding is another feature, and there are a great variety of lifting and other tackle, blocks, wrenches, bar benders, etc.

Sewage plant is also seen: septic tanks, distributors, water-softeners and filters, and machines for cleaning drains and other tubes and pipes, and for smoke testing, and systems for applying lime washes and distempers by the spraying process.

The Builders Exhibition is essentially a business function, lasting a fortnight and possessing no extraneous attractions to bring the idler or the sightseer. Nor has it the fascination for the general public that is possessed by the motor show or the electrical exhibition in these days when everybody is a potential motorist, and everybody likes to think himself his own electrician. Its appeal, however, which, of course, is primarily to the builder and the architect, should extend far beyond that industry and that profession, for there is much in it to attract the engineer, the doctor, the sanitary authority and the exporter. Besides all these, however, any intelligent householder who likes to gain an insight as to the brain power required and the resultant appliances for building and decorating the house he lives in will find an immense amount to interest him in the Exhibition.

THE STANDS.

Below we give a further list of the exhibitors at the Exhibition together with particulars of what is being shown on the different stands.

Acme Patent Ladder Co. (Earlsfield, London.) **Stand No. 173, Row J.**

Ladders.—This firm has on exhibition a large variety of their patent telescopic extension ladders to extend by ropes, pulleys and patent springless automatic locks. "Guildhall" pattern scaffold trestles are also shown.

The Adamite Company, Ltd. (Regent House, Regent-street, London, W. 1). **Stand No. 98, Row E.**

Cement.—The Adamite Company, Ltd., are showing "Atlas White" portland cement and "Colemanoid" ("Colemanite"). The principal exhibit on Mr. Coleman's stand is "The Spirit of the Rocks," a statue executed in white cast concrete stone, the sculptor being Mr. F. Doyle Jones. The aggregate employed with the "Atlas White" portland cement to produce this cast-stone is Cornish granite, the cement being brushed off the surface to expose the aggregate. The production of the stone in which "The Spirit of the Rocks" is cast is in the hands of Messrs. Emerson & Norris, Ltd. Beside "The Spirit of the Rocks" Mr. Coleman is showing a doorway in a manner of the Tudor period, suitable for domestic buildings. This doorway is also carried out in cast concrete stone by Messrs. Emerson & Norris, Ltd. In America, many buildings have been erected in cast concrete stone, some of which, it is claimed, are as beautiful as stone work centuries old. The cast stone in the doorway, which is shown on the Adamite Company's stand, is manufactured from "Atlas White" portland cement and selected aggregate carefully graded. The doorway is so arranged that it will illustrate both exterior and interior finishes. Many other examples of the use of "Colemanoid" and "Atlas White" portland cement, in various lines of interest to architects and contractors, are shown, as well as a comprehensive exhibition of British aggregates.

Adams, Robert (Holborn, London, W.C.1). **Stand No. 58, Row D.**

Engineering Specialities.—This exhibit includes working models of the patent "Victor" door spring hinges, Robert Adams' patent fanlight openers and ventilating gearing, "Victor" universal system of reversible fittings, &c.

Alabastine Co. (British), Ltd. (Church-street, South Lambeth, London, S.W.). **Stand No. 138, Row G.**

Paint.—Here are shown examples of Church's Alabastine, a dry powder ready for use in cold water. It is a cement which forms permanent coats, admits of recoating from time to time without removing old coats, and hardens with age. Examples of "Jelstone" distemper in numerous distinctive colours are also shown. Both products are made in England entirely from material produced in the United Kingdom, and are the production of British labour.

Alexander, Herbert & Co., Ltd., (Charmouth-street, Leeds). **Stand No. 221, Row L.**

Brick Machinery.—This firm is exhibiting some of their brick-making machinery, together with various samples of bricks produced on such machinery. Amongst the exhibits will be sand-lime bricks, magnesite refractory bricks, also bricks made on the stiff plastic process from shale, and on the plastic wire-cut process from plastic clays.

Allen-Liversidge, Ltd. (106, Victoria-Street, London, S.W.1). **Stand No. 292. Row Q**

Acetylene.—The purposes to which the various combinations of acetylene can be put are explained on this stand. The building and contracting trades incorporate the practice of many branches of engineering work, and, although some of them are vastly diverse in character, nearly all of them have this in common—that, either as a prime factor or as an auxiliary, they find a use for acetylene in the various operations which their requirements demand. For use on a large scale dissolved acetylene is especially recommended. A portable plant is essential; oxy-dissolved acetylene cutting equipment is extremely portable. Dissolved acetylene cylinders supplied for metal-cutting purposes range from those containing 50 cubic ft. of acetylene upwards. The 50 cubic ft. cylinder is very convenient for short period intermittent work on account of its lighter weight (some 40 lbs. only). The use of A-L "Imperial Lights" and A-L "Da-Lights by builders and contractors eliminates the trouble and expense, it is claimed, involved by the temporary erection on the site of the work of electrical plant and the necessary complicated wiring systems.

Art Metal Equipment Co., Ltd. (184–188, Shaftesbury-avenue, London, W.C.2.) **Stand No. 108, Row. F.**

Metal Equipment.—The Art Metal Equipment Co.'s exhibit consists of shutters of rolling steel doors made of interlocking steel slats, the working parts being fitted with ball bearings to ensure ease of operation. Despite the prosaic utility of the shutters they are in nowise an eyesore, and the harmony and beauty in a building, it is claimed, are not in the least destroyed by the intrusion of these necessary aids to safety.

The Bath Arteraft, Ltd. (111, Oxford-street, London, W.). **Stand No. 162. Row H.**

Carving.—The exhibits of the Bath Arteraft, Ltd., are contained in a stand of simple architectural outline, but with a certain freshness in design and character. Part of it comprises a portion of a dining-room panelled in oak with Grinling Gibbons' style of carvings in lime-tree. Another portion represents part of a room panelled in mahogany. One end of the stand is fitted with a bay window and at the sides are displayed a series of hardwood doors in oak, walnut, teak, &c., some of these are flush doors suitable for office and hospital use; others are framed, panelled and moulded. Some recesses are fitted with wood mantelpieces and with various styles of wood panelling. Part of the floor is laid in oak and parquetry, and part covered with Velvuto rubber flooring; a new special floor material produced by an associated firm, the Bath Rubber Mills, Ltd., Norfolk Works, Bath.

Batsford, B. T., Ltd. (94, High Holborn, W.C.1). **Stand No. 86. Row E.**

Books.—Messrs. Batsford's stand contains a full range of their publications for architects, surveyors, builders, interior decorators and craftsmen. Prominent among the works shown are: Mr. Gotch's "Architecture of the Renaissance in England"; Sir Banister Fletcher's "History of Architecture" and text-books on professional practice; Professor Richardson's "Monumental Classic Architecture" and "London Houses"; Mr. Aymer Vallance's "Old Colleges of Oxford"; Mr. Crossley's "English Church Woodwork" and "Church Monuments"; Mr. Stratton's "English Interiors"; Mr. Statham's "Critical History of Architecture"; Miss Jourdain's "English Interiors from Smaller Houses, 1660–1800"; Mr. Godfrey's "Architectural Guide to London"; Mr. Yerbury's "Studies of the Human Figure"; Mr. Gordon Allen's "Cheap Cottage and Small House"; Mr. Ellis's "Modern Practical Carpentry and Joinery"; Mr. Mitchell's "Building Construction"; Mr. E. H. Blake's "Drainage and Sanitation"; Mr. Rea's "How to Estimate."

The Birnwell Iron Company, Ltd. (British Columbia House, 1, Regent Street, London, S.W.1). **Stand No. 14, Row B.**

Ironwork.—The Birnwell Iron Co., Ltd., are exhibiting on their stand specimens of the "Birnwell" hot-water boiler and stove. A marked feature of the stove, it is claimed, is its easy accessibility. Also a special damper is so placed that the maximum of heat gases encircles the underside of the hob, providing a highly efficient hot-plate and perfect control. Another distinct advantage is that owing to the special design of the ash-pit ashes fall directly into the pan and nowhere else. This saves excessive dust in the room, and the ashpan is so designed that the ashes can be emptied without even turning the ashpan over. It has been designed to combine the maximum efficiency with perfect combustion. Apart from these advantages which the makers state the "Birnwell" alone possesses, the finish and workmanship throughout make it attractive in appearance and satisfactory in service.

Briggs, William, & Sons, Ltd. (5, Cowgate, Dundee). **Stand No. 34, Row C.**

Bitumen.—Messrs. William Briggs & Sons, Ltd., Dundee and London, make a special display of their natural bitumen damp-courses and roofing felts. Models and specimens illustrating their "Challenge" composite roofing system are also on view. The system consists of laying either two or three layers of Briggs' "Challenge" roofing, either direct to wood boarding or concrete, on flat and slightly pitched roofs. On wood roofs the first layer is nailed to the boarding, whilst on concrete it is securely bonded to the surface by means of "Challenge" bitumen applied hot; each succeeding layer of roofing is firmly bonded and hermetically sealed to the preceding layer by means of "Challenge" bitumen applied hot, and the finished job is an extremely durable roof covering, having, it is claimed, all the advantages of the much more expensive systems at less cost. A feature will also be made of Briggs' "Utex" roofing.

"The Builder, Limited," has two stands, namely, **Stand No. 126, Row F,** where there are reception rooms; a display of books of interest to the architectural, building and allied professions; models of "Old London Bridge," "Old St. Paul's," "Mill Lock" (the recently discovered second arch of Old London Bridge), "Old Westminster," and models of houses with three and four bedrooms made from the winning designs in *The Builder* Cost of Building Competition; news, lectures and music by wireless; and architectural illustrations displayed by means of a new type of electric optical lantern. The other **Stand, No. 245a, Row N,** is for the sale of *The Builder* only and for general information.

Builders & Contractors Plant, Ltd. (51, Tothill-street, London, S.W.1). **Stands No. 250, 251, Row N; Stand No. 261, Row O.**

Machinery.—Messrs. Builders & Contractors Plant, Ltd., show "Exe" Hoist No. 1 and No. 2, and a recent development of the "Exe" Hoist No. 1, consisting of a concrete tipping

carriage with silos, swivel elbow joints and chuting for using the "Exe" hoist as a concrete-pouring plant. Another "Exe" development was too big to come in Olympia; this consisted of the "Exe" concrete-placing plant. Actually on the Stand are illustrations of these machines at work in different parts of the country, and the power unit—a 10 h.p. "Climax" semi-Diesel engine, a highly efficient low h.p. low grade oil consumption engine capable of working at about 2½d. per hour. Everything in hoisting is represented, as besides the "Exe" and the "Exe" hoist crane, two small and handy hand-derricks for barrow hoisting, and a range of chain and self-sustaining "Monarch" rope hoists, as well as an overhead runway are displayed. The "Roll" concrete mixer is represented, and other interesting exhibits are the "Ama" concrete block machine; and a useful auxiliary in the "Rapid" slab machine.

Cakebread, Robey & Co., Ltd. (High-road, Wood Green, N. 22). **Stand No. 51, Row C, and Stand No. 209, Row K.**

Ironmongery.—Messrs. Cakebread, Robey & Co., Ltd., are exhibiting their latest exclusive designs of wood chimney pieces and tiled fireplaces, including their "Caroba" hearth fires; also a special display of sanitary goods, including white porcelain enamelled baths, lavatory basins, pedestal closet suites, and bath-room fittings, &c.

Callender, George M., & Co., Ltd. (25, Victoria-street, Westminster, S.W.1). **Stand No. 67, Row D.**

Bitumen Products.—This stand is demonstrating the following products: "Callendrite" sheeting, a waterproofing medium for open and covered service and storage reservoirs, filter beds, swimming baths, lakes, ponds, &c.; "Callendrite" dampcourse, for foundations; "Ledkore" dampcourse, composed of a core of sheet lead with a special bitumen covering both sides, containing no coal tar or pitch, and suitable for all climates and purposes; "Protex," for keeping walls dry; "Bitusol" paint for iron and steel work of all descriptions, claimed to be an absolute preventative of rust; "Veribest" ready roofing, a self-finished roofing material prepared from pure refined bitumen in 1, 2, and 3-ply; "Bitufelt" roofing, a bitumen roofing felt supplied in rolls 36 ft. long by 3 ft. wide; "Rooferite" plain finish bitumen felts for roofing, sarking and lining purposes, in rolls 15 yds. long by 1 yd. wide; "Bituline" insulating paper, a bitumenised tough heavy paper for use in cold storage and building work; "Bitubond" building composition, which, when poured hot into cavities formed by two brick or stone walls, fills every interstice in the inner wall faces, rendering the wall impervious, non-conducting, sound and temperature proof; and "Plastaleke" asbestic-bitumen cement, for the rapid and easy repair of leaky roofs of all kinds.

Camp & Co., Ltd. (41B, Blenheim-crescent, Ladbroke-grove, London, W. 11). **Stand No. 276, Row P.**

Sash Chains.—This firm is exhibiting the "Sollink" sash chain, which is being shown for the first time at the exhibition. The "P.C." metal shears are also being shown for the first time.

Cardon & Co., Ltd. (Chespale Works, Penshurst Station, Kent). **Stand No. 54, Row C.**

Fencing.—This firm exhibit examples of "Chespale" fencing.

Collier, S. & E., Ltd. (Grovelands, Reading). **Stand No. 59, Row D.**

Bricks.—The exhibit of this firm takes the form of a pavilion, which occupies a site 20 ft. × 10 ft. exposed on three sides, and is rectangular on plan, designed as a garden house or tea room, with double recessed semi-circular arch and splayed jambs, and tile imposts forming entrance, with a pair of painted transparent green doors at one end, and at each side a semi-headed window flanked by lead glazed and bright red brick bull's-eye windows.

Concrete Utilities Bureau (35, Great St. Helens, E.C.3). **Stand No. 115, Row F.**

Information on Concrete.—The Concrete Utilities Bureau, an organisation for encouraging and advocating the use of concrete, is represented. All who are interested in concrete for any purpose and who may have any points upon which they wish enlightenment are invited to seek the assistance of the Bureau free of charge. Publicity literature on the manifold uses of concrete may be obtained.

Cooksley, A. (21–25, Tabernacle-street, London, E.C.2). **Stand No. 88, Row E.**

Woodworking Machines.—On this stand are shown woodworking machines of various types and patterns.

Crittall Manufacturing Co., Ltd. (246, High Holborn, W.C.1). **Stand No. 153, Row G.**

Metal Windows.—Metal windows of every description are shown. Amongst the novelties is the new "Zincspra" process, which is applied to metal windows to make them rust-proof. Another novelty will be a special new range of standard windows produced for use in tropical countries, and a new type of hospital window. Architectural bronzework and a range of various standard metal windows and doors are included in the exhibit.

Davis Gas Stove Co., Ltd. (60, Oxford-street, London, W. 1). **Stand No. 154, Row H.**

Gas Stoves.—This firm display many examples of their manufactures, including (1) "Rubston" gas fire-places; (2) "Nautilus" gas flue blocks; (3) improved "Nautilus" coal grates; (4) "Alpine Extended" gas range; (5) "Garba" portable gas heater; and (6) "Rose" and "New Shamrock" geysers.

Dawson & Co., Ltd. (York-road, Battersea). **Stand No. 277, Row P.**

Sanitary.—The exhibit includes: Sanitary Section: A large selection of white enamelled and "Ephos" brownware drainage channels, Dawson & Co.'s improved stable gully, Mendip gully, and anti-back flow gully; also the "Lixall" interceptor with access eye and chamber combined. Brick Section: A large selection of samples, comprising Kent stocks of various qualities.

Dominion Machinery Co., Ltd. (Union-street South, Halifax). **Stand No. 75, Row D.**

Woodworking Machinery.—The Dominion Machinery Co., Ltd., show some of their woodworking machines and exhibit for the first time their "Super Elliot" woodworker (patented).

Drew, Clark & Co. (Diamond Patent Ladder Works, Leyton, E.10). **Stand No. 204, Row K.**

Ladders.—On this stand are shown Drew's patent telescopic ladders, in two, three and four sections, and from 9 to 90 ft.; Drew's patent decorator's ladders, platform steps, scaffold trestles, tower ladders, and Higgs' and Drew's patent "Raprig" sectional scaffold. The last-named is for interior decoration, and combines lightness with great strength. It is simple to erect, and is claimed to be the ideal scaffold for interior decoration of institutions, clubs, hospitals, theatres, cinemas, public buildings and business houses.

Drytone, Ltd. (73, Gower-street, W.C. 1). **Stand No. 61, Row D.**

Woodwork.—The exhibit comprises "Drytone" doors. They are stocked in three materials, British Columbia pine, Western hemlock, and red cedar; and in two sizes, namely, 6 ft. 4 in. × 2 ft. 4 in., and 6 ft. 4 in. × 2 ft. 8 in. Also a selection of "Drytone" panelling and "Drytone" furniture is shown.

Evans & Ronald, Ltd. (7, Denman-street, London, S.E.1). **Stand No. 23, Row B.**

Fittings.—On this stand are shown: (1) The "Evron" patent bullet catch and bolt combined, in which there is no necessity for a lock and key when using the bolt; (2) the "Eddoll" patent gate latch, which ensures a gate being shut; (3) the "Cubitt" patent electric light bulb director, which may be easily fitted to the flex and enables the light to be thrown at any angle and in any direction; and (4) the "Riddick" patent door furniture, which is easily fitted and does not require screws.

Freeman, Joseph, Sons, & Co., Ltd. (Wandsworth, S.W. 18). **Stand No. 312, Row R.**

"Cementone."—This exhibit indicates the possibilities of decorative work in cement, concrete, plaster, roughcast, &c., by the use of Freeman's "Cementone" products for colouring and glazing these materials by incorporation and surface application. Examples are shown in panels of roughcast, tinted in various shades, by the incorporation of No. 1 "Cementone"; coloured concrete scullery and kitchen floors, wall dados, steps, garden paths, rockeries, tiles, &c., down to buttons, are illustrated in permanent colours. Variegated designs, resembling marbles and granites, mosaics and composition flooring, are also shown. Freeman's No. 7 "Cementone" coloured glazes, No. 4 "Cementone" waterproofing liquids, and No. 8 "Cementone" liquid concrete hardener are exhibited.

Gawthorp & Sons, Ltd. (4, Trafalgar-square, London, W.C.2). **Stand No. 270, Row P.**

Metalwork.—An exhibition of wrought-iron work for domestic and ecclesiastical use, "Culu" brass, alabaster and marble memorials, repoussé copper fittings, stained glass and oak panelling, and general fittings.

Haigh (Oldham), Ltd. (Globe Iron Works, Oldham). **Stand No. 208, Row K.**

Woodworking Machinery.—This firm is showing: Rising table saw bench, single-spindle dimension saw bench, high-speed tenoning machine, fret-sawing machine, surface planer, panel planer and thicknessing machine, combined over-and-under planer, three- and four-cutter planer, chain-mortising machine, universal woodworker, automatic dovetailing machine, vertical spindle moulder, band-sawing machine, and grinding machines.

Haigh, Wilson & Co. (50, Grey-street, Newcastle-on-Tyne). **Stand No. 7, Row B.**

Steel Frames.—A feature is a standard steel frame, 21 ft. span, supplied in any desired length, or for erecting two or more bays abreast.

Haunchwood Brick & Tile Co., Ltd. (Nuneaton). **Stand No. 62, Row D.**

Bricks.—This firm is exhibiting samples of their manufactures, including numerous kinds of blue and brindle bricks, including 3 in. pressed blue bricks without frog for L.C.C. sewer contracts, pressed blue bricks with frog 2⅝ in. or 3 in. thick, blue stable and path pavers, blue kerbings and channellings, blue platform and wall copes, garden edging, red, blue, buff and salt-glazed ventilating bricks, red and blue flooring quarries, red, blue and buff ridges and finials, red, blue, buff and salt-glazed chimney pots, firebricks and fire-quarries, sanitary pipes and connections, garden vases, land drain pipes, hollow blocks, sand-faced fireplace bricks, &c.

Hooley Hill Rubber & Chemical Co. (Audenshaw, near Manchester). **Stand No. 37 Row C.**

Rubber.—Exhibited on this stand are varieties, shades and thicknesses of rubber flooring and tiling, &c.

Hopton-Wood Stone Firms, Ltd. (Wirksworth, Derbyshire). **Stand No. 246, Row N.**

Stone.—This stand has been carried out completely in stone to demonstrate the uses of the products of the firm.

Hurry" Water Heater Co. (39, Broad-street, Birmingham). **Stand 199, Row K.**

Water Heaters.—This firm is showing heir ordinary designs of water heaters which re of the storage method, and rather differ om the ordinary geyser, as the latter is not of ne storage. "Hurry" geysers for small pro-erty are also shown, and a special show s made of "Hurry" furnaces or coppers, hich are a special design for delivering hot ater to a bath, and also for washing clothes, milar to the ordinary furnace.

nteroven Stove Co., Ltd. (156, Charing Cross-road, London, W.C.2). **Stand No. 210, Row K; Stand No. 233, Row L.**

Stoves.—The Interoven Stove Co., Ltd., ow both the "Interoven" and "Super-nteroven" convertible cooking and heating oves (Pascall's Patents), for cooking all eals, baking bread and pastry, and giving mple supply of hot water for baths and domestic rposes and a comfortable fire all day. They re instantly convertible from cooking stove open fire sitting-room grate, and save coal, ace and labour. The "Bewty" expanding rless fire fronts (Pascall's Patent), for modern-ing old-fashioned sitting and bedroom grates a small cost; and the "Bewty Minor" and Bewty" dog grates are shown, together ith the "Ten-in-One" adjustable stool bottom ates (Pascall's Patent), and the wrought elded range boilers of every description.

ohnson's Reinforced Concrete Engineering Co., Ltd. (23, Leadenhall-street, E.C. 4). **Stand No. 146, Row G.**

Concrete.—This firm display the following ecialities of concrete reinforcements: Lattice: his mesh reinforcement has been designed and manufactured exclusively for concrete floors, ofs, walls, roads, culverts, tanks, and similar nstructions. It provides for a completed ticle ready for laying in concrete, reducing e labour charges and risk of displacement to minimum. "Keedon" fitments used in njunction with ordinary round mild steel rs for concrete beams, columns, &c., have oved to be both efficient and economical, d, in application, have the advantage of mbining rigid and yet adjustable members ith a non-slipping bar. "Bricktor," it is imed, is the reinforcement for all kinds of ick-work, partition slabs, concrete block ork, &c., where extra strength and lightness construction are required.

ennedy, W. (Station Works, Warwick-road, West Drayton, Middlesex). **Stand No. 52, Row C.**

Bar Bending Machines.—On this stand is own a series of bar-bending machines r cold-bending tubes or rods of various sections special feature is made of the No. 2 achine, designed for bending bars up to 1 in. diameter, and particularly suitable for inforcement for concrete.

tham, James Ltd. (124, Curtain-road, London, E.C.2). **Stand No. 149, Row G; Stand No. 158, Row H.**

Timber.—Messrs. James Latham, Ltd., show amples from each of their principal de-rtments. The Hardwood Department has magnificent pile of Austrian and Volhynian inscot oak, as well as plain and figured k, walnut and mahogany, &c., one log of hogany being over 60 ins. wide. The ulding Department exhibit specimens of pfitters' and joiners' mouldings, as well as dwood floorings and matchings. Plywood every description for panelling, as well as h-class veneers are shown in great variety, l as usual many samples from high-class stocks figured hardwoods are shown in the rough nanufactured into panels.

khampton Quarries Co., Ltd. (Sandy-lane, Charlton Kings, near Cheltenham). **Stand No. 32, Row C.**

tone and Slate.—This stand takes the form a small pavilion built of Cotswold stone and roofed with Eyeford slates with Cotswold stone ridging. The floor of the stand has been paved with slabs of indurated "Trigonia" (a new artificial stone), and there is also a display of limestone of all grades.

Liner Concrete Machinery Co., (Newcastle-on-Tyne). **Stand No. 283, Row P.**

Concrete Machinery.—A number of concrete machines are demonstrated, including the "A" Type No. 1 slab-making machine, complete with a patent elevator bogie, capable of elevating the required load to 4 ft. 6 in.

The Liverpool Adhesive Paste Co., Ltd. Stand No. 302, Row R.

Paste.—At this stand is shown a complete range of the L.A.P. products for decorators.

Major & Co., Ltd. (London, S.E. 1). **Stand No. 110, Row F.**

Wood Preservative.—Messrs. Major & Co., Ltd., manufacturers of "Solignum" wood preservative, are exhibiting a two-room wooden building and fencing, illustrating the uses of their preparation as a preservative, as well as a decorative agent for external woodwork, and as a decorative stain for interiors.

Mechanical Engineering Co. (Manchester), Ltd. Stand No. 81, Row D.

Woodworking Machinery.—This firm is exhibiting the following woodworking machines: 32 in. roller feed saw bench; "Diploma" spindle moulder; power mortising machine; 18 in. pedestal saw bench; 12 in. bench planer; 26 in. "Reliant" saw bench; 30 in. band saw; hand mortiser; 30 in. ball-bearing saw bench; 24 in. × 9 in. panel planing and thicknessing machine; combined 20 in. × 9 in. under and over machine; 30 in. pendulum cross-cut; and a spindle moulder, with 30 in. tables.

Naylor Brothers (London), Ltd. (Slough, Bucks). **Stand No. 166, Row H.**

Paint.—This stand shows four rooms, the walls, doors and woodwork showing the finish which is obtained with the products. Other specimens of materials and work are shown. The pillars on the stand are finished with "Petrumite" imitation stone paint; the drawing room and bedroom in distemper with a stencilled frieze; the dining-room has oak panels finished with encaustic copal varnish, giving a flat finish; the bathroom is papered and the paper varnished with "Suwidec" varnish; the doors and woodwork in the various rooms are finished with "Suwena" enamel, "S.E.G." paint, and "One Coat Oak" and "Suwidec" varnishes.

Nettlefold & Sons, Ltd. (54, High Holborn, W.C.1). **Stand No. 111, Row F.**

Ironmongery.—Messrs. Nettlefold & Sons, Ltd., exhibit, in addition to a wide range of locks, hinges, and door furniture, a number of patterns specially suitable for housing schemes and several new lines in door and window fittings. In the lock section is shown a new automatic lavatory lock; an electric lift lock, any part of which can be taken out and replaced in a few seconds without removing the case of the lock; and a reversible 4-way rim lock with a double spring live bolt action. A mounted model demonstrates how an ordinary night latch can be forced with a gimlet inside three minutes. A self-locking casement stay, together with the "Bardsley" oil door check and spring form a feature of the exhibit.

Odling, Anselm, & Sons, Ltd. (Crown Wharf, London, N.1). **Stand No. 107, Row F.**

Marble and Granite.—This firm exhibits a variety of coloured marbles and onyx, suitable for wall linings, pavings, columns, caps, bases, pilasters, and balusters, &c. Also several sculptured works of art, including a green crocodile that has been specially selected from the point of view of the markings being an excellent reproduction of the actual reptile. In addition, they exhibit two white marble Polar bears and many other things of interest in connection with interior decoration.

Oliver, William, & Sons, Ltd. (126, Bunhill-row, E.C. 1). **Stand Nos. 3 & 4, Row A, Stand No. 6, Row B.**

Timber.—Messrs. William Oliver & Sons, Ltd., show samples of Cuba and Spanish mahogany; Austrian wainscot oak; English wainscot oak; samples of English walnut; Honduras and African mahogany, teak, American oak, and walnut; and hardwoods.

Pantin, W. & C. (147, Upper Thames-street, London, E.C.4). **Stand No. 321, Row S.**

Elevator.—A portable belt elevator, suitable for loading trucks and lorries with builders' material, sand, gravel, breeze, &c., at a rate of about 30 tons per hour, is shown on this stand. It has a maximum delivery height of 10 ft., and is driven by an electric motor mounted in the base frame. This elevator will work in conjunction with a horizontal troughed belt conveyor. A few lengths of the "Mathews" gravity roller conveyor, suitable for handling bricks, tiles, timber, sacks, boxes, &c.; a "Hanchett" portable combination woodworker, made up of a universal saw, a planer and a drum sander; "Hanchett" hand and gang saw swage; "Hanchett" band swage shaper, and the "Mershon" pressure side dresser are also exhibited.

Parker, Frederick (Catherine-street, Leicester). **Stand No. 167, Row H.**

Machinery.—This firm demonstrates a concrete and tarmacadam mixer of 7 cub. ft. capacity per batch, complete with automatic loading and measuring hopper, combined with a power unit for driving, with regulating water tank, the whole mounted on steel under-frame with transverse axles. A wide range of plant is exhibited, including the "Monarch" solid body type stone breaker, size 12 in. by 7 in., for giving an output of 5–7 tons per hour, complete with screen for working in conjunction, the latter being carried by extended girders from the sides of the crusher, the whole mounted on road wheels as one self-contained unit. A further exhibit is a small size concrete mixer with a capacity of 4 cub. ft. per batch, and capable of dealing with an output of 40–50 batches per hour of mixed material; a 12 in. by 7 in. "Monarch" light stone breaker, suitable for dealing with material of equivalent hardness to blue bricks and for giving an output of approximately five tons per hour is also shown.

Patent Tip-up Bath Co. (39, Broad-street, Birmingham). **Stand No. 230, Row L.**

Baths.—A bath specially designed for use where space is limited is shown on this stand. The water heater is fixed on the wall, so that when the bath is tipped up on end when not in use the heater is enclosed within it.

Rawlplug Co., Ltd. (Gloucester House, Cromwell Road, London, S.W.7). **Stand No. 57, Row D.**

Rawlplugs.—This firm is showing on their stand Rawlplugs, Rawlplug aluminium fittings, Recess screws, and Rawlplug tool outfits. Throughout the day demonstrations in the use of Rawlplugs and Recess screws will be given. The great point which they wish to emphasise in connection with all items which they manufacture or market is the fact that they are labour saving. Recess screws can be driven home without the use of a gimlet, and in about one-third of the time taken to drive an ordinary lot headed screw.
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Roanoid, Ltd. (29, West George-street, Glasgow). **Stand No. 70, Row D.**

Fittings.—Messrs. Roanoid, Ltd., show a range of manufactures in the new material "Roanoid," a composition manufactured into

suitable fittings for domestic use, such as door-handles, finger-plates, escutcheons, switch covers and plates, bell-push covers and plates, drawer pulls, sash lifts, sash knobs, slip bolts, indicating bolts, moulding hooks, wardrobe hooks, curtain rods and brackets and stair rods and eyes.

Rippers, Ltd. (CASTLE HEDINGHAM, ESSEX). **Stand No. 90, Row E.**

Joinery.—At this stand are shown: (*a*) High-class joinery section: Examples of oak, mahogany, and walnut doors, examples of their patent hospital doors, and examples of decorated mantels and mouldings. (*b*) Housing joinery section: standard doors, standard windows, standard dressers, standard cupboards, standard entrance gates.

Sagar, J., & Co., Ltd. (HALIFAX). **Stand No. 1, Row A.**

Woodworking Machines.—Messrs. Sagar & Co., Ltd., show the following from their well-known series of woodworking machines: The "Premier" combined hand and roller-feed planing and thicknessing machine (electrically-driven), for planing out-of-twist, making glue joints, bevelling and chamfering, rebating, tonguing, grooving, moulding, &c.; a band sawing machine (electrically-driven), for sawing straight or curved work; a semi-automatic chain-cutter and hollow chisel mortising and boring machine (electrically-driven), for general mortising in hard or soft woods; a vertical spindle moulding and shaping machine with tenoning attachment, for moulding and shaping straight or irregular outlines; a builders' tenoning machine (electrically-driven), which is also a convenient machine for cross-cutting and grooving; a radial arm roller-feed circular saw bench for ripping and deep-cutting deals, flitches, &c., into boards by roller feed and for general sawing by hand feed; a four-cutter moulding and planing machine, which will take timber up to 7 in. wide by 3 in. thick; a heavy double-geared roller-feed planing and thicknessing machine for planing and thicknessing, framing, panels, boards, heavy timber, &c., at high speed; a double-spindle canting table dimension sawing machine (electrically-driven); a hand-planing, jointing, moulding, &c., machine, for planing out-of-twist, surfacing straight or taper, squaring up, moulding, and many other operations; and a heavy double-spindle moulding, shaping, trenching and recessing machine, suitable for almost every kind of moulding or recessing work such as working outside or inside edges of straight, circular or irregular mouldings, chamfering, grooving, cutting housings in string boards for stairs, and all kinds of tracery work, &c.

Siegwart Fireproof Floor Company, Ltd (231, STRAND, W.C.2). **Stand No. 92, Row E.**

Floors.—The "Siegwart" fireproof floor is shown constructed with a series of pre-cast hollow concrete beams and delivered on the job ready matured. The beams are placed in position and the joints between grouted with cement and sand. The floor can be designed to carry any load required on considerable spans, and, owing to its rigidity and sound-resisting qualities, is suited for factory, flat and office buildings.

Silicate Paint Co. (CHARLTON, LONDON, S.E. 7). **Stand No. 100, Row E.**

Paint.—The interior of this stand is divided into three compartments. In the gallery front is shown in panels a selection of the many "Duresco" colours now being made by the Company. In the rear are two specimen rooms, the ceiling and corner of one in white Duresco, on the frieze of which is painted in Duresco a floral design, the walls being cream Duresco. The ceiling cornice and frieze of the other room are done in white Duresco, the walls oriental blue Duresco. For the woodwork throughout the Company's flat oil paint "Silpaco" is used. The exterior of the stand is treated with mauve grey Duresco, the woodwork and signwriting, &c., in "Silpaco."

Smyrk & Son (49, RED LION-STREET, HOLBORN, W.C.1). **Stand No. 285, Row P.**

Fittings.—This stand exhibits patent picture rails and hooks, known as the "H. S. N.," the object of which is to abolish the dust-collecting groove of the ordinary picture rail and provide self-locking hooks underneath.

Spedol Manufacturing Co., Ltd. (BRENTFORD). **Stand No. 263, Row O.**

Paints.—The design of this stand has been entirely carried out by a decorator customer of the firm, and the specimens of work shown thereon have been executed under every day working conditions. Each side of the stand is executed with a different "Spedol" product, to demonstrate the class of work that can be done with these materials. Particular attention is directed to the "Stempeau" and "Spemac" panels, as examples of craftsmanship in distemper and enamel work. One side of this stand is designed to represent the back of a house where the uses of "Ferroarmor," the rust-resisting paint, are demonstrated. Amongst other of the Company's products exhibited are "Stempeau" distemper and ceiling white, "Spemac" enamel, "Spedol" varnishes, genuine ready mixed white lead paint, colours ground in oil and dry colours, "Swift" liquid driers, and "Spedol" brushes.

Standard Concrete Machine, Co., Ltd. (SOUTHAMPTON HOUSE, W.C.1). **Stand No. 316, Row S.**

Machinery.—The main exhibit of this firm is their "Standard" concrete machine. It differs from the ordinary run of concrete machines in that it will turn out a variety of products of all shapes and sizes, and has a range comprising most products required in the building, public works, and even garden ornament trades. One of its great points is its simplicity, changing over so readily from one type of mould box to another. The unique action of the "Standard" machine lies in the fact that the mould box is withdrawn from the product and not the product from the mould box. The machine is shown at work turning out a small variety of widely differing products of general utility. A power-driven mixer is also shown.

Stephens & Carter, Ltd. (PADDINGTON GREEN, W.2). **Stand No. 242, Row N.**

Ladders.—This firm has on view a complete range of ladders, barrows, steps, trestles, extension ladders, and other types of building plant, of which they are the manufacturers. They also show a large range of other building plant, such as sieves, screens, rubbish baskets, dust sheets, drain rods, tarpaulins, fall ropes, scaffold ropes, both wire and hemp, and a full-size model of Carter's (Spencer's patent) travelling cradle. This cradle, by means of its special overhead gear, can travel an unlimited length along the front of a building, and if necessary can follow projections, or recesses with equal facility. The firm also have on view a new and improved form of tubular steel scaffolding.

Sturtevant Engineering Co., Ltd. (147, QUEEN VICTORIA-STREET, LONDON, E.C.4). **Stand No. 123, Row F.**

Machinery.—The Sturtevant exhibit includes their powerful vacuum cleaning apparatus suitable for large and medium-sized public and private buildings. The necessary suction in all Sturtevant apparatus is created by an air turbine or multi-stage fan, a type of exhauster adopted by this company in preference to any other, although they are themselves manufacturers on a large scale of rotary positive exhausters, as well as fans of all sizes and types. The latest design of Sturtevant No. 8 Type Turbine cleaning plant, consisting of turbo-exhauster driven by a direct coupled 5 b.h.p. electric motor. A Sturtevant No. 10 Type turbo-exhauster of the latest design is shown, but is not connected to the power supply. Also a powerful portable machine, the Sturtevant No. 5 Type Turbine cleaner, consisting of filter, turbo-exhauster, and direct connected ½ b.h.p. electric motor combined into one unit and mounted on wheels.

Sussex Brick & Estates Co., Ltd. (14, MARKET-SQUARE, HORSHAM). **Stand No. 193, Row J.**

Bricks.—The exhibit of Messrs. The Sussex Brick Co. takes the form of a brick pavilion, on which they show their various Weald clay products, chief amongst which are Southwater vitrified engineering or pressed facings, and S.B.E.C. hand-made flared reds and mixed coloured kiln stocks.

Tann, John, Ltd. (117, NEWGATE-STREET, E.C.1). **Stand 47, Row C.**

Safes.—On this stand are exhibited all classes of fire and burglar-resisting strongrooms, strongroom doors and safes, including the most modern types, constructed to resist the oxy-acetylene blowpipe, high explosives, and other appliances of the scientific burglar. Also "Anchor Reliance" strong-room doors for bullion rooms and plate rooms, and strong-room doors for deed and book rooms, party wall doors to L.C.C. and Fire Offices Committee's requirements, steel plate closet doors, strong-room shelving, fittings and ventilators, safe deposits and fittings. The "Anchor Reliance" fire, burglar, and drill-resisting bankers' doors, incorporating John Tann's patent anti-explosive and anti-blowpipe devices, complete with steel vestibules, ventilating grilles, &c., are shown, together with fire and burglar-resisting anti-blowpipe bullion vault doors. Also crane-hinged water-tight anti-blowpipe treasury doors, of construction certified against all methods of attack. The "Anchor Reliance" 12-corner bent steel "Household" and "Commercial" deed and book safes are prominent, together with their 12-corner bent steel "Security," "Stronghold" and "List K" fire and thief resisting cash, plate, and jewel safes. The "Anchor Reliance" 12-corner bent steel "Dreadnought" quality bankers' safes, fitted with patent anti-blowpipe and anti-explosive devices, will be on exhibition, together with their "Grade 2" anti-blowpipe safes and "Composite" safes, of tested resistance against every known risk.

Ten Test Fibre Co. (TELEPHONE-AVENUE, BRISTOL), **Stand No. 87, Row E.**

"Ten-Test," which is exhibited on this stand is a permanent material for casing interior walls and partitions, and exterior walls and roofs. It can also be used for constructing hoardings, signs, and for temporary buildings such as garages and pavilions. It consists of selected wood fibre from which all the resin, oils and other perishable matter has been extracted by boiling. It is interesting to note the various uses to which "Ten-Test" has been put in the British Empire Exhibition. For showstands it has been used extensively, and also in ceiling and walls of offices and main buildings. Outside, it has been used in the construction of kiosks, a demonstration bungalow, some half-timbered fifteenth century style work, and for casing the two remarkable 100 ft. steel towers and dome of an advertising exhibit. The renderings used on "Ten-Test" for these and other works at Wembley are demonstrated in the Exhibition.

Thames Board Mills, Ltd. (PURFLEET, ESSEX). **Stand No. 150, Row G.**

Wallboard.—As in past years, this firm (formerly the Thames Paper Co., Ltd.), are showing "SX" board for interior lining. A specially designed exhibit to show the practical advantages of this material occupies the same position as in 1922. Various methods of panelling and decoration will be shown, and the ease of fixing, rigidity, and economy advantages of "SX" board are demonstrated. Particular attention is drawn to the use of "SX" board for ceilings.

gular Construction Co., Ltd. (IMBER COURT, EAST MOLESEY, SURREY). **Stand No. 35, Row C.**

chinery.—This firm are demonstrating the ntages of the triangular system of con-tion, wherein walls are formed with an rious exterior face, and a porous interior with perfect bonding, continuous vertical es, &c. They also exhibit the "Trianco" pressure double toggle block and slab ine, which, in addition to producing ó 800 slabs per day under heavy pres-with hand power, also effects economy ment. The "Trianco" tile machine for ucing perfect roofing tiles of the standard in concrete, with hand power, is another it; and finally they are showing models ie houses erected on the Imber Court e, and plans of same.

x Foundry, Ltd. (GREAT BRIDGE, STAFFS). **Stand No. 10, Row B.**

nfounders.—The "Triplex" is exhibited at . A most important feature of all Triplex s is that the whole of the ovens and are built of cast-iron plates in sections. will not rust out, and reduces upkeep to a num; the ovens take a little longer to heat om cold, but retain their heat hours after et iron one has gone cold. The saving in it is claimed, over an extravagant and use-kitchen range is enormous. 34 lbs. per ing day, composed of small coal with about hird slack, is sufficient to do all the work of ousehold for cooking and heating water. eir Triplex grate is watched at work no e at all can be seen if the fire is stoked to ed instructions. Smoke is heat-producing r which is all consumed in a Triplex and d to good use. Owing to the fire being near earth, all dust that is not drawn through lues drops into the ash grating below the

& Bell (27, LINCOLN'S INN FIELDS, LON-DON, W.C.2). **Stand No. 65, Row D.**

wage Installation.—Messrs. Tuke & Bell it a country house sewage installation, rising:—Patent semi-septic tank, with its gs and covers; also aerobic filter with ally designed distributing apparatus to e the amount of attention necessary to the num, and a final humus pit. The installa-s capable of dealing with the sewage from ght-person house. Also a patent "Ideal" re-ng sewage distributor, operated by automatic rs, and a central container instead of the dosing syphon. This machine has serrated l arms, and there are no small holes to choke. ition, again, is reduced to the minimum, his pattern of revolving distributor, which use in all parts of the country, has proved satisfactory for large country houses, and ewage schemes at public institutions and ries.

er Bros. Asbestos Co., Ltd. (ROCHDALE). **Stand No. 160, Row H.**

estos Roofing.—Messrs. Turner Bros. stos Co., Ltd., have a steel structure to their asbestos-cement "Trafford" tiles "Endurol" tiles, the former being fixed on oof to purlins at 3 ft. 6 in. centres, and the to purlins at 20 in. centres. These tiles ade in grey, red and russet brown. It is erest to note that "Trafford" tiles were ed for the British Empire Exhibition at oley, and have been used throughout on e principal buildings, 1,500,000 sq. ft. of g being used. This firm also exhibit "Egis" asbestos cement slates and flat , as well as veneered asbestos cement od panels.

Allan & Co. (SPRINGBANK IRONWORKS, EPPOCHHILL, GLASGOW). **Stand No. 33, Row C.**

ting.—It is claimed that the "Ure to-Back" Grate, which is exhibited on and of Messrs. Allan Ure & Co., successfully meets modern requirements by making the living-room into an attractive parlour or sitting-room. The oven being in the scullery radiates the heat, thereby making the apartment comfortable and also permits of clothes being dried rapidly. The grate is simple in construction and easily cleaned, there being no flues above the hot-plate. Its advantages are threefold as the living-room fire heats the hot-water service, cooks a 14 to 20 lb. joint in oven, and boils or stews on the hot-plate at the same time. A plentiful supply of hot-water is guaranteed, and as a gas grill and boiling ring can be fixed on hot-plate, and a gas fitting into oven, converting it into a gas cooker, it is convenient for use in summer time. It is, it is claimed, the most widely adopted combination of its kind, and is being used in municipal and other housing schemes throughout the country. It has been supplied to the London County Council, Manchester, Glasgow, and other Corporations. Explanatory and illustrated list will be sent post free by the patentees and sole makers, Messrs. Allan Ure & Co.

Victor, J. A. (77A, QUEEN VICTORIA-STREET, LONDON, E.C.4). **Stand No. 206, Row K.**

Woodworking Machinery.—Mr. J. A. Victor, sole British representative for the Ateliers de Construction, Ch. Danckaert, of Brussels, shows a display of their woodworking machinery, including a six-cutter planing and moulding machine; a six-cylinder band re-sawing machine; and a set of machines for joinery manufacturers.

Wadkin & Co. (NORTH EVINGTON, LEICESTER). **Stand No. 202, Row K.**

Woodworking Machines.—Messrs. Wadkin & Co.'s exhibit consists of a selection of their high-speed woodworking machines, all of which are fitted with improvements for giving high and continuous output. A number of machines are shown in operation. These include a 20 in. combined surfacing and thicknessing machine, a new heavy model for surfacing, planing out-of-wind, bevelling, trying-up, rebating and chamfering, stop chamfering, tonguing and grooving, moulding, jointing, &c., the feed gears totally enclosed running in oil, safety circular cutter-block arranged for moulding, spindles running in ball bearings; a 12 in. hand-feed surfacing machine, for surfacing, planing out-of-wind, edging, rebating, chamfering, tonguing and grooving, moulding, jointing, &c., safety circular cutter-block, spindles mounted in ball bearings; a 32 in. circular saw bench, special design to meet the latest Home Office regulations; a 20 in. saw bench, provided with rising and falling table mounted on heavy circular slide, spindles running in ball bearings; a 30 in. band sawing machine, provided with guards for top and bottom wheels, spindles mounted in ball bearings; a heavy vertical spindle moulding machine, latest model fitted with heavy ball bearings to spindle, suitable for all kinds of straight or irregular shaping, with tenoning attachment capable of dealing with all kinds of tenoning; a combined chain and chisel mortising machine, fitted with ball bearings to every running spindle, and both chain and chisel automatically stop immediately the tools are raised from the mortise; a chain mortising machine with hollow chisel attachment, specially built for builders and joinery manufacturers; a tenoning machine, entirely new model, containing many special features, all spindles mounted on ball bearings; a high-speed boring and recessing machine for cutting string boards for stairs, boring, recessing and routing light work, the table has horizontal, lateral and vertical adjustments; and a 14 in. belt sandpapering machine for flat or irregular sanding.

Walpamur Co., Ltd. (DARWEN, LANCS). **Stand No. 133, Row G.**

Paint.—The inside of this stand is divided into three rooms, each representing a portion of a decorative scheme for a different type of interior.

Waygood-Otis, Ltd. (54 & 55, FETTER-LANE, LONDON, E.C.4). **Stand No. 121, Row F.**

Lifts.—On this stand is exhibited special high speed gearless traction lift machine, fitted with patent micro drive self-levelling apparatus. This machinery gives smooth running and the greatest ease in handling when running at high speed. Owing to the absence of any reduction gear the machine is arranged so that the car will stop level at any floor of a building when running with any load and at any speed up to 800 ft. per minute. A model of the latest pattern escalator for conveying a large number of passengers in a continuous flow, similar to those which are being built in their works and erected by them for the London Underground Railway Co.; one standard electric lift machine arranged for continuous current, with latest pattern controller for operating same; one class "F" hand lift operated by endless hauling rope, and one class "FH" hand lift suitable for use in private residences, worked by handle and winding gear from below with automatic foot brake, giving easy control and quiet running, are also shown.

The Welin Trading Co., Ltd. (5, LLOYD'S-AVENUE, LONDON, E.C.3). **Stand No. 275, Row P.**

Decoration.—The Welin Trading Company shows a pavilion displaying the forms of interior decoration that can be obtained purely by the use of their Glasurit japans, varnishes and enamels. A feature of this exhibit is the fact that with the exception of a few special panels the whole is an example of the excellent effect that can be obtained, not by special methods of application in special drying rooms, &c., but by the ordinary methods of a first-class firm of decorators. Even the special panels themselves, whilst produced at the works under ideal conditions, yet have received only the minimum number of coats. In addition there are shown various panels illustrating the actual stages in the production of the special panels referred to. A complete range of Glasurit products is shown and in addition Neutralac, Iron Glasurit, and a complete range of samples of Glasurit varnishes.

Well Fire & Foundry Co., Ltd. (LONDON, W. 1). **Stand No. 224, Row L.**

Heating.—This stand is built of oak, walnut, mahogany and whitewood panelling, carried out in period styles. Seven complete fireplaces are exhibited, each being a type of its own and possessing features many of which are new to the fireplace industry. A new idea is shown in "The Well Fire," made in canopied dog-grate form. It retains all the essential principles of the "Bowes" patent, and is especially recommended for smoky chimneys. Rustless armour-bright iron fireplaces have become a speciality of this firm, and some interesting specimens are on view. An example of a hobbed fireplace composed of old English sand-faced "Tattershall" pressed briquettes of various colours are exhibited, as also are other fireplaces in stone, marble, faience, &c.

Woco Door Company (DASHWOOD HOUSE, LONDON, E.C.2). **Stand 3C5, Row R.**

Doors.—Messrs. The Woco Door Co. exhibit on their stand examples of Woco doors. These doors are manufactured from Columbian pine seasoned by a special process, which ensures their durability and prevents warping, twisting or shrinking, while the 3-ply panels used are manufactured of rotary cut veneers from Columbian pine selected logs, prepared with a special damp-proof cement. Woco doors take an ordinary oil stain and wax compound so readily and inexpensively that they have been proved less expensive, it is claimed, than any other door that requires to be painted. Woco doors are all carefully machine-sanded prior to delivery, and are ready for staining and waxing. The Company carry a regular stock of some 15,000 doors in London and the same quantity in Liverpool, so that prompt deliveries can be made.

White, Thomas & Sons, Ltd. (LAIGHPARK, PAISLEY). **Stand No. 85, Row E.**

Machinery.—Messrs. Thomas White & Sons, Ltd., have a large variety of machines on view, including one of their 9 in. by 4 in. planing, moulding and matching machines with a special arrangement of heads, but the machine at Olympia will be arranged with heads in the ordinary British way as against the Continental style, and will have an extra top head and beading head. The advance which has been made in high-speed planing is very much evidenced by a close inspection of the machine. Everything is built on a solid British pattern, made to last, and the conveniences of the machine are such that all adjustments can be made from the front and the setting-up time of the machine is reduced to a minimum. In addition to these conveniences there is embodied in this design the White patent loose spindle which enables a cutter-block to be removed from the machine at the expense of only one or two minutes' labour and without the necessity of removing the ball or other bearing. The 9-speed gear box with which these machines are fitted should also be seen. This gear box is quite capable of dealing with feeds up to 125 ft. per minute, even though the timber be wet. In addition to this planer, Messrs. White will show their straight line edger which is intended to supersede the push bench.

The Yorkshire Copper Works, Ltd. (LEEDS). **Stand No. 293, Row Q.**

Copper.—Messrs. The Yorkshire Copper Works Ltd., make a special display of light gauge tubing for use in connection with patent fittings for housing work and pipe work of every description. The patent fittings used enable specially thin gauge tubes to be installed with a resulting decrease in cost, and at to-day's prices copper tubes are much cheaper than lead. It is, they claim, rapidly becoming the practice of architects and other authorities to specify copper tubing for domestic work. It is, they maintain, ideal for hot water supply. When used in conjunction with patent fittings the necessity for screwing is obviated and the cost of the installation when light gauge copper tubing is used is cheaper than in lead. By using copper (1) All pipes can be laid in sight; (2) A constant clean water supply is obtained—no contamination of water or diminishing supply owing to rust troubles; (3) A sound efficient installation is ensured, the life of the installation being two or three times that of similar work carried out in other materials; (4) No burst pipes. Tubes tested to 1,000 lbs. internal hydraulic pressure.

In our last issue, owing to a typographical error, a slight mistake was made in our reference to Messrs. G. Farmiloe & Sons, Ltd., Stand No. 66, Row D, at the Building Exhibition, with regard to their speciality for repairing slate and lead roofs. The word we gave was "Mermetex"—this should, of course, have been "Hermetex."

Ventilation.

In this little book* the principles of the system known as natural ventilation have been placed before the reader in the striking form of a series of quotations from the public pronouncements of a great many famous persons.

Scientists, medical men, architects, journalists, and others have been found who not only give strong support to the natural system of ventilation but express it in language of uncompromising plainness and vigour. The style of composition, though dramatic, is well managed and there is no escaping the point that a system, of ventilation designed in accordance with natural laws is likely to be efficient. The information conveyed is rather more likely to stay in the reader's memory than if it had been put forth with all the grim solemnity of the usual scientific treatise. Anyone called upon to design the ventilating scheme for a public building should certainly make a point of reading the book.

* "The Ventilation of Public Buildings." By Robert Boyle. (London: Robert Boyle & Son). 1923. Price 6s. net.

THE WEEK IN PARLIAMENT

Lead Poisoning.

Mr. Henderson, the Home Secretary, has introduced a Bill to make better provision for the protection against lead poisoning of persons employed in painting buildings.

Numbers of Employees.

Mr. Greenwood, in reply to Mr. Simon, said that the question as to how many men in each section of the building trade were estimated to be required to build 200,000 A3 houses per annum, had been considered by the Committee of Representatives of the Building Industry, and the Minister of Health hoped shortly to be able to make a statement.

The Subsidy.

Mr. D. G. Somerville asked the Minister of Health in how many cases the subsidy under the Housing Act of 1923 had been refused, firstly, to requests by local authorities in respect of their own buildings and, secondly, to applications from private builders put forward through those local authorities?

Mr. Greenwood said that so far as local authorities' schemes for building houses themselves were concerned it had been found necessary in a number of cases, in view of the amount of work in hand or the lack of essential skilled labour in the locality, to limit immediate approvals to an instalment of the proposals, the principle being to get houses actually built and occupied as quickly as possible. In the case of private enterprise individual applications for subsidy were dealt with by the local authorities and when the Minister had approved a general scheme he did not receive details of the approvals or disapprovals in particular cases. On March 1 local authorities had issued certificates of approval under the scheme covering 41,060 houses.

Mr. Somerville protested against being "put off with generalities," and asked for more definite information, but no further reply was forthcoming.

The Leasehold System.

Mr. Wheatley informed Mr. Gould that so far as he was aware the leasehold system had not added materially to the problem of the housing of the working classes, and he did not think it would be practicable to deal with this question in the forthcoming Housing Act.

Houses Built in London.

Mr. Greenwood informed Mr. Gilbert that during 1921, 1922 and 1923 the numbers of working class houses erected by private enterprise with State assistance were 1,027 in the County of London, and 6,630 in Greater London (including the County). Statistics were not available showing the numbers erected during this period without State aid, but during the year ended September 30 last the number of houses erected by private enterprise of a rateable value not exceeding £35, were, in the County of London, 994, and in Greater London 6,794.

Surface Transport.

Mr. D. G. Somerville asked the Minister of Transport whether, in view of current problems, he would consider the desirability of instituting an inquiry into the advantages or disadvantages of different forms of surface transport in the urban and semi-urban areas?

Mr. Gosling said that problems of the nature suggested in the question were under constant review in his Department. He saw no sufficient reason, however, for instituting a special inquiry into these particular points at present.

The Rent Bill.

When the debate was resumed on Monday, the Government asked the House to allow Clause 1 to remain in the Bill, on condition that an amendment was moved in Committee to provide that no order should be made for the eviction of an unemployed tenant unless Court was satisfied that there had be reasonable time in which the tenant apply for relief to the local authority, an such authority to consider such applica Any question of recouping the local autho out of the National Exchequer or of pl the burden on the landlord was not t proceeded with. Many members, how pointed out that the new proposal involve no alteration in the law, as the already had to take all the circumstances consideration, and that the final decision still left in his discretion. They presse Government to drop Clause 1 altogether a proceed with the rest of the Bill, which be passed without difficulty. The Govern however, remained adamant, and clung t whole Bill, stating that amendments cou moved in Committee. Amid much excite the second reading was rejected by 221 to an adverse majority of nine. As, howeve Government did not make the question o confidence, they have not resigned, an "agreed" Bill dealing with evictions will bably be introduced.

Later in the evening, following the Go ment defeat, Mr. E. D. Simon's Preventic Evictions Bill was read a second time, a Tuesday the Prime Minister announced tha Government would not introduce another Bill, but would endeavour, in Committe amend Mr. Simon's Bill, which, in its pr form, was "altogether unsatisfactory." understood that Mr. Simon's Bill incorpo the second clause of the "dead" Goverr Bill, which dealt with evictions under last Act.

Housing Survey.

Mr. Wheatley informed Sir W. de Frece the question of a survey showing numb new houses needed was under consideratic

The Wembley Exhibition.

Answering Mr. Purcell, who asked if approach had been made to the trade unic the building industry who had members ployed at the British Empire Exhibitic relax their rules regulating overtime, in or assist in overcoming any delay in openi exhibition, Mr. Thomas, Colonial Se replied: "Yes, Sir, and I have been that everything will be done in the di requested.

World's Largest Floating Dock.

The largest floating dock in the wor 60,000 tons displacement, built by Messrs. strong, Whitworth & Co., to accommodate liners at Southampton, will leave the Ty Southampton on April 14.

Building Trainees.

Mr. Walter Betts, the General Secret the Trainees' National Guild, stated re that a meeting may shortly be called at Ministers will be invited to explain the sit which has arisen over the question of the a tion of building trades trainees in Gover schemes. Mr. G. Betts pointed out tha Shaw, Minister of Labour, had stated t was proposed to spend £2,700,000 this fin year on the training schemes, as a £2,250,000 spent last year, an increase of half a million, but there could be no pc expanding the schemes unless efforts were to absorb the men into industry when t Mr. Betts added further: "Mr. Shaw re promised a deputation of the Guild th question of the absorption of the building trainees on any Government scheme shoul the careful consideration of both the Mini Health and himself, and we are making representation to the Ministers concerned matter. This apparent neglect on the the Government to redeem its promise disabled is causing considerable feeling a the men concerned in all parts of the co

THE BUILDING TRADE

E SUPPLY OF OPERATIVES IN THE BUILDING INDUSTRY.—II

By T. P. BENNETT

e Labour Required to Erect a Specified .—The question of the adequacy of atives, as shown by the 1921 Census, tter for consideration in conjunction normal output of commercial buildings, probable output of private houses and osed output of houses under the Govern- ogramme. Whether it is possible to reliable statement on this matter is open to doubt, but it may be possible, ence with the employers and operatives, ain an approximate figure which could as the basis for discussion. With this iew I append a table furnished by Mr. Selley, the President of the National on of House Builders, which I am has already been given in evidence Government Committee :—

Wages based on 10,298 Feet Cube (Government Type).

	@ £	£165 s.	d.	Skilled hours.	Proportion of Operative per house based on a 44-hour week for 52 weeks per year.	Unskilled hours.
layer and Labourer	39	12	0	272	1/8th	272
nter and Joiner	44	11	0	609	1/4th	—
rer and Labourer	23	2	0	153	1/15th	153
ber and Mate	13	4	0	90	1/25th	90
er and Glazier	14	17	0	188	1/12th	—
, Tiler and Labourer	4	19	0	33½	1/68th	33½
al Labourer, Excavator, &c.	24	15	0	—	1/6th	396
	£165	0	0		Approx. 3/4ths of an Operative per house per annum.	

E.—There are many items of actual wages, such as a general foreman, watchman, and un- f materials which cannot be allocated to any particular trade. The general foreman has ributed over all trades, but other work is included in General Labourers.

Conditions of Entry into the Building A general survey of the prospective f labour shows that in London there boys who wish to become building ratives (or apprentices) than there are s willing to offer vacancies.

trictions upon the Number of Appren- gaged.—The maximum number of es is limited by the operatives to th a maximum of 8 in any one shop, special cases, which are dealt with ondon Building Trades Apprenticeship e. In practice it is found that the of the building trade employers are ss than the average of 1 in 7. A few employers are prepared to take con- more than the maximum of 8 or than 7 rule would allow. In these cases, ction comes into operation and as a difficulties are aggravated. In the there are more employers willing to entices than there are boys willing ntured, and it is probable that if the on rules were relaxed so that the nployers were allowed to take the number of apprentices and the employers were induced to take a rtion of apprentices, there would be of boys willing to enter the industry. pal reasons for the *dearth of suitable*), are as follows :—

employment and insecurity of tenure. time owing to wet weather. all increase of wages of skilled men he wages of unskilled men. atively high wages which can be ed by unskilled boys in blind alley ations. oyment pay for persons under 21. pposed social inferiority of workers in al trades.

unemployment, even in so recent a period as 1923, and in the face of the necessity of providing through their unions substantial, and even very large, sums for unemployment pay, they naturally do not see the need of largely augmenting the total number of operatives. There are many sidelights, reservations and reasons for the views held, and many erroneous impressions. These require extensive investigation and sympathetic consideration before due weight can be given to each and the view of the men adjusted to the broad economic conditions of the industry in which they are working.

5. *Methods of Training.*—Assuming the numbers to be ascertained, there are broadly speaking five possible methods of entry into the building industry. These are :—

1. Ordinary apprenticeship to a building trade employer.
2. Tuition in a trade school, plus indentures.
3. Over-age apprenticeship.
4. Promotion from labourers.
5. Dilution.

Up to the present the recognised means of entry into the building trades has been by means of apprenticeship. This method of entry has steadily declined for a long period, and there are special reasons why it is extremely difficult to revive it on a large scale at the present moment. Its advantages may be summed up as follows : It provides

(*a*) A definite period of training ;

(*b*) Continuity of employment ;

(*c*) Familiarity with working conditions of the industry at an early age ;

(*d*) Graded wages ;

(*e*) Capacity to earn wages from the time of leaving school.

The disadvantages are—

(*a*) In many cases the boy is not properly or systematically trained ;

(*b*) An employer cannot see his way to engage apprentices on a substantial scale ;

(*c*) The tuition is often of a most unsatisfactory character, and at best follows the empirical methods which have been in existence for many years ;

(*d*) There is no possible chance of raising the standard of skill in the industry ;

(*e*) Modern practice tends to confine the operative as well as the apprentice to a limited number of operations.

Apart from the serious obstacles in the way of reviving the apprenticeship scheme there are certain inherent objections to it, just as there have been recognised to be objections to the system of architectural pupilage. The two cases are in many respects parallel, and many of the advantages of the schools of architecture can be obtained in schools for the building trades. In many country districts, however, apprenticeship is the only method by which any kind of training can be provided, and apprenticeship will, therefore, remain a very important source and a very important method of training operatives, and of great value in so far as the actual number of boys with whom it deals is concerned.

It is necessary to undertake a serious and extensive campaign for convincing the commercially-minded employers that apprenticeship does not entail financial loss, but eventually means financial gain through increased efficiency and skill, and an increase in the number of operatives available. How far it is possible to revive apprenticeship on a big scale in country districts is perhaps open to doubt, but it is beyond question that some effort of this kind is necessary. Until such time as the total number of apprentices in the industry is proportionate to the total number of operatives, it is necessary that the restrictions upon the number of apprentices indentured to suitable firms should be removed, and that some relaxation of the rule of one in seven should be accepted. At present employers willing to do their utmost to train apprentices are seriously handicapped.

Training in Technical Schools.

Considerable advances have been made in large towns in connection with the training of apprentices in technical schools. Here boys are received for a whole-time day course between the ages of 13 and 14, and remain in the school for three years. During this period they follow a curriculum similar to that set out in appendix A, from which it will be seen that the course provides for the continuation of elementary school education in English subjects, with the addition of practical and scientific subjects relating to the building industry. It is found in practice that very great intellectual development takes place, and that the boys, in addition, acquire considerable skill in handling tools. The development of the intelligence of the boy is perhaps of even greater importance than the development of his vocational skill, and it is impossible to give too much importance to this aspect of the matter; In practice it is generally found that the standard of pure craft ability or, in other words, of wage earning capacity of a boy at the age of 16½, is superior to that of the boy who has spent a corresponding period in the workshops, and it may be justly claimed that at the age of 21 the product of a joint technical school and works apprenticeship is infinitely superior to the product of the works apprenticeship alone.

An objection sometimes raised against the school is the fact that between 13½ and 16½ parents are not able to maintain the boy without wages as well as pay a nominal fee for his tuition. In a few cases boys receive scholarships which assist in this matter. The careful and thrifty

parent is able to bear this expense, but it is to be feared that many parents are not prepared to face it, and therefore if school training is to be regarded as an important factor in recruiting labour for the building industry in large towns it will be necessary to take account of this factor.

Over-age apprenticeship has been proposed as a temporary means of providing additional operatives. This seems to be the soundest of all the proposals put forward as a temporary means of dealing with the admitted shortage of skilled labour. The prospective operative should be bound under some system of indenture which will give a minimum period of three years of training, which may be regarded as the shortest length of time in which a man can be trained in building crafts; of this period, at least two years should be spent in a trade school and tuition should not be entirely of a craft character. It should include such subjects as geometry, building construction, mathematics and English. By this means a man will have a sound theoretical foundation upon which to develop his practical skill, and will be able to extend that knowledge by attending evening classes. Obviously it will be necessary to consider some system of payment by grant, owing to the age at which a man would commence his indentures. The advantages of this school training will be as indicated in paragraphs 1 and 2 above.

Promotion from Labourers.

It is curious that no serious movement has been made in the past to provide a properly graded method of progress from the position of labourer to that of skilled craftsman. Such a movement would be in strict accord with the accepted democratic principles of our day and would provide a real incentive to the industrious and energetic man to rise. It is, of course, evident that such a possibility would of necessity mean a system of examinations or tests by craftsmen themselves setting up a standard of craftsmanship. This would have the advantage of raising the general level of skilled work in the building trade and would do much to restore the pride of craft which was so great an asset to the old guilds, the loss of which is everywhere deplored.

Dilution.

Dilution has been mooted as a temporary solution of the labour shortage, but dilution is a two-edged sword of the most dangerous character. It sets up a body of men who are at an admittedly low level in skill, who do not go into the trade with any real knowledge of its work or its problems, and who in many cases demand craftsmen's wages although they are inferior in value to an intelligent labourer.

Any scheme which brought a large number of such men into the trade would create widespread unrest and dissatisfaction and would do untold harm to everyone concerned. In the words of an architect: it would be necessary to write a C3 specification, to accept C3 work and to pay an abnormally high price for it. Dilution is useless, and the sooner it is forgotten the better.

The above may be summarised as follows:—

1. Before any proposals can be put forward for considering the personnel of the industry, accurate statistics must be obtained (*a*) of the number of operatives in the industry subdivided into trades; (*b*) the relative ages of the operatives; and (*c*) an actuarial calculation of the average working life of an operative.

2. An effort must be made to estimate the probable volume of buildings which will be executed within the next ten years, and from that ascertain the number of men who will probably be absorbed. This is admittedly an extremely difficult calculation.

3. The unemployment returns of the last few years must be examined and definite proposals put forward in a concrete form, which will show the men that the risk of unemployment has not increased, and that, so far as can be ascertained, they are not being rendered liable to undue risks.

4. The conditions of employment in the industry should be considered with a view to providing as much continuity of employment as possible, and to providing a wage which is commensurate with the standard of skill and length of training required. In particular, such obviously objectionable features as loss of time for wet weather should be removed. It has been stated that bricklayers, who have the greatest loss of time, face an average loss of 5 per cent. If this is so, I suggest that it is a loss which might be borne by the industry and not the men. Some such revision is undoubtedly necessary, in order that the number of apprentices required may automatically apply for entry.

5. Careful consideration must be given to the method by which the operative is to be trained after he has been secured. This, in my opinion, should normally consist of three alternatives:

(i) Apprenticeship;
(ii) School training, plus apprenticeship;
(iii) Promotion from labourers.

Appendix A.

The Trade School of Building.

Junior School Time Table.

Subject.	Hours. 1A.	1B.	2A.	2B.	3A.	3B.
English	5½	5½	4	4½	2½	2½
Physics	2	2	–	1½	–	1
Maths.	4	4½	2½	2½	1½	2
Sports	1½	1½	1½	1½	1½	1½
Building Construction	4½	4½	3	4	2½	4
*Workshops	8	8	8½	10	11½	8
Art	3	3	6	4½	4	–
Geometry	2	1½	2	1½	1	1
Chemistry	2	2	2½	1½	3	1½
Science	–	–	–	–	–	–
Architectural Details	–	–	1½	–	3	–
F.S. Details	–	–	–	–	–	2
Carpenters' Art ..	–	–	–	–	–	3½
Plumbers' Art ..	–	–	–	–	–	1½
Sanitation	–	–	1	1	1	1
History of Crafts ..	–	–	–	–	1	1
Total Hours ..	32½	32½	32½	32½	32½	32½

* Taken in Joinery, Decorating and Plumbing alternatively for one term each.

SANITATION OF TWO THOUSAND YEARS AGO

Sir Banister Fletcher lectured at the Central School of Arts and Crafts, on February 27, on Roman works of public utility, aqueducts, bridges and tombs. The genius of the Romans for organisation was nowhere better demonstrated than in their provision for a good supply of water for the living, and in their regulations for the burial of the dead outside the city walls. An ample water supply was necessary for the Imperial City, and it was found in the hills not very far away. They set to work to pile up stone upon stone to form the great arches which carried the water in a covered "specus," free from contamination. It might be asked why they expended money and labour in carrying water at such a height instead of underground. The reply was that pipes had to be made of costly lead or bronze; they had not the lead, and bronze was very costly. It was thus cheaper by forced human labour to construct these great arches across valleys and rivers into Rome. The regulations for the water supply threw light upon Roman administrative methods, for officials were appointed by the Senate to secure the purity of the water. Judging from their careful provision of water for thermæ, fountains and houses, it would appear that, in those far-off days, cleanliness was next to godliness among the Romans. They also strove to secure the sanitation of the city by prohibiting burial within its walls, and thus it was that great monumental tombs of different types lined the roads that approached Rome and Pompeii, and even the great Mausoleum of Hadrian was on the other side of the Tiber.

SHRINKAGE OF SE SONED WOOD 3,000 YEARS AGO

That wood seasoned for 3,000 years sh retain sufficient vitality to be capable of fu shrinkage is very extraordinary, but none less certain. Mr. Howard Carter, in his det account of the Tomb of Tut-ankh-Amer Luxor, has described several valuable partic concerning which very few ordinary p possessed any knowledge whatever. His e experience of first-aid methods adopted fo preservation of different classes of ob includes woodwork. This material, natu presented many problems, and, of course, and the white ant furnish the chief en In unfavourable conditions, as might be pected, nothing remains but black dust shell, which crumbles at the touch. L however, is the most favourable site in E and in the present tomb most of the ti work remained solid and good. Unless work is in the very last stage of decay its servation is always possible by the applic of melted paraffin wax. By its use even nants can be made perfectly solid and handle. At Tut-ankh-Amen's tomb the diffic arose from the changes which subsequ happened in the condition of this sound owing to changes of atmosphere which c the shrinkings. The Egyptians usually a on wood a thin layer of gesso on which pared surface they painted figures or appli overlay of gold foil. When the ancient started to shrink the gesso began to loose buckle, becoming very liable to fall off a lost. The angles chipped away, and to pr this the surface was sprayed with a solut celluloid in anylacetate to fix it. Howev about a month's time, the fissures exp owing to change of temperature from the humid atmosphere of the tomb to the airiness of the laboratory. The gesso not virile was coming off, risking the loss of of the painted ornamentation. Drastic me became urgent. Melted paraffin fortu proved effective and penetrated the mat holding everything firm, and instead of the colours they became more brilli before. The wax had to be brought a possible to boiling point, otherwise it chill and refuse to saturate. The wax, i of blister, was applied by a pipette. W the wood will shrink further remains seen.

MEN IN BUILDIN TRADES

In a written reply to a question the M of Health gave the following figures numbers of men employed in the building in England and Wales:—

	Census 1901.	Census 1911.
Bricklayers	109,160	92,312
Carpenters & Joiners..	243,075	176,978
Plasterers	27,144	21,230
Slaters	8,461	6,946
Others	445,904	444,390
Total	834,144	741,856

As will be seen, it shows a consi decrease.

Obituary.

The death occurred recently of Mr. C of Prestatyn. Mr. Burt was formerly a l contractor in Liverpool, and on his ret from business went to reside at Prestaty

The death took place recently of Mr Davies, builder, Bryn Awel, Trel Rhondda Valley.

The death took place recently at I of Mr. John White (retired builder), 78th year.

THE NEW RENT BILL

The short Bill which was introduced last ek by the Minister of Health as a Governnt measure consists of three operative nses. The first provdes that, notwithstanding ything in section 5 of the Rent Act, 1920, altered by section 4 of the Act of 1923, " a irt shall not make or grant an order or lgment for the recovery of possession of a elling house to which the principal Act plies, or for the ejectment of the tenant erefrom on the ground of non-payment of nt, in any case where it appears to the court at the non-payment is due to the inability of tenant to obtain employment, unless the irt is satisfied that greater hardship would caused by refusing to grant such an order an by granting it." The effect of the clause pears to be to substitute for the general distion now vested in the court in the existing t (" and in any such case as aforesaid the irt considers it reasonable to make such der ") the duty of weighing the degree of rdship between the landlord not receiving nt and the tenant unable to pay it. This nstrates the curious development of the prinle of rent restriction, for the landlord is ced upon an entirely different footing to y other owner of property, and the burden keeping an unemployed tenant rent free is ced upon him, unless he can prove, not al hardship, but greater hardship than his ant. On what possible principle can the rden of unemployment be placed thus on ate shoulders?

Then again, the test to be applied by the irt is not the ability of the tenant to pay, t his inability to obtain employment. The ant himself, owing to unemployment, may without means and unable to pay the rent; t in the house, living with him, his wife or ns and daughters may all be earning money, he may have sublet a portion of the house, d the family as a family may well be able pay rent; but the tenant himself may come ore the Court and prove his own unemployent and want of means, and the landlord y be compelled to keep the family rent free, ilst himself liable for the rates. This clause l certainly need drastic amendment. Since s article was written this clause has been ected by Parliament, and the Government s endeavoured to amend the Bill so as to ke it prohibit eviction until the tenant has l a reasonable opportunity of applying for ief from the local Poor Law authority. A hnical difficulty has arisen as to the amendnt of the clause in this Bill, as it involves ' money measure," and thus the Bill is ctically withdrawn. But as no serious obtion has been raised to the remaining uses, at any rate for the purpose of a second ding of the Bill, we publish our original nments on these clauses, as they will cerly require consideration.

The second clause deals with paragraphs (iv) l (v) of subsection 1 of section 5 of the ncipal Act, that is, section 5 as altered by tion 4 of the Act of 1923.

The legislation as it stands is not at all clear, and before referring to the new Bill must show how it stands. In section 5, section (1) (*d*) one of the grounds for obning possession is that the dwelling house reasonably required by the landlord for ocation as a residence for himself or for any or daughter of his over eighteen years of , but this is provisional on the Court being sfied that alternative accommodation shall available.

Following upon the group of paragraphs in ch this provision is contained, there are ther set of paragraphs headed " The existe of alternative accommodation shall not be ondition of an order or judgment on any the grounds specified in paragraph (*d*) of subsection," in the cases enumerated in ain paragraphs, and paragraph (iv) proes that where the landlord or the husband or e of the landlord became the landlord before e 30, 1922, the requirement of alternative ommodation shall be dispensed with gether if the house is required as a residence by the landlord himself, or for any son or daughter over eighteen years of age; while paragraph (v) provides that if he became the landlord after June 30, 1922, then the Court has to be satisfied that greater hardship would be caused by refusing the order for possession than by granting it. The new Bill substitutes for both these paragraphs one single paragraph as follows:—" Where the dwelling house is reasonably required by the landlord for occupation as a residence for himself, and the Court is satisfied that greater hardship would be caused by refusing to grant an order for judgment for possession than by granting it."

It will be seen that the effect of this amendment is to eliminate altogether the distinction made according to the date when the landlord became landlord, to eliminate the husband or wife of the landlord, and to throw the cases where the house is required for sons or daughters back on paragraph (*d*). Thus, where the house is required for a son or daughter under paragraph (*d*), the Court would have to be satisfied " that alternative accommodation is available which is reasonably suitable to the means of the tenant and to the needs of the tenant and his family as regards extent, character, and proximity to place of work, and which consists either of a dwelling house to which this Act applies, or of premises to be let as a separate dwelling on terms which will afford to the tenant security of tenure reasonably equivalent to the security afforded by this Act in the case of a dwelling house to which this Act applies."

But where the house is required by the landlord for his own occupation, the Bill as drafted leaves it obscure under which paragraph the application must be treated—paragraph (*d*) or the new clause (iv)—and both seem applicable to precisely similar circumstances. There was always some obscurity in the Acts on this point, but this Bill, as drafted, makes the Act directly contradictory, and this point must certainly be cleared up in Committee.

Clause 3 is a curious piece of retrospective legislation.

Subclause (1) of clause 3 is as follows:—" Where any order or judgment has been made or given before the passing of this Act, and in the opinion of the Court the order or judgment would not have been made or given if this Act had been in force at the time when such order or judgment was made or given, the Court, on application by the tenant shall, unless the order or judgment was executed before March 31, 1924, rescind the order or judgment, and in lieu thereof make such order or give such judgment as the Court shall think fit for the purpose of giving effect to this Act."

We take objection to the form of this subsection, which enables any tenant to require a rehearing of any case decided before the passing of this Act in which the judgment or order has not been executed before March 31 last, and is a serious blow to the finality of justice; and subclause (2) carries the matter further, for it provides: " Where the Court has so rescinded any order or judgment, the Court shall, if the order or judgment was executed on or after March 31, 1924, and notwithstanding that the landlord or any person claiming under him is in possession, make such further order or give such further judgment as may be necessary to enable the tenant to resume possession of the dwelling house upon such terms as appear to the Court to be equitable." In other words, these clauses, because the Legislature has introduced a piece of emergency legislation to meet particular cases of alleged hardship, read in conjunction with clause 2, may subject landlords of any restricted house of any value who have recovered possession under section 5 as unamended by clause 2 to double proceedings, and to eviction if they have regained possession since March 31, and the Courts were asked to find " equitable " grounds for such a policy. We cannot think that Parliament will allow such a perversion of justice or permit the faith in legislation to be so shaken, and these clauses should apply only to working-class dwellings in any case.

Subclause (3) provides that where a landlord has, after March 31, taken possession of a dwelling house under a judgment or order so rescinded, such possession shall not in any case exclude the dwelling house from the operation of the principal Act.

We have said the Bill consists of three operative clauses, for the fourth clause is only formal, giving the title and providing that the Act shall be read as one with the existing Acts. Landlords and house property have long been made the victims of legislation, and the disastrous consequences to housing have been entirely overlooked in the desire to protect a certain class of tenants; but this Bill appears a hastily devised measure to remedy what may be certain grievances with a lamentable lack of statesmanship or foresight.

We notice that rent restriction is always spoken of as though it only affected the very poor, and this Bill is directed to relieving the " unemployed "; the fact is entirely lost sight of that rent restriction embraces houses the standard rent or the rateable value of which does not exceed £105 in the Metropolitan area, £90 in Scotland, and £78 elsewhere. The present Bill has been introduced more especially with reference to housing conditions in Scotland, and this seems a suitable occasion once more to urge that rent restriction should now be limited in any form whatever to the low-valued houses which may properly be termed " working-class dwellings."

This Bill is admittedly an emergency measure, and therefore it certainly should be limited to the class of dwelling house where the emergency exists, and we trust this will be insisted upon in Committee; but in any case, as we have shown, the Bill is badly drafted, and as it has to be read as one with the existing Acts, clause 3 would cover orders and judgments made under clause 2 as well as clause 1—that is, cases where possession has been obtained on other grounds than nonpayment of rent. The continuance of restriction as regards the higher-valued houses is not only entirely uncalled for, but it is the cause of hardship to persons who occupy such dwelling houses. So long as restriction is continued houses will not be let on lease, and there is a very large class of persons who cannot buy their houses, especially at the price which is asked, owing to restriction having limited the supply and discouraged the building or owning of houses to be let on lease by way of business.

St. Paul's Bridge.

Sir William Bull, M.P., presided at a meeting of the Metropolitan Members of Parliament, at the House of Commons recently, when a deputation attended from the Royal Institute of British Architects, the London Society, the Town Planning Institute, and the Architecture Club, to present their views on the proposed St. Paul's Bridge.

Mr. Paul Waterhouse (Royal Institute of British Architects) stated the objections to the bridge, especially its situation at the northern end, which would, in his opinion, simply lead to confusion.

Mr. Carmichael Thomas (London Society) and Mr. W. R. Davidge (Town Planning Institute), explained the objections of their respective societies to the scheme.

Sir Banister Fletcher described the scheme as a monstrous idea and against the City interests.

Viscount Curzon said he would press for an inquiry into the whole scheme in view of the proposed circular road round London.

Sir William Davison, M.P., Lieutenant-Colonel Fremantle, M.P., Sir Herbert Nield, K.C., M.P., and other members, having expressed their objections to the scheme, those present, on the motion of Viscount Curzon, passed a resolution urging the Ministry of Transport to spend no money on the scheme until Parliament had been consulted.

BOOK REVIEWS.

Practical Cabinet Making. By H. G. Phillips. (London: George Routledge & Sons, Ltd.). Price 5s. net.

For long enough we have been satisfied with atrociously bad modern furniture, with indifferent copies of past pieces, or—those who can afford them—with genuine antiques. The inevitable results have been a gradual drying-up of the fount of inspiration and a decay of good craftsmanship. To-day, however, there are, fortunately, signs of real improvement in this deplorable state of affairs. No one could have visited the recent Industrial Art Exhibition at the South Kensington Museum without being struck by the high standard of the furniture exhibits. Many of the designs were exceedingly good, and, moreover, they were expressive of the tendencies of the day. One saw there the labour-saving aspirations translated into terms of art, as it were, for the predominant note was a simplicity—an austerity it might almost be called—and a simplification of mouldings. Moreover, the workmanship was of a very high standard and such as would compare favourably with that of any epoch.

Mr. Phillips' book, therefore, is a sign of the times. It is essentially a practical work, and is mainly addressed to those who handle the tools. It also contains chapters on machines and workshop organisation. Many of the actual designs are indifferent, but the main use of the book is for those who would actually make furniture, rather than for those who would design it; but in so much as no one can design furniture who is unfamiliar with the method of its manufacture, even if he be himself unable to handle tools with skill, it is a book that may well be of value to anyone interested in the making of good furniture. And what architect is not? The illustrations are numerous and lucid.

Wireless for the Amateur. By J. Roussel. Authorised translation with additions by H. B. Grylls. (London: Constable & Co.) Price 14s. net.

To those who desire to have more than a superficial knowledge of wireless, we would strongly recommend this book. It is simple and thorough and such as anyone with a familiarity with the elements of electricity should have no difficulty in following. It is one thing to know the function of the valve in receiving and transmitting, it is another to understand the principle of its action and the relation of filament, grid, and sheath. It is one thing to know that C.W. depends upon heterodyning, another to grasp exactly what deterodyning is (a fine example of heterodyning can be observed with two single-cylinder motor cycles running side by side, but whose engines are running at slightly different speeds). This book, indeed, is a sane combination of theory and practice. Nowadays it is easy enough to acquire a working circuit diagram from which, with scarcely any knowledge, it is possible to build up a successful set, but those with an inquiring mind will not be satisfied with mere mechanical efficiency; they will be beset with the why and the wherefore of the phenomenon. By reading this lucid book they will obtain much enlightenment. Sooner or later the study of wireless, as, indeed, of all other scientific subjects, will merge into higher mathematics, and for those who would pursue the subject into these abstract realms there is an interesting chapter which may stimulate to further research. The historical development of the subject is also dealt with, and the translator has added some useful information in connection with British broadcasting. The times and wave-lengths of the various stations all over the world are tabulated, and details of time signals are given. It should be pointed out that the book is written by an amateur and is essentially for amateurs, and the text and the diagrams are consistently clear.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¼
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
E. Glam. (Mon. Vall.)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1¼
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1¼
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¼
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0¼
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0¼
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¼
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¼
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¼
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2¼
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¼
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0¼
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0¾
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0¾
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¼
Worksop	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾

(For rates of wages in the Building Trade in Scotland, see page 613).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

APRIL 12.—**Birmingham.**—RESTORATION WORK.—Restoration of the tower of Northfield Parish Church, Birmingham, and other incidental work. Enquiries only invited from tradesmen with previous experience in this class of work. Architect, Mr. W. H. D. Caple, F.R.I.B.A., Diocesan Surveyor, Queen's College, Birmingham.

APRIL 12.—**Dewsbury.**—DEMOLITION, &c.—For the demolition of property and building of boundary wall and retaining wall, for the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury.

APRIL 12.—**Dewsbury.**—WALL.—For the re-building of masonry wall at the junction of Staincliffe-road and Beckmondwike-road, for the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury.

APRIL 12.—**Dublin.**—PAINTING.—For painting of the locomotive Running Shed, Amiens-street Station, for the Great Northern Railway (Ireland) Co. Mr. J. B. Stephens, secretary, Amiens-street Station, Dublin. Deposit £1 1s.

APRIL 12.—**Preston.**—GARAGE.—Erection of proposed motor bus garage on the Moor, Deepdale, for the County Borough of Preston. Borough Surveyor, Town Hall, Preston.

APRIL 12.—**Pudsey.**—HOUSES.—For 100 to 200 concrete houses and bungalows, for the T.C. Mr. Alfred E. Evans, Town Clerk, Town Hall, Pudsey.

APRIL 12.—**Reigate.**—HOUSES.—Erection of 30 houses (in pairs) on the Hooley Mead Estate, Earlswood, for the T.C. of Reigate. Borough Engineer and Surveyor, Municipal Buildings, Reigate. Deposit £2 2s.

APRIL 12.—**St. Austell.**—PREMISES.—Erection of new business premises, Fore-street, St. Austell, for Mr. F. Kirk. Messrs. Andrew & Randell, architects, New Inn Chambers, St. Austell.

APRIL 12.—**Swansea.**—SEMI-PERMANENT CONSTRUCTION.—Erection of departments of engineering and arts for the Council of the University College of Swansea. Mr. Oliver S. Portsmouth, A.R.I.B.A., Architect, Llanfair-buildings, Swansea. Deposit £3 3s.

APRIL 12.—**Westhampnett.**—HOUSES.—For the erection of ten houses at Woodgate, in the parish of Aldingbourne, for the R.D.C. Clerk, Council Offices, Pallant House, Chichester.

APRIL 14.—**Australia.**—RADIO STATION.—For erection of or supply of materials for a radio station at Cave Hill, Northern Territory, Australia. Supply Officer, Australia House, Strand, W.C. 2.

APRIL 14.—**Bradford.**—EXTENSIONS.—Erection of new stores and extensions to Nos. 62 to 72 and 76 to 86, North and East roadways, St. James' Market, for T.C. City Architect, Town Hall, Bradford.

APRIL 14.—**Cardiff.**—PAINTING.—For painting, &c. the Ely Isolation Hospital, for the R.D.C. Mr. William Farrow, surveyor, 20, Park-place, Cardiff.

APRIL 14.—**Crewe.**—ALTERATIONS.—For the alterations and additions to Broad-street Schools, for the C. Mr. E. G. Timbrell, Borough Engineer, Municipal Buildings, Crewe.

APRIL 14.—**Croydon.**—HOUSES.—Erection of 48 houses (comprising 62 tenements) at Thornton-road, Thornton Heath, in two sections, of 24 houses each, or as the tender for the whole, for the County Borough Council of Croydon. Borough Engineer, Town Hall, Croydon. Deposit £2 for each section, or £4 for both sections.

APRIL 14.—**Fleetwood.**—EXTENSIONS.—For the erection of extensions, of semi-permanent construction, at the Fleetwood Secondary School, for the Lancashire C.C. Mr. Henry Littler, Architect, 16, Ribblesdale-place, Preston. Deposit £2.

APRIL 14.—**Flintshire.**—REPAIRS.—For repairs to be carried out at the holdings occupied by Messrs. R. H. Evans and E. O. Hughes, situate near to Gelli Fowler, Llynford, Holywell, for the Flintshire C.C. Mr. J. P. Griffiths, Chief Agricultural Officer, County Buildings, Mold.

APRIL 14.—**Greenwich.**—REPAIRS, &c.—For executing repairing and redecorative works to 11 houses in Blackheath and Charlton, for the B.C. Mr. F. J. Simpson, Town Clerk, Town Hall, Greenwich.

APRIL 14.—**Hemsworth.**—HOUSE.—For erection at Emsworth Secondary School of house for headmaster, for the West Riding E.C. Education Department, County Hall, Wakefield.

APRIL 14.—**Hertford.**—HOUSES.—Erection of 24 houses in Ware-road, for T.C. Borough Surveyor Castle, Hertford. Deposit £3 3s.

APRIL 14.—**Hull.**—PUMPING STATION.—For the construction of a ferro-concrete and brick pumping station, for the T.C. Mr. F. W. Bricknell, City Engineer, Guildhall, Hull.

APRIL 14.—**Mirfield.**—PAINTING.—For painting houses on Wilson-terrace, for U.D.C. Surveyor, Council Offices, Mirfield.

APRIL 14.—**Prest..n.**—WALLS.—For taking down and setting back of garden palisade walls, &c., in Addison Road West, for T.C. Borough Surveyor, Town Hall, Preston.

APRIL 14.—**Reigate.**—EXTENSIONS TO BUILDINGS, &c.—Extensions to buildings and machinery foundations in connection with the electricity undertaking, for the Reigate B.C. Consulting Engineer, Mr. C. H. Merdingham, C.B.E., M.Inst.C.E., 7, Victoria-street, London, S.W.1. Deposit £3 3s. (payable to Mr. C. H. Merdingham).

APRIL 14.—**Romford.**—COTTAGES.—For the erection of a pair of cottages at Bury Farm, Great Warley, for the R.D.C. Mr. W. J. Grant, surveyor, 16A, South-street, Romford.

APRIL 14.—**Skegness.**—PAINTING.—For painting on housing estate, for the U.D.C. Mr. R. H. Jenkins, Surveyor, Council Offices, Skegness. Deposit £1 1s.

APRIL 14.—**Stoke Newington.**—EXTENSION.—For the erection and completion of extensions to the Electricity Sub-station, in Edward's-lane, N. 16, for the Metropolitan Borough. Borough Surveyor, Town Hall, Stoke Newington. Deposit £5.

APRIL 14.—**Sligo.**—STATION BUILDINGS.—For reconstruction of station buildings for Midland Great Western Railway of Ireland Co. Mr. P. A. Hay, secretary, Broadstone Terminus, Dublin.

APRIL 14.—**Tiverton.**—CHIMNEY.—For raising the chimney of boiler house at Institution of the B.G. Mr. J. F. Pugsley, Clerk, Tiverton.

APRIL 15.—**Ballymena.**—ALTERATIONS.—For alterations and additions to premises in Broughshane-street, Ballymena. Messrs. F. & J. M'Ardle, architects, 29, Rosemary-street, Belfast. Deposit £2 2s.

APRIL 15.—**Bri Chualann.**—HOUSES.—Erection of one block of seven houses at St. Kevin's-square, for U.D.C. Mr. P. H. McCarthy, 26, Lower Leeson-street, Dublin. Deposit 15s.

APRIL 15.—**Chepstow.**—CONVERSION.—For the conversion of the premises known as Larkfield, Chepstow, into a public secondary school, for the Monmouthshire E.C. Mr. John Bain, F.R.I.B.A., County Hall, Newport, Mon.

APRIL 15.—**Douglas.**—CONVENIENCES.—For the erection of: (*a*) Public conveniences, shelter, refreshment room, &c., at junction of Peel-road and Pulrose-road; (*b*) erection of public conveniences and shelter adjoining Waverley-terrace, York-road, for the T.C. Borough Surveyor, Town Hall, Douglas.

APRIL 15.—**Downham.**—HOUSES.—For the erection of houses in pairs at Ten Mile Bank, Hilgay (one pair), and at Southery (three pairs), for the R.D.C. Mr. S. C. Rigg, "Lynnwood," Downham, Norfolk. Deposit £1 1s.

APRIL 15.—**Frinton-on-Sea.**—GROYNES.—For the construction of fourteen timber groynes on the beach and foreshore; for the U.D.C. Surveyor, Council House, Frinton-on-Sea.

APRIL 15.—**Glasgow.**—HOUSES.—Erection of Tollcross housing scheme, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

APRIL 15.—**Glasgow.**—TENEMENTS.—Erection of tenement houses at Whitefield-road and Brand-street, for the T.C. Mr. J. Lindsay, Town Clerk, City Chambers, Glasgow.

APRIL 15.—**Kirkcaldy.**—ADDITIONS.—For alterations and additions to the Post Office, Kirkcaldy. Architect, H.M. Office of Works, 4–5, Drumsheugh-gardens, Edinburgh. Deposit £1 1s.

APRIL 15.—**Llansilin.**—COTTAGE.—For erection of cottage, for the Liverpool T.C. Resident Engineer, Llanforda Filters, Oswestry. Deposit £1 1s.

APRIL 15.—**London.**—RECONSTRUCTION.—For reconstruction and painting of the Crystal Palace tank and structure, Sydenham Hill, S.E., for Metropolitan Water Board. Chief Engineer, Metropolitan Water Board, New River Head, Clerkenwell, E.C. 1. Deposit £2 2s.

APRIL 15.—**Pontefract.**—BUNGALOW.—For the erection of bungalow in Ackworth-road, Pontefract, for Mr. G. W. Shepherd. Messrs. Garside & Pennington, architects, Pontefract.

APRIL 15.—**Rosslare.**—OFFICES.—For the erection of offices at Rosslare Pier (about 40,000 cub. ft.), for the Great Southern and Western Railway Co. Chief Engineer, Inchicore, Dublin. Deposit £1 1s.

APRIL 16.—**Barrow-in-Furness.**—PUBLIC CONVENIENCES.—Erection of women's convenience in Duke-street, and an extension of the men's convenience in Church-street, for T.C. Borough Engineer, Town Hall, Barrow-in-Furness.

APRIL 16.—**Bournemouth.**—FOOTBRIDGES.—For the construction of reinforced concrete footbridges at Boscombe Chine and at Alum Chine, for the T.C. Mr. F. P. Dolamore, Borough Engineer, Bournemouth. Deposit £1 1s.

APRIL 16.—**Bradford.**—PAINTING.—For external painting in Kirkgate Market, for T.C. City Architect, Town Hall, Bradford.

APRIL 16.—**Dewsbury.**—HOUSE.—Erection of a detached house off Wakefield-road. Messrs. Firth, Son & Blackburn, architects, 22, Wellington-road, Dewsbury.

APRIL 16.—**Hay.**—MARKET.—For the construction of a cattle market at Talgarth, for the R.D.C. Mr. A. Howard, Clerk, Hay, near Hereford.

APRIL 16.—**Holbeach.**—BUILDING.—Erection of building at Workhouse for use as washhouse, for the B.G. Mr. S. Mossop, Clerk, Holbeach.

APRIL 16.—**Leyburn.**—ADDITIONS.—For additions to premises, for the Co-operative Society. Secretary, Co-operative Society, Priestgate, Darlington.

APRIL 16.—**Liverpool.**—HOUSES.—For erection of 24 tenement dwellings in Bond-street (Burlington-street Scheme), for T.C. Housing Officer, Municipal Buildings, Dale-street, Liverpool. Deposit £2 2s.

APRIL 16.—**Lambeth, S.W.2.**—DEMOLITION AND CLEARING SITE.—(*a*) The demolition of Bloomfield Hall, Central Hill, Upper Norwood, and (*b*) the clearing of site of timber, &c., preparatory to the erection of houses thereon. Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (Chartered Civil Engineer), Borough Engineer, Brixton Hill, S.W.2. Deposit £1 1s.

APRIL 16.—**Lingfield, &c.**— HOUSES. — For the erection of 16 working-class dwellings at Saxbys-lane, Lingfield, 12 at Park Farm, Limpsfield, and six at Hollow-lane, Dormansland, for Godstone R.D.C. Mr. George E. Crowter, Acting Buildings Surveyor, Council Offices, Oxted. Deposit £2.

APRIL 16.—**Lurgan.**—HOUSES.—For the erection of 22 cottages for the Northern Ministry of Finance. Secretary, 15, Donegall-square West, Belfast. Deposit £1.

✱APRIL 16.—**Norwich.**—HOUSES.—Basic prices have been fixed for the building of 200 houses on the Mile Cross and Earlham Housing Estates, Norwich, to architect's designs. Builders desirous of undertaking to build blocks of houses at these basic prices and tender at other than the basic prices may see the Plans, &c., at the Office of the City Engineer. Mr. Arthur E. Collins, M.Inst.C.E., City Engineer, Guildhall, Norwich.

APRIL 16.—**Ormskirk.**—HOUSES.—For erection of 20 houses on the Tank-lane Site, for U.D.C. Mr. H. W. Chadwick, Surveyor, District Council Offices, Burscough-street, Ormskirk. Deposit £2 2s.

APRIL 17.—**Batley Carr.**—OFFICES.—Erection of a four-storied block of offices and warehouse at Victoria Mills. Messrs. Kirk, Sons & Ridgway, architects, Market-place, Dewsbury.

APRIL 17.—**Blackpool.**—CONVERSION.—For the conversion of the Bispham electricity station into public hall, branch library and reading room, for the T.C. Mr. Francis Wood, Borough Engineer, Blackpool. Deposit £1 1s.

✱APRIL 17.—**Eaton.**—HOUSES.—Carrying out of the Council's Housing Scheme of 40 houses, with the necessary roads and sewers at Eaton, Bucks, for the Eaton U.D.C. Messrs. Burgess, Holden & Watson, architects and surveyors, Beaconsfield, Bucks. Deposit £3 3s.

APRIL 17.—**Hull.**—FIRE STATION.—Demolition of the existing buildings and the construction and erection of new central fire station, situate in Worship-street, for the T.C. City Architect, Hull. Deposit £2 2s.

APRIL 17.—**Newcastle-on-Tyne.**—HOUSES.—For the erection of 142 dwellings on the Walker Housing Estate. Housing Architect, 18, Cloth-market, Newcastle. Deposit £2 2s.

APRIL 17.—**Willesden.**—PAINTING.—For the decoration and repair of Nos. 34, 36 and 38, Stafford-road, Kilburn, for the U.D.C. Mr. F. Wilkinson, Engineer, Town Hall, Dyne-road, Kilburn, N.W.6.

APRIL 17.—**Yeovil.**—HOUSES.—For the erection of 12 houses at Stoke-under-Ham, for the R.D.C. Messrs. Petter & Warren, architects, Yeovil. Deposit £2 2s.

APRIL 19.—**Edinburgh.**—ALTERATIONS.—For alterations, &c., at the Central Telephone Exchange, for Commissioners of H.M. Works. Architect, H.M. Office of Works, Edinburgh. Deposit £1 1s.

APRIL 19.—**Prestonpans.**—HOUSES.—Erection of six houses at East Loan, for T.C. Messrs. R. & A. K. Smith, Surveyors, 44, Queen-street, Edinburgh.

APRIL 19.—**Tredegar.**—ALTERATIONS.—For alterations and additions to the Ex-Service Men's Club and Institute, Market-street. Mr. W. E. Jones, architect, Tredegar.

✱APRIL 19.—**Wallasey.**—HOUSES.—Erection of 59 houses on the Mostyn-street and Norwood-road site in two sections of 37 houses and 22 houses respectively. Housing Scheme No. 5, Contracts Nos. 1 and 2 for the Council of the County Borough of Wallasey. Borough Engineer and Surveyor's Office (Housing Department), Town Hall, Wallasey. Deposit £1 1s.

APRIL 20.—**Rhewl.**—ADDITIONS.—For additions and alterations to the Rhewl C.M. Chapel, near Ruthin. Mr. R. J. Hughes, A.R.I.B.A., Llanfairfechan.

APRIL 21.—**Bolton-upon-Dearne.**— HOUSES, DRAINAGE, &c.—Erection of 30 dwelling-houses (14 Parlour, 16 Non-Parlour Type) together with road and surface water drainage works in Barmborough-lane, Goldthorpe, also six dwelling-houses (two Parlour, four Non-Parlour Type) on Lockwood's Farm site, Goldthorpe, for the Bolton-upon-Dearne U.D.C. Mr. William H. Adams, M.S.A., Council Offices, Bolton-upon-Dearne. Deposit 10s. 6d.

APRIL 21.—**Newton Stewart.**—HOUSES.—Erection of eight houses on Windsor-road site, for T.C. Mr. A. M'Cormick, Town Clerk, Newton Stewart. Deposit £1 1s.

APRIL 21.—**Penwerris.**—BUNGALOW.—For the erection of a bungalow at Penwerris, Falmouth. Mr. Alfred J. Cornelius, architect, Truro.

APRIL 21.—**Port Talbot.**—WALLS.—Erection of boundary and retaining walls in connection with widening of Cwmavon-road, for T.C. Borough Engineer, Municipal Buildings, Aberavon.

APRIL 21.—**Truro.**—RESIDENCE.—For the erection of a residence at The Crescent, Truro. Mr. Alfred J. Cornelius, architect, Truro.

APRIL 22.—**Aldershot.**—HOUSES.—For the erection of 32 houses, for the T.C. Borough Surveyor, Municipal Buildings, Aldershot. Deposit £1 1s.

APRIL 22.—**Bebington.**—HOUSES.—For the erection of 28 houses in Bebington and 12 houses in Bromborough, for the U.D.C. Council Offices, Bebington.

APRIL 22.—**Chichester.**—HOUSES.—Erection of 38 houses (10 pairs of semi-detached and 3 blocks of 6 for the Chichester Corporation. Messrs. Whitehead & Whitehead, 18, South-street, Chichester. Deposit £1 1s.

APRIL 22. **Hull.**—LAVATORY.—For the erection of public lavatory, East Park, for the T.C. Architect, Town Hall, Hull. Deposit £2 2s.

APRIL 22.—**Hereford.**—HOUSES.—Erection of 24 houses, for the T.C. Mr. H. E. Bettington, Secretary. Hereford Associated Architects, Ltd., Palace Chambers, Hereford.

APRIL 22.—**Roscrea.**—EXTENSION.—For erection of extensive additions to the Roscrea Bacon Factory, Roscrea. Mr. R. P. Gill, Nenagh, or Mr. B. E. F. Sheehy, M.S.A., 57, O'Connell-street, Limerick.

✱APRIL 22.—**Tilbury.**—HOUSES.—Erection of 23 houses on the triangular block system of construction, for the U.D.C. Mr. A. W. Buckner, Clerk to the Council, Council Offices, Tilbury.

✱APRIL 23.—**Brentwood, Essex.**—HOUSE.—Erection of the Medical Superintendent's house at High Wood Hospital, for Children, Ongar-road, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱APRIL 23.—**Fulham, S.W.6.**—TAR PAVING, &C.—For tar-paving and repairs to roads at the Western Fever Hospital, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

APRIL 23.—**Cuckfield, Sussex.**—INFIRMARY BLOCK.—Erecting a female infirmary block at the West Hylands Institution at Cuckfield, Sussex, for the Guardians of the Poor Law Union of Cuckfield, Sussex. Mr. Wm. H. Overton, F.S.Arc., F.S.I., 22, Ship-street, Brighton. Deposit £1.

APRIL 23.—**Greenwich, S.E.10.**—HOUSES AND MAISONETTES.—Erection and completion of six houses, comprising twelve maisonettes, on a site at the corner of Coombedale-road and Westerdale-road, Greenwich, for the Council of the Metropolitan Borough of Greenwich. Town Clerk's Dept., Town Hall, Greenwich. Deposit £2 2s.

✱APRIL 23.—**Herne Bay, Kent.**—EXTERNAL CLEANING, &C.—For external cleaning, painting and repairs at St. Anne's Home Herne Bay, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱APRIL 23.—**London, S.W.6.**—ROOFING, &C.—Roofing in of a portion of the existing yard, together with incidental building works at the Western Ambulance Station, Seagrave-road, Fulham, S.W.6, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit £1.

APRIL 23.—**London, S.E. 2.**—ROADS.—Repairs to roads at Goldie Leigh Homes, Abbey Wood, S.E. 2, for the Metropolitan Asylums' Board. Office of the Board, Victoria Embankment, E.C. 4. Deposit £1.

APRIL 23.—**London, N.**—SHOPS AND DWELLINGS.—Erection of nine shops with dwellings over (similar types) in Lordship-lane, on the White Hart-lane, Tottenham, for the London County Council. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £2 to the Cashier of the Council.

✱APRIL 23.—**Margate.**—VERANDAH FLOORS.—Extension of verandah floors at Princess Mary's Hospital for Children, Cliftonville, Margate, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit £1.

APRIL 23.—**Rothwell.**—HOUSES.—For the erection of 52 scullery houses on the Rothwell Haigh, Carlton, Lofthouse, and Thorpe sites, for the U.D.C. Mr. W. Dodgson, Clerk, Council Offices, Rothwell, Yorks.

APRIL 23.—**Tooting, S.W.17.**—JOINERY.—For supplying and delivering prepared joinery to Tooting Bec Mental Hospital extensions, Church-lane, Tooting, S.W.17, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱APRIL 23.—**Sutton.**—ALTERATIONS.—For alterations in forming cubicles for staff accommodation in existing buildings, at the Downs Hospital for Children, Banstead-road, for the Metropolitan Asylums Board, Victoria Embankment, E.C.4 Deposit £1.

✱APRIL 23.—**Watford.**—ANNEXE AND LIFT.—Erecting an annexe to the Ward Block and providing therein a hand-power bed lift at the Infirmary in Vicarage-road, Watford, Herts, for the Guardians of the Watford Union. Architects, Messrs. A. Saxon Snell & Phillips, 9, Bentinck-street, Manchester-square, W.1. Deposit £2.

APRIL 23.—**Winfrith.**—LYCH GATE.—For the erection of a lych gate at the churchyard of Winfrith, 3 miles from Wool Station, Dorset. Rector, Winfrith.

✱APRIL 23.—**Woolwich, S.E.18.**—CLEANING, &C.—For cleaning, painting and repair works at the Brook Hospital and the Brook Ambulance Station, Shooter's Hill, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

APRIL 24.—**Bristol.**—SUB-STATIONS.—For the construction of 10 underground sub-stations and extensions to two existing, for the T.C. Mr. H. Faraday Proctor, General Manager, Electricity Dept., The Exchange, Bristol. Deposit £2 2s.

APRIL 24.—**Cockermouth.**—HOUSES.—Erection of 12 houses at Prospect, for the R.D.C. Mr. J. B. Wilson, Surveyor, Cockermouth.

APRIL 24.—**London.**—DEMOLITION.—For demolition of the tower and footbridge at Mucking Lighthouse, River Thames, for Trinity House. Secretary, Trinity House, Tower Hill, E.C. 3.

APRIL 24.—**New Ferry.**—EXTENSIONS, &C.—For the erection of extensions for enlargement of offices and inspector's house at the County Police Station, New Ferry. Mr. H. Beswick, County Architect, Chester. Deposit £1 1s

APRIL 24.—**Near Neath.**—VARIOUS WORKS.—For carrying out for the Neath B.G. the following works:—(1) Internal painting, colouring and repairs at Penrhiewtyn Hospital; (2) engineering repairs and hot water supplies. Mr. J. Cook Rees, architect, Parade Chambers, Neath.

APRIL 24.—**Newtongrange.**—SCHOOL.—Erection of new school at Newtongrange for Midlothian Education Authority. Mr. L. Kemp, County Education Offices, 1, India Buildings, Victoria-street, Edinburgh.

APRIL 24.—**Treeton.**—BATH HOUSE.—Erection of pit head bath house, 182 ft. long, 46 ft. wide, 32 ft. high, with glazed brick partitions and dado and concrete floor. Engineer's Office, Treeton Colliery, near Rotherham. Deposit £1 1s.

APRIL 25.—**Southampton.**—POLICE COTTAGES.—Erection of two police cottages, one at Marchwood and one at Pennington, for the County Borough Council of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £1 1s. for each set of plans, by cheque, payable to Hants. County Council, and crossed "Lloyds Bank, Ltd., Capital and Counties Branch, Winchester."

APRIL 26.—**Aberdare.**—SCHOOL.—For the erection of a new boys' school (to provide accommodation for 272 children). Messrs. Thomas Roderick & Sons, architects, Clifton-street, Aberdare. Deposit £2 2s.

✱APRIL 26.—**Chelsea, S.W.**—SANITARY WORK.—Taking out the existing (upon four floors) and erecting new sanitary fittings, plumbing, and other work to the turret of the new Ward Block at the St. Luke's Hospital, Cale-street, Chelsea, S.W., for the Guardians of the Parish of Chelsea. Guardians' Architect, Mr. Edmund J. Harrison, 23, Berkeley-road, Crouch End, N.8.

APRIL 26.—**Glasgow.**—CONVENIENCE.—Construction of a public convenience in Alexandra Park (1) mason, brick, joiner, &c., works; and (2) sanitary fittings. Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

APRIL 26.—**Reigate.**—HOUSE.—Erection of a house in the Castlefield-road for the Baths Superintendent, for the T.C. Borough Surveyor, Municipal Buildings, Reigate.

APRIL 28.—**Andover.**—OFFICES, &C.—For the erection of new offices, folding partition, &c., at Andover (New-Street) Girls' and Infants' Council School, for the C.C. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £1 1s, by cheque payable to Hants County Council and crossed "Lloyd's Bank, Ltd., Capital & Counties Branch, Winchester."

APRIL 28.—**Southampton.**—ALTERATIONS, &C.—Alterations, remodelling, &c., at New Alresford Council School, for the Hants County Council. Mr. A. L. Roberts, County Architect, The Castle, Winchester, on and after April 10, between the hours of 9 a.m. and 4 p.m.; Saturdays 9 a.m. and 12 p.m. noon. Deposit £1 1s., payable to Hants County Council and crossed "Lloyd's Bank, Ltd., Capital and Counties Branch, Winchester."

APRIL 30.—**Greenwich.**—HOUSES.—Erection and completion of 50 houses (some of which are partially erected) on the No. 3 Section of the Housing Estate at Charlton, for the Metropolitan Borough Council of Greenwich, S.E. Town Clerk's Dept., Town Hall, Greenwich. Deposit £2 2s.

APRIL 30.—**Southend-on-Sea.**—SCHOOLS.—Erection of proposed new secondary schools, Westcliff, for the County Borough of Southend-on-Sea E.C. Mr. H. Farrands, M.A., Director of Education, Education Offices, 20, Warrior-square, Southend-on-Sea. Deposit £3 3s. (cheques to be made payable to the Southend Corporation).

✱MAY 1.—**Llandudno.**—CHILDREN'S HOME.—Erection of a new Children's Home (40 children) in Baden Powell-road, Llandudno Junction, for the Guardians of the Poor of the Conway Union. Mr. S. Colwyn Foulkes, architect, Central Chambers, Colwyn Bay. Deposit £1 1s.

✱MAY 1.—**Portsmouth.**—FLATS.—Erection and completion of four blocks of flats in Voller-street, Landport, and for the maintenance thereof in thorough repair for six calendar months from the completion thereof, for the Portsmouth Town Council. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth.

✱MAY 6.—**Hatfield, Herts.**—COTTAGES.—Erection of 24 cottages in the parish of Hatfield, for the R.D.C. Messrs. Crickmer & Foxley, architects, 1, Lincoln's Inn Fields, London, W.C.2. Deposit £2 2s.

✱MAY 6.—**Welwyn, Herts.**—COTTAGES.—Erection of 40 cottages in the parish of Welwyn, in the county of Hertford, for the Welwyn R.D.C. Mr. H. G. Cherry, architect, 97, Jermyn-street, St. James, S.W.1. Deposit £2 2s.

MAY 12.—**Port Talbot.**—PAINTING.—For the painting of the various schools within the Borough. Mr. Moses Thomas, Port Talbot.

NO DATE.—**Ashburton.**—HOUSES.—For the erection of 12 houses at Ashburton, for the U.D.C. Mr. B. H. Palmer, Architect 11, Union-street, Newton Abbot.

NO DATE.—**Bradford.**—PAINTING.—For painting and cleaning work at four relief stations and the Central Offices, for the Board of Guardians. Mr. F. Holland, architect, 22, Manor-row, Bradford. Deposit £2 2s.

✱NO DATE.—**Bath.**—SCHOOL HOUSE.—Additions to a school house, Coombe Down, Bath. Messrs. Beresford Pite & J. S. Hodges, architects, 101, Great Russell-street, W.C.1.

NO DATE.—**Clutton.**—DECORATING.—For re-decoration of Clutton Church. Mr. W. White, Church Farm, Clutton.

NO DATE.—**Cudworth.**—DEMOLITION.—For the pulling down, making good of property, Barnsley-road, Cudworth, for the U.D.C. Mr. J. R. Shephard, Surveyor, Cudworth.

NO DATE. — **Kirkintilloch.**—SCHOOL.—Construction of a small semi-permanent school building (four classrooms) in Kirkintilloch, for the Dumbarton Education Authority. Property Department, Education Offices, 18, Park-circus, Charing Cross, Glasgow. Deposit 10s. 6d.

NO DATE.—**Lindley.**—BUNGALOW.—Erection of a nine-roomed bungalow. Mr. E. Bower, architect, Jovil, Linthwaite.

NO DATE.—**Marsh.**—HOUSE.—Erection of a house and dairy buildings at Marsh. Mr. E. Bower, architect, Jovil, Linthwaite.

NO DATE.—**Rogate.**—HALL.—Erection of Village Hall, Rogate, Petersfield. Mr. J. Auty, A.R.I.B.A., 16, Queen-street, Emsworth.

NO DATE.—**Rogerstone (Mon.).**—HOUSE.—For erecting a house at Cwm, Rogerstone, for Mr. R. Salathiel, Cwm-y-Nant, Risca. Mr. A. Evans, 9, Risca-road, Cross Keys (Mon.).

NO DATE.—**Shapley.**—HOUSES.—For the erection of 16 non-parlour type houses, for the U.D.C. Messrs. R. & W. Dixon, architects, 5, Eastgate, Barnsley.

NO DATE.—**Swansea.**—NURSES' HOME.—Erection of a nurses' home at Parc Beek, Sketty-road, containing 42 bedrooms, recreation room, &c. Mr. G. Moxhan architect, 18, Castle-street, Swansea. Deposit £5 5s.

NO DATE.—**Trim.**—PREMISES.—For proposed ne premises in Trim, Co. Meath, for Messrs. Allen Bro Mr. A. Edward Smith, F.S.I., 5, St. Andrew-stree Dublin. Deposit £2 2s.

NO DATE.—**Trim.**—RECONSTRUCTION.—For recor struction and additions to Town Hall, Trim, C Meath, for the U.D.C. Mr. A. Edward Smith, 5, S Andrew-street, Dublin. Deposit £2 2s.

NO DATE.—**Trowbridge.**—PAINTING, &C.—For r decoration of and alterations to rostrum and choir stal at the Wesleyan Church, Mr. W. W. Smallum, arch tect, Trowbridge.

NO DATE.—**Wortley.**—HOUSES.—For the erection 75 houses at Mortomley, and alternatively 45 houses Mortomley, 20 at Ecclesfield, and 10 at Tankersle respectively, for the R.D.C. Mr. F. Thurlby, surveyo Grenoside, Sheffield. Deposit £2 2s.

FURNITURE, MATERIALS, etc.

APRIL 12.—**Bootle.**—MATERIALS.—Granite channel kerbs, &c., for T.C. Borough Engineer, Town Hal Bootle.

APRIL 12.—**Manchester.**—SEATING.—For supplyin and fixing seating accommodation in the Boardroo of the Union Offices. Mr. E. Hargreaves, Superinte dent of Works, Union Offices, All Saints, Manceste

APRIL 14.—**Fareham.**—MATERIALS.—For the supp of granite and limestone for one year. Mr. J. Whitear, Surveyor, 97, West-street, Fareham.

APRIL 14.—**Maldon.**—MATERIALS.—Supply of broke granite, Kentish flints, and gravel to the R.D.C. E. J. Ennals, Surveyor, 6, Market Hill, Maldon.

APRIL 15.—**Bridlington.**—MATERIALS.—For suppl of hardware, ranges and sanitary fittings for 20 hous for the T.C. Borough Engineer, Bridlington.

APRIL 15.—**Islington.**—MATERIALS.—Supply of sa glazed ware pipes and gullies. Borough Enginee Islington, N.

APRIL 15.—**North Walsham.**—MATERIALS.—Supp of broken granite, granite chips, broken gravel, bindi silt and for road rolling, for the U.D.C. Mr. Wilfr Morris, Surveyor, North Walsham.

APRIL 16.—**March.**—MATERIALS.—For supply road materials to the U.D.C. Mr. C. Greenwood, Cler March.

✱APRIL 17.—**London, S.E.**—ELECTRIC LIGHTING.—For the installation of a complete electric lighti scheme at the Southwark Hospital, East Dulwic grove, S.E., for the Southwark Union. Guardian Architects, Messrs. A. Saxon Snell & Phillips, A.R.I.B.A., 9, Bentinck-street, Manchester-square, W. Deposit £5, on April 12, 14, 15, 16 and 17, between t hours of 10 a.m. and 4 p.m. (10 a.m. and 1 p.m. Saturday).

APRIL 18.—**Frimley.**—MATERIALS.—Supply of va ous materials for public services to the U.D.C. Mr. Fox Hill, Surveyor, Council Offices, Camberley.

APRIL 19.—**Glasgow.**—MATERIALS.—For supply various materials required by the Electricity Depa ment for one year, for T.C. Mr. R. B. Mitchell, E gineer, 75, Waterloo-street, Glasgow.

APRIL 21.—**Edinburgh.**—MATERIALS.—Supply of ro and other materials, for one year, for Midlothian C. Road Officer, County Buildings, Edinburgh.

APRIL 21.—**Sefton.**—MATERIALS.—Supply of high materials to the R.D.C. Mr. F. Pool, surveyor Evered-avenue, Walton, Liverpool.

APRIL 21.—**Tenterden.**—MATERIALS.—Supply of materials to the T.C. Mr. W. L. C. Turner, Bor Surveyor, Town Hall, Tenterden.

APRIL 24.—**Worthing.**—MATERIALS.—For supply tarred slag, and tarred granite chippings for T. Borough Surveyor, Municipal Offices, Worthing.

ENGINEERING, IRON AND STEEL

APRIL 12.—**Manchester.**—AIR COMPRESSOR.—F erection of an air compressor at the Withington sewa works, Chorlton-cum-Hardy, for T.C. Secretary of t Rivers Dept., Town Hall, Manchester.

APRIL 12.—**Wallingford.**—HEATING.—For installation of new calorifiers, mains and accesso works in connection with the heating apparatus the Institution of the Board of Guardians. Mr. P. C. Slade, Clerk, Union Offices, Wallingford, Berks. posit £5 5s.

APRIL 14.—**Eastbourne.**—ROADS.—For resurfaci passages in tarmacadam at the rear of Seaside a Fairlight-road, for the T.C. Mr. Leslie Rosevea Borough Engineer, Town Hall, Eastbourne.

APRIL 14.—**Glyncorrwg.**—BRIDGE.—For ferro-c crete bridge at Cymmer, "Hennebique System," for t U.D.C. Messrs. L. G. Mouchel & Partners, Ltd., 36 Victoria-street, Westminster, S.W. 1. Deposit £2

APRIL 14.—**Pretoria.**—STEEL PIPES.—For supp of 12 in., 14 in. and 18 in. steel pipes, for Municipal of Pretoria. Messrs. Beckett, Son & Co., Suff House, 5, Laurence Pountney-hill, E.C. 4.

APRIL 14.—**Salford.**—GANGWAYS.—For the supp and erection of four iron-suspended gangways. Gene Manager, Tramways Dept., 32, Blackfriars-stre Salford.

APRIL 15.—**Fraserburgh.**—SLIPWAY.—For the c struction of a slipway at Faithlie Harbour, for Fraserburgh Harbour Commissioners. Mr. Hugh Barr, 15, Regent Quay, Aberdeen.

APRIL 15.—**Haswell.**—ELECTRIC LIGHTING.—I installing a complete system of public street light by electricity for the Haswell Ward of the Pari Mr. T. Gustard, Clerk to the Parish Council, Cou Office, Haswell, Sunderland.

APRIL 16.—**Glasgow.**—VARIOUS WORKS.—For heating system; (2) steel windows; (3) glazier wo (4) tile work; (5) malleable iron railings, gates a roller shutters; (6) electric lifts; and (7) electri installation in connection with widening of Stockw street, for the T.C. Mr. J. Lindsay, Town Cle City Chambers, Glasgow.

✱APRIL 16.—**Bournemouth.**—FOOTBRIDGES.—C struction of reinforced concrete footbridges at Boscon Chine and at Alum Chine, for the County Boro Council of Bournemouth. Mr. F. P. Dolam Borough Engineer, Town Hall, Bournemouth. Dep £1 1s.

16.—**Glasgow.**—VARIOUS WORKS.—(1) Re- a steel sheeted roof, about 10,000 sq. yds.; down sundry brick walls; (3) replacing and railway girders; and (4) re-sheeting about yds. of roof, at Provan Gas Works, for the T.C. Manager, Gas Department, 30, John-street, Deposit £5.

17.—**Nottingham.**—HOPPERS, &c.—For about of iron and steel work, in stanchions, ordinary ed beams, hoppers, dished and flat flooring , &c., for the T.C. Mr. T. Wallis Gordon, ineer. Guildhall. Nottingham. Deposit £2.

18.—**Aberdeen.**—STEELWORK.—Supply and of 90 tons of structural steelwork for exten- oiler house. Mr. J. A. Bell, City Electrical Aberdeen. Deposit £2 2s.

21.—**Sleaford.**—TAR BOILERS.—For supply of 40 gallon tar and bitumen boilers, for the Mr. E. H. Godson, Clerk, Sleaford.

21.—**Paisley.**—HEATING, &c.—For heating lation work and electric work at new adminis- ffices, for the Renfrewshire Education Autho- J. Hamilton Pullar, Executive Officer, County n Offices, Paisley. Deposit 10s.

21.—**Preston.**—STEEL WORK.—For steelwork in the alterations and additions to the destruc- eepdale, for T.C. Borough Surveyor, Town ston.

23.—**Ayr.**—BRIDGE, &c.—For the widening Brig and Prestwick-road, &c., for the T.C. Young, Burgh Engineer, Town Buildings, posit £2 2s.

23.—**Dublin.**—ELECTRICAL WORKS.—For elec- ks and supplies required by the Commissioners Works in the Dublin District for six months. Healy, Secretary, Office of Public Works, Deposit £1.

23.—**Hull.**—BRIDGE.—For construction of bridge, for the T.C. City Engineer, Hull. 21.

23.—**Horsted Keynes.**—RESERVOIR.—For the ion of a reinforced concrete open reservoir of 0,000 gallons capacity at the Holy Well Station, Horsted Keynes, for the Mid-Sussex ter Board. Mr. Francis Martin, Engineer, rks Offices, Boltro-road, Haywards Heath. 2 2s.

23.—**Merthyr Tydfil.**—FILTERS.—For the sup- erection of pressure gravity types of filters to 7½ million gallons of water per day of 24 hours, af Fechan Water Supply Board. Messrs. Sir nie, Son, & Deacon, 30, Buckingham Gate, ster, S.W. 1. Deposit £5.

23.—**Singapore.**—PIPES, &c.—For supply of s, valves, &c., to the Municipality of Singa- essrs. A. Binnie, Son, & Deacon, 30, Bucking- . S.W. Deposit £5.

26.—**Portland.**—RESERVOIR ROOF.—For taking sting roof of the Yeates Reservoir, Portland, onstruction of a reinforced concrete roof, for C. Mr. R. Davison, Surveyor, Council Offices,

26.—**Swadlincote.**—TANK.—Construction of a nk in reinforced concrete (capacity 8,500 for the U.D.C. Mr. George A. Taylor, Council Offices, Swadlincote, near Burton-on- Deposit £1.

28.—**Poole.**—BRIDGE.—For construction of a ge over the Channel dividing Poole from Ham- or T.C. Messrs. Livesey, Son & Henderson, -place, London, E.C.2. Deposit £5 5s.

1. — **China.** — BRIDGE. — **The Commercial** r at Peking has forwarded to the Department as Trade copies of the official text of a call for by the Hai Ho Conservancy Commission, for on of a bridge over the Hai Ho at Tientsin. ust be in the hands of the Commission before May 1, 1924. The cost of erecting the new s been roughly estimated at Tls. 700,000, say Department of Overseas Trade, 35, Old eet, S.W. 1. Reference 11647/F.R./E.C./2.

1.—**Egypt.**—ROOFS, &c.—Construction of s and shelter of Alexandria new station, for tian State Railways. Inspecting Engineer, and Sudan Governments, Queen Anne's , Broadway, Westminster, S.W. Charge

.—**Durban, Natal.**—WATER SCHEME.—For large sluice valves, valve tower ironwork, .. for Vernon Hooper Dam in Shongweni eme, for T.C. Messrs. Webster, Steel & Co., ndia-avenue, London, E.C. Deposit £5 5s.

—**South Africa.**—COAL ELEVATORS.—Supply on of five coal elevators and ten coal shutes, nd Water Board. Dept. of Overseas Trade, een-street, S.W. Reference 13429/ED/EC/2.

.—**London.**—STEELWORK.—Supply to the lian Railway Co. of structural steelwork Shop). Company's Offices, 91, Petty France, er, S.W.1. Charge £1.

—**Chili.**—HARBOUR WORKS.—For the work ment of the Harbour of Constitucion, Chili. gation, 22, Grosvenor-square, W.1.

, SANITARY, AND WATER WORKS.

2.—**Glenties.**—WATERWORKS.—Construction te intake well in Lough Anna and a concrete e Townland of Dorria, for the R.D.C. Mr. Nelis, Clerk, Glenties.

4.—**Glasgow.**—ROADS.—For the paving of ets with compressed rock asphalte, for the ice of Public Works, 64, Cochrane-street

.—**London, E.C.2.**—SEWER WORKS.—Con- f about 280 ft. of 4 ft. by 2 ft. 8 in. brick tly in tunnel) and contingent works, com- filling-in of the existing sewer, the recon- gulley and house drains, and connections to wers, &c., beneath Well-street, Cripplegate, rporation of London. Office of the City uildhall, E.C.2. Deposit £2 2s.

4.—**Swanage.**—ROADS.—For tarring of of roads within the district of the U.D.C. Town Hall, Swanage.

APRIL 15.—**Church.**—ROADS.—For the tarspraying of about 9,500 super. yds. of Dill Hall-lane, for the U.D.C. Mr. F. Howarth, Surveyor, Council Offices, Church, Lancashire.

APRIL 15.—**Newport (Mon.).**—SEWER.—For constructing two sections of sewer in Christchurch-road, Newport, for the B.C. Borough Engineer, 8, Corn-street, Newport (Mon.). Deposit £2 2s.

APRIL 15.—**Wolverhampton.**—WATER MAINS.—For supply of 15 in. and 12 in. cast-iron trunk mains, for the T.C. Mr. E. A. B. Woodward, Waterworks Engineer, Town Hall, Wolverhampton. Deposit £2.

APRIL 16.—**Birmingham.**—ROADS.—For the widening and reconstruction of Stoney-lane, Yardley, for the T.C. Mr. H. H. Humphries, City Engineer, The Council House, Birmingham. Deposit £2.

APRIL 16.—**Edinburgh.**—PLAYING FIELD.—For the construction of the embankments, terracing, roads, and drainage of a new playing field at Murrayfield, for the Scottish Football Union. Messrs. Blyth & Blyth, civil engineers, 135, George-street, Edinburgh. Deposit £2 2s.

APRIL 16.—**Guildford.**—ROADS.—For making up Alexandra-terrace, for the T.C. Borough Surveyor, Tuns Gate, Guildford.

APRIL 16.—**Lambeth, S.W.2.**—FOOTPATHS AND ROADWAYS.—Forming new footpaths and roadways, together with the incidental works in the making up of the new streets known as Baytree-road and Claverdale-road, Brixton, S.W.2, for the Lambeth Borough Council. Mr. Osmond Cattlin, Assoc.M.Inst.C.E. (Chartered Civil Engineer), Borough Engineer, Brixton Hill, S.W.2. Deposit £1 in respect of each roadway.

✱APRIL 16.—**Sevenoaks.**—SEWERS.—Extension of the Sewer at Hosey Common in the Parish of Westerham, for the Sevenoaks R.D.C. The Surveyor, J. N. Prior, Council Offices, "Inglewood," Oak Hill-road, Sevenoaks. Deposit £2 2s.

APRIL 16.—**South Mimms.**—ROADS.—For tar spraying 35,000 super yards of roadway, and for supply of road materials, for the R.D.C. Mr. G. Simcox, Bearwood, Potters Bar, N.

APRIL 16.—**Stourbridge.**—ROADS.—For reconstruction of the carriageway in Lower High-street, for T.C. Mr. F. Woodward, Borough Surveyor, Market-street, Stourbridge. Deposit £2 2s.

APRIL 17.—**Bowden.**—ROADS.—For the making-up of Belgrave-road, with tar macadam, for the U.D.C. Surveyor, Council Offices, Bowdon.

APRIL 21.—**Eccles.**—SEWAGE WORKS.—For (1) rotary distributors, penstocks, &c., and (2) storm water pumps, and electric motors, for the T.C. Mr. T. S. Picton, Borough Engineer, Eccles. Deposit £2 2s.

APRIL 21.—**Essex.**—CULVERTS.—(*a*) Reconstruction of culvert on the Bures-Colchester main road, in the parish of Wormingford; (*b*) Reconstruction of culvert on the Colchester-Tiptree-Maldon main road, in the Parish of Great Totham, for the Essex C.C. Mr. W. H. Morgan, County Surveyor, Chelmsford.

APRIL 21.—**Linlithgow.**—PLAYGROUNDS.—For the tar macadamising of certain school playgrounds, for the Education Authority. Mr. Edward Blades, Executive Officer, Education Offices, Bathgate.

APRIL 21.—**Port Talbot.**—ROAD.—For widening of the Cwmavon-road, together with erection of boundary and retaining walls. Borough Engineer, Municipal Buildings, Aberavon (Glam.).

APRIL 22.—**Bebington.**—ROADS.—For the making up of private street works to College-drive, for the U.D.C. Council Offices, Bebington.

APRIL 25.—**Dunfermline.**—ROADS.—For reconstruction of carriageways and footways in tarmacadam at Townhill Housing Scheme, and Queensferry-road, for T.C. Mr. R. Muir Morton. Burgh Engineer, City Chambers, Dunfermline.

APRIL 25.—**Kilmarnock.**—IMPROVEMENT.—For improvement of insanitary areas, William-street, for the T.C. Mr. William Dunbar, Burgh Surveyor, Market Bridge, Kilmarnock.

APRIL 26.—**Otley.**—ROADS, &c.—For water mains, streets, sewers and drains, Newall Carr-road Housing Scheme, for the U.D.C. Surveyor, Council Offices, Otley. Deposit £3 3s.

APRIL 26.—**Walsall.**—ROADS.—For remaking portion of Watery-lane, for the T.C. Borough Surveyor, Walsall.

APRIL 28.—**Chorley.**—SEWAGE WORKS.—For the construction of sewage disposal works, for the T.C. Messrs. Dodd & Watson, County Chambers, Corporation-street, Birmingham. Deposit £5.

APRIL 28.—**Kempton.**—WATER MAIN.—(*a*) For laying 7½ miles of cast iron water main; (*b*) for laying 450 yds. of 52 in. steel pipes and contingent works from Kempton to Greenford, for Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, Clerkenwell, E.C.1. Deposit £20.

APRIL 30.—**Hemel Hempstead.**—ROADS.—For sewering and making up of a private street about 300 yards long for the T.C. Mr. W. R. Locke, Borough Surveyor, Hemel Hempstead, Herts.

APRIL 30.—**Swansea.**—SEWAGE WORKS.—For construction of sewerage works at Llansamlet, for T.C. Mr. J. R. Heath, Chief Engineer, Main Drainage Dept., Guildhall, Swansea. Deposit £5 5s.

NO DATE.—**Grimthorpe.**—RECREATION GROUND.—For the laying-out of recreation ground, &c., at Grimethorpe, near Barnsley, for the Miners' Welfare Scheme. Mr. J. R. Shephard, Surveyor, Council Offices, Cudworth.

✱NO DATE.—**Guildford.**—DRAINS AND ROAD.—Laying in soil and surface water drains and forming a new road for the Nightingale Building Estate. Plans, &c., of the Onslow Building Works, Guildford.

NO DATE.—**Monk Bretton.**—RECREATION GROUND.—For the laying-out of recreation ground, &c., at Monk Bretton, near Barnsley, for the Miners' Welfare Scheme. Mr. J. R. Shephard, Surveyor, Council Offices, Cudworth.

Competitions.

(*See Competition News, page* 572.)

Auction Sales, Tenders, etc.

APRIL 14.—**Gillingham, Kent.**—Mr. F. H. Clark will sell, absolutely without reserve, at Black Lion Fields, Gillingham, Kent, huts and building materials, steel roof principals, window sashes, &c. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W. 15.

APRIL 15 AND 16.—**Bishop's Stortford.**—Messrs. Perry & Phillips, in conjunction with G. E. Sworder & Sons, will sell, on the premises (unless previously disposed of by private treaty), at Hallingbury-place (three miles from Bishops Stortford), interior and exterior fixtures and fittings previous to the demolition of the above mansion. Auctioneers, Bridgnorth and Bishop's Stortford.

APRIL 15.—**Bournemouth.**—Messrs. Hankinson & Son will sell (unless previously disposed of) at the Central Hotel, Bournemouth, *re* Bournemouth and District Builders' Guild, Ltd., in liquidation, Springbourne, Bournemouth, block of freehold property, builders' yard, freehold cottages, &c. Auctioneers, The Square, Bournemouth, and 8, Southbourne-grove, West Southbourne.

✱MAY 6.—**London, W.1.**—Messrs. Knight, Frank & Rutley will sell, in the Hanover-square Estate Room, W.1, freehold, Edgecombe Hall, Beaumont-road, outbuildings, cottages, lodge, &c., in all extending to over 14 acres. Auctioneers, 20, Hanover-square, W.1.

✱APRIL 15.—**London, N.**—Messrs. Charles R. Davis & Co. will sell, under a D.A., *re* F. & F. K. Dainton, by order of the Trustee, at 411, Holloway-road, N., builders', contractors' and decorators' valuable stock-in-trade and plant. Auctioneers, 285, Borough High-street, S.E.1.

APRIL 16.—**Kent.**—Messrs. Knight, Frank & Rutley will sell, at very low reserves, to wind up an estate, at the residence, Otford Court, close to Otford Station (unless previously sold privately), the residential and building property, Otford Court, the whole extending to an area of about 190 acres. Auctioneers, 20, Hanover-square, W.1.

✱APRIL 29 AND 30.—**Banbury, Oxon.**—Mr. F. H. Clark will sell, without reserve, at Banbury Filling Factory, Central Stores Depot No. 423, timber and building materials accruing from the demolition of the Filling Factory, Banbury, Oxon. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18, or of the same firm at the Filling Factory, Banbury, Oxon.

APRIL 28.—**Romford (Essex).**—Messrs. Alfred Savill & Sons will sell by order of the Trustees under the will of Mr. D. McIntosh, (deceased) at Winchester House, Old Broad-street, E.C. (unless previously sold by private treaty) freehold building estate known as Marshalls Park, extending to about 117 acres, at Romford (Essex), adjoining the town. Auctioneers, 69, South Audley-street, Grosvenor-square, London, W.1.

✱APRIL 29.—**Fulham.**—Messrs. Green & Son will sell, at "The Hermitage," 84, Little-road, large quantities of building materials. Auctioneers, 72, King-street, Hammersmith, W.6.

APRIL 30, AND FOLLOWING DAY.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell in lots at the Merchants' Hall, Baltic Exchange, St. Mary Axe, E.C., contractors' and builders' plant and stock from Tilbury Housing Scheme, by order of Messrs. Trollope & Colls, Ltd., on account of completion of contract. Auctioneers, 11, Billiter-square, E.C.3.

✱MAY 2.—**London, E.C.**—Messrs. Fuller, Horsey & Sons & Cassell will sell by order of C. J. Wells & Sons, Ltd., on account of the completion of the London-Tilbury road contract, at the Merchants' Hall, Baltic Exchange, St. Mary-Axe, E.C., contractors' plant. Auctioneers, 11, Billiter-square, E.C.3.

MAY 6.—London, W.1.—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

MAY 27.—**Near Gerrard's Cross (Bucks).**—Messrs. Knight, Frank & Rutley will sell, by direction of Commander J. A. L. Hay, R.N., freehold agricultural and sporting property, known as Pickeridge Farm, about 171 acres; also about 18 acres of building sites. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

✱APRIL 16.—**West Riding of Yorkshire.**—Two quantity surveyors' assistants required in the Quantity Surveyor's Department, by the County Council of the West Riding of Yorkshire. Mr. Louis J. Newton, M.S.A., County Quantity Surveyor, County Hall, Wakefield.

APRIL 19.—**Birmingham.**—Architectural Assistant required in the Public Works Dept. of the Corporation. Mr. H. H. Humphries, M.Inst.C.E., City Engineer and Surveyor, The Council House, Birmingham.

APRIL 19.—**Birmingham.**—Inspector of Housing Contracts required in the Public Works Department by the Corporation. Mr. H. H. Humphries, M.Inst.C.E., City Engineer and Surveyor, The Council House, Birmingham.

APRIL 19.—**Wolverhampton.**—Clerk of Works required to superintend erection and completion of engineering block of new Technical College, Wolverhampton, for the Joint Committee of the Staffordshire County and Wolverhampton County Borough Councils. Director of Education, Wolverhampton, endorsed "Clerk of Works."

✱APRIL 23.—**Wigan.**—Thoroughly qualified Architectural Assistant required in the Borough Engineer's Department by the County Borough of Wigan. Mr. R. B. Donald, M.Inst.C.E., Borough Engineer, Wigan.

✱APRIL 28.—**Swansea.**—Quantity Surveying Assistant required in the Borough Architect's Department by the County Borough of Swansea. Borough Architect, 3, Prospect-place, Swansea.

✱APRIL 28.—**Swansea.**—Clerk of Works required to act under the direction of the Borough Architect for the new elementary school, Town Hill, by the County Borough of Swansea. Borough Architect, 3, Prospect-place, Swansea.

✱NO DATE.—**Halifax.**—Assistant in the Building Trades Department of the Halifax Municipal Technical College required by the Principal. Mr. W. H. Ostler, Secretary of Education, West House, Halifax.

PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose ..	9 10 0
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick:—

2½ in.	11 3 0	3 in.....	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
		Two Sides and one End	32 10 0
Headers.....	21 10 0	Splays and Squints	30 0 0
Quoins. Bullnose and 4½in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.		
Thames Ballast	10 6	per yard.	
Pit Sand	14 9	" "	
Thames Sand	15 6	" "	delivered 2 miles radius Paddington.
Best Washed Sand.....	15 6	" "	
½ in. Shingle for Ferro-Concrete	14 0	" "	
¼ in. " "	15 0	" "	
½ in. Broken Brick.....	10 6	" "	
Pan Breeze	5 6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6 5l /- alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above.....	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White.....	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime.....	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube..... s. d. 2 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube..... 2 11½

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube..... 4 4

Do. do. delivered on road wagons at above stations, per ft. cube..... 4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube		7 /-
Random blocks from 10 ft. and over	"	17 /-
Sawn two sides	"	27 /-
Sawn three or four sides	"	32 /-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London. s. d.

6 in. sawn two sides landings to sizes (under 30 ft. super.).....	Per Ft. Super	5 3
6 in. rubbed two sides, ditto.....	"	5 9
3 in. sawn two sides slabs (random sizes)	"	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes)	"	1 5½
1½ in. to 2 in. ditto, ditto.....	"	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks.....	Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.).....	Per Ft. Super	5 4½
6 in. rubbed two sides ditto	"	6 0½
4 in. sawn two sides slabs (random sizes)	"	2 10
3 in. ditto. ditto	"	2 5
2 in. self-faced random flags..Per Yard Super		7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.		s. d.
Plain	per ft. cube	6 6
Moulded	" "	7 9
Cills	" "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	£2 0	3 × 11	31 0
4 × 8	27 0	2 × 11	32 0
4 × 7	27 0	3 × 9	30 0
3 × 8	25 10	2½ × 9	30 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	25 0	3 × 4	25 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£36 0	1 × 9	£34 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21 /-	1¼	33 /6
⅞	23 /-	1½	38 /6
1	26 /-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26 /-
1¼	33 /6
1½	38 /6

MATCHINGS (BEST).

Inches	per sq.
⅝	17 /6
¾	21 /-
1	26 /-

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle				0 2	9
Dry Wainscot Oak, per ft. super, as inch	0 2 0	to	0 2	6	
¾ in. do. do.	0 1 6	to	0 2	0	
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9	to	0 2	6	
Cuba Mahogany	0 3 0	to	0 3	6	
Teak (Rangoon, Moulmein or Java), per load	45 0 0	to	50 0	0	
American Whitewood planks, per ft. cube ..	0 14 0	to	0 16	0	
Best Scotch Glue, per cwt.	4 10 0	to	—		
Liquid Glue, per cwt. ..	4 7 0	to	5 10	0	

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station, Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12.....	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9.....	18 12 6
22 by 11.....	31 5 0	16 by 10	17 12 6
20 by 12.....	29 15 0	16 by 8	13 15 0
20 by 10.....	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in...	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.....	1/1½	11d.	3½d.
3½ in.	1/2¾	1/0½	3¾d.
4 in.....	1/4	1/1¾	3¾d.
4½ in.	1/5½	1/4	4d.
5 in.....	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.....	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.....	1/7¾	1/4	3¾d.
4½ in.	1/9½	1/6½	4d.
5 in.....	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½ ..	2 2½ ..	2 8
2½ in. "	3 6½ ..	2 5½ ..	3 3½
3 in. "	4 2½ ..	2 8 ..	4 0½
3½ in. "	4 7 ..	3 3½ ..	4 8½
4 in. "	5 1 ..	3 9½ ..	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9 ..	5 8 ..	8 10
4 in. "	6 3 ..	6 8 ..	11 4
5 in. "	7 6 ..	11 6 ..	18 2
6 in. "	8 10 ..	14 4 ..	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars.....	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	1
Hoop iron, basis price	16 10 0	..	1
Galvanised	31 0 0	..	3
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g...	15 0 0	..	1
" " " 24 g...	16 0 0	..	1
" " " 26 g...	18 0 0	..	1
Sheets Flat Best Soft Steel, C.R. & C.A. quality			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	2
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	22 10 0	..	2
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	2
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	2
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	2
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	2
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	2
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	2
Best Soft Steel Sheets, 26 g.	26 0 0	..	2
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	2

METAL WINDOWS—Standard sizes suitable f plete houses, including all fittings, painti coats, and delivery to job, average price ab to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)

	£
LEAD—Sheet, English, 4 lb. and up	
Pipe in coils	
Soil Pipe	
Compo pipe.....	

NOTE—Country delivery, 30s. per ton extra; lo 3 cwt., 2s. per cwt. extra and over 3cwt. and cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cw

Old lead, ex London area, at Mills	per ton	32 0 0	..
Do., ex country, carriage forward	per ton	33 0 0	..

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB CO IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in
29/-	45/-	76/-	153/-	246/-	510/-

NEW RIVER PATTERN SCREW DOWN STOP CO UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/-

NEW RIVER PATTERN SCREW DOWN MAIN

½ in.	¾ in.	1 in.	
39/6	60/-	116/6	per

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/-

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/-

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/-

NEW RIVER PATTERN CROYDON BALL VALVE

½ in.	¾ in.	1 in.	1¼ in.	1½ in
35/-	56/-	98/-	162/-	228/-

DRAWN LEAD P. & S. TRAPS WITH BRASS SCREW.

	1¼ in.	1½ in.	2 in.	3
8 lbs. P. traps ..	33/-	41/-	56/-	101/-
8 lbs. S. traps ..	35/-	45/-	66/-	126/-

COPPER—	£ s. d.
Strong Sheet ....per lb.	0 2 3 ..
Thin " .... "	0 2 4 ..
Copper nails .... "	0 2 3 ..
Copper wire .... "	0 2 4 ..
TIN—English Ingots "	0 2 10 ..
SOLDER—Plumbers' "	0 1 3 ..
Tinmen's ..... "	0 1 5 ..
Blowpipe ..... "	0 1 7 ..

PAINTS, &c.

Raw Linseed Oil, in pipes .....per gallon	
" " " in barrels	"
" " " in drums	"
Boiled " " in barrels	"
" " " in drums	"
Turpentine in barrels	"
" in drums (10 gall.) ..	"
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	
GENUINE WHITE LEAD PAINT—	
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered
Red Lead, Dry (packages extra)....per ton	
Best Linseed Oil Putty.....per cwt	
Filocol.....per cwt	
Size, XD Quality.....firk	

[*Concluded on next page.*]

* The information given on this page has b compiled for THE BUILDER and is copyright. this list is to give, as far as possible, the a of materials, not necessarily the highest or lo and quantity obviously affect prices—a fact be remembered by those who make use of this

ES CURRENT OF MATERIALS (*contd.*)

GLASS.

LISH SHEET GLASS IN CRATES OF STOCK S AND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
fourths....	3½d.	32 oz. fourths	8½d.
thirds	4½d.	32 „ thirds	10½d.
fourths ..	5d.	Obscured Sheet, 15 oz.	4d.
thirds	6½d.	„ „ 21 „	5½d.
fourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
thirds	7½d.	En'lled 15oz. 5½d., 21oz.	7½d.

price according to size and substance for squares om stock.

LISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
olled plate	4½d.
ough rolled	5½d.
ough rolled	5½d.
igured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
olled Sheet	6d.
hite Rolled Cathedral	5½d.
inted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Varnish	Outside	0 14 0
ditto	ditto	0 16 0
Copal	ditto	0 18 0
Copal	ditto	1 0 0
Copal Carriage	ditto	1 4 0
Ditto	ditto	1 12 0
Varnish	Inside	0 18 0
Pale Paper	ditto	0 18 0
Copal Cabinet	ditto	1 2 6
Copal Flatting	ditto	1 0 6
Drying Oak	ditto	0 18 0
Hard Drying Oak	ditto	0 19 0
Copal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
Japan Gold Size		0 10 0
Black Japan		0 10 6
and Mahogany Stain (water)		0 12 0
swick Black		0 7 6
n Black		0 14 6
tting (patent)		1 5 0
ch and Brush Polish		0 17 0
ld Dryers in Terebine		0 9 0
ss Black Enamel		0 7 0

o DATE.—**Dundee.**—BANDSTAND.—Erection bandstand at Baxter Park, for the T.C. iculars from Mr. G. Baxter, City Engineer, Commercial-street, Dundee.

he death took place recently, at Edinburgh, Mr. Charles S. S. Johnston, architect, aged

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND

Dumfries. — LABORATORY. — The Dumfriesshire E.C. has passed plans for the erection of a new science laboratory and art room at George-street School, Dumfries. The estimated cost is £2,200.

Glasgow.—OFFICES.—The Lanarkshire E.C. has decided to purchase offices in Glasgow for its headquarters, which are to be transferred from Hamilton. The cost is £65,750.

Portobello.—CLOAKROOMS.—The Edinburgh Corporation Cleaning and Lighting Committee has decided that provision should be made for the erection of lavatories and cloakrooms at Bath-street, Portobello, in the ensuing year's estimate. The probable cost is £2,500.

Aberdeen.—SHELTER.—The Corporation Links and Parks Committee has decided to erect a shelter and lavatory at the Bay of Nigg, the former to cost £120 and the latter £390. The question of erecting a bandstand at the bathing station will again be considered when a report is received from the B.S.

Fallin.—HOUSES.—The Kirk Session of Bannockburn has decided to build a house at Fallin for the missioner. The Stirling Presbytery has given their consent.

Plean.—MANSE.—The Presbytery of Stirling submitted plans for the manse which is proposed to be erected at East Plean. The Presbytery remitted the plans to a committee with powers.

EDINBURGH HOUSING

At Edinburgh Town Council recently Mr. Whitson, convener of the Housing and Town-Planning Committee, moved approval of a recommendation of the committee that the erection of 1,000 houses be proceeded with at Lochend. The number of new houses to be provided on the Lochend estate in respect of slum clearances was estimated at 300 for the Cowgate-Grassmarket area and 400 for Leith areas. The Board of Health had required that 250 be two-apartment houses and 750 three-apartment houses. In all cases a scullery, bath, and other conveniences were provided additional to the prescribed number of apartments. The system of building was various forms of concrete, including duo-slab. He moved acceptance of tenders. Mr. Mancor moved that they delay the scheme until they obtained a financial report from the City Chamberlain as to the city's past and proposed commitments in housing. Mr. Hay moved another amendment that they only proceed to erect 500 of the cheaper houses. On a vote Mr. Whitson's motion was adopted.

PRINCES STREET BOULEVARD

THE proposal to form a terrace on the south side of Princes-street, between the West End and the Mound, came before Edinburgh Town Council recently.

Lord Provost Sleigh moved approval of the recommendation of his Committee for no action on the proposal. They had such a magnificent heritage in Princes-street, he said, that they would be failing in their duty if they did not give any proposal materially affecting Princes-street their most anxious and careful consideration. He had been unable to discover any good ground for urgency in the matter. Princes-street could not be said to require any widening at that part. The most urgent problem at the present time was to secure the removal of the steps in front of the Royal Scottish Academy at the Mound. If it could enhance the attractions of Princes-street they would not grudge the money, but apart from differences of opinion on that point it was well to bear in mind that in a time of financial difficulty they had a good many large schemes in hand—housing, removal of slums, and expensive road schemes. No doubt the scheme would employ a number of unskilled men, but a considerable proportion of skilled men would require to be employed. Even on the ground of unemployment, however, considering the other schemes they had undertaken, including the Edinburgh-Glasgow road, the terrace scheme could not be described as urgent.

Mr. Sawers, in seconding, said that they were asked to spend £50,000 unnecessarily.

Mr. Douglas Elliot said the strength of a chain was its weakest link, and the capacity of Princes-street was limited by the neck of Hanover-street. To widen the street west of that would be futile. The Lord Provost's suggestion that the steps should be removed was a step in the right direction, but it did not go far enough. The only thing to cure the situation was to remove the Royal Scottish Academy buildings altogether.

On a vote being taken, the Lord Provost's motion for no action was carried by 44 votes to 18.

At the end of the meeting notice of motion was given by the Lord Provost, seconded by Mr. Matthew White, that it be resolved to make representation to His Majesty's Government urging that immediate action be taken with a view to the removal of the steps in front of the Art Gallery at the Mound.

Housing Position in Scotland.

Mr. Stewart, Under-Secretary to the Scottish Board of Health, informed Sir G. M'Crae that the Board had approved, under the Act of 1923, the erection by local authorities of 6,820 houses, for 1,943 of which tenders had been accepted; 611 were under construction and 8 had been completed. As regarded private enterprise, the number of houses for which Certificate "A" had been issued was 1,779; 865 were under construction, and 29 had been completed.

Answering Lord E. Percy, Mr. Stewart said he thought something like 6,000 "Addison" houses were still under construction in Scotland.

Mr. D. G. Somerville: Is it not a fact that the majority of the "Addison" houses are under repair?—No answer was given.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of otland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors it may occur:—

	Mason.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.	Plasterers'
erdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
drie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
xandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
broath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
r	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
hgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
rgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
tbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
mbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
mfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
ndee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
fermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
nburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
kirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
t William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
ashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½	
sgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
enock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½	
milton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
vick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
ensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½	
erness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½	
rnarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
kcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
kwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0	
ark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
h	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
herwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
h	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
ling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
ingshire (Eastern istrict)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
haw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	

The information given in this table is copyright. The rates of wages in the various towns in England and s are given on page 608.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/9
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	63	0
Do. Do. in flats	"	61	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7	
Do. service	"	1/10	2/5	2/10	4/3		
Do. soil	"						7/6
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	2
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

POSED NEW BUILDINGS & OTHER WORKS *

ese lists care is taken to ensure the accuracy of the information given, but it may occa- happen that, owing to building owners taking the responsibility of commencing work ans are finally approved by the local authorities, "proposed" works at the time of on have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. n District Council; R.D.C. for Rural District Council; E.C. for Education Committee; Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

RE.—Plans passed: Villa at The Grove, for pe Harris.

TON.—Sanction has been received from the he erection of an additional 103 houses on oration's Laneside Estate. The C.W.S. ed terms upon which they would be prepared nd a small committee has been appointed to

ON.—The U.D.C. are to proceed with a new scheme, comprising the laying of a main er between four to five miles in length, from and Hurst, to the sea, at a point south of Point. The estimated cost is £110,000, and eme, prepared by Messrs. Taylor & Wallin, of Newcastle, the work is divided into three

HAW.—Plans passed by U.D.C.:—Semi- houses, junction of Stamford-road and n-road, for Rough Cast Building Co.

APLE.—The T.C. has received authority from for the erection by private enterprise of a 0 houses. The Housing Committee has invite tenders for a further 13 houses, and ucted the Surveyor to ascertain whether any builders will be willing to erect a further houses on the Newport site and upon what

-The T.C. has approved plans for the erection ost Office in Northgate-street and New Bond-

T.—Plans passed. Five houses, Irwin-drive, ffin; store, Nelson-street, for R. Craig & ; four houses, Ballygomartin-road, for ousin & Co., Ltd.; shops, offices and ware- ing-street, for John Adams; two houses, Park-gardens, for N. B. Kilpatrick; 16 aryville Park, for A. McDowell; house and l, Lisburn-road and Malone-avenue, for Miss ster and Miss A. E. Taylor; four houses, , for W. J. Ervine; five houses, Newtownards er, for J. Robinson; two houses, Grasmere- for T. McCullough; house, Sans Souci Park, K. Macrory; conversion of stables and stores es, Holywell-road and Station-road, for the state, Ltd.; conversion of shop into two hankill-road, for A. H. Newell; 18 houses, -avenue, for F. Mulligan; 10 houses, Victoria- and Tokio-gardens, for Wm. McKay; 18 Hillsborough-drive, for T. McKee & Sons; ses, Irwin-drive, for J. H. Barton; nine Stranmillis-road and Lockview-road, for W. ight houses in Glandore-street and Glanworth- H. Turtle; shop and house, Trillick-street, for . Moore & Co., Ltd.; four houses, Ailesbury- W. Johnston; two houses, Oldpark-road, for McKibben; lecture hall, Lockview-road, n-street, for committee of Fisherwick Presby- hurch; re-building school, Richardson-street, Canon G. Crolly, P.P.; eight houses, Oldpark- r J. Carson & Sons; four houses, Taunton- for S. Ewing & Sons, Ltd.; two houses, n-gardens, for J. S. Gillespie; 10 houses, ank-street, for J. Kyle; 12 houses, Sagimor- for H. Mills; two houses, Cregagh-road, for ronne; house, Donegall Park-avenue, for J. y; house, Bawnmore-road, for W. B. R. Joy; n of two houses into two shops and houses, Pass, for H. Reid; stores, Ballarat-street, hill & Craig, Ltd.; two houses, Wandsworth- for R. O. Templeton; 13 houses, Haypark- nd Ailesbury-road, for H. & J. Martin, Ltd.; s, Onslow-gardens, for H. & J. Martin, Ltd.; ses, Ebrington-gardens, for J. Moore; four f Belmont-road, for J. McMaster & Sons; ses, Stranmillis-road, for J. & A. D. Shortt; s, Kerrsland-crescent, and drive, for R. Hewitt; ses, Luxor-gardens, for J. McMillan; conver- shops and dwelling into shops and offices in -road and Dublin-road, for M. Hunter and t.

LL.—The Chamber of Trade has passed a n urging on the T.C. to proceed with a scheme tertainment hall on the coastguard site.

PS STORTFORD.—Plans passed by U.D.C.: ttages in South-road, for Mr. E. Markwell; outh-road, for Mr. A. N. Mercer; and one in ad, for Mrs. E. Reeves.

BURN.—Plans passed by T.C.: Sub-station, -street, by the Electricity Department; boiler- une-street, by Mr. John Smethurst; bungalow, road, by Mr. John Whalley; four houses, e, by Messrs. H. Duckworth & Son.

N (CORNWALL).—The U.D.C. has decided to the M.H. for sanction to erect a further ten

NEMOUTH.—A scheme of extensions to cost 50,000 has been agreed on, for the Royal and West Hants Hospital.

N (LINCS.).—The T.C. have approved of plans erection of a new electric power station near s, to be erected by the Boston and District Light Co., Ltd.

PTON.—Plans passed by R.D.C.: House in d, for Mr. Geo. Park, architect Mr. T. T. Scott); bungalow, How Mill, Messrs. Ridley, for z.

TON.—A sub-committee is to consider a tidal ject, recommended by the Works Committee.

BRYNMAWR.—The Breconshire E.C. has decided to expend £200 in extending the Physics Laboratory at Brynmawr County School.

BURNLEY.—Plans passed by T.C.:—Two houses, Rock-lane, by Mr. J. Nuttall; six houses, Moseley-road, by Mr. J. Nuttall; four houses, Queen's-road, by Messrs. Butson, Clegg & Holdsworth.

BUXTON.—Plans passed by T.C.: Messrs. W. & E. T. R. Bradbury, two detached houses, Green-lane; Mr. B. S. Meek, house, Macclesfield-road; Mr. M. E. Kershaw, house, Green-lane; Mr. J. H. Bowden, house, Green-lane.

CHACEWATER (CORNWALL).—The inhabitants propose to erect a public hall for the village and neighbourhood, and it is to be decided whether it will be a concrete or wooden building.

CHELMSFORD.—Plans for a new infirmary and nurses' block to be erected to the south of the present infirmary at the Guardians' Institution have been approved by the Board.

CONSETT.—The U.D.C. have received the sanction of the M.H. for the building of 106 additional houses. It has been agreed to borrow £27,771 for building purposes.

CORK.—At a meeting of the Council to consider the question of taking steps to erect municipal offices to replace the destroyed City Hall, it was decided to proceed with the erection of the Anglesea street portion o the new buildings, which will house the staff and also provide a Council Chamber.

DARLINGTON.—The T.C. have approved the following plans:—Ten houses, Bowman-street, for W. E. Moody; house, Mildred-street, for Messrs. W. W. Lee & Son; two houses, Pierremont-gardens, for J. E. Chilton; house, Linden-avenue, for A. Marshall; new street, continuation of Milner-road and Leafield-road South (back), for Clark & Moscrop.

DEERNESS.—The Deerness Aged Miners' Homes Committee (County Durham) are negotiating for land at Quebec Drill Hall, for the purpose of erecting 12 homes.

DEWSBURY.—Plans passed by T.C.: Bungalow, Field-lane, Ravensthorpe, for Mr. C. Brook; shop premises, Queensway, for Mr. Salinsky; house, Leeds-road, for Mr. A. Ross; warehouse, Bank Top, for Messrs. Thomas Porritt & Sons; house, Wakefield-road, for Mr. F. Bannister. An electricity sub-station is to be erected at Bank Top.

DOVER.—The Housing Committee of the T.C. have decided to erect 63 more houses. The houses are to be built at Dodd's-lane, Buckland (16), Goschen-road, Tower Hamlets (17), Astor-avenue, Tower Hamlets (20), and Buckland Housing Estate (10).

DUNDEE.—Plans and sections of proposed new buildings, &c., lodged at the Office of the City Engineer: Byron-street, warehouse, for Francis Stevenson & Sons, Ltd.; Park-road, bungalow, for the Misses Findlay; Seagate, fire-escape stairway, for John Robertson & Son, Ltd.; Seagate, fire-escape stairway, for Tay Bonding Co., Ltd.; Yeaman Shore, warehouse, &c., for Peebles Bros., Ltd.

DURHAM.—The R.D.C. has decided to erect 16 houses each at Bearpark and Ludworth, and 14 each at Ushaw Moor and Pity Me. The C.C. has decided to erect a new bridge over the River Derwent, the Winlaton Mill Railway and Shotley Bridge turnpike. The estimated cost is £60,000.——Plans passed by T.C.: Mr. F. Stonebridge, bungalow, Sunderland-road; Mr. F. Beevers, six houses, Kepier-terrace.

EASINGTON.—The R.D.C. has agreed to the recommendations of the appointed committee for the completion of the road from Haswell Plough to Thornley *via* Ludworth. Each of the respective Councils to bear its own share of the cost.

EAST LOTHIAN.—At a meeting of the East Lothian Western District Committee, reference was made to the applications which had been submitted for subsidies in respect of building houses by private builders. Of the scheme of 300 houses authorised, 242 had been taken up. The Edinburgh Collieries Company proposed to erect 48 houses at Tranent and 160 at Preston for their miners. The Council agreed to make advances of £60,000 on the valuation of these houses.

EDINBURGH.—Warrants granted by Dean of Guild Court: R. Middlemass & Son, Ltd., biscuit manufacturers, for reconstruction work at the scene of the recent fire at their premises in Causewayside; David Andrews, motor garages at 13, Craiglea-drive; Eli Brown, bungalow in Saughton-road, Corstorphine; Niddrie and Benhar Coal Co., Ltd., tenement of four houses at Newcraighall; R. Noel Oswald, bungalow and garage Alnwick Hill-road; William R. Ovens, bungalow, Boraston-Knowe, Blackhall; George Roberts, two double villas, Ravelston Dykes; Dr. L. Thatcher, convert house into two separate houses at 8, Melville-crescent; D. C. White, convert house into three separate houses at 33, Buckingham-terrace; Oldrieve, Bell & Paterson, bungalow, Lanark-road, Kingsknowe. —The T.C. has approved of a scheme for clearing the slums in Cables Wynd district, at a cost of £386,000. Six hundred and twenty-two houses will be dealt with.

EPSOM.—The Cottage Hospital extension scheme is estimated to cost £6,000.

FAREHAM.—Plans passed by U.D.C.: Mr. J. Bowron Baker, house, Hill Park; Mr. George Rampton, two houses, Gosport-road.

FALKIRK.—Dean of Guild Court has passed plans, on the application of the Union Bank of Scotland, Ltd., Ingram-street, Glasgow, for the conversion of two shops in Vicar Chambers, Vicar-street, Falkirk, into bank premises.

FLEETWOOD.—The R.D.C. has made application for sanction to borrow £25,045 for the construction of open-air baths and development of the foreshore, and in this connection a M.H. enquiry has been held, at which there was no opposition.

GLAMORGAN.—The Senghenydd Local Welfare Committee is to receive a preliminary grant from the Miners' Welfare Fund of £2,000 to £3,000 and will proceed to lay out recreation grounds.—A petition has been presented by the Ynysybwl district inhabitants to the B.E. asking that a new higher education central school be set up there.

GUILDFORD.—The M.H. has sanctioned a loan of £25,500 for the erection of 58 houses in Guildford Park.

GUISELEY.—The local Baptists are raising funds for the erection of a proposed new church, at an estimated cost of £4,000.

HASTINGS.—Plans passed by T.C.: House, Old London-road, for H. J. Richardson; two houses, Downs-road, J. Hunt architect, for J. Brown; conversion of stables to houses, Harold-road, P. H. Oxley architect, for W. Goodwin; four cottages, Red Lake, H. Coussens architect, for T. F. Smith; four houses, Canute-road, J. Hirst architect, for A. Small & Sons; villa, Adelaide-road, for C. Walton; four houses, H. J. Richardson architect, for H. Harvey; four houses, Victoria-avenue, D. B. Sceats, for Maidwell & Emerton.

HEBBURN.—The St. John Ambulance Brigade and Nursing Division are to erect a headquarters at a cost of about £2,000.

HORBURY.—Plans passed by U.D.C.: Shop, Northfield-lane, for Mr. Wood; two houses, Regent-street, for Mr. R. Hemingway; two houses, Rayner-street, for Mr. J. Dyson.

HOVE.—The T.C. has had under discussion the construction of an artificial lake and bathing pool.

KIRKCONNEL.—The Sanquhar and Kirkconnel Collieries, Ltd., are forward with a scheme to erect 100 houses at Kelloholm, Kirkconnel.

KIRKINTILLOCH.—The Dean of Guild Court has passed plans for the erection of a Miners' Welfare Institute. The building is to be erected in Industry-street. The total cost, including purchase of ground, is estimated at about £5,000.

LEEDS.—The T.C. has approved of subsidies in respect of the following houses: Mr. G. M. Robertson, two houses, Grove Hall-drive, Beeston; Mr. W. Stockdale, house, Edmonton-place, Chapel Allerton Hall Estate; Mrs. S. J. Bradley, house, Edmonton-place, Chapel Allerton Hall Estate; Mr. A. W. Overton, house, Edmonton-place, Chapel Allerton Hall Estate; Mr. R. C. Burrows, house, Edmonton-place, Chapel Allerton Hall Estate; Mr. T. H. Worsick, house, Edmonton-place, Chapel Allerton Hall Estate; Mr. W. A. Dyson, house, Edmonton-place, Chapel Allerton Hall Estate; Mr. Alfred Booth, eight houses, Barkly-road, Beeston; Mr. G. W. B. Tallant, house, Grove Hall-drive, Beeston; Mr. J. W. Dawson, house, Grove Hall-drive, Beeston; Mr. S. Auty, house, Grove Hall-drive, Beeston; Mr. P. Tempest, house, Grove Hall-drive, Beeston; Mr. Thomas Armitage, bungalow, Armley Ridge-road; Mrs. Ann Stirling Simpson and Mr. Thomas Wright, two houses, Sandiford-terrace, Manston, Cross Gates; Messrs. A. Roddy & Sons, 12 houses, Old-lane, Beeston; Mr. A. S. Wadsworth, two houses, Butt-lane, Farnley; Mr. J. B. Johnson four houses, Roman-view, Roundhay.

LITTLEHAMPTON.—A committee has been appointed to report to the Harbour Commissioners on the steps to be taken in connection with the harbour works.

LINLITHGOW.—A scheme is on foot for the provision of a public institute for the town. A committee has been appointed to prepare details.

LISKEARD.—The T.C. Waterworks Committee has decided to proceed at once with the laying of a new pipe from Culverland to Looedown, at an estimated cost of about £211.

LONDON (CAMBERWELL).—Block of shops with billiard hall over, corner of Peckham Rye and Nunhead-crescent, for Dowton & Co.; rebuilding of 50 New Church-road, for P. A. Hamilton; shop buildings, 37 to 57, Peckham Rye, for G. Trotman; building, 2, Middle-street, for F. J. Wallis.

LONDON (LEWISHAM).—Plans passed by B.C.: R. J. Aitchison, two houses, Elsinore-road, and two Woolstone-road; W. F. Ball, three houses, Bonfield-road; J. Garrett & Son, Sunday School and Institute, Brownhill-road; H. W. Laxton, two houses, Cranston-road; T. H. Sawyer & Son, house, Belmont Hill; H. R. Wall, 12 houses, Bellingham-road,; J. Francis, two houses, Belmont Hill; E. Douglas Selway, 11 shops with flats over, Randlesdown-road.

LUTON.—Plans passed by T.C.: N. Hill, house, Mansfield-road; C. Jeyes, house, Arundel-road; Mrs. A. M. Schœppler, shop, Castle-street; Luton Suburban Estates, Ltd., making road, Carlton-crescent; Buckingham & Long, villa, New Bedford-road; H. C. Dimmock, two houses, Alexandra-avenue; A. Cole, Ltd., twelve houses, Richmond-hill; A. Catlin, four houses, Biscot-road; A. Tate, house, Lincoln-road; G. Kingham & Sons, house and shop, Biscot-road; J. Snoxell, two houses, Dunstable-road; Mrs. S. A. Taylor, five houses, Turner's-road; W. J. Wells, four houses, Lincoln-road; P. Wright, house, Biscot-road; P. & A. Chapman, four houses, Carlton-crescent.

MANCHESTER.—Plans passed: Two houses, Butler-street, Gorton; two houses, Seymour-avenue, North-road, Clayton; shop and offices, Nos. 60A and 60B, Oldham-street; 14 houses, Hill-lane, Blackley; two shops and houses in lieu of two houses, Beaver-road and Veronica-road, Didsbury; four houses, Lindsay-road, Devon-avenue and Paignton-avenue, Burnage; four houses, Cotton-lane, Withington; rebuilding of brass foundry, Crown-street and Southern-street, Hulme; synagogue, Lansdowne-road, West Didsbury; house, St. Brannock's-road, Chorlton-cum-Hardy; house, St. Werburgh's-road North, Chorlton-cum-Hardy; house, Withington-road, Chorlton-cum-

Hardy; lock-up shops, Denmark-road, Chorlton-upon-Medlock; conversion of house into shop and house, 26, Moss-lane West and Bishop-street, Moss Side; conversion of house into shop and house, 22, Ashton New-road, Beswick; shipping warehouse, Aytoun-street, Bloom-street, and Auburn-street; cabinet factory, Sherborne-street, Cheetham; rebuilding of premises, King-street and South King-street; shops and offices, South King-street, Bow-street, and Ridge-field; rebuilding of church, Palatine-road, Withington.—Plans passed by the Corporation: T. Rushworth, conversion of one house into two houses, Bennet-street, Crumpsall; H. Busker, six houses, Castlebury-road and Cavendish-road, Chorlton; E. Leech, eight houses, Polruan-road and Kensington-road, Chorlton; W. Longfield, two lock-up shops, Claremont-road; Rusholme; H. P. Davies, eight houses, Kensington-road and Rippendale-avenue, Chorlton; Roughcast Building Co., 188 houses, Parrs Wood-drive, Parrs Wood-avenue, Park-avenue, Rectory-avenue, Cedar-road, and Cedar-avenue, Didsbury; Manchester & Salford Co-operative Society, four houses, Birch Hall-lane and Thoresway-road, Rusholme; H. O'Neill and H. C. Barkwort, two houses, Parsonage-road and Alan-road, Withington; Salvation Army Authorities, meeting hall, Osborne-road, Harpurhey; H. Bradshaw, six houses, Hill-lane, Blackley; G. W. Pendlebury, two houses, Seymour-avenue, Clayton; Mrs. H. H. Gaffney, two houses, Ryebank-road, Chorlton-cum-Hardy.

MERTHYR TYDFIL.—Plans passed by B.C. are as follows:—Villa at The Grove, for Mr. D. Cope Harris. The Merthyr Labour Club and Institute wish to alter the boundary wall of the grounds of Court House and build a new entrance. A sub-committee of the B.C. has been appointed to co-operate in this work.—The Public Works Committee proposes to expend £2,400 in widening the Taibach-road, Pentrebach.—The Parks Committee proposes to spend £3,650 on improving Cyfathfa Park.

METHLEY.—It is proposed to reconstruct the roof of the chancel of the Methley Parish Church and the east end. It is further proposed to build a permanent vestry.

MEXBOROUGH.—The M.H. held an inquiry into the U.D.C.'s application to borrow £3,000 for the replacing of old and choked water mains, and £1,750 for the installation of a bore-hole pump.

MIRFIELD.—Plans have been approved for the erection of an electricity sub-station at Old Bank-road, for the Yorkshire Electric Power Co., Ltd.

MONMOUTHSHIRE.—The Ynysddu Building Club is to erect 20 houses.—The Bedwas and Machen U.D.C. is to erect a sub-transmission station at Machen.—The Bedwellty U.D.C. proposes to build a new road from Markham to Bedwellty.—The Caerleon U.D.C., as a result of public inquiry held by the M.H., has received sanction to complete a £2,000 drainage scheme subject to an undertaking being given to join in with the main drain of proposed new Eastern Valleys drainage scheme if this eventuated.

MORPETH.—The R.D.C. have approved plans submitted by the Cowpen Coal Co., Ltd., for the erection of 44 houses at North Seaton.

NEWPORT (ISLE OF WIGHT).—Plans passed by T.C.:—Two houses, Carisbrooke-road, Messrs. Stratton & Millgate, architects for Mr. C. E. Bunce.

NEWPORT (MON.).—Plans have been submitted to the B.C. for the widening of a stretch of Shaftesbury-street to Mill-street. The alternate schemes are for (*a*) a roadway 50 ft. wide, and (*b*) 60 ft. wide, at respective estimated costs of £10,400 and £14,100. The Parliamentary Committee recommends the Council to adopt the bigger scheme.

NORHAM.—Bungalow, Etal-road, for Mr. J. H. Lyall.

OSSETT.—Plans have been approved for the erection of extensions at the Grammar School, including increased gymnasium accommodation, at an estimated cost of £3,700. The local Education C. have been notified by the B.E. that they are prepared to consider the proposal for the erection of a new school at Gawthorpe.

OXFORD.—Plans passed by T.C.: B. Blackwell, 1, Frenchay-road, house, Northmoor-road Extension; Mrs. A. T. Lucas, 34, Minster-road, house, Hill Top-road; Balliol College, two houses, Mansfield-road; Mr. C. Wright, 45, Norfolk-square, W. 2, three houses, Northmoor-road Extension and one Manor-place, Holywell; Miss D. M. Bigg, 15A, St. Clement's-street, house, Woodstock-road; The Misses Allen, 79, Iffley-road, house, Manor-road.

PEMBROKESHIRE.—The Haverfordwest R.D.C. has passed plans:—Bungalow at Solva, for Mr. Ivor Lawrence.—The Pembroke R.D.C. proposes to carry out road improvement schemes as follows:—To Neyland-Milford road, at an estimated cost of £6,000; to Neyland-Steynton road, at an estimated cost of £1,000.

PINXTON.—The contract for the building of the Institute to be erected under the Pinxton Collieries Welfare Scheme has been placed with Messrs. Greenwoods, Ltd., Mansfield, who are to commence work forthwith.

PLYMOUTH.—Plans passed by T.C.: Solomon & Renny, two houses, Thornhill Way, Thornhill Estate; A. Blatchford, house, Lyndhurst-road; F. Worden, 15 houses, Holland-road; A. Spurrel, house, Compton Park-road; C. H. Bulley, seven houses, Thornhill-road, Home Park Estate; W. C. Griffiths, bungalow, Wolseley-road, St. Budeaux.

PONTEFRACT.—Plans passed: Electricity sub-station at Townville, for the Yorkshire Electric Power Co., Ltd.; bungalow, Townville, for Mr. J. H. Burnhill; bungalow, Townville, for Mr. H. Pratt; house, Baghill-lane, for Mr. J. E. Fryer; house at Ackworth-road, Carlton, for Mr. G. W. Shephard.

ROMFORD.—The M.H. have intimated their approval of a proposal of the Romford Guardians to carry out a comprehensive scheme of additions and improvements to their institution at a cost not exceeding £98,790.

ROTHERHAM.—The T.C. has approved a scheme for the erection on the Corporation housing site of four shops with eight flats above.

SCUNTHORPE.—The L. & N.E.R. Co. has agreed to construct the Station-road diversion road and bridge to a width of 45 ft. between fences. Also to form a pathway 10 ft. wide from between the diversion road and the Brigg-road.

ST. HELENS.—The E.C. is recommending the extension of the Cowley Boys' Secondary School and the Middle School for Girls and the erection of a new boys' school.

SOUTH SHIELDS.—Plans passed by T.C.: Messrs. T. A. Page & Sons, for Mr. Gompertz, re-building of premises, Laygate-lane; Mr. W. Hardy, house, The Lawe; Mr. J. W. Nichol, for Mrs. Betsy Ward, bungalow, Sunderland-road, Harton; Mr. F. W. Newby, for G. D. Davis, shop, 138, Adelaide-street; Messrs. Davidson & Sherwood, house, Central-avenue, Harton; Messrs. T. A. Page & Sons, for Mr. Milton Swales, two houses, North-avenue, Harton; Messrs. T. A. Page & Sons, for Mr. A. Ridley, two houses, North-avenue, Harton.

SOWERBY BRIDGE.—The U.D.C. has decided to apply to the M.H. for sanction to borrow £10,687, for erecting twenty more houses at Albert-road.

STOCKTON.—Plans have been passed by the T.C. for the following: Two semi-detached houses, Oxbridge-lane, for Messrs. H. C. & J. C. Watson; two semi-detached houses, Oxbridge-lane, for Messrs. R. Johnson & Son; two pairs of semi-detached houses in Imperial-crescent, Norton, for Messrs. Blackall's Construction Co., Ltd.

STRANRAER.—The Dean of Guild Court has granted warrant to the T.C. for erection of a block of four two-story houses.

STRETFORD.—Plans passed by U.D.C.: Thirteen houses, Beresford-road and Burleigh-street, for Messrs. H. Hampson & Co.; two houses, Gorse-lane, for Messrs. G. H. Brown & Sons; four houses, St. John's-road, for Mr. Thomas Hames; six houses, King's-road, for the Artistic Housing Co., Ltd.; two houses, Skerton-road, for Messrs. Winders & Tindale; sewering, &c., Sixth-street extension, for Trafford Park Estates, Ltd.

SWALWELL.—The Durham C.C. have decided to replace the existing Swalwell Bridge on the main Gateshead-Hexham road, which is to cost approximately £60,000.

TAPCASTER.—Plans passed by R.D.C.: Two houses at Owlett Hall-lane, Kippax, for Messrs. A. Bleasby and W. Shackleton; blacksmith's shop on Wetherby-road, Barwick, for Mr. G. T. Scott.

TORQUAY.—Plans passed by T.C.: Mr. Taylor, bungalow, Higher Windsor-road: Messrs. Vanstone & Sons, house, Seaway-lane, Chelston; Messrs. Fawcett, Easterbrook & Pappin, three houses, Westhill-avenue; Messrs. Taylor, Cummings & Steer, three houses, Westhill-avenue; Mr. Distin, house, Barrington-road; Messrs. T. Vanstone & Sons, 64 houses, Daison Estate; Mr. C. S. Appleton, bungalow, Rowley-road, St. Mary-Church; Messrs. Sture, Drew and Gerry, three houses, St. Margaret's-avenue; Mr. E. Gaunt, two houses, Newton-road; Mr. W. B. Moxhay, four houses, Hartop-road; Mr. G. H. Gayton, four houses, Hartop-road, St. Mary-Church; Mr. Hoare, house, Sherwell-lane; Mr. Forrow, house, Sherwell-lane; Mr. Foot, house, Sherwell-lane; Mr. B. Hooper, house, Sherwell-lane; Mr. J. R. Southcott, house, Sherwell-lane; Mrs. Gooding, house, Sherwell-lane; Co-operative Society, Ltd., shop, 32, Park-road, St. Mary-Church; Mr. W. H. J. Whittall, house, Lower Lincombe-road; Mr. Bell, bungalow, Blackshill, St. Mary-Church; Messrs. Riggs, Waldron & Co., eight houses, Sherwell-lane; Mr. Penwill, three houses, Shiphay-lane; Miss Hall, house and shop, Fore-street, Barton; Mr. F. W. Phare, house, Wheatridge-lane; Messrs. Gaunt & Gaunt, three houses, Westhill Estate, Empire-road; Messrs. Gaunt & Gaunt, 12 houses in Sherwell Valley, off Mallock-road; Messrs. Ball & Wilkinson, 23 houses adjoining Lummaton Quarry, Happaway-road; Mr. R. Luton, house, Mallock-road; Mr. Olding, house, Mallock-road; Mr. Stone, house, Sherwell-lane.

WAKEFIELD.—Plans passed by City C.: House, Welbeck-street and house in Barnsley-road, for Mr. J. Charlesworth; four houses, Thornes-road, for Mr. H. Fisk; two houses, Thornes-road, for Mr. H. Lumb; offices, warehouse, garage, dining-hall, &c., at Bective Mills, for Messrs. Harrop Bros.; house, Horbury-road, for Mr. W. Fisher; house, Eden-avenue, for Miss Hodgson; house, Thornes-road, for Mr. H. Bellamy; two houses, Thornes-road, for Mr. J. H. and Miss Perkins; and seven houses, Thornes-road, for Mr. A. E. Lockwood.—The City C. are making application to the M.H. for sanction to borrow £88,000, for the purposes of remodelling the Calder Vale Sewage Disposal Works, also for £88,050, for the purposes of erecting 200 concrete houses on the duo-slab principle; also for £28,000, for developing the Lupsett estate.—The West Riding C.C. propose to provide public elementary schools at Bentley, Edlington, and Rossington.—Plans passed by T.C.:—Mr. Herbert Dobson, house in Barnsley-road and Welbeck-street, for Mr. J. Charlesworth: Mr. J. P. Firth, offices, warehouse, garage, dining hall, dye-store, &c., Bective Mills, Alverthorpe, for Messrs. Harrap Bros.; Mr. W. H. Ogden, shop in Doncaster-road, for Mr. J. Jacklin; Mr. James Dyson, house in Horbury-road, for Mr. W. Fisher; Mr. J. Foster, house, Eden-avenue, for Miss Hodgson; Mr. W. H. Ogden, stable and store-room, Doncaster-road, for Mr. G. W. Lunn; Mr. H. Dobson, two houses, Thornes-road, for Mr. H. Lumb; Mr. H. Dobson, four houses, Thornes-road, for Mr. H. Fisk; Messrs. Bell & Kay, house, Thornes-road, for Mr. Herbert Bellamy; Messrs. Bell & Kay, two houses, Thornes-road, for Mr. J. H. and Miss Perkins; Messrs. Bell & Kay, seven houses, Thornes-road, for Mr. A. E. Lockwood.

WATFORD.—Plans passed by T.C.: Pair of semi-detached houses, Sherwood-road, Mr. E. W. Puddifoot; shop, St. Alban's-road, Mrs. E. Williams; house, Oxhey-road, Mr. J. B. Porter; house, Bushey Mill-lane, Mr. A. J. Wiggs; house, Green-lane, for Mr. W. T. Griffin; addition, Oxhey-road, Mr. R. J. Lindsay; house, Hempstead-road, Messrs. Clark Bros.; two houses, Clifton-road, Mr. F. Ausden; three houses, Bushey Mill-lane, Mr. A. T. Janes; house, Bushey Mill-lane, Mr. E. Wells; house, Bushey Mill-lane, Mr. F. A. Bagley; four houses, King George's-avenue, for Messrs Ings, Clark, Garrad, and Brightman; pair of detached houses, rear of St. John's-road, Mrs. E. factory, King George's-avenue, Mr. S. Wallis road and sewers, Rickmansworth-road, Messrs. & Gough.

WEST HARTLEPOOL.—The T.C. have approv following plans: Hartlepool Co-operative Soci houses, Patterdale-street; Mr. J. R. Winter, bu Stockton-road; Mr. S. Jackson, two houses, St road; Messrs. Robinson & Brudenell, two detached houses, Bolton-grove, Seaton Carew; M. Tweddle, 10 houses, Allendale-street, Seaton Mr. P. Anderson, house, Caledonian-road; M Anderson, house, Caledonian-road; Mr. J. H cartwright's shop, Oxford-road; Mr. C. Turnb semi-detached houses, Chatham-gardens; S. E. bungalow, Caledonian-road.

WEYMOUTH.—Plans passed by T.C.:—Bu Fernhill-avenue, Jenkins, Hilt, & Grant, for H Jenkins; house, Roman-road, H. E. Daffern, Barrett; flats, Ican-road, Jesty & Baker, fo Baker; 11 bungalows, Southlands-road, S. J & Sons, for K. Openshaw; house, Fernhill-a Jenkins, Hitt & Grant, for H. Jenkins.

WILLINGTON.—The U.D.C. have decided to struct the main road for about one mile, ex from Whitehouse through Willington to Cur Bridge, on the Crook boundary. The estimat is £33,000.

WINCHESTER.—Plans passed by R.D.C.: H Littleton, C. A. Lund; farm cottages, Hoo Whitcher; two bungalows, Stoney-lane, Andov E. F. Johns; two cottages, Sandy-lane, Fai R. A. Mears.

WORKINGTON.—The T.C. are marking an app to the M.H. for permission to erect 200 houses first instalment of a building scheme.

WORTHING.—The T.C. has approved of a rec dation to erect a pavilion and bandstand at the £34,500 and £23,900 respectively. Messrs. Ad Ramsey are the architects. Plans passed: Two St. Thomas's-road, for W. G. Sisman; six Grand-avenue, for D. S. Barclay; two hou garage, South Farm-road, H. M. Potter, fo Standen; house, Broadwater-road, F. G. A A. W. Cæsar; house and garage, St. George J. E. Lund, for F. H. Butler; two flats, H. C for F. H. Butler; two flats, Gerald-road, H. C for G. A. Comins; house Brooklyn-avenue, H. C for P. Sutherland; house, Abbot's Close, A Collier, for Miss Woodward; house and gar Benn, for H. Greenyer; three houses, St. Thomas for S. E. Merredew; five houses and garage, L road, J. E. Lund, for W. C. Butler; house, Br avenue, A. Clare, for Mrs. Hughes; eight house road, for A. Clare; three houses, Brooklyn-ave A. Clare; depository Cross-street, Clayton & Bl Durtnall & Co.; three houses, Wigmore-road, Worthing Rotary Club; cold storage and ice factory, rear of Chatsworth-road, H. J. West Ltd., for H. Hesford; house, Goring-road, E. for L. J. M. Fisher.

WORTLEY.—The R.D.C. has received noti from the M.H. approving of the 75 additional to be built by the Council.

YORK.—Plans passed by T.C.: Yorkshire Ltd., roof to warehouse, Skeldergate; E. W house, Moorgate; S. H. Davis, house, F. J. Tucker, house, Hobgate; H. Ben Moorgate.

Fires.

EARLSFIELD.—The factory of Messrs. Hud son & Sons, cardboard box manufacturers, ha destroyed by fire.

MIDDLESBROUGH.—Damage by fire has been the warehouse of Messrs. J. Allick & Sons.

NEW COMPANIES

THE particulars quoted below have compiled by Messrs. Jordan & Sons, Company Registration Agents, of 116 Chancery-lane, W.C.2, from the doc available at the Companies' Registry.

BUILDER & SON, LTD. (195,605). Reg February 8. 1 and 2, Union-street, I Builder, trading as Builder & Son. N capital, £25,000.

"M. P." CONSTRUCTION & CLEANI LTD. (195,515). Registered February Bishopsgate, E.C. 2. Contractors, b and civil engineers. Nominal capital,

WHITEMAN & CO. (BUILDERS), LTD. (19 Registered February 4. 28, The Bro Stratford, E. 15. Builders and cont &c. Nominal capital, £1,000.

GALLAWAY & WILSON, LTD. (19 Registered February 4. 32, Portland-t Southampton. Wholesale and retail b merchants, importers of building materi allied goods, builders and contractors. N capital, £1,000.

WOOD & CO. (BRIXTON), LTD. (19 Registered February 5. 541, Static Brixton, S.W. Builders, decorators, and dealers in leasehold and freehold pr Nominal capital, £1,000.

BUILDERS (HOVE), LTD. (195,372). tered January 29. 2, Church-road, Sussex. Builders and contractors. N capital, £500.

TENDERS.

unications for insertion under this heading should reased to "The Editor," and must reach him not than Tuesday evening.
notes *accepted.* † Denotes *provisionally accepted.*
notes *recommended for acceptance.*
notes *accepted subject to modifications.*

TOFTS.—For erection of four scullery houses, for .D.C. Mr. T. H. Hailstone, Surveyor, Council s, Altofts, near Normanton :—
Harry Robshaw, Castleford £1,600

HTON-IN-MAKERFIELD.—For the erection of Central School for the Lancashire E.C. Mr. H. r, architect, Preston :—
Mr. J. Watson, Ashton-in-Makerfield.

ADFORD.—For extensions and alterations to illycroft W.M. Club at Manningham. Mr. J. on, architect, Piccadilly, Bradford :—
Masons' work—F. G. Burgess, Bradford.
Joiners' work—Wilkinson & Dawson, Bradford.

ADFORD.—For asphalters' work to the roof of rs. Charles Sykes & Co.'s extensions at Willowfield- t, Lidgett Green, Bradford. Mr. W. E. Bickers, tect, Bank-chambers, Bradford :—
Funstall's, Seysell & Limmer Rock Asphalte Co., Ltd., Leeds.

ADFORD.—For rock asphalte paving to road- at the City-road Goods Station, for the L. & N.E.R. District Engineer, Wellington-street, Leeds :—
nstall's Seysell & Limmer Rock Asphalte Co., Ltd., Leeds.

ADWELL.—For additions and alterations to e, for the Bradwell Joint Hospital Committee :—
. Wardle £220 0
Maddock Bros. 176 9
Johnson & Co. 155 10

ECONSHIRE.—The County E.C. has accepted following tender for re-building of Cwmtwrch cil School :—
H. T. Havard, Brynmawr £4,792

XTON.—For the erection of 18 pairs of parlour- houses on the Heath Grove estate, for the T.C. :—
Ridyard & Co., Ashton-under-Lyne £20,418 9 5

RSHALTON.—For the erection of six houses at alton. Mr. E. Meredith, architect, 7, Goodmayes- Goodmayes, Essex :—

	Type 2.	Type 3.	Type 4.	Total.
Cearns, Stratford :—	£1,788 10 ..	£2,017 ..	£1,831 10 ..	£5,636 0
Cooper, Ltd., London :—	1,612 0 ..	1,884 ..	1,626 10 ..	5,122 0
. Romains & Sons, Chadwell Heath :—	1,418 0 ..	1,724 ..	1,567 0 ..	4,709 0
. Gower, Ltd., London :—	1,381 12 ..	1,617 ..	1,496 0 ..	4,494 12

ERTSEY.—For extensions to sewage works at et and Pyrford, for the R.D.C. :—
Hardy & Co., Woking £7,402 14
J. Mowlem & Co. 7,492 13
W. G. Tarrant 7,975 0

ESTERFIELD.—For erection of 50 houses on field Hall Estate, for the T.C. :—
G. Webber £11,500

:OMPTON.—For the erection of new Central ol, for the Lancashire E.C. Mr. H. Littler, architect, on :—
S. & J. Smethurst, Ltd., Oldham.

ENBIGH.—For erection of seven workmen's lings, Bodhyfryd-road, for the T.C. Mr. M. E. is, Sanitary Inspector, Town Hall, Denbigh :—
J. W. Jones, Liverpool £2,900
Ellis & Hughes, Denbigh 2,772
Jones & Pritchard, Abergele 2,443
W. F. Humphries & Son, Acrefair, Ruabon 2,400
Wm. Davies, Denbigh 2,360

EWSBURY.—For painting at covered market, for C.C. :—
J. Shepley £504 16 8

STRY.—For supply of materials to the R.D.C. :—
London Granite Co.: 1,000 tons of granite, 18s. 8d. per ton.
Road Maintenance and Supply Co.: 600 tons of "quartzite," at 17s. 11d. per ton.
Wingham Engineering Co.: 800 tons of 2 in. crushed Penlee "basalt," 22s. 1d. to 23s. 6d. per ton, according to place of delivery.

ALSTEAD.—For erection of four pairs of semi- ched cottages, for the U.D.C. Mr. W. A. Nichol- Surveyor, Halstead, Essex :—
J. G. Grey, Coventry £5,349 0
G. Sudbury & Sons, Halstead .. 5,107 16
A. J. Arnold, Chelmsford 4,759 0
C. Deaves, Bures, Suffolk 4,478 0
S. G. Woodman, Halstead 4,376 0
J. S. Norton, Halstead 4,312 0

ASTINGS.—For construction of roadway to new ating station, for the T.C. :—
Fairweather & Ranger, London..... £750

HENDON.—For construction of 690 yards of 9 in. pipe sewer and surface water drainage, &c., Colin Deep-lane, for the U.D.C. Mr. A. O. Knight, Surveyor, Town Hall, Hendon, N.W. :—
E. H. Jackson, Hornsey £2,331 8 0
London County & Public Works, Ltd., London, W.C. 2,192 9 6
Moss & Sons, Bloomsbury, W.C. 1,951 4 6
Chas. Carter, Golders Green.. 1,921 7 0
*Thos. Adams, Wood Green .. 1,903 0 0

HENDON.—For construction of sewage disposal works and sewerage and drainage works, for the U.D.C. Mr. A. O. Knight, Town Hall, Hendon, N.W.4 :—
D. T. Jackson, Barking, E... £65,130 14 2
Muirhead & Co., Westminster 64,520 16 9
G. Bell & Sons, Tottenham.. 59,830 0 0
Howard Farrow, Golders Green..... 59,758 3 4
*William Moss & Sons, Bloomsbury-street, W.C. 59,658 10 5

HENDON.—For erection of 44 houses and eight flats, Kingsbury-road, for the U.D.C. Mr. A. O. Knight, Engineer, Town Hall, Hendon, N.W.4 :—
S. Merton Hughes, Barons Court £29,969 0 0
A. J. Hill, Hendon 26,736 0 0
Arthur Cole, Ltd., Luton.... 26,271 0 0
W. Jones & Sons, Victoria-street, Westminster..... 25,549 17 11
*R. L. Tonge, Watford 24,436 0 0

HUNSWORTH.—For laying a 6 in. water main, extending from Tong Cemetery to Brierley Bar, for the Hunsworth U.D.C. :—
*R. Naylor & Sons, Girlington.

KINGSTON-ON-THAMES.—For the erection of 20 houses at Cambridge-road, for the B.C. :—
*H. H. & F. Roll £12,598

LEEDS.—For wrought iron fencing and gates at (*a*) Middleton Park, and (*b*) Cross Gates Recreation Ground, for the T.C. :—
*G. Westmoreland & Son—(*a*) £717 3s., and (*b*) £412 18s. 6d.

LEEDS.—For construction of ladies' lavatories in Mansion-lane, Roundhay, for the T.C. :—
*G. Monkman £2,435 9

LEEDS.—For painting works, at Killingbeck Sanatorium for the T.C. :—
*H. Shann £221 7

LEEDS.—For painting work for the Health Committee, of the T.C. :—
*H. Shann—Seacroft Hospital £1,261 7 4
*L. C. Wilkinson—Nurses' Hostel, 5 and 6, Blenheim-square 148 11 0
*L. C. Wilkinson—Health Department Offices 325 7 0

LEEDS.—For supply of cast-iron frames, covers, &c., required for Leighton Reservoir, for the T.C. :—
*Ellerby Foundry Co. £146

LEEDS.—For supply of 30,000 engineering bricks for Bywash Bridge, for the T.C. :—
*Geo. Armitage & Sons—£5 per 1,000.

LEEDS.—For supply of 5,500 tons of gravel and 3,500 tons of sand, for the T.C. :—
*B. Whitaker & Sons—11s. 6d. per ton.

LEYTONSTONE.—For conversion of classroom to laboratory at County High School, for the Essex C.C. :—
*North of England Furnishing Co. £173 9 2

LIVERPOOL.—For erection of 31 "B" type houses at Springwood Estate, Allerton, for the T.C. :—
*J. Jones & Son £15,345

LIVERPOOL.—For the erection of 93 "B" type houses on Larkhill Estate, for the T.C. :—
*C. J. Doyle £48,825

LIVERPOOL.—For erection of 24 "A" type houses on Vale-road, Woolton, for the T.C. :—
*J. Jones & Son..... £9,768

LIVERPOOL.—For construction of roads and sewers on Larkhill Estate, for the T.C. :—
*Lawrence Marr & Son..... £493 15 1

LIVERPOOL.—For construction of roads and sewers on the Springwood Estate, Allerton, for the T.C. :—
*W. F. Chadwick, Ltd. £10,257 14 9

LIVERPOOL.—For the construction of roads and sewers on the Edge-lane-drive Estate, for the T.C. :—
*W. F. Chadwick, Ltd..... £4,568 17 4

LONDON.—For painting East Lewisham Properties (16 flats), for the Lewisham B.C. :—
*H. E. Brown, ... £118 12 0
W. Goddard & Son 119 10 0
A. T. Peyton 123 5 6
R. Cabell 125 2 6
Burke, Collins & Co., Ltd. (Incomplete tender) 151 12 3

LONDON.—For repairs at 13–21, Lee-terrace, for the Lewisham B.C. :—
*A. T. Peyton..... £130 8

MANCHESTER.—For the rebuilding boundary wall of Didsbury College, for the Manchester Corporation :—
*T. Campion & Son £518

METROPOLITAN ASYLUMS BOARD.—The following tenders have been received :—

High Wood Hospital for Children—Erection of balcony and veranda—
T. W. Palmer & Co. £1,470 0 0
F. W. Jarvis 1,036 0 0
H. C. Horswill..... 1,030 0 0
W. S. Sharpin..... 880 0 0
*Wm. Simms, Stepney 746 0 0

South Eastern Hospital—Cleaning, painting and repairs—
The Marvello Co. £1,728 0 0
H. A. Thomas & Son..... 1,200 0 0
Norfolk Decorators, Ltd..... 1,193 6 8
J. S. Fenn 1,098 0 0
A. T. Peyton..... 1,024 0 0
J. Hocking & Co. 998 0 0
A. H. Inns, Ltd..... 997 0 0
L. Kazak..... 996 0 0
W. Bickerton..... 985 0 0
E. Proctor & Sons..... 903 0 0
*D. C. Bowyer, Belvedere..... 883 10 0

Joyce Green Hospital—Cleaning, painting and repairs—
Norfolk Decorators, Ltd..... £2,490 12 0
H. A. Thomas & Son..... 2,008 0 0
J. Hocking & Co. 1,970 0 0
P. Miller & Son..... 1,799 0 0
Barnes & Co..... 1,605 0 0
E. Proctor & Sons..... 1,600 0 0
J. S. Fenn 1,597 18 0
L. Kazak..... 1,545 0 0
*D. C. Bowyer, Belvedere..... 1,329 9 6

St. Luke's Hospital—Additional coke store, etc.—
W. Church £175 0 0
R. A. Evans & Co..... 151 0 0
*D. Leighton & Son, Lowestoft.. 147 0 0

Pinewood—Formation of water storage tank—
Norris & Co. (Builders), Ltd... £243 0 0
*Spear & King, Berks..... 225 5 0

Pinewood—Provision of fire escape staircases—
Stock & Collings..... £166 0 0
T. W. Palmer & Co..... 166 0 0
J. & W. Shale..... 155 5 0
*Monk Bridge Construction Co., Ltd., York..... 109 12 0

Tooting Bec Mental Hospital extension—Constructional timber—
King & Scarborough..... £870 16 9
W. Arter & Son..... 850 18 8
Vigers, Sons, & Co., Ltd..... 838 6 6
J. B. Lee & Sons Ltd. 837 7 8
H. J. Thomas..... 817 6 0
W. D. Tucker & Sons, Ltd..... 797 1 3
Burt, Boulton & Haywood, Ltd. 749 19 1
Ingram, Perkins & Co., Ltd..... 747 7 7
A. Allnack 726 11 5
*E. Gray, Ltd., Forest Gate.... 644 6 1
A. S. L. Mackintosh & Partners (Informal)
Denny, Mott & Dickson, Ltd... (Informal)

Tooting Bec Mental Hospital—Supply and erection of steel partitions—
Rea Metalt Casements, Ltd..... £609 10 3
Williams and Williams, Ltd..... 375 0 0
*The Crittall Manufacturing Co., Ltd., Braintree 348 0 0

Belmont Institution—Repairing wood girder and lintels—
F. Potter..... £161 0 0
A. A. Secrett, Ltd..... 153 0 0
W. Hussey 151 5 0
*C. H. Boyd, Ltd., ... 116 0 0

WELLINGTON (SALOP).—For 20 "A" Type and 10 "C" Type houses, and alternately 20 "B" Type houses, for the U.D.C. Mr. G. H. Connor, Engineer and Surveyor :—

	"A" Type. No. est. for.	"A" Type. Per House. £ s. d.	"B" Type. No. est. for.	"B" Type. Per House. £ s. d.	"C" Type. No. est. for.	"C" Type. Per House. £ s. d.
Engineer's and Surveyor's Estimate	20	475 2 0	20	490 0 0	10	491 9 0
Cooke (Longport), Ltd.	4	604 8 7	4	604 12 10	2	600 9 8
J. J. Blackburn, Manchester	12	582 12 3	12	582 3 0	12	574 3 7
J. Bennett, Keele, Staffs.	20	577 2 0	20	577 17 1	10	583 10 0
J. Riley & Son, Wellington	—	—	—	—	6	544 10 0
E. Thompson & Co., Ltd., Birmingham	20	537 10 0	20	541 10 0	12	537 10 0
J. Carver, Wellington	20	529 15 4	20	539 7 7	10	541 10 0
Exors. A. Roper & Son. Wellington	20	527 0 0	20	522 10 0	10	523 0 0
Wellings & Son, Wellington	12	504 12 0	12	514 13 4	6	491 3 5
R.B.F. Construction Co., Shrewsbury	20	499 16 0	20	530 2 0	10	472 0 0
J. H. Thompson, Grimsby	24	486 5 0	24	489 5 0	12	489 0 0
Millington, Oakengates	8	477 14 0	—	—	6	499 0 0
H. Lakelin, Longdon	—	—	—	—	10	446 17 0
†Eadie, Towers & Co., Wolverhampton.....	20	438 10 0	20	440 0 0	10	434 0 0

† *Provisionally accepted for* 20 "*A*" *Type and* 10 "*C*" *Type.*

MIDDLETON.—For the widening of Heywood-road from Manchester Old-road, Rhodes, to Simister-lane, Bowles, for the Corporation :—

*S. & J. Smethurst, Ltd., Oldham.... £31,208

NORTON.—For erection of 46 houses at the West-end of Norton, for the Doncaster R.D.C. Mr. T. H. Johnson, Priory-place, Doncaster, architect :—

*Messrs. Firth & Whittington, Doncaster £21,422

NORTHAMPTON.—For erection of War Memorial, for the Town and County jointly :—

*T. H. Higgins, Wellingborough.... £2,352 10

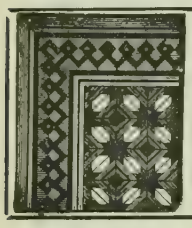
OTLEY.—For the erection of 122 houses, for the T.C. :—

*W. J. & R. Turnbull, Leeds £41,090

OTLEY.—For erection of houses on a site at Newall Carr, for the U.D.C. :—

46 parlour-type houses, at £470 each.
16 non-parlour-type houses, at £402 each.
20 non-parlour-type, with two bedrooms, at £360 each.

*W. J. & R. Turnbull, Leeds.



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ST. ANDREWS.—For erection of 50 houses, St. Mary's-street site, for the T.C. Mr. C. F. Anderson, Housing Architect, St. Andrews. Quantities by Mr. C. R. Douglas, measurer, Dunfermline :—

Excavator and Mason Work—
Jas. P. Thomson, St. Monans £8,418 15 1
Carpenter and Joiner Work—
Henry Ramsay, Dunfermline 5,400 17 10
Slater and Roughcast Work—
Wm. Greig, St. Andrews 1,768 0 5
Plumber Work—
Wm. Nicol & Sons, Ltd., Buckhaven 2,820 16 0
Plaster and Cement Work—
D. & T. Peebles, Leven..... 1,971 1 3
Glazier Work—
D. & J. Edmond, Cupar 111 8 4

SOUTHPORT.—For setting back wall in Hoghton-street, for the T.C. :—

*T. Porter & Sons £117 8 6

TADCASTER.—For erection of (*a*) six houses at Allerton Bywater, (*b*) six houses at Kippax, and (*c*) six houses at Tadcaster, for the Tadcaster R.D.C. :

*(*a*) H. Roper, Kippax £2,355 0
*(*b*) H. Roper, Kippax..... 2,355 0
*(*c*) A. Brayshaw, Tadcaster 2,491 14

TADCASTER.—For construction of new sewage works at Barwick and at Scholes, for the Tadcaster R.D.C. :—

*Wm. Hartley £724 16 6
*J. A. Rodgers & Sons 1,119 6 8

TIVERTON.—For construction of new section of road and diversion of existing highway, in the parish of Uffculme. Mr. J. R. H. Warren, Highway Surveyor, Central Chambers, St. Peter's-street, Tiverton :—

Sir W. Prescott, & Sons, Ltd., Westminster £3,128 17 0
G. Pollard & Co., Ltd., Taunton 1,732 0 0
Fothergill Bros., Ltd., Exeter 1,725 13 4
*T. Williams, Tiverton 1,480 0 0

WEYMOUTH.—For fanlights, casements, gable ends, &c., for the concert hall, Alexandra Gardens, for the T.C. :—

Jenkins, Hitt & Grant, Ltd..... £247 0 0
Betts & Co., Ltd. 243 17 9
*Theo. Conway, Ltd. 177 0 0
Bird & Cox, Ltd. 245 17 0

WEYMOUTH.—For supplying and laying 1,000 super yards of pitch pine block flooring in the concert hall, Alexandra Gardens, for the T.C. :—

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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

. CXXVI.—No. 4237. APRIL 18, 1924.

THE NEW HOUSING PROPOSALS

THE outstanding merit of the new Report* on the position of the building industry lies in its psychology. It is not merely a collection of statistical tables; it is a direct and moreover a readable appeal to morale, and is designed to indicate the line of escape from "the longed depression in our industry which existed from about 5–6 onwards until 1914." To many it will appear unfessorial in that it suggests nothing novel, but relies upon operation, sensible administration, and good will to provide necessary machinery for what at first is only to be a slightly elerated output. In our judgment this reticence is a welcome lity. Housing statesmanship has too often been distorted ousing tactics; it has suffered like a patient who is examined a series of one-sided specialists, each bent upon diagnosing own favourite complication, while the general condition , still more, the vitality of the patient is forgotten. To-day paramount necessity is confidence, and this can only be ined through co-operation and good will within the industry. It is gratifying to find that the three internal parties—loyers, operatives, and manufacturers—have abandoned r own peculiar catchwords and sunk their differences to an nt sufficient to produce a report which has not only been ed at unanimously, but is also essentially practical. This nimity is of greater significance to the building trade than event of recent years. The industry holds a unique position; peculiarly intertwined with everyday life; it directly reflects onal prosperity, and is compelled to enlist the complete ut of social activities for its most minor results. Thus a ed building industry speaks with a national significance that ot be paralleled in the mining or even the railway world, the force of its utterance must therefore be far-reaching. requisite stabilisation of demand on labour and materials be provided by the adoption of a programme covering a d of fifteen years, the output expanding gradually year ear until the maximum annual production is reached in .

he Minister of Health has already signified the intention e Government to embody these proposals for a sustained ng programme into a Government Bill, but the measure not be easy to frame. Sir Kingsley Wood has pointed that it involves a financial resolution, amounting to a amentary guarantee, which must embody an agreed cost. e is also the complication of the local authorities and their ribution, and the need for amendments in the public and, enture to think, building interests. We have yet to see Mr. Wheatley proposes to meet the very real difficulties n are suggested by the new proposals, but we do urge that whole influence of the building world should be directed rds helping to find a solution of our present difficulties. s the fifteen years' guarantee is really adequate the Report ll the possibilities which it opens up become inoperative he detailed programme which it suggests ineffective. In g Parliament to embark on these uncharted seas Mr. tley must be sure of his course and of the force of opinion behind him. We have insisted on these important generalities because we recognise that the temptation to examine and criticise the details of the Report may prove so alluring that the foundations on which the structure rests may be taken too much for granted, and a great opportunity may thus be frittered away.

The Committee has found that the subsidy granted under the 1923 Act is insufficient to bring house rentals within the reach of the lowest-paid workers, and the Report concerns itself not with specific proposals as to the increase of that subsidy, but with the organisation of the building trade and its supplies that it may carry its future burden as efficiently and economically as possible. The three principal shortages are capital, labour, and materials, none of which can be overcome without the certainty of a stable and continuous demand. In regard to capital, the Committee desires to enlist "the enthusiastic support of every kind of private enterprise, so that employers will eagerly strive to participate in house building and in the training of the additional labour which is an essential condition of success"; it recommends that every procedure, voluntary or otherwise, should be simplified to that end. Local builders, labour, and materials are to be enrolled to meet local needs, and contracts distributed over the largest number of employers. The value of team work through the small builder is recognised, subject to a wide co-ordinating influence. The section devoted to the augmentation of labour is perhaps the most hopeful feature of the Report. The problem has been the stumbling-block of all past schemes and we have here for the first time an accepted plan of apprenticeship which would gradually supply the requisite number of skilled workers. It is based upon an agreed standard of wages and is an earnest that masters and men are equally honest in their desire to make good. The appendix containing the recommendations of the manufacturers is unexpectedly encouraging; production can, it appears, readily be accelerated to keep pace with the proposed programme, and we are told that special arrangements are being made to deal with the lead shortage. There is also to be a guarantee against exploitation of prices.

The general recommendations of the Committee resolve themselves, therefore, first into a guarantee of stability by a fixed programme; secondly, the creation of a permanent organisation to carry out that programme; and thirdly, the appointment of a Statutory Committee, to be established by law and entrusted with the general direction of the scheme.

Mr. Wheatley deserves our thanks and congratulations for having brought together the parties which have framed this Report, which we welcome, though with reservations; his task has, however, only begun. In so far as he can succeed in making the proposals effective it would probably result in a housing solution, but at a cost and under conditions similar to those we were only too familiar with under the Addison regime. If his proposals are carried into effect there would appear to be little hope for private enterprise of the past in housing while the effects on the building industry generally might give us stability of a kind, but would it be the kind of stability which would be in the best interests of the nation, to say nothing of the industry itself?

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eport on the Present Position in the Building Industry. Cmd. Price 9 = net. H.M. Stationery Office. (*See also pp.* 650–652.)

NOTES.

Registration, the Institute, and the Society.

THE general lines of the terms of the draft agreement between the Council of the R.I.B.A. and the Society of Architects on the subject of Registration and the absorption of the Society are now more or less public property, and although the agreement of the Society is subject, we believe, to revision by the Society's legal advisers, we think it is a duty we owe to our readers to indicate the nature of the agreement so far reached. The outstanding issue of the negotiations is the proposed amalgamation of the two societies, the advantage of which to the profession as a whole will, we believe, be questioned by very few of those who realise how harmful to the profession in relation to the public has been the existence of two societies. In the effort to secure registration, a larger measure of public recognition, and many other matters affecting architects, the profession must stand in a vastly better position if served by one society, and such a result of the negotiations which have taken place would surely go a long way to cancel any misgivings which may arise in regard to details of the agreement.

The Terms.

BRIEFLY, the terms of the agreement between the two bodies are that Fellows of the Society will become Fellows of the Institute; Members of the Society to become Licentiates of the R.I.B.A., all of whom, with, of course, existing Licentiates of the Institute, will have full corporate powers, including the vote; Licentiates of the Society to be students of the Institute and students of the Society to be Probationers. Provision will be made for those Members of the Society who have passed the Society's examination to qualify for Associateship, on passing a special examination in design and all subjects not included in the Society's examination if they wish to do so. All Fellows, Associates, and Licentiates will be entitled to use the title "Chartered Architect" if they wish to do so, in addition to the R.I.B.A. affix. As these proposals entail alterations to the R.I.B.A. Charter and By-Laws, it is intended to ask the Privy Council to authorise additional alterations at the same time, which it is believed will facilitate the working of the Institute machinery, *i.e.*, to ensure a more adequate representation upon the Council of each corporate class; to effect continuity of the Council's policy by limiting the number of its members put up for re-election annually; and to enable important questions of Institute policy to be submitted to a referendum of all members in lieu of a general meeting in London only.

Future Intentions.

IF the proposals are finally passed by the Society, it is the intention of the R.I.B.A. Council to put them before the general body of members as the main issue on which the Council propose to take opinion of the electorate at the f coming R.I.B.A. election, and if vote indicates general support a me to confirm the agreement will be held the amalgamated body will take imm ate action to draft and to endeavo carry through Parliament a Registr Bill. If the proposals should be ca into effect the future membership o R.I.B.A. will number some 7,000 in of approximately 5,500 as at present

The Report on Housing.

THE Report of the mittee on Housing, we refer to in our le article, and a summa which we give on pp. 650-2, is an admi document in many ways, and is the not of visionaries, but of men who the building industry and the cri the situation; but for all that the R is not likely to be acceptable to al parties involved. The Report tak away from the political view of the tion, and gives proper consideratio the magnitude of the task and a re tion of the fact that the housing que is not one which can be disposed of hurry, as appears to be the view of of our politicians, but will, on the trary, be a serious problem for a time to come. But the machinery Committee propose to set up will no believe, be acceptable to Parliamen the country as a whole. While it is posed to hand over the machinery providing houses to the industry i financial assistance is to come fron Imperial authority and from the authorities, and we do not believe assistance will be given without co of the expenditure.

Private Enterprise.

THE possibilities inv in the Report need ca investigation. Two stand out prominentl the general stabilisation and imp ment of the building industry, an the production of working-class h Methods are described which may well lead to an improved industry we need some assurance as to the results. Is private enterprise of the to receive no encouragement? suggested that no one runs the risk employment but the working man? A many people would be glad to be as of an income for fifteen years. Dar all of us, demand this from the Go ment? Mr. Geo. Lambert writes the House of Commons that "no an of oratory can replace 200,000 me to the building trade in 20 years. 50 years of public education youth loafing at street corners and drawing whilst working men cannot get hou live in." This diminished supp labour can only be augmented and utilised to provide houses for worke means of private enterprise is Mr. bert's opinion. Someone has asked enterprise and incentive will be under the terms of the safe co-ope provided in the report.



Photo: R Huth.]

St. Batholomew-the-Great, Smithfield: Rahere's Tomb from Apse, South Ambulatory.

Some Questions.

What a correspondent of considerable experience thinks of the Committee's Report will be inferred from following opinion expressed in a munication we have just received. rites :—" Are we to understand that Government proposals in regard to ing involve a kind of bargain between builders, building operatives and the rnment, in which all three parties to argain are to obtain a safe walk-over Government housing at what appears e the inevitable detriment to the est of the general public ? If the men are promised steady employ- t for, say, fifteen years, and builders ty of good contracts for the same d, only by a resulting rise in the price ilding of all kinds and by a positive rance to new industrial undertakings, going to be worth while even to the stry itself ? I am as sincerely ous for the well-being of a building ative as for his employer, but I gly protest against one class being lised for the benefit of another. On face of it it looks as though we were g to get housing by a remedy that even be worse than the disease. I for long vision, for keen and searching ight. We want houses badly, but want good wages too, and we want es we can afford to pay for, and if we get all, which shall we have ? It is ood making fine transport machines ss we can get efficient motive power raw them. Some people hoped that Land Act of 1909 would bring pros- us returns to the Government. We know that enough foresight was not wed on the scheme. Let us try to se what will be the effect of the pro- d scheme. We have heard a great about class legislation. We seem et little else. And the great body iddle-class population in this country, h includes professors, scientists, ors, lawyers, chemists, artists, and ers, who probably work harder in ortion to their incomes than any other , would be safer guides for class lation than aristocrats or working I do not misjudge those who are he top or the bottom of the social r, but the very difficulties which keep there lack the more evenly-balanced ment of the middle-classes."

---

e Rate of duction.

We must say that the need is obvious enough for a carefully guarded agreement such as will afford guarantee of fair returns in this aining. Only this week we were told a large employer that the rate of uction amongst our building opera- is often only a half of what it was re the war, and a test showed only bricks a day in straightforward ing. Then what are we to think of atmosphere which will surround all young men who are to be brought the apprenticeships to the building trade ? Will it be favourable to the creation of the best type of British operative ? The public had cause to feel proud of the British workman and it will be a bad day for us if they have to lose this good opinion.



Melrose Abbey. From a Sketch by Mr. William Harvey.

Unbuttressed Masonry in North Wall of Presbytery. Hidden Reinforcement now ensures the stability of the dangerously overhanging masses.

Waterloo Bridge.

When Mr. Taylor, of the County Council, tells us that it is a mistake to suppose that John Rennie "fixed on the present width of 42 ft. in order to be artistically right" and that "he did not think he had done so for a moment," he is probably right, though the argument by itself exhibits a curious confusion of ideas, as the inference drawn from it that the increased width will not affect the design of the bridge appears to us much mistaken. The architect would probably have received his instructions from others as to the width required and would plan his bridge of proportions to fit the dimensions given, and in order to be "artistically right" he could do nothing less. But it is a mistake to suppose that the being "artistically right" depended on John Rennie deciding the width himself. If he had been given another width he would have designed it for the width given. Mr. Taylor is probably right in supposing the architect did not impose the width in order to be right, but that supplied with the requirements he designed for them ; he is wrong in the inference, however, which he deduces from it that the artistic value of the present bridge will not suffer in doubling the width as required under the present scheme. Time only will show whether the increased width is an injury to the unity of the bridge as it exists at present, but though Mr. Taylor tells us that in a few years "it will almost be impossible to tell the difference," we do not think him right in this conclusion.

Melrose Abbey.

We publish on page 623 an account of recent repairs at Melrose Abbey, where the Historic Buildings Branch of H.M. Office of Works has not only been able to retain existing evidences in view while maintaining the stability of the building, but has revealed again other details that had been concealed by former less efficient methods of repair.

GENERAL NEWS

Fulham Town Hall.

The Fulham Council has postponed the proposed rebuilding of the Town Hall owing to the cost.

Rejected Lunettes.

Two of the rejected lunettes, which were originally designed for the London County Council Hall, are being placed in the booking-hall at Westminster Underground Station. The designs have been carried out by the students of the Westminster Art School.

University News.

Two Bartlett Exhibitions for students intending to join the School of Architecture at University College are offered for award this year. They are of the annual value of £40 a year, and tenable for five or three years according to the course. Applications must be made to the Secretary of University College, London, not later than May 30.

R.I.B.A.

We take the following notes from the minutes of the Council meeting held on March 31, 1924 :—

Restriction of General Building in Favour of Housing :—It was decided to approach the Ministry of Health and protest against any steps being taken to restrict general building operations in favour of house-building.

R.I.B.A. Street Architecture Jury :—Sir John J. Burnet, A.R.A., and Mr. Walter Tapper were appointed in place of Sir Aston Webb, P.R.A., and Sir Reginald Blomfield, R.A., on the Street Architecture Jury.

The Professional Classes Aid Council :—Mr. Paul Waterhouse (Past President) was appointed to represent the R.I.B.A. on the Council of the Professional Classes Aid Council.

The International Garden Cities and Town-Planning Federation Conference, Amsterdam, July, 1924 :—Mr. Raymond Unwin was appointed to represent the R.I.B.A. at the Conference.

R.I.B.A. Intermediate Examination, May.—The centres for this examination will be London and Leeds. At both centres the examination will be held on May 23, 26 and 27. At the London centre the oral examination will be held on May 29 ; at the Leeds centre it will be held on May 28.

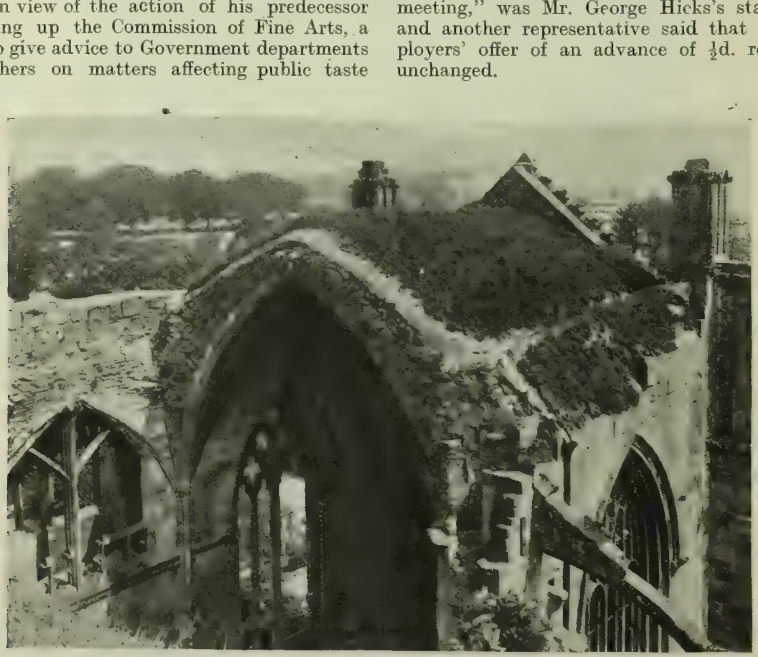
Ugly Official Designs.

In the House of Commons Mr. Sunlight asked the First Commissioner of Works if he would state, in view of the action of his predecessor in setting up the Commission of Fine Arts, a body to give advice to Government departments and others on matters affecting public taste of artistic value, why it was left to an outside private person to call the attention of this commission to the ugly cast-iron design supplied by the Office of Works for the 40,000 telephone kiosks about to be set up at street corners by the Postmaster-General's Department, with the result that fresh designs had been obtained from outside architects of repute ; and would he instruct the officials concerned in future to consult that body as fully as possible.

Mr. Jowett said the hon. Member was under a misapprehension. Telephone kiosks were not provided by his department, but by the Post Office, and the design to which he referred was not made by his department, nor had it in fact been adopted. He did not understand the statement that it was left to an outside private person to invite the attention of the Fine Art Commission to this matter, as it was his department which originated the proposal, in which the Postmaster-General had unwillingly concurred, that the advice of the Commission should be obtained.

Building Wages.

The negotiating committees of the National Federation of Building Trades Employers and the National Federation of Building Trades Operatives met recently at the offices of the former organisation in Bedford-square for the purpose of giving further consideration to the operatives' claim for an advance of 2d. an hour on the present rates of wages, which vary from 1s. 8d. per hour in London to 1s. 7½d. and 1s. 7d. per hour in the provinces. On two previous occasions the claim was considered by the National Wages and Conditions Council, and it was subsequently taken up by the federations, and as an outcome of the negotiations the employers, while maintaining that the present wage rates were adequate, offered ½d. an hour advance. This offer proved unacceptable to the trade unions, although it has been stated in certain quarters that an advance of 1d. an hour might receive favourable consideration. A factor in the present situation is that the Liverpool building employers have rejoined the National Federation, and have given notice to local operatives that the higher rates paid there end on April 30, when Liverpool comes into line with other parts of the country. The negotiating committees sat for three hours, and at the adjournment at six o'clock it was admitted that no progress had been made in the direction of a settlement. "The position does not seem to be appreciably altered since the previous meeting," was Mr. George Hicks's statement, and another representative said that the employers' offer of an advance of ½d. remained unchanged.



Melrose Abbey. (*See p.* 623.)

VAULT OF CHANCEL COVERED WITH CEMENT RENDERING WHICH A LAYER OF TURFS FAILS TO HIDE SATISFACTORILY.

CORRESPONDENCE

Restoration of Ruins.

SIR,—Having for long tried to use the li influence I possess in trying to get the pow that-be to abstain from the restoration of ru it was with considerable pleasure that I r the letter signed "The Correspondent" your April 4 issue, which everyone probably agree with who recognise that definable something in a ruin we call charm

When will the difference between a d building, "Whitby Abbey," and a live " "Westminster Abbey," be properly underst by those entrusted with the reparation ancient buildings ?

"Delay the ruthless work awhile. O sp
Thou unpiting demon of repair,
This precious relic of an early age.
More fatal is thy touch than the full rag
Of warring elements ; yon ancient wall
Better to see it tottering to its fall
Than decked with new attire with lavish co
Form, dignity, grace, proportion—all lost
How many a sacred pile in this fair land
Touched and retouched with some unh
hand,
A modern gait incongruous wears,
Veiling the venerable form of years ! "

"It was a pious work, I hear you say,
To prop the falling ruin and to stay
The work of desolation ; it may be
That ye say right, but, O, work tenderly
Beware lest one worn feature ye efface—
Seek not to add one touch of modern grace
Handle with reverence each one crumbl
stone,
Respect the very lichens o'er it grown,
And bid each ancient monument to stand
Supported e'er as with a filial hand."

C. F. THOMPSON, F.R.I.B.A

COMPETITION NEW

Bradford Masonic Temple.

The scheme for the new Masonic Temple been withdrawn from public competition.

Other Competitions.

Other competitions still open include following (the dates given are, first the sendi in date, and second the issue of *The Builde* which full particulars were given) :—Indust Designs (June ; Dec. 21, 1923). Natic Theatre (April 26). Ross-Smith Memo (Sept. 30 . Feb. 1). Salford Baths (April April 4). Glasgow Public Hall (July 4 ; April

Lambeth Bridge.

The Special Committee of the House of Lo the Marquis of Bath presiding, which has the London County Council scheme for construction of a new Lambeth Bridge u consideration for several days, recently cam a decision favourable to the Bill, on condi that certain modifications should be mad to the headway of the central arch. For promoters Sir. L. Macassey said the br would be an artistic structure not unwo of its position. The bill has yet to come be a Commons Committee.

Books Received.

EXAMPLES OF MODERN ARCHITECTURE. N by Lanchester, Lucas and Lodge ; No. 2 A. T. Butler. (Cheltenham : Ed. J. Burro Co., Ltd.) Price 2s. each.

EARLY ARCHITECTURE IN WESTERN By Edward Bell. (London : G. Bell & Ltd.) Price 10s. net.

The price of Starbuck's "Modern Illustr Plumbing" is 25s., and not 10s. as previ stated.

REPORT ON THE ECONOMIC SITUATIO THE NETHERLANDS EAST INDIES. (H.M. Price 3s. net.

MELROSE ABBEY

AN INFORMAL VISIT

By WILLIAM HARVEY

desirability of preserving genuine relics iquity has been kept before the public century by the writings of several s of the Romantic school. Byron, ng at the outset how disastrous "resto- " might become if the demolition of old were to be permitted, condemned it in e in a few witty lines in his "Don Juan," his prophetical foresight seems to have gnored by the enthusiasts of the Gothic al. Peacock delighted to portray his and heroines inhabiting restored castles beys, but slyly declined to identify him- tirely with the tastes of the fashionable he described. Sir Walter Scott, more urous and more romantic, riveted atten- pon Melrose Abbey with his metrical to the midnight visitor, and at the time established the claim of the build- be considered a thing of beauty even in mantled and ruinous condition.

nks to the glamour of moonlight and the of a great name, the ruins of Melrose become familiar in pictures to all the h-speaking world, and form a centre of ion for thousands of pilgrims from all ds of the earth, as well as a subject of o the inhabitants of the adjoining towns llages. To all of these it is a matter y real moment that the historic frag- of the Abbey church and its monastic gs should be preserved not only in rally sound condition accessible to the but that their old-world charm should dissipated by the adoption of any ill- l methods of repair.

what methods should be so described s upon personal opinion to some extent, an attempt to fathom certain contradic- iticisms I visited Melrose, armed with horitative permit to inspect and obtain information that could be given me on t. Works of repair are still proceeding, lthough a great deal has been done, remains untouched by the present ators to allow of comparison with the of former custodians of the building. as to be expected, perhaps, in a ruin as been made world-famous by such special notice from the Wizard of the North, evidences of former repairs were to be seen on all sides, and those who love to see ivy growing on the tops of ruined walls need not lay the blame (?) of clearing it away upon H.M. Office of Works. A good deal of vegetable growth had already been hacked away, and the historic architecture of the ruin was no longer disguised by a tangle of briars growing in a stone heap. But though the living screen had been stripped away, another and far less beautiful screen of cement rendering had been reinstated in its place before the building was handed over to the care of the Government. Viewed from the roof, the ruins presented, at the time of my visit, something of a patchwork appearance. Repairs had been completed in some places, were in progress in others, and in some parts had not yet been commenced. The old cement-covered masses of masonry were anything but satisfactory, their slick surface and greasy-grey colour contrasting most unpleasantly with the beautiful and varied tints of the stonework. From the point of view of endurance the cement coating could not be considered efficient, since it had been cracked by movements in the structural masses and was allowing rain-water to enter the walls almost as freely as before its application, although in concentrated streams in place of diffused drops. The remaining vaults of the building had been treated with a layer of concrete intervening between the old voussoirs and the cement rendering, and had been externally covered with a layer of turves. In response to the wishes of those who love to see herbage associated with ruined walls, the grass is being allowed to remain on the high vaults for the time being until a decision is arrived at concerning the fittest treatment for this part of the building. The disadvantages of grass should be obvious, since the turf forms an ideal seed-bed for the nourishment of other weeds still more destructive than itself, whose rootlets soon penetrate the surface of the concrete and infallibly burst it apart as they swell and grow. The turves were secured upon the sloping extrados of the vault by means of a number of iron pegs projecting from the concrete covering, but even this extraordinary device fails to disguise the ugly cement which remains exposed at the edges and betrays the artificiality of the scheme.

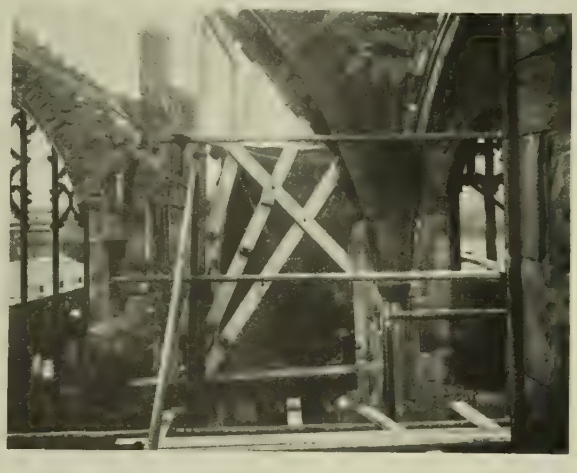


FIG 2.—OVERHANGING MASONRY IN EAST WALL OF SOUTH TRANSEPT, NOW RETAINED IN POSITION BY CONCEALED REINFORCEMENT.

Another detail of former repair, which was neither sound nor sightly, was the use of exposed iron tie-bars to restrain movements in masses of masonry subjected to arch thrusts or other overturning loads, but which had been deprived of their proper buttressing by the decay and fall of adjoining masses originally intended to absorb the pressures and afford lateral support.

Exposed ironwork on a ruin is more dangerous than in an inhabited building, in that it is generally less accessible to inspection and the very necessary periodical repainting to preserve it from rust. Its expansion and contraction under alterations of temperature also affects its efficiency, since they permit of slight repeated movements in the masonry which tend towards its ultimate disintegration. One section rusted through until its section is reduced beyond a certain minimum can throw the whole apparatus out of order.

In contrast with the old order of things, the new repairs looked admirable.

The unpleasant coating of cement, having shown itself to be inefficient and superficial as well as ugly, had been removed, and the old masonry, both ashlar facings and rubble core, were brought to light again.

Water had been excluded from the wall-tops by a special process, in which all masons

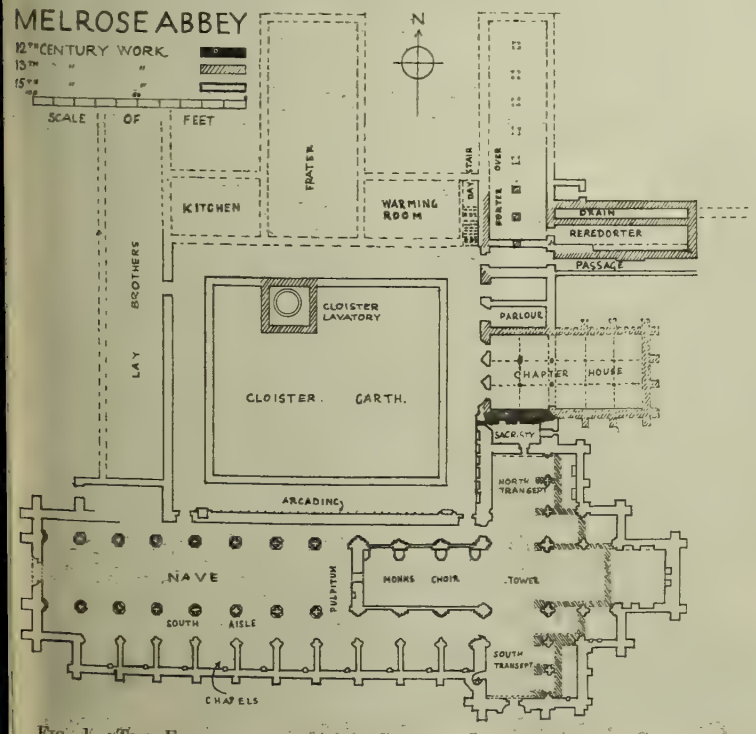


FIG. 1.—THE FOUNDATIONS OF THE CLOISTER LAVATORY, THE CHAPTER HOUSE, AND THE REREDORTER AND DRAIN HAVE BEEN DISCOVERED IN THE COURSE OF EXCAVATIONS BY H.M. OFFICE OF WORKS.

View of Presbytery and part of North Transept of Melrose Abbey from the North.

he Historic Buildings Branch are trained. dirt is first raked and washed out of the s, and the space grouted up with rich ent-mortar, which is tamped in hard and well back from the surface. This con- ation process is followed by pointing with ortar composed of lime and washed pebbly for general surfaces, or of Portland ent and sand with a waterproofing mixture wall-tops. Appearance and efficiency are roved by spraying the joints with water the initial set, and the mortar is made dhere to the stonework far better than d be the case if allowed to dry as it set. spraying also brings to the surface the er grains of sand and small pebbles, and rs the newly executed work to take its e beside the old rain-worn work without ing an inartistic discord. Where common e demands that hollows in the rough core ld be made up to throw off water, a few rough stones of similar character, obtained among the fallen débris on the site, are in, and the pointing is arranged in such anner that the rain is conducted to spouts thrown clear of the building. At Melrose ey this method of repair shows up the and varied tints of the different local es composing the core of the walls (see h, Fig. 4). The success of this process of iring walls with a minimum of alteration is harked contrast with the former methods atching with conspicuous new material or smears of superficial cement; but, like y other good things, it has been adversely ised on occasion even by persons well ainted with the disgusting appearance of old cement coating (Fig. 5). Possibly a natural desire to put a Government depart- in the wrong may have had something o with the objections, and the method inly needs to be carried out by extremely trained and competent masons acting r efficient and sympathetic direction if best results are to be obtained. Granted it is desirable to preserve a monument the least possible alteration consistent its safety and endurance—and this pro- seems to be the principle underlying all s undertaken by the Historic Buildings ch—it seems that the method of conserv- he existing rough core is almost as im- nt as maintaining the ashlar, mouldings, carvings of a building. All parts indicate ays and thoughts of the original builders. bear evidence of systems of structural ce which were consistent and effective in own fashion, though expressed in for- differing from those in use at present. ughout the ruins of Melrose Abbey are al instances of the combination of con- tion as just described, with special de-



Fig. 3.—Vaulting of presbytery formerly concealed under a thick coating of Roman Cement.

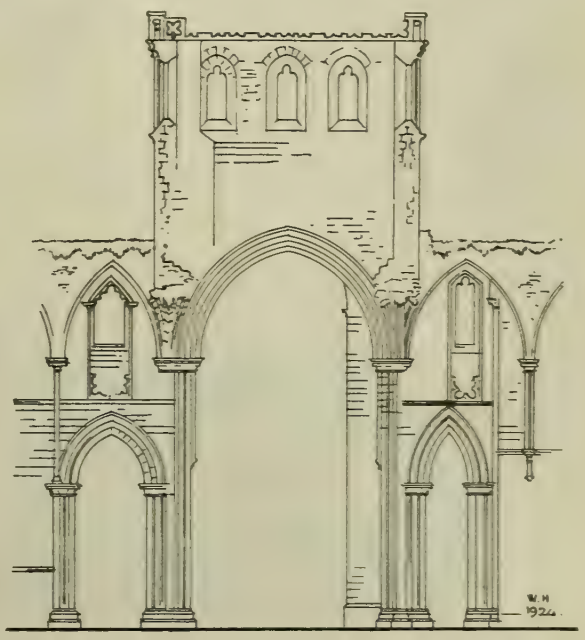
vices to meet more urgent needs. Masses of masonry projecting from wall-tops and unbalanced arch thrusts were producing movements which, unless restrained, would have overturned the remaining pier on the N. side of the presbytery and the N.E. pier of the S. transept. The old iron bars which had been applied to the external faces of the walls, to the great detriment of the appearance of the ruin, had conflicted in line, colour, and constructional sentiment with the Gothic work. They were therefore replaced with internal tensile members properly protected from the weather in cement concrete beams embedded in trenches cut in the internal rubble core of wall-tops and in the floor of the wall passage.

The beams were constructed of sufficient length to bridge the fractures in the masonry and tie in the parts which threatened to move and fall, and to anchor them to masses of ample size and solidity to withstand their pull, at any rate for a very considerable period.

The overhanging masonry at the wall-top of the S. transept was anchored back with seven 1-in. diameter mild steel bars in a beam of one square foot sectional area let into the



ELROSE ABBEY SECTION THRO' MONKS CHOIR
WING HEAVY MODERN PIERS & BARREL VAULT ROOFED WITH STONE



MELROSE ABBEY SECTION THRO' RUINED
CENTRAL TOWER & PARTS OF TRANSEPTS LOOKING WEST

Fig. 4.

wall-head, and covered with masonry on all sides and the top. Great care is taken to keep the metal protected, and in this instance it was possible to arrange for at least 9 in. of masonry between the concrete beam and the external air.

The ends of the rods and of the beam were turned down into pockets sunk for them in the internal core of the old walls to ensure a thorough grip on the material and hold back the overhanging portion to the solid work. The overhanging masonry was upheld temporarily upon shoring erected from the end of a 13 in. by 13 in. baulk of pitch-pine laid cantilever fashion in the wall passage of the clerestory, and the reinforced concrete beam was calculated to restrain some part of the northern thrust of the remaining south transept vault as well as the overhanging mass of masonry.

Some vaulting which remains over the chapels of the south nave aisle was in process of treatment. The shapeless concrete pad which had been placed upon the upper surface of these vaults is being removed, and the vous-soirs treated to a process of cleaning, tamping, etc., already described.

A low barrel vault over the sacristy had also been consolidated in this way, and harmonised admirably with the general masses of the ruin. What it must have looked like when covered with a dismal and formless mass of rendering was realisable from the appearance of parts of the building still remaining to be treated.

Excavations in and around the old cloister garth have resulted in the discovery of foundation walls of some of the monastic buildings, including those of the once vaulted undercroft of the dormitory, which had been divided into two manageable spans of about 12 ft. apiece by a row of short pillars. Adjoining this building is a finely preserved walled-in watercourse of the twelfth century. Its parallel retaining walls are constructed of a facing of small wrought ashlar facings backed by rubble core, and have each two courses of projecting footings splayed on their upper edges. The watercourse seems to have gradually silted up in use until the bed of the stream was filled with gravel and mud to the height of the top of the upper projecting course, and then to have been paved with whinstone cobbles. A wall parallel to the drain on its southern side has been identified with the position of the reredorter which would have had its cubicles overhanging the stream. This drainage system indicates a reasonably efficient state of sanitary science of which further evidence was discovered in the foundations of a lavatory building in the cloister garth placed near the (supposed) position of the refectory so that the monks might wash for meals. This was a particularly necessary operation in days when West and East alike agreed in using fingers instead of forks, and the provision of an ample water supply indicates that although the old system may have differed from ours, folks in those days were neither so unhygienic nor so uncivilised as we are sometimes led to believe.



Reinforced Concrete Hotel at Barcelona.

ARCHITECTURAL SOCIETIES

HANTS AND ISLE OF WIGHT ARCHITECTS' ASSOCIATION.

A meeting of members of this Association was recently held at the Guildhall, Winchester. Sir William Portal, Bart. (President of the Association) presided, and a brief address was given by Mr. C. H. Lawrence, A.R.I.B.A., Past President of the Bristol Society of Architects, followed by a lecture by Mr. C. H. E. West, F.S.I., F.R.G.S., entitled "Beauty in Arts and Crafts, and English Mansions."

Sir William Portal, alluding to Mr. West's subject, said he specially commended to Mr. West two Hampshire mansions which led in historic interest and in beauty. The first was The Vyne, near Basingstoke, dating from Henry VII, which still had what Horace Walpole described as "the most heavenly chapel in the world," and its original glass, which mercifully had never been restored. Then there was the noble house, still more splendid, but of later date, Bramshill. That was a house one never forgot, which had now become mellow and rich, and it had been built for the elder son of Prince Henry, elder brother of Charles I. As regarded instances of the Adams' style in Hampshire, he did not think the work at Broadlands, the seat of Colonel Wilfrid Ashley, could be beaten, for the rooms there with Adams' decoration were second to none. He reminded the audience that what was known as the Adams vogue or style lasted for a considerable period, both before and after the lives of the Adams, and therefore it was not only to be found in connection with the brothers Adams personally, but in connection with the whole period with which the vogue was associated. There was a splendid instance in London which had nothing to do with the brothers Adams in the parlour of the Bank of England. One thing interested him very much. They were to see some pictures connected with Worcester Cathedral, and he recalled a circumstance not generally known, that a great deal of the stall work and panelling, which formerly separated the choir and aisle at Worcester Cathedral, came into a Hampshire house, and decorated the reception rooms of Crawley Court. This came from Worcester as the result of a condition for its removal imposed upon the Dean and Chapter by an otherwise generous and munificent benefactor, who did a great deal for the fabric of Worcester Cathedral.

Mr. Lawrence addressed his remarks particularly to the members of the Architects' Association, and said that in the alliance between the Royal Institute of British Architects and the Architects' Associations throughout the British Dominions they had something which was unique, and in its sphere all-powerful. He impressed upon the Hampshire and Isle of Wight branch that they were indeed part of a great organisation, and if the members so spread about over a large area and in different towns would come together and do their bit, the Hampshire Society would be one of the stro and most powerful Societies in the provin

Mr. West then gave his lecture, illustrat a series of nearly 200 photographs. Fe of the lecture were the various objects of the London Museum and the Victoria and Museum; the carving in Worcester and He Cathedrals; and, finally, some interior vie a modern mansion in Grosvenor-s London, W.

At the close, the lecturer was cor thanked by the President.

EDINBURGH ARCHITECTURAL ASSOCIATION.

On April 12 the Edinburgh Archite Association held their first excursion season, when a visit took place to the a Parish Churches of Kirkliston and Dalme the county of Linlithgowshire, under the l ship of Mr. William Davidson, who read a (giving the history and describing in det churches) which was illustrated by large plans.

In the course of his remarks Mr. Da said that Scotland had apparently always her money on education, and during the building periods of the Middle Ages had been able to compete with the great build France and England, but he considere a Norman gem like Dalmeny could not be too highly for its scale detail and pur design. He considered that most auth were rather early in the dates which assigned to those buildings, but he would h to contradict such eminent authorities Ross and Mr. Macgreggor Chalmers.

Most people seemed to assume tha Normans began to build cathedrals, abbe churches as soon as they landed, but he sug that it must have taken some time to ov such fierce and warlike people as the Bri that period.

The lecturer then contrasted the w Dalmeny and Kirkliston with work of th period on the Continent and England, a it was his opinion that according to th given by documentary evidence for the w Ely, Durham, Norwich and other E examples the work at the two churches review could scarcely be earlier than late century. The view of the interior of D from the west gallery looking into the and apse, through the two Norman arch he stated, the most picturesque compos had ever seen in a parish church of the He was glad that Scotland's poverty ha those gems of ancient Scottish art fr devastating hand of the Victorian restor stated how much England had suffered hands of Sir Gilbert Scott, who had m 17 cathedrals, several abbeys, and sc parish churches in England, in the n restoration. At the close of the visits Inch Morrison, the President, thank rectors and Kirk Sessions for their cou giving facilities to see the churches and M Arnott, F.R.I.B.A., proposed a vote of to Mr. Davidson for his interesting and tive paper.

Change of Address.

The Executive of the London Associ Master Decorators has taken new office Victoria-street, Westminster, S.W. 1. of the retirement of Mr. A. Davidson, M Wall has been appointed Secretary, to w future communications should be ad Mr. Wall will be pleased to answer any i relating to the Association, working co rates of wages, &c., to place any di experienced by members before the E for its consideration. The new telephone is Victoria 7399.

R. J. A. Gotch (President) took the r on Monday, at 9, Conduit-street, at rdinary general meeting of the Institute.

R. Keen (Hon. Secretary) announced decease of Mr. William Frowde Young, ed Fellow 1904; Mr. Joseph Clarkson dison, elected Fellow 1887; Mr. Thomas cis Tickner, elected Fellow 1907; and Arthur Edward Northcote, elected Associate . It was resolved that the regrets of the itute for their loss be entered on the minutes that a message of sympathy be conveyed heir relatives.

Modern Dutch Architecture.

R. D. F. Slothouwer, in the course of a r on "Modern Dutch Architecture," said influence of the architecture of England and and had been reciprocal. The influence of English domestic architecture in the begin- of this century was so strong that those were the younger Dutch architects would indebted to England all their lives. When egan to study architecture at the Technical School of Delft in 1901, the names of many ish architects, such as Ernest Newton, in Lutyens, C. F. A. Voysey, and Baillie- were dearer to them than the glorious h names of the past. In 1905 some of them to London and visited Surrey and saw ality some of the houses which they knew ll from the pictures. Of monumental build- they were most struck with Westminster edral. They had no eyes for the so-called ic style. The neo-Classic had been dead in nd since about 1880, and most of them now come to the conclusion that it had been really alive. The revival of the olic Church and the romantic feelings of the period of the last century caused a revival e Gothic, and this movement was for the er part due to an architect of undoubted s, Dr. P. J. H. Cuypers, who created the museum at Amsterdam. Some years later, own Museum was designed by Mr. Weiss- in a purer copy of Dutch renaissance; his building had never played any rôle in evelopment of Dutch architecture, princi- because in the nineteenth century the to build in a historical style had gone. was caused by the change in the general in Holland between 1880 and 1890. The e longing for a new beauty filled the air hope of its coming. It was to be a new al beauty, where all the arts should work ner, for there was born a hate against duality. Out of this intense longing the tyle should be born. It was about 1900 the young architect, Berlage, was com- ned by the Town Council of Amsterdam ld the new Exchange. The effort made by rchitect in erecting this building, full of haracter, was difficult to understand in greatness. The principal aim of the ect was that the purpose of the building be expressed in its form, and that, if ood materials were used in the right way ulfilment of this condition was enough te a work of art. If this were the whole truth it was certainly illogical to ornament this building with a tower. The great impression the building made was certainly due more to the talent of the architect than to his theories. To a certain extent the Gothic traditions were continued in the Exchange building. The materials were used in their simplest form, for the beauty was more found in the proportions and character than in the detail. The enormous value of the deed of Mr. Berlage was the simplification and purification of their architectural feelings, and the general interest it had awakened for architectural beauty and architectural problems in general. Although the strong and simple principles on which this architecture was based would have seemed to have made it probable that Mr. Berlage would have formed a school, this had not been the case. A contemporary of Berlage who was much admired was De Bazel, who died last November, just when he had made his first monumental building—a large office building in Amsterdam. The charm of his highly distinguished and refined architecture was unmistakable, and he had made remarkable things in decoration and furniture. In the years from 1900 to 1910 it seemed as if the general lines of the future Dutch architecture had been traced by these two men, and that they were waiting for the young architects of talent who would build further on those principles to bring the new architecture. It had not been so, although their influence had been enormous, and Mr. Berlage certainly was now the most celebrated architect in Holland. The reaction had been intense, and it came in 1910 with the erection of a new head office of the centralised shipping societies—the so-called Shipping House. It was designed by Van der Mey with the collaboration of two younger artists of talent, De Clerk and Kramer. It was like the Exchange of Berlage, a milestone in the development of their architecture. The greatest contrast to the architectural ideas of the decade before lay in the adoration of phantasy. It certainly was a consequence of his philosophical ideas on architecture which made phantasy impossible to Berlage. Without phantasy life seemed a little tiresome. Therefore phantasy, so long neglected, took its revenge. And it must be said in a splendid way. Nothing, not the slightest detail, not even the material itself, was forgotten by her. Their celebrated old brick got a new size. The most admirable quality of this building was the unity of the whole, although many artists had collaborated This unity was the more remarkable because the spirit was quite new for the Holland of those days. The influence of this building had been enormous; not only had the architects who collaborated done important work themselves, but also an enormous number of satellites had tried to follow in their steps. De Clerk died last November at the age of 39, and De Bazel died in a railway carriage when travelling to attend his funeral. The work of De Clerk was considered by the younger Dutch architects as the most general work done in later years. He made all the drawings and even the general details himself, and it could not be otherwise because almost every detail was nearly a new invention. He could never teach pupils because every new day was really new for him and brought the possibilities of unknown beauty. In his earlier work he only made ornamental façades. He began by drawing for contractors, and it was only since the war that in the building of the workmen's houses, with the support of the State and Municipalities, that he got the opportunity to develop his enormous talent. The Director of the Housing Department in Amsterdam, Mr. Keppler, was the man who put his work in such able hands. In his earlier work his plastic talent was shown principally in the details, but when he saw the possibility of grouping his buildings, and even different parts of the buildings, his great plastic talent came to development. Proceeding, the lecturer showed some of the work of Luthman, Rutgers, Staal and Vorkink which, he said, might certainly look strange, but showed great talent. Instead of the romantic fairy-tale houses where every detail seemed to keep a secret, there had now come again the great flat surface and the silence. Mr. Slothouwer showed some of the municipal buildings at Hilversum, by Dudok, and also examples of the work of Wils and the associated architects Bijvoet and Duiker. He also exhibited slides of the work of the Amsterdam Office of Public Works under the direction of Hulshoff who, he said, had formed a staff of very clever architects all working in the modern spirit. In conclusion, he exhibited a series of slides of the older buildings of Amsterdam.

Discussion.

Mr. E. Warren, in moving a vote of thanks to the lecturer, said they had to thank Holland for one of the best Kings they ever had, who brought them a fashion of Dutch architecture which was still very marked in this country. They had the Dutch type of house with them to-day, and within the last 50 years there had been a strong revival of what they called the Dutch manner in England. It always struck him as curious that having imposed the fashion on England the Dutch seemed to have deserted it themselves. Every Englishman who went to Holland was struck with the beauty of the architecture of the seventeenth and eighteenth centuries. It was fifteen years since he had been there and therefore was not familiar with the new manifestations of architecture which had been shown them. He agreed that they had courage in the real sense, for they had made more courageous departures from all accepted rules than anywhere else in Europe. If they went on they would really arrive at what they wanted. Some of the things they had seen struck him as fine but he would reserve his opinion, as to some of the windows and doorways, till he had seem them.

Mr. H. M. Fletcher, in seconding the motion, said they must all have been surprised at what they had seen, but they had sufficient breadth of mind to realise that it was the work of young men who, if they retained their enthusiasms, tempered with greater experience and greater reverence for the work which had gone before them, would succeed. Although they thought they had left all tradition behind them, yet really they had not. It was all Dutch work—they could not imagine those buildings being erected in any other country. Holland was a country which had a great brick tradition behind it, for the extraordinary feats they had demanded of the bricklayer could not have been carried out in any country whose tradition was not based on brickwork. The brickwork was laid vertically, which could only be justified on the ground of phantasy. There seemed to be nothing they did not ask the bricklayer to do; or which the bricklayer was not capable of doing. They were ready to throw aside all tradition and logic with the desire to do something new. They must not blame them for that. They had not the courage to do such things themselves, but it was refreshing to see it in work for which they were not responsible. One felt that in time this new work would settle down into the landscape. There were, of course, some things shown which they could not accept and he did not think the lecturer expected them to.

Mr. F. R. Yerbury said that in Bedford-square they regarded Mr. Slothouwer as a sort of centre party in the architectural profession in Holland, and he was sorry they had not seen some of his work. Certain of the modern Dutch architects had deliberately turned their backs on tradition. Several of them told him they admired the old work tremendously, but it was out of place to-day.

Others who took part in the discussion were Mr. G. Jenkins, Mr. Alwyn Lloyd, Mr. G. R. Farrow, Mr. T. L. Dale, and Mr. W. T. Benslyn.

Mr. Slothouwer briefly replied and pointed out that the past styles of architecture had never been the styles of the people; but styles invented by those who had not been in contact with the people.

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ILLUSTRATIONS

New Premises, Hull.

The scheme consists of billiard and reading rooms, lecture hall with provision for cinema and teas, demonstration room planned on the amphitheatre principle, board room and superintendent's residence. Arrangements for future extension are workshops and cottage homes, with space provided for a pergola for use in connection with garden parties. The façade is designed in the Tudor style, multi-coloured sand stocks being used in the facing with Bolton Wood stone dressings and green Westmorland slate roof. The design was placed first in a recent limited competition. Messrs. Horth & Andrew, AA.R.I.B.A., are the architects.

King Edward VII Memorial Hospital.

This hospital is built in the Rivelin Valley, about four miles distant from Sheffield on a beautifully wooded slope facing south. The accommodation is for six wards, each of twenty beds. Each ward has an open verandah, on which the beds can be brought out. The nursing staff is accommodated over the central administrative block. There are dining and sitting rooms for sisters and nurses. There is a separate operation department with cast room and X-ray rooms attached. The kitchen quarters and boiler house are to the north, the former leading off the main corridor. The whole of the facing stone was quarried locally and the ashlar stone came from Eyam Quarries in Derbyshire. The contractors were Messrs. Thos. Roper & Son, Sheffield; heating, Brightside Foundry and Engineering Co.; lighting, Thos. Ashton; and flooring, Kleine Flooring Co. Mr. A. W. Kenyon, F.R.I.B.A., is the architect.

The Carlton Club.

Our illustration shows the new Portland stone façade to the Carlton Club, which has recently been completed from the design of Sir Reginald Blomfield, R.A. Messrs. Trollope & Colls, Ltd., were the builders. To mark their appreciation of the expeditious and satisfactory manner in which the work was carried out, at its completion the members of the Club entertained the whole of the workmen engaged on the work to luncheon.

New Premises, Regent-street, Weston-super-Mare.

These premises are now nearing completion. The old dwelling houses on the site, which were set back from the present building line, have been remodelled and three shops added with additional housing accommodation above, forming a new street frontage. Local bricks were used, cement rendered and finished with "Lapidosus." The shop fronts are of oak.

Messrs. Ball & Pope, AA.R.I.B.A., are the architects; and Messrs. Dunthorn, Ltd., of Glastonbury, are the contractors. The amount of the contract is £3,300.

Houses at Weston-super-Mare.

The house and bungalow, which were recently completed, are situated on the hill-side facing the sea. The materials used are local bricks, cement rendered and roughcast. The roofs are covered with russet brown asbestos tiles. The windows are Crittall's standard steel casements. Messrs. Ball & Pope, AA.R.I.B.A., are the architects; and the contractor, Mr. Chas. Geeve.

"The Spirit of the Rocks."

This sculpture figure has been specially designed and modelled by Mr. Francis Doyle-Jones, A.R.B.S., for the Building Exhibition, to demonstrate the possibilities of cast-stone as a medium for architectural and sculptural expression.

The material used for the casting of the work was crushed Cornish granite and "Atlas" white cement, the surface being afterwards washed over with an acid solution and wire brushed, to remove the film of cement and reveal the texture and sparkle of the aggregate.

As becomes the subject, the treatment is simple, broad and eminently granitic; while the strong static quality of the design conveys a sense of the permanence and immutability of nature's own rock formations.

The casting of the figure with its plinth of similar material, afterwards mason finished, has been carried out by Messrs. Emmerson & Norris, Ltd.

OBITUARY

Mr. Charles Johnston.

Mr. Charles S. S. Johnston, a leading Edinburgh architect, died at his residence, Ernestone, Boswall-road, Edinburgh, on April 3, aged 74. He was the third son of the late Mr. James Johnston, of Coubister, and was born at Orphir House, Orkney, March 11, 1850. Educated privately and at the Grammar Schools of Kirkwall and Aberdeen, and the Glasgow School of Art, Fellow of the Edinburgh Architectural Association, Mr. Johnston started business on his own account in 1879, before which he had been for four years in the office of the late Mr. David Bryce, R.S.A., the eminent Edinburgh architect. He was a member of the 1st Lanarkshire Volunteers from 1866 to 1870; a member of the Trafalgar Lodge of Freemasons, No. 223, since 1883, when he was appointed to the office of architect; a director of the Edinburgh City Mission since 1884; member of the Lothians and Berwickshire Yeomanry from 1892 until the beginning of the war, when he joined the National Reserve; one of the architects employed to survey the City of Edinburgh during the war; member of the Edinburgh Botanical and Natural History Societies. He married in 1879 Elizabeth, daughter of the late Major-General William Gairdner, C.B., Bengal Native Infantry, and is survived by his widow, three sons and three daughters. Mr. Johnston was buried in Warriston Cemetery, Edinburgh, on April 7. Among his principal works may be mentioned Leith Sailors' Home (by competition); Guthrie Memorial Church, Edinburgh (competition); West Fife and Loanhead Infectious Diseases Hospitals (competition); Pollok Castle, Renfrewshire, restoration; Bemersyde; Grindaly, Orkney; Orphir House, Orkney, additions; Red House, Stromness; Orphir Free Church; Kirbuster School, Orphir; bungalow in India for Surveyor-General Bannerman; Barguley, Newton Stewart, for the Duke of Bedford; Glencaird, Monybuie, Bathmore, St. Andrews; Corsewall, Stranraer; houses and cottages in Callender for the late Mr. Ainslie, of the Gart; Criaghlaw, Wigtown; Corsock, Kirkcudbright; Glengorm Castle, Skye; Drums and Ormsary, Dumbarton; extension of the Crawford Gallery in Kilbirnie Church; Woodside, for the late Mr. Cochrane Patrick; Bannochar, Renfrewshire, for Sir Charles Renshaw; Bardrockwood, for the Duke of Bedford, &c.

The death of Mr. Francis Easto Banham, of the Grange, Beccles, took place recently at the age of 62 years. Mr. Banham's name is connected with St. Benet's Minister, of which he was the architect.

EXHIBITION NOTES

THE FINE ART SOCIETY.

THE show of pictures and sketches by Jo Farquharson, R.A., at the Fine Art Society proved very interesting. Though we do not for the artist's very green garden, we feel he has known how to paint vividly and wel hillsides of Scotland; in some cases he has admirable pictures of them, even where he given no mystery or imaginative concep Two or three snow scenes, perfect of their and much vigorous painting of Scottish scen made an excellent exhibition.

THE ALPINE GALLERY.

Just exactly why the works of four y artists have been exhibited at the Alpine Ga we cannot understand. Most of the subj as well as the way in which they are depi are repellant. "Les Deshabilitées" n conceivably be of interest as a subject, fo form of a woman often discloses fresh char those who admire the female figure, but su as here depicted, there is nothing to attract the most ardent admirer of the nude—ne good form nor colour nor movement. Then squalid interior such as is represented in anc drawing, there may be some aspect of str form or character, of light and shade or co which makes an appeal, but in the pi referred to the clumsy dancers or half-dru figures can surely give no pleasure. The a good piece of colour in "African Silence," Jan Jutu; some fine characters in his re pencil portraits, a pleasant pastel of an "Afr Homestead," and some vigorous portrait chalk drawings by Hyan Myer, but the ex tion as a whole leaves an unpleasant impres which does not necessarily mean that these c young artists may look upon the whole s day in its pleasanter aspects.

MEETINGS.

WEDNESDAY, *April* 23.

Architects' and Surveyors' Assistants' Professional Union.—Miss Lena Ashwell on "P and Playhouses." At Olympia. 6.30 p.m



Frame for Revolving Hymn Num in a London Church.

MR. MAURICE B. ADAMS, F.R.I.B.A., Arch

[Wrought-iron framed projecting bracket turn-handle below; hymn numbers for a s service on reverse side.]

VESTIBULE.

VIEW TOWARDS FRONT OF GREAT HALL.

Cunard Building, New York. Mr. B. W. Morris, Architect; Messrs. Carrère & Hastings, Consulting Architects.

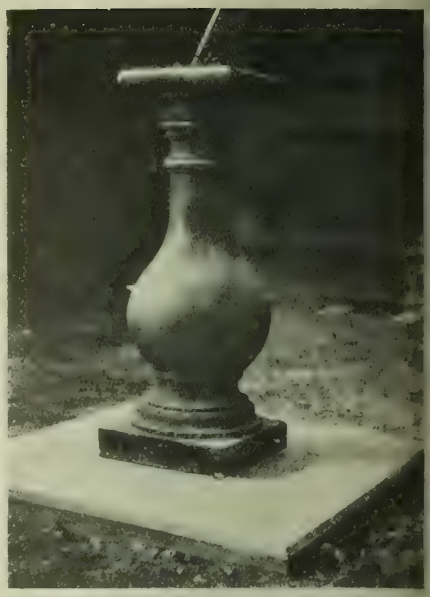
SOME ENGLISH SUNDIALS



At Lymm Churchyard.



At Belton House,
the Seat of Earl Brownlow.



At Manchester Cathedral.



At Macclesfield.



At Welbeck,
the Seat of the Duke of Portland.



At Prestbury, Cheshire.

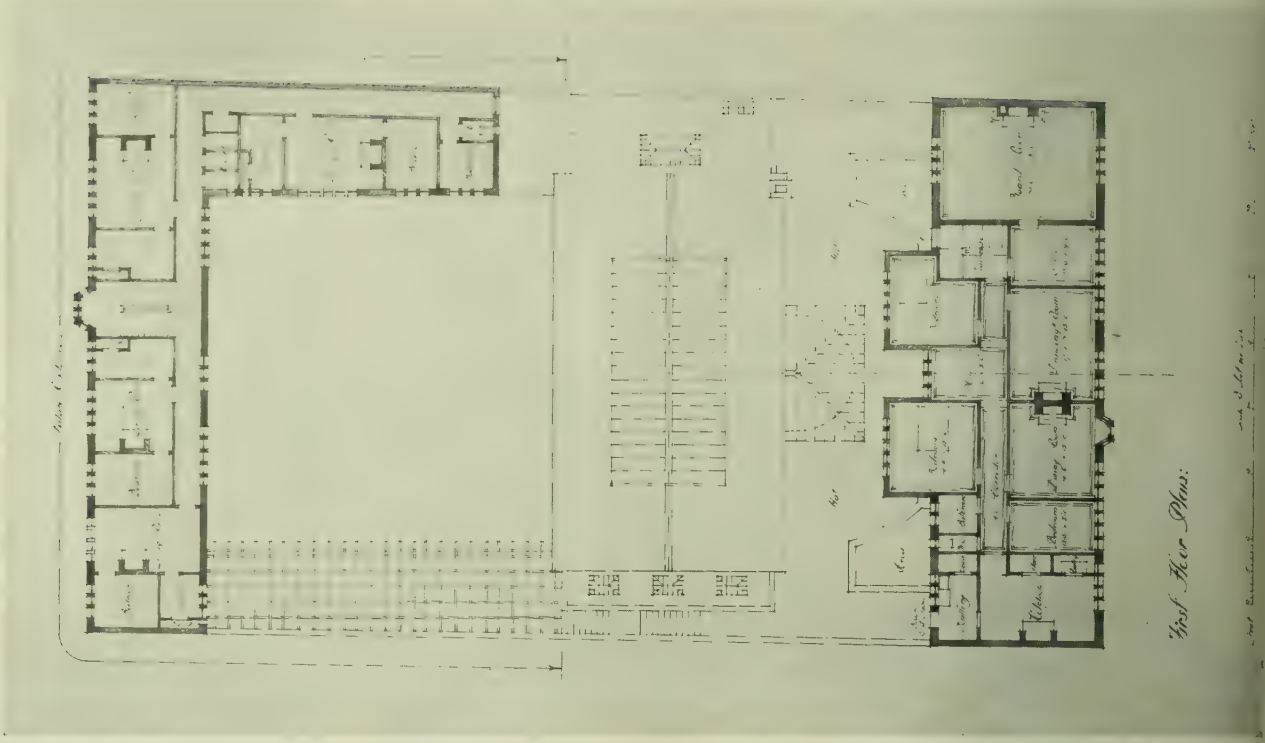


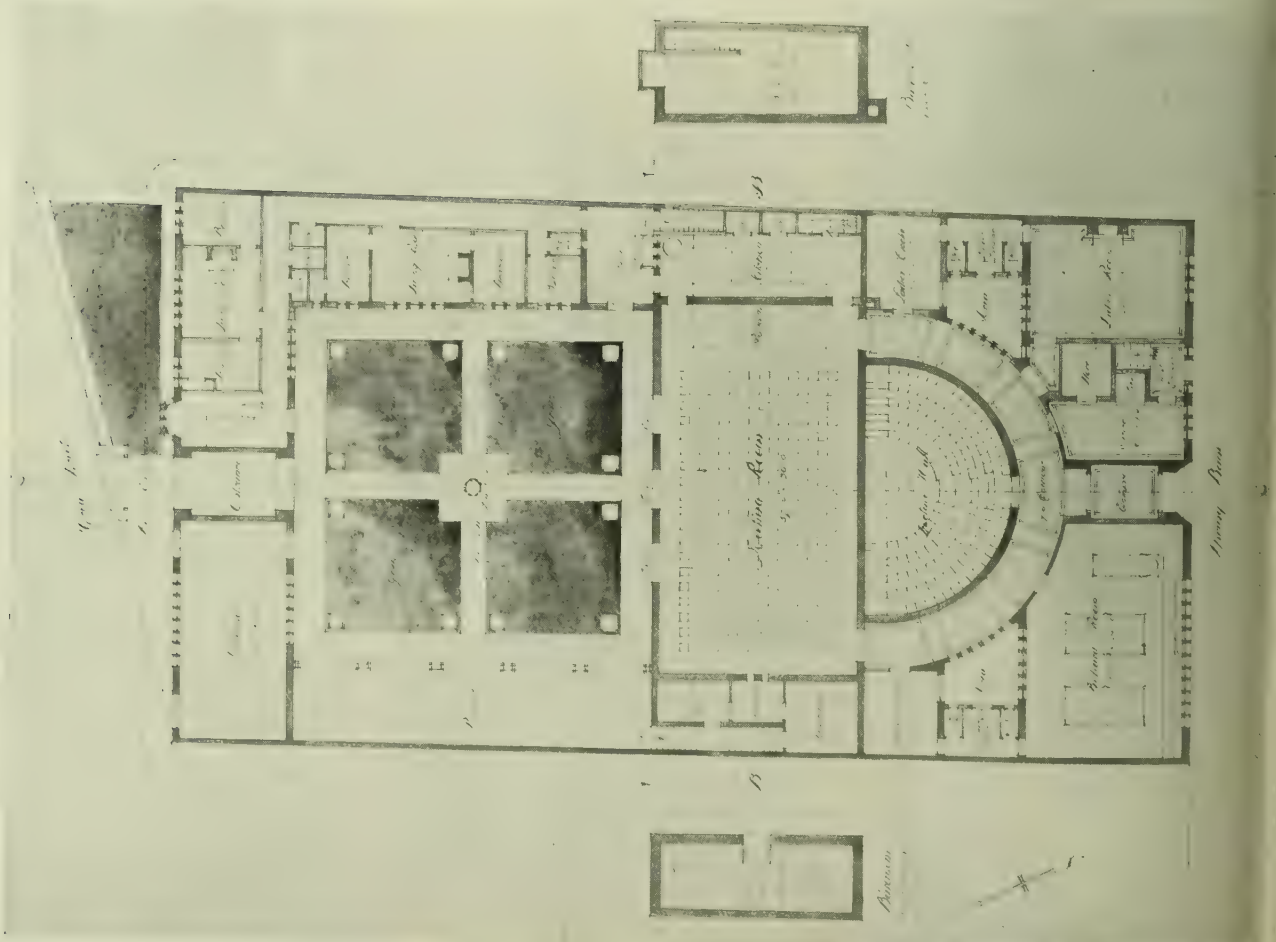
At Warburton, Cheshire.

[Other sundials were illustrated in our issue for May 18, 1923.]



At Marston Lincolnshire.

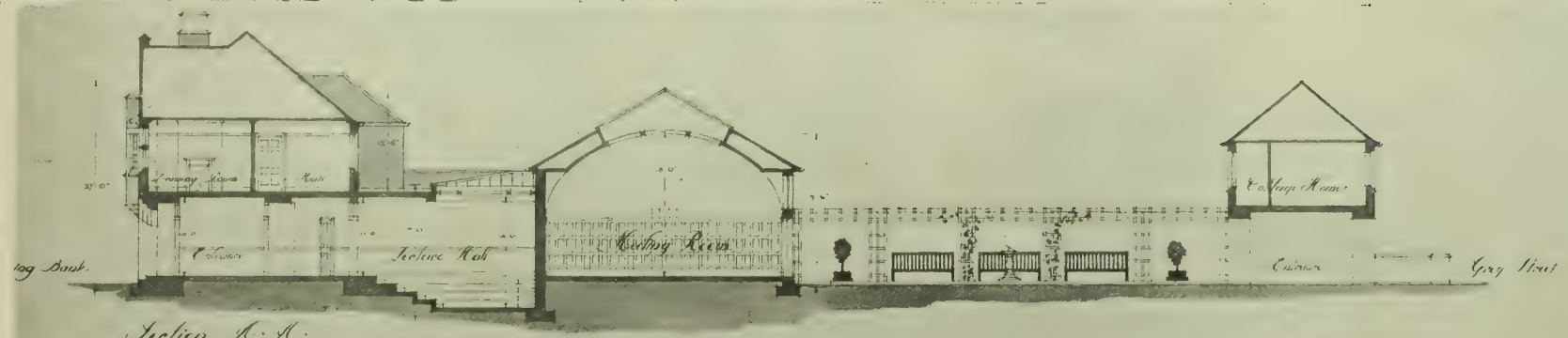




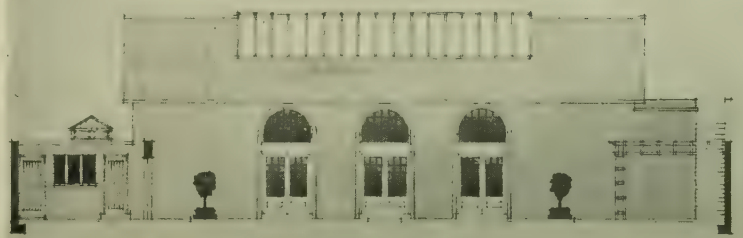
City of Hull:
Proposed Institute for the
Deaf and Dumb:



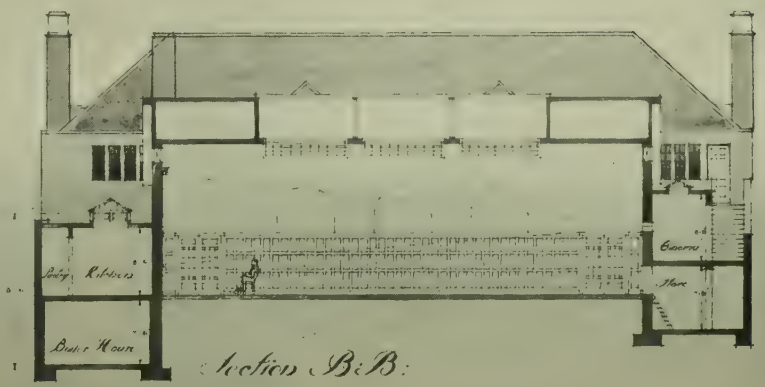
Elevation to Spring Bank:



Section A·A:



Elevation to Garden:



Section B·B:



Competition for Institute for the Deaf and Dumb, Hull. Design placed first: By MESSRS. HORTH & ANDREW, AA.R.I.B.A.



King Edward VII. Memorial Hospital, near Sheffield.

Mr. A. W Kenyon, F.R.I.B.A., Architect.



King Edward VII Memorial Hospital, near Sheffield, Mr. A. W. Kenyon F.R.I.B.A., Architect.



Interior of House, at Thorpe St. Andrew. Mr. Stanley G. Livock, A.R.I.B.A.



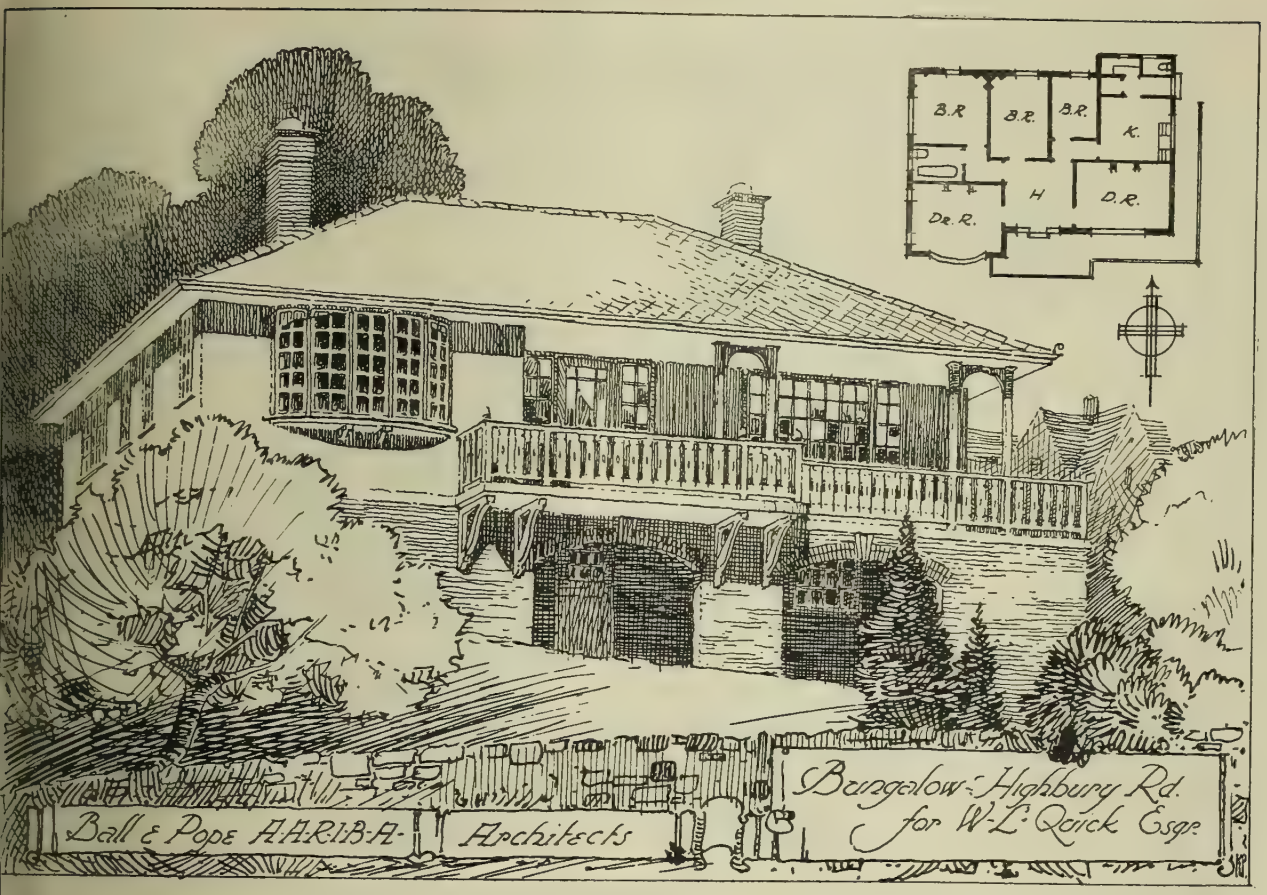
King Edward VII Memorial Hospital, near Sheffield. Mr. A. W. Kenyon, F.R.I.B.A., Architect.

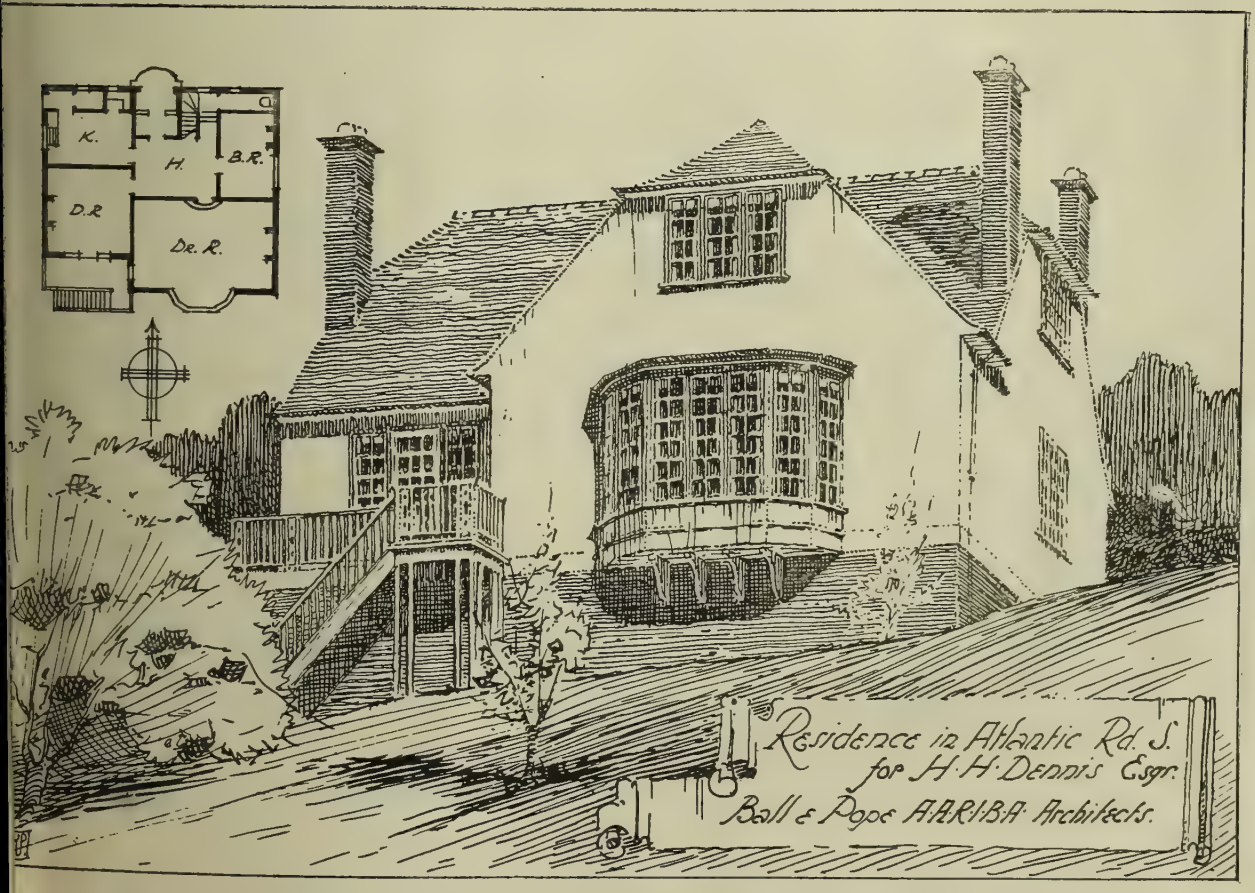


Refacing of the Carlton Club, Pall Mall. Sir Reginald Bloomfield, R.A., Architect. (*See p.* 628.)


NEW PREMISES 9 & 10 REGENT ST.
WESTON-S-MARE.
for H. Cornelius Esqr.
Ball & Pope AARIBA Architects

(See page 628.)





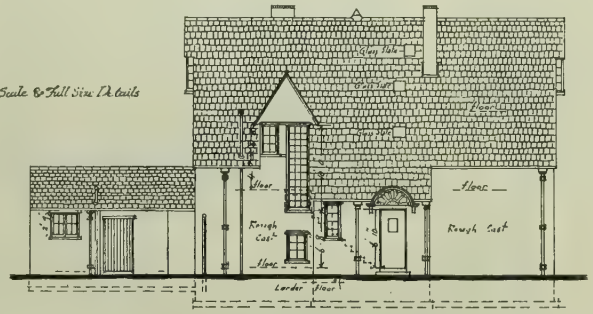
Houses at Weston-super-Mare. (*See p.* 628.)

PROPOSED HOUSE : LIME GROVE : BURY : for Wm. CLOUGH ESQ :

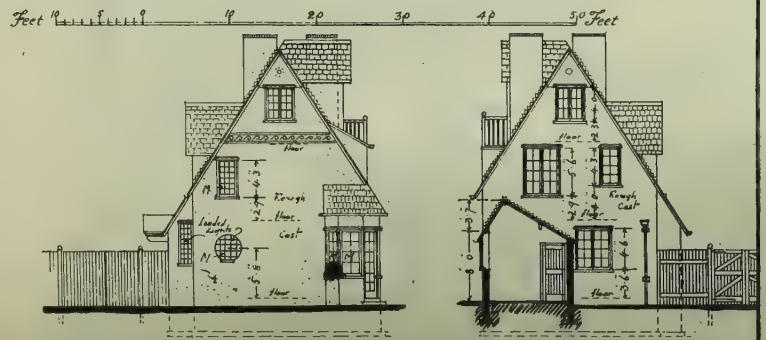


WEST ELEVATION

M = Metal



EAST ELEVATION

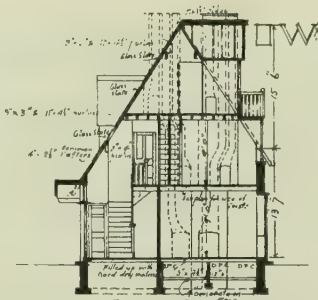


NORTH ELEVATION SOUTH ELEVATION

PROPOSED HOUSE : LIME GROVE : BURY

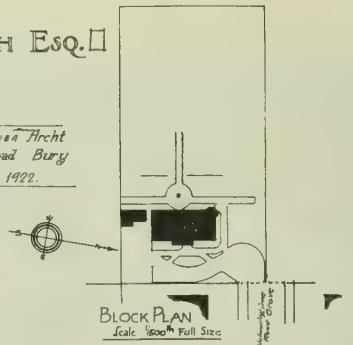
for

Wm. CLOUGH ESQ.

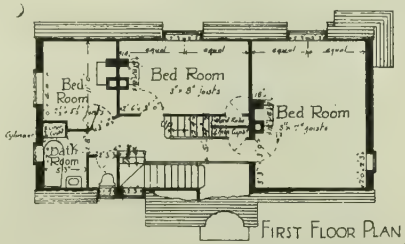


CROSS SECTION

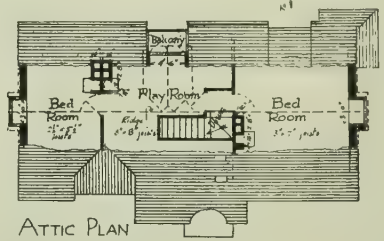
J. De Mould FRIBA Archt
Walmersley Road Bury
October 1922.



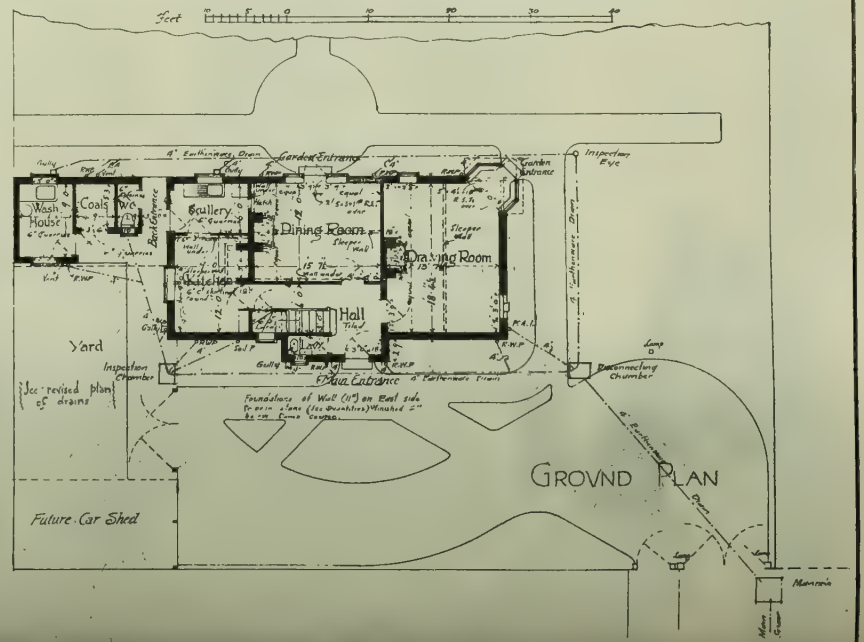
BLOCK PLAN
Scale 1/500th Full Size



FIRST FLOOR PLAN

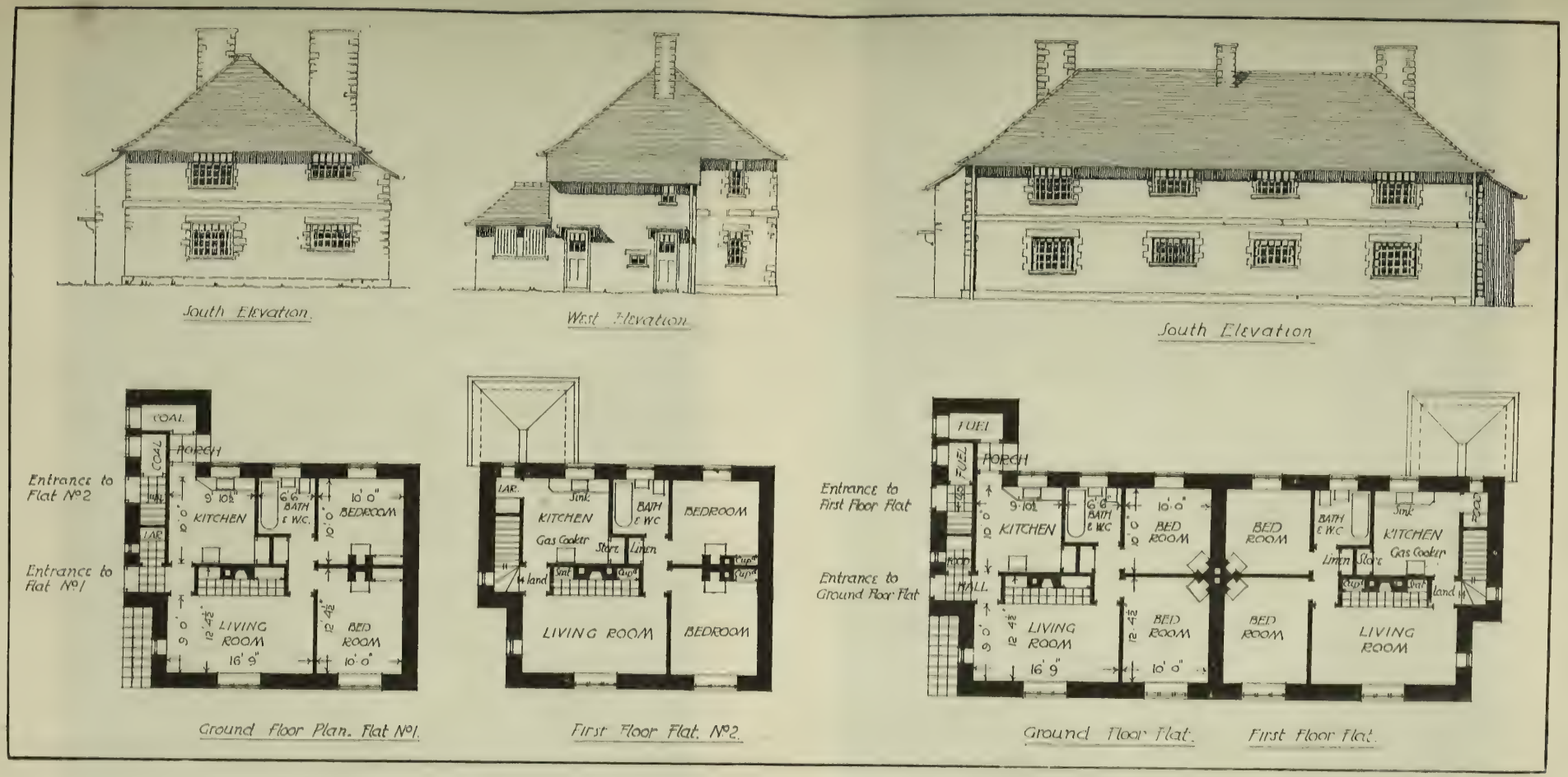


ATTIC PLAN



GROUND PLAN

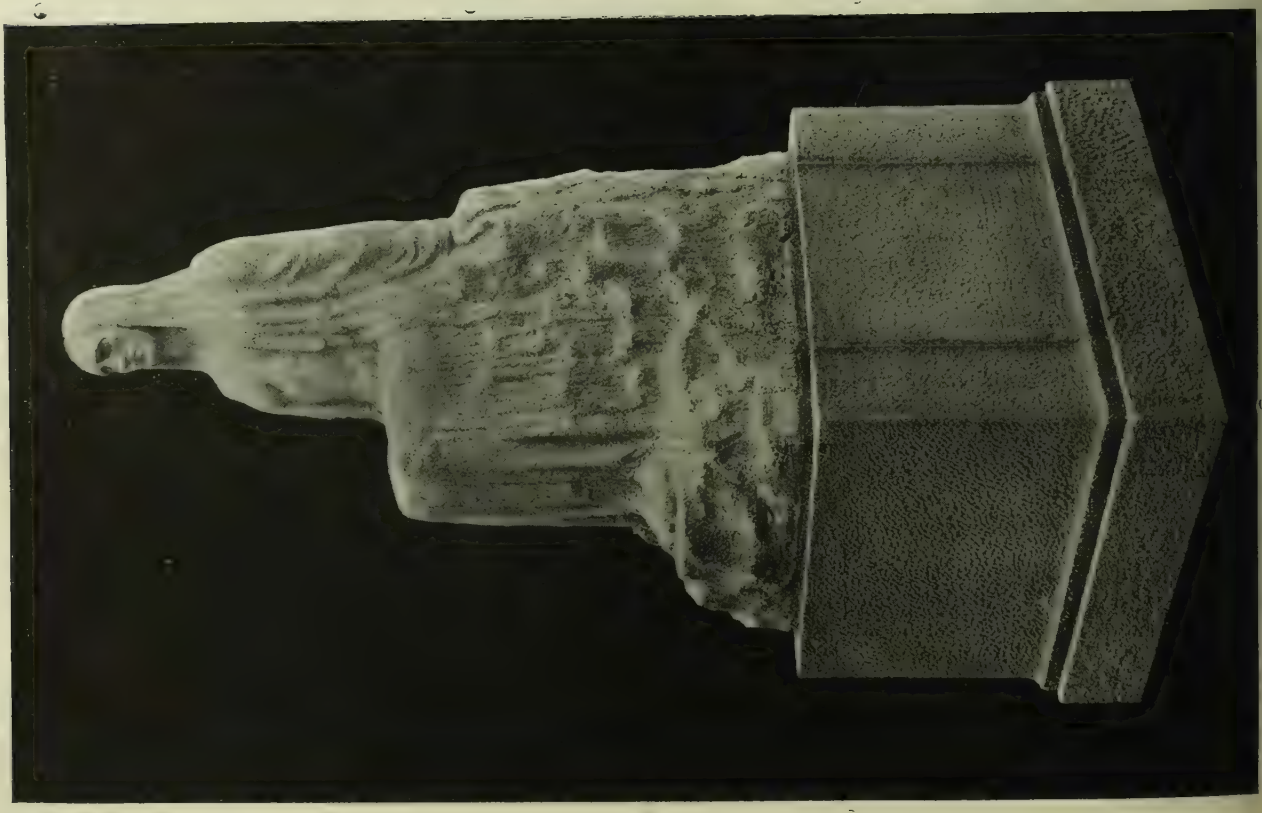
House at Bury. MR. J. D. MOULD, F.R.I.B.A., Architect.



Pair of Flats, Kendal. Mr. Geoffrey Morland, A.R.I.B.A., Architect.

[This pair of flats is also shown on drawing as a block of four flats. The contract for the pair was signed on April 24, 1923, and they were tenanted on September 12, 1923. In execution the coal places were made a separate building, and the hoods over the two doors, string course and plinth were omitted. Materials: External walls, 21 in. local rubble limestone; roofs of green Westmorland slates; windows, Hope's standard steel casements; maple flooring in two living rooms. The cubic capacity works out at 18,191 cub. ft., and the contract price was £850. The exigencies of the site necessitated a blank wall along the east, and this necessity suggested to the architect the adaptation of the design to a block of four flats as illustrated. Mr. Geoffrey Morland, A.R.I.B.A., of Kendal, is the architect.]





THE BUILDING TRADES EXHIBITION

THE OPENING CEREMONY

HE MINISTER OF HEALTH ON HOUSING.

A representative gathering of members the architectural profession and the building des was present at the opening of the Exhi-ion, at 12 noon on Friday last week.

The chair was occupied by Mr. J. A. Gotch esident of the Royal Institute of British chitects).

In introducing Mr. Wheatley, Mr. Gotch d it gave him the greatest pleasure, as Presi-nt of the Royal Institute of British Archi-ts, to accept the invitation to take the air on that occasion, because as architects thought they were all very much indebted Mr. Montgomery for the skill and enterprise had displayed in arranging exhibitions of t kind. He would urge all architects to e an opportunity of visiting the Exhibition; only architects who enjoyed large practices the pursuit of which they came in contact h many of the inventions and suggestions ich could be seen there, but more particu-ly would he urge those architects who lived the provinces, where they did good work a certain amount of obscurity and whose nes were not accompanied by a blast from trumpets of fame, to see the Exhibition. ey would go away from the Exhibition with ny suggestions and many interests, which ld very likely be of great assistance to them the pursuit of their calling. That day they l had an opportunity of seeing a report of important Committee of the building ustry on the question of housing, and it was , he imagined, outside the bounds of possi-ty that they might hear some observation that subject from a quarter which would ure their interest and importance. They st all be very glad to see from that report t the problem of housing was not insoluble. ther thing which was most gratifying to itects and to all who had the interests of building industry at heart, was that the le of the resources of the industry would not be concentrated on housing to the exclusion of ordinary building operations, which would still proceed. He was very much struck with the insistence the report gave to the operation of good will. He had recently been reading "The Life and Letters" of Mr. Page, the American Ambassador to this country during the war, and he was struck by the insistence which he made upon courtesy in international relations, and he could imagine that that good will and courtesy would help in the solution of most of the problems of life.

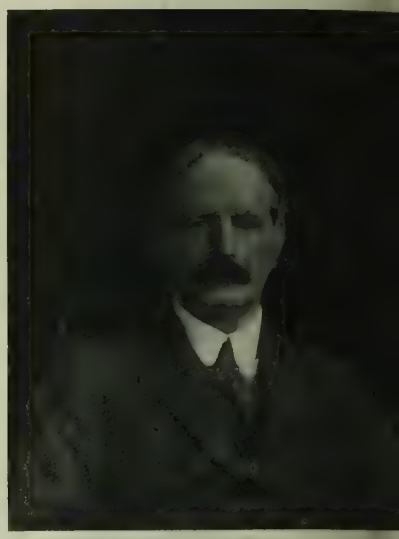
The Rt. Hon. John Wheatley, M.P. (Minister of Health) said he ventured to state that he felt proud and glad to have the opportunity of associating himself with the splendid exhibition in which they were interested and which they were about to open that morning. The Chairman, in his introductory remarks, referred to the Report for the Building Industry which had just been presented to him in his capacity as Minister of Health and he referred to the indications of good will that were to be found throughout the pages of that report. A friend of his asked him yesterday how he had succeeded in getting these building trades people to agree to so much and he replied, as the Chairman had so well put it that morning, that the only thing he contributed materially to it was confidence and good will and friendliness towards the people engaged, and an appeal to their honour to do their duty to the State. They had, he understood, with them that morning representatives of every branch of the building industry. They had first manufacturers whose business it was to produce the materials with which their building was done. They had representatives of the merchants whose business it was to facilitate supplies of these materials to the builders; and they had the builders and contractors and operatives whose duty it was to convert these materials into houses and other buildings. And they had also students whose desire in life was to better the building industry, and they had the architects so well represented by their chairman. And he would like to take the opportunity of explaining to all these people, and to those whom they represented, that his main interest in the building industry was in connection with the provision of good working-class houses. The nation needed these to-day in large numbers, and it needed them at low prices that would bring them within the need of the classes of people engaged in the production of them. They were given a good cause to-day to pessimistic prophecy about the future of the nation and he, not being a pessimist, feared that these prophecies would be realised if they continued on their present disastrous course. He wanted to draw their attention to the way they were drifting. Nearly three-quarters of the population of the country resided in small dwelling-houses. For one reason or another, mainly because of comparative poverty and industrial insecurity, most of these people could not afford to own the house they occupied and had to depend for housing accommodation on the supply of houses at weekly or monthly or yearly rents. There was at the moment a serious shortage of these houses. He would not go into the figures of the shortage or produce any evidence in support to-day. It was obvious to the man in the street, as well as to the man in the building industry. The unfortunate part of it was that things were not getting any better. In order to prevent the shortage growing they required an annual output of at least 100,000 of these houses. That number was required to meet the natural depreciation of property and the expansion in the population. And they were not getting that number, and in so far as they were not getting that number of houses their position was getting worse year by year. They were drifting as the result of that into conditions under which it was quite impossible to produce or maintain an efficient industrial population. and without an efficient industrial population it would be impossible in the future for Great Britain to remain great in the competition which it would have to meet amongst the industrial nations of the world. That made it a matter of the most urgent national importance that they should find a way, and find it speedily, out of their housing difficulties. It was not



The Opening Ceremony.

Left to Right: Major J. Petrie; the Rt. Hon. John Wheatley; Mr. J. A. Gotch; Mr. H. Greville Montgomery; Mr. H. Matthews.

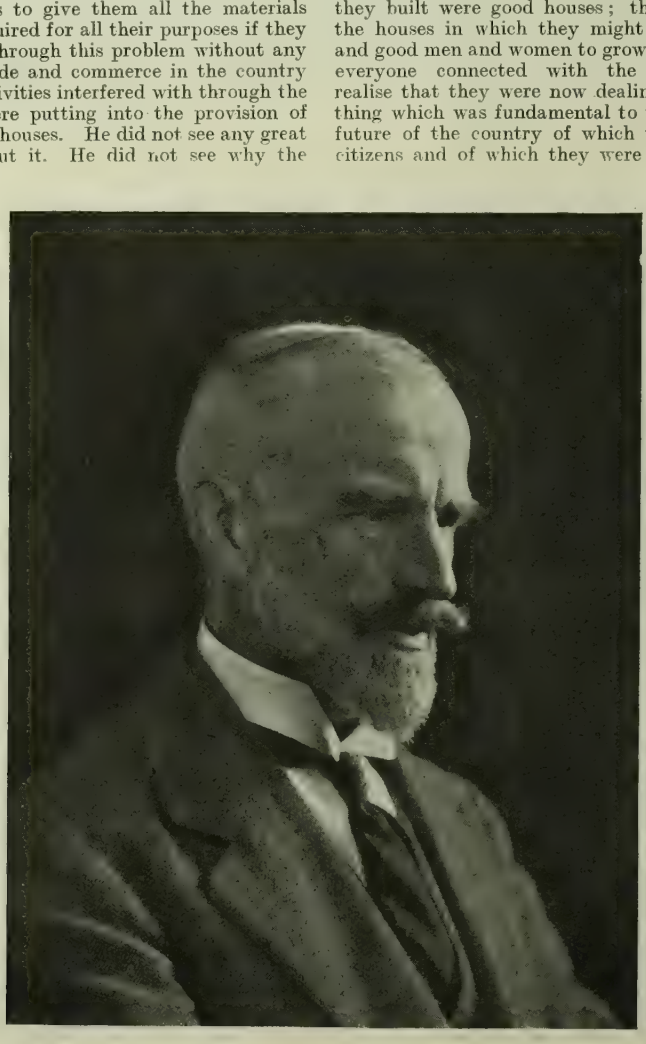
only that they had a shortage of houses, but a shortage of the workers required to build houses. He noted that in 1901 they had 834,000 men employed in the building industry; in 1911 they had only 741,000; and in 1923 they had only 632,000. Now, if one were not aware of the fact that housing accommodation would in all probability be an eternal necessity one might be driven to assume that the building industry was in a stage of permanent decay. Not only that, but they found their skilled workers leaving the country because they could not find employment at reasonable remuneration in their native land. In addition to that, they had their labourers on the dole. That seemed to him to create a problem which the nation would benefit enormously by solving. The first substantial check to this backward slide would be to get the building industry properly organised, and so he had been appealing with some success to the building industry as a whole to lend the value of its experience and knowledge to the State in finding a way to produce these houses. After all, politicians did not produce houses. Houses were produced by the people who were represented there that morning, and it was mere common sense that they should appeal to the people who knew most about housing to help them to find the necessary houses. He wanted to appeal, first of all, to the manufacturers to increase the number of people employed in the industry and the capital invested in it, so that in getting the additional houses they hoped for they would have an output of materials which would enable them at the same time to continue ordinary building work, as they were advised to do by their Chairman that morning. A great deal would depend on the ability of the manufacturers to give them all the materials that they required for all their purposes if they were to win through this problem without any section of trade and commerce in the country having its activities interfered with through the push they were putting into the provision of working-class houses. He did not see any great difficulty about it. He did not see why the nation which wanted houses should not be able to organise its industry in such a way that instead of paying people for registering at Labour Exchanges they should pay them wages for producing and delivering the goods of which the nation was so much in need. He would appeal also to manufacturers, and not to them alone, to consider how the methods of production could be improved to the greatest extent so as to ensure that the increasing demand for building materials would not result in an increase in the prices of those materials. That was also very essential. There was first a limit to the rent which the class of people for whom they wanted houses could afford to pay, and there was a limit to the extent to which they could hope the taxpayers of this country would contribute in subsidy, and so it was clearly the duty of all of them to see that the problem was met so far as possible by not merely expressions of good will but by co-operation in industry, such as the improvement in their methods of production, and that for a given output of skill and capital they would be able to get an ever-increasing result. If they could get something like that as their object the difficulties which were now in the way would get less and less as the years went by. He would like to say a word to the students whom Mr. Montgomery had so very wisely brought into partnership in this Exhibition. He would like to appeal to them, and not only to them but to all the people engaged in the industry, to take a pride in their work and as far as they could do ensure that they were not going to have for the children who would be the citizens of this nation twenty or thirty years hence houses which were unworthy of their race. He wanted the operatives to see that the houses they built were good houses; that they were the houses in which they might expect great and good men and women to grow. He wanted everyone connected with the industry to realise that they were now dealing with something which was fundamental to the successful future of the country of which they were all citizens and of which they were all so proud.



Mr. J. A. Gotch, P.R.I.B.A.
(Chairman at the Opening Ceremony.)

He wanted again to express his pleasure
having the privilege of opening that Exhibiti
and trusted it would receive the attention a
success it deserved. He had great pleasure
declaring the Exhibition open.

Major James Petrie (President of the Ins
tution of Structural Engineers), in proposi
a vote of thanks to Mr. Wheatley, said
Building Exhibition had not been held for t
years now, and it was therefore dou
pleasurable to them to have it opened o
more by a Minister of Health. With reg
to Mr. Wheatley, it was rather difficult
him to say anything, because he was somew
of an unknown quantity. However,
Wheatley seemed to know what he was com
to the House of Commons for, even althou
other parties in the House did not appear
be very desirous of allowing him to have w
he wanted. The Labour Government had
pressed its intention and desire to do eve
thing it could to better housing conditions
this country. So had other Governments in
past; but Mr. Wheatley, as Minister of Hea
was very keen on pushing forward hous
as fast as he possibly could; and they ho
and were sure that some of the things he
seen or would see in the Exhibition would
of some assistance to him in his task.
believed the Government had stated its int
tion of building 200,000 houses per annum
an indefinite period of years. The intent
was no doubt excellent, but there was a
grave question as to whether the human fa
which entered into the problem permitted
such a number being built, at any rate
brick. The most difficult part of the hous
problem was the availability of man pov
and that that was the determining factor
the provision of workmen's houses. It
quite obvious that unless means were fo
whereby a greater number of skilled
might be established in the industry
probability of considerable expansion in
annual production of houses would not
realised. In the consideration of the ques
of building, Labour views tended to obsc
a comparatively simple issue. Sometime
complete answer to a request for augme
tion was thought to be found in the t
number of unemployed, but upon analysi
was found that practically the whole of
unemployed consisted of unskilled men.
the addition in some cases of painters, du
the seasonal fluctuations in painting op
tions. Normal unemployment in the ski
trades might be assumed to be about 5
cent., but for some time past unemploym
in such trades as those of the brickla
plasterer, slater and carpenter had been
siderably sub-normal. Another fallacy
often appeared was that of assuming that



Mr H. Greville Montgomery, Hon.A.R.I.B.A.
(The Organiser of the Exhibition).

of the skilled trades might readily be available for the building of workmen's s. There was, first, the question of the er of workmen necessarily and urgently ed for maintenance and repairs. This made a far greater demand upon the ng industry than was usually supposed. gures given were that in this work one- of the total amount of labour available building trade was employed. Of the ximate two-thirds remaining, it might be assumed that one-third would be ed for industrial and commercial build- Thus one was left with about 40 per f the whole available for house building, his number would represent approxi- 125,000 houses per annum. There was, rse, the all-important question of the ility of the building of houses and cot- with unskilled labour. That, of course, that those houses and cottages would to be built in some material other than and he commended to the serious atten- f Mr. Wheatley the possibilities offered ncrete. This material was, he thought, y acknowledged to be superior to all with the exception of brick, and ly as many people would say that con- was superior to brick as brick would find rters on the other hand. In any case were very many systems now of concrete- building, and some of these, he was were very excellent. The fact that such tant centres as Liverpool, Glasgow, urgh, etc., had adopted concrete cottages fficient answer to any opposition which be incurred. Some years ago there many valid objections to building houses ttages of concrete; it could not be denied, er, that at the time concrete was in its y as a material for house and cottage ng, and the numerous strides which had ly been made would confound those who t taken the trouble to keep in touch with had been done during the past few years. uld assure Mr. Wheatley, without any ice or bias, that concrete houses could de every bit as good and every bit as ive as brick houses. It was impossible he whole of the housing programme be carried out in brick houses: whilst te was a material upon which unskilled could be used, which could be made ttractive, and in which houses could be apidly and efficiently built.

vote of thanks to Mr. Wheatley was ed by Mr. H. G. C. Johnston (President of stitute of Clayworkers), who said he ed he ought to say something to contro- he statements of Major Petrie, but time t permit of that, so he would content with adding his quota of thanks to Mr. ley for his kindness in being present that g, and for the excellent and helpful he had made. Few of them expected ith the advent of a Labour Government ould have such silver-tongued orators Wheatley. As Chairman of the Com- of Building Manufacturers and Suppliers ld like to express their thanks to Mr. ley for the way in which he had met them express their belief in the honesty of of the Government and Minister of in tackling the housing problem.

plying, Mr. Wheatley said, with regard to tement made that the bulk of the unem- were unskilled workers so far as the g industry was concerned, and that re they might not look for much assist- om them in the solution of the housing n, he submitted that that was rather a ial view to take of the situation. The s that those men were unskilled because d not been trained, and they had not to r the cause of the troubles of to-day in penings of this morning. They should l to prevent the troubles of the future by ng the conditions of to-day. He was l that into the essential industry of house her forms of building they should bring er supply of highly-skilled labour, and s the basis of the report from the building y to which reference had been made. The building industry had laid itself out to produce scientifically the essential building labour for the nation, and if it did that, and a greater number of youths were trained in the industry, they would not be able to say in the future that labour was needed but could not be got. If they could not get labour to-day it was because they had neglected their duty in training the necessary labour in the past.

A vote of thanks to the Chairman was proposed by Mr. H. Matthews (President of the National Federation of Building Trades Employers), who said they were delighted that Mr. Gotch had been able to be present. They had heard a great deal about which one might say very much, and if they could have a discussion on some of the matters put before them by previous speakers they would find very wide differences of opinion. But there was no time for that, and he would simply ask them to indicate their very great pleasure in having Mr. Gotch as their chairman.

In a brief acknowledgment Mr. Gotch asked them not to think he undervalued their kindness if he said it was wholly unnecessary. It had been a very great pleasure to him to be present and to hear such an interesting speech by the Minister of Health.

A GENERAL IMPRESSION.

Anyone interested in building (and who is not?) must find a wide appeal in the Exhibition. The resource and enterprise of exhibitors is seen once more in the progressive character of exhibits and the methods of their presentation. It would be too much to say that they all take the best advantage of the opportunities offered, for there is an increasing realisation that it is not only in the intrinsic value of the goods shown, but also in the way they are presented that they must base their best appeal for notice. When bricks and tiles, stones and slates are shown in some actual building, their quality is not only made more attractive but is far better realised. There is always plenty of matter in the wrong place in the industries connected with building, and the more elaborate and fussy the setting the more are the real objects of the exhibition obscured. There are again a few pavilions and stalls which are a pleasure to look upon and which lead up to some studied appreciation of materials and treatment. We miss some of the former successes of stone and slate exhibits, but one of the latter vies with the best of the brick pavilions in its appeal. The added space on the ground floor is a great advantage, and all this extra space appears to have been readily filled.

Exhibits, amongst which one of the two *Builder* stalls occupies its usual place, seem more numerous than ever. Many excellent examples of craftsmanship and decorative work are exhibited, but we could have welcomed more of the first-named. Though there are some fine exhibits of stoves, ranges and fireplaces, this department appears to us rather less in evidence this year; but it cannot be said that there are too many side-shows which have little or nothing to do with building proper. It is apparently impossible to get all the best exhibits into the best positions, for some that deserve better are tucked into a certain measure of obscurity. Notwithstanding the strain on time and cost imposed on those who wish to be in evidence at the many recurring exhibitions, and the added attractions at



The Rt. Hon. John Wheatley (*Minister of Health*).



General View at the Opening Ceremony.

Wembley this year, the advantages of the Building Exhibition continue to bring to it so many exhibitors of note that no architects or builders can afford to rule it out of their sympathies.

The various exhibits must make their varied appeal to individual visitors, and we may here suggest that this can only result by the readiness of the visitor to give some sort of consideration to the objects shown. We remember years ago at one of these exhibitions meeting a well-known and distinguished architect who was paying a hurried visit, and was just leaving when we met him. "There isn't much of interest to me," he said. But after a half-hour's talk and note of various exhibits he changed his opinion and felt rewarded for his visit. In such a large assemblage of things as has been got together at the behest of Mr. Greville Montgomery the eye is naturally at first attracted by a good display of form and colour, and there are few, if any, kind of exhibits which do not lend themselves to some distinction of this sort. It might seem invidious to mention any particular names, but the eye will at once be caught by some of the brick exhibits and their excellent pavilions and interior decorations. Messrs. Collier, Messrs. W. T. Lamb & Sons and T. B. Lawrence & Sons. and others, have had architectural advice in producing very attractive exhibits, and the old Delabole slates and Burlington slates are well displayed in small pavilions. A fine statue by Mr. F. Doyle-Jones, constructed in white cast concrete stone, with an aggregate of Cornish granite, and cast by Mr. E. F. Munday, is shown by the Adamite Co., Ltd., who are to be congratulated on getting the services of Mr. Doyle-Jones, the sculptor, to give dignity and value to their exhibit.

After all, a great value in such an Exhibition as this is the illustration of the application of materials in some form of actual construction, and if this could be made a more definite feature exhibitors and visitors would all be gainers.

The new annexe to Olympia is a fine well-lighted hall, and along the walls of this are arranged many interesting architectural drawings, which include a large collection of H. W. Brewer's drawings, which have been illustrated in *The Builder*, as well as the originals of *The Builder* series of Cathedrals.

An unusually good stall is that of the Bath Artcraft Co.; the Drytone is amongst the best; and much of the excellence of the Carron Co., the Eagle Range, Smith & Wellstood, Thos. Parsons & Sons, Manders' varnishes, and Crittalls, uphold the high standard of the best these Exhibitions have shown. *The Builder* exhibit of models is a striking feature of the stall.

If one compares this show with the other three held since the war, perhaps the most noticeable feature one misses is the plethora of new systems of cottage construction, which occupied so much space and claimed so much attention a year or two ago. Evolved in a hurry to serve a national emergency, it is not to be wondered at that they have not all survived. At one time the number of different systems of cottage construction approved by the Ministry of Health must have been considerably more than a hundred, whilst now the number of special methods which are being used to any extent can be counted on the fingers of both hands. But it has been a case of the survival of the fittest, and it can be said that the patented and special systems to be seen at the Exhibition have most of them passed the test of time and are now accepted as alternative methods of building by which sound cottages may be erected. It is interesting to note that most of these systems, which are chiefly of concrete, recognise the inherent qualities of traditional building with small units, for although the concrete block is larger than the standard size brick still it is being used to a much greater extent than the systems in which whole cottages or whole walls are cast in one monolithic whole.

While considering concrete cottages, the considerable number of stands devoted or partly devoted to the artistic possibilities of this material may be mentioned. Coloured cements and materials for colouring cement and concrete, ranging from powders to mix with the dry cement to paints for application on concrete after it has set, are to be seen on several stands. Other methods of treatment, chief among which is the use of coloured aggregates exposed by scrubbing the cement from the surface before it has finally set, are shown by means of small panels on several stands.

It will come as a surprise to many to learn that such well-known sculptors as Mr. Gilbert Bayes, Mr. Doyle-Jones, and Mrs. Phœbe Stabler have executed sculpture in concrete, yet such is the case, and a specimen of Mr. Doyle-Jones's work, executed in white cement, is on view on one of the stands.

Several of the stands bear testimony to development in constructional methods to the increasing adoption of machinery. gang of navvies with barrows wheeling mate excavated from foundations over plank tra is now rarely seen in urban areas, where ste shovels which scoop the material from site and dump it direct into lorries have pro speedier, cheaper, and less obstructive traffic.

The power hoist is also in evidence. familiar "Scotchman" presiding high in air over building operations is a familiar si and is likely to remain so for many years come, but we call to mind one or two l buildings operations in London which have built without his aid during the past few ye These hoists, by which material may be elev to the top of a building at high speed wit the necessity for scaffolding, are now b extensively used, where the work in h warrants their adoption, by those who re the increased speed with which they will materials and the large amount of ma labour they save.

One welcomes the selection of machinery mixing concrete which is on view. When nature of concrete is considered it is obv that the best results will not be obtained u the cement and fine and coarse aggregate so thoroughly mixed that every particl stone is coated with a film of cement, and rather remarkable that it is only within paratively recent years that machinery been developed for this purpose. In r quarters the gradual displacement of ma labour and craftsmanship by mecha devices is deplored both on account of the of individuality in the finished product because it tends to replace the craftsman machine-minders, but it is doubtful if an can bring this argument to bear in the ca the mixing of concrete. The best desig concrete construction can be rendered u if the materials are not properly mixed, s one compares the results turned out by a the reliable machines on show at the Exhi with a concrete turned over by hand board—the degree of mixing of which, h nature being what it is, depends to a extent on the tirelessness or otherwise c back and arms of the labourer doing the —the well-designed machines with a rapid put now on the market are a very we feature.

THE STANDS.

piece of sculpture by Mr. F. W. Doyle s (illustrated in this issue) is shown by damite Co., Ltd., of Regent House, Regent-t, W.1. This sculptured figure, entitled e Spirit of the Rocks," has been executed ncrete composed of " Atlas White " cement an aggregate of Cornish granite. The use e white cement prevents any tendency to ct from the effect of the granite such as l have been the case if a grey cement had used, and the texture of the figure is ly that of the aggregate in which it is lled. The possibilities of white cement decorative purposes are well shown by exhibits of sample slabs in which it has used; these specimens of cast stone have xcellent appearance which should appeal chitects in search of something which has ically all the attributes of natural stone r as strength and appearance are con-d, yet is considerably cheaper. " Cole-id," a liquid which is added to the gauging to harden and waterproof concrete, is exhibited.

n Liversidge, Ltd.—With a demonstration aint-burning, lead-burning, and welding ratus proceeding during the greater part of ay, this stand is proving a big attraction. interesting to builders will doubtless be rm's new paint-removing apparatus, which ts of a steel bottle of dissolved acetylene ting in connection with a paint-burning ipe. The flame is simply a mixture of the lene with air admitted to the blow-pipe no oxygen bottle is therefore needed. made with this apparatus and with normal l and paraffin blow-lamps are extremely rable to the air-acetylene. It is a time- and the flame does not blow out in the st of winds. For girder cutting a special cetylene apparatus is shown, being supplied with the gas in steel bottles ready for use, th a gas-generating plant. A complete of builders' and contractors' acetylene large and small, including hand-lamps, is ted.

D. Anderson & Son, Ltd.—Those interested in all forms of " Red Hand " roofings, sarking and lining felts and dampcourses, including " Rok," " Stoniflex," and " Hippo " roofings should not fail to pay a visit to this stand. The special exhibits consist of a section showing the construction of a " Belfast " roof, and a section demonstrating Anderson's flat roofing system. Both these form the actual roof of the stand, and access to them is gained by a stair-way. " Rok " roofing and " Ferro-Rok " are used as roof coverings on the Belfast roof. Wood fencing treated with " Sidol " wood preservative is shown; the stairway to the " Belfast " roof and the flat roof is likewise treated, as also is all other woodwork of the stand.

Art Metal Equipment Co., Ltd.—The most interesting perhaps of this firm's exhibits are their rolling steel doors or shutters as used for large openings, and which comply with the L.C.C. and fire offices' regulations—an exacting test. Working parts are fitted with ball bearings to ensure ease of operation. Economy of space by the use of steel is shown in the fitting-up of record rooms, libraries, strong rooms, filing departments and archives, &c., where every square foot of space is of great value.

Concrete mixers and block-making machines, a rock crusher, and a hoist are to be seen on the stand of the **Australia Concrete Machinery & Engineering Co., Ltd.** The " Tonkin " mixer and its power unit are now mounted so that the whole of the working parts except the axle and stirrers are totally enclosed, so that there is no possibility of dust or the materials being mixed interfering with the running. The mixing trough has also been fitted with an improved method of discharging the mixed materials. The well-known " Australia " block and slab-making machine, which has been used on a large number of housing schemes and turns out 400 slabs per day by hand operation, is on view, and also a strongly-constructed hoist.

Baldwins, Ltd.—Chief among the exhibits on this stand is a one-bolt manhole hot-water tank and welded galvanised hot-water cylinders. There is also a display of galvanised cisterns and tanks, black sheets, and a variety of paint kegs, drums, and taper neck cans. The stand, which is unlike any others in the exhibition, is calculated to appeal to the builders' merchant rather than to the builder himself, as Messrs. Baldwins do not deal direct with the retail purchaser.

Bell's Poilite & Everite Co., Ltd.—From whichever side one enters the New Hall, the eye is at once caught by the 60 ft. high tower which crowns this stand. The lower portion of the erection is octagonal with a roof showing the possibilities of Poilite pantiles, particularly the russet-brown shade, of which the firm has made a speciality. The tower proper is 11 ft. square, and is clothed in " super " Everite " Big Six " corrugated asbestos cement sheeting, for which it is claimed that its first cost is its only cost, as it does not require painting or other treatment, and is water, fire and acid proof. Above the 11 ft. section of tower yet another portion rises, this time 7 ft. square, clad in " Standard " Everite corrugated sheeting, the roofing between the two tower portions showing Poilite slating in various colours. The top of the tower is a hipped roof with standard red diagonal tiling. Outlining the octagonal portion of the stand is " Everite " rainwater piping, which is claimed to be stronger and lighter than castiron.

George Blay.—The man who desires a cheap garage, the steel shelter hut exhibited on this stand should have a distinct appeal. Built of 14-gauge rolled steel sheets and secured with bolts and washers, these buildings are self-supporting and require no structural work or bracing of any kind; they are quite easily erected or dismantled, are waterproof, and practically indestructible. The hut at the stand shows a heavy wood door at one end. Rising in an arch above the hut mentioned is a section of a steel building, 12 ft. 6 in. in greatest height, and 14 ft. in width. On the stand is a good display of excavator's tools; also standard cottage pattern steel casements, such as are now in large demand for housing schemes.



" The Builder " Stand.



The Minister of Health Inspecting a Model on "The Builder" Stand.

Pumps and hose, builders' and road flares, fencing, expanded metal sheets, and other items, make up a comprehensive display.

William Briggs & Sons, Ltd., give a special display of "Utex," the utility roofing. It is a light-weight roof covering of great durability and especially suitable for underslating purposes. Bitumen "damp courses" for foundation walls, including "Aqualite," "Plastique" and "Challenge" brands, are also shown. Specimens and models demonstrate the "Challenge" composite roofing system, which consists of laying two or three layers of "Challenge" roofing to either flat or slightly pitched roofs of wood or concrete.

In a large stand in a central position the **British Fibrocement Works, Ltd.,** illustrates the adaptability of its various "Fibrent" asbestos-cement manufactures. The roof is sloped at different angles to show diagonal and straight patterns of slating in four shades, and there is also demonstrated the "Fibrent" corrugated sheeting with which the Company was early in the field. The appearance, strength and simplicity of the "Fibrotiles" should also be noted by the visitor. The hut walls show the use of Fibrent corrugated and flat sheets; there is a gable which gives a good idea of the half-timbered effect which can be obtained, and the end wall demonstrates the Fibrent panel sheet and the method of fixing with a rebated joint.

The British Vacuum Co.—Examples of this efficient, economical and easily operated vacuum cleaner can be seen on this stand. Designed and constructed by the originators of vacuum cleaning, the B.V.C. cleaner is made of solid oak with highly plated nickel fittings. So compact is the design that very little room is required for storage when not in use.

O. Bruster.—The "Baseco" is an independent boiler possessing some unique features. A special water pocket in the dome secures maximum efficiency with a minimum of fuel. The dome is easily removed, exposing the whole of the interior, with easy access for cleaning. This is particularly advantageous in districts where the water supply is exceptionally hard. Where the water contains acids in solution, or where peaty water is encountered, the cast-iron construction is a valuable feature as it does not readily corrode. The "Glow-Worm," another exhibit, is a small inexpensive boiler designed for domestic use. Waterways are so constructed as to form a baffle to increase heat transmission to the water, while the hot gases are directed by the baffle to traverse the underside of the hob, making it a really effective hot plate. Broken coke, anthracite or household refuse, may be burnt. A smoke pipe with door serving as regulator, ventilator, and facilitating cleaning, is supplied.

Builders' & Contractors' Plant, Ltd.—Restrictions in the matter of vertical space prevented the exhibit by this firm of a combined travelling crane, hoist and concrete placing plant, but there is plenty of interest to be noted on the stand, nevertheless. There is, of course, the well known "Exe" hoist, though even here a 20 ft. cut has been made to enable it to be shown; in connection with it there is the arrangement for hoisting either the concrete tipping skip or barrow platform. Some small derricks, for the smaller firms which cannot afford steam plant, are to be seen; the apparatus is supplied with either twin or single jib, and the capacity is about five cwts. Sand washing apparatus will attract interest, as also the various screening plants, oil engines and so forth. The utility and simplicity of the firm's special form of timber clip, for use with square timbers will be appreciated. Other things which should be noted are the concrete block-making machine, a special patent turntable for trucks, and trench pumps and trench braces.

Lancashire quarry district. Slates of m sizes, qualities, and colours are used in the w and roof, whilst the floor shows the value of s for paving to meet different requirements.

Messrs. Byrd & Co. are demonstrating "Metaform" method of wall construct which is now being widely used by man the leading contractors in this country. size or shape of concrete walling can be car out with these forms, which are standard in units to build round any curves or an The use of this type of metal shutterin extremely simple, and as the plates can be us large number of times before they become w out, a considerable saving can be effected their use as compared with timber, which w cut for one job can rarely be used for anot

George M. Callender & Co., Ltd.—Der strating the waterproofing properties "Callendrite" sheeting is a model rese constructed of wood with sloping sides, l throughout with this material. The rese



HOIST SHOWN BY BUILDERS' CONTRACTORS' PLANT, LTD.

The Burlington Slate Quarries.—As a demonstration of the possibilities of slate in building work this stand is a complete success. Carried out in the form of a small pavilion, the main piers which carry the roof are in varying thicknesses of slate stone, with weathered bed-joints according to the local custom in the North

is being maintained full of water during period of the Exhibition. In the centre reservoir is a column of loose bricks, und top course of which, just above water-le inserted a piece of "Callendrite" dampc Though highly porous, the bricks abov dampcourse remain absolutely dry, thou

nditions are far more severe than anything kely to be met with in actual practice. Ledkore " dampcourse, lead core with bitumen verings, " Protex " for damp-proofing walls, Bitusol " anti-rust paint for iron and steel-rk, roofings, felts, roof repairing compound, ., are also exhibited.

Walter Carson & Sons.—" Matamure " is a ently introduced flat oil paint for all interior orative work where a dull, non-glossy surface equired. It possesses an excellent matt finish, lurable and easily cleaned. There are some nty-six different shades from which to select. 'overine " is a white undercoating of estab-ed reputation. Its use saves time in pre-ration work. It only requires to be thinned h turpentine and is ready for application five minutes or less. Further, it dries hard, l, since it can be coated in a few hours, the shing coat can be applied and the work mpleted in the same day. Metallic paints a speciality of the firm and the range offered ludes aluminium paint for hot water and am pipes, radiators, gates and ironwork erally, and coloured paints for radiators and rior metal work. Specimens of work with above paints with other of the firm's numer-products are attractively displayed.

Carter & Co. (London), Ltd.—Terrazzo work, in rs, dados and staircase toppings and steps is ays interesting for its inherent beauty of ign and finish. Messrs. Carter's have a com-hensive exhibit of terrazzo of all sorts in the w Hall—steps of Hopton wood terrazzo ntical with those being installed in Adelaide use; slabs of white marble terrazzo with orative borders in vitreous glass; terrazzo id with black monastic tile; terrazzo columns oft shades of cream; floor combinations of azzo and mosaic, and Venetian glass mosaic ures are shown.

arron Company.—A selection from Messrs. ron's designs of ornamental cast-iron columns, ngs and panels are used in the formation of



Grate Shown by Carron Company.

stand. The firegrate exhibited is constructed ntirely new lines, without complicated or blesome regulating devices. All the heat ilised, and is simply regulated by adjust-of the canopy; it gives an ample supply ot water, and the temperature of oven is ily raised and easily maintained. An tial point is that it is most economical in and efficient in every respect. It has arronia " barless fire, with ventilating fret, nental canopy and " footman," together a large hot-air oven for baking, and a odious hob over oven, with door to form hot closet. The new design black boiler interior grate is also shown.

Cayless Bros. (Battersea).—Important improvements have recently been made in connection with this firm's patent telescopic ladders. Spring cases, or clips, are now provided for the pulleys to permit easy withdrawal or replacement of the elevating ropes. The time usually expended on threading the ropes over the pulleys is saved, while the fact that the ropes can be easily removed is an advantage where they have to be stored in the open. No cast-iron or malleable iron is used in the construction of the ladders. Wrought-iron fittings are used throughout. In place of grooves cut into the stiles or uprights wrought-iron running studs and guide plates are fitted, facilitating manipulation of the ladder and prolonging its life. Hand-carts, barrows and builders' requisites generally are also exhibited.

The Gelesco Paint Co.—No better testimony to the firm's products could be had than the excellent decorative work that has been recently carried out at Messrs. Debenham & Freebody's. It is open to inspection, we understand, by appointment, and is well worth a visit by anyone interested. " Gelesco " ceiling distempers and " Semesco " washable distempers are among the principal exhibits.

The Cement Marketing Co., Ltd. (selling organisation of Associated Portland Cement Manufacturers, British Portland Cement Manufacturers, Ltd., Martin, Earle & Co., Ltd. and the Wouldham Cement Co., Ltd.) have an office at which are shown samples of the well-known brands of cement, for which they are the selling organisation, and of the raw materials used in production.

Charles Churchill & Co., Ltd.—Non-slip staircases and treads form one of the features of this stand. The " Alundum " tiles, as they are called, are so hard that they will not become polished by ordinary hard wear, in addition to which they are acid proof. Their utility may be judged by the fact that the Company has most of the railway companies among its customers. Examples of stairs made of these products, and of stairs with tile treads inset, are shown. Also are to be seen terrazzo tiles and aggregates for treating cement floors to render them slip-proof. For rubbing down terrazzo there are samples of rubbing bricks. Interest also attaches to the " Manning " abrasive cloths and papers, including " Speedgrits " for the wet rubbing down of enamels and varnishes, waterproof flint paper for the wet rubbing down of paint, garnet paper for sanding woodwork, and metal polishing cloths and papers.

The Climbing Steel Shuttering Co. exhibit their patent system of revolving galvanised steel shuttering for building concrete walls *in situ*. This shuttering is formed of light galvanised steel plates, one for each face of the wall, which are placed in position the desired distance apart, wired together, and filled in with concrete. To form the next and succeeding courses the wires connecting the lower edges of the plates are cut and the latter turned up from the bottom, the top wires acting as hinges.

Colthurst, Symons & Co., Ltd.—A visit to this stand shows their patent interlocking Roman tiles. This pattern so interlocks that they are not easily displaced, and nailing is rendered unnecessary. Also patent " Paragon " tiles of improved type can be seen. There are raised checks in the formation of this tile which give protection against side or up drifts. The registered " Acme " tile is also on view.

The possibilities of artificial stone for decorative purposes are well shown on the stand of the **Croft Granite, Brick and Concrete Company, Ltd.**, who are exhibiting window frames, fireplaces, door hoods, brackets, architectural stonework, and garden ornaments, such as flower vases, sundials, and bird baths. These products are practically indistinguishable from natural stone, and have a particularly clean-cut finish. On this stand are also shown concrete sewer tubes, paving flags, kerbs and channels, fence and lamp posts, garden rollers and reinforced concrete floors. In natural stone there are granite kerbs and setts, channels and other stones, and tarred macadam and common and special bricks are also shown.

A simple type of revolving drum mixer, known as the " Willing Worker," is exhibited by **Messrs. Drummond Brothers, Ltd.** This machine is mounted on a trolley and driven by a 3 h.p. paraffin engine. The capacity is from 6 to 8 cu. yds. per hour. It is arranged for hand tipping, and the engine is totally enclosed. A diaphragm pump mounted with a paraffin engine on a portable trolley, with a capacity of 5,000 gallons per hour and a lift of 20 ft., a drag saw complete with a 3 h.p. engine, and a duplex force pump are also shown.

Eastwood's, Ltd., & G. H. Smith.—Damp-proofing materials, which have been given the name of " Sika," are displayed in profusion at this stand. Attention is attracted by the demonstrations which are being given twice a day of the " Sika " method of rendering a concrete wall while water is running over it. In this connection it is of interest that " Sika " has been used throughout the Simplon and St. Gothard tunnels, wherein big streams of water were met; a photograph on the stand shows this work being carried out. Important tests made for absorption showed that at fifteen atmospheres no water percolated through concrete treated with " Sika." Other materials shown are cement, tiles, bricks, &c., treated to waterproof and to prevent deterioration from other causes. There is also " Purigo," a material simultaneously to clean and harden stone, ten different colours in fire-proof paint, and a special putty for laying parquet direct on concrete.

The " Eclipse " Rail-Track Ladder Co.—Shown here for the first time is the " Eclipse " patent scaffolding, which can be erected in very short time and by unskilled labour. This scaffolding seems particularly suited to the smaller type of building work, and it has the advantage of causing no obstruction. Another item of interest on this stand is the company's extension trestles, which are similar to the ordinary trestle, but have a ladder extension to rise from the apex to give an added height of several feet if required. Another of the newer lines is the useful folding trestle for the use of paperhangers. In addition to the items mentioned, there is a large display of extension ladders, hand-trucks, builders' steps, and other things of a similar nature.

The Elsan Manufacturing Co.—The " Elsan " indoor closet is all steel, stove enamelled and

scientifically ventilated. A specially prepared chemical is used, a pint of which mixed with one or two gallons of water, is put in the container each time it is emptied. The chemical deodorises and liquifies the sewage, rendering it harmless and odourless.

Evans & Ronald, Ltd.—Utility is a common characteristic of this firm's exhibits. The "Eddoll" gate latch is a new device for keeping gates closed. It comprises a strong spring clip, in a malleable iron body, into which the latch piece fits. You simply close the gate, the clip keeps it shut. It is simple, easily fitted and there is nothing to get out of order. Equally ingenious is the "Evron" combined barrel bolt and bullet catch for doors, windows, &c. The "Riddick" door handle, another exhibit, is noteworthy as being free from grub screws. Knobs are composed of two hemispheres that screw together, the bottom halves being fixed to the spindle by substantial nuts. Adjustment can be made to one-hundredth of an inch. "The Clip-On" all teak draining board is also shown.

Ewart & Son, Ltd.—The firm's "Victor," "Lightning" and "Califont" geysers are demonstrated in use. Nickel-plated bathroom fittings and toilet requisites, pedestal lavatory basins and cast-iron baths of improved design, porcelain enamelled Roman baths, "Emperor" cowl for smoky chimneys, and "Boilo" copper for gas or oil heating comprise the remaining exhibits. The "Califont" provides instant hot-water service to any number of draw-off points required and need not necessarily be fixed in the bathroom. Gas and water supplies are interconnected in such a way that the gas is instantly lowered to a pilot light the moment the flow of water is turned off. Turning on the tap at any draw-off point immediately brings the geyser into operation again. Temperature of the water depends on the rate of flow and hot-water is delivered under full pressure of the cold water supply.

The exhibit of the **Expanded Metal Co., Ltd.** comprises samples of the firm's reinforcement, including: "Expamet" expanded steel for foundations, walls, roads; "Expamet" lathings for plaster work; "Exmet" reinforcement for brick and concrete-block work; mild steel cavity wall ties; and sections of walling, &c., showing the uses of these products.

George Farmiloe & Sons, Ltd.—This stand is glazed with "Baltic" and "Oceanic" glass in white and various tints, and shows how this can be used with a very pleasing effect. Decorative work has been carried out with "Father Thames" white lead paint, "Stargloss" enamel paint, "Eskimo" leadless paint, and "Zingessol" a high-class washable water paint of long-established reputation. Sheet lead, lead pipe, compo pipe, solders, "Tea" lead and other lead goods are exhibited on a representative specimen board. Examples are also displayed of tile, slate, zinc, and lead roofs, indicating how "Hermetex" can be applied for repairing any kind of roof cheaply and quickly. "Hermetex" is a high-grade asbestos compound, waterproof, and remains unaffected by change of atmosphere. Sanitary specialities are also included in the display.

Falkirk Iron Co., Ltd.—Two stands house different classes of the firm's productions. On Stand No. 201, Row K, are displayed high-class period fireplaces, dog grates, casings, kerbs, &c. The rustless steel models are very attractive, as are also the "Alfred Stevens" designs. On the second stand (No. 228, Row L) the latest improved "smooth top" combination gas range is of outstanding interest. Thoroughly well constructed throughout, it is provided with many labour-saving and waste-preventing devices. For the solid smooth, with boiling rings and solid covers inset, it is claimed that the heat usually wasted is saved The smooth surface is easy to clean and there are no corners to hold dust and dirt. A by-pass burner with automatic lighter is provided.

Fawcett Construction Co., Ltd.—Fawcett's "Mon'Lithcrete" (rolled steel) girders for floors roofs and bridges are exhibited at this stand together with "The Edwardian" down draught preventing chimney pot, and Fawcett's tubular flooring. "Mon'lithcrete" is specially suitable for cottage bedroom flooring. A list of contracts, which can be seen at this stand, speaks for itself.

A new water heater for lavatory basins, sinks, &c.—the "Bantam"— is among the exhibits on view by **Fenlon & Son.** It is made of stout, hardened copper, interior tinned, exterior polished and lacquered, and fitted with brackets for screwing to wall. Capacity about 1 gallon a minute. Most of the firm's standard geysers—the "Tudor," "Fleet," "Wonder," "Shrewsbury," "Calda," &c.—are represented, a particularly attractive combination being the "C.C. Fleet" circulator and storage tank combination.

Fernden Fencing Co., Ltd.—This firm is showing a comprehensive selection of its well-known specialities covering fencing and paling work of every variety. The well-known Fernden cleft chestnut pale fencing is prominently displayed. It is durable, inexpensive, and suitable for many fencing purposes. Gates of various designs, notable for high-class workmanship and finish, are also included.

Ferodo, Ltd.—The successful use of Ferodo treads on the landing stages of the Liverpool docks furnishes excellent proof, if proof be needed, of their hard-wearing properties and suitability for outdoor use. In addition to samples of Ferodo stair treads, Feroleum nosings, friction linings and floorings, other specialities are shown, including a patent attachment for worn stone steps; a serrated edge for tramway running boards, and Ferodo stair tread dressing, which, applied at long intervals to the treads, refresh their colour and prolong their life.

Concrete mixers and stone crushers are shown by **Messrs. John Fowler & Co. (Leeds), Ltd.,** The mixer has a drum constructed of semi-cast steel for the centre section and pressed steel for the sides, which reduces the weight to a minimum without sacrificing the life of the machine. It is fitted with a paraffin engine and a power loader, mounted on a road truck. In the stone and rock crusher a drawing motion is introduced which gives a double crushing effect tending to force the material down into the mouth. This machine can be easily adjusted to crush to any size from 4 ins. downwards.

R. W. Greeff & Co., Ltd.—Many interesting experiments are carried at this stand with "Kronos" Titanium White, a new paint material, manufactured by the Titan Co., A/S Fredriksstad, Norway. The exhibits illustrate the preparation, properties and uses of this new pigment. Specimens are shown illustrating its manufacture from the metal Titanium. This name, it should be noted, is not proprietory but the actual name of a metal. The durability of paints prepared with this pigment is demonstrated by the exposure tests exhibited, in which panels painted with Titanium White and other pigments have been exposed for a period of three years under drastic conditions to the weather, and yet retain an excellent surface condition under identical conditions. The opacity of Titanium White is demonstrated by specimens in which it is painted out side by side with other pigments over coloured backgrounds. But the outstanding feature is that Titanium White is free from lead and is absolutely non-poisonous and harmless in use. Demonstrations of "Wetordry" waterproof sandpaper, which is both hygienic and economical, are given at the stand.

The Gripwell Staging Co.—A visit to this firm shows that the patent steel staging brackets, for fixing to ladders, poles or tubular supports, are, as their name implies, absolutely danger-proof, and form a solution to the difficulty of securely fastening staging.

Hoyle, Robson, Barnett & Co., Ltd., and **John Smith & Son.**—In the decoration of this stand an effort has been made, and with success, to show the application of the firms' various paint specialities. Thus externally the window frames and sashes demonstrate the value of "Protecteros" high gloss paint for outside use, while in the interior part is made handsome with "Saneros" water paint and part with "Hoyflat" oil paint, the latter being a recently introduced finish. For visitors anxious to try the paints for themselves there are tins, brushes and small wood panels. As to varnishes, which are more particularly the province of John Smith & Son, there are "Tynelac" which carries a guarantee with it, and "Palusta," which, as its name suggests, is a kind of "super" pale varnish. The "Cheyne" paint mixer and grinder is shown in operation at this stand.

Robt. Ingham Clark & Co., Ltd.—The stand representing the Associate Houses of Messrs. Robt. Ingham Clark & Co., Ltd., and R. Ga & Co., Ltd., is composed of five columns arranged around a forecourt having two private offices at the back. The columns are decorated with Pearline white enamel. The front of the offices which forms a background for the white columns has been decorated with Gaymatt flat oil finish and is of a deep-blue colour.

The Interoven Stove Co., Ltd.—The latest improved "Super-Interoven" well merits its prefix. It has a far larger capacity than the standard model, being built to meet the cooking requirements of 14 or more persons while furnishing an ample supply of hot water for domestic purposes. Conversion to an open-fire sitting-room grate is the work of a moment. The spacious oven vertically above the fire accommodates an 18 lb. joint with one or two pies or puddings. Hot closets are provided



EXHIBIT BY THE INTEROVEN STOVE CO., LTD.

on either side of the oven for light cooking, warming plates and dishes or keeping cooked foods hot. Extra large hot-plate accommodates six saucepans. The wrought-iron boiler circulates hot water to a 50-gallon tank or cylinder. Three or four radiators, according to size, may be used. "Bewty" expanding barless fire fronts for modernising old-fashioned sitting and bedroom grates at small cost, dog grates, wrought welded range boilers of every description, and "Interovens" are also exhibited.

The Ironite Co., Ltd., manufacturers "Ironite" cements for flooring and waterproofing, which are claimed to be wear-proof, dust-proof and grease-proof are represented. The firm also exhibits a model automatic crane and hoist, which can be operated by one man.

G. Johnson, Bros.—Examples of artistic metal work for signs, shop fronts and architectural purposes are displayed in large variety. Particularly interesting items are metal mouldings drawn on hardwood cores, used in the manufacture of frames, sashes and doors, the wood being sheathed with bronze. Mouldings are made and plain and ornamental castings supplied to cover joints and angles, so that the builder can work these together as easily as he does his wood front. Illustrating the high standard of workmanship and freedom from sand holes a range of castings is shown. Quite a special feature of the display is the application of ceramic enamel to bronze. This is seen in the various letters used on name plates for banks and commercial buildings, the letters being cast with recessed faces and filled with enamel fixed into the lettering.

The different types of reinforcement manu-tured by **Messrs. Johnson's Reinforced Con-te Engineering Co., Ltd.**, of Manchester, are played in a practical manner, and many otographs of large works in which they have n used are on view. The "Lattice" mesh re-rcement, designed for floors, roofs, walls, ds. &c., is supplied ready for laying; the eedon" system is for locking and holding in ition mild steel rods in beams and columns; ricktor" is a useful reinforcement for brick concrete block work where light construction, ch the additional strength imparted by the forcement renders possible, is a consideration.

ones & Attwood, Ltd.—This firm's "Domes-tum," "Hortikatum," "Batheater," "Cul-tum," and other boilers comprise a range ot-water supply apparatus covering all the ied requirements met with in different sizes classes of houses. The "Domestikatum" vides abundance of hot water for all house-l requirements; the "Hortikatum" meets needs of large horticultural schemes; the atheater" is a combined boiler and hot-er storage cylinder; and the "Cultivatum" designed for greenhouse and motor-house ting. In addition to boilers for all purposes, firm specialises in pipes, connections, and ings of every description, representative ibits of which are included in the display. ew design pipe-cutter is also of interest.

. C. Jones & Co., Ltd.—Recently this firm seriously taken to the construction of very t steel frame buildings, and that which forms housing for other exhibits demonstrates t can be done in this direction. Within a th of 15 ft. no less than seven different ns of roof truss are shown. So popular has type of construction become that a new kshop is being erected at Shepherd's Bush to ble the firm to cope with the demand. ther special exhibit at the stand is a portion eel fire-escape staircase, a direction in which srs. Jones have also lately extended; they ady have in hand some big orders for these. er items shown are builders' and contractors' s of all descriptions, and the firm's portable k, with turntable, lathes and engineers' s.

pparatus and models to demonstrate the uses Pudlo" waterproofer are exhibited on the d of **Messrs. Kerner-Greenwood & Co., Ltd.**, ing's Lynn. These consist of apparatus for ng the resistance of cement discs to permea-by water under pressure; full-size section oring, waterproof on top and the lower part ersed in water, showing that water does not trate past the waterproofing; a length of eware drainpipe jointed with water-fed cement and filled with water; and a rtight tank of thin porous concrete blocks rproofed with a facing of ¼ in. of water-fed cement and sand.

e Key Engineering Co., Ltd.—The principal bit here is a flexible asbestos roofing supplied e form of a roll felt and in various colours. is material a very successful effort has been to get away from the rigid sheet asbestos g. Tests made at the Exhibition for the it of Insurance Companies had very satis-ry results in so far as the fire-resisting ty of the material was concerned. Other its shown on the stand are a very simple ng ball-type steam-trap for radiators and n-heating installations, and impregnated -pulp conduits for light drainage work r protecting country house lighting cables. crete blocks and slabs of different sizes and sition are shown by **J. A. King & Co.**, who xhibit a number of specimens of their rein-d concrete glazing bars and "Ferro-" for pavement lights, which have no ed metal surfaces and are therefore mical in upkeep.

Kleine Patent Fire-Resisting Flooring cate, Ltd., demontrate by actual speci-their well-known system of construction, takes the form of reinforced hollow bricks ted together. This method of construction is specially adapted for floors, roofs and staircases, and is being used to a very large extent in the new buildings now going up in London and elsewhere.

Langley, London.—On this stand can be seen attractive forms of Marseilles roofing tiles, together with Beauvais roofing tiles and Du Nord roofing tiles. The stand is designed by Messrs. Welch & Hollis, architects, 7, New-square, Lincoln's Inn, W.C.

The Leeds Fireclay Co., Ltd.—Burmantofts terra-cotta displayed in a central architectural feature, the construction of which is carried out in several types and finishes of terra-cotta, and clearly shows how this material lends itself both constructionally and decoratively to buildings of every class. The plinth of this central feature is in glazed terra-cotta of a dark neutral blue shade, while the piers and arches are in "Texture Marmo," the caps being picked out in gold. This "Texture" finish is a new application of permanent colour to architectural treatment, and furnishes a pleasing method of brightening interior as well as exterior surfaces. The chequered superstructure is crowned by a lettered frieze in golden crimson. A display is made of the Burmantofts "Lefco" terra-cotta fireplaces, combining economy, beauty and utility.

The Lewbank disinfector of the **Lewbank Manufacturing Co., Ltd.**, provides a simple, efficient and economical means of cleansing and deodorising the lavatory pan. It is automatically operated by pulling the chain. Extremely simple in construction and necessarily economical due to its automatic character, it can be easily fitted by any handyman.

Machines for making concrete or cast-stone products of a size up to 8 ft. long by 2 ft. wide by 12 in. deep, or a number of smaller units if the mould be divided, are shown by the **Liner Concrete Machinery Co.**

Lips, Ltd.—Visitors wishing to become acquainted with burglar-proof strong rooms, strong room equipment, safes, locks and door furniture, should make a point of visiting this stand. There are also exhibited cylinder locks and latches, lever locks, door furniture, door checks, floor springs, and safes. The mechanical working cylinder is an exact replica of the cylinders used in all their cylinder locks.

The London Brick Co. & Forders, Ltd. has built itself a very cosy room of Fletton bricks, which are of course, its main line. Particularly there is noticeable the multi-coloured rough facing brick which has a considerable vogue for housing schemes, where something is required which will not be more expensive than ordinary Flettons, but will break up the dullness of what would otherwise be a very plain surface. The rough-faced bricks are also particularly suitable for string courses and panels. In addition the firm can supply any form of moulded or beaded brick, and many samples of these are to be seen displayed in the kind of floral courtyard which extends before the entrance to the brick erection mentioned. A new departure for this Company is the product of floor tiles from their own special clay, these comparing favourably with the Staffordshire material both in price and quality.

London Sand Blast Decorative Glass Works, Ltd.—This is a comprehensive and attractive display of embossed and decorative glass of all descriptions. There is to be noted some fine specimens of stained glass, also a variety of mirrors for hotel and restaurant purposes. On the front of the stand are a number of internally illuminated signs for shop interiors and exteriors, while in a large show case may be found glass and other advertising novelties. There is a selection of direction plates such as are used in streets and in large official buildings. Mention should also be made of a line of imitation bronze tablets, which being actually made of glass merely require the application of a damp rag for cleaning and, of course, do not suffer from verdigris.

Major & Co., Ltd.—"Solignum," which is shown on this stand, is known as a preservative for all classes of woodwork, and as a preventive and cure for dry rot and other fungoid growths. A special interest is being taken to-day in the preservation of both old and new buildings; and in view of its low cost and easy application, "Solignum" is advocated by its makers as a thoroughly reliable means of ensuring the maximum durability of all timbers used for constructional purposes.

F. McNeill & Co., Ltd.—The strength and vitality of these exhibits are represented by a model of an extremely realistic lion. "Lion" roofing made in various thicknesses and suitable for all climates is shown, together with models illustrating the most economical and efficient method of using these roofings, and are of interest to architects, surveyors, builders, contractors, &c. Here one may inspect at close quarters sections and complete model buildings of various kinds. McNeill's "Combinite" system of roofing for flat or sloping roofs is also shown. Models of McNeill's "Slagbestos" can be seen and illustrate its fireproof and sound-proof qualities.

John Macquire.—Into the hut, the form of which this stand takes, there has been worked the entire range of the firm's special tiling, slating, and asbestos productions. Internally there are to be found asbestos tiles and sheets forming the walls, with special sheets for the ceilings. Externally the firm's special tiling and slating for vertical work is well shown, while on the roof or roofs are various kinds of Welsh and Westmoreland slates as well as ridge, hip and valley tiles. It may be mentioned that there are shown both hand and machine-made tiles, also tiles both smooth and sand-faced.

Mander Bros., Ltd.—A visit paid to this stand enables one to appreciate the pavilion which is illustrative of their well-known decorative paint, enamels, varnishes, &c. The outside scheme of decoration is an exceptionally bold and striking one, consisting, as it does, of columns in black ebony finish, panels in an extraordinarily rich shade of purple (known as cobalt violet) and stiles in a white enamel. The combination of these colours is striking, original and harmonious, in spite of the contrasts. The interior is, on the other hand, of a very much more subdued character, and shows panels of a delicate dove grey, with stiles in a very pale green. The panels are relieved by stencil decoration in an Adam design, and the ceiling with relief decorations. The whole of the decorations are carried out in Mander's "Aqualine" water paint, "Vernasca" wall paint, black ebony finish, and egg-shell gloss enamel.

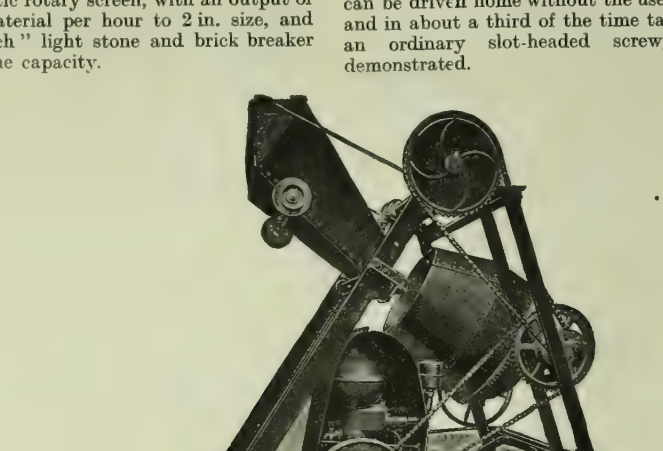
The Marble Mosaic Co., Ltd.—New to this country is the Florentine (pre-cast marble) floor tiling to be seen on the floor of this stand; the designs are very attractive. This firm has carried out in the entrance to the Olympia Extension and to Lyons' Restaurant work in its "Imperator" (pre-cast marble) composition, while the lavatory divisions required are also in this material. Examples of "Imperator" flooring, staircases and partitions are shown on the stand, as well as the older standard lines of the firm, including terrazzo linolith composition, mosaic work in marble ceramic and floors, and marble work.

Moule's Patent Earth Closet Co., Ltd.—Twelve specimens of Moule's patent earth closets are shown covering the three actions—"Pull-Out," "Pull-Up" and "Self-Acting"—apparatus for fixing in permanent closets, in the house or outside.

The well-known series of machines known as "Parker Plant" is shown by **Mr. Frederick Parker.** There are on view a portable concrete mixer of ¼ yd. capacity, with loading hopper, water tank and engines, mounted as a self-contained unit on a truck. This should appeal to all who require a machine to handle rapidly a moderate output. For other users there is a 4 cu. ft. capacity mixer with a 2½ h.p. engine mounted on road wheels. These machines are simply designed on the revolving dome principle. On this stand there are also

shown the "Monarch" portable stone breaker with automatic rotary screen, with an output of 4 tons of material per hour to 2 in. size, and the "Monarch" light stone and brick breaker with the same capacity.

large variety are shown. Recess screws, which can be driven home without the use of a gimlet, and in about a third of the time taken to drive an ordinary slot-headed screw, are also demonstrated.



MESSRS. FREDERICK PARKER'S CONCRETE MIXER.

Thomas Potterton.—The latest model "Victor Combination" boiler is demonstrated in operation. It comprises a standard "Victor" gas boiler, fitted with thermostat control, mounted above a specially designed coke, or other smokeless fuel, stove. Every convenience is provided for cleaning the coke boiler, including removal of fur, in its fixed position. That is to say, all parts are accessible from the front. Increased efficiency with consequent economy in fuel is secured by provision of a waterway crown with the inner shell of the coke boiler in the form of an arch. The "Victor-Combination" has been specially designed to meet requirements in private houses where a kitchen range is not installed and solid fuel is required for winter duty. One or two hot-water radiators may be used in conjunction with the coke boiler. "Victor" gas boilers and water-treating plants for elimination of lime and other impurities are also exhibited.

Ravenhead Sanitary Pipe & Brick Co., Ltd.—Visitors to this stand will be repaid by seeing interesting examples of handicraft, decorative brickwork, and interior decoration in firegrate surrounds and flower vases, &c. Also an exterior decoration in garden ornaments, sundials, forms, paving, &c.

The Rawlplug Co., Ltd.—Demonstrations are given continuously throughout the day showing the ease and security with which household fittings of every description can be fixed by means of Rawlplugs. Aluminium fittings in

Ronuk, Ltd.—Visitors to this stand will see that the whole of the woodwork of this exhibit has been prepared and polished by the "Ronuk" improved sanitary methods. Demonstrations of simple and scientific floor maintenance are constantly being given, and visitors are cordially invited to ask for full particulars. This firm undertake the maintenance of polished floors; it is not, perhaps, fully realised how essential is the initial work of polishing.

The Ruberoid Co., Ltd.—The Ruberoid Roofing exhibited is a type which has been employed for over thirty years on buildings of all types. It is equally efficient on flat pitched or curved roofs, and can be laid on wood or concrete. It is made in three colours—grey, red and green; these colours are permanent.

Scaffolding (Great Britain), Ltd.—Tubular scaffolding is exhibited on this stand, and visitors are reminded that it is now made in three types. Patent tubular scaffolding (comprising patent sprocketed steel tubes and a patent universal coupler); photographs of contracts where this form of scaffolding has been most successfully used are on view. Demonstrations are given daily, showing the advantages attaching to the use of tubular scaffolding. Hoists and chains are also exhibited. Photographs of contracts in connection with patent heavy and light suspended scaffolding are on view.

Beams illustrating how light is the Siegwart system of concrete floor construction are to be

seen on the stand of **The Siegwart Fireproof Flo Co., Ltd.** The beams, which are hollow an reinforced with steel rods, are made in lengt of 20 ft. or less. They are delivered at si matured and hoisted into position and the joi between them made with cement. So rapid can the floor construction be carried out that a Midland works 800 yds. of flooring are present being laid per week. In addition to t flooring, the roof of the stand is an examp of the Siegwart concrete flat roof, the undersi being roughed to take the ceiling and the t smooth for lead or other roof covering.

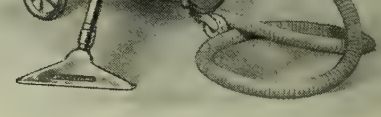
The Silicate Paint Co., J. B. Orr & Co Ltd.—The interior of this stand is divided in three compartments, each of which sho varying forms of silicate paint. A door showi the Silicate mahogany varnish contras favourably with much of the work done modern housing schemes. In the gallery front shown in panels a selection of the many Duresc colours now being made by the compan The stand is designed primarily to show practic utility.

Samuel Smith & Sons, Ltd.—A special featu of the "Foresight" combination grate is t provision throughout of cast-iron flues. Thoug more expensive in manufacture, many adva tages are secured thereby. The whole of t gases and smoke being consumed in the flu before passing into the chimney, the usu heavy heat loss from unburnt smoke is reduce to a minimum. A 50 per cent. economy in co consumption is claimed. In the latest improv "Foresight," the flames, after passing und the high-pressure boiler and up the back of t grate, strike the ring in the hob plate over t canopy, pass along the hob plate, in which a two other boiling rings, to the oven flues a thence to the chimney. Slow combusti ventilator under the grate, automatic adjustal canopy for coal consumption regulation, a regulating dampers in the oven flues, a among the refinements embodied in the co bination. The cleverly designed swingi trivet makes it only a matter of seconds to co vert the open grate into a range for culina purposes, or *vice versa*.

Smyrk & Son.—Picture rails as ordinar used are pernicious and unhygienic du catchers, and are a source of trouble to th who are responsible for the cleanliness buildings; also the normal picture hook whi fixes on them has a nasty habit of falli when a picture is removed. Mr. Smyrk, as practical builder, realised these disadvantag and as a result of his efforts to eliminate th has produced the H.S.N. (which means hygie secure and neat) picture rail and hooks. T rail gives a plain, sloping surface on t from which any dust is easily removed. T groove is beneath, and the hooks are spru into position, leaving just the hook port exposed. It is possible with this H.S.N. ty of rail to fix it right up to the cornice.

It is erroneous to assume that "Eterni asbestos-cement materials cannot be used produce artistic and architecturally sou





THE "STURTEVANT" VACUUM CLEANER (*See p.* 647).

effects. **G. R. Speaker & Co.** conclusively prove that in combination with timber framing "Eternit" has large possibilities. Externally "Rough-Cast" Eternit sheets are used, the roof is covered with "Eternit" red tiles and internally a plain grey "Eternit" sheeting gives a very restful effect. The recently introduced veneered "Eternit" sheeting is shown as panelling in an ante-room, and looks very effective.

The Spedol Manufacturing Co., Ltd.—This stand, in the New Hall, has a very smart and distinctive appearance. Its design lends itself to the demonstration of the effects which may be obtained by the use of various colours and types of paint and enamel, and good use has been made of this facility. "Stempeau" distemper has been effectively used in parts, while "Spemac" white enamel gives a bright surface to the doors and ledges. Different coloured Spedol paint also is used on a number of panels, while on one side is a special demonstration of "Ferroarmor," which is a rust-resisting paint for exterior use. Apart from the decoration work there are samples and information concerning "Stempeau" distempers and ceiling white, Spedol varnishes and paints, swift liquid driers, brushes, and so on.

Stephens & Carter, Ltd.—A new simple and extremely efficient system of tubular scaffolding is the principal exhibit on this stand. Solid drawn steel tubes are used, with a patent clip which enables braces to be fixed at any angle and in remarkably little time. The patent is here shown for the first time; it is an exhibit which should not be missed. Another special item demonstrated is Carter's (Spencer's patent) travelling cradle, which runs on short lengths of light steel rails which can be instantly connected to form a continuous level track of any length. The method permits the use of the cradles on curved or irregular fronted buildings and obviates the use of long ladders. All kinds of ladders, scaffolding, requisite builders' plant and so forth are also shown on this stand.

Specialists in vacuum cleaning plant, the **Sturtevant Engineering Co., Ltd.**, are exhibiting a fixed set in which a 5 h.p. motor is coupled to a turbo-exhauster. Control is effected through an Igranic automatic push-button apparatus. There are three different pipes leading to connecting points, and there are fittings of all shapes to complete the outfit. For places where it is not possible or convenient to install a fixed set, there is a very handy ½ h.p. portable apparatus, which combines great cleaning power with a lightness which makes it readily portable. A useful apparatus shown also is a small portable electric blowing set, which finds a large field of utility in such work as blowing the dust out of the interior of electric motors and other electrical machinery.

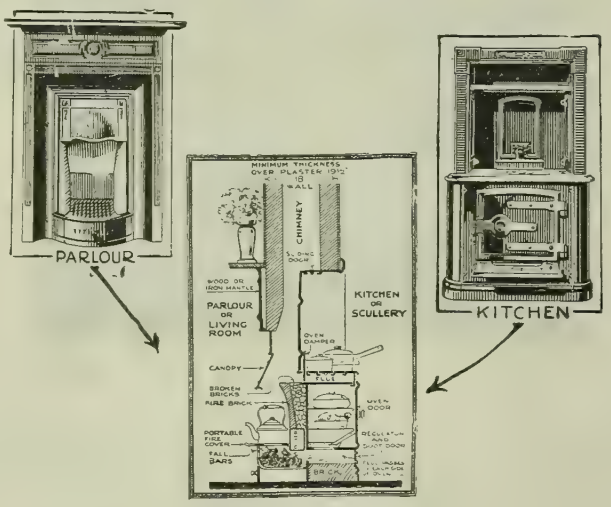
John Tann, Ltd.—Interesting testimony to the fire-resisting properties of John Tann's "Anchor Reliance" safes is furnished by tests carried out by Messrs. David Kirkaldy & Son. The safe tested successfully resisted all assaults upon it by mechanical tools and oxy-acetylene blowpipe. At the end of three days the steel portions of the outer covering were still unpenetrated. Representative exhibits of the firm's numerous specialities are on view.

The Triplex Foundry, Ltd., show a "C" model "Triplex" grate, demonstrated working in conjunction with a 30 gallon hot-water cylinder. A copious supply of hot water for two baths an hour is given. A "G" pattern "Triplex" is also demonstrated. The "Workwell" is an attractive open fire grate suitable for workmen's dwellings. "Adaptable" and "Black Diamond" fires are also exhibited, both of which are adaptable to existing grates.

Tuke & Bell, Ltd.—The chief exhibit on this stand is a country house sewage installation comprising semi-septic tank with fillings and filter, aerobic filter and final humus pit. It is a standard design of proved worth. Watertight apparatus, a water pressure filter, an "Ideal" revolving sewage distributor, and a "Carlton" revolving distributor, suitable for municipal schemes, are also exhibited.

Trafford tiles, which are made in asbestos-cement, are shown on the stand of **Turner Bros. Asbestos Co., Ltd.**, utilised on a small steel-framed building erected by Messrs. Drew-Bear, Perks & Co., Ltd. The combination of large covering capacity with simplicity of fixing of this well-known roofing material is fully demonstrated. In addition the Company is exhibiting the new "Endurol" tile for house roofs; also the "Aegis" asbestos cement roofing slates, and building sheets for partitions, ceilings, and so on. It may be mentioned that the Trafford tiles have been selected for the Stadium covered stands and permanent Exhibition buildings at the British Empire Exhibition.

Allan Ure & Co.—The Ure back-to-back living-room grate and scullery cooker is demonstrated practically. In this combination one fire does the work of two efficiently and economically. The fire is in the living-room grate, and from it the flames pass under the high-pressure boiler at the back direct to the bottom of an 18 in. oven in the scullery on the far side of the partition wall. The hot gases pass up flues on both sides and over the top of the oven to the chimney, giving a uniform heat to the oven. Both grate and oven are made in several different patterns.



The "Ure" Back-to-back Grate and Cooker.

Vulcanite, Ltd.—Visitors to this stand will find that the patent vulcanite roofing is a permanently waterproof surface for flat roofs (wood or concrete), roof tanks, and for waterproofing basements. It is unaffected by vibration, settlement, expansion, or contraction and change of temperature, and models can be seen showing application of the "Vulcanite" process to flat roofs. Roofings are shown as follows:—"Rexilite," "Ark" and "Pyramid" pure bitumen and "Leatherite" and "Apex" felts for roofing, sarking and lining. Also "Reliance" lead and bitumen dampcourse, made on a unique principle. Also "Rexilite" and "Bituna" pure bitumen dampcourses, in various thicknesses, together with examples of Vulcanite sanded asphalt.

The Wallidge "Scaffold Grip" and "Putlog Fastener" are entirely new devices shown by the **Wallidge Building Appliances Co.** The former, it is claimed, enables a saving of at least 50 per cent. in the cost of erecting scaffolding to be effected compared with the usual cord and wedges method. The special feature of the Putlog fastener is that it can be fixed and removed without putlog holes being left in the face of the building.

With the Underground Railways so busy with escalator installation, the working model escalator exhibited by **Waygood-Otis, Ltd.**, attracts attention. It is of the "comb" type, which is rapidly replacing the original "step-off-with-the-left-foot" pattern, which was difficult for the less agile passengers to negotiate. With the new pattern passengers are literally combed off or on; the passenger capacity of a full-size escalator of this kind is 8,000 passengers per hour. A special feature is made of a traction lift machine fitted with a patent micro-drive. This is a power saving arrangement which permits of running the lift at a high speed, and yet stopping dead level at landings without any of the excessive power use and motor wear involved in "inching" up to the level. There is a standard 6/7 passenger lift machine fitted with the new standard controller; also examples of hand dinner lifts, one to work by turning a handle and another to operate with the usual rope. A big business is, we understand, being done by the firm in these hand lifts, as well as in the external lifts for the delivery of goods in tall blocks of flats, and so on.

The Welin Trading Co., Ltd.—"Glasurit" japans, varnishes and enamels are displayed on this stand in the best way possible, *i.e.*, by appearance when used. Apart from a few loose panel pieces, it is worthy of note that the fine effect which has been produced in the decoration of this stand was the work of a first-class workman who had previously not known anything of the "Glasurit" materials. The work is a testimonial both to the man and to the paint, as the design of the stand is to its originators, Messrs. Gatfield & Eller. Some of the varnished panels shown might certainly deceive one into thinking them to be of actual glass, and they are of the highest class of coachwork; a complete range of "Glasurit" varnishes is shown; also an iron "Glasurit" for rust prevention, and "Neutralac" special priming.

The "Well" Fire and Foundry Co., Ltd.—Several complete fireplaces are displayed on an attractive stand carried out in period styles. Particularly noteworthy are the designs carried out in stainless and in rustless armour bright iron and faience blocks, though those in stone, marble, and old English sand-faced Tattershall briquettes will doubtless appeal more strongly to some tastes. But there are artistic designs for all. The patent "Well" fire is composed of well and back brick of finest Stourbridge fireclay. The bottom brick is constructed with ventilating air-channels controlled by two "hit and miss" ventilators. Air entering the grate through these channels is pre-heated. It unites with the smoke, causing it to burst into flame; thus the smoke which otherwise would be lost in the chimney is consumed, and its heating value utilised.

Woco Door Co.—It is some seventeen years since "Woco" Columbian pine doors first came to this country. In the years which have followed they have secured a well-merited reputation for value. As the firm guarantees them to be specially seasoned to resist warping and to be free from knots and defects, this was but to be expected. On the stand the various standard patterns of doors which the firm supplies are shown in a manner which permits



A "WELL" FIRE (*See p. 647*).

of free inspection of the whole. Normally, though those exhibited are shown treated with oak stain, the doors are supplied ready for staining or painting, fitted with leaded or other glass where the design demands it. It may be mentioned that recently in this country the "Woco" door has been specified for many large public buildings as well as for housing schemes.

The Yorkshire Copper Works, Ltd.—Bright copper tubing very artistically arranged is the feature of this stand. Two 18 in. copper tubes support between them a curtain of tubes and patent connections. The firm specialises in solid drawn (seamless) copper tubes for hot-water and domestic engineering work, and in this connection has produced a series of patent fittings which obviate the need for screwing. The largest size of copper piping made by these manufacturers is 24 in. diameter, but for domestic and general building work the normal requirements vary from ½ in. to 2½ in. It is pointed out to enquirers at the stand that with the use of light copper tubing in place of lead or iron saving can be effected in money, labour and time.

What may fairly claim to be one of the best stands in the exhibition is that of **Young & Marten, Ltd.** Ranged along the back is a good array of the well-known "Hue" barless fires, a type of fire which is finding much favour of late. The mantel-pieces in connection with these fires are in general very effective and demonstrate that the firm can supply this portion of room furniture to suit any desired style. The stand floor space is largely occupied by porcelain enamel baths, porcelain wash-basins, and complete lavatory suites. Opportunity is taken to show on the stand walls how large a variety of paper-hangings and room decorations can be provided; while along the front of the stand are shown many examples of turnery—newels, baluster rails, and hand-rails. Leaded lights are another feature which will attract attention, there being some excellent specimens of these. The whole of the items shown are of British manufacture, emanating from the firm's large works at Stratford.

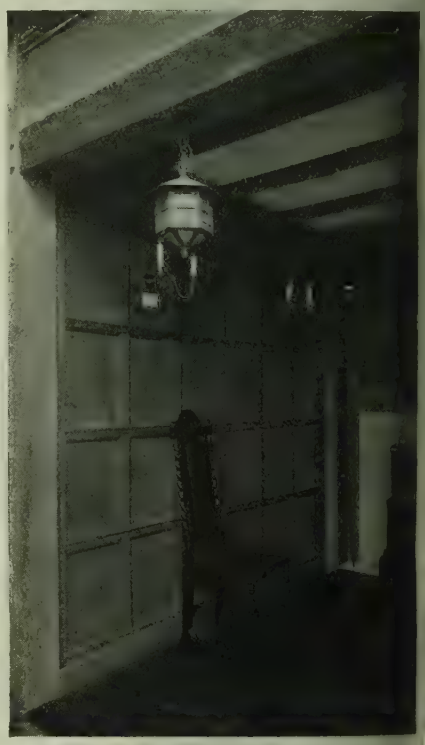
WOODWORK AND JOINERY EXHIBITS.

Associated Crafts, Ltd.—A visit to this stand shows that Dekart is a material that bears the very closest resemblance to oak or any other hardwood. Its initial cost is considerably less than that of the materials it imitates, being about half that of real oak. It is demonstrated that it is possible once again to reproduce at a reasonable cost those charming panelled interiors in conformity with English traditional design. Dekart plaster sheets, tiles and mantels are also exhibited.

Bryce, White & Co., Ltd.—The needs of the modern builder erecting houses under adverse financial conditions are provided for in respect to joinery by Messrs. Bryce, White & Co., Ltd., who are exhibiting sound stock standard pattern fittings in Swedish timber at reasonable prices. It has been difficult, since the war, to obtain doors and windows that are at once cheap and good. The supply of seasoned timber has not been always of a quality to render it advisable for an architect to permit the contractor to get out the joinery, and the purchase of ready-made work clean from the plane has become an accepted practice. One other device of present-day economy is the use of stain and polish as against the old-fashioned routine of many coats of oil paint, and the beautifully figured western pine panelling on show at this stall has the advantage of taking stain admirably. The wood seems to be singularly free from knots and defects and looks well without demanding stopping and expensive preparation.

Charrier and Marbut Carvings, Ltd., exhibit their well-known hard and soft wood joinery enrichments. These admirably executed carvings are produced by machinery with very much of the effect of hand work. The finished surfaces are particularly crisp and clean and need the minimum of touching up before painting, staining or varnishing is put in hand. Some examples of finished work are shown in which the enrichments are used appropriately as borders to panels and in mouldings and cornices. Very large stocks of standard mouldings and enrichments are on hand available for immediate delivery.

Samuel Elliott & Sons (Reading), Ltd, have designed a stall calculated to emphasise the rugged character of English oak as used in the structure and the decoration of buildings. The outside timbers have been given a weather-worn appearance by a deep, if somewhat artificial, striation of their surfaces which is certainly striking. The effect of old age is more artistically obtained upon the interior panelling by the actual play of the adze as in the work of former ages. The grey colour and dark figure of old oak has been very successfully imitated, and the character of the workmanship a pleasure to inspect. Two fine fluted columns of Honduras mahogany with bronze capitals and bases, together with some solid bolection moulded panelling, prepared for the new Southampton Harbour Board, are also exhibited.



INTERIOR OF MESSRS. SAMUEL ELLIOTT & SONS' STAND.

J. Gliksten & Sons, Ltd., have stacked the space at their disposal with large quantities of Austrian wainscot oak, and they are prepared to deliver from stock quantities of this material from ½ in. to 10 in. in thickness and up to 21 ft. in length. Some logs of French walnut from 6 to 11 ft. in length, free from top and root, are also exhibited, and are procurable in ½ in. to 6 in. thicknesses. Large stocks of square-edged wainscot, from 1 in. to 3 in. thickness in 6 ft. to 10 ft. lengths are available, some samples of considerable length being shown. Mahogany is represented by a log sawn into slabs 29 ft. long by 3 ft. in width.

S. Haskins & Bros., Ltd.—This attractive stall exemplifies the methods of up-to-date shop fitting in metal and hardwood. One front, in solid bronze and plate glass, is matched by another in which the bronze is applied as thin but substantial surface plating pressed tightly upon a hardwood core, in both cases finely modelled ornament in cast bronze has been added with tasteful and truly artistic effect. The modelled ornaments have been prepared by a special process which permits of the slightly surface texture of the sand mould being retained and the metal is finished semi-bright in order that it shall need no polishing, but become rich in tone with age, like a good bronze statue. Another face of the stand has been fitted with



MESSRS. S. HASKINS & BROS.' STAND.

" Firola " roller door on the principle of a fire-oof curtain. This door has been accepted for trol dumps throughout Great Britain. To se the roller door it is necessary to lower it o feet. after which it continues to descend wly under the influence of gravitation.

James Latham, Ltd.—The two stands are ed with large quantities of mahogany and ner hard woods. One fine log of Nigerian hogany of good colour and grain reaches the raordinary width of 4 ft. 6 in. in a length of ft. Several smaller logs of Honduras and ne Cuba of varied figure are exhibited. strian and Volhynian wainscot oak are well reserted, as are Japanese and American oak plain and figured cuts. English wainscot oak h its more variable character is also stocked. A ture of the smaller stall is a floor in Mahoborn machined for secret nailing. This flooring of pinkish-brown and resembles African hogany rather than teak, and unlike other ieties of teak has a pleasant aromatic odour. s claimed for it that it wears evenly and well.

MacAndrews & Forbes, Ltd.—This exhibit is practical demonstration of Fiberlic patent lboard for ceilings and walls. This wall-rd is a product which obtains its special lification from the raw material from which manufactured. It is a very rigid board, nomical in its use and artistic in its effect.

William Oliver & Sons, Ltd., include a fine w of valuable hardwood timber on their d. Some of this has been planed to a smooth we, and shows its figure to advantage. the most interesting and spectacular exhibit magnificent oak trunk still mounted upon a er tug. The stick, which is apparently d, is one of the largest of English oak trees, is almost capable of cutting one of the twenty-six hammer posts of Westminster Hall roof—a rare distinction nowadays.

E. Pollard & Co., Ltd.—The combination of wood and bronze in shop-front and show-case work is exemplified in this stand. Moulded sections of hardwood have been enclosed in a superficial layer of metal of 18 gauge; metal and wood being firmly clinched together. The use of Messrs. Luxfers' patent copper glazing within the metal surround is seen in the entrance doors to the stall, where a profusion of lettering and illuminated signs are to be found.

A. C. Rennie.—This stand in decorative Tudor style illustrates the imitation of old English carving in oak in an asbestos composition. The modelling is vigorous and, though it lacks the crisp touch that can only be imparted by the chisel and which must necessarily be lost in cast or compressed replicas, the general appearance resembles the original work to an extraordinary degree. The rough grain of the wood has been painstakingly rendered in the non-inflammable material. The surfaces are coloured a rich brown, and where genuine oak carving is inadmissible this art modelling composition should prove extremely useful.

Rippers, Ltd.—This firm exhibit some high-class joinery in oak and mahogany, both in panelled framing and in veneered work. The modern demand for absolute cleanliness is well supplied in the plain polished surfaces of the hospital doors, which are constructed without a visible frame of styles, rails, and muntins, but appear to be made in a single large sheet of material. This is not the case, as warping and shrinkage would make the course impracticable, and the veneered surfaces are in reality supported upon an internal frame and are surrounded with hardwood borders planed flush with the surface.



VIEW OF JAMES LATHAM'S TIMBER DEPOT.

Although unfamiliar, these large expanses of beautifully figured and coloured material are far from being inartistic and they are eminently suitable for the purpose for which they are intended.

Ten Test Fibre Board Co., Ltd.—" Ten Test " board is a single thickness of compressed fibre with slightly roughened surface, which takes colour in all matt finishes. The boards are made up in sizes up to 4 ft. by 8 ft. by 7-16 of an inch, and it is claimed for this material that it can be safely used for external as well as internal wall finishing, or even for the covering of pitched roofs. The exterior is covered with a slurry consisting of three parts cement to one part water, and in cheap work an impervious paint is considered sufficient. A rendering or stucco is advisable for greater strength and durability.

Thames Board Mills, Ltd.—The Thames Paper Co. have designed their stand with a front in imitation of a dilapidated brick wall from which the plaster has peeled off by way of indicating the advantages of S.X. Board, the British-made wall board, as a material for lining walls and ceilings. S.X. Board is composed of compressed wood fibre, and may be obtained in sizes up to 16 ft. long and 4 ft. wide. A bent sheet in the corner of the stand bears testimony to the toughness and the pliability of the artificial wood, which can be treated with any ordinary paint or distemper. The surface of the S.X. Board is matt and lends itself to interesting colour effects.

The Bath Cabinet Makers Co.—Their stand is well designed with painted decoration of black stencilled frets upon a white ground. Some high-class hard-wood joinery is exhibited, including walnut doors set off with black lines of inlay and a beautifully coloured mahogany mantelpiece.

The Educational Supply Association, Ltd.—To the well-known folding partitions the Educational Supply Association has now added their " Esavian " folding windows by means of which a window opening can be freed of obstruction throughout practically its whole width. The mullions are made to move with the sashes, and the whole arrangement of glazed frames folds up into a very small compass. In this inclement climate some such alternation of open and closed treatment is essential to the enjoyment of verandahs and garden houses—hot climate features which need special treatment here. Office desks and garden furniture are also exhibited.

WOODWORKING MACHINERY.

There is an unusually large and comprehensive display of machinery at the Builders' Exhibition at Olympia. Of these, the wood-working machines greatly predominate. Space does not permit of our reviewing them all in detail, but among the more prominent and interesting of these exhibits are those of Messrs. J. Sagar & Co., Ltd., of Halifax; Messrs. Thos. White & Sons, Ltd., of Paisley; and Messrs. Wadkin & Co., of Leicester.

Messrs. Sagar, whose stand is almost the first exhibit to attract the visitor as he enters the main building from the Addison-road gates, are showing eleven machines, including one of their latest high-speed four-cutter planers and moulders for taking in material up to 7 in. by 3 in.; a single-spindle irregular moulder; a heavy double-spindle shaping, trenching and recessing machine; a double-geared planing and thicknessing machine with sectional feed rollers; an " over-and-under " and a hand-feed planer—the latter with safety block and special guards. In the way of sawing machines, this firm are showing a plain band-saw and two types of circular saw, one being a double-blade dimension saw and the other a radial arm roller-feed machine. They are also showing mortising and tenoning machines. This firm, who have greatly developed the application of the direct electrical drive to builders' machines, demonstrate their latest practice in this respect, about half of the machines shown being fitted for electrical driving.

Not far from the above exhibit is the equally imposing stand of **Messrs. Wadkin,** who are showing eleven machines. Here

again we find types of the panel planer, " over-and-under " and hand-feed planers, two styles of mortising machines for builder's work, viz., the combined chain-cutter and hollow chisel mortiser, and the chain-cutter alone. An interesting new model light tenoner with several new adjustments for speed and facility in working, band and circular saws, and a single-belt sander are also shown. A feature in one of the saw benches is that its standard is built on an improved design which so protects the lower portion of the blade as to make it conform to the new Home Office regulations without necessitating any additional apparatus to the machine. A very light and practical single-spindle shaping machine is also worthy of mention.

Near the farther end of the main hall is the exhibit of **Messrs. White.** This occupies the largest stand of any of the wood-working machinery displays. A very good all-round selection of builders' tools is shown here, but the feature which attracted us more particularly was the " Straight Line " edging bench with travelling chain bed and special feed rollers, and with the blade revolving above the bench. This more than doubles the output as compared with the ordinary type of edging bench, and it is the first time we have seen a machine on this principle made by a British firm, although somewhat similar machines have become popular in America. We notice, however, that the White machine possesses certain improvements on the American designs, tending to accuracy and rapidity, as in the British machine both front and back rollers are driven and white-metal bearings are replaced by ball-bearings.

The other feature at this exhibit is their new high-speel four-side planer, in which, among other improvements, a patented system of loose spindles is introduced so that the cutter-blocks may be readily removed from the machine for setting. The makers claim that a saving of fourteen hours a week is made by this arrangement in the effective working time of this machine. Messrs. White are also showing an improved arrangement for the rapid setting of moulding irons and tracking appliances for straight and profiled knives.

Before leaving the main hall one finds near the exit which leads to the new hall the stand of **Messrs. Perkins & Co., Ltd.,** of Leeds. Here is an interesting novelty which is worthy of notice. It is a new attachment which can be adapted to any make of vertical spindle moulder for rapidly and simply cutting stair housings. This firm are also showing a few small wood-working machines.

On entering the large new hall, we find close to the entrance the exhibit of **Messrs. W. & C. Pantin,** of London. Although this firm is best known as one which holds the British representation of several well-established American makers of wood-converting tools, they are showing here only one such machine, an ingenious and portable combined " wood-worker " which embodies in itself the functions of a universal saw, a planer, a drum-sander and a boring machine. The whole is self-contained with its motor on a small pedestal, and each unit is driven independently. They are also showing an ingenious swage shaper and side-dressing appliance for band-saw blades. By far the most prominent feature in their exhibit, however, is a portable belt elevator for loading builder's material on to trucks and other vehicles. This, working in conjunction with a horizontal trough belt conveyor which collects the stuff for the elevator, is demonstrated in actual operation. The makers claim that this plant will handle 30 tons of material in an hour. Parts of a patented gravity roller conveyor are also shown by this firm.

Messrs. A. A. Byrd & Co. are demonstrating a complete range of " Wallace " electric bench wood-working machines for stock up to 8 in. thick. These machines are all complete portable units provided with efficient guards, and should be a welcome addition to the builders' plant.

OLD WESTMINSTER: ITS HISTORIC BUILDINGS PAST AND PRESENT.

UNDER the chairmanship of Mr. Otho Nicholson, M.P. for the Abbey Division of Westminster, the first of two lantern lectures on " Old Westminster " was delivered by Mr. Herbert A. Cox, F.C.A., at the Building Exhibition.

The views first shown upon the screen were of a general character, depicting Westminster in the sixteenth century; they were drawings by Brewer, from one of which *The Builder* model of " Old Westminster " was made. These showed that the island of Bramble or Thorney Isle was, as either name implies, surrounded by the Tyburn, which divided at King's-street, one branch of the stream flowing direct to the river and the other passing south and then east, where it turned the Abbey Mill—hence Mill Bank. " Our Palace of Westminster " included the Abbey and the public buildings as well as the royal residence, and all these were indicated on the screen. Two drawings by Hollar of Westminster from the river and of New Palace-yard were also described. The Painted Chamber was illustrated by an old drawing; the wall paintings, which adorned it, dated from 1237, were some of the earliest of purely English art and it is related that they were " painted beyond description." This chamber may be said to have been the birthplace of the Commons, but their first home was the Chapter House of the Abbey for about 300 years. The beautiful Chapel of St. Stephen's College was shown, as depicted by Brewer, at its best, and a brief description was given with detailed illustrations of the decorations, some of which have been preserved. Subsequent views showed the building when it was converted into St. Stephen's Hall for the use of the Commons in Edward VI's reign, after the dissolution of St. Stephen's College. These views, depicting some of the historic scenes of the seventeenth and eighteenth centuries, revealed the mundane character of the hall. It is seldom realised that the Commons were without a chamber suited to their important business for 600 years until in Queen Victoria's reign the present house was built. The original Parliament Chamber, built by Henry II, stood south of the Painted Chamber and was the House of Lords till 1823, when it was pulled down. The vaults beneath it were then found to have been the kitchen of the royal residence; it was there that Guy Fawkes made his preparations; four of the arches were removed by Sir John Soane and placed in his museum, where they may be seen to-day. In 1823, the House of Lords occupied the Court of Requests (also called the White Hall), having been built by William I as the great hall of his palace on the east side of Old Palace-yard. But in 1834 the great fire originated beneath this building, which was destroyed together with the Painted Chamber and St. Stephen's Hall. Some views of the second House of Lords were shown; also of the crypt of St. Stephen's Chapel, which escaped the fire of 1834. Westminster Hall is the principal subject of the second lecture to be held on Thursday, April 24.

THE ARCHITECTS' AND SURVEYORS' ASSISTANTS' PROFESSIONAL UNION.

AT a meeting at the Building Exhibition, Olympia, held under the auspices of the Architects' and Surveyors' Assistants' Professional Union, Mr. Raymond Unwin, F.R.I.B.A., Chief Architect to the Ministry of Health, and Mr. Alfred Clifford discussed the problem facing the Government in its endeavour to solve the housing problem, from the point of view of the architect and client.

Mr. Clifford, in the course of his remarks, said that most people had lost almost all hope of solving the housing problem, and, possessed with the overwhelming sense of despair for which the bad housing conditions of to-day were responsible, had become more and more apathetic to the necessity for expressing their requirements in a home, both as regards its outward appearance and inward convenience.

In conclusion Mr. Clifford suggested that th were two alternatives to consider in arrangi for the solution of the housing problem, init cost and ultimate cost, and unquestionably t latter was more important.

Mr. Raymond Unwin, in dealing with t question from the producer's point of view, s that the greatest influence exerted upon ma character and personality was his environme and in his youth his deepest and most lasti impressions would be received in the ho environment.

It was now proposed by the building indust itself that it could and ought to build 2,500,0 houses during the next fifteen years. realise how far-reaching for good or bad wou be the results, let them consider that if ea house changed hands only once in fifteen ye and the average family per house number only four, and taking sixty years as being t life of the house, by simple calculation th found that 40,000,000 people would have liv in them for an average of fifteen years eac This was a number approximately equal their present population. To embark on su a programme of house-building to encompa this result was immense, and afforded a gre and glorious opportunity for the nation to hou the people well. On the architect and t builder the task they were faced with wou fall.

The space allotted for the subsidised house was 950 sq. ft., and when that was divided u between the living room, parlour, sculler three bedrooms, bathroom, larder and co cellar, they were left with 190 sq. ft. for stair lobbies, thickness of partition walls, and suc planning required the greatest care and atte tion. Some allowed 104 sq. ft. for sculler larder and coals, and said they were too smal others allowed only 45 sq. ft. for the lot.

RENT ACT: TIME LIMI FOR RECOVERY OF REN

AN important question has arisen in t county courts in connection with the time lim imposed by section 8 of the Rent Restrictio Act, 1923, and it has now been set at rest b the decision of a Divisional Court in thre appeals, Lewis *v.* McKay, Algate *v.* Vugler, an Clark *v.* Potter, reported in *The Times*, April 1 Under section 14, sub-section (1) of the Act 1920, any sum paid on account of rent whi is by virtue of the Act irrecoverable by the lan lord, is made recoverable by the tenant, b section 8, sub-section (2) of the Act of 19 imposed a time limit as follows: " Any su paid by a tenant or mortgagor which, und sub-section (1) of section 14 of the princi Act is recoverable by the tenant or mortga shall be recoverable at any time within months from the date of payment, but n afterwards; or, in the case of a payment m before the passing of this Act (July 31, 192 at any time within six months from the pass of this Act, but not afterwards."

The three appeals were all by landlo judgment having been given for the tena in the courts below.

The particulars of each case are not s ficiently stated for us to go into detail, se the present note we confine ourselves to point decided in the judgment in general ter The court found that in each case the summ had been issued well within the statutory pe of six months, but the cases had not b heard within that period because of the gencies of business in the county courts through no fault of the tenants. The c interpreted the term " recoverable " in sub-section as meaning, either that the cl must have been made by issuing a summ within that time limit, or that the sum question must have been deducted by tenant from his rent within the time limi

It will be seen the point is of importa and that a question which must arise frequently has been decided on a comm sense principle.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

ER another Evictions Bill has been introd in the House of Commons, this time by ain W. Benn, the Liberal member for h. The object of the measure is "to pro- the eviction of distressed tenants and to e provision as to claims for reimbursement ocal authorities affected." Captain Benn ined that the Bill was based on the idea ving the tenant security. The tenant was e provided with a certificate, armed with h he would be immune both from eviction from having an eviction order made nst him. By clause 2 the local Poor Law ority was authorised to grant such a cer- te, stating that they had made themselves nsible for shelter for the man and his ndants. It was proposed that the Poor authority should be called on to forward ne Health Ministry, either in England or land, copies of the certificates that had granted and under regulations which d take into account the disbursements e the local authority would be entitled to n a refund of a part of the money spent. was as far as a private member's Bill d go, and if it was not to lie fallow it t be fertilised by an estimate put forward ne Government and approved by the House. power to recommend the granting of public ey rested alone with Ministers of the rn.

ne Bill was read a first time.

ne Standing Committee which is consider- he Rent Bill introduced by Mr. Gardner, a ur member, has adjourned until after er. Clause 1 has not yet been disposed of.

Price of Houses.

r. Wheatley informed Mr. Paling that, pared with the figures for contracts for , 1923, the average increase in the price ilding up to the present was £41 for a parlour house and £68 for a parlour house. highest and lowest prices of houses, ex- e of cost of land, street works and sewers, ded in contracts let by local authorities up arch 1 last, in connection with schemes r the Housing, &c., Act, 1923, were:— parlour houses: highest, £530; lowest, Parlour houses: highest, £615; lowest,

Bricklaying Machines.

answer to Sir F. Hall, Mr. Wheatley he was informed that experiments had made in the design and construction of laying machines, but he was not aware any such machines had been introduced ound practical in the building industry.

Private Builders and the Subsidy.

. D. G. Somerville asked the Minister of h whether his Department had rejected nd, if so, what applications from private rs for the housing subsidy put forward gh local authorities.

Wheatley said that the position under Housing Act of 1923 was that the local rity came to the Ministry for approval general scheme of subsidy to the private r. The builder went to the authority ot to the Ministry. In four cases ap- to general schemes had been withheld se the local authority could not satisfy Minister, as prescribed by the Housing hat the houses to be subsidised under scheme were such as could not be pro- without assistance. The Ministry had consulted by local authorities on in- al cases, but solely on the question er particular houses which had been or were under construction fell within ope of the Housing Act. In the case of 1,700 houses, spread over the country for ost part in very small numbers in in- al districts, it appeared that the houses t comply with the statutory conditions, e local authorities were so advised.

Labour and Housing Schemes.

Mr. Wheatley informed Mr. T. Thomson that instructions were given to local authorities on the passing of the Housing Act last Session with the object of ensuring that full regard should be had to the labour available when submitting schemes for the assistance of private enterprise. These instructions were to the effect that they should only give undertakings to pay subsidy in respect of houses likely to be started within a reasonable time and completed within nine months, and in dealing with applications of local authorities for approval of such schemes only such numbers of houses were authorised as could be rapidly completed.

Unemployment in Building Industry.

Mr. D. G. Somerville asked the Minister of Health if, in view of the unemployment in the building industry, he would give the names of those districts in which it had been found necessary to limit the grant of the subsidy in view of the amount of work in hand or the lack of essential skilled labour in the locality.

Mr. Wheatley said that, as regarded the first part of the question, he thought the hon. member would be aware that in certain essential branches of the building industry the condition was not one of unemployment. As regarded building of houses by local authorities themselves under the Act of 1923, the ordinary practice of the Department was to confer with the local authorities as to the number of houses which might be put in hand at a particular time. Nearly 500 local authorities in all parts of the country were up to the present undertaking building themselves; and the hon. member might take it that in practically all these cases the numbers approved for immediate building were less than the local authorities would desire to put in hand if it could be shown that there were no lack of the essential skilled labour.

The Minister's Plans.

Mr. Lambert asked the Minister how he proposed to supplement the labour employed in the building trade, considering that it had been reduced from 834,000 in 1901 to 632,000 in 1923, and there was a great urgency for building labour both for dwelling houses and industrial purposes.

Mr. Wheatley said he hoped that it would be possible to supply the House with information on this subject in the course of a few days.

Cost of Repairs.

Mr. Wheatley informed Brig.-Gen. Makins that it was not possible to give general figures as to the actual cost of house repairs, as this cost varied with the character and age of different buildings, but the increase in rates of wages and prices of materials used in connection with house repairs would account for an increase in the cost of repairs in the years 1921, 1922, 1923 and 1924 of 170 per cent., 95 per cent., 78 per cent., and 80 per cent. respectively as compared with the year 1913-14.

Assessment Figures.

The Chancellor of the Exchequer informed Mr. L. Jones that the approximate gross annual value of lands, houses, and other property assessed under Schedule A for the year 1922-23 was as follows:—England and Wales, £257,400,000; Scotland, £29,600,000; Great Britain, £287,000,000.

Concrete Houses.

Mr. Hardie asked the Minister of Health whether he was aware that houses built of concrete hollow blocks 16 years ago in Scotland had had less depreciation and repair costs than the neighbouring houses built of stone and brick, and rough-cast; and whether he contemplated building with this system, which brought in men of the mason trade as builders and employed a maximum number of unskilled men in the manufacture of blocks, using the clinkers from refuse destructors.

Mr. Greenwood said that the Minister was aware that concrete construction had in many cases proved satisfactory and he contemplated that where local circumstances were favourable concrete construction in some safisfactory form would continue to be used.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

**** We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.*

Slates.

SIR,—I see by the price-list of slates that Bangor and Portmadoc are all one price in your journal, *The Builder*. I wish to know which are the better slates of the two; or could you tell me how many years the Oakesley slates would wear on a house. Are they good enough for house property?

A. BENNETT.

[REPLY TO MR. A. BENNETT.]

SIR,—There is very little to choose between the merits of Bangor and Portmadoc slates, and opinion in the trade varies upon the point. The blue slate termed "Portmadoc," which is the shipping port, is quarried at Festiniog, where the quarry inspection is very strict. Those from the Old Vein are considered best, but both the New and Back Veins are reliable. Inferior qualities of blue slates are sometimes passed off as Portmadoc by unscrupulous contractors and for this reason some prefer to specify Bangor, but the real article is in no way inferior thereto.

Oakesley is a thoroughly reliable quarry not far from Festiniog and produces a grey slate. This is perhaps not quite up to the standard of those previously mentioned, but of a wearing quality that may be classed as practically everlasting if well laid and protected from unfair traffic during roof repairs, &c.

"INTERESTED."

Fireproof Screen for Theatre.

SIR,—Can you please give me particulars of the cheapest fireproof screen suitable for a cheap theatre. I have been informed that ordinary sail-cloth treated with saltpetre, say twice a year, makes a cheap fireproof screen, or a sail-cloth curtain treated with asbestos fireproof liquid. In the case in hand it is necessary that the curtain be cheap and able to be rolled instead of flying, as there is not the height for flying, and it should be approved by the local authorities.

A. H. FENNELL.

[REPLY TO MR. FENNEL.]

A sail cloth screen, treated periodically with asbestos paint or tungstate of soda, will answer the purpose of a fairly effective fireproof screen for a theatre. We have had no experience of treating with saltpetre, and are doubtful if this would be efficacious. No pliable screen can be as effective as a solid screen, and some authorities will insist on the latter. The most effective arrangement for a rolling screen is with the roller at the top and the bottom weighted with an iron rod, and with the edges arranged to run in a deep groove formed with slabs of asbestos so that no gaps will be opened up under the influence of draughts playing upon the screen. This arrangement is better than the usual bottom roller, which makes it difficult so to protect the edges. It will, of course, be advisable to consult the requirements of the local authorities before making definite arrangements as regulations vary considerably in different districts.—M. H.

"Swept Tiling."

SIR,—Would you kindly give me the definition of "Swept Tiling"?

J. A. COOK.

THE BUILDING TRADE

REPORT OF THE BUILDING INDUSTRY ON THE PROVISION OF HOUSES

On Friday last week, the "Report on the Present Position in the Building Industry with regard to the carrying out of a full Housing Programme, having particular reference to the means of providing an adequate Supply of Labour and Materials" was issued by H.M. Stationery Office (price 9d. net).

The report has been prepared by the National House Building Committee (representative of employers and operatives in the building trades) formed at the request of the Minister of Health and the Minister of Labour that the building industries should consider the matter and report accordingly to the Government. The publication also contains a report prepared by a Committee of Building Materials Manufacturers and Suppliers formed at the request of the Minister of Health.

The Committee was formed representative of all sections of the building industries, as follows:—

Chairman: Mr. W. H. Nicholls (National Federation of Building Trades Employers).

Vice-Chairman: Mr. T. Barron (National Federation of Building Trade Operatives).

Employers' Representatives: Mr. A. Andrews (National Federation of Master Painters), Mr. H. Blackman (Secretary, Institute of Plumbers), Mr. R. B. Chessum (National Federation of Building Trades Employers), Mr. J. Clark (National Association of Master Plasterers), Mr. J. P. Cox (Institute of Plumbers), Mr. J. Croad (National Federation of Building Trades Employers), Mr. C. E. France (Master Slaters' Federation), Mr. A. J. Forsdike (National Federation of Building Trades Employers), Mr. J. C. Gilchrist (Scottish National Building Trades Employers' Federation), Mr. F. G. Hodges (National Federation of Building Trades Employers), Mr. H. T. Holloway (National Federation of Building Trades Employers), Mr. E. W. King (National Federation of Building Trades Employers), Mr. H. Matthews (National Federation of Building Trades Employers), Mr. A. Melville (Scottish Building Contractors' Association), Mr. H. R. Selley (National Federation of House Builders), Mr. T. Somerville (Federation of Scottish Master Plumbers), Mr. E. J. Strange (National Federation of Building Trades Employers), Mr. A. G. White (Secretary, National Federation of Building Trades Employers).

Representatives of National Federation of Building Trade Operatives: Messrs. J. F. Armour, A. G. Cameron, W. Coles, Wm. Cross, G. Haines, G. Hicks, H. McPherson, D. Merson, S. Sigsworth, S. Taylor, W. Turner, G. Waddell, R. Wilson; Mr. R. Coppock (Secretary, National Federation of Building Trade Operatives).

The Secretary to the Committee was Mr. B. H. Rogers (Ministry of Labour).

Four sub-committees were formed. These were: The General Purposes Sub-Committee: the Materials Supply Sub-Committee; the Labour Supply Sub-Committee; and the Scottish Sub-Committee.

Meetings of the full Committee and of the various Sub-Committees were held from day to day. Meetings also took place with representatives of building material manufacturers. The Scottish Sub-Committee also made a detailed inspection of certain Scottish housing schemes with a view to a comparison of costs with English types of housing schemes.

After some remarks on the causes of the shortage of building trade labour, the report states:—

"The Committee considers it is primarily necessary to restore the confidence of both employers and workmen in the future of the industry by providing the most stabilised conditions possible in regard to the demand for building work for a prolonged period. The Committee, therefore, recommends that the further housing proposals of the Government should be based upon a definite continuous programme of 15 years.

"From information supplied it is understood that under the 1923 Act there are about 40,000 houses being built per year, and the Committee suggests that the new proposals should provide for a further 50,000 to be built the first year, increasing by further increments of houses per year until an extended maximum of 225,000 houses a year are reached, and maintained at that level until towards the end of the 15-years' programme.

"The Committee is of opinion that houses are being built to-day at the lowest possible cost.

The Need for Guarantees.

"At the present time the existing skilled personnel of the industry is in most sections of the trade fully occupied with the current demand for building work; indeed, there is evident a pronounced shortage of labour in certain sections. It is not, however, to be inferred that by limiting the current demand a sufficient amount of suitable labour would be released and made transferable to house building, or that the supply of materials would thereby be rendered easy, the fact being that the labour and much of the material used in ordinary commercial building is unsuitable for house building and could not readily be so diverted. The Committee is definitely of the opinion that in the interests of the community there should be no restriction on private or commercial work, the continuance of which is necessary in order to employ large numbers of craftsmen who would otherwise be unemployed, and such restriction could not facilitate housing production. The organised workers view with apprehension the prospect of increasing the skilled personnel of the industry, and feel that they must have the completest assurances possible that such an increase will be satisfactorily absorbed, and that future demands for their services will be maintained at an adequate level. The Committee unanimously recommends that Parliament should be asked to sanction the expenditure required for a definite and continuous programme extending over 15 years for the erection of an inclusive total of up to, approximately, 2,500,000 houses upon a basis of cost to be agreed.

A National House-Building Committee.

"The local authorities will have to make their housing needs and intentions known to the Government, to the industry, and the manufacturers as far ahead as possible, so that the output of materials may be increased as and where necessary; their transport provided for, the recruitment and training of the necessary labour set going and directed to the proper localities, and the necessary financial commitments arranged for. The Committee, therefore, recommends that provision should be made, in the legislative proposals which may be required for the proposed housing scheme, for the setting up of a National House-Building Committee, comprised of representatives of the organisations referred to under the Chairmanship of a member of the building industry. Such a Committee to be given a status, and a permanency, which would enable it to deal with everything arising within the industry connected with the exercise of its functions under the housing scheme, and to have its expenses paid out of funds to be provided by Parliament.

"The Statutory Committee so set up be given power to obtain any infor which it deems necessary from housin tractors and others. Its proceedings sh given the requisite amount of publicity sure the maintenance of public confiden should be consulted in regard to the co tion of design as affecting economy struction, as to the method of obtainin petitive tenders and of placing contrac as to the method of ensuring prompt set of accounts. This last item is one siderable importance, because there ha much and, it is believed, undue delay, taining the settlement of housing a under previous housing schemes.

"It is the opinion of this Committ the best way of obtaining an adequate of labour for the new housing scheme, ally in the earlier stages while the in apprentices are being trained, will be to the housing contracts over the largest numbers of employers. This will invo placing of contracts to suit the capac the smaller employers. The Committe that the success of the scheme depend enlisting the enthusiastic support of eve of private enterprise, so that employe eagerly strive to participate in house-b and in the training of the additional which is an essential condition of succ

"It therefore recommends that eve cedure should be simplified as far as to that end. At the same time the ment should be empowered to preve voluntary effort which is an essential of these proposals from being weake defeated by indifference, hostility, or i opposition from whatsoever quarter proc

Labour Supply.

"Attention has been given to the q of labour supply under the following ings:—

"(1) Supply of labour at present a for commercial work and housing wor

"(2) Estimated shortage of labour, regard to the proposed housing progra

"(3) Suggested means whereby an a supply of labour may be available suffi guarantee the carrying out in full of t posed housing programme.

"The figures supplied by the Min Labour, representing the number of persons, indicate that, at the dates me there were in each trade the following of workmen:—

	Dec. 1913.		Oct. 1921.	Ja
Carpenters	126,780	...	132,260	...
Bricklayers	68,920	...	62,170	...
Masons	38,870	...	22,880	...
Slaters	6,650	...	5,370	...
Plasterers	20,180	...	17,080	...
Painters	130,860	...	115,900	...
Plumbers	36,860	...	35,840	...
Totals	429,120		392,500	

"These figures plainly show that, s comparatively, there is a distinct sho bricklayers, masons, and plasterers.

"There is a general feeling that as the ship-building and other industries ing large quotas of joiners' and pl labour become active again, there will evident a pronounced shortage of ca and joiners, and also of plumbers. also be borne in mind that the hours w 1914 were considerably longer than the working hours of the present day.

"The Sub-Committee on Labour Su come to the conclusion that for the fi 50,000 additional houses is the maxim ber possible under most favourable stances. Upon the assumption that enterprise and local authority sche producing 40,000 houses per year, t production required to yield a total of

ses a year at a period would be 85,000. ut 57,230 craftsmen, it is estimated, would required for work on the additional 85,000 ses.

The Committee does not think it possible withdraw that number of men from the ting personnel of the industry and to sfer them to housing, having regard to the ent state of demand for craftsmen's labour he industry. It is recognised, however, there is no other available source from ch to draw them. The Committee there- recommends that the maximum pro- mme for the year should be an added pro- ion of 50,000 houses. This would reduce number of men required for the added pro- ion of houses to 58.8 per cent. (say 60 cent.) of the number required for the pro- ion of an additional 85,000 houses, and the bers would be approximately:—

Bricklayers	11,772
Carpenters and joiners ...	7,848
Slater, tiler and plasterers ...	7,848
Masons, painters, plumbers, gasfitters	6,870
Labourers	25,500
	59,838

It must be borne in mind that, as com- d with the other classes of building work. sing is not the most attractive class of k to building trade craftsmen. It must also ecognised that employers will not willingly with workmen already in their employ- t, nor will workmen readily leave their ent employers. It is further pointed out employers will not cripple their productive er by parting with the men they have ered about them as the result of prolonged tion. The Committee are, therefore, ly of opinion that to attempt to allocate ing contracts to employers who, in order an them, would require to attract extra ur to themselves, which extra labour could be obtained under present circumstances he expense of other employers, would be a se of action which would be resented by employers whose labour personnel was to hus depleted. No doubt such employers d, in self-defence, do their best to retain men. This might lead, at times, to over- ning of their contracts in order to do so, also to the offering of counter-induce- s.

The Committee has, therefore, come to the usion that the best way to secure the fer of the requisite labour, on to work in ection with an extended housing pro- mme, will be to distribute the contracts, d over the largest number of employers ble, preferably to those already located e districts in which houses are to be d, and that every opportunity should be to the smaller types of employers to take housing contracts by making the acts small enough. The Committee de- to lay the greatest stress on this recom- ation, believing that its adoption and rance is a *sine qua non* for the successful hing and prosecution of the housing pro- .

Augmentation of Labour.

Hitherto the augmentation of labour in the g industry has been left in the hands dividual employers in each locality, d at times by the operatives acting with employers on local joint apprenticeship mittees.

ocal agreements between operatives and yers generally exist, providing the upper of age (usually 16) at which appren- may be taken; that they must be inden- and that they must not exceed a certain in relation to the average number of men employed by the individual em- who desires to take apprentices (usually oportions vary between 1 in 4 to 1 in 7); mes a maximum total number for any ployer is imposed (in the case of Man- r and London it is 8). For a long time e Employers' Federation, with the ap- of the Operatives' Federation, has urged upon its members the need that the employers should take the fullest number of apprentices allowable under the rules, but the request, while it has in many cases been complied with, has, on the whole, not met with an adequate response; as may be inferred from the fact that the census figures of 1921 showed that there were then in training only about 21,000 apprentices for the crafts of bricklayers, masons, carpenters and joiners, slaters and plasterers, whereas if an average of 1 in 4 be applied to the figures given at the beginning of this report it will be seen that upwards of 56,400 apprentices should be in training in those same five trades.

"The national organisations of employers and operatives concerned can, in the present circumstances, only use moral suasion in the direction of speeding up the augmentation of the labour supply under the present local autonomy arrangements. The National Federation of Building Trade Employers and the National Federation of Building Trade Operatives, however, have recognised the necessity of using all possible influence to ensure an adequate number of apprentices being taken by employers, and have recently appointed a National Joint Apprenticeship Committee to examine the situation and propose measures for its amelioration. The Committee strongly recommends that the work of that National Joint Apprenticeship Committee should be expedited and that among its proposals should be found provisions for establishing joint apprenticeship committees of employers and operatives in every locality where both sides are organised, whose mission it should be to stimulate, in every possible way, the engagement of apprentices up to the limit provided by the existing working rule agreements, together with the removal, for a time at least, of the restrictions as to the number of apprentices which any one employer may have, so long as the total number of apprentices in a given district, when compared with the total number of craftsmen of any trade concerned who are employed in the district, does not exceed the ratio prescribed by the existing rules. The registration of every apprentice is also required.

"The Committee proposes that, in addition to what has been recommended above, it should be made a condition of every contract for houses under this scheme that the contractor shall employ upon the work, under such contract, apprentices up to a total ratio of one apprentice to three craftsmen, in each of the following trades, viz., bricklayers and masons, carpenters and joiners, slaters and tilers, plasterers, and plumbers. (This does not mean one to three of the men on the contract; but in the trade in the district.) Such apprentices to be indentured under an approved form of indenture in such a manner that they shall be under the supervision of a local joint committee of employers and operatives, and shall be transferable by that committee wherever possible, should the contractor discontinue housing work, and also in order to secure continuity of training and employment. Such apprentices to be similarly registered. The Committee recognises that part of the difficulty at present apprehended in launching the present housing programme is the want of balance between certain trades (*e.g.*, the relative shortage of bricklayers and plasterers), and as this discrepancy should be rectified, the Committee recommends that instruction should be given to the local apprenticeship committees to exercise a certain discretion as to the number of apprentices in the respective trades until the balance is adjusted.

"The Committee further recommends that these apprentices be accepted up to 20 years of age. Special consideration shall, however, be given to applicants who have had previous experience of the trade (*e.g.*, building trade labourer). That apprentices so entering the trade prior to their twentieth birthday shall serve not less than four years, subject however in exceptional circumstances to their right to apply to their local joint committee to pass a test as qualified craftsmen after three years' training.

"The following scale of payment is recommended for apprentices under this scheme:—

First	6 months	40%	of the journeyman's wage.	
Second	,,	45%	,,	,,
Third	,,	50%	,,	,,
Fourth	,,	55%	,,	,,
Fifth	,,	60%	,,	,,
Sixth	,,	65%	,,	,,
Seventh	,,	75%	,,	,,
Eighth	,,	85%	,,	,,

Cost of Labour.

"It is understood that maximum costs will be agreed upon as part of the general housing scheme. Such estimates will necessarily be based upon the circumstances prevailing at the time they are made. The Committee has therefore considered it advisable to indicate shortly certain factors, affecting such estimates, which may vary during the progress of the scheme and have an effect upon results.

"Bearing in mind the adverse effect upon the building industry of certain employers seeking to take advantage of a shortage, or surplus of, labour by varying the wages payments according to the state of trade, the Committee is strongly of opinion that, in the case of contracts placed under the Government housing scheme, it should be made an offence to pay either more or less than the agreed standards for monetary payments. In the case of contracts involving the expenditure of Government money, that object could and should be secured by a suitable provision in the contracts, but legislation would appear to be necessary fully to protect the interests of all concerned.

"The values given in the Report by the Committee are based upon the current output, and depend upon its being maintained. Experience of recent years has shown some remarkable variations in the rates of output, and although, so far as the Committee can see, there is no sudden change to be apprehended, it is thought advisable in this connection to mention the possibility.

"There is also the question of the economic value of the augmented labour, especially during the earlier stages of the scheme, which might affect the prices which could be quoted.

"The Committee is very desirous of obviating, as far as practicable, the transferring of labour from district to district under this scheme. Experience has shown that such a process is very costly. The Committee therefore again emphasises its previous remarks as to a suitable distribution of contracts over the available employers of each district, which, in its opinion, will obviate to a great extent the need for transferring labour from one district to another. This carries with it, however, the implication that in letting contracts over a given district the aggregate number of houses let should harmonise with the labour available in the district.

Machinery for Managing the Scheme.

"The time at the disposal of the Committee does not permit the working out in full detail of the machinery necessary for managing the scheme, but a general idea may be given of what the Committee has in mind.

"It is understood that a Statutory Committee having certain powers will be established as part of the legislative proposals of the Government and will have the general oversight and direction of the scheme. It is also evident that the National Joint Building Committee will require to have subordinate local committees as its active instruments for giving effect to various matters in the localities where houses are required to be erected, and in particular to deal with labour supplies and the provision of the additional apprentices required. Such local joint committees should be composed of representatives from the local employers' and operatives' bodies concerned who are represented upon the National House Building Committee. The size of the local committees, and the distribution of representation to be arranged locally, as may be found convenient, having regard to the area and size of the operations contemplated. The

expenses of operating the Local Committees to be borne jointly and in proportion to representation. Appeal in case of dispute to be to the National House Building Committee or any Sub-Committee appointed by it to deal with such matters. The local committees to be charged with the duty of keeping a register of all apprentices taken under the scheme; for approving applicants; for ascertaining the total number of apprentices held by any applicant employer; and for seeing that a suitable probationary period is provided for each apprentice prior to his being indentured. The local committees would ascertain also the available local supplies of suitable youths.

"The Committee suggest that, in the first case, the local authorities shall notify the local joint committees of their application for Government grant under the Housing Act. Immediately the contract has been placed with the contractor, or a sanction given for subsidy payment to a private individual, notification shall at once be sent to the same joint committee. It shall be an instruction to the contractor to notify the local joint committee of the number of men he intends to employ on the contract, making application for the necessary further quota for the housing contract. It shall be the duty of the local joint committee to see that the provision of the necessary apprentices under this scheme is forthcoming.

"It is understood that the respective trade unions concerned will facilitate the admission of apprentices taken under this scheme into their unions under an appropriate rule.

"A standard form of contract should be arranged containing provisions which will enable the local committees to carry out their duties under the scheme.

"To enable the applicants to be placed upon housing contracts it will be necessary for a certain amount of co-ordination to be arranged between the local authorities and the local committee, so that the latter has information of the placing of each contract. As that might not cover the whole of the ground, every proprietor, who receives a subsidy in respect of houses which he proposes to place for building with a contractor, shall utilise with such contractor the form of contract referred to above. In the opinion of this Committee every effort should locally be made to facilitate technical training of indentured labour.

"It will be the function of the Local Joint Committee, with such national joint guidance and assistance as will be necessary, to provide the amount of augmented labour, varying from time to time, according to the increased demand, so that the undertaking to build a certain number of houses each year will be carried out. This will involve the careful revision of the Labour supply at frequent intervals.

Materials.

"It is roughly estimated that for the provision of 50,000 houses additional to housing schemes already in progress or under consideration (*i.e.*, 40,000 under the 1923 Act) the additional materials required will be:—

Bricks (18,000 per house)	...	900,000,000
Boilers or Coppers	...	50,000
Grates (5 per house)	...	250,000
Timber	(Standards)	125,000
Cement and Lime	(Tons)	245,000
Baths	...	50,000
Back Boilers	...	50,000
Pedestals	...	50,000
Lavatory Basins	...	50,000
Slating and Tiling	(Squares)	335,000
Lead	(Tons)	15,000

"The Committee is of the opinion that the supplies of materials available at the present time do not indicate any considerable amount of reserves. It is also felt that this position tends to cause a rise of prices. As regards certain materials, particularly in the case of bricks and slates, it is probable that there is an actual shortage existing at the moment in some districts. The fact that there is at the present time a pressing demand for similar materials for building work other than housing must, it was felt, considerably affect the market as regards the prices of materials required in connection with housing schemes. The Committee has been making investigations into the possible supplies of coal in the near future, coal being a large factor in the cost of most building materials, particularly bricks. Investigations are also being made into the available supplies of lead and the possibilities of increased supplies in the future.

Estimated maximum output of houses per year.

"The Committee is of opinion that under the most favourable circumstances, and allowing for no increase in building and other new housing, the maximum number of houses that could be built would be:—

1925	...	90,000	1930	...	150,000
1926	...	100,000	1931	...	170,000
1927	...	110,000	1932	...	190,000
1928	...	120,000	1933	...	210,000
1929	...	135,000	1934	...	225,000

"These figures, allowing for the five further years (to make up the 15 years' programme) maintaining a production of 225,000 houses per annum, represent a total of approximately 2,500,000 houses, an average of 170,000 houses per annum. The figures given are inclusive of houses built under the Housing Acts whether by private enterprise or otherwise.

"The Committee considers that it may not be possible to reach this standard of production owing to circumstances over which the industry has no control. It is prepared, however, to undertake that the minimum production would be two thirds of the figures given above, because it will take necessary time for the scheme to get into working order, and for the augmented labour to reach the standard of efficiency required. Allowance must, therefore, be made for this.

Augmentation of Materials.

"The Committee feels that the amount of the increased supplies of building materials which should be produced should not be limited only to such increase as is essential for the housing proposals, but that an effort should be made to enhance the available supplies above that standard, in order that the anticipated increased demands of building work other than on houses should be readily complied with.

"It is put forward for consideration that, in order to assist the carrying out of the full proposals, the State should make the necessary provision to enable facilities to be given to meet approved applications for capital, it is felt that, not only would reasonable facilities in this direction considerably assist in the expediting of housing work, but also that actual economies would thereby be effected.

"The Committee desires to suggest that the State should take such steps as will ensure that all the various manufacturing facilities in connection with building trade materials which were being carried on prior to the war, should resume their operations as far as is found possible. It is further regarded as being entirely essential to the successful carrying through of the housing proposals that the augmentation of the supply of building materials for housing schemes should not be allowed to affect adversely the ordinary requirements of the building industry apart from housing. The Committee strongly feels, therefore, that there should be a sufficient increase in the supply of building materials in order to meet adequately the growing demands both in the case of the housing programme and in the case of the expansion of purely private building enterprise, otherwise the calculations upon which the housing proposals have been based may be seriously affected, and difficulties may arise which it would seem could well be avoided by due consideration of the length of the programme involved.

"With undertakings for an increase in the ranks of certain classes of building trade operatives there must also be similar undertakings that the materials shall be available for the continuous use of the added labo The manufacturers of materials have giv their best assurances that an adequate sup will be forthcoming, and that arrangeme will be made for a greatly increased supply meet the full requirements of the housing p gramme.

"The Committee also desires to emphas that with the increased production it sho prove that the unit cost would be reduced

Prices of Materials.

"The Committee recommends that, for purpose of dealing with outstanding attem to increase prices, the Statutory Commit under the Housing Act should have adequ authority to examine carefully any sugges increase in the price of materials before s increase becomes operative. It is suggest therefore, for consideration, that every p posed increase in prices should be submit for the approval of the Statutory Commit prior to such increase being allowed to oper The Committee also submits for considerat that the Government should by Act of P liament take such steps as may be conside necessary to prevent any individual or org sation seeking to exploit the situation.

Distribution of Housing Schemes.

"It is essential, in the first place, that supply of labour and the supply of mater should harmonise in any particular distr and that both these elements should be pre in the right proportions to cope with housing needs of that district. It is s gested that on the Statutory Committee sh be placed the responsibility of advising a the general distribution of housing schem in order that a comprehensive view may taken not only of the needs of the district also as to the means of immediately mee such needs without producing a state of tion and unrest which might have unsatis tory results, not only in the immediate concerned, but throughout the whole of G Britain.

Transport of Materials.

"The Committee suggests that the Gov ment should assist in the provision of adeq and economical means of rail transport materials required for use in connection State-assisted housing schemes. In the op of the Committee the freightage charge present in operation should be conside lowered.

Price to Merchants.

"The Committee is of the opinion tha present terms allowed by the various m facturers' associations to distributors or chants admit of revision in view of the f increased demands."

Labour and Housing.

It must be hard for outside observers to a ciate how little concern exists in this co over the entry into power of the first L Government. It is suggested*, for example our new Minister of Health "possesses no s training in the health field," and that placing of untried men in responsible office must give the people of England siderable concern." In reality our new Mi has at least as good qualifications for the p any of his string of predecessors. He has to his present position by his own exer and even those who are most afraid of wi may do admit his uncommon capacity. Ar sees clearly that housing over here is handic by constantly changing policies; but w remains a matter of such importance and such immense possibilities of State expen it is hard to see how it can be saved from a political shuttlecock. We are told how, the forties, doctors pronounced bath-tubs dangerous to health; how in 1843 Virgir a tax of $30 a year on bath-tubs; while i a Boston municipal ordinance made such b illegal except on medical advice!—a use minder of the changeability of our stand

* "Housing Problems." (New York City National Housing Association.) February, 19

THE RENT ACT

Tenant as Landlord.

NTY court decision was very briefly re- in *The Times* recently which ap- o raise a new and important point he Rent Act. The facts are so shortly t is necessary rather to read between s, but so far as we can gather the of a house had sublet two rooms in it tenant, and as he required these rooms occupation of a married son and his o had returned from abroad he had to the court for an order for possession ection 4 of the Act of 1923. No men- made in the report of any question as native accommodation or as to any to either party, so we assume the ion must have been made under section ection (1) (iv), which provides that ive accommodation shall not be a n of an order or judgment for posses- where the landlord became the land- fore June 30, 1922, and the dwelling nably required by him for occupation sidence for himself or for any son or r of his over 18 years of age."

he defendant it was contended that the l not apply to tenants but only to who had bought their houses before es specified in the section (the report is date as June 30, 1923, but June 30, s the crucial date in the Act). The court judge held that where there were nts the tenant was the "landlord" to tenant where, as here, the rooms were ate dwelling-house, and he was entitled ession if he reasonably required the It will be seen the decision must turn meaning of the word "landlord," for on 4, which deals with this question of on; the word owner does not occur, but, contrary, in paragraphs iv and v the ion used is "where the landlord be- he landlord." The expressions "land- and "tenant" are defined in sec- subsection (1) (*j*) of the Act of 1920, clude any person from time to time title under the original landlord or " but in paragraph (*g*) this is some- mplified as follows: "The expression rd' also includes in relation to any house any person, other than the who is, or would, but for this Act, be to possession of the dwelling house, expression 'tenant' and 'tenancy' subtenant and subtenancy, and the ion 'let' includes sublet." Under ph (*f*) it would appear that a tenant ng might, in relation to his tenant, be a "landlord" as deriving title from landlord, but paragraph (*g*) has also onsidered, and it applies the test of ntitled to possession but expressly ex- he tenant.

county court judge, in deciding this t. said it had never been the subject ion in a Divisional Court, and it will the point is one of great difficulty. ision in the county court for the first aces the tenant in the position of a rd" under the Act, and it would seem him in a more favourable position as his subtenant than is the landlord under section 4, subsection 5, of the 1923.

ses of difficulty it is sometimes per- in order to ascertain the intention of slature, to refer to the Acts which have ended or superseded by the Act in and on the point under consideration er Acts seem to throw some light on stion. The Act of 1915 in section 1, n (3), which relates to possession, e expression "landlord" where a s required for his own occupation or specified persons. In 1918 an amend- was passed in very curious terms. It "For the purposes of this subsection ression 'landlord' shall not include son who since March 12, 1916, has landlord by the acquisition of the dwelling house or any interest therein, otherwise than by devolution to him under a settlement made before the same date or under a testamentary disposition or an intestacy."

The Act of April, 1919, is, however, more instructive, for in that Act the legislature dropped cryptic language, and in section 5, subsection (2) dealt with this question as follows: "Where a person who has since September 30, 1917, purchased a house to which the principal Act (the Act of 1915) either as originally enacted or as extended by this Act applies, requires the house for his own occupation or that of some person in his employ or in the employment of some tenant from him, nothing in the Increase of Rent (Amendment) Act, 1918, shall be construed as preventing the Court from making an order for the recovery of possession of the house if, after considering all the circumstances of the case, including especially the alternative accommodation available for the tenant, the court considers it reasonable to make such an order."

The Amending Act of 1918 was repealed by the Act of December, 1919, and the two Acts of 1919 were repealed by the Act of 1920, and that Act, in specifying the dates at which a house had to be acquired, reverted to the expression, "where the landlord became the landlord" in place of "a person purchasing," but the use of the latter expression in the Act of 1919 would appear to afford some indication of what the intention of the legislature really was, *i.e.*, that the "landlord" must be either a purchaser or one who has acquired the house under a settlement or will or in consequence of an intestacy.

In the absence of a decision on the point in the High Court we can only intimate some of the arguments which can be raised on this question, for a decision in the county courts is not even binding on other courts of co-ordinate jurisdiction, and caution must be shown in taking proceedings on the strength of this decision as it stands. It seems curious that this point should never have been raised before, and this fact alone may seem to point to the fact that the Act has not been read generally as giving such a right to possession to a tenant.

Discretion in Orders for Possession.

SIR KINGSLEY WOOD, in an interview with a representative of the *Times*, published in the issue of April 3, is reported as having said that in his opinion there was a case for further protection being given to tenants owing to the difference of opinion among the county court judges in the interpretation of the Act, as regards the discretion to be exercised in granting orders for possession, as some of the judges considered they could take into account the position of both landlord and tenant, whereas others considered that they could only consider whether it was reasonable that the landlord should obtain possession.

Curiously enough the answer to this point is contained in a case Shrimpton *v.* Rabbits, reported in the same issue of the *Times*. In that case possession was being claimed of a dwelling house which the landlord desired for the occupation of his daughter. It is not stated in the report when the landlord had become owner of the house, but the application was made under section 5 of the Rent Act, 1920, subsection 1, as enlarged by section 4 of the Act of 1923. The Deputy County Court judge had held that he could only consider the circumstances of the landlord, and not those of the tenant, but the Divisional Court said that a good deal of confusion seemed to have crept in through no clear distinction having been made between a landlord "reasonably requiring" the premises in paragraph (*d*) of section 5, and the Court thinking it reasonable to make the order under the general words following paragraph (*i*), which govern the making of every order on the grounds specified in paragraphs (*a*) to (*i*).

It held that the fact that a landlord satisfied the Court that he was entitled to possession on any of the grounds mentioned in section 5, subsection (1) (*a*) to (*i*), did not absolve him from the further necessity of satisfying the County Court judge that it was reasonable that the order should be made.

Seeing the divergence of opinion amongst the County Court judges on this point this decision of the Divisional Court is of the first importance. We dealt with this question in our issue of November 9, and in that article pointed out that the general discretion conferred in relation to paragraphs (*a*) to (*i*) had to be applied.

Landlord partially liable for Repair.

THE case Bourne *v.* Litton (1924, 1 K.B. 231), to which we drew attention in our issue November 23 last, has been carried to the Court of Appeal, where the decision of the Court below has been affirmed. The case is of importance as it raises the point as to the increase of rent where under section 2 subsection (1) (*d*) of the Rent Act, 1920, the "landlord is responsible for part and not the whole of the repairs."

The plaintiff, the landlord, had claimed two increases in rent, viz., one of 15 per cent. under paragraph (*c*) of the subsection, and another of 15 per cent. under paragraph (*d*). No question arose as to the increase under paragraph (*c*), but the point raised related to the increase demanded under paragraph (*d*), for it was alleged that the sum under that head had neither been agreed between the parties nor determined by the County Court according to the terms of sub-paragraph (ii) of paragraph (*d*). Some correspondence was relied upon as forming an agreement, but this was ruled out as it followed the notice of increase.

By the agreement of tenancy the defendant agreed to keep all gutters, stack pipes, water closets, gullies and cisterns clean and in good sanitary condition, and to keep in repair all window glass, sash lines and internal taps and pipes, and also to maintain and keep in repair all Venetian and other blinds. The landlord was claiming possession, and the defence was that the rent was not "lawfully due" under section 5 subsection (1) (*a*) and section 2 subsection (1) (*d*) (ii).

This latter paragraph reads "where the landlord is responsible for part and not the whole of the repairs such lesser amount (that is less than 25 per cent. which is allowed in the previous paragraph where the landlord is responsible for the whole of the repairs) as may be agreed, or as may on the application of the landlord or the tenant be determined by the County Court to be fair and reasonable having regard to such liability." It was held by the Court below, and that decision has now been affirmed by the Court of Appeal, one Lord Justice dissenting, that the notice of increase as to the repairs was invalid because the amount had not been determined either by agreement between the parties or by the County Court in accordance with paragraph (*d*) (ii), and in consequence of this the notice required by section 3 subsection (2) was irregular.

The decision of the Court of Appeal is not yet reported at length, and it does not appear that any question was raised in this case as to the nature of the repairs. We drew attention to the really serious feature of this decision in our former note, which is the interpretation to be given to the expression "for part and not the whole of the repairs." In this case the repairs to be undertaken by the tenant was not at all extensive "to keep in repair all window glass, sash lines and internal pipes and taps, and also to maintain and keep in repair all Venetian and other blinds," but it will be seen that a trivial repair to be executed by the tenant might be held to bring the case within paragraph (*d*) (ii), and thus it appears that the only safe course when any duty to repair at all is placed on the tenant is for the landlord, failing agreement with the tenant as to the amount of increase, which is never an easy task with a statutory tenant, to apply to the County Court before giving a notice of increase, a course which involves cost.

NEW BUILDINGS IN LONDON

Strand.—SHOPS.—A building is now being erected at the corner of the Strand and Wellington-street, as an up-to-date modern office building, with shops on the ground floor, and of Portland stone on all three fronts.

The sub-contractors are :—Steelwork, Messrs. Dorman, Long & Co., Ltd.; hollow brick floors, Messrs. F. Bradford & Co.; lifts and electric lighting, The Berkeley Electrical Engineering Co.; heating, Messrs. John Blaikie & Sons, Ltd. The architects are Messrs. Trehearne & Norman. Contractors and building owners are Messrs. F. G. Minter, Ltd., of Putney.

Hendon.—RECONSTRUCTION.—A private house called The Fosters, is now being reconstructed for Messrs. Hornblower & Thorp, architects, of 2, Devonshire-terrace, W. The work entails various additions, reconstruction, panelling and general decorative work. The hot-water work has been placed with Messrs. Benhams. The building contractors are Messrs. Hickman, Ltd., of 10, Great Russell-street, W.C.1.

Wood-lane.—ADDITIONS.—Additions are now being made to "Beaumont Arms" Wood-lane, Shepherd's Bush, by Messrs. Thomas & Edge, builders, of Greenwich. The contract price is £4.075. There are no sub-contractors.

Kensington.—CHURCH.—A new church is being erected at Palace Gardens-terrace, W.8, being the Second Church of Christ Scientist. The building will be the completion of a scheme of which the existing Sunday School building forms part. The frontages will be executed in thin red facing bricks and roof with Lombardic tiles. The steel contractors are Messrs. Redpath Brown & Co., Ltd., and the consulting engineers Messrs. Logan Reynolds & Faber. The architects are Sir John Burnet & Partners, and the general contractors Messrs. Higgs & Hill, Ltd.

Fleet-street.—BUILDING.—A building is being erected at 72–78, Fleet-street, the construction of which is of steel and concrete; it is being erected under the 1909 Act. The front elevation will be of cast stone, and the ground story is of cast granite of a special texture. The steelwork is being provided and fixed by Messrs. Moreland, Hayne & Co., Ltd., whilst the flooring construction is of Siegwart Beams, and the Patent Impervious Stone Co. are the contractors for the special cast stonework. Messrs. Allen Fairhead & Sons, Ltd., of Enfield, are the builders. The architects for the work are Messrs. Herbert O. Ellis & Clarke, of 3, 5 & 7, Old Queen-street, S.W. 1.

HOUSING IN AFRICA

THIS volume* contains collected papers and discussions on subjects relating to housing generally. Among the papers is a stimulating address on "The Architect's Opportunity," insisting upon the application of architectural principles and showing how costs can be reduced by the proper designing of houses. Our own Government scheme is discussed by Mr. Lawrence Veiller, who visited this country some three years ago with a view to studying conditions under the Addison Act. We can hardly agree that the main reason for the exorbitant cost of our Government houses was that bricklayers who had been laying 500 bricks a day before the war were subsequently laying but 200 or 300, but we are pleased to find the author of this paper recognising both that "the by-products of that scheme are worth untold sums" in setting up a standard; and that England is trying to get loose from Government housing since it is "contrary to every sound principle of economics." The main problems and arguments adduced in this book apply as much to England as to America, and prove that the housing movement in this country is only a facet of a world movement proceeding upon identical lines.

* "Housing Problems in Africa." Being the proceedings of the National Conference on Housing, Philadelphia, December, 1923. (New York City: National Housing Association.)

RATES OF WAGES IN THE BUILDING TRA

The following are the rates of wages in the building trade in England and Wales. endeavour is made to ensure accuracy, but we cannot be responsible for errors that may oc

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¾
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¾
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¾
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¼
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1¾
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1¾
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¾
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0¾
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/8½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¾
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¾
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1¾
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2¾
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1¾
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0¾
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0¾
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1¼
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0¾
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2¾
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2¾
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0¾
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2¾
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1¾
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2¾
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾

(For rates of wages in the Building Trade in Scotland, see page 659).

CONTRACTS, COMPETITIONS, &c.

some contracts still open, but not included in this List, see previous issues. Those with an asterisk dvertised in this number. Certain conditions beyond those given in the following information posed in some cases, such as that advertisers do not bind themselves to accept the lowest or any ; that a fair wages clause shall be observed ; that no allowance will be made for tenders ; and eposits are returned on receipt of a bona-fide tender unless stated to the contrary.

date given at the commencement of each paragraph is the latest date when the tender, or the names e willing to submit tenders, may be sent in ; the name and address at the end is the person from whom e where quantities, forms of tender, &c., may be obtained.

UILDING AND PAINTING.

L 19.—**Aberayron.**—WALL REBUILDING.—For ing of retaining wall at Aberath for the Aber- R.D.C. Surveyor, Council Offices, Aberayron .

L 19.—**Edinburgh.**—ALTERATIONS.—For altera- &c., at the Central Telephone Exchange, for ssioners of H.M. Works. Architect, H.M. Office ks, Edinburgh. Deposit £1 1s.

L 19.—**Prestonpans.**—HOUSES.—Erection of six at East Loan, for T.C. Messrs. R. & A. K. Surveyors, 44, Queen-street, Edinburgh.

L 19.—**Tredegar.**—ALTERATIONS.—For altera- nd additions to the Ex-Service Men's Club and te, Market-street. Mr. W. E. Jones, architect, ar.

L 19.—**Wallasey.**—HOUSES.—Erection of 59 on the Mostyn-street and Norwood-road site in ctions of 37 houses and 22 houses respectively. g Scheme No. 5, Contracts Nos. 1 and 2 for the l of the County Borough of Wallasey. Borough er and Surveyor's Office (Housing Department), Hall, Wallasey. Deposit £1 1s.

L 20.—**Rhewl.**—ADDITIONS.—For additions and ions to the Rhewl C.M. Chapel, near Ruthin. J. Hughes, A.R.I.B.A., Llanfairfechan.

L 21.—**Bolton-upon-Dearne.**— HOUSES, DRAIN- c.—Erection of 30 dwelling-houses (14 Parlour, n-Parlour Type) together with road and surface drainage works in Barmborough-lane, Gold- , also six dwelling-houses (two Parlour, four arlour Type) on Lockwood's Farm site, Gold- , for the Bolton-upon-Dearne U.D.C. Mr. William lams, M.S.A., Council Offices, Bolton-upon- e. Deposit 10s. 6d.

L 21.—**New Shildon.**—ENLARGEMENT.—For en- ent of vestry at New Shildon All Saints' Paro- Church. Mr. J. A. Minto, secretary, 26, All -road, New Shildon.

L 21.—**Newton Stewart.**—HOUSES.—Erection of houses on Windsor-road site, for T.C. Mr. A. nick, Town Clerk, Newton Stewart. Deposit

L 21.—**Penwerris.**—BUNGALOW.—For the erec- a bungalow at Penwerris, Falmouth. Mr. Alfred nelius, architect, Truro.

L 21.—**Port Talbot.**—WALLS.—Erection of ary and retaining walls in connection with ng of Cwmavon-road, for T.C. Borough En- Municipal Buildings, Aberavon.

L 21.—**Truro.**—RESIDENCE.—For the erection esidence at The Crescent, Truro. Mr. Alfred J. ius, architect, Truro.

L 21.—**Wakefield.**—HOUSE.—Erection of house bury-road. Messrs. Holton & Fox, Corporation- Dewsbury.

L 22.—**Aldershot.**—HOUSES.—For the erection ouses, for the T.C. Borough Surveyor, Municipal ngs, Aldershot. Deposit £1 1s.

L 22.—**Bebington.**—HOUSES.—For the erection houses in Bebington and 12 houses in Brom- gh, for the U.D.C. Council Offices, Bebington.

L 22.—**Chichester.**—HOUSES.—Erection of 38 (10 pairs of semi-detached and 3 blocks of 6) e Chichester Corporation. Messrs. Whitehead & nead, 18, South-street, Chichester. Deposit £1 1s.

L 22.—**Edmonton.**—REFLOORING.—For refloor- e Town Hall and stage, for the U.D.C. Mr. C. Engineer, Town Hall, Edmonton, N.9.

L 22.—**Enfield.**—SWIMMING POND.—For extend- imming pond in the Town Park, for the U.D.C. . R. Crabb, Surveyor, Public Offices, Enfield. t £2 2s.

L 22.—**Hereford.**—HOUSES.—Erection of 24 , for the T.C. Mr. H. E. Bettington, Secretary. rd Associated Architects, Ltd. Palace Chambers, rd.

L 22. **Hull.**—LAVATORY.—For the erection of lavatory, East Park, for the T.C. Architect, Hall, Hull. Deposit £2 2s.

L 22.—**Roscrea.**—EXTENSION.—For erection of ive additions to the Roscrea Bacon Factory, a. Mr. R. P. Gill, Nenagh, or Mr. B. E. F. , M.S.A., 57, O'Connell-street, Limerick.

L 22. — **Tilbury.** — HOUSES.—Erection of 23 on the triangular block system of construction, e U.D.C. Mr. A. W. Buckner, Clerk to the l. Council Offices, Tilbury.

L 23.—**Bootle.**—HOUSES.—For the erection of ses, for the T.C. Borough Engineer, Bootle. t £2 2s.

L 23.—**Brentwood, Essex.**—HOUSE.—Erection Medical Superintendent's house at High Wood al, for Children, Ongar-road, for the Metropolitan ns Board. Office of the Board, Victoria Embank- E.C.4. Deposit £1.

L 23.—**Bridgend.**—EXCAVATION.—For excavat- clearing the ground for a building site at Derwen- ridgend, Messrs. P. J. Thomas & Sons, archi- court-road, Bridgend.

L 23.—**Cuckfield, Sussex.**—INFIRMARY BLOCK. ting a female infirmary block at the West ds Institution at Cuckfield, Sussex, for the ians of the Poor Law Union of Cuckfield, Sussex. m. H. Overton, F.S.Arc., F.S.I., 22, Ship-street, on. Deposit £1.

L 23.—**Dublin.**—ROOFING.—For supplying and 4,400 sq. yds. of asbestos roof covering for Dublin nd Docks Board. Engineer, East Wall, Dublin.

APRIL 23.—**Greenwich, S.E.10.**—HOUSES AND MAISONETTES.—Erection and completion of six houses, comprising twelve maisonettes, on a site at the corner of Coombedale-road and Westerdale-road, Greenwich, for the Council of the Metropolitan Borough of Greenwich. Town Clerk's Dept., Town Hall, Greenwich. Deposit £2 2s.

APRIL 23.—**Hastings.**—HOUSES.—(1) Construction of roads and sewers and (2) erection of 106 houses and flats at Hollington, for the T.C. Mr. Philip H. Palmer, Town Hall, Hastings. Deposit £2.

APRIL 23.—**Herne Bay, Kent.**—EXTERNAL CLEANING, &C.—For external cleaning, painting and repairs at St. Anne's Home Herne Bay, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

APRIL 23.—**London, N.**—SHOPS AND DWELLINGS.—Erection of nine shops with dwellings over (similar types) in Lordship-lane, on the White Hart-lane, Tottenham, for the London County Council. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £2 to the Cashier of the Council.

APRIL 23.—**London, S.W.6.**—ROOFING, &C.—Roofing in of a portion of the existing yard, together with incidental building works at the Western Ambulance Station, Seagrave-road, Fulham, S.W.6, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit £1.

APRIL 23.—**Margate.**—VERANDAH FLOORS.—Extension of verandah floors at Princess Mary's Hospital for Children, Cliftonville, Margate, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit £1.

APRIL 23.—**Rothwell.**—HOUSES.—For the erection of 52 scullery houses on the Rothwell Haigh, Carlton, Lofthouse, and Thorpe sites, for the U.D.C. Mr. W. Dodgson, Clerk, Council Offices, Rothwell, Yorks.

APRIL 23.—**Stalybridge.**—PAINTING.—For painting Congregational Church and School. Mr. A. Cropper, 42, Acres-lane, Stalybridge.

APRIL 23.—**Sutton.**—ALTERATIONS.—For alterations in forming cubicles for staff accommodation in existing buildings, at the Downs Hospital for Children, Banstead-road, for the Metropolitan Asylums Board, Victoria Embankment, E.C.4 Deposit £1.

APRIL 23.—**Watford.**—ANNEXE AND LIFT.—Erecting an annexe to the Ward Block and providing therein a hand-power bed lift at the Infirmary in Vicarage-road, Watford, Herts, for the Guardians of the Watford Union. Architects, Messrs. A. Saxon Snell & Phillips, 9, Bentinck-street, Manchester-square, W.1. Deposit £2.

APRIL 23.—**Winfrith.**—LYCH GATE.—For the erection of a lych gate at the churchyard of Winfrith, 3 miles from Wool Station, Dorset. Rector, Winfrith.

APRIL 23.—**Woolwich, S.E.18.**—CLEANING, &C.—For cleaning, painting and repair works at the Brook Hospital and the Brook Ambulance Station, Shooter's Hill, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

APRIL 24.—**Bradford.**—EXTENSIONS.—Erection of extensions to the Conditioning House, Canal-road, for the T.C. City Architect, Town Hall, Bradford.

APRIL 24.—**Bristol.**—SUB-STATIONS.—For the construction of 10 underground sub-stations and extensions to two existing, for the T.C. Mr. H. Faraday Proctor, General Manager, Electricity Dept., The Exchange, Bristol. Deposit £2 2s.

APRIL 24.—**Cockermouth.**—HOUSES.—Erection of 12 houses at Prospect, for the R.D.C. Mr. J. B. Wilson, Surveyor, Cockermouth.

APRIL 24.—**Dunston.**—PAINTING.—For cleaning and painting Excelsior Working Men's Club. Excelsior Working Men's Club, Dunston.

✱APRIL 24.—**Edwinstowe.**—HOUSES.—Erection of 100 houses for Bolsover Colliery Housing Co., Ltd. Mr. P. B. Houfton, architect, Furnival Chambers, Chesterfield. Deposit £1 1s.

APRIL 24.—**London.**—DEMOLITION.—For demolition of the tower and footbridge at Mucking Lighthouse, River Thames, for Trinity House. Secretary, Trinity House, Tower Hill, E.C. 3.

APRIL 24.—**New Ferry.**—EXTENSIONS, &C.—For the erection of extensions for enlargement of offices and inspector's house at the County Police Station, New Ferry. Mr. H. Beswick, County Architect, Chester. Deposit £1 1s.

APRIL 24.—**Near Neath.**—VARIOUS WORKS.—For carrying out for the Neath B.G. the following works :—(1) Internal painting, colouring and repairs at Penrhiewtyn Hospital ; (2) engineering repairs and hot water supplies. Mr. J. Cook Rees, architect, Parade Chambers, Neath.

APRIL 24.—**Newtongrange.**—SCHOOL.—Erection of new school at Newtongrange for Midlothian Education Authority. Mr. L. Kemp, County Education Offices, 1, India Buildings, Victoria-street, Edinburgh.

APRIL 24.—**Nottingham.**—HOUSES.—Erection of 28 small type houses on the Liddington-street, Springfield-street site, for the T.C. City Engineer, Guildhall, Nottingham. Deposit £1.

APRIL 24.—**Plumstead.**—ALTERATIONS.—For alterations and additions to Working Men's Club and Institute, Kirkham-street. Mr. J. B. Farrugia, 46, Thomas-street, Woolwich. Deposit £2 2s.

APRIL 24.—**Treeton.**—BATH HOUSE.—Erection of pit head bath house, 182 ft. long, 46 ft. wide, 32 ft. high, with glazed brick partitions and dado and concrete floor. Engineer's Office, Treeton Colliery, near Rotherham. Deposit £1 1s.

APRIL 25.—**Durham.**—HOUSES.—Erection of 16 "A" type houses at Bearpark, and 16 "A" type, houses at Ludworth, for R.D.C. Mr. G. Gregson, surveyor, 38, Sadler-street, Durham. Deposit £2.

APRIL 25.—**Oldbury.**—HOUSES.—Erection of 20 non-parlour type houses in Queen's-road, Londonderry, for U.D.C. Mr. R. Fletcher, Surveyor, Public Buildings, Oldbury. Deposit £2 2s.

APRIL 25.—**Southampton.**—POLICE COTTAGES.—Erection of two police cottages, one at Marchwood and one at Pennington, for the County Borough Council of Southampton. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £1 1s. for each set of plans, by cheque, payable to Hants. County Council, and crossed "Lloyds Bank, Ltd., Capital and Counties Branch, Winchester."

APRIL 26.—**Aberdare.**—SCHOOL.—For the erection of a new boys' school (to provide accommodation for 272 children). Messrs. Thomas Roderick & Sons, architects, Clifton-street, Aberdare. Deposit £2 2s.

APRIL 26.—**Breconshire.**—NEW MANSE.—For erecting for the Trustees of Pennel Calvinistic Methodist Church, Bwlch, a new manse at Bwlch, Breconshire. Mr. F. J. Hurley, architect, Crickhowell.

APRIL 26.—**Clynderwen (Pemb.).**—PAINTING.—For painting at Gelly Mills, Clynderwen. The Office of Gelly Mills.

✱APRIL 26.—**Dukinfield.**—HOUSES.—Erection and completion of 10 pairs of parlour-type houses on land situate in Birch-lane, Dukinfield. Mr. Joseph Gibson, of Messrs. Lindley & Gibson, Market-avenue, Ashton-under-Lyne. Deposit £2 2s.

APRIL 26.—**Langholm.**—PAINTING.—For painter work and fencing of four blocks of two houses each, for T.C. Mr. J. B. Gladstone, architect, 100, High-street, Lockerbie. Deposit £1 1s.

APRIL 26.—**Newlyn.**—REPAIRS.—For various repairs to St. Peter's Church. Mr. H. Maddern, architect, 11, Morrab-road, Penzance.

APRIL 26.—**Reigate.**—HOUSE.—Erection of a house in the Castlefield-road for the Baths Superintendent, for the T.C. Borough Surveyor, Municipal Buildings, Reigate.

APRIL 26.—**Trewoon.**—SUNDAY SCHOOL.—Erection of new Wesleyan Sunday School at Trewoon. Messrs. Andrew & Randall, architects, New Inn Chambers, St. Austell.

✱APRIL 28.—**Acton, W.3.**—PAINTING AND CONSTRUCTION.—(1) Painting and decorating houses on the East Acton Housing Estate, (2) the construction of a new bathroom, &c., at the Isolation Hospital, for the Borough of Acton. Municipal Offices, Acton, W.3.

APRIL 28.—**Andover.**—OFFICES, &C.—For the erection of new offices, folding partition, &c., at Andover (New-Street) Girls' and Infants' Council School, for the C.C. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £1 1s. by cheque payable to Hants County Council and crossed "Lloyd's Bank, Ltd., Capital & Counties Branch, Winchester."

APRIL 28.—**Barnsley.**—PAINTING.—For painting, cleansing and decorating administrative block and Long Block at the Kendray Hospital, for the T.C. Borough Engineer. Fairfield House, Barnsley.

APRIL 28.—**Camberwell.**—PAINTING.—For painting and decorating work at the Council's Nursery, Grove-lane, Camberwell, for the B.C. Mr. William Bell, Borough Engineer, Town Hall, Camberwell, S.E. 5.

APRIL 28.—**Chesterfield.**—COLLEGE.—For the erection of a technical college in Infirmary-road, Chesterfield, for the Derbyshire E.C. Mr. Percy B. Houfton, architect, Furnival Chambers, Chesterfield. Deposit £2 2s.

APRIL 28.—**Eccles.**—PAINTING.—For painting and decorating interior of Public Library, for the T.C. Borough Engineer, Town Hall, Eccles. Deposit £2 2s.

APRIL 28.—**Heckmondwike.**—ALTERATIONS.—For alterations to the power station, Bath-road, for the U.D.C. Electricity Dept.'s Offices, High-street, Heckmondwike. Deposit £1.

✱APRIL 28.—**Northampton.**—HOUSES.—Erection of (1) 72 houses of concrete block construction, and (2) 72 houses of brick construction on the Harborough-road site, Kingsthorpe, Northampton, for the Housing and Town Planning Committee of the County Borough of Southampton. Mr. Alfred Fidler, M.Inst.C.E., Borough Engineer, Guildhall, Northampton. Deposit £5.

APRIL 28.—**Sheffield.**—HOUSES.—Erection of 202 houses on Manor Estate, City-road, Intake, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £2.

APRIL 28.—**Southampton.**—ALTERATIONS, &C.—Alterations, remodelling, &c., at New Alresford Council School, for the Hants County Council. Mr. A. L. Roberts, County Architect, The Castle, Winchester, on and after April 10, between the hours of 9 a.m. and 4 p.m. ; Saturdays 9 a.m. and 12 p.m. noon. Deposit £1 1s., payable to Hants County Council and crossed "Lloyd's Bank, Ltd., Capital and Counties Branch, Winchester."

✱APRIL 28.—**St. Albans.**—COTTAGES.—Erection of 12 cottages (three blocks of four) in Folly-avenue, for the Corporation of the City of St. Albans. Mr. J. Ashurst, C.E., City Engineer and Surveyor, 96, Victoria-street, St. Albans. Deposit £2 2s.

APRIL 28.—**Various Places.**—PAINTING.—For cleaning and repainting station buildings, &c., at the following places :—(11) Droitwich, Hartlebury, &c. ; (12) Bicester, Ardley, &c. ; (13) Evesham, Pershore, &c. ; (14) Tyseley ; (15) Lapworth, Bordesley, &c. ; (16) Hockley, West Bromwich, &c. ; (17) Wellington (Salop), Market Drayton, &c. ; (18) Kidderminster, Oldbury, &c., for the G.W.R. Co. Engineer at Wolverhampton Station.

APRIL 28.—**Wakefield.**—SHELTERS.—Supply of ten sectional wooden shelters, to the West Riding Public Health Committee. West Riding Architect, County Hall, Wakefield.

APRIL 30.—**Greenwich.**—HOUSES.—Erection and completion of 50 houses (some of which are partially erected) on the No. 3 Section of the Housing Estate at Charlton, for the Metropolitan Borough Council of Greenwich, S.E. Town Clerk's Dept., Town Hall Greenwich. Deposit £2 2s.

APRIL 30.—**Maidstone.**—ALTERATIONS.—For alterations and additions to Trinity House, Church-street, for Kent County Ophthalmic Hospital. Messrs. Ruck & Smith, 86, Week-street, Maidstone. Deposit £1 1s.

APRIL 30.—**Newton-on-Ouse.**—CHURCH, &C.—Erection of new Wesleyan church and school, Newton-on-Ouse. Mr. J. Francis Todd, architect, Easingwold.

✱APRIL 30.—**Nuneaton.**—HOUSES, &C.—For the erection of 34 houses on the Attleborough Housing Estate, for the Corporation. Mr. R. C. Moon, A.M.I.C.E., Borough Engineer and Surveyor, Municipal Offices, Queen's-road, Nuneaton. Deposit £2 2s.

APRIL 30.—**Ossett.**—PUMPING STATION.—Erection of a pumping station on site of old Pildacre Colliery, for T.C. Mr. H. Holmes, Borough Surveyor, Town Hall, Ossett.

APRIL 30.—**Ramsgate.**—THEATRE.—For construction of a portable theatre on the foreshore, for the T.C. Mr. T. G. Taylor, Borough Engineer, Albion House, Ramsgate.

✱APRIL 30.—**Southend-on-Sea.**—SCHOOLS.—Erection of proposed new secondary schools, Westcliff, for the County Borough of Southend-on-Sea E.C. Mr. H. Farrands, M.A., Director of Education, Education Offices, 20, Warrior-square, Southend-on-Sea. Deposit £3 3s. (cheques to be made payable to the Southend Corporation).

APRIL 30.—**Stocksbridge.**—HOUSES.—Erection of 26 houses on Shay House site, for the U.D.C. Mr. J. N. Singleton, Stocksbridge. Deposit £2.

MAY 1.—**Carlisle.**—PAINTING.—For internal painting and decorating of the Court Houses and offices, Carlisle, for the C.C. Mr. J. Forster, County Architect, The Courts, Carlisle.

MAY 1.—**Conway.**—HOUSE.—For the erection of children's home for 40 children at Llandudno Junction, for the Conway B.G. Mr. S. C. Foulkes, architect, Central Chambers, Colwyn Bay. Deposit £1 1s.

MAY 1.—**Llandudno.**—CHILDREN'S HOME.—Erection of a new Children's Home (40 children) in Baden Powell-road, Llandudno Junction, for the Guardians of the Poor of the Conway Union. Mr. S. Colwyn Foulkes, architect, Central Chambers, Colwyn Bay. Deposit £1 1s.

MAY 1.—**Portsmouth.**—FLATS.—Erection and completion of four blocks of flats in Voller-street, Landport, and for the maintenance thereof in thorough repair for six calendar months from the completion thereof, for the Portsmouth Town Council. Mr. Arthur W. Ward, Borough Engineer, Town Hall, Portsmouth.

MAY 1.—**Trowbridge.**—PAINTING.—For interior decoration work at Isolation Hospital, for the Committee. Mr. W. J. Mann, Clerk, Glenion-street, Trowbridge.

MAY 3.—**Rochester.**—HOUSES.—For the erection of 60 houses, for the T.C. Mr. W. Law, City Surveyor, Guildhall, Rochester. Deposit £5 5s.

MAY 5.—**Barnsley.**—PAINTING.—For cleansing and painting gates and railings of St. Mary's Churchyard, for T.C. Borough Engineer, Fairfield House, Barnsley.

MAY 5.—**Cardiff.**—ALTERATIONS.—For alterations to lavatory at 11, Park-place, for Board of Guardians. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

MAY 5.—**Cardiff.**—ALTERATIONS.—For alterations to bathroom at Ely Lodge, for Board of Guardians. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

MAY 5.—**Pontypridd.**—HOUSES.—For erecting for the Pontypridd U.D.C. 60 houses on the Duffryn site at Rhyd-y-Felin (Pontypridd). Mr. W. E. Lowe, Surveyor, Council Offices, Pontypridd (Glam.). Deposit £3 3s.

MAY 5.—**Southampton.**—PUBLIC BATHS.—Erection of public baths at Woolston, for the T.C. Borough Engineer, 33, French-street, Southampton. Deposit £2 2s.

✱MAY 6.—**Aberdare.**—POST OFFICE.—For the erection of a new post office and telephone exchange, for the Commissioners of H.M.Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

MAY 6.—**Durham.**—PAINTING.—For external painting at Ryhope Secondary School, for C.C. Mr. A. J. Dawson, Director of Education, Shire Hall, Durham.

MAY 6.—**Hatfield, Herts.**—COTTAGES.—Erection of 24 cottages in the parish of Hatfield, for the R.D.C. Messrs. Crickmer & Foxley, architects, 1, Lincoln's Inn Fields, London, W.C.2. Deposit £2 2s.

MAY 6.—**Welwyn, Herts.**—COTTAGES.—Erection of 40 cottages in the parish of Welwyn, in the county of Hertford, for the Welwyn R.D.C. Mr. H. G. Cherry, architect, 97, Jermyn-street, St. James, S.W.1. Deposit £2 2s.

MAY 7.—**Salford.**—TILING.—For tiling floors, walls and ceilings of kitchen, scullery and larder at Ladywell Sanatorium, Eccles New-road, for the T.C. Medical Officer of Health, 143, Regent-road, Salford.

MAY 12.—**Port Talbot.**—PAINTING.—For the painting of the various schools within the Borough. Mr. Moses Thomas, Port Talbot.

✱MAY 15.—**Kingston-upon-Thames, Surrey.**—ADDITIONS TO HOSPITAL.—Erection of buildings to provide additional accommodation for nurses at (*a*) Brookwood Mental Hospital, (*b*) Netherne Mental Hospital, for the Lunatic Asylums Visiting Committee of the Surrey County Council. Mr. J. F. Hodgson, M.S.A., architect, 161, High-street, Guildford.

✱MAY 20.—**Featherstone, Yorkshire.**—HOUSES.—Erection of 50 houses at Streethouse, near Pontefract, for the Featherstone U.D.C. Mr. Samuel Chesney, A.R.I.B.A., Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

NO DATE.—**Castleford.**—BUSINESS PREMISES.—For demolition of existing buildings and erection of six business premises and flats in Bridge-street. Messrs. Blenkinsopp & Scatchard, architects, Midland Bank Chambers, Castleford. Deposit £1 1s.

✱NO DATE.—**Maidenhead.**—ALTERATIONS.—Structural alterations to the premises, 76–78, High-street, Maidenhead. Messrs. Timothy White Co., Ltd. (Construction Dept.), 30, Chandos-street, Portsmouth.

NO DATE.—**Penarth.**—FACTORY.—Erection of pea factory outbuildings, &c., at Penarth, for Messrs. W. T. Paull & Co. Mr. A. C. Huffell, architect, Lloyds Bank Chambers, Penarth.

NO DATE.—**St. Clears (Carmarthenshire).**—COMPLETION OF CONTRACT.—For completing a building contract at St. Clears. Mr. S. Thomas, solicitor, St. Clears.

NO DATE.—**Tondu (Glam.).**—HOUSE.—For erection of a house at Tondu. No. 9, Bryn-road, Tondu (Glam.).

FURNITURE, MATERIALS, etc.

APRIL 19.—**Glasgow.**—MATERIALS.—For supply of various materials required by the Electricity Department for one year, for T.C. Mr. R. B. Mitchell, Engineer, 75, Waterloo-street, Glasgow.

APRIL 21.—**Bermondsey.**—SCREENS.—For the supply to the Guardians' Hospital, Lower-road, Rotherhithe, S.E., of 36 ward screens. Mr. Henry H. Reeve, Clerk, 283, Tooley-street, S.E. 1.

APRIL 21.—**Edinburgh.**—MATERIALS.—Supply of road and other materials, for one year, for Midlothian C.C. Road Officer, County Buildings, Edinburgh.

APRIL 21.—**Glasgow.**—MATERIALS.—For supply of materials required by the Sewage Dept. for six or 12 months, for the T.C. Mr. W. S. Tennant, Manager, Sewage Dept., 50, John-street, Glasgow.

APRIL 21.—**Sefton.**—MATERIALS.—Supply of highway materials to the R.D.C. Mr. F. Pool, surveyor, 21, Evered-avenue, Walton, Liverpool.

APRIL 21.—**Tenterden.**—MATERIALS.—Supply of road materials to the T.C. Mr. W. L. C. Turner, Borough Surveyor, Town Hall, Tenterden.

APRIL 22.—**Irlam.**—MATERIALS.—For supply of road materials, for the U.D.C., for one year. Mr. W. H. Gamble, Surveyor, Council Offices, Irlam.

APRIL 22.—**Nantwich.**—SAND.—Supply of about 200 tons of washed filtering sand to the U.D.C. Mr. P. H. Paton, Surveyor, Council Offices, Nantwich.

APRIL 23.—**Bootle.**—BRICKS.—For supply of 980,000 common building bricks, for the T.C. Town Clerk, Bootle.

APRIL 23.—**Tooting, S.W.17.**—JOINERY.—For supplying and delivering prepared joinery to Tooting Bec Mental Hospital extensions, Church-lane, Tooting, S.W.17, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

APRIL 23.—**Rathmines.**—FITTINGS.—Supply of 50 swan-neck brackets and fittings for public electric lamps, for the U.D.C. Electricity Works, Rathmines.

APRIL 24.—**Worthing.**—MATERIALS.—For supply of tarred slag, and tarred granite chippings for T.C. Borough Surveyor, Municipal Offices, Worthing.

APRIL 25.—**Glasgow.**—MATERIALS.—For supply of materials required by the Parks Dept., for six months, for the T.C. Mr. E. Matthews, Director of Parks, City Chambers, 249, George-street, Glasgow.

APRIL 25.—**Ripley.**—MATERIALS.—For supply of tarmac, slag, asphalte, and asphalte laid complete, Breedon gravel, sandstone kerbing and patent stone flags, for the U.D.C. Mr. George Whitcombe, Clerk, Town Hall, Ripley, Derbyshire.

APRIL 26.—**Clayton-le-Moors.**—MATERIALS.—For road materials and tar for one year, for the U.D.C. Mr. H. Dodgeon, Surveyor, Council Offices, Clayton-le-Moors.

APRIL 26.—**Devon.**—FURNITURE.—For supply of furniture for one year, for Education Committee. Secretary, The Castle, Exeter.

APRIL 26.—**Glasgow.**—MATERIALS.—For supply of road and other materials for T.C. Public Works Office, City Chambers, 64, Cochrane-street, Glasgow.

APRIL 28.—**Bolton.**—CEMENT.—Supply of Portland cement to the T.C. Borough Surveyor, Bolton.

APRIL 28.—**Islington.**—MATERIALS.—For the supply of (*a*) 650 tons of granite or slag tar macadam, (*b*) castings and other ironwork. Borough Engineer, Islington, N.

APRIL 28.—**Shoreham-by-Sea.**—MATERIALS.—For supply of road materials, for the U.D.C. Town Surveyor, Town Hall, Shoreham-by-Sea.

APRIL 29.—**Great Yarmouth.**—WOOD BLOCKS.—For supply of 300,000 creosoted fir paving blocks, to the T.C. Mr. S. P. Thompson, Borough Engineer, Great Yarmouth.

APRIL 29.—**Lambeth.**—FIRE EXTINCTEURS.—Supply of fire extincteurs to the B.G. Mr. James L. Goldspink, Clerk, 128, Brook-street, Kennington, S.E. 11.

APRIL 30. — **Huyton-with-Roby.** — MATERIALS.—Supply of 500 tons 2½ in. tarred slag macadam and 200 tons ¾ in. tarred slag macadam, to the U.D.C. Mr. H. Finister, Surveyor, Public Offices, Huyton.

APRIL 30.—**Ramsgate.**—REFUSE WAGONS.—For supply of four refuse wagons suitable for horse haulage, for T.C. Mr. T. G. Taylor, Borough Engineer, Ramsgate.

ENGINEERING, IRON AND STEEL.

APRIL 21.—**Aberdeen.**—PIPING.—For supply of 5,500 lin. yds. of 30 in., 24 in., 16 in., and 13 in. dia. pipes and specials of following alternative types, viz.: (*a*) cast iron, (*b*) mild steel (lapwelded), for T.C. Mr. G. Mitchell, Water Engineer, 41½, Union-street, Aberdeen. Deposit £5.

APRIL 21.—**Paisley.**—HEATING, &C.—For heating and ventilation work and electric work at new administrative offices, for the Renfrewshire Education Authority. Mr. J. Hamilton Pullar, Executive Officer, County Education Offices, Paisley. Deposit 10s.

APRIL 21.—**Preston.**—STEEL WORK.—For steelwork required in the alterations and additions to the destructor at Deepdale, for T.C. Borough Surveyor, Town Hall, Preston.

APRIL 21.—**Sleaford.**—TAR BOILERS.—For supply of three No. 40 gallon tar and bitumen boilers, for the R.D.C. Mr. E. H. Godson, Clerk, Sleaford.

APRIL 21.—**Skipton.**—HEATING APPARATUS.—For supply of a wrought iron boiler with pipes and radiators for heating typhoid fever block at Skipton Joint Infectious Diseases Hospital. Mr. J. Ackernley, Town Hall, Skipton.

APRIL 23.—**Ayr.**—BRIDGE, &C.—For the widening of Tam's Brig and Prestwick-road, &c., for the T.C. Mr. John Young, Burgh Engineer Town Buildings, Ayr. Deposit £2 2s.

APRIL 23.—**Dublin.**—ELECTRICAL WORKS.—For electrical works and supplies required by the Commiss of Public Works in the Dublin District for six m Mr. J. J. Healy, Secretary, Office of Public W Dublin. Deposit £1.

APRIL 23.—**Horsted Keynes.**—RESERVOIR.—F construction of a reinforced concrete open reserv about 200,000 gallons capacity at the Holy Pumping Station, Horsted Keynes, for the Mid-S Joint Water Board. Mr. Francis Martin, Eng Waterworks Offices, Boltro-road, Haywards H Deposit £2 2s.

APRIL 23.—**Hull.**—BRIDGE.—For constructi railway bridge, for the T.C. City Engineer, Deposit £1.

APRIL 23.—**Leeds.**—ELECTRIC LIGHTING.—F stalling electric light at the Central Home, Street Roundhay, and the Superintendent's House adj for B.G. Mr. J. H. Ford, Clerk, Poor Law O South-parade, Leeds.

APRIL 23.—**Merthyr Tydfil.**—FILTERS.—For th ply and erection of pressure gravity types of filt deal with 7½ million gallons of water per day of 24 for the Taf Fechan Water Supply Board. Mess Alex. Binnie, Son, & Deacon, 30, Buckingham Westminster, S.W.1. Deposit £5.

APRIL 23.—**Singapore.**—PIPES, &C.—For supp steel pipes, valves, &c., to the Municipality of pore. Messrs. A. Binnie, Son, & Deacon, 30, Bu ham Gate, S.W. Deposit £5.

APRIL 24.—**Dublin.**—ROAD PLANT.—Supply steam rollers, 50 crushing plants and other machinery to the Ministry of Local Government, Free State. Ministry of Local Government, 50, Mount-street, Dublin.

APRIL 24.—**Hammersmith.**—PLANT.—Supply 5 to 6-ton steam wagon, and (2) tar-spraying machi the B.C. Mr. R. Hampton Clucas, Surveyor, Hall, Hammersmith, W.

APRIL 24.—**Manchester.**—PIPES.—Supply of 1,070 tons of cast-iron water pipes (15, 12 and diameter), for the T.C. Secretary, Water Offices, Town Hall, Manchester.

APRIL 26.—**Portland.**—RESERVOIR ROOF.—For t down existing roof of the Yeates Reservoir, Por and the construction of a reinforced concrete ro the U.D.C. Mr. R. Davison, Surveyor, Council O Portland.

APRIL 26.—**Swadlincote.**—TANK.—Constructio water tank in reinforced concrete (capacity gallons), for the U.D.C. Mr. George A. T Surveyor, Council Offices, Swadlincote, near Burt Trent. Deposit £1.

APRIL 28.—**Poole.**—BRIDGE.—For constructio new bridge over the Channel dividing Poole from worthy, for T.C. Messrs. Livesey, Son & Hend 14, South-place, London, E.C.2. Deposit £5 5s.

APRIL 28.—**Rotherham.**—BRIDGE.—Construct the abutments for a steel bridge and in the ap works to such bridge, which will carry the B and Tinsley main road over the River Rother, R nam, for the West Riding C.C. West Riding Sur County Hall, Wakefield. Deposit £1.

APRIL 29.—**Acton.**—BRIDGE.—For the reco tion of Mason's Green-lane Bridge, Acton, W., G.W.R. Co. Engineer, Paddington Station, W.

APRIL 29.—**Laira.**—BRIDGE.—For the recon of a bridge over Old Laira-road, Laira, near P for the G.W.R. Co. Engineer, Paddington Sta

APRIL 29.—**Maidenhead.**—BRIDGE.—For the struction of Craufurd College Bridge under the W Branch Line, near Maidenhead, for the G.W.R Engineer, Paddington Station, W.

APRIL 29.—**Paddington.**—STEELWORK.—For th ply of about 163 tons of steel girders and othe and steel work of British manufacture, to the G Co. Engineer, Paddington Station, W.

APRIL 30.—**Langford.**—BRIDGE.—For the struction of Langford Bridge, near Maldon, Essex C.C. Mr. W. H. Morgan, County Sur Old Court, Chelmsford.

MAY 1. — China. — BRIDGE. — The Comm Councillor at Peking has forwarded to the Depa of Overseas Trade copies of the official text of a tenders by the Hai Ho Conservancy Commissi the erection of a bridge over the Hai Ho at T Tenders must be in the hands of the Commission noon on May 1, 1924. The cost of erecting t bridge has been roughly estimated at Tls. 700,0 £105,000. Department of Overseas Trade, 3 Queen-street, S.W. 1. Reference 11647/F.R./E

MAY 1.—**Egypt.**—ROOFS &C.—Construction steel roofs and shelter of Alexandria new stati the Egyptian State Railways. Inspecting En Egyptian and Sudan Governments, Queen Chambers, Broadway, Westminster, S.W. £6 3s.

MAY 2.—**Durban, Natal.**—WATER SCHEME supply of large sluice valves, valve tower iro pipes, &c., for Vernon Hooper Dam in Shor Water Scheme, for T.C. Messrs. Webster, Steel 5, East India-avenue, London, E.C. Deposit

MAY 5.—**Brackley.**—PUMPING PLANT.—For e of crude oil engine and well pump to lift 8,000 ga water per hour at Waterworks Pumping Stati T.C. Mr. E. J. Silcock, Corporation Engine Victoria-street, Westminster, S.W.1. Deposi

MAY 7.—**Salford.**—HEATING APPARATUS.—Fo ing and hot-water service at the Maternity and Hospital, Seedley-road, Seedley, for T.C. Officer of Health, 143, Regent-road, Salford.

MAY 8.—**Barking.**—BRIDGE.—For the const of the bridge over Barking Creek on the line East Ham and Barking By-pass, for the Mini Transport. Chief Engineer, Roads Depa Ministry of Transport, 7, Whitehall-gardens, Deposit £100.

MAY 9.—**South Africa.**—COAL ELEVATORS.— and erection of five coal elevators and ten coal for the Rand Water Board. Dept. of Overseas 35, Old Queen-street, S.W. Reference 13429/ED

MAY 30.—**London.**—STEELWORK.—Supply South Indian Railway Co. of structural st (Machine Shop). Company's Offices, 91, Petty Westminster, S.W.1. Charge £1.

LY 1.—**Chili.**—HARBOUR WORKS.—For the work
provement of the Harbour of Constitucion, Chili.
an Legation, 22 Grosvenor-square, W.1.
) DATE.—**Blackpool.**—PIPES.—Supply of about
00 tons of 27 in. and 25 in. cast iron socket and
t pipes, and about 260 tons of socket and spigot
flanged specials: or (alternatively) for the pipes in
iron lined with concrete, for the Fylde Water Board.
Jno. Cook, Engineer, Sefton-street, Blackpool.

OAD, SANITARY, AND WATER WORKS.

RIL 21.—**Eccles.**—SEWAGE WORKS.—For (1)
y distributors, penstocks, &c., and (2) storm water
ps, and electric motors, for the T.C. Mr. T. S.
n, Borough Engineer, Eccles. Deposit £2 2s.
RIL 21.—**Essex.**—CULVERTS.—(*a*) Reconstruction
lvert on the Bures-Colchester main road, in the
h of Wormingford; (*b*) Reconstruction of culvert
he Colchester-Tiptree-Maldon main road, in the
h of Great Totham, for the Essex C.C. Mr. W. H.
an, County Surveyor, Chelmsford.
RIL 21.—**Linlithgow.**—PLAYGROUNDS.—For the
nacadamising of certain school playgrounds, for
Education Authority. Mr. Edward Blades,
utive Officer, Education Offices, Bathgate.
RIL 21.—**Port Talbot.**—ROAD.—For widening of
wmavon-road, together with erection of boundary
retaining walls. Borough Engineer, Municipal
lings, Aberavon (Glam.).
RIL 22.—**Adwick-le-Street.**—DRAINS.—For the
g of about 800 lin. yds. of surface water drains,
he U.D.C. Mr. George Gledhill, Surveyor, Council
es. Adwick-le-Street. Deposit £1.
RIL 22.—**Bebington.**—ROADS.—For the making
f private street works to College-drive, for the
C. Council Offices, Bebington.
RIL 23.—**Bolton-upon-Dearne.**—ROADS.—For the
alte surfacing on the Doncaster and Saltersbrook
road, for the West Riding C.C. West Riding
eyor, County Hall, Wakefield. Deposit £1.
RIL 23.—**Castleford.**—ROADS.—For paving on the
efield and Castleford main road, for the West
ng C.C. West Riding Surveyor, County Hall,
efield. Deposit £1.
RIL 23.—**Fulham, S.W.6.**—TAR PAVING, &C.—
tar-paving and repairs to roads at the Western
r Hospital, for the Metropolitan Asylums Board.
e of the Board, Victoria Embankment, E.C.4.
sit £1.
RIL 23.—**London, S.E. 2.**—ROADS.—Repairs to
s at Goldie Leigh Homes, Abbey Wood, S.E. 2, for
Metropolitan Asylums Board. Office of the Board,
oria Embankment, E.C. 4. Deposit £1.
RIL 24.—**Cardiff.**—ROADS.—For construction of
ts, sewers, &c., on land between Corporation-
and River Taff, for Mountjoy, Ltd. Mr. E. W. M.
ett, 3, Castle-street, Cardiff.
APRIL 24.—**Edwinstowe, near Mansfield.**—ROADS
SEWERS.—Formation of roads and construction of
rs in connection with 100 houses to be built at
instowe, near Mansfield, Notts., for the Bolsover
ery Co., Ltd. Mr. Percy B. Houlton, architect,
ival Chambers, Chesterfield. Deposit £1 1s.
sed cheque).
RIL 24.—**Ilfield.**—BURIAL GROUND.—(1) Construc-
of roads, paths, drains, &c.; (2) supplying and
ting trees, shrubs, &c.; (3) provision and fixing
o sets of entrance gates and iron fencing (approxi-
ly 605 yds.), for the Parish Council.
RIL 25.—**Aberystwyth.**—WATER SUPPLY WORKS.—
carrying out for the Aberystwyth R.D.C. the work
onstructing a new water supply for the village of
, in the Llanbadarn Lower Parish. The Sanitary
eyor to the Council, Bronowm, Crosswood (Card.).
RIL 25.—**Dunfermline.**—ROADS.—For reconstruc-
of carriageways and footways in tarmacadam at
hill Housing Scheme, and Queensferry-road,
C. Mr. R. Muir Morton, Burgh Engineer, City
ibers, Dunfermline.
RIL 25.—**Durham.**—ROADS.—For making-up of
te street at Ushaw Moor, for R.D.C. Mr. G.
son, Surveyor, 38, Sadler-street, Durham. De-
£2.
RIL 25.—**Kilmarnock.**—IMPROVEMENT.—For im-
ment of insanitary areas, William-street, for the
Mr. William Dunbar, Burgh Surveyor, Market
e, Kilmarnock.
APRIL 25.—**Shirley, near Croydon.**—ROADS.—Re-
and making-up roads at the Shirley Schools,
ham-road, Shirley, near Croydon, for the Guar-
of the parish of Bermondsey. Mr. Henry H.
. Clerk to the Guardians, 283, Tooley-street,
. Deposit £5. Bank of England note.
RIL 26.—**Chelsea, S.W.**—SANITARY WORK.—
g out the existing (upon four floors) and erecting
anitary fittings, plumbing, and other work to the
of the new Ward Block at the St. Luke's Hospital,
treet, Chelsea, S.W., for the Guardians of the
of Chelsea. Guardians' Architect, Mr. Edmund
rrison, 23, Berkeley-road, Crouch End, N.8.
RIL 26.—**Glasgow.**—CONVENIENCE.—Construction
ublic convenience in Alexandra Park (1) mason,
joiner, &c., works; and (2) sanitary fittings.
of Public Works, City Chambers, 64, Cochrane-
. Glasgow.
RIL 26.—**Ongar.**—ROADS.—For the laying of about
) superficial yards of bituminous grouted mac-
for the R.D.C. Mr. H. C. Phillips, Surveyor,
. Essex.
RIL 26.—**Otley.**—ROADS, &C.—For water mains.
s, sewers and drains, Newall Carr-road Housing
e, for the U.D.C. Surveyor, Council Offices,
. Deposit £3 3s.
RIL 26.—**Reigate.**—SEWER.—For the construction
) yds. of 9 in. stoneware pipe-sewer in Park-lane,
e T.C. Borough Engineer, Reigate.
RIL 26.—**Walsall.**—ROADS.—For remaking portion
atery-lane, for the T.C. Borough Surveyor,
all.

APRIL 28.—**Alnwick.**—DRAINAGE.—For laying 144 yards of 6 in. sanitary pipes at Christon Bank, for the R.D.C. Clerk, Alnwick.

APRIL 28.—**Chorley.**—SEWAGE WORKS.—For the construction of sewage disposal works, for the T.C. Messrs. Dodd & Watson, County Chambers, Corporation-street, Birmingham. Deposit £5.

APRIL 28.—**Kempton.**—WATER MAIN.—(*a*) For laying 7½ miles of cast iron water main; (*b*) for laying 450 yds. of 52 in. steel pipes and contingent works from Kempton to Greenford, for Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, Clerkenwell, E.C. 1. Deposit £20.

APRIL 28.—**Rochford.**—SEWERS.—For the construction of about five miles of 7 in., 8 in., and 9 in. stoneware sewers, for the Parish of Hadleigh, for the R.D.C. Mr. John H. Blizard (Lemon & Blizard), 7, Victoria-street, Westminster. Deposit £5 5s.

APRIL 28.—**Swindon.**—TENNIS COURTS.—For laying down eight hard tennis courts, for the T.C. Borough Surveyor, 34, Regent-circus, Swindon.

APRIL 29.—**Torquay.**—WATER WORKS.—For laying about 3½ miles of 12 in. and ¾ mile of 7 in. cast-iron pipes, for the T.C. Mr. Samuel C. Chapman, Waterworks Engineer, Town Hall, Torquay. Deposit £2 2s.

★APRIL 30.—**France and Belgium.** HEADSTONES.—Total supply of 15,000 headstones, packed and delivered, F.O.R., to be divided into a number of contracts, none of which shall be for less than 100 headstones. The Secretary, Works Department, Imperial War Graves' Commission, 82, Baker-street, London, W.1.

APRIL 30.—**Hemel Hempstead.**—ROADS.—For sewering and making up of a private street about 300 yards long for the T.C. Mr. W. R. Locke, Borough Surveyor, Hemel Hempstead, Herts.

APRIL 30.—**Swansea.**—SEWAGE WORKS.—For construction of sewerage works at Llansamlet, for T.C. Mr. J. R. Heath, Chief Engineer, Main Drainage Dept., Guildhall, Swansea. Deposit £5 5s.

MAY 1.—**Cannock.**—ROADS.—Reconstruction of Littleworth-Rawnsley-road, for the U.D.C. Mr. Robt. Blanchard, Engineer, Council Offices, Cannock.

MAY 2.—**Doncaster.**—SEWER.—For laying 92 yds. of 12 in. pipe sewer in the back lane at Campsall, for the R.D.C. Mr. W. R. Crabtree, Nether Hall, Doncaster.

MAY 2.—**Shaftesbury.**—SEWERS, &C.—For the laying of about 1,600 yards of sewers and drains, for the T.C. Mr. John Partridge Jenkins, Town Hall, Shaftesbury. Deposit £1 1s.

MAY 3.—**Faversham.**—ASPHALTING.—For 3,150 sq. yds. of double-coat asphalte to be laid on the London-Dover road, for the T.C. Mr. S. Percy Andrews, Borough Surveyor, 20, West-street, Faversham. Deposit 10s.

MAY 3.—**Margate.**—ROAD.—Making-up new road, 80 ft. wide, east of Palm Bay, Margate, for a length of 1,116 ft., for the T.C. Borough Surveyor, 13, Grosvenor-place, Margate.

MAY 5.—**Barnsley.**—ROADS.—For making-up of Foster-street, Conway-street, and Victoria-street, Stairfoot, for T.C. Borough Engineer, Fairfield House, Barnsley.

MAY 5.—**Eccles.**—ROADS.—For making-up Armitage-street, Dorning-street, Lime-street, Oak-street, eleven back passages in the same neighbourhood, for T.C. Mr. T. S. Picton, Borough Surveyor, Town Hall, Eccles. Deposit £1 1s.

★MAY 5.—**London, S.W.**—STREETS AND SEWERS.—Construction of streets and sewers in connection with the development of the L.C.C., East Hill Estate, Wandsworth, for the L.C.C. The Architect to the Council, The County Hall Room No. 3), Westminster Bridge, S.E. 1. Deposit £1 1s. to the Cashier.

MAY 5.—**Pontypridd.**—ROADS AND SEWERS.—For carrying out for the Pontypridd U.D.C. the following works:—(1) Formation and ballasting of about 740 lineal yards of roadways; (2) constructing and laying of about 1,900 lineal yards of 9 in., 6 in. and 4 in. sewers with 6 in. surface water drains in connection with the proposed erection of 60 houses at Rhyd-y-Felin. Mr. W. E. Lowe, Surveyor, Council Offices, Pontypridd. Deposit £1 1s.

MAY 5.—**Watford.**—ROADS.—For the kerbing, channelling and paving of about 3,300 yds. of footpath in Rickmansworth-road, for the T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.

MAY 7.—**Glamorganshire.**—STREET WORKS, &C.—For carrying out for the Cardiff R.D.C. the following works:—(1) Street improvements and construction of surface water drains at (*a*) Bishop's-road, &c. (part of), (*b*) Westbourne-crescent (part of), and (*c*) Queen-street (part of), all at Tongwynlais, and (2) sewer extension—(*d*) construction of about 630 lineal yards of 9 in. earthenware pipe sewers with manholes, &c., at Pantbach-road, Whitchurch, and (*e*) widening of Station-road, Rhoose. Mr. William Farrow, 20, Park-place, Cardiff.

MAY 8.—**Newbury.**—ROADS.—For resurfacing various streets, for the T.C. Borough Engineer, Newbury.

Competitions.

(*See Competition News, page* 622.)

Auction Sales, Tenders, etc.

★APRIL 24.—**Wellington (Somerset).**—Mr. Arthur W. Glass will sell at the Squirrel Hotel, Wellington, extensive freehold business premises and dwelling-house with early possession. Auctioneers, Wellington, Somerset.

APRIL 28.—**Romford (Essex).**—Messrs. Alfred Savill & Sons will sell by order of the Trustees under the will of Mr. D. McIntosh, (deceased) at Winchester House, Old Broad-street, E.C. (unless previously sold by private treaty) freehold building estate known as Marshalls Park, extending to about 117 acres, at Romford (Essex), adjoining the town. Auctioneers, 69, South Audley-street, Grosvenor-square, London, W.1.

★APRIL 29.—**Stockwell, S.W.**—Messrs. Veryard Yates, F.A.I., will sell, without reserve, at 255, Clapham-road, timber, fittings and building materials, arising from the demolition of the aircraft buildings, Regent's Park. Auctioneers, 365, Norwood-road, S.E.27.

APRIL 29 AND 30.—**Banbury, Oxon.**—Mr. F. H. Clark will sell, without reserve, at Banbury Filling Factory, Central Stores Depot No. 423, timber and building materials accruing from the demolition of the Filling Factory, Banbury, Oxon. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18, or of the same firm at the Filling Factory, Banbury, Oxon.

APRIL 29.—**Fulham.**—Messrs. Green & Son will sell, at "The Hermitage," 84, Little-road, large quantities of building materials. Auctioneers, 72, King-street, Hammersmith, W.6.

APRIL 30, AND FOLLOWING DAY.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell in lots at the Merchants' Hall, Baltic Exchange, St. Mary Axe, E.C., contractors' and builders' plant and stock from Tilbury Housing Scheme, by order of Messrs. Trollope & Colls, Ltd., on account of completion of contract. Auctioneers, 11, Billiter-square, E.C.3.

★MAY 1.—**Merton.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, at High-street, Colliers Wood, building materials, arising from demolition of premises. Auctioneers, 365, Norwood-road, S.E. 27.

MAY 2.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell will sell by order of Messrs. C. J. Wells & Sons, Ltd., on account of the completion of the London-Tilbury road contract, at the Merchants' Hall, Baltic Exchange, St. Mary-Axe, E.C., contractors' plant. Auctioneers, 11, Billiter-square, E.C.3.

MAY 6.—London, W.1.—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament. Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers, 20, Hanover-square, W.1.

★MAY 22.—**Hertfordshire.**—Messrs. Knight, Frank & Rutley will sell by direction of Mr. Lionel Frank, as a whole or in lots, in the Hanover-square Estate Room (unless previously sold privately), the freehold residential property, The Grange, Cheshunt, Hertfordshire. Auctioneers, 20, Hanover-square, W.1.

MAY 27.—**Near Gerrard's Cross (Bucks).**—Messrs. Knight, Frank & Rutley will sell, by direction of Commander J. A. L. Hay, R.N., freehold agricultural and sporting property, known as Pickeridge Farm, about 171 acres; also about 18 acres of building sites. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

APRIL 19.—**Birmingham.**—Architectural Assistant required in the Public Works Dept. of the Corporation. Mr. H. H. Humphries, M.Inst.C.E., City Engineer and Surveyor. The Council House, Birmingham.

APRIL 19.—**Birmingham.**—Inspector of Housing Contracts required in the Public Works Department by the Corporation. Mr. H. H. Humphries, M.Inst.C.E., City Engineer and Surveyor, The Council House, Birmingham.

APRIL 19.—**Wolverhampton.**—Clerk of Works required to superintend erection and completion of engineering block of new Technical College, Wolverhampton, for the Joint Committee of the Staffordshire County and Wolverhampton County Borough Councils. Director of Education, Wolverhampton, endorsed "Clerk of Works."

APRIL 23.—**Wigan.**—Thoroughly qualified Architectural Assistant required in the Borough Engineer's Department by the County Borough of Wigan. Mr. R. B. Donald, M.Inst.C.E., Borough Engineer, Wigan.

APRIL 28.—**Swansea.**—Quantity Surveying Assistant required in the Borough Architect's Department by the County Borough of Swansea. Borough Architect, 3, Prospect-place, Swansea.

APRIL 28.—**Swansea.**—Clerk of Works required to act under the direction of the Borough Architect for the new elementary school, Town Hill, by the County Borough of Swansea. Borough Architect, 3, Prospect-place, Swansea.

★APRIL 30.—**Neath.**—Temporary Quantity Surveyor required by Glamorgan C.C. Education Committee. County Architect, Metropolitan Chambers, Neath.

★NO DATE.—**Glamorgan.**—Wanted immediately-two temporary first-class Senior Architectural Draughtsmen in the County School Architect's Dept. (Eastern Division) for the Glamorgan County Council. Mr. D. Pugh Jones, County Architect, County Hall, Cardiff.

TRADE NEWS.

A full and illustrated description of the new Preston Arterial Road is given in the April issue of "Shepherd's N.E.W.S." The same journal, which is published in the interests of better roads, gives details of a novel road light-house recently constructed on Rood-hill, Congleton; whilst the International outlook on roads is provided for in a feature entitled "The World's Road News at a Glance." Copies can be had on application to Messrs. William Shepherd & Sons, Ltd.

Obituary.

The death took place recently at Bryn Awel, Church-street, Treherbert, of Mr. Evan Davies, builder.

Mr. Thomas Hodgson, of Minthorpe, a well-known Middlesbrough builder, died recently, after a long illness.

PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Fletton, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose ..	9 10 0
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick:—

2½ in.	11 3 0	3 in.	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and one End	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½ in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.		
Thames Ballast	10 6	per yard.	delivered 2 miles radius Paddington.
Pit Sand	14 9	" "	
Thames Sand	15 6	" "	
Best Washed Sand.....	15 6	" "	
¾ in. Shingle for Ferro-Concrete	14 0	" "	
¼ in. "	15 0	" "	
½ in. Broken Brick.....	10 6	" "	
Pan Breeze	5 6	" "	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 51/– alongside at Vauxhall in 80-ton lots.	£ 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	27 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/–
Random blocks from 10 ft. and over "	17/–
Sawn two sides "	27/–
Sawn three or four sides "	32/–

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) ..... Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3

HARD YORK—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks ..... Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) ..... Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags..Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain ..... per ft. cube	6 6
Moulded ..... " "	7 9
Cills ..... " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	32 0	3 × 11	31 0
4 × 8	27 0	2 × 11	32 0
4 × 7	27 0	3 × 9	30 0
3 × 8	25 10	2½ × 9	30 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	25 0	3 × 4	25 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£36 0	1 × 9	£34 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
¾	21/–	1¼	33/6
7/8	23/–	1½	38/6
1	26/–		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/–
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	21/–
1	26/–

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 9
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube ..	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt. ..	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Hip and valley tiles (per dozen) { Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In "Roof Work"	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in...	13 10 0
⅝ in.	14 10 0	⅝ in. to 2½ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6¾	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1¾	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0
Hoop iron, basis price	16 10 0	..	17 10
Galvanised	31 0 0	..	32 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g...	15 0 0	..	16 0
" " " 24 g...	16 0 0	..	17 0
" " " 26 g...	18 0 0	..	19 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
	20 10 0	..	22 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)			

METAL WINDOWS—Standard sizes suitable for co plete houses, including all fittings, painting t coats, and delivery to job, average price about 1 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s.
LEAD—Sheet. English, 4 lb. and up	44 10
Pipe in coils	45 0
Soil Pipe	48 0
Compo pipe	51 0

NOTE—Country delivery, 30s. per ton extra: lots und 3 cwt., 2s. per cwt. extra and over 3cwt. and unde cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. ext

Old lead, ex London area, at Mills ..... per ton	32 0 0	.. —
Do., ex country, carriage forward ..... per ton	33 0 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB-COCKS IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/–	45/–	76/–	153/–	246/–	510/– per do

NEW RIVER PATTERN SCREW DOWN STOP COCKS UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/–	92/–	174/–	300/–	588/– per

NEW RIVER PATTERN SCREW DOWN MAIN FERR

½ in.	¾ in.	1 in.
39/6	60/–	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/–	14/–	23/–	30/–	42/– per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/–	29/–	36/–	63/– per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/–	12/–	20/–	24/–	31/– per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/–	56/–	98/–	162/–	228/– per d

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEAN SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps ..	33/–	41/–	56/–	101/– per
8 lbs. S. traps ..	35/–	45/–	66/–	126/– "

COPPER—	£ s. d.	
Strong Sheet ....per lb.	0 2 3	.. —
Thin " .... "	0 2 4	.. —
Copper nails .... "	0 2 3	.. —
Copper wire .... "	0 2 4	.. —
TIN—English Ingots "	0 2 10	.. —
SOLDER—Plumbers' "	0 1 3	.. —
Tinmen's ..... "	0 1 5	.. —
Blowpipe ..... "	0 1 7	.. —

PAINTS, &c.

	£ s
Raw Linseed Oil, in pipes .....per gallon	0
" " " in barrels .... "	0
" " " in drums .... "	0
Boiled " " in barrels .... "	0
" " in drums .... "	0
Turpentine in barrels ..... "	0
" in drums (10 gall.) .. "	0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	59
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms." "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	82
Red Lead, Dry (packages extra)....per ton	54
Best Linseed Oil Putty.....per cwt.	0
Filocol .....per cwt.	0
Size, XD Quality .....fkn.	0

[Concluded on next page.]

* The information given on this page has been spe compiled for THE BUILDER and is copyright. Our a this list is to give, as far as possible, the *average* of materials, not necessarily the highest or lowest. Q and quantity obviously affect prices—a fact which s be remembered by those who make use of this inform

CURRENT OF MATERIALS (*contd.*)

GLASS.

H SHEET GLASS IN CRATES OF STOCK ND IN SQUARES IN ORDINARY SIZES.

	Per Ft.		Per Ft.
rths....	3½d.	32 oz. fourths	8½d.
rds	4½d.	32 „ thirds .....10½d.	
rths ..	5d.	Obscured Sheet, 15 oz.	4d.
rds	6½d.	„ „ 21 „	5½d.
rths ..	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
rds	7½d.	En'lled 15oz. 5½d., 21oz. 7½d.	

e according to size and substance for squares stock.

H ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft.

l plate	4½d.
rolled	5½d.
rolled	5½d.
d Rolled, Oxford Rolled, Baltic, Oceanic, ctic, Stippolyte, and small and large	
mish white	6½d.
Ditto, tinted	9d.
l Sheet	6d.
Rolled Cathedral	5½d.
do.	7½d.

t Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
lish	Outside	0 14 0
	ditto	0 16 0
l	ditto	0 18 0
l	ditto	1 0 0
l Carriage	ditto	1 4 0
o	ditto	1 12 0
nish	Inside	0 18 0
Paper	ditto	0 18 0
l Cabinet	ditto	1 2 6
l Flatting	ditto	1 0 6
ing Oak	ditto	0 18 0
l Drying Oak	ditto	0 19 0
l Varnish	ditto	1 0 0
tto	ditto	1 2 0
tto	ditto	1 12 0
n Gold Size		0 10 0
k Japan		0 10 6
Mahogany Stain (water)		0 12 0
k Black		0 7 6
ck		0 14 6
(patent)		1 5 0
d Brush Polish		0 17 0
yers in Terebine		0 9 0
lack Enamel		0 7 0

Croydon Aerodrome.

rter of a million pounds is to be spent Air Ministry in improving Croydon me. The sites for huge new flight sheds the big Napier D.H. 34 and Handley r expresses will be housed have been out, and actual building is to begin immediately. All the present air s are to be pulled down. In their stoms houses, waiting-rooms, bonded ses, and an hotel are to be erected. ldings will stand in the centre of the ne. A big departure and arrival plat- l be arranged in a complete circle round Passengers will arrive by motor-car ic train from London, and will, after through the Customs house, descend ways leading to the different departure s.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND.

Aberdeen.—HOUSES.—The Corporation Plans' Committee passed plans for 12 houses at an estimated total cost of £9,550, and plans for alterations to existing premises were passed to the value of £5,365.

Longniddry.—CHURCH.—It has been decided by the Church of Scotland to provide a new church and hall for Longniddry, Haddingtonshire. The hall will be erected first and will be so planned that it can be used as a church until the proposed new one is built. The hall will be erected to plans prepared by a Glasgow architect, and will be built of red sandstone.

Johnstone.—WAR MEMORIAL.—The Dean of Guild Court has passed plans for a war memorial in Houston-square, at an estimated cost of £1,000, and a house in Kilbarchan-road, for Mr. A. Cochrane, 42, Hight-street.

Broughty Ferry.—FLATS.—The Dundee Corporation Housing Committee have decided to erect flats at Forthill, Broughty Ferry.

Elgin.—COTTAGES.—The Corporation has instructed the Burgh Surveyor to obtain tenders for the erection of 42 cottages.

Leith.—CLEARANCE.—The Edinburgh Corporation has approved of a proposal to improve the slums under the slum clearing scheme for the Port of Leith, the cost of which will be £386,000.

Dundee.—HOUSES.—The Corporation Housing Committee has decided to erect 24 houses at Loon-road.

Paisley.—COTTAGES.—Plans have been passed for two double cottages at Calside.

Killoholm.—HOUSES.—The Sanquhar and Kirkconnel Collieries, Ltd., has invited offers for the erection of 100 miners' houses at Killoholm near Kirkconnel.—The Dumfriesshire E.C. has decided to erect an infants' school at Killoholm.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Mason...	Brick layers.	Carpenters. Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons'	Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½		1/0½
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½		1/1½
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½		1/2½
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/1½ to 1/2½
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½		—
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½		1/2½
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½		1/1 to 1/1½
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½		1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½		1/2½
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½		1/2
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6		1/1½
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½		1/0 to 1/2½
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½		1/2
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½		1/2½
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½		10½d to 1/2½
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½		1/2½
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3		1/0
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½		1/2½
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 654

ARCHITECTURAL WOODWORK
SPECIAL FURNITURE
• MANTELS •
• CARVING •
DECORATING
IBROUS PLASTER WORK
STAINED GLASS
Elo

THE ALLIED ARTS & CRAFTS GUILD
BUILDING EXHIBITION, OLYMPIA
STAND No. 72 D.

REGISTERED OFFICE
No 4
BROOK STREET
SAINT PAUL'S
BIRMINGHAM
TELEPHONE:
CENTRAL. 3706
TELEGRAMS:
BEAUTIFY. B'HAM.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	„ „	1	0
Add for every additional depth of 6 ft.	„ „	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	„ „	7	6
Add if in floors 6 in. thick	„ „	3	6
Add if in beams	„ „	4	0
Add if aggregate 1 : 2: 4	„ „	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	„ „	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	„	7	10	0
Add if in Staffordshire blues	„	22	0	0
Add if in Portland cement and sand	„	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	„ „	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	„ „	0	0	10
Axed in stocks	„ „	0	1	9
Rubbed and gauged jointed in putty camber or segmental	„ „	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	„ „	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	„	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	„ „	9	0
¾ inch on flats in two thicknesses	„ „	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	„ „	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	„ „	21	6
Bath stone and all labour fixed	„ „	10	6
Portland stone fixed	„ „	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	„	80	9
Do. 24 in. × 12 in. Do. Do.	„	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3	
Do. joists	„ „	5	9	
Do. roofs, floors and partitions	„ „	6	3	
Do. trusses	„ „	8	3	

		¾″	1″	1¼″	2″
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	„	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	„	1	6
Gutter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	„		54/-	65/-	72/-
Do. matchings	„	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	„ „	2	1
Add for fitting and fixing	„ „	0	4
Deal-cased frames with 1 in. inner and outer linings, 1⅛ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	„ „	3	9

DOORS.		1½″	1¾″	2″
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	„	2/5	2/8	2/11
Two-panel moulded both sides	„	2/8	2/11	3/2
Four-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.		1″	1¼″
Deal wrot moulded and rebated	per foot cube		1s
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	„	1/5	1/7
Add if cross tongued	„	2d.	2d.

STAIRCASES.	1″	1¼″	1½″	2″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

Housings for steps and risers		each
Deal balusters, 1 in. × 1¼ in.		per ft. run.
Mahogany handrail; average 3 in. × 3 in.		„ „
Add if ramped		„ „
Add if wreathed		„ „

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and	
Casement stays	1/2	letting in to floor and	
Cupboard locks	1/5	making good	

FOUNDER AND SMITH.

Rolled steel joists	per cwt.
Plain compound girders	„
Do. stanchions	„
In roof work	„

RAIN-WATER GOODS.

		3″	4″	5″
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	„	2/4½	3/1	3/10
Rain-water pipes with ears	„	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	„	1/11	2/4½	3/7
Do. nozzles for inlets	„	2/2	2/7	3/10

PLUMBER.

Milled lead and laying in flashings and gutters	per cwt.
Do. Do. in flats	„
Extra labour and solder in coated cesspools	each
Welt joint	per ft. run.
Soldered seam	„ „
Copper nailing	„ „

		½″	¾″	1″	1½″	2″
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7
Do. service	„	1/10	2/5	2/10	4/3	
Do. soil	„					3/3
Bends in lead pipe	each					
Soldered stop ends	„	1/2	1/8	2/1	2/10	3/6
Red lead joints	„	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	„	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	„				14/7	19/6
Bib cocks and joints	„	6/4	9/7	15/4	41/-	
Stop cocks and joints	„	15/4	17/2	25/8	64/-	

PLASTERER.

Render, float and set in lime and hair	per yard sup.		
Do. Do. Sirapite	„	„	
Do. Do. Keen's	„	„	
Add sawn lathing	„	„	
Add metal lathing	„	„	
Portland cement screed	„	„	
Do. plain face	„	„	
Mouldings in plaster	per 1 girth		
One-and-a-half granolithic pavings	per yard sup.		

GLAZIER.

21 oz. sheet plain	per foot sup.		
26 oz. Do.	„	„	
Obscured sheet	„	„	
⅛ in. rolled plate	„	„	
¼ in. rough rolled or cast plate	„	„	
¼ in. wired cast plate	„	„	

PAINTER.

Preparing, distempering, 2 coats	per yard sup.		
Knotting and priming	„	„	
Plain painting 1 coat	„	„	
Do. 2 coats	„	„	
Do. 3 coats	„	„	
Do. 4 coats	„	„	
Graining	„	„	
Varnishing twice	„	„	
Sizing	„	„	
Flatting	„	„	
Enamel	„	„	
Wax polishing	per foot sup.		
French polishing	„	„	
Preparing for and hanging paper	per piece 2/		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment char percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whol

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OPOSED NEW BUILDINGS & OTHER WORKS *

these lists care is taken to ensure the accuracy of the information given, but it may occa- y happen that, owing to building owners taking the responsibility of commencing work plans are finally approved by the local authorities, "proposed" works at the time of tion have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. ban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; r Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for y of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

YSTWYTH.—The T.C. has received the sanction M.H. to erect 41 houses.

VER.—Plans passed: House for Mr. Hallas, in -road East; for Mr. Poole, two dwelling-houses ards-lane; and Mr. F. Stainsbury, for two n Eastfield-buildings.

SLEY.—Plans passed by T.C.: Barnsley Co., rebuilding Keel Inn, Stairfoot; H. house, Allendale-road, off Smithies-lane; H. ie, extensions to house, Gawber-road; D. R. n & Son, Ltd., two houses, Mount Vernon-road; ewman, bungalow, Wombwell-lane, Stairfoot; Deakin, five houses, Clarendon-street; G. ies, house, Cavendish-road; Mrs. W. Grayson, Cockerham-lane; Barnsley Education Com- Central School, Longcar-lane; D. R. Snowden Ltd., additions to houses, 7 and 9, Blucher H. Field, house, Hunningley-lane, Stairfoot.

CPOOL.—Plans passed: St. Mark's Church, at R. Taylor, two houses, Frederick-street; Cooper, two houses, Coniston-road; Kay & bungalow, Burgate; T. P. Worthington, four Layton-avenue; F. Ellis, bungalow, Horn- d; R. Fielding & Son, four houses, Links- E. Grimshaw, house, Durley-road; J. Taylor, ses, Leamington-road; J. Moore, bungalow, way; H. Fenton, two houses, Abbeyville; eight houses, Ord-avenue; W. Harrison, 12 ws, Abbey-road and off; T. Bowker, bungalow, acre-avenue; Edmundson & Standworth, six Rectory-road; Moore & Durham, 23 houses, ury-avenue and New Park-road; Gardner & six houses, Salisbury-road and Cumberland- G. H. Edge, bungalow, Queen's-road; & Woodrow, two houses, Central-drive; J. four houses, Laurel-avenue; J. Marsh, 16 Jesmond-avenue; G. Hodgson, two houses, avenue; Mr. Cardwell, two houses, Angus ; Mrs. Reay, seven houses, Rothsay-road sbury-road; Threlfall & Pearson, two houses, -lane; J. M. Lewis, house, Lytham-road; & Thornton, four houses, Warley-road; Mr. , two houses, Wilson-avenue; T. Graham, ses off Poulton New-road; Lightfoot & Foster, uses, off Poulton New-road; A. Spencer, w, Thelmere-road; J. Lewin, house, Park- Boden Bros: two bungalows, Bispham-road; oe, two bungalows, Bispham-road; Harrison ington, two houses, Silverwood-avenue; & Pilkington, house, Silverwood-avenue; ersley, five houses, Watsons-lane; S. O. two houses, Westmorland-avenue; Lancaster ix houses, off Poulton New-road; Mr. Brickell, ses, Westfield-road; F. Jowett, six houses, -avenue.

ORTH.—Plans for 122 houses at the new illage of Blidworth, presented by the Newstead Co., have been passed by the Skegby Rural

N-ON-DEARNE.—Plans for 16 houses to be by the Wath Main Colliery Co. have been by the U.D.C.

ORD.—The Town Planning Sub-Committee has the applications for the following to develop Mr. T. E. Jennings, Heights-lane; Mrs. Alice Coniston-grove, Smith-lane (semi-detached Mr. J. W. Gadie, Haslingden-drive (three pairs s); Mr. A. Barker, Bartle-lane (house); Mr. tley, Highfield-road and Green-lane, Idle and garage).—Subsidies have been granted llowing houses:—G. F. Smith (Agent, G. R. hornton-road, Thornton; G. Johnson, Brown- l-road, Wibsey; W. Atkinson, Brownroyd Wibsey; Hutchinson, Watkin & Co., Jer- ; Arthur Thomas, Westfield-lane, J. Thorn- on, Park-avenue, Thackley, six; F. Wray . Riley), Hollingwood Mount and Heathfield- ur; J. W. Gadie (Agents, B. D. Fairbank & slingden-drive, six; A. Barker, Bartle-lane Bank-road; J. J. Pitchers & Son, Grenfell- Grenfell-terrace, ten; E. Hillam, Speeton- wo; Mrs. A. Powell (Agents, B. D. Fairbank Coniston-grove, two; R. J. Patchett, Ltd., -road and Harbour-road. Wibsey, four.

Y.—Plans passed by T.C.: Messrs. Wood- romley), Ltd., additions, Hawthorne-road; Walton, garage, Bromley-avenue; Messrs. , Ltd., shop, No. 118, High-street; Mr. W. A. wo houses, Warren-avenue; Mr. A. Framp- ge and loft, Estate Office, Bromley-hill; vens & Sons, bungalow, Langdon-road; The Park Estate Co., house, Park-avenue; Mr. ght, garage, No. 58, Sandford-road; Messrs. Archer, house, Madeira-avenue; Mr. A. four houses, Alexandra-crescent.

AM.—Plans passed by U.D.C.: Two pairs Birch-avenue, for Mr. C. Cooper; villa, oad, for Mr. Rowland; additions, motor ydon-road, Caterham Motor Co.; bungalow, h-road, for Mr. Sampson; villa, Croydon- Ir. Voller; memorial hall, Caterham School, es; cottage, Croydon-road, for Mr. Lee.

THAM.—Plans passed by T.C.: E. C. Green, 1A, Winchcomb-street; W. H. Fortey, Bath-road; Cavendish House Co., extension om, Regent-street; R. E. Whiting, house, arade; H. E. C. Townley, additions, South ce's-road; Exors. of late S. Billings, additions St. Anne's Nursing College; W. Williams,

to our List of Contracts, Competitions, etc.

two houses, Russell-street; J. L. Bendall, house, Old Bath-road; Mrs. S. Ryland, additions to "Amber- ley," Hatherley-road; G. Berryman, two houses, Pilford-road; F. Vernall, additions to 2, Rodney- place, Rodney-road; Alfred Miles, two houses, Albion-street.

CROYDON.—Plans passed by B.C.: Prestige & Co., Ltd., house and garage, Woodbury-close; H. P. Hawkes, house, Haling Park-road; P. Richardson, 16 houses, Addiscombe Court-road; S. Rous, conversion of house into three flats, 63, Addiscombe-road; H. S. St. John, two houses, Lodge-road; H. N. Stevens, house, Central Hill; E. C. Dibdin, alterations, High-street, Thornton Heath, Electric Theatre; C. G. Allen, 21 houses, Boston-road and Marden-crescent; Young & Macintosh, house, Woodbury-close; F. T. Wooding & Sons, 17 houses, Eridge-road; H. J. Sawyers, three houses and two garages, Morland-avenue; H. Field, bank premises with flats over, London- and Stanford-roads; Chesterton & Sons, four shops with maisonettes over, London-road, Norbury; C. Banks, house, Morland-road; A. C. F. Duckit, 70 houses, Fairlands-avenue; O. Law, house, Monks' Orchard Estate; H. G. Palmer, 28 houses, Bensham Manor-road; Clout & Tysoe, two garages, 102 and 104, Leander-road; C. Banks, house, extension Warham-road; C. Banks, house, Addiscombe-road; R. B. Manser, 12 houses, Birchanger-road, and 10 houses, Howard-road, South Norwood; W. Gunning, two houses, Fairlands-avenue; J. B. Hemmings, garage, Tunstall-road; P. C. Hubbard, house and garage, Radcliffe-road; C. W. Curtis, six garages, Littlecot, 36, Bensham-lane; F. Robinson, house, Whitehorse-lane; C. E. Head, house, Addiscombe-road; H. C. Sowman, additions, 7, Addiscombe-road; Young & Macintosh, two houses, The Chase, Norbury; W. Cooper, 71 houses, Lucerne, Berne, Geneva and Zermatt roads; F. Windsor, bungalow, Nottingham-avenue, and addition, 59, Dingwall-road; W. Barton, two houses, Clifton-road; Berney & Sons, alterations and additions, 10, Chichester-road; Scratchley Bros., four houses, Buller-road; E. Holman, bungalow, Ham Farm, Plot 84; L. Isitt, office and works, Epsom-road; H. E. Davey house, Albert-road; Southern Foundries, Ltd., extension, Stafford-road; S. H. Laver, 6 houses, Croindene-road, and nine houses, Lloyd-road; H. Ibison, bungalow, Addiscombe-road; C. H. Gibson, bungalow, Haling Park-road.

CUPAR.—Fife C.C. has agreed to proceed with the demolition of the Tontine Hotel (which adjoins the County Buildings at Cupar) with a view to erecting additional offices and other accommodation. The architect's report stated that the whole cost would be about £15,850.

DUBLIN.—Plans passed: Castle-avenue, nine houses, Mr. J. G. Oulton; Summerhill, 96, shop, Messrs. G. Squires & Co.; Grafton-street, Grafton stores, alterations, the Grafton Stores; Wood-lane, 7, 8, 9, dwelling house and cottages, Mr. P. J. Brennan; Blessington-street, 24, alterations, Miss Power; Howth-road, Killester, extension of shop, Mr. L. Ging; Henry-street, 1, alterations, Mr. P. O'Neill.

EAST HAM.—Plans passed by B.C.: Steel-framed mess-room, rear of Salisbury Works, Manor Park-road, for H. & A. J. Burton; lavatories, Palais de Danse, Wakefield-street, for W. L. Griffiths; alteration, 123, 123A, High-street North, for R. Schooley; two flats, 316, Katherine-road, for W. Grover; 16 houses, Caulfield-road, for T. B. Goodwin; seven houses, Arthur-road, for H. Stokes; 16 houses, Melford-road, for J. W. Lohden.

EDINBURGH.—Important extensions to the Edinburgh Royal Infirmary, the cost of which is estimated at £10,500, have been sanctioned by the Dean of Guild Court. Among the petitions granted were the following: Mr. D. Alexander, 10 semi-detached villas at Liberton Brae; Corporation of Edinburgh, convert Hope Park Hall, East Meadows, into three apartment houses; Corporation of Edinburgh, substation at Craigmillar, and motor lorry shed at Lower Shrubhill-yard; Mr. J. Cogman, bungalow, at Alnwickhill-road; Mr. John E. Geddes, double villa at Barony-terrace, Corstorphine; Mrs. S. Greig, addition, at 1, Braidburn-terrace; Lauriston-place United Free Church Trustees, organ chamber in the church; Dr. D. Marray Lyon, motor garage at The Loan, Colinton; Mr. George S. Robinson, 16 lock-up garages, at Hammer-avenue, off Dalkeith-road; Society of Accountants, extend premises at 26 and 27, Queen-street; Mr. G. W. Stewart, garage, at 11, Priestfield-road; Mr. James Robb, West St. Albans-road, four semi-detached villas and five blocks of flatted houses, 24 houses in all.

EPSOM.—Plans passed by R.D.C.: Ashtead: House in Links-road, for Mr. F. C. Joscelyne; six cottages in Ottways-avenue, for Mr. B. V. Young; house in Warren Estate, for Mrs. Mann; and house in Epsom-road, for Mrs. A. Francis. Great Bookham: House in The Park, for Mr. C. Hanchard; two bungalows, Station-road, for Messrs. Merritt; bungalow, Guildford-road, for Mrs. M. W. Hewlins; bungalow, No. 2 road, for Mr. N. C. T. Hartley. Little Bookham: bungalow, Woodlands-road, for Mr. H. Chew. Fetcham: bungalow Eastwick-drive, for Mr. A. E. H. Elkington; bungalow, River-lane, for Mr. R. Hannam; house, Eastwick-drive, for Mr N. B. Date; and bungalow, Woodside, for Mr. C. W. Chivers.

ETON.—Plans passed by R.D.C.: Bungalow, Huntercombe-road Burnham, for Mr. A. S. Lund; house on Fulmer Hill, for Col. the Hon. Sir Harry Legge; three shops, Farnham-road, for Mrs. L. Sharpe; alterations and additions to Strawberry Cottage, Black Park, Langley, for Sir Robert Harvey, Bart.; shop and workshop at Stoke Poges for Mr. J. H. Hucker; new drainage of the Stag, Welham-street, for Messrs. Harman & Co.; shop Lent Rise-road, Burnham, for Mr. R. E. Plevey; water tower and sanitary convenience, for the Slough Trading Company: house, Slough-road, Langley, for Mr. A. Cooper; house, Middle Green-road, Langley, for Mr. H. Street; foundations for soap plant at the Slough Trading Estate, for Mr. Hall; 34 houses on the Richings Park Estate, Iver, for Mr. F. Sykes; 22 bungalows at Wraysbury, for the Architectural Town Planning Association; house at Wraysbury, for Mr. H. J. Pallister; bungalow at Denham, for Messrs. Adams; house at Gerrards Cross, for Messrs. H. Brown & Son; bungalow at Wraysbury, for Mrs. A. Juffs; house, Taplow, for Mr. W. Barr; two houses at Gerrards Cross, for Mrs. B. A. Banks; house, Denham, for Mrs. A. Harris; bungalows, Wraysbury, for Mr. H. L. Grout and Mr. S. Gibson; pair of houses at Gerrards Cross, for Ideal Homes, Ltd.; house at Gerrards Cross, for Miss M. Edwards.

FOLESHILL.—Plans passed by R.D.C.: Thirty-two houses, for Mr. G. H. Pickering, at Bedworth; two houses, for Messrs. Jones & Goode, at Walsgrave; two houses, for Messrs. Webb & Pope, at Walsgrave; house, for Mr. G. W. Carpenter, at Foleshill; church hall and Sunday school, for the Rector and Church Council, Stoke parish, in Binley-road, Stoke; bungalow, for Mr. E. Clarke, at Shilton.

GLASGOW.—Linings granted by Dean of Guild Court: Glasgow Magdalene Institution, alterations and additions to Institution at Lochburn, Maryhill; Queen's Park Parish Church, addition to hall at Queen's-drive, Crosshill; University of Glasgow, sports pavilion at Westerlands, Anniesland; Acme Tea Chest Co., Ltd., producer house, at 204, Polmadie-road; Glasgow Parish Council, additions to Stobhill Hospital; R.C. Archdiocese of Glasgow, addition of new school and alterations to existing school at Cumlodden-drive and Water-street, Maryhill; Macrae, Flett & Rennie, W.S., 57, Castle-street, Edinburgh, 24 semi-detached houses, Kelvindale-road; Wylie & Lochhead, Ltd., 45, Buchanan-street, additions to premises at Dorset-street, at an estimated cost of £12,000; Corporation Tramways Department, offices and billiard-room at Newlands Tramway Depot, at an estimated cost of £5,887: The Southern Building Co., 480, Pollokshaws-road, 12 terrace houses, at Woodend-avenue, Pollokshaws-road; cost estimated at £9,290; Glasgow Royal Maternity and Women's Hospital, additions to hospital at Rotten-row, estimated cost nearly £18,000.

HOVE.—Plans passed by T.C.: Messrs. Watson & Butcher, for Mrs. Trebner, additions, 19, George-street; Messrs. Clayton & Black, for the Vallance Estate, seven bungalows, Princes-crescent; Messrs. E. Winter & Son, for Miss D. Johnson, additions, 14, Denmark Villas; Mr. W. H. Overton, for Mr. B. Cook, conversion into flats and two shops, 139, Church-road; Messrs. C. J. Kerridge & Son, Ltd., for Mrs. D. J. Roe, conversion into flats, 34, Hove Park Villas; Mr. S. Bedford, for Mrs. J. S. Bedford, house, Avondale-road; Mr. H. H. Cooper, for Mr. A. W. Turner, alterations, 11, St. John's-road; Mr. P. B. Hunter, for Mr. W. H. Anstee, conversion into flats, 60, Hova Villas; Mr. T. J. Evans, additions, 116 and 118, Lansdowne-place Mr. F. Parsons, pair houses, Leicester Villas; Messrs. Chatterton & Co., for Mrs. Wood, house, New Church-road (south side); Mr. A. F. Faulkner, for Willetts Estate, alterations, 7, Eaton-grove; Mr. H. L. Robinson, house, Highdown-road; Messrs. R. A. Cripps & Son, addition, Davigdor-road; Mr. W. H. Overton, for Messrs. Forfar, alterations, 25, Western-road; Mr. F. Palmer, for Mrs. Scott, addition, 19, Ventnor Villas; Messrs. Young & Mackintosh, for Mr. F. E. Greville, house, Kingsway, S.W.; Mr. B. James, for Mr. W. Cooper, conversion into flats, 2, Eaton Villas; Mr. F. Brooksbank, 12 houses, Lawrence-, Hogarth- and Reynolds-roads; Mr. H. M. Pett, for Mr. G. F. Tuckfield, house, Langdale-road; Mr. J. M. Comber, for Mr. J. Comber, five houses and motor garage, Raphael-road; Mr. P. B. Hunter, for Mrs. Fletcher, additions, Nizells-avenue; Messrs. E. Winter & Sons, for Mr. W. B. Chambertin, alterations, 7, Queen's-mews; Mr. F. A. Crouch, for Mrs. Harrison, bungalow, Glebe Villas.

LONGTOWN.—Plans passed by R.D.C.: House, Gibbs Hill, for Mrs. Kyle.

MIDDLESBROUGH.—The Governors of the North Riding Infirmary announced at their annual meeting that it was hoped to begin shortly with the construction of a new children's ward to cost about £4,000.

NORTHAMPTON.—The Borough Engineer has been instructed to prepare plans for an extension of the tramcar shed.—Plans passed by T.C.: Two houses, Loyd-road, Sale & Co.; house, The Avenue, Dallington, Mrs. G. Barker; additions to premises, 26, Rickard-street, for F. H. Blackwell; additions to premises Foundry-street, A. W. Bird; house, Balmoral-road, F. W. Beard; house, Balmoral-road, W. F. Lock; house, Balmoral-road, G. W. Easey; house, Balmoral-road, A. J. Green: additions to house, 98, Balmoral-road, Tilley; four houses, Birchfield-road East, C. H. Rainbow; alterations to premises, "Swan and Helmet" P.H., Grove-road, P. Phipps & Co., Ltd.; alterations, 15, Sandhill-road, Mrs. A. Coe; alterations, 59, Denmark-road, Mrs. A. Busby; two lock-up shops, Ambush-street, Fred Clarke; house, Ransome-road, —. Dent; seven houses, Ransome-road, Northampton Co-operative Society, Ltd.; house, Harborough-road, A. W. Dickins; additions, 63, Adnitt-road, Mrs. N. E. Gibbons; additions, 18, Kettering-road, Mrs. E. J. Busby; alterations to warehouse, Newland, H. Courtney & Co.; two houses, St. George's-avenue, A. Holloway; six houses, Cedar-road, Sale & Co.; house, Lime-avenue, G. W. Gamble; house, King Edward-road, S. Strickland; alterations to "White Lion" Inn, Kingsthorpe-road, P. Phipps & Co., Ltd. house, Christchurch-road, W. H. Foster.

NORTHWOOD.—Plans passed by U.D.C.: House, Northgate, Northwood, for Mr. C. Ferry, by Mr. A. S. Soutar; house, Gateshill Estate, Northwood, for Major Mulliken, submitted by Mr. H. Neal; house, 96, Ducks Hill-road, Northwood, for Mr. J. Coburn; house, West End-road, Ruislip, for Mrs. C. Gooderson, submitted by Mr. A. V. Gooderson; house, Kingsend-avenue!

Ruislip, for Mr. K. Simpkin, submitted by Mr. Edwin Gunn; house, King Edwards-road, Ruislip, for Mr. D. W. Carter, submitted by Mr. Edwin Gunn; house, Manor-road, Ruislip, for Mrs. E. L. Browning, submitted by Mr. J. Maxwell Scott; house, Church-avenue, Ruislip, for Mr. E. D. Jaques, submitted by Messrs. Robinson & Roods; three bungalows, Kingsend-avenue extension, for Messrs. Rawlings, Briant & Lloyd, submitted by Mr. W. L. Carr; house, Elm-avenue, Eastcote, for Mr. A. V. Low; house, "F," Lime-grove, Eastcote, for Mr. A. V. Low; two semi-detached houses, Acacia-avenue, Eastcote, for Mr. H. G. Acres; bungalow, Masson-avenue, Northolt Junction, for Mr. G. W. Holder, submitted by Mr. R. G. Mortimore; house and shop, Block J, Station-approach, Northolt Junction, for Mr. W. S. Wright; house, Ellis' Estate, West End-road, Ruislip, for Mr. W. E. Rooke, submitted by Mr. G. E. Clare; lay-out and scheme for houses, Green-walk, Ruislip, for the Ruislip Manor Cottage Society, submitted by Mr. A. S. Soutar; and detached house, Myrtle-avenue, Eastcote, for Mr. T. E. Money, submitted by Mr. W. L. Carr.

OLDHAM.—Plans passed: R. Ashworth, ice cream manufactory, rear of Middleton-road and Bent Grange; Oldham Education Committee, Higher Standard Centre, Heron-street; H. Partington, pair semi-detached houses, Grendon-avenue, J. R. Okell & Son, bungalow, adjoining 246, Henshaw-street; Natco Individual Tailorcraft, alterations to shop, 44, Yorkshire-street; G. B. Hardy, house, and lock-up shop, corner of Manley-road and Langham-road; Hawthorne and W. & H. Bloor, 14 lock-up garages, off Pelloweroad; H. Partington, 16 dwelling-houses, Garthwaite-avenue.

REIGATE.—Plans passed by R.D.C.: Suburban Development, Ltd., bungalow at Boxhill-road, Betchworth; Mrs. M. A. Maynard, bungalow at Copthorne-road, Burstow; Messrs. Canvey Bungalows, Ltd., South Norwood, bungalow at Povey Cross Estate, Charlwood; Miss P. J. Jone and Mrs. E. Bottomley, house at Holly Mead-road, Chipstead; Mr. Harold Sworder, addition to house at Doghurst Cottage, Chipstead; Mr. Harley Dench, house at Balcombe-gardens, Horley; Mr. B. R. Newnham, cottage at Vicarage-lane, Horley; Mr. A. D. Pennelier, house at Silverlea-gardens, Horley; Mrs. Bollen, Merstham, bungalow at Balcombe-gardens, Horley; Mr. C. Tatton Winter, house at Lonesome-lane, Horley; Mr. Clarence Bartholomew, additions to house at "Margery Wood," Kingswood; Lieut.-Col. G. G. Waterhouse, additions to Church Cottage, Leigh; and Mr. V. R. Hood, stable at Breech-lane, Walton.

RUGBY.—The B.G. has sanctioned the expenditure of £7,500 on extensions and alterations to the Institution Infirmary. The scheme has the approval of the inspector of the M.H.

STOCKTON-ON-TEES.—Plans passed by T.C.: Showroom, 79, High-street, for Mr. C. W. Laws; two semi-detached villas in Oxbridge-lane, Messrs. H. C. & J. C. Watson; two semi-detached houses in Oxbridge-lane, Messrs. R. Johnson & Son, Skinner-street; two pairs of semi-detached houses in Imperial-crescent, Norton, Messrs. Blackett's Construction Co., Ltd.

WAREHAM.—Plan passed by T.C.: Strong & Co., mineral water works, St. John's-hill.

WEXFORD.—Wexford Board of Health has adopted a committee's recommendation to reconstruct the County Hospital in Wexford, to make it suitable for its purpose, and also to transfer the New Ross District Hospital from the old workhouse buildings to the Fever Hospital, and enlarge the latter by adding a wing to contain 24 beds, of which 12 will be used for fever cases. The County Hospital scheme will cost £14,000 and the New Ross alterations £2,000.

WIGAN.—The T.C. has decided to spend £80,641 for the reconstruction of the Corporation sewage works at Hoscar and Pemberton.

WINDSOR.—Plans passed by R.D.C.: Addition to the Tapestry Hall, Old Windsor, for Miss Foster; shop, High-street, Sunninghill, for Mr. Hunt.

FIRES.

BEAULY.—Damage amounting to several thousand pounds has been caused by a fire at Beauly Railway Station, by which the offices and the sawmills belonging to Mr. Frank Sime, wood merchant, and the railway goods shed and office were completely demolished.

BARRHEAD.—A fire has occurred in the works of the Waterproofing Co., Ltd., Gateside, near Barrhead.

HENGRAVE.—A destructive fire has occurred at Stanchel's Farm, Hengrave, occupied by Mr. Walter Bailey, who is the proprietor of St. Andrew's Dairy, Bury St. Edmunds.

KETTERING.—Fire completely destroyed the boot factory of Messrs. Mobbs at Kettering, Northants, recently. The damage is estimated to be fully £70,000.

Building Materials.

Arising out of the presentation of the reports on the housing problem which have just been made by representatives of the building and building materials industries, the Minister of Health recently had a conference with the committee of manufacturers and suppliers of building materials. The committee assured the Minister of their hearty co-operation and of their desire to take every practicable step within their industry to assist in the solution of the present housing difficulties. Among the various points discussed the committee drew special attention to the difficulties created by the present shortage of railway wagons. A number of instances were given of serious delays on housing work arising from this cause, even at the present time, and the great importance of this matter in any extended housing scheme was emphasised.

WARRINGTON MASTER BUILDERS' ASSOCIATION

THE annual dinner of the Warrington and District Master Builders' Association was held recently at the Patten Arms Hotel. The President, Mr. Henry Collin, occupied the chair.

After the loyal toasts had been honoured, Mr. J. H. Smethurst, in proposing "The Town and Trade of Warrington," said he remembered Bridge-street twenty or thirty years ago as a very narrow street. Now it was a wide thoroughfare with buildings on each side which were a credit to the builders and architects who had been concerned in their erection. The extension of the infirmary was an improvement in which he had taken a great pride. It had grown from a small building of 30 beds to a hospital of 100 beds. Various buildings in the town reminded him that Warrington was progressing perhaps slowly, but surely.

Responding, the Mayor said there was no ground for complaint about the progress of Warrington in recent years. During the war period, and for some time after, very little could be done. But for the war, the completion of the circus at Market Gate would have been carried out by now. Above all, the Mayor proceeded, they were anxious to improve the housing conditions of the town. They were very glad that they were enabled to put a contract for 54 houses through. Some people looked upon it as an immense amount of money, but it was only a particle of what they really required to make the people of the town comfortably housed. There were conditions which ought to be remedied, and could only be remedied by an extension of house building. He was a great believer in the enterprise which the builders of this country have displayed. If the builders and architects would assist those who were anxious to house the people in the same manner that they were in years gone by, they would find they would be supported.

The toast of "The N.W. Federation of Building Trade Employers" was given by Mr. F. Warburton, who complimented the officials on the amount of work they performed for the benefit of the industry. He urged that members should attend the meetings and keep in close touch with the work.

Mr. John M. Macfarlane, of Manchester, President of the Federation, in his response, emphasised the critical nature of the present times for the building industry, and spoke of the struggle which would have to be fought with trade unions in the near future.

"The Architectural Profession of Warrington and District" was given by Mr. H. Fairclough, who remarked that the only thing he had had out of housing in Warrington had been experience. At the present time architecture had descended to the deplorable state of architects trying to provide a penny for a halfpenny.

Responding, Mr. T. Curran said the public did not understand the high prices, and that builders' costs of pre-war days did not obtain now. He considered that the recent tenders for the 54 houses were very favourable on the whole. It was rather hopeless to expect the building trade to provide houses to-day in the manner they did formerly, with a Rent Restriction Act in operation. Why one industry should be expected to be general philanthropists for the public, and one industry only, passed his comprehension.

Mr. Ben Talbot, in proposing "The Warrington and District Master Builders' Association," referred to the troubles and difficulties that had arisen with the operatives, emphasising the seriousness of the situation, and the necessity for unity amongst master builders.

The President, in his reply, said the N.W. Federation could rely upon the loyal support of the Warrington Association.

Defective Lifts.

Several men were injured when a lift cable broke recently at Hibernia Wharf, London Bridge, and the lift crashed from the fifth floor to the basement, 50 ft. below.

COAL SMOKE ABA MENT SOCIETY

The Coal Smoke Abatement Society re held their annual meeting at the Society of Arts. Lord Newton, who was e president of the Coal Smoke Abatement So presided. The speakers included Mr. Alden, M.P., Dr. H. A. Des Voeux, M.D Arthur Holbrook, Bart., Mr. G. Bernard Sir W. Napier Shaw, D.Sc., F.R.S., Mr. Simon, M.P., and Dame H. Gwynne-Va D.B.E.

In the course of his remarks Lord N said he could not congratulate the Society their position at the present time. All efforts would be practically in vain unles could induce the Government to embark legislation. In London, although it was a rather clean town, no less than 300 t soot and other deposit fell to the squar during the year. Out of that deposit they construct a tower about three times the the tower of Westminster. The Minis Health cost £23,000,000 a year in sa services alone, and they would suppose th question of smoke, which affected the well of the millions of people, would receive consideration from their hands. The S had done their best, but so far without an great result. He was going himself deputation of Members of Parliament to urge upon the Ministry of Health the ne of doing something.

Mr. G. Bernard Shaw, moving a reso supporting the Coal Smoke Abatement S said that in order to make his life end he had to give up his London house and place in a village in Hertfordshire, whi nothing like so attractive as London ou be. If he went for a walk in London dirty all the time. Englishmen did no washing all the time, but he was an Irishm he disliked it intensely. All his greates had been written in the train between Cross and Hatfield while he was runnin from the smoke of London. Only abou a year when he looked out of his wi Adelphi-terrace could he see that Lo surrounded with a belt of beautiful h should, he said, be possible to see it ev In the Middle Ages London must have most beautiful place. Any mediæval would refuse to live in a nineteenth or tw century town. London was not a bad sp when compared with other towns in this but two-thirds of it should be knocked What was required was a sort of civic co ness in the matter. People should b ashamed of the times in which they liv then they might become more careful.

The resolution was seconded by Dam Gwynne-Vaughan, supported by Dr. Des Voeux, and carried unanimously.

Defective Gas Fires.

At an inquest on a man who recently gas poisoning the Coroner said he was that death was due to carbon-monoxide ing, and he hoped the case would be a wa all users of gas fires.

Dr. Norman Kletz said the post showed unmistakable signs that death to poisoning by carbon-monoxide. T a dangerous and insidious gas, witho which might be inhaled for some time its presence being detected. He th extremely unlikely that an inspector, viously stated, could tell, by having a alight for two or three minutes, whe products were getting away.

Previously a foreman plumber emp the Corporation said he had examine fire and flue. There was virtually nc either up or down the flue, which was one for fires of this description. The the lack of draught was that all the pr the fire got into the room. He came t clusion that there was some obstructi flue.

NEW COMPANIES.

particulars quoted below have been led by Messrs. Jordan & Sons, Ltd., any Registration Agents, of 116 & 117, ery-lane, W.C.2, from the documents ble at the Companies' Registry.

EPH CHAPMAN & SON (PATRICROFT), LTD. 38). Registered February 5. 19, Green- Patricroft, Lancaster. Builders, contractors, sawing, planing and moulding mills. al capital, £20,000.

W. MEANLEY & SONS, LTD. (195,535). ered February 5. 2, Lower Dolcliffe- Mexborough, York. Builders, decorators ntractors, &c. Nominal capital, £5,000.

H. TAYLOR, LTD. (195,463). Registered ary 1. 48–50, Copperas-hill, Liverpool. al contractors, sanitary plumbers, painters ecorators, now carried on by John H. r. Nominal capital, £2,000.

NS, LTD. (195,670). Registered Feb- 12. 44, Wicklow-street, King's Cross, . Builders and contractors, engineers, Nominal capital, £1,000.

M. SLINGER & SONS, LTD. (195,733). ered February 14. Main-street, Bentham, Builders and contractors. Nominal l, £2,000.

W EAGLE AND BRYN BRICK WORKS (1924), (195,677). Registered February 12. ood Chambers, Port Talbot. Manufac- and merchants of bricks, tiles, sanitary ther pipes, terra-cotta, and all kinds of nware goods. Nominal capital, £7,000.

TREE DEVELOPMENT CO., LTD. (195,946.) ered February 23. To erect and con- houses, buildings of works of every descrip- n any land of the Company, or upon any lands or hereditaments, and to pull down, d, enlarge, alter, and improve existing s, buildings or works. Nominal capital, .

NINGS & SONS (BARNSLEY), LTD. 05.) Registered February 21. 5, Sykes- e, Gowber-road, Barnsley. Builders, tors and contractors, and constructors rectors of houses, dwellings, and buildings kinds. Nominal capital, £1,000.

T. HARRIS, LTD. (195,931.) Registered ary 22. 1, Oakwood-road, Sparkhill, ngham. Builder and contractor and rty repairer. Nominal capital, £10,000.

MB BROS., LTD. (195,798.) Registered ary 18. 129, Marylebone-road, N.W.1. rs and contractors, &c. Nominal capital, .

NWOODIE & Co., LTD. (195,866.) Regis- February 20. Builders' merchants. al capital, £6,000.

EY CONSTRUCTION CO., LTD. (195,772.) ered February 15. Joinery manufac- timber merchants, builders, contractors, Nominal capital, £1,000.

EHEAD BUILDINGS, LTD. (195,890.) ered February 20. Manufacturers of and tiles, &c. Nominal capital, £10,000.

H. HAYES, LTD. (195,959.) Registered ry 25. 23, Elm-road, New Malden, . Builder and contractor. Nominal , £1,000.

. BOX (MANCHESTER), LTD. (196,066.) ered February 29. 155, Moss-lane East, ster. Plumbers, painters, and decora- c. Nominal capital, £1,000.

ADAM (WALSALL), LTD. (196,044.) Regis- February 28. Lloyd's Bank Chambers, l. Quarry masters and stone merchants, ominal capital, £1,000.

TON (SHIPLEY), LTD. (196,029.) Regis- February 27. 7, Briggate, Shipley. s and general contractors, &c. Nominal , £500.

J. FENSOM, LTD. (196084.) Registered ry 29. 187, High-road, Chiswick. W. , contractor and decorator. Nominal £5,000.

GE BUILDERS' ASSOCIATION, LTD. (196142) ered March 4. 20, St. James-square, To prepare and execute building and lanning plans and schemes of every kind. al capital, £30,000.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.* † Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modifications.*

ABERYSTWYTH.—For construction of shelter and lavatories at Marine-terrace, for the T.C. :—
*J. McColville, Abergavenny £3,399

ATHLONE.—For completing 14 houses, for the U.D.C. Mr. J. P. O'Loughlin, Engineer, Court House, Athlone :—

L. Ward, Ballinasloe	£5,533 15 2
J. Concannon, Athlone	4,994 10 0
M. Duffy, Athlone	3,771 0 0
Allen Bros., Tullamore	3,250 0 0
*P. Nolan, Athlone	2,925 0 0

BARNSLEY.—For the reinforced concrete work in sludge well, &c., at sewage works, for the T.C. :—
*Hodkin & Jones £523

BARNSLEY.—For painting at Baths, for the T.C. :—
*E. Fletcher & Son £149 10

BRADFORD.—For painting work for 46 houses at Thornton, for the T.C. :—
*W. Knapton—
28 houses in blocks of 2, Class A, at £10 16s. per block of 2 .. £151 15 8
18 houses in blocks of 2, Class B, at £11 per block of 2 ..... 99 0 0

BROMLEY.—For the erection of flats in Mosul-way, for the T.C. :—

	North Side, 28 flats.	South Side, 32 flats.
Hill & Gurr, Bromley	£17,101 8 6..	£19,538 17 6
W. Phillips, Chislehurst	16,544 0 0..	18,844 0 0
Castle Construction Co., Orpington	16,178 18 2..	18,490 3 6
Woodhams (Bromley), Ltd.	15,209 0 0..	17,411 0 0
J. Elliman & Son, Ltd., Beckenham	14,924 0 0..	17,056 0 0
*W. Jones & Sons, Ltd., London	14,531 13 1..	16,561 5 1

CARLISLE.—For the reconstruction of Caldew Bridge, for the T.C. :—
*M. Muir & Co., Kilmarnock .. £12,120 7 4

CROYDON.—For erection of sub-station in Head-corn-road, for the T.C. :—
*D. Waller, Croydon £532

CROYDON.—For the provision of two additional pulverisers, at South Norwood farm, for the T.C. :—
*G. P. Banbury £2,083 9 3

CROYDON.—For the erection of cottage at Rassell-hill, for the T.C. :—
*Burnard & Pickett £770

CROYDON.—For widening engine room and build-ing new lavatories, &c., at Electricity Works, for the T.C. :—

J. Smith & Sons, Ltd.	£5,243 13 2
*Truett & Steel, Ltd.	4,714 0 0
G. E. Everitt & Sons, Ltd.	4,515 15 0
De Zoysa & De Zoysa	4,362 4 0

CROYDON.—For erection of new workshops at Electricity Works, for the B.C. :—

G. P. Banbury	£4,635
Everitt, G. E., & Sons, Ltd.	4,250
Ernest H. Smith	4,145
Grace & Marsh, Ltd.	4,094
Truett & Steel, Ltd.	3,930
*R. Mansell	3,785

DURHAM.—For the erection of the War Memorial Chapel at Durham Grammar School :—
*Rudd & Co., Grantham £17,600

HALSTEAD.—For the erection of four pairs of houses on Mellows Field site, for the U.D.C. :—

J. C. Gray, Coventry	£5,349 0
G. Sudbury & Sons, Halstead	5,107 16
A. Arnold, Chelmsford	4,759 0
C. Deaves, Bures	4,478 0
S. G. Woodman, Halstead	4,376 0
*J. S. Norton, Halstead	4,312 0

HARROGATE.—For erection of detached residence, St. James Park. Mr. T. Butler Wilson, F.R.I.B.A., architect, Greek-street Chambers, Leeds. Quantities by Mr. H. B. Bell, F.S.I., Leeds :—
*Birch & Sons, Ltd., York £2,877

HESSLE.—For construction of 496 lin. yds. of 12 in. pipe sewer, for the U.D.C. Mr. W. Coulson, M.Inst.M. & C.E., Surveyor, Parish Hall, Hessle. Quantities by Mr. W. Coulson, M.Inst. M. & C.E. :—

G. Curtis, Hull	£889 1 8
J. Taylor, Anlaby Common	784 0 0
G. Medforth, Hull	651 0 0
H. Langton & Son, Hull	640 0 0
H. Medforth, Hull	617 0 0
*G. Boyce, Hessle	533 5 0

LETCHWORTH.—For 20 flats in five blocks of four, Broadwater-avenue, Letchworth, for Letchworth Cottages & Buildings, Ltd. Mr. J. C. Tickle, architect, 139, Lytton-avenue, Letchworth :—

Beckley & Turpie, Letchworth	£13,095
G. Armitage, Letchworth	12,060
Messrs. Wilmott, Hitchin	10,940
Messrs. Redhouse, Stotfold	10,185
D. Pearce, Letchworth	10,050
J. Ray, Letchworth	9,840
*Jeffs & Begley, Letchworth	9,757

LONDON.—For paving in connection with Mall Approach improvement, for the Westminster C.C. :—

Alexander Thomson & Co. (London), Ltd.	£1,832 2 9
Improved Wood Pavement Co., Ltd.	1,540 18 2
W. Griffiths & Co., Ltd.	1,498 18 4
G. J. Anderson	1,471 4 4
Mowlem & Co., Ltd.	1,390 2 6
*Acme Flooring & Paving Co. (1904), Ltd.	1,383 16 10

LONDON.—For laying of wood paving in various streets, for the Westminster C.C. :—

*Improved Wood Pavement Co., Ltd.—	
Charing Cross (King Charles Statue to Great Scotland Yard)	£4,829 15 10
Duncannon-street (whole of)	2,901 2 6
Lupus-street (Tachbrook-street to Colchester-street and Winchester-street to Sutherland-street)	8,877 5 10
North Audley-street (Oxford-street to south side, Green-street)	1,873 3 4
Northumberland-avenue (whole of)	10,082 10 10
Park-lane (Oxford-street to Dudley House)	7,408 6 8
Upper Grosvenor-street (Gros-venor-square to Park-lane)	4,531 2 6
Wellington-street (Strand to Tavistock-street)	3,215 12 6
*Acme Flooring & Paving Co. (1904), Ltd.—	
James-street, Covent Garden (whole of)	2,291 18 9
Lincoln's Inn Fields—Intersec-tions, south-east and south-west corners	807 1 8
Victoria-street (junction of Wilton-road, Vauxhall Bridge road, and former Stockbridge-terrace)	3,160 15 0

LONDON.—For the erection of 48 houses at Charl-ton, for the Greenwich B.C. :—
*Walter Jones & Sons £22,790 18
[The tender of James Lenn, Ltd., had been accepted previously for 16 of these houses, but owing to a mistake in their tender they withdrew.]

LONDON.—For repairs, &c., at Baths establish-ment, for the St. Marylebone B.C. :—

J. Simpson & Son, Ltd.	£449 0 0
C. Tavener & Son	418 0 0
Waring & Gillow, Ltd.	366 0 0
*M. Greenwood & Son, Ltd.	257 1 3
J. W. Buckingham & Sons	250 0 0

LONDON.—For tar-painting macadam roads, for the Westminster C.C. :—

*Sutcliffe & Son, at following rates :—

	Tar-painting and blinding with Granite chippings. sq. yd.	‡ in. Crushed ballast. sq. yd.	Rolling. sq. yd.
Class 1 roads ..	2.65d. ..	2.24d. ..	0.16d.
Class 2 roads ..	2.86d. ..	2.45d. ..	0.20d.
Class 3 roads ..	3.19d. ..	2.78d. ..	0.24d.

LONDON.—For strengthening floor of wheel-wright's shop at Ebury Bridge-road garage, for the Westminster C.C. :—

Walter Lilly & Co., S.W.	£165
T. & W. Heath, Ltd., Chelsea, S.W.	135
*Townsend & Pearson, Ltd., W.1	125

MORPETH.—For erection at Morpeth Grammar School of three houses. Mr. G. Reavell, architect, Lloyds Bank Chambers, Alnwick :—
General contractors—
G. & C. Haswell, Morpeth.
Electric wiring—
Hudson, Morpeth.

NEWPORT (MON).—The Newport (Mon) B.C. has accepted the following tender for taking down existing Usk Bridge and reconstructing bridge (five arches with steel girders) on the site within 24 months :—
Sir William Arrol & Co, Ltd., Glasgow £140,275 10
Note.—If certain alternative suggestions from the firm are accepted by the B.C. as to construction, the cost will be reduced to £122,275 10s.
The accepted tender is within £275 of the estimate of the Council's Engineer.

PONTARDAWE (GLAM.).—The Pontardawe R.D.C. has accepted tenders as follows for erection of 24 houses on the Colbren-road site :—
Three blocks, Type "G"—
John Williams ..... each £974
Two blocks, Type "H"—
John Williams ..... each £1,190
Four blocks, Type "A"—
David Evans & Sons ..... each £1,160
One block, Type "F"—
David Evans & Sons £2,230
One block, Type "G"—
David Evans & Sons £990
Roads and sewer construction—
David Evans & Sons £470

PORTSMOUTH.—For alterations and reconstruc-tion at 15, Clarendon-road, for Messrs. Fraser & Whites, Ltd. Messrs. C. W. Bevis & Son, architects, Elm-grove Chambers, Southsea :—

John Lay & Co.	£1,674
F. J. Privett	1,527
S. Salter	1,408
Frank Bevis, Ltd.	1,360
Jno. Croad	1,350
*Tanner Bros.	1,200

PORTSMOUTH.—For the erection of houses on Portsdown Hill, for the T.C. Mr. A. W. Ward, Borough Engineer:—

For 40 houses in groups of four—			
Pitts	£31,000	0	0
Hunt	28,249	7	6
Winnicott	27,410	0	0
E. & A. Sprigings	27,320	0	0
John Lay & Co.	25,844	0	0
Bodle, Ltd.	24,679	0	0
*Howe & Bishop	22,910	0	0
For 40 houses in pairs—			
J. Hunt	£28,430	18	4
E. & A. Sprigings	27,800	0	0
Winnicott	27,720	0	0
John Lay & Co.	27,194	0	0
Bodle, Ltd.	24,759	0	0
*Howe & Bishop	23,200	0	0
Twelve houses in pairs—			
J. Hunt	£9,464	16	6
Winnicott	9,000	0	0
E. & A. Sprigings	8,880	0	0
S. Salter	£8,710	0	0
John Lay & Co.	8,298	0	0
Warne & Ogden	8,180	0	0
Bodle, Ltd.	7,998	0	0
*Howe & Bishop	7,187	0	0
Eight houses in pairs—			
E. & A. Sprigings	£6,432	0	0
Winnicott	6,360	0	0
J. Hunt	6,358	1	4
S. Salter	6,150	0	0
John Lay & Co.	5,736	0	0
Bodle, Ltd.	5,416	0	0
Warne & Ogden	5,210	0	0
*Howe & Bishop	5,093	0	0

ROCHDALE.—For external painting of 22 houses, for the T.C. Borough Surveyor, Rochdale:—

Arnold Sharrocks, Spotland Bridge, Rochdale.

ROCHDALE.—For construction of 780 yds. of 36 in. and 30 in. diameter outfall sewer, with cast-iron and reinforced concrete pipes, together with 30 yds. of brick sewer 9 ft. diameter and overflow chamber, for the T.C. Mr. S. H. Morgan, Borough Engineer, Town Hall, Rochdale:—

J. J. Blackburn, Winton, near Manchester.

SCRUTON.—For erection of house, for Mr. Henry Smith. Mr. W. Watson, surveyor, Market-place, Northallerton:—

D. Oakley, Northallerton, Yorks.... £1,095

STAFFORD.—For erection of 20 non-parlour type houses, Lemmascote Housing Estate, for the Corporation. Mr. W. Plant, Borough Engineer, Borough Hall, Stafford:—

*J. Cooke (Longport), Ltd., Longport, Stoke-on-Trent £8,735

TIVERTON.—For diversion of section of Uffculme to Culmstock road, for the R.D.C.:—

*T. Williams £1,480

TRURO.—For supply of 320-gall. horse-drawn tar sprayer, for the T.C.:—

*Hosken, Trevithick, Polkinhorn & Co... £135

WALSINGHAM.—For erection of twenty cottages, Briston, for the R.D.C. Mr. W. O. Humphery, surveyor, Fakenham, Norfolk; quantities by Mr. W. O. Humphery:—

Youngs, Norwich	£10,342
R. Carter, Drayton	10,080
R. Claxton, Wighton	9,979
J. H. Thompson, Grimsby	9,777
E. J. Smith, Bunwell	9,600
Fisher & Sons, Fakenham	9,600
S. Hodge, Bury St. Edmunds	9,522
Royall & Jex, Holt	9,418
T. Blyth & Sons, Foulsham	9,297
*J. W. Palmer, Aylsham	9,272

WELLINGTON.—For the erection of 32 houses, for the U.D.C.:—

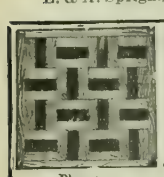
*Eadie Towers & Co., Wolverhampton £13,978

WORCESTER.—For the erection of 16 houses on the Bromyard-road site, for the T.C.:—

*F. T. Surman £5,072

WORCESTER.—For painting and restoration of stonework in front of public hall, for the T.C.:—

*C. H. Kimber £298 15


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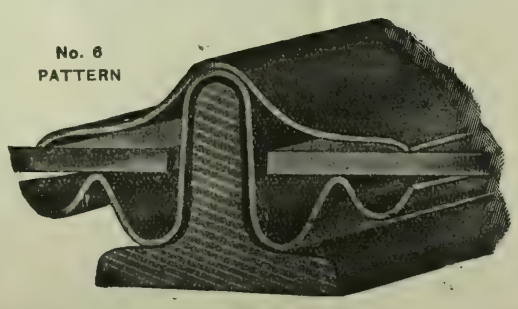
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PROFESSIONAL UNITY

WE briefly referred in our last issue to an agreement on the subject of Registration and the absorption of the Society of Architects which has been approved unanimously by the Councils of the Royal Institute of British Architects and the ty of Architects and by a conference of the Allied Societies, hich was subject to the revision of the document by the ty's legal advisers. This revision, we are glad to state, aken place without any material alteration, and we give, 683, the document in its approved form. The agreement o be put before the general body of the Institute as the issue on which the Council propose to take the opinion e electorate at the forthcoming R.I.B.A. election and, of e, the vote may be hostile, though we shall be very much ised if such a satisfactory and scarcely to be hoped for t of the long and difficult negotiations which have taken does not receive the support of a large majority of the rate. If it does, then the general meeting necessary to m the agreement will be held at once, and at last we may nably hope for a solution of the most urgent of the problems have confronted the architectural profession since the tion of the Society of Architects nearly forty years ago t is, assuming, as we again hope, that the members e Society will approve of the scheme, as they will have portunity of doing, subsequent to its confirmation by the al body of the R.I.B.A.

he proposals contained in the agreement have already been adowed in the daily press, and have been the subject icism which has not always been well informed, and which ometimes suggested a readiness to prejudice the issue the material facts are known. We have been familiar he proposals for some time past, but it has not appeared desirable to refer to them until the two Councils had eted their negotiations and their proposals were before rofession. The most notable part of the agreement is roposed absorption of the Society by the R.I.B.A., and ist surely accept this as a wise and inevitable result if sh to see the profession take its right place with other sional and representative bodies in relation to the public Government. The proposal is supported by most of the s of the profession largely because of the greatly increased tance and value which will be given to the standing and of one representative society in dealing with matters ich it is desired to influence public opinion, apart from n addition to the question of Registration. Upon the aspect of the proposal the Council of the R.I.B.A. have, e advice of their Parliamentary Agents, consulted Mr. d Shortt, K.C. (late Home Secretary), and his opinion t the dissolution of the Society of Architects and the sion of its members into the R.I.B.A. would immensely then the hands of the R.I.B.A. in the promotion of a ration Bill. "Coming to Parliament," he says, "as would, for the protection of the public as well as for their better regulation, they would speak with the united and nous voice of the whole profession. I am of opinion heir chances of success would be infinitely greater than would be in present circumstances." This opinion cannot be ignored, and this conclusion and the details of the agreement can be heartily commended to the consideration and support of the electorate. The existence of two societies each nullifying the efforts of the other in an attempt to represent the profession and duplicating work which can be properly carried out only by one society acting for the welfare of its members is an anomaly which has undoubtedly had a prejudicial effect on the profession, and has had little to justify it, and it is a notable achievement of the two Councils to agree that for the good of the profession as a whole the interests of all will be best served by amalgamation, and upon such an agreement both Councils can be warmly congratulated.

In saying this we are not oblivious of the fact that this may not be the opinion of all members of the two bodies, and that some of the details of the agreement may not be acceptable to all parties. Indeed, we already know that the agreement is being opposed, but we hope the opposition will very carefully consider the position and will sooner or later agree that the acceptance of the agreement is the broad and enlightened view to take. Surely all members of the Institute must wish for agreement amongst themselves, that they may be able to leave the methods of politicians to other people, and that the Institute may be free to devote all its efforts to the promotion of architecture and the interests of architects.

From the standpoint of the individualist this may not be an ideal world in the sense that we can ensure the fulfilment of our own ideas without regard to the views of others, and it is probably a better world for that reason. That we have to make compromises before we can achieve objects in view is the experience of most of us. We have seen the formation in the Institute of two parties of able men in whose sincerity we must believe just as we believe in their desire to promote the interests of their profession and the body representing them. Both wish, we must suppose, to reach the same end, but they do not agree as to the methods.

The majority of the profession undoubtedly want Registration, and by means of the agreement we have apparently the only way of securing what we want. Can we, therefore, go back to the position we occupied before the Institute endorsed the demands of Registrationists? We believe the members of the Institute will agree that we cannot, and that they will support the agreement is our hope and belief.

Of the value of Registration we are not now speaking, but only of one clear and available means to that end. In our desire for the improvement and elevation of the professional status and the advancement of the art itself we should surely keep steadily in mind the goal at which we are aiming. Does anyone doubt that to some extent the welfare of the profession and the art is likely to be achieved by differing means? We all realise only too well that the highest achievements in art and the best pecuniary success are seldom to be found along the same pathway, and the old question of whether architecture is an art or a profession still remains. For the moment we are not discussing that question, and we can only hope that the move now being made will prove as beneficial to the profession as the promoters of Registration desire and more beneficial to the art of architecture than its opponents have feared.

NOTES.

How Not to Get Houses.

POLITICS have much to answer for, and we are sure Sir Ernest Benn is right when he blames the political fog for obscuring the housing problem. He believes Mr. Lambert (to whose letter we referred last week) to be entirely right in attributing the present anomalous position to the attempted use of politicians instead of builders as a source of supply for houses. Very emphatic and telling is the way in which Sir Ernest puts the matter. He says the next generation will understand that the way to get houses is to say "We don't want a house. Take it away, it is too dear, we can do better next door." The result will be as it always has been in every market in every age—we shall get an ever-increasing supply of what we want. The present position is destroying potential houses at the rate of hundreds a week. This will continue to an increasing degree so long as we think that houses can be built with votes. It is worth quoting a paragraph from Sir Ernest Benn's letter to the *Times* on Tuesday: "Can anyone deny that if the housing market had been as free as the market in books or newspapers, if the Statute Book had not been encumbered with the 390 Acts of Parliament which provide for the housing of the working-classes, if the enterprise which has been devoted to the making of books and newspapers had been turned on to houses, we would now be embarrassed with the choice of three parlours in which to sit, and a different size of bath for every size of baby?"

Payment by Results.

WHAT we have already emphasised is borne out by the pertinent question of Mr. E. D. Simon from the House of Commons, viz.: "Is the Government prepared to accept and to subsidise out of public funds for fifteen years a scheme based on about half the output per year that can be reasonably expected?" The estimate of the report of the National House Building Committee in the proposed housing scheme works out at less than three hundred bricks per day. Should a payment by results not be insisted on in return for subsidies which are to be given?

Northern Polytechnic Institute.

AN instance of the more humanistic influences penetrating the teaching of craftsmanship is seen in the very excellent examples shown at the Building Exhibition at the stand devoted to the work of pupils of this Institute. How directly good results may be reached where the pupil is left with freedom enough for his own aptitudes to find expression is noticeable in the carved stonework, of which there are various good examples. G. Rainbird (aged 16), one of the students, shows a small headstone which might serve as a model of what is desirable, being entirely delightful both in design and treat while there is the right feeling of and simplicity that befits its pur What a difference could our ceme be furnished with tombstones of no becoming character! Other examp incised lettering on stone are of character and reflect much credit o conduct of the Institute. The ten now becoming general for the sc and institutes to promote this feeling in craftsmanship is of good a for the future, for the truest craftsma is generally found to accompany th feeling for design and they grow o each other. The particular headsto which we refer has a shaped he agreeable proportions with a small w at its centre in relief and the inscri panel raised from the ground.

Architecture Club Lectures.

PERHAPS another yea Architecture Club will more encouragement t tors to their exhibiti attend the lectures arr in connection with it, and in so doin more encouragement to their lecturer Except for an inconspicuous list s into the catalogue there seeme announcement of time or subject lectures, and not until a hardy pion two had penetrated the tenebrous s of the lecture room were others indu enter. A notice at the entrance cerning the lectures would not viol dignity of Grosvenor House, and doubtless affect the numbers attend

"Modern Tendencies in Building."

PROFESSOR RICHAR who gave the final le is of course an enth as well as a scholar. over, he credited h scanty audience with a certain amo knowledge and interest, and (un previous lecturer who assumed the ence of neither) added to both. pointed out that the present te towards greater simplicity in bui domestic and otherwise, was gained by the discipline of e economy. Due acknowledgmen given to the Victorian architects whose work modern English archi could not have reached its promising position.

Advertisements at Wembley.

THE shortsightedn those in authority s last to have arousec indignation. It is a ing that the Wembley authorities have so little taste—so little s fitness—as even to consider t miscuous use of the buildings as tisement backgrounds. We unc that public opinion has had its eff that the firms concerned are b proached with a view to the ren



Lock, Old Chest in Church at E. Dereham, Norfolk.



Chest, Coyty Church, Glamorgan.

lisfiguring advertisements. We that every one of these firms will nise that it is not good business to ronise the public, and that those in ol of the exhibition will take a much d lesson to heart.

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portion Public ussion.

The subject of the London Bridges and the City Churches—of so much general interest—has led to much public discussion, but otice a tendency to defeat its own , that of reaching a right decision, the exponents of different views have en taken no pains to understand other a little better before rushing rint. Architects, speaking with a d voice and divulging the want of on ground between them, weaken ect of what is said—the influence of own counsels—through want of ient among themselves. A further om which is not, we think, to the tage of public discussion is the statement which accompanies op- points of view. When we are told hasise an argument that Waterloo is the finest bridge in the world, n in defence of City Churches we heir merit—which really needs no pecial pleading—far beyond what reasonably granted about them, aken the cause we have at heart. rightly asserting the historical and ctural worth of the City Churches, ht not to forget that, though so f their kind—it would be sheer ism to remove any of them—they ttle yet of such quality as attaches iæval ecclesiastical building. As- n had developed into a prose of ois security and convention which no such measure of beauty to the spirit as the freedom of earlier bestowed. And so with John 's fine bridge, somewhat "dour" unconciliating bluntness, hardly l by lightness or romance, which this same later, more Puritan,

Sir John Soane.

An admirable monograph of "The Works of Sir John Soane" has just been issued, and should form a very just and fair epitome of the distinguished architect's work. If his work did not afford any great impetus to the development of modern design, we can at least find a lesson of encouragement in his whole-hearted devotion to his profession, and a definite promotion of the study of refinement in architectural productions. No one has more thoroughly assimilated the knowledge of the man and his work than Mr. Arthur T. Bolton, who has produced this interesting and well-produced monograph, the result of the Soane Museum publications, and at the very moderate price of six shillings and sixpence.

Hanging Committees.

The suggestion put forward by Mr. Hesketh Hubbard that there is room for improvement in the methods and choice of hanging committees, who being composed entirely of artists tend to narrow the choice to a rather restricted professional view, has much to be said for it. A certain kind of technical facility, often not at all the best—a facility that is often not faculty—may obscure the presence of other qualities in the minds of such committees, so that their action may encourage a somewhat low average rather than the best. The writer suggests that it would give more breadth to their decisions if such committees included those who were not artists, men of outside acquaintance with art, perhaps the connoisseur and the art critic; an influence more detached in its approach, to obviate the prejudices so often haunting the professional artist. Perhaps there would be fewer pictures painted—we hear of 10,000 being sent to the R.A.—if encouragement were not so much shown to a certain order of technical skill fostered through the schools, but of inferior rank as art. We think the suggestion for an infusion of new blood would lead to results beneficial to exhibitions and correct the rather contracted professional standard which encourages over production, and is a direct cause of the enormous quantity of pictures of no particular inwardness beyond a certain kind of technical assurance which it fosters. If committees were enlarged to include those who were not artists, the man of taste, &c., a new complexion would soon be manifest in the arts.

British Empire Exhibition Honours.

Those who have had an opportunity of seeing the lay-out of the British Empire Exhibition at Wembley, and the buildings which have sprung up on the site with such rapidity, will welcome the honour of Knighthood which the King has been pleased to confer on Mr. John W. Simpson, PP.R.I.B.A., who (with Mr. Maxwell Ayrton, F.R.I.B.A.) has acted as architect, and Mr. E. O. Williams, the engineer, as two of the most deserving honours announced for some time. Sir John Simpson and Sir Evan Williams are to be congratulated on having successfully carried out what is undoubtedly the biggest building scheme the world has ever seen, not only in an extraordinarily short space of time for a work of such magnitude, but in a material—reinforced concrete—which has not been previously used for such monumental buildings.



Panel on Old Chest at Coyty Church, Glam.

GENERAL NEWS

Professional Announcement.

Mr. Wilfrid L. Evershed, chartered quantity surveyor, has taken offices at 19, Buckingham-street, Adelphi, London, W.C.2.

Mr. Kenneth Glover, M.S.A., will be pleased to receive copies of catalogues and prices at 11, Saville Chambers, North-street, Newcastle-upon-Tyne.

Schools at North Heaton.

The Education Committee, subject to the necessary sanctions being obtained, has invited Mr. H. T. Wright, F.R.I.B.A., to accept the post of architect for the proposed secondary schools at Heaton.

Town-Planning Schemes.

This pamphlet* is badly needed. It includes a brief description of the general objects, scope, and contents of town-planning schemes under the Town-Planning Acts, 1909 to 1923, and of the procedure to be followed in preparing them. To define the ground covered we cannot do better than quote from the introduction :—"The preparation of a Town-Planning Scheme does not imply as is sometimes supposed an intention to cover the whole of the land in question with buildings, or to make a somewhat elaborate housing scheme, nor does it necessarily involve the local authority in immediate expenditure on works of any kind. Its object is to provide that development, if and when it takes place, shall be in accordance with a plan which has been prepared in the interests of the community as a whole, industrial and commercial as well as residential, land owners as well as tenants, and thus help to secure for the future, so far as reasonable foresight can do so, the welfare and prosperity of the district and its inhabitants. The plan should fix, in broad outline, the areas to be used for industry, business and residence, the principal roads and open spaces, the number of buildings to the acre, and similar matters."

Due stress is laid upon the importance of securing the good will of all the affected interests at the outset, and architectural and archæological societies are not overlooked. Town planning is so little understood and is so often confused with housing, building, and with other definite works that we hope this lucid and excellent pamphlet will be widely circulated.

Applied and Fine Arts Competition.

In the House of Commons last week, in answer to Mr. Birkett, who asked whether he would consider revivıng the national competition open to all the art schools in the country for applied and fine arts, which was suspended in 1916 as a measure of economy, Mr. Trevelyan, President of the Board of Education, said the form and scope of the national competition were under consideration before the war, and he was quite willing to review the matter in the light of present-day conditions.

Building Prices.

In its report for March the inter-departmental Committee of the Ministry of Health states since February an advance of 2s. per thousand in the price of bricks is reported from Willesden, and an advance of 5s. per thousand from Leeds, so that taking into account the increases referred to in the chairman's report for the month of February, advances in the price of bricks have been notified since January of this year from seven out of the twelve centres selected by the Committee.

There has been a further sharp rise in the price of lead, and sheet lead, for example, now stands at a figure, based on the average of the returns received, of approximately £48 per ton as against £36 in April, 1923.

* "Town Planning in England and Wales" (London: H.M. Stationery Office, Imperial House, Kingsway.) Price 4d.

COMPETITION NEWS

Holmside and South Moor Hospital.

The awards in connection with the architectural competition held by the welfare organisation of the Craghead and Holmside, and the South Moor Collieries, for designs for the erection of a cottage hospital between South Moor and Craghead, have now been made by Mr. T. R. Milburn, of Sunderland (who was appointed by the R.I.B.A. as assessor), and are :—

1.—(£75), Messrs. H. T. Buckland and Wm. Haywood, Birmingham.

2.—(£50), Messrs. Shannon & Son, Malton, Yorks.

3.—(£25), Graham R. Dawbarn, London.

The first premium carries with it the appointment as architects for the building, the estimated cost of which is £12,500. In all 77 designs were submitted.

The design placed first is given in this issue, and a review of the designs submitted appears on p. 669.

Monument to the Missing, La Ferte.

The assessor Sir Aston Webb, has given his award in this, the first competition organised by the Imperial War Graves Commission, to the design by Major G. Hartley Goldsmith, M.C., A.R.I.B.A.

Essays on Concrete in Agriculture.

The following awards have been made by Concrete Utilities Bureau, in this competition

Competition A (Students of Agricultural Technical Schools).—1st prize, £20 : David Adam, Ladesford, Forfar, Scotland. 2nd, Alfred John Carter, Frost Barn Cottage, leigh. 3rd, £5 : Eric Arthur Poulter, 50, Ac road, Bishops Stortford. Hon. Mentions, each : Alexander Calder, St. Mathew D Aberdeen ; Jas. Wm. Pestings, 164, Wednesf road, Wolverhampton ; John F. Wanhill, Grosvenor-road, Muswell Hill, N.10 ; A Dowrick, Higher Town, Truro ; Wm. S. Ro Queen's College, Cambridge.

Competition B (for all other than Studen Agricultural or Technical Schools).—1st £20 : John Sanders Bray, F.S.I., 18, C dral-yard, Exeter. 2nd, £10 : Alex. A. Will son, 55, St. Swithin-street, Aberdeen. 3rd, Capt. Wm. J. Pulford, Dorrington, Salop. Mentions, £1 each : Frank Hewitt, F Council Offices, Kiveton Park, near Sheff L. J. Pond, 5, Draper-avenue, Eccleston, Chorley, Lancs ; P. E. Wilson, 30, Mad road, Ealing, W.5 ; D. N. Hardy, 49, Grosv road, West Kensington, W.14 ; Edward away, The Orchards, Chalfont St. Peter's, B

Bridgeton, Glasgow.

The Corporation propose to offer premiums, amounting in all to £375, t architects whose designs are placed first, se third and fourth in connection with the ere of halls at Bridgeton. Mr. James Loch Hamilton, President of the Glasgow Institu Architects, will act as assessor and adjudica the designs. The estimated cost of the buil must not be in excess of £25,000.

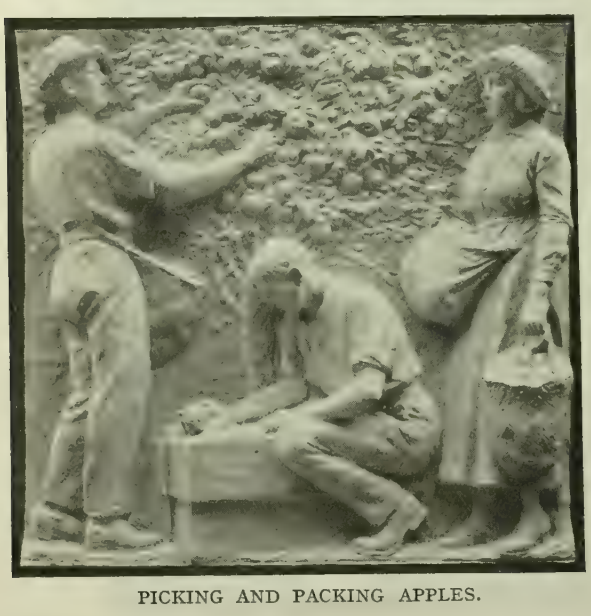
Other Competitions.

Other competitions still open include following (the dates given are, first the se in date, and second the issue of *The Buil* which full particulars were given) :—Indu Designs (June ; Dec. 21, 1923). Ross Memorial (Sept. 30 : Feb. 1). Glasgow Hall (July 4 ; April 11).

Books Received.

HANDBOOK No. 19, STRUCTURAL (Messrs. R. A. Skelton & Co., Moorfields.) 5s. net.

SURVEYORS' TABLES AND DIARY. and re-written by a Fellow of the Surv Institution. (Messrs. Metchim & Son Clement's-lane, E.C. 4.) Price 2s. 6d.



PICKING AND PACKING APPLES.



A HARVEST SCENE.

Panels on the New Zealand Pavilion, British Empire Exhibition.

MR. A. R. FRASER, A.R.B.S., Sculptor. (*See p.* 673.)

SOUTH MOOR COTTAGE HOSPITAL COMPETITION

A CRITICISM BY AN ARCHITECT

uth Moor is a long, straggling street of rs' dwellings a Co-operative Store, Post e, a large block of buildings consisting of ry offices and manager's house, and an tectural monstrosity called a miners' hall. a village, typical of hundreds of others, ed in a most un-get-at-able spot in the of the Durham coalfields. One has only there by road, on the ubiquitous motor- to realise the necessity for a hospital more sible than the Royal Victoria Infirmary, astle-upon-Tyne.

elieve I started out in fairly good health, y the time I arrived at South Moor the of Durham's A1 roads and no less A1 was distinctly noticeable. What it must e to a wounded man, or an ailing woman, notor ambulance on these A1 roads for two l hours one "trembles to think." On l I found the miners' hall locked up, and istodian, a very obliging man, away to , and no one seemed to know where he Having come so far, however, and led in such comfort, I was not in the mood hampered by any small obstacles, so I d in through a window, much to the ment of a crowd of small urchins, and the ation of the worthy custodian when he ally arrived.

ntering the miners' hall, where the draw- ere more or less on view, one's first impres- as of the immense waste of labour which ne to the making of this perfect sea of gs. There must have been 500 drawings t, for a job estimated to cost £12,500. pression created in the public mind by ibition of this kind must be one of utter rment, that some 70 members of an able profession are willing to waste both d money in a contest of skill, where the ration for the majority is nil, and for the a sum which will barely cover his standing and expenses. No wonder the public understand what an architect stands for, preciate the amount of money and years that go to making him what he is.

n as a whole, the standard of excellence lesigns submitted in this competition is he average, and there is very little that or of particular interest to those who ade a special study of hospital planning. by Messrs. H. T. Buckland & Haywood, ingham, owe their success in no small to a really beautifully drawn and l perspective view, covered all over with ts in varying colours, which must be a to the uninitiated. The architecture onts is disguised and the good grouping is sed in this drawing with consummate t is quite the best drawing in the room. ve a simple, straightforward plan, andi lding is well placed on the site as regards The wards are not disconnected from inistrative block, and they have solid th no ventilation under them—a some- astic departure from hospital practice. nd w.c.'s have no aerial cut-off from nd no duty rooms adjoin the wards. bedrooms are on first floor and access rom men's side and without supervision practice. The kitchen, 20 by 15, is big, and store and larder are inade- A laundry 19 by 10, and no washhouse ng room seems also inadequate.

evations are poor and suffer by com- with the design placed second; the e of 210,112 is priced at 1s., at which is very doubtful if this scheme could l out.

by Messrs. Channon & Son, of Malton, very similar in plan to the first, but ms are better placed. No cut-offs for c.'s and sink rooms. The architecture etter than the first, but the perspec- hardly does justice to it. The eleva- beautifully drawn, and very ably designed. Again, solid floors to wards and no ventilation. Total cube 186,842, priced at 1s. 3½d. It is difficult to see what has prevented this scheme being placed first.

No. 39, by Mr. G. R. Dawbarn, London, is a very able and well-grouped cottage hospital plan, surrounding a forecourt on the north. Operating, anæsthetic, X-ray and surgery are not so well-grouped and arranged as in the first two plans. The wards are a bit narrow at 22 ft, and 100 ft. super per bed is on the small side. The design is architecturally poor, and the perspective view quite inadequate. Priced mainly at 1s. 6d.

To come now to the "also ran." There are very many, and I have selected only a few which specially appealed to me. By the way, designs 1, 2 and 3 are, curiously enough, mounted neatly on strainers, while a great many are mounted on any old thing, or not mounted at all. It is sometimes important that an assessor should see one's drawings, and anything that will assist him in doing so is desirable. Another thing: one would have thought that the total cubic contents of a design might also be of interest to an assessor, yet, even in the winning design he has had to do an addition sum before he could arrive at it; and in many others I defy him to arrive at it at all, notably in Messrs. Brierley & Rutherford's scheme. If one is satisfied with the lowness of one's cube, one should have no mock modesty about stating it clearly.

No. 52, by Mr. W. N. Scaife, Newcastle-upon-Tyne. This is a fairly simple and straightforward scheme, a bit lacking in unbroken frontage lines. Bath, sink room and w.c. very well arranged, but not cut off as they should be. Duty rooms properly placed, nurses' block the best in the room, operating room, surgery, anæsthetic and X-ray rooms not well grouped. If this author will only appreciate the value of unbroken frontage lines, and, above all, simplicity of plan, the most difficult thing of all to attain, he will go far in competitive work. Mr. Scaife's architectural treatment is distinctly good, but lacking in simplicity and breadth of vision. His grouping is excellent. Total cube satisfactory; priced at 1s. 2d. This design was commended by the assessor.

No. 9, by Mr. George Hollins, of Newcastle, Staffs. This competitor has the distinction of being about the only one in the room to make any attempt to isolate his ward blocks from the administrative buildings. This I consider a serious defect in all three of the selected designs.

No. 51, by Mr. M. Wilson, of Stanley, Durham. All honour is due to Mr. Wilson for his work n this competition. His plan is excellent in many respects, and he has scored where the winners have failed. His sanitary annexes are cut off, wards well-arranged and of adequate size, kitchens cut off, as they should be. Architecturally he fails, and he should study simplicity of plan. He scores on his cube, 170,000 ft., priced partly at 1s. 6d. and partly at 1s. The rendering of his drawings has not helped his chances.

No. 71, by Messrs. Brierley & Rutherford, York. Simplicity of plan and unbroken outline are looked for in vain in this scheme, which is a little disappointing from such a source. The elevations are treated with quiet restraint, and the roofs are very obviously covered with pantiles. The plan is disappointing; the perspective does not help matters.

No. 73, by Mr. T. W. Sharpe, Dewsbury. This is a very fine scheme indeed, and it is difficult to see why it has been overlooked. The departmental planning is excellent. The kitchen and laundry blocks have been most carefully thought out, for the work to be done in them. Architecturally it is just what it should be, a cottage hospital. The perspective view is perhaps a bit too gorgeous, but when one had got over the shock of the brilliant landscape, and its more than brilliant rendering, it does show a well-designed hospital. So far as one can make out from the somewhat involved statement of cubic contents, they are all right, and I should have had great difficulty myself in getting past this scheme, on which the author is to be congratulated.

No. 7, by Messrs. Hays & Gray, of Durham. Rightly commended. Elevations infinitely superior to design placed first, and plan very able indeed. Cube rather high at 212,160.

No. 50, by Mr. J. A. Minty, London. Plan somewhat over-departmentalised. Too broken-up and unconvincing.

ARCHITECTURAL ACOUSTICS

Mr. S. A. Hurren recently lectured at the Northern Polytechnic Institute on this subject. In the course of his remarks he said the most helpful method of gaining an insight into the science of acoustics was to visualise phenomena, and endeavour to understand the actual physical movements of the air during the propagation of fongitudinal sound-waves. To that end they must know something of the kinetic theory of gases, something perhaps that would be difficult to realise, but well worth the trial.

Taking the diaphragm of a gramophone sound box as a familiar vibrator, let them consider what happened when it moved inwards just once. The molecules of air lying immediately against the diaphragm were momentarily crowded together, or condensed. Now they were aware if someone in a crowded lift pushed them from behind, they unavoidably pushed the person in front of them. He, in his turn, pushed the man in front of him, and so on, right across the lift. This was exactly what happened to the air particles. The "push" was passed on, or in other words, energy was transferred. By the time that the initial "push" had travelled four feet, a diaphragm sounding "Middle C" must send out another one, and go on sending them out at regular intervals. By the end of one second it would have sent out 261 of these shocks, the first of which would have travelled 1,100 ft.

In the wireless broadcasting studio at Medford Hillside, the walls and ceiling had been covered with a half-inch layer of camel-hair padding, to give the lines of sound no chance of being strongly reflected. At Savoy Hill the studio had a thick green carpet, and the walls and ceiling were loosely draped with curtains. Beneath the curtains there are six layers of felt, set an inch apart on light framework. Nearly four tons of it were used in this way, reducing reverberation to a minimum. The result was a little disappointing to a singer, who felt that his voice had lost some of its power, but excess of reverberation would be far more distressing. The best materials for absorbing sound-waves, instead of reflecting them, such as felt, cork-dust or Cabot's quilting, were absorbent by reason of myriads of little air-pockets.

The late Wallace Clement Sabine of Harvard University made most thorough researches into the subject of reverberation, and came to the conclusion that quantitative measurement of the co-efficient of absorbency of all the materials presented in an auditorium rendered necessary the use of a standard unit of absorbency. A square metre of open-window space was chosen for the purpose. For experimental purposes Sabine used at first a Gemshorn organ pipe (C512), sounding it until the hall was full of tone, then suddenly cutting it off. The subsequent period during which the residual sound remained audible was measured by aid of the human ear and a delicate chronometer. The intensity of sound produced in the hall by the particular pipe employed was calculated to be a million times that of minimum audibility. From hundreds of prolonged and tedious experiments, Sabine found definite values for the co-efficient of absorbency of all common materials including the furnishings and the audience.

CORRESPONDENCE.

The North Transept of Westminster Abbey.

SIR,—Professor Lethaby, in his article, "Westminster Abbey Re-examined," in your issue of March 7, refers to my paper published in the R.I.B.A. Journal of December 18, 1920.

I had hoped that he would on its publication have reviewed the conclusions arrived at in 1906, published in his interesting work, "Westminster Abbey and its Craftsmen." In this he condemns, in good round terms, the late John L. Pearson's restoration of the façade of the north transept on the grounds that it was not in accordance with the original design.

In 1882, as a candidate for the R.I.B.A. examination, I made a special study of the Abbey, and since then have taken a keen interest in everything relating to it. I had told my students in New Zealand that by means of study of old prints, documents, and careful examination of original stones, the restorers had given to us, as far as was possible, the beauty with which Henry III and his artificers had originally endowed it.

It came, therefore, as a shock when reading Professor Lethaby's book on arriving in England in 1920 to find that he held diametrically opposite views. A fresh review of available evidence suggested itself.

All the prints in the British Museum, the Guildhall, and R.I.B.A. Library, together with the Batsford and other collections, were examined, and a large number—I think 21—photographed and deposited in the R.I.B.A. Library for reference. Evidence remaining in the building was examined, and the result published in the Journal with a selection of the essential prints. Throughout the investigations I had the great advantage of consultation with Mr. A. D. Sharp, who had been Mr. Pearson's assistant in the work of restoration, and he kindly allowed me to inspect those original drawings which bore upon the subject.

The result led me to believe that the opinion to which Professor Lethaby committed himself in 1906 was open to question, and that on re-examination he would have reason to alter his views. But he tells us in his article of March 7 that "it is dreary work arguing again over conclusions which are denied," and brings forward instead a newly discovered Westminster School Seal as conclusive evidence that his previous contentions are right.

The seal is of such great interest that I hope you will publish an impress of it. But can it be regarded as reliable evidence as to the exact form of the original work? I think not; and Professor Lethaby himself thinks not when he considers the representation in it of the rose window. In reference to that he says, "Because of the small scale only about half of the number of the divisions were given in the tracery." Should we not, therefore, be justified in assuming that for the same reason only four arches are shown in the arcade under the rose window instead of five? This may or may not be, but it certainly cannot be claimed that the seal which is shown to be absolutely wrong in one particular is absolutely right in another.

Everyone will, of course, admit Professor Lethaby's contention that the north front of Westminster was based on the west front of Amiens, and corresponds with it in many parts. It was never a copy of it: the proportions of it are quite different.

I have no notes or references with me, but I hope that on my return to England you will permit me to lay before your readers the evidence gathered.

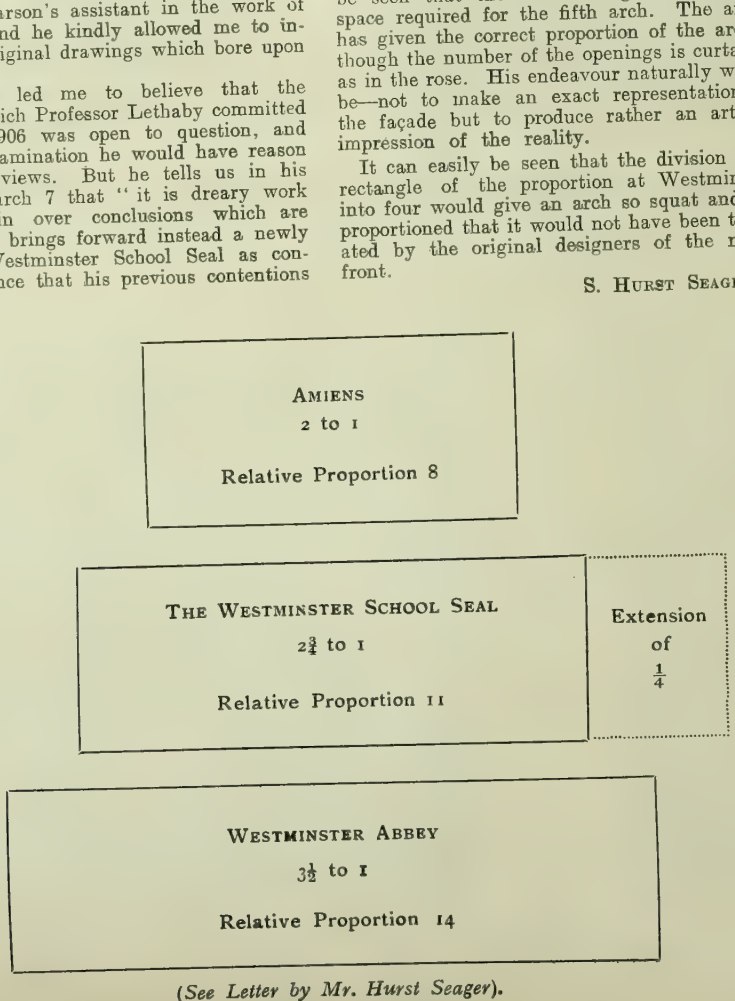
In the meantime I would point out that the proportion of the rectangle in which the arcading is placed at Amiens is 2 to 1, the width being twice the height; consequently each of the four arches that it contains has a height of double the width—a pleasing proportion.

The proportion of the rectangle at Westminster is $3\frac{1}{2}$ to 1. The proportion on the seal is $2\frac{3}{4}$ to 1. The relative proportions thus being Amiens 8, the seal 11, Westminster Abbey 14. This extra height on the seal in relation to the width allows four arches to be represented in a more pleasing form than would be the case if the rectangle were shown correctly.

If the rectangle of the seal is extended so that the width is $3\frac{1}{2}$ times the height it will be seen that the extension gives the exact space required for the fifth arch. The artist has given the correct proportion of the arches though the number of the openings is curtailed as in the rose. His endeavour naturally would be—not to make an exact representation of the façade but to produce rather an artistic impression of the reality.

It can easily be seen that the division of a rectangle of the proportion at Westminster into four would give an arch so squat and ill-proportioned that it would not have been tolerated by the original designers of the north front.

S. HURST SEAGER.



(See Letter by Mr. Hurst Seager).

The Institute and the Society.

SIR,—The particulars which appeared the newspapers recently did not emanate f the Society or from anyone connected wit You appear to have got hold of the wrong of the stick on a question of procedure v you state that, if the proposals are finally pa by the Society, they will then be put before general body of the R.I.B.A. The agreed cedure is exactly the opposite, and if the posals are approved and ratified by the ge body of the R.I.B.A. they will then be prese to the general body of the Society for consi tion.

C. MCARTHUR BUTLER,
Secretary of the Socie

[**Mr. Butler is, of course, correct, bu were not aware of all the facts when we to press.—ED.]

Thames Bridges.

SIR,—Southwark Bridge, it has repeatedly remarked, is very little used has no adequate northern approach—Q street, which starts from the bridge, termi in Cheapside; and King-street, which cont on, is too narrow to be of use.

If a road were constructed, commenci the south end of Moorgate and terminati Cheapside, opposite to the northern en Queen-street, it would divert a good deal Moorgate traffic from the congested Pr street, King William-street, London route, on to Southwark Bridge. London and its approach roads would be relieve the suggested widening of Princes-street not be necessary.

Some of the Bridge House Estate might, apparently, be more reasonably exp on the suggested road, as it is practicall of the completion of the bridge, rather on the St. Paul's scheme which so many co would be worse than useless.

W. J. H. LEVER

Bradford Masonic Hall Competition.

SIR,—I am not aware how other comp feel over the matter, but just before away on holiday I received a printed notifi to the effect that the above matter has suddenly withdrawn from public competi

Considering the fact that I have already several weeks in working out a satisfactor and elevations on a somewhat cramped difficult site, as I have no doubt others al done, it comes somewhat as a shock to fi all one's energy and time is to be was this manner, and implies a very unreas proceeding on the part of the promoters.

Under the circumstances it seems to m the least they could do would be to grant honorarium of, say, two guineas, to ea *fide* competitor by way of compensation some satisfactory explanation is forth after issuing the invitation to compete. writing them to this effect and only h architectural societies will do something an end to this kind of thing.

ELFRIC H. S

Restoration of Ruins.

SIR,—The last four lines of the stan lished in your last issue, should read :—

"Handle with reverence EACH crumblin
Respect the very lichens o'er it grow
And bid each ancient monument to
Supported E'EN as with a filial hand

C. C. THOMPSON, F.

Future of Clopton Bridge.

Mr. Gosling, Minister of Transport, sented to receive a deputation from t ford-on-Avon Borough Council on the of the proposed widening of the histori Bridge. The matter has given rise t deal of public controversy. The int fixed for Tuesday, the 29th inst. The representatives will be supported by th Surveyor and other officials of the War County Council who favour the schem Borough Council.

QASR-EL-AINI HOSPITAL AND SCHOOL

AN ARCHITECT CONTRIBUTOR.

e problem set before the competitors was means a simple one. Not only is the t of the Hospital unusually large (1,270 with a daily attendance of 3,000 out-nts), but the special conditions, climatic social, differentiate the planning from ean methods in a marked degree. "On nt of the powerful sun which compels losing of the window openings exposed ect rays by louvred shutters during the me, a northern aspect is the most de-e for living, sleeping and working rooms. rn rooms will be darkened by the closed rs in the morning, and western rooms the afternoon, unless protected by las." ("Note on local conditions," supplied to competitors.)

regards local customs, the rigid separa-f the sexes is the dominating factor in heme. No communication for the public patients is permitted between the two ns; while inasmuch as certain important ments (*e.g.*, operation suites and out-t department) must be used in common th sexes, it will be seen that the diffi-are very considerable.

conditions are very clearly drawn up lly detailed, and the information supplied xhaustive as it well could be.

elve sets of designs were sent in, of which re exhibited at Conduit-street, the re-ng three being by French architects.

site is the northern end of Roda Island; n shape is roughly triangular. It is d into two parts by the Avenue de Roda, crosses from east to west for about irds of the width, then turns south; a portion of the larger part of the site s below the remainder southward. The the site forms an isolated piece of land nded on all four sides by roads.

winning design, by Messrs. C. Nicholas Dixon-Spain, shows the whole of the blocks arranged on the west side, with rridor of approach for both the male and n wards. The main entrance to the hos-s on the east, and to get this a large of ground has been sacrificed to form a urved approach, with a roadway extend-the north to give access to the nurses' sters' homes. The ward blocks are de-apparently with a view to avoid gular rooms; the sanitary offices are in a projecting tower on one side of the but neither in the centre nor at the e end, and for some reason not apparent rd units are not aligned, the result being e block partly obstructs the current of tween the two units. The operation are planned in curiously complicated of four blocks, two of which are set at le to the other two. The reason for this apparent, and the result inconvenient.

design placed second, by Messrs. Lan-, Rickards, Lucas and Lodge, shows rd units placed on the east and west with the corridors for access to the nits roughly parallel to the river banks closing a triangular space in which are the operation theatre suites, the central and stores, the administrative offices, resident and home officers' quarters. ut-patient department occupies the part of the projecting part of the site west side, and the isolated site is given o the recreation ground and the 's house. The plan is symmetrical ll thought out.

n No. 10, by Messrs. Percy Adams and —A well devised plan, with the wards n the east and west sides, and with ajor axes not quite so definitely east t as those in the design placed second. in entrance is in the Avenue de Roda, e reception and casualty department. administrative offices balancing one and the out-patient closely adjoining. ter is a compact, well-arranged unit; planning of the anthelmintic depart-the upper floor is not altogether satis-factory. The ward blocks are well planned, and the whole design shows a grasp of the subject and a knowledge of hospital planning.

Design No. 7, by Messrs. H. V. Ashley and Winton Newman, is, as regards the wards, planned very much on the lines of the last two designs, with the difference that the corridors giving access to the ward units are parallel instead of following the lines of the river banks. The effect of this is rather to curtail the space in the centre. The weak part of the design is the planning of the out-patient department, which is bent into the form, roughly, of an **L**. The reason of this seems to be the provision of an open courtyard between the blocks—a quite unnecessary and undesirable arrangement which increases the total length of the block by something like 100 ft. One result is that several of the blocks are lighted from the east and west. The medical school is placed on the south side of the Avenue de Roda, facing the main entrance to the hospital; and the students' hostel is placed at the south, with the sports ground intervening. On the east side of the isolated part of the site is the Director's house.

Design No. 11, by Messrs. Cackett and Burns Dick.—A well-arranged scheme, illustrated by a remarkably fine set of drawings. The wards are placed along each river front in a similar way to those in Messrs. Lanchester, Rickards, Lucas and Lodge's design, the male section being on the west and the hareem on the east. The sisters' and nurses' homes are at the north end of the Island, a position adopted by several of the competitors, and which seems, for many reasons, the most appropriate one. In the out-patient department the waiting courtyards for patients seem unduly curtailed by the authelmintic department, and the sanitary offices attached to the latter would have been better distributed in groups, so as to be easier of access.

Design No. 6, Mr. Vincent Harris.—In this plan the wards are planned on each side of a central double corridor, with dividing wall. This corridor runs approximately north and south, and the wards have their longer axis east and west. The ward blocks leave much to be desired in the way of planning; the interposition of the escape staircase and the sanitary offices between the ward and the veranda is a mistake, and the ward offices at the entrance end of the unit are not conveniently arranged.

Design No. 8, Messrs. W. & T. R. Milburn.—The general lay-out of this design is very different from any other. The wards are arranged in groups of two units united by a central block of ward offices; all wards run within a little of east and west. Near the apex of the site is a triangular building containing the sisters' and nurses' homes, with a large central courtyard. To the south of this are two ward blocks, each arranged as described above, and containing the whole of the hareem division of wards, with the infant welfare, extern work and nurses' lecture rooms on the ground floor. To the south of these are three separate blocks; in the centre the central pharmacy; to the east the central kitchens, dining rooms and steward's stores; and to the west the operation theatres block. South of these are four groups of wards containing the male units, two being on the east and two on the west, with the mosque occupying a central position. South of these are again three blocks; in the centre clinical instruction, to the east pathology, and to the west administration. On the same central axis, but on the south side of the Avenue de Roda, is the medical school. It will be seen that the whole of the buildings referred to above form an absolute symmetrical group. The outpatient department is entirely different from any other plan, being arranged round four sides of a large open courtyard. The object of thus planning this department is difficult to follow. The lighting on two of the sides must obviously be from the east and west, whereas all rooms should be lighted from the north, and the plan loses much in the matter of compactness as compared, for example, with that by Messrs. Percy Adams & Holden. With this exception, the scheme is well conceived and is attractive.

Design No. 5, Messrs. W. A. Pite, Son & Fairweather.—Here again we have a perfectly symmetrical plan, with ward units running east and west, the male section being to the east, the hareem to the west, and the centre space occupied by (from south to north) the reception and casualty block, main power station, steward and storekeeper and operation theatres. The main entrance is in the Avenue de Roda, on the central axis between the ward blocks. To the east of the entrance is the mortuary, with entrance from the Avenue de Roda, with the administration offices behind. On the west side, entered from outside, are the extern and infant welfare departments, and behind these the houses for sisters, nurses and probationers. The Director's house, medical school, the two blocks of isolation wards and the mosque (at the extreme north of the island) complete the buildings on this part of the site. The arrangement described above necessitated putting the out-patient department in the isolated part of the site to the south of the Avenue de Roda, and here comes in a grave question. In the "Notice to Competitors" in the Second (Final) stage of Competition the following words occur: "Any of the following sections of the hospital might be placed, at the discretion of the competitors, on the portion of the site to the south of the Avenue de Roda:—Division A (m), medical school; Division D, students' club and hostel; Division E, Director's house."

To direct that certain specific sections may be placed on a clearly defined part of the site must surely be taken to imply that no other sections are to be placed there. If this is so, and it is difficult to see any other meaning in the clause, the authors of this design have put themselves out of court by placing the out-patient department where it is clearly not meant to go. Apart from whether it was open to competitors to disregard the clause cited above, it must be conceded that the plan adopted by the authors of the design has many and obvious advantages, and that the objections that can be raised are of relatively minor importance. The fact, however, remains that apparently all the other competitors felt themselves bound by the limitation and planned accordingly. It is much to be regretted that competitors were not left a free hand in the matter. If this had been done there could have been no reason for refusing to this remarkably able plan the place to which it is justly entitled.

Design No. 4.—It is difficult to say anything in favour of this scheme, and criticism is rendered more difficult by the absence of a block plan. The wards are planned in the form of an **X** which has had its arms squeezed together, a form of which nothing can be said in its favour.

It will be noted that no detailed criticism has been made in the foregoing of the administrative offices or the medical school buildings; this has been done intentionally, first, because to deal exhaustively with these matters would have required many times the space available; and, secondly, because the scope for variation in these departments is not large, and, with possibly one or two exceptions, the various buildings referred to are planned with remarkable skill by all competitors. As regards architecture, only one of the designs shows no attempt at assimilating any distinctly Egyptian features. Messrs. Adams & Holden's design is the only one which is very distinctly Egyptian, and judging from the fine detail elevation shown it would have been a very striking building. Most of the other designs show a distinct Greek feeling; but simplicity seems to be the keynote of all, and the frequent occurrence of open colonnades gives ample opportunity for the play of light and shade.

[The first and second premiated designs in this competition, and designs No. 10, 7, 5, were given in *The Builder*, March 16—April 6, 1923.]

TENDERS AND VARIATIONS IN THE RATES OF WAGES

WE have received from Mr. Max Clarke, F.R.I.B.A., the following communication:—

For some considerable time there has been "talk" amongst those who have to do with building, to the effect that the men engaged in the various trades wanted a rise of 2d. per hour; whether this applies to both skilled and unskilled labour, or whether it is suggested as an all-round increase on the present rates, I do not know, nor is it material to this note, but it is in the air, it is being pressed for, and some negotiations have taken place. An offer has been made by the employers and declined by the operatives, and so the matter stands. At the time I write all building work is faced with an increased cost, and just at the time when cheaper houses and more of them, with labour-saving appliances, better built, and fit for heroes, are on the lips of those who want a "cry."

All this being so, the individual who stands between the employer and the workmen, to wit, the contractor, fears that he may suffer if he enters into a firm contract and the long-talked-of rise of wages becomes an agreed fact before the completion of his contract, and, like a wise person, he desires to transfer his responsibility on to the shoulders of the employer. The latter, poor man, knowing nothing about the matter one way or another, is rather surprised if he wants to build a house, or anything else, that he cannot, according to the proposed régime, get a fixed price for what he wants, but things being as they are he is either content to pay, or makes up his mind to go without, what is perhaps his pet scheme, shall we say, for his comfort, the advancement of his business or the good of the public in general. So it comes about that architects, when they receive tenders for work, find a little slip printed in red to the following effect:—

> "This tender is based upon the present standard rate of wages and is subject to adjustment in the event of any variation in such rates"

neatly stuck in a prominent position on the form of tender. It is one of the war products, this neat little slip, and who can say but that it has come to stay. If so it is the duty of every architect to give it his attention and provide for such an event as a rise or fall of wages in any contract for the production of which the architect is responsible.

For those who have not had any experience of dealing with the rise and fall of wages in a contract I suggest the following course should be pursued.

(1) The specification should contain a clause that the contractor is to furnish the architect weekly, when required, with copies of the weekly wages book or sheets, showing the number of men employed, the trade of each, the number of hours worked by each, and the rate of wages paid; this must apply to shop work and to sub-contractors, if the latter have given estimates to which the red slips are attached. It will be the duty of the architect to check, or have checked, the returns mentioned above, and if dealt with weekly no very great trouble will arise, but if left until the completion, when much is forgotten, contentious matters arise which are difficult at times to settle.

(2) Having got a satisfactory clause in the specification it is necessary to have some clause in the contract between the parties setting out clearly how the matter shall be dealt with. So many disputes on matters connected with building could be avoided if the rights and conditions between the parties were made clear beforehand.

The following clause as an addition to the R.I.B.A., 1909, form of contract is suggested.

"How Rise and Fall of Wages are to be dealt with.

"If between the date of delivery of the contractor's tender and the date for completion of the works comprised in the contract, alterations in the rates of wages of the trades engaged in carrying out this contract or any sub-contracts thereunder shall be agreed upon by the National Wages and Conditions Council for the Building Industry, such alterations shall be made and given effect to in the wages paid to workmen employed on this contract or sub-contracts, and the sum payable in respect of the works comprised in the contract or sub-contracts shall be proportionately increase decreased, as the case may be, to cove aforesaid alterations in wages, but on basis that any adjustment of the contract due to such increase, or decrease, i wages paid as compared with those ruli the date of delivery of the tender shall net addition or deduction, as the case ma without any increase or decrease of pro reason of such alterations in wages.

"This does not include anyone employ a weekly wage or on 'shifts.'

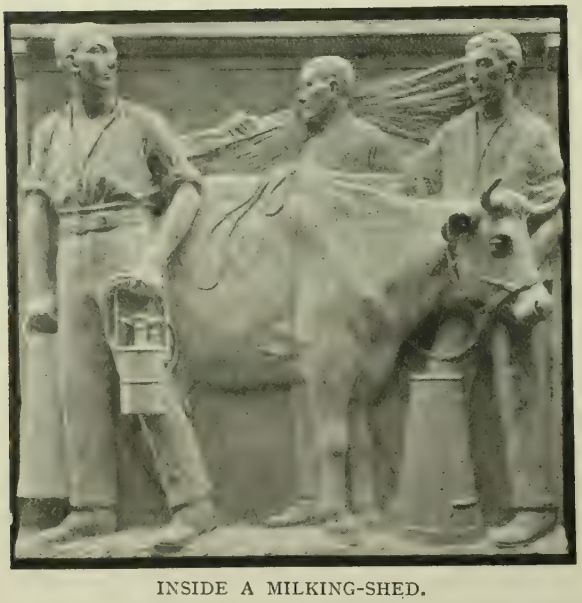
"Alterations in the price of material to apply to this contract."

Following this in the form of contract must be a schedule of the rates of wages to the various operatives at the date the t is sent in, and it is advisable that the of such persons as scaffolder, lorry machinist, improver, and shop boy, n mention others, should be included in th which will serve as a basic rate if alter should occur and have to be dealt with.

All the rates of wages inserted i schedule must be the agreed rates for th ticular district, not any "fancy" rates by the contractor. It will be noted tha clause proposed to be a part of the co document contains three conditions must be clearly borne in mind.

(*a*) That it is only an alteration of agreed by the National Wages and Cond Council for the Building Industry which affect the contract. (*b*) That the da which alterations of wages ceases is the given in the contract for the completion contract. (*c*) That wages paid weekly "shift" (usually the way a watchm paid) do not come under the rise and wages clause, as their wages are not lated by the hour. (*d*) That alterati the prices of materials do not apply contract.

Architects generally are not in fav any contract which makes the final c unknown amount, so are averse to th slips now sent out under the instructi the several associations to which builders belong, and it may be to the tage of some builders not to adopt t cate little attention intimating the r fall, but so long as architects *must* de the matter, it is very desirable tha should consider the above suggestions a to adopt some universal practice thro the profession.



INSIDE A MILKING-SHED.



A BUSH-FELLING SCENE.

Panels on the New Zealand Pavilion, British Empire Exhibition.

MR. A R. FRASER, A.R.B.S., Sculptor. (*See p.* 673.)



DROVER AND FLOCK.



SHEARERS AT WORK.

SCULPTURE AND COMMERCE

w that advertising forms such an im-
nt part of industrial affairs, it is, per-
a compensation to the public that Royal
micians and increasing numbers of
etent painters are directing their talents
ds commerce. There is no technical
lty in accomplishing this transition. It
her different, however, for the sculptor
e his art for the benefit of commerce.
omething of this sort has been done in
xcellent plaques which surmount the
Zealand Pavilion at the British Empire
ition. A small army of art students
been let loose among the buildings at Wembley, and are using their brushes to some purpose in purely decorative schemes, but on the New Zealand Pavilion alone has any attempt been made to use the sculptor's art to portray commercial activity—in this particular case the principal primary industries of the country.

The New Zealand sculptor (Mr. A. R. Fraser, A.R.B.S.), whose work has appeared on several occasions in the Royal Academy, had less than a fortnight to devote to each of the plaques and the decorative spandrils, but from the photographs here reproduced it will be seen he has done full justice to the subjects treated. Each of the six panels are about eight feet square, and duplicate sets are placed between the cornice and "the string" on each wing of the building, and equidistant from the main door, over which are decorative spandrils. Even from fifty yards away the life-size figures may be seen to advantage, and when the sun shines the lights and shadows on the statuary produce a particularly striking effect.

In some of the panels there has necessarily been an effort to get a complete idea into the limited space, but apart from this licence, the scenes are wonderfully realistic and are obviously done by an artist who is personally acquainted with all the details of the scenes he has represented.



LEFT-HAND SPANDRIL.



RIGHT-HAND SPANDRIL.

Panels on the New Zealand Pavilion, British Empire Exhibition. MR. A. R. FRASER, A.R.B.S., Sculptor.

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ILLUSTRATIONS

Holmside and South Moor Cottage Hospital Competition.

We give this week the design placed first in the Holmside and South Moor Cottage Hospital Competition, by Messrs. Buckland & Haywood, FF.R.I.B.A. A review of the designs submitted is given on p. 669.

New Premises for the Manchester & County Bank, Ltd.

The new premises at Hollingworth, which are situated on the main road, are built of brick and terra-cotta. The terra-cotta was supplied by the Hathern Station Brick & Terra-Cotta Co. The facing bricks on the side elevation are rustic bricks, supplied by the Ravenhead Brick Co. The building is roofed with reinforced concrete supplied by the Combined Concrete Construction Co., Manchester. The general contractors were Messrs. Edwin Marshall & Son, of Ashton-under-Lyne, and the fittings were also made by this firm. The locks and furniture were supplied by Messrs. Leggotts, of Bradford; lead glazing by Charles Lightfoot, Manchester; steel casements by Henry Hope & Son, Birmingham.

The Bank at Whitefield is being erected at the apex of forked roads immediately outside Whitefield Station. The apex forms the natural position of a rather important terminal feature, and the domed end of the bank has been designed as this feature, as far as a small building can fill the need. The building will be of Portland stone. The general contractors are Messrs. E. Marshall, of Ashton-under-Lyne; masons, Messrs. F. M. & H. Nuttall, Whitefield; concrete work, Combined Concrete Construction Co., Manchester.

Messrs. Mills & Murgatroyd (Mr. A. J. Murgatroyd, F.S.Arc., and Mr. J. Hembrow, A.R.I.B.A.) are the architects for both banks.

New Town Hall and Municipal Offices, Colombo.

We give this week a reproduction of a photograph of a three-sixteenth scale model of the New Town Hall and Municipal Offices, Colombo. The model was made of Ceylon wood by a Singalese carpenter under the direction of Mr. S. J. Edwards, A.R.I.B.A. (of Messrs. Booty & Edwards, Singapore, Penang and Colombo, architects).

The accepted design, by Mr. S. J. Edwards, M.A., A.R.I.B.A., was illustrated in issue of January 26, 1923. The building now being constructed departmentally by Colombo Municipality. The model is to be hibited in the Ceylon pavilion at the Brit Empire Exhibition.



From the American *Architect*.

North Ward National Bank, Newark, New Jersey.

MESSRS. GUILBERT & BETELLE, Architects; MR. THOMAS BRUCE BOYD, Engineer to the Bank. (*See p.* 675.)

Decorative Window Glass.

The values which may be obtained fr the use of coloured glass without any addit of painted work, or only what might be necess where figures are introduced, was very grapl ally illustrated by the exhibition of Mr. Leon Walker's fine decorative glass windows, wh were shown by Mr. Selfridge's courtesy, the great stores in Oxford-street last we Mr. Walker has not studied glass design many years for nothing, and his command effects by well applied forms and colours tellingly exhibited by these beautiful windo intercepted for our pleasure here before t despatch to Singapore. The windows ar portion of a series for the banking hall of new premises of the Hong Kong & Shang Banking Corporation, Singapore, the archit for which are Messrs. Swan & MacLaren. scheme of colour is rich and dark in view its situation in a strong eastern light, and result is a remarkably brilliant and jewel- effect softened by the recurrent notes of blu colour in the general groundwork of the windo The work shows strikingly the value of g glass work in producing beautiful perman pictures of colour and light such as are denie any other material. When we get work this quality, which is harmonious in colour good in form, we may well take pleasure in permanence, and it is to be hoped that we s find many of our modern commercial struct enriched by windows like these for the H Kong Bank.

Bungalow at Potter Heigham, Norfolk.

This bungalow is intended for sum occupation only, and is in the nature of a t porary building. There is neither gas, wa nor drainage to the site. The site was pared for building by excavating to a de of 4 ft. over the whole, and filling with 3 ft clinker. The portion built on is covered w 6 in. concrete; the top soil being replace the rest of the site. The structure is a tim framed building, and rests on brick p allowing clear air space underneath. Exterr it is weather boarded, the architectural e being obtained by means of tar, paint, st and the use of wood trellis. The roof cove is "Ruberoid." The accommodation incl living room, with glass folding screen, gi access to the veranda; a small kitchen cooking will be done on an oil stove); t small bedrooms (fitted with two bunks h having lockers, cupboards, wash-hand st dressing table as fixtures). The object thro out has been to reduce the amount of furni required to a minimum. Boat house garage are also included.

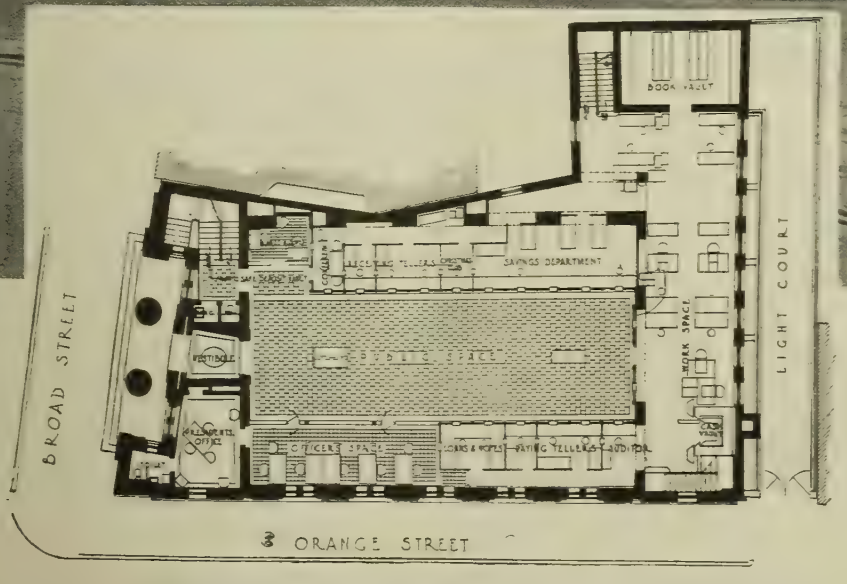
The architects are Messrs. Percy Tubbs & Duncan.

British Institution Scholarship, 1923.

The subject of the British Institution Sch ship in Architecture for 1923 was a building in a country town. The site was an irregular one, the east front faci Market-square, and the south-east fronti residential street. The requirements incl a residence for the bank manager, and a l ing hall, approximately 40 ft. sq.

The Scholarship was awarded to Mr. H Chippindale, of the Leeds School of Art. had previously won the Walker Art Schola (value £20 for five years tenable at the School of Architecture); Leeds and Yorkshire Architectural Society's Silver and five guineas for Measured Draw Travelling Scholarship, value £60, aw jointly by the Leeds and West Yor Architectural Society and the Leeds Edu Authority.





om the
merican Architect.

North Ward National Bank, Newark, New Jersey.

[Messrs. Guilbert & Betelle, Architects; Mr. Thomas Bruce Boyd, Engineer to the Bank.

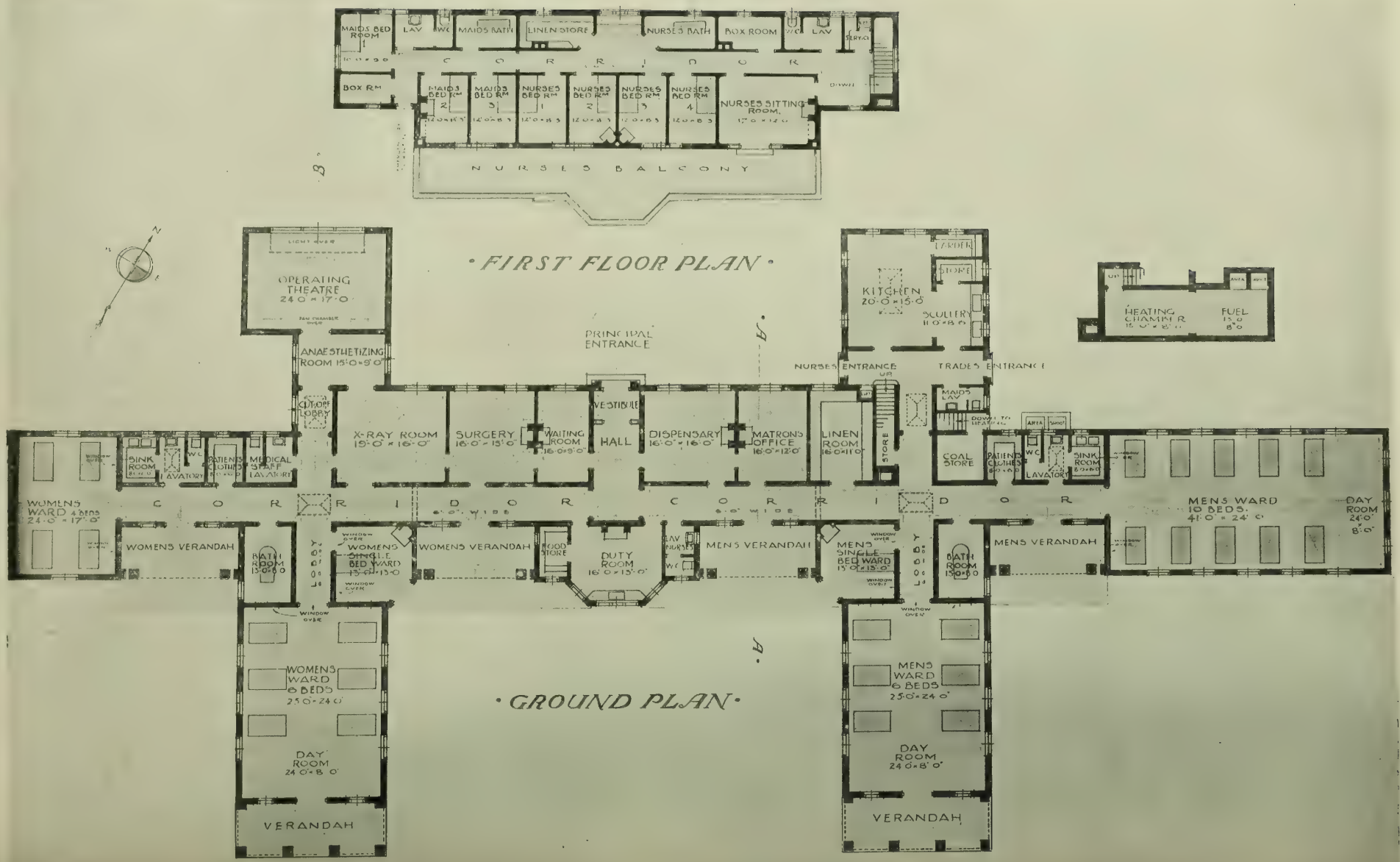
[This building was awarded [First Prize by the Broad Street Association] of Newark, New Jersey, as the best building erected on Broad Street during 1923.]

K



New Town Hall and Municipal Buildings, Colombo.

Mr. S. J. Edwards, M.A., A.R.I.B.A., Architect. (See p. 674.)



South Moor Cottage Hospital Competition. Design placed first: By MESSRS. BUCKLAND & HAYWOOD, FF.R.I.B.A



FRONT ELEVATION



BACK ELEVATION

SECTION C C

SECTION D D



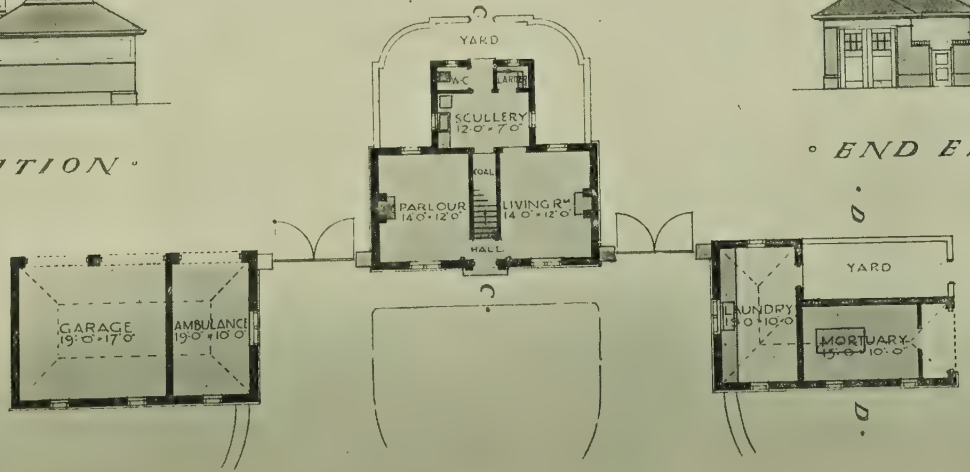
FIRST FLOOR PLAN



END ELEVATION



END ELEVATION



GROUND PLAN

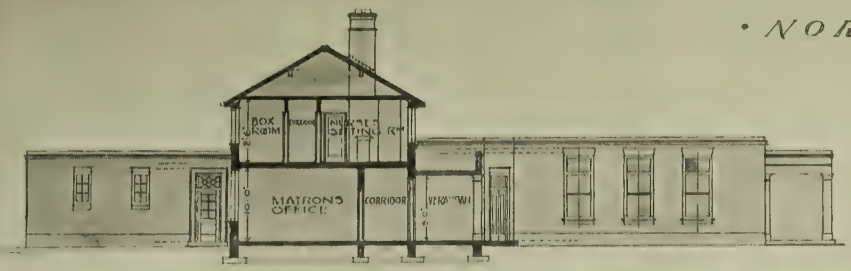
Cottage Hospital Competition. Design placed first: By Messrs. Buckland & Haywood, FF.R.I.B.A.



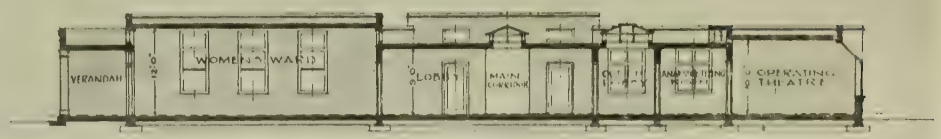
Holmside and South Moor Cottage Hospital Competition. Design placed first: By Messrs. Buckland & Haywood, FF.R.I.B.A.



· NORTH ELEVATION ·



· SECTION · A · A ·



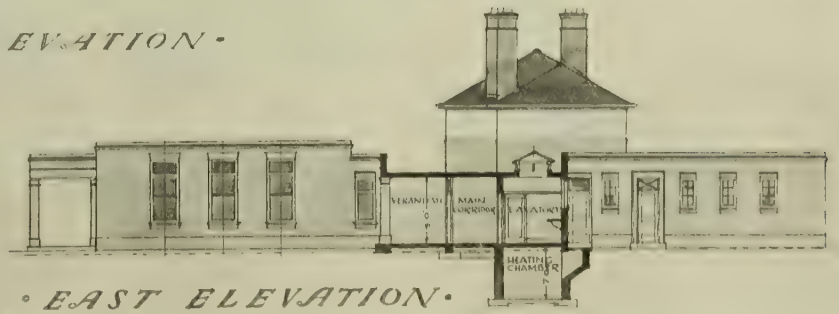
· SECTION · B · B ·



· SOUTH ELEVATION ·



· WEST ELEVATION ·



· EAST ELEVATION ·

Holmside and South Moor Cottage Hospital Competition: Design placed first: By Messrs. Buckland & Haywood, FF R.I.B.A.





New Premises of the Manchester and County Bank, Ltd., Hollingworth.

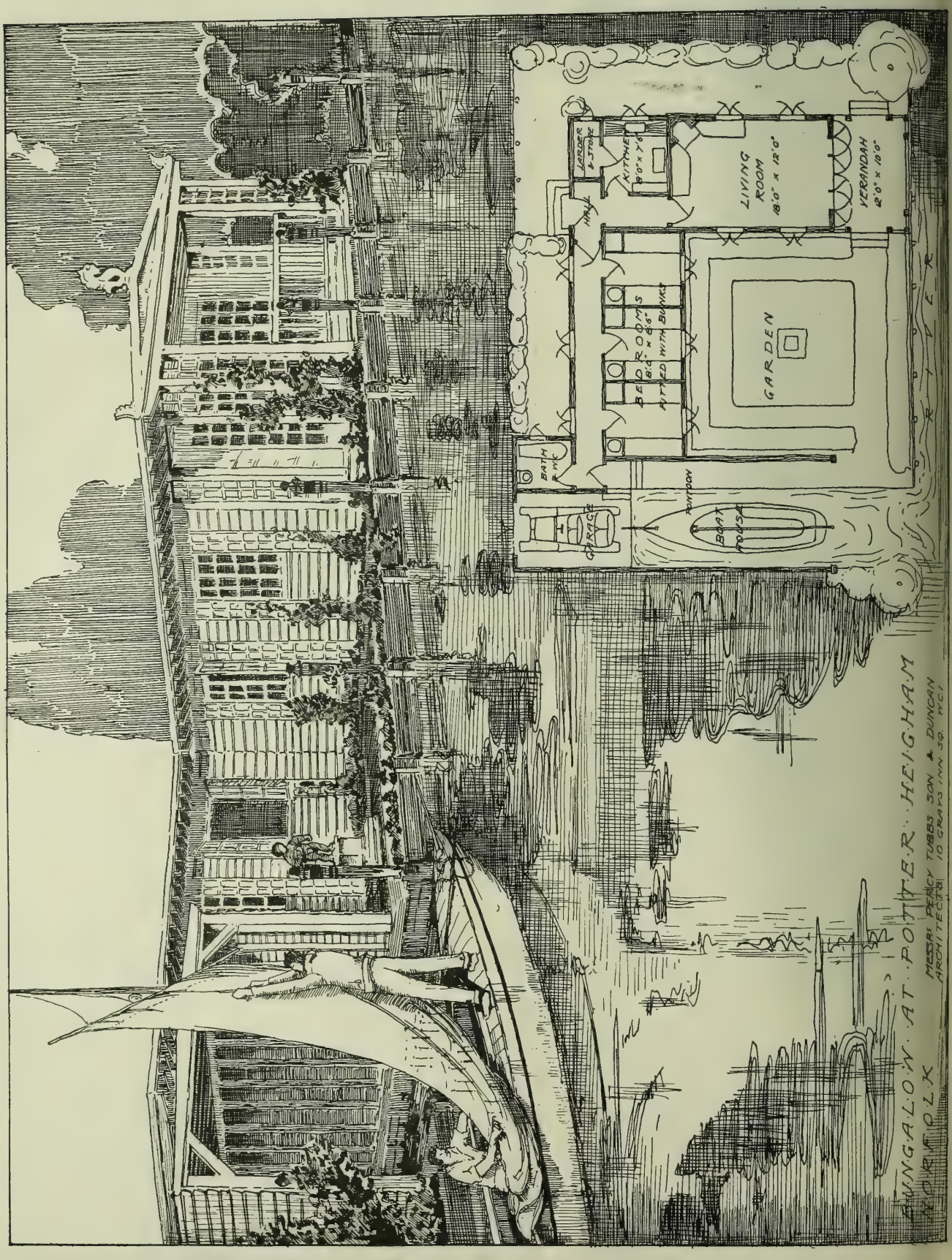
Messrs. Mills & Murgatroyd (Mr. A. J. Murgatroyd, F.S.Arc., and Mr. J. Hembrow, A.R.I.B.A.), Architects.

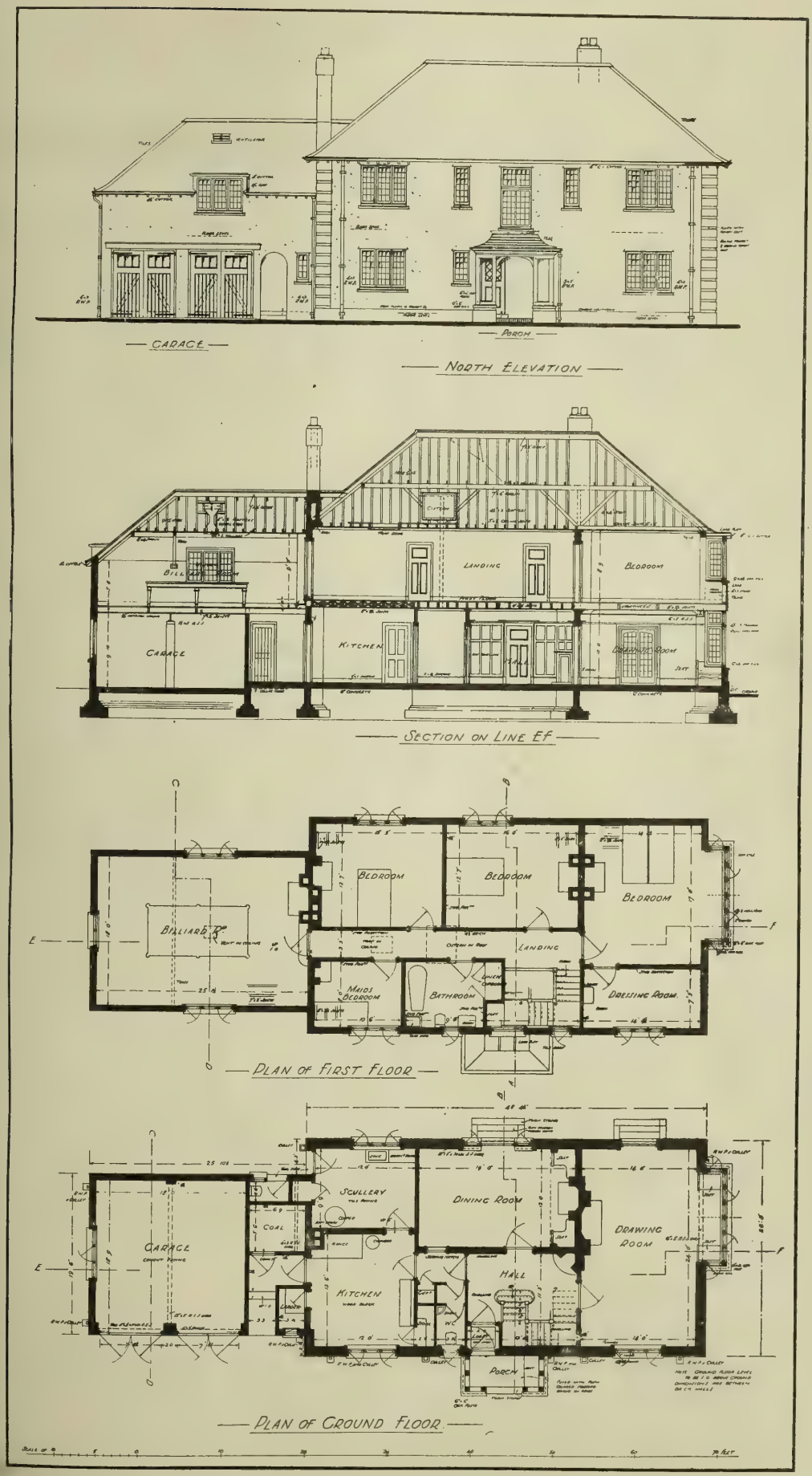


New Premises of the Manchester and County Bank, Ltd., Whitefield.

MESSRS. MILLS & MURGATROYD (MR. A. J. MURGATROYD, F.S.Arc., and MR. J. HEMBROW, A.R.I.B.A.), Architects.

Stained Glass for the Hong Kong and Shanghai Banking Corporation, Singapore. By Mr. Leonard Walker, R.I. Messrs. Swan & MacLaren, Architects. (*See p.* 674.)


LARDER & STORE
KITCHEN 9'0" x 7'6"
LIVING ROOM 18'0" x 12'0"
VERANDAH 2'0" x 10'0"
HALL
BEDROOMS 8'6" x 8'6" ATTIC WITH BUNKS
GARDEN
BATH R.M.
GARAGE
AWNING
BOAT HOUSE
RIVER
BUNGALOW AT POTTER HEIGHAM
FOR MR. BOLK
MESSRS. PERCY TUBBS SON & DUNCAN
ARCHITECTS
10 GRAYS INN SQ. W.C.1



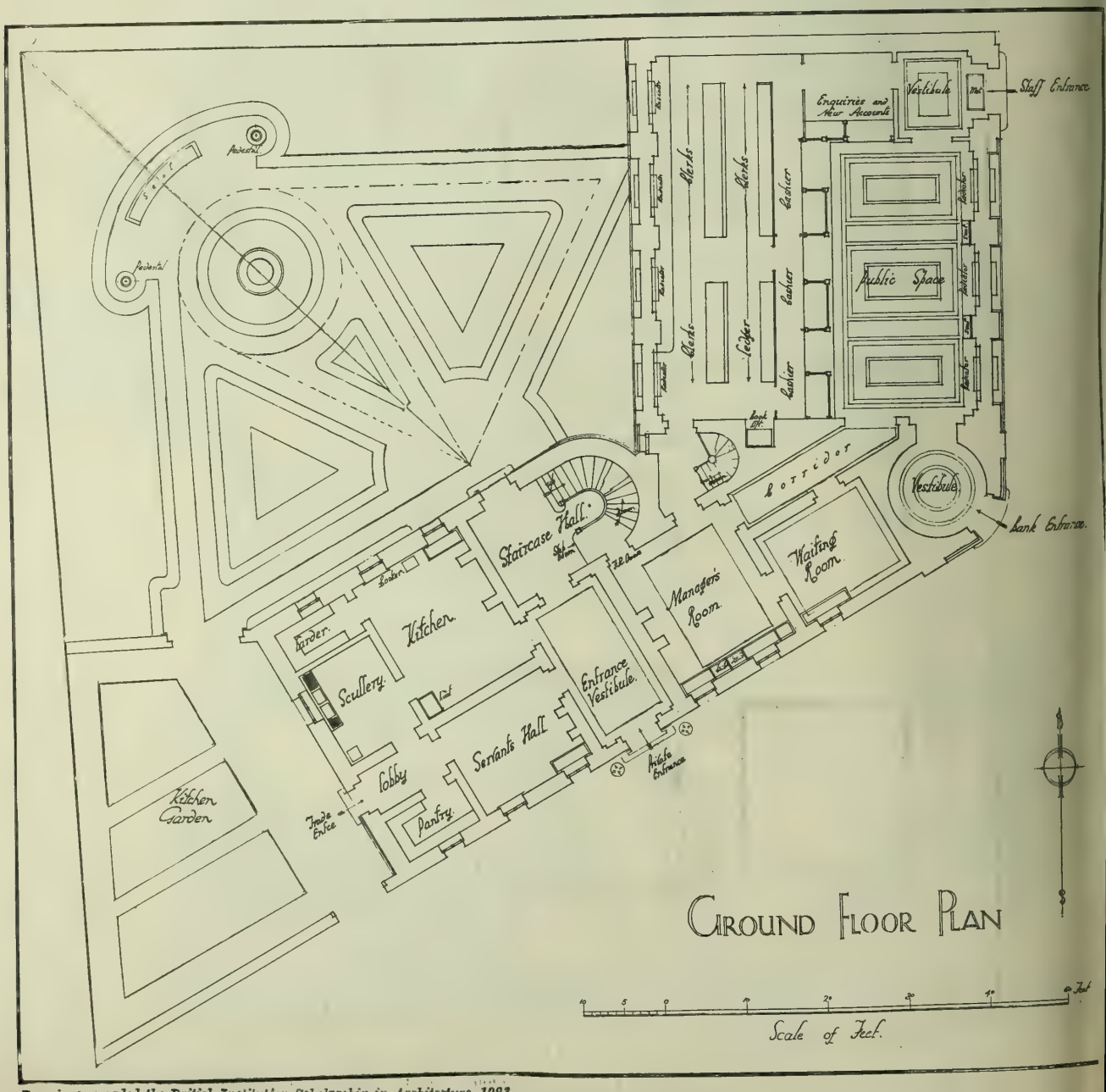
House at Harlow Bush Common. Mr. H. W. Couchman, A.R.I.B.A., Architect.

[The walls are built of Fletton bricks roughcasted, with plum-coloured brick quoins; plum-coloured Broseley tiles were used for the roofs. The staircase and wall panellings are in oak, and the wood mantelpieces and other fittings were to special design. Mr. Albert Monk, of Edmonton, was the contractor.]

ELEVATION TO MARKET SQUARE.



ELEVATION TO RESIDENTIAL STREET.



GROUND FLOOR PLAN

Drawings awarded the British Institution Scholarship in Architecture, 1923.

Design for a Bank Building in a Country Town.

By Mr. F. Chippindale, Leeds School of Art. *(See p. 674.)*

PRESENT-DAY ARCHITECTURE

N April 17, Professor A. E. Richardson ıred before the Architecture Club on this ject. In the course of his remarks he said rder to understand the building ideals now ogue it was necessary to focus attention on movement which had its beginnings fifty rs since.

pinion was gradually inclining to the view Victorian art of the last thirty years of the teenth century was not entirely barren of lts. By the year 1870 at least three coteries architects representing the talent of the ıtry were in opposition. There were the hicists, who fought to re-establish the direct ement of mediæval building; there were the sicists, who sought to keep alive the inishing flame of classicism; there were free lances whose aim it was to develop a lern style from the debris of the national lition.

was in this year (1870) that the Gothic val reached its point of culmination, ough for thirty years onwards its spirit continued. Sir Gilbert Scott was coming St. Pancras Station, and what teaching e was in the Architectural Schools, at the al Academy and University College, as well he lectures delivered by Ruskin in various ts of the country, had a definite bias towards liæval art and craftsmanship. On the other d the Classic spirit was by no means dead, s evidenced by many buildings now extant he City of London and other cities and towns he provinces. London at this date still pre- ed a ring of country within five miles of ring Cross, as yet unsullied by suburban ration and the spoliation of rural amenities. rt from the architects towered the gigantic res of Ruskin and William Morris, aloof n the strife and indignant at the non- eptance of their teachings by practitioners public alike. It was curious, and not a little netic in the light of present day events, to ıce back fifty years to note the keenness and enthusiasm, the wordy warfare, and the altogether ill results. Men were then alive were young when the eighteenth century it was in its last flush; some had imbibed the litions of Nash and Cockerell, others had been iples of Rickman and Pugin. There were in ition the civil engineers, now completely dis- ated from the architect; engineers of an earlier od, who, not thoroughly understanding r business sought to combine derived archi- ural form with adventure in steel.

architectural circles the desire seemed to been to attempt novelty by the eclectic nod, but it was significant that both archi- s and engineers failed to appreciate the ical significance of the unprecedented th of industry. In other words the whole ıe artistic effort of the country appeared to been concentrated on the task of masking strial expression in the vain attempt to se it and teach it deportment. John Ruskin William Morris, together with their imme- followers, alone realised the political signi- ce of art; they fought for an immediate re- ion of taste, a thing impossible of itself; ll unknowingly the leaven was at work, it was a tribute to the memory of these nced thinkers that nearly all of their lessons been taken to heart, but not quite in the they imagined.

was an age both sentimental and sincere; s adventurous in the sense that its enthu- dared to compete with past masterpieces; s literary in the sense that investigation hat could be readily studied in historical ng formed part of every architect's training. were to-day sufficiently in advance of that to read its tale with some measure of ıcy. The good buildings were very good, ernacular was respectable but depressing. architecture in other words exactly ex- d the age.

vas a little difficult to locate the beginnings modern movement, but there was suffi- evidence at Saffron Walden in Essex for them to assume that by the year 1874 a distinct adventure had been made by a group of talented architects. In the Market-place of this town civic enterprise had determined on building a new town hall, William Burgess being chosen for the work; at the same time John Bentley was commissioned to design the fountain, and it was left to Eden Nesfield to remodel the "Rose and Crown" hostelry and to design the adjoining bank. Considering the period the result was remarkable. Burgess endeavoured to recast the local timber tradition; Nesfield essayed a free treatment of Tudor and Renaissance for the bank, and made his additions to the "Rose and Crown" in a sort of florescent version of Queen Anne. Bentley was content to produce an elaborate Gothic fountain sprayed with ideas. Soon after the dominating personality of Norman Shaw appeared in London, and the tide of fashion turned to a resuscitated version of Queen Anne brickwork.

To recount the subsequent events would require many lectures; they would have to listen to a list of buildings and to the names of many architects who had long since left the stage to newer groups. It was important to remember, however, that the prevailing tendency was style, and that the well-defined paths of Gothic and Classic were at this juncture forsaken for the broad highway where freedom was encouraged. Side by side with the new movement the Gothic revival entered upon its last phase. There were the churches designed by Pearson and Brooks, the Record Office in Chancery-lane by Pennethorne. the man who had sat at the feet of Nash and had completed Somerset House, and the restoration—dreadful word—of innumerable churches throughout the Kingdom. On the Classic side, such fine buildings as the Royal College of Science and the Royal Albert Hall, both at Kensington, showed that on occasion real buildings of monumental stamp could be evolved.

For the next twenty years the vernacular took on a certain consistency in its higher flights. Norman Shaw assumed the leadership among the adventurers. Bedford Park came into being as the first of the new urban districts as distinct from the spiky productions of the speculative builders of the eighties, and among the more cultured of the people taste for domestic work of character was influenced by the drawings of Kate Greenaway and the wares produced by the Morris firm. As was inevitable, the speculative builder who trod close on the heels of the leaders did his best to ape their style.

As was inevitable, when any particular style or styles formed the theme, both architects and the public soon began to tire of the repetition of familiar features which proved the limitations of the styles selected. The time was ripe for a change, and this was brought about by the erudition of Sir Reginald Blomfield, who published his authoritative work on the English Renaissance in 1896. Henceforward all and sundry combined to re-establish the English manner of the late seventeenth and eighteenth centuries, there was an immediate response to the newer teaching, and a consequent outcrop of buildings in Portland stone as well as in brick. The period of criticism and research set in, every known source was investigated, and drawings were made of about every historical work which could claim distinction. The French exhibition of 1900 gave further impetus to the broadened Classic view point; and for a time English architecture came under the spell of the Beaux Arts. America had not yet fully developed her official style. From the year 1900 the character of London began to change; improvements were projected between Holborn and the Strand; it was determined at this time to rebuild Regent-street; the great improvement of the Mall was schemed and carried to completion; and in the West-End of London blocks of flats displaced groups of old town houses. From 1900 to 1910 ensued what might well be termed the "Competition Period," important municipal buildings being undertaken in all parts of the country. This, too, was the period for the building of medium-sized town and country mansions. There were, for example, the homely designs of the late Ernest Newton, the dignified Renaissance houses by Sir Reginald Blomfield, and the extraordinary number of unique houses by Sir Edwin Lutyens. It could be said of the period from 1900 to 1914 that English domestic architecture, thanks to the labours of the foregoing and other architects, was raised to the proud position it occupied at the present time. But the attention given to domestic architecture which contributed to its success was not entirely bestowed on works of civic importance, perhaps on account of the competition system, as well as the fact that until quite recently the value of sane building as a commercial asset was not understood by those interested in commerce.

It seemed incredible that scarcely twenty years since the apathy of the public towards the conventional scenery of cities was profound. Architectural education, too, was woefully neglected save for the privileged few who had studied at the Ecole des Beaux Arts in Paris, or at the Schools of the Royal Academy. It was, however, of moment to note that the leaders who laid the foundations of the present-day work had all benefited by the traditional system of pupilage, in itself a legacy of the eighteenth century, and it was entirely owing to the labours of those men that the present advanced system of education was in being. The present generation of architects had had the benefit of closer contact with other countries, there had been waves of ideas and reactions of thought from France and America.

Architecture was always responsive to events of political significance. From 1900 to 1914 it developed on certain well-defined lines with tendencies towards classical purity and excellence of technique in an ascending scale, to which it was helped by the prodigious output of books on architecture and the kindred arts as well as the growing appreciation of the scientific art on the part of the public. The American invasion of England began with the building of Selfridges; it had, it was to be hoped, reached its climax in the new Bush Building. Education had assisted in the teaching of archæology and history, it had proven the story of the past and made clear many traits and surface differences. The whole theory of planning had undergone revision, while the general practitioner was giving way to the man who specialised in definite types of building.

Reverting to present-day tendencies which it would be seen were the result of fifty years of slow and painful building up, they were confronted with the main issues of the times. The war completely disturbed the trend of events which, up to 1914, had been slowly developing on lines of intensive scholarship. The exigencies of war put architecture temporarily in the background, the demand being for direct and rapid construction pre-eminently for building associated with the production of munitions. Under such circumstances a lasting architectural expression was impossible. On the other hand, from the conditions of war was created a situation of political significance, namely, industrial housing on a great scale. Thanks to pre-war lessons, it had been possible for the younger generation of architects and even borough engineers to apply theories formerly thought only applicable to domestic works of the first rank, to the building of small houses, either in groups of two or in terrace formation. He submitted that domestic architecture of this type, with few exceptions, was truly representative of the time, and was remarkable for good taste in its expression as well as for ingenuity of planning.

A little thought would convince them that they had no reason to be ashamed of the work produced to-day; it was the result of much labour and the slow building up of a definite standard of taste to which all and sundry had contributed. Criticism had been keen and censure has been lavished without regard to conditions, for it was difficult for a critic to select the correct view point.

LEGAL SECTION

NOTES ON CURRENT CASES

Workmen's Compensation.

"Out of and in the Course of Employment."

THE decision of the House of Lords in the case St. Helen's Colliery Co. *v.* Hewitson (1924, A.C. 59), is one of the most important delivered in recent years and it requires to be studied in detail.

We gave a brief outline of this case in our issue December 7, but at that time only one of the judgments was reported and it was impossible to analyse the effect of all the opinions delivered in the House of Lords, but we now propose to give a detailed consideration to those judgments for they to some extent explain the law and they overrule some decided cases.

Shortly stated, the facts were that a man employed at the appellant's mine who resided some four miles from his work was injured by a railway accident on October 10, 1921, whilst travelling to his work.

He was in this train under agreement or license by his employers. The employers had entered into an agreement with the railway company to provide special trains for the conveyance of their workman to and from their work at a monthly charge made to the employers, and the employers had agreed to indemnify the railway company against any claims made by their workmen in respect of accident, injury or loss. The workmen who used these trains had to sign a form agreeing not to make any claim against the railway company, and when they had signed this form presented by the employers they received a pass enabling them to use the trains, and a sum of 1s. 8d. was deducted from their wages for the fare, which was considerably less than an ordinary workman's ticket. The men were not paid for the time occupied in travelling, and it was optional whether they should use the trains to reach their work or choose some other means of transport. Some, in fact, walked and others went by omnibus.

The House of Lords (reversing the Court of Appeal) held that as there was no obligation to use the train, the injury sustained by the workman did not arise "in the course of" the employment. Lord Shaw of Dunfermline alone dissented from this decision, which was arrived at by the other four Law Lords.

It is somewhat surprising that no satisfactory test has yet been devised which will give a definite rule for the interpretation of the expression "personal injury by accident arising out of and in the course of the employment," although this expression has been in use in connection with Workmen's Compensation some 27 years.

Lord Atkinson is reported as saying that the difficulties of reconciling the decided cases on this question has arisen from the omission on the part of some of the Courts to frame some test which must be satisfied to bring an accident within the course of the employment, and in the judgments delivered in the House of Lords certain tests are now suggested.

Before considering these tests we will first note the ground upon which the majority of the House of Lords held this accident not to have arisen "in the course of" the employment.

The Court of Appeal had decided in the man's favour on the authority of Cremens *v.* Guest, Keen & Nettlefolds (1908, 1 K.B. 469; *The Builder*, July 4, 1908), although it was found difficult to reconcile that decision with Davies *v.* Rhymney Iron Co. (2 B.W.C.C. 22).

The House of Lords has now distinguished these two cases. In the latter of the two cases it was optional whether the man should use a train offered for his convenience, and it was held that the accident did not arise out of and in the course of the employment, but in Cremens case the findings were not certain and it was not clear whether the train formed the only access to the man's place of work or whether he used it only as of right, or it was obligatory upon him to use it, and the House has now laid it down definitely that if there is only a right and no obligation to use a means of access or transport the mere license does not make the man availing himself of it acting "within the course of his employment" within the meaning of the Act, unless of course, that is the only means of access by which a workman can reach his place of work and in that sense he is compelled to use it.

Lord Atkinson suggested a test as to when a man is acting "in the course of" his employment, namely, when he is doing something in discharge of a duty to his employer directly or indirectly imposed upon him by his contract of service, but in giving this definition he added that it must be borne in mind that the word "employment" as here used includes things belonging to or arising out of it. Lord Atkinson approved the decision given by Lord Parker in Parker *v.* Owners of ship *Black Rock* (1915 A.C. 725) that in order to make an accident arise "out of" the employment it must have been done in pursuance of a duty owed to the employer, and he pointed out that the same test applied as to whether it arose in "the course of" the employment, following with approval the dictum to this effect laid down by Lord Finlay in Davidson *v.* McRobb (1918 A.C. 314; *The Builder*, August 2, 1918), that the word "employment" must mean the same thing when in apposition with "in the course of" as it means when in apposition with "out of."

Lord Wrenbury said that the words "out of" connote origin, and the words "in the course of" apply to the employment as such, its nature, conditions, obligations, and incidents, and the words "in the course of" are not equivalent to "during." More helpful than these general definitions may be some of the examples cited from other cases or given by themselves by the members of the House of Lords in this case.

Lord Dunedin, in Davidson *v.* McRobb (*ubi sup*) said: "It is obvious that the addition of the words 'in the course of' are meant in some way to qualify or further explain the words 'out of.' My own view is that they do the latter. It is in one sense difficult to imagine that there could be any injury held as arising out of the employment which would not also be in the course of the employment. But it may be well that the determination of the question whether at the moment of injury the workman was 'in the course of' his employment may go to solve the question whether the injury arose 'out of' the employment. Let me instance the case of a domestic servant who is run over in the street. Given but the two facts that the man is, *e.g.*, a butler and that he is run over in the street, you would not be able to decide whether the injury arose out of the employment or not, but given the further fact that either (1) he had been sent by his master on a message, or (2) that he is enjoying an evening out, then you can determine whether he is in the course of his employment or not, and from that, if being run over is an inherent danger of the streets, you will be able to determine whether the injury arose out of the employment or not."

Lord Wrenbury, in the case we are considering said that a useful test in many cases is to consider whether at the moment of accident the employer would have been entitled to give the man an order, and the man would have owed the duty to obey it.

Where a workman is injured whilst engaged in performing the actual work he is engaged to do, there can be no difficulty in determining that the accident has arisen both "out of" and "in the course of" the employment, but then, as we have shown above in Lord Atkinson's definition of the test, the word "employment" covers and includes things incidental to the employment. Lord Atkinson instanced several such incidents: haymakers going a short distance to get water to drink to enable them to continue their work, and workmen taking their food on the employers' premises. Lord Wrenbury gave other instances: men going down to work in a cage, or standing by for the next job; and he adds in every case the facts have to be ascertained and discrimination made between the time during which, or the place at which, the employment is being carried on, and those during or at which it is not being carried on.

It is these incidental acts which cause the difficulty, and Lord Wrenbury pointed out that the definition given in Gane *v.* North Colliery Co. (1909 2 K.B. 539; *The Builder*, July 10, 1909), "all those things that he is entitled to do by virtue of his contract, he is for the purposes of the Act employed to do and they are therefore within his contract of employment" is far too wide for as he points out a man by virtue of his contract may be entitled to take a holiday, or he may be entitled to take vegetables from his employer's garden but he is not entitled to the benefit of the Act when he is on his holiday or when engaged in digging potatoes for his own use.

Lord Wrenbury says the definition should read "all those things that in the course of his employment he is entitled to do by virtue of his contract he is for the purposes of the Act employed to do."

It appears, therefore, from the judgments in this case that the real test as to whether the accident has arisen both "out of and in the course of" the employment is, has the accident arisen from the man's performing a duty to his employer? Lord Wrenbury pointed out that does not mean that it was the man's duty to perform an act, but it is sufficient if the man is doing his duty at the moment. An example of this may be furnished by the case, Upton *v.* Great Central Railway, a case in the House of Lords, which we noted January 25 (now reported 1924, A.C. 302). In that case a man was returning from work by train, it being part of his employment to proceed to his place of work in return from it by train, and he slipped on the platform and sustained injury, and it was held he was entitled to compensation, and it was laid down that there must be some causal connection, not necessarily physical connection between the accident and the circumstances the workman had to encounter within the scope of his employment. This may be put in other words that the workman when he sustained injury was performing a duty to his employer.

Perhaps one of the most difficult cases to bring into line with the present decision is that of the House of Lords in Redfern *v.* Armstrong Whitworth (1920, A.C. 577), a case we commented upon in our issues April 16 and October 29, 1920, where a woman who had gone to a canteen provided by the employers and which it was optional for her to use, whilst hurrying back to work slipped on the stairs, and the majority in the House of Lords held she was within the . Lords Finlay and Dunedin, however, dissented from that judgment, and Lord Atkinson appears to suggest that perhaps the test now accepted was not applied by two of the Law Lords for the majority, but that in any case it does not weaken the test as laid down in Parker *v.* *Black Rock*, and now applied.

It is to be noted that Lord Shaw of Dunfermline, who dissented from the rest of the House in the case we are considering, practically agrees with the general principles laid down, but bases his opinion on the fact that the whole of the arrangements with the workman as regards transit by the railway company formed part of his contract of service, and thus the transit was directly connected with his employment, and he strengthened his argument by reference to the Truck Act. The case is certainly one

dship, for the man was deprived of any edy against the railway company by reason his agreement with his employers and yet without his right to compensation from his ployers, and there is much to be said for the w that if a man gives up his right, as one of the blic, against the carrying company that makes transit part of his contract of employment, so far as the general principles we have been eavouring to explain are concerned, Lord w's judgment practically accepts them, but differed on the construction of the particular ntract.

Mortgagee and Mortgagor.

We may draw attention to an unusual case, hergill *v.* See, briefly reported in *The Times*, cember 20.

The plaintiff in the action held a mortgage on ouse from the Rev. H. C. Kinred, and by mortgage deed it was provided that the rers of leasing conferred upon the mortgagor section 18 of the Conveyancing Act, 1881, uld not be exercised without the previous sent in writing of the mortgagee except in case of a letting for any term not exceeding ee years, a provision similar to that contained he lease in the case of Roberts *v.* Enlayde, ch we recently noted. The mortgagor had rever granted a lease of the premises to the endant in this action for a term of seven years rent of £50 per annum, six years' rent being d in advance, The mortgagor who was in ears with his payments of interest on the rtgage had left the country and this action brought against his tenant for trespass and eclaration that the lease was void *ab initio* gainst the plaintiff, the mortgagee.

For the defendant it was contended that ugh the lease was bad as it stood there was equitable jurisdiction in the Court to alter term of the lease so as to bring it within the ase in the mortgagee deed, *i.e.*, a lease for ee years, but the Court held that the express vision in the mortgage deed as to leasing le the case come under the rule of law which railed before the Conveyancing was passed, t is, that it was contrary to law for a mort- or to grant a lease without the consent of the rtgagee and therefore following the case hop of Bangor *v.* Parry (1891, 2 Q.B. 277), lease was absolutely void, and a declaration made to that effect, and 40s. damages for pass were awarded as against the defendant.

THE RATING OF LAND VALUES.

A Bill has been introduced by Sir John Simon read a first time, dealing with the ng of land values, and in introducing his Bill, John Simon referred to the old argument t the value of land was due not to the efforts he individual or his expenditure, but to the ivities and expenditure of the community, he claimed that his Bill would stimulate re- lding.

We have not the terms of this Bill before us, the party to which Sir John Simon belongs ed the taxation of land values before the tors at the last election, and the two subjects closely connected.

We imagined that the fallacy of this un- ned increment had been exposed in actual ctice under the Finance Acts, 1909-10, and the disastrous effects it had exerted on ding, even before the war, were now recog- d by all parties, but the first reading of this was passed by 244 votes to 119.

t is hardly necessary for us to declare that hese columns we take no party views on any ject, but we foretold the result of land taxa- before it was put in practice, and it would very disastrous to the already hampered ding trade were this principle again at- pted to be enforced.

t was favoured by the Liberal and Labour ties and was put in force for many years proved costly to the individual, unremunera- to the Exchequer, and disastrous to build- activity, and it was repealed by a Coalition ernment. In our present very serious culties, we hope that experience for once have taught its lesson.

PROPOSED AMALGAMATION OF THE R.I.B.A. AND SOCIETY OF ARCHITECTS

THE following is a précis of the proposals agreed between the Council of the Royal Institute of British Architects and the Council of the Society of Architects for the amalgamation of the two bodies :—

The Councils of the Royal Institute and The Society of Architects are agreed after a careful review of the situation from all sides that the interests of the profession, as a whole, will be best served by the amalgamation of the two Societies and a return to the position of 40 years ago, when the Society broke away from the R.I.B.A. on the Registration question.

They are further agreed that if terms satisfactory to Members of both Societies can be settled, such an amalgamation will undoubtedly strengthen the hands of the profession in dealing through one representative Society instead of two, with such questions as :—

(1) Registration.
(2) Education and the very complete system of schools which has grown up throughout the Empire.
(3) The control of Public Competitions.
(4) Professional Practice.
(5) Negotiations with Government and Public Bodies.
(6) Questions which continually arise between the profession and the public which it serves.

Both Councils realise that no terms can be arranged which will be equally agreeable to everyone, and that the members of each Society must make some concession to the common good.

Such an arrangement could only be suggested if, as both Councils believe, it is for the ultimate good of the profession and the public.

With this object in view the following terms have been agreed upon by the two Councils after much anxious consideration, and in due course will be recommended to the Members of both Societies for acceptance.

TERMS OF AMALGAMATION.

The Terms of Amalgamation conveniently group themselves under three main headings, and are to be embodied in a document agreed to by both Councils and circulated to the Members of both bodies.

(A) Membership.
(B) Action after Amalgamation.
(C) Finance.

(A) MEMBERSHIP.

1. (*a*) *Fellows of the Society*, approximately 170*, to become *Fellows of the R.I.B.A.*

(*b*) *Members of the Society*, approximately 980*, to become Licentiates of the R.I.B.A., with full corporate powers and the power of voting on all subjects, and the right to use the affix L.R.I.B.A. and the title "Chartered Architect."

(*c*) *Licentiates of the Society*, approximately 180*, to become Students of the R.I.B.A., with privilege of becoming Licentiates of the R.I.B.A. as and when they are qualified to do so. [See para. 3.]

(*d*) *Students of the Society*, approximately 130, to become Probationers of the R.I.B.A.

NOTE.—Provision to be made for Members of the Society who have passed the Society's Membership Examination, some 150 in all, to qualify for Associateship of the R.I.B.A. if they wish to do so, on passing a Special Examination in Design and in those subjects which are not included in the Society's examination.

2. The names of the Retired Members of the Society to be printed in a separate list in the R.I.B.A. Kalendar, and they are to enjoy the privileges of Retired Members of the R.I.B.A.

3. The qualifications to enable Licentiates of the Society to pass from the class of Students of the R.I.B.A. to the class of Licentiates of the R.I.B.A. to be drafted by the Council of the Society to correspond with the qualifications now in force to enable them to become Members of the Society.

4. Licentiates of the R.I.B.A. to be granted full corporate powers with full voting powers on all subjects with the use of the affix L.R.I.B.A.

5. All Fellows, Associates and Licentiates to be entitled to use the title "Chartered Architect" if they wish to do so, in addition to the appropriate R.I.B.A. affix.

6. The Society undertakes to cease approving candidates for membership as soon as the two general bodies have ratified the terms of the amalgamation.

7. Further, as these proposals entail alterations to the R.I.B.A. Charter and By-Laws, it is intended to ask the Privy Council to authorise the following additional alterations at the same time, which, it is believed, will facilitate the working of the Institute machinery—*i.e.*, proposals :

(*a*) To ensure a more adequate representation upon the Council of each corporate class.

(*b*) To effect continuity of a Council's policy by limiting the number of its Members put up for re-election annually.

(*c*) To increase the representation of the Allied Societies, including those overseas, on the R.I.B.A. Council.

(*d*) To enable important questions of Institute policy to be submitted to a referendum of all Members in lieu of a General Meeting in London only.

NOTE.—The following information is given to enable Members to see the effect of these proposals upon the Membership of the R.I.B.A. :—

* The remainder of the Fellows, Members and Licentiates of the Society, are already Members or Licentiates of the R.I.B.A.

BEFORE AMALGAMATION.						AFTER AMALGAMATION.	
Approximate Membership of the R.I.B.A.			Approximate Membership of the Society of Architects (October, 1923).				
Fellows	960		Fellows	200†		F.R.I.B.A.	1,130
Associates	2,350		Members	1,137		A.R.I.B.A.	2,350
Licentiates	1,380		Licentiates	167		L.R.I.B.A.	2,347
Students	293		Students	130		Students, R.I.B.A.	455
Probationers	500					Probationers, R.I.B.A.	630
TOTAL	5,483		TOTAL	1,634		TOTAL	6,912

† These figures include a certain number who are already Members of the R.I.B.A.

It is estimated that at the end of 10 years, at the normal rate of increase of the Associates and decrease of the Licentiates by wastage, the figures will be approximately :—

Associates	3,000
Licentiates	1,500

No provision is made for the admission to the R.I.B.A. of any unattached Architects other than the above, except through the ordinary channels, but it is hoped that many may be induced to join their local Societies allied to the R.I.B.A., and thereby assist towards the complete unity of the profession.

(B) Action after Amalgamation.

1. The R.I.B.A. undertakes, immediately upon the ratification of the terms of amalgamation, to appoint a Registration Committee upon which the Society shall be equally represented with the R.I.B.A. to draft and carry through its various stages the Registration Bill until it becomes an Act.

2. The Society undertakes, when the amalgamation is completed and the transfer of members effected, to begin to take the necessary steps for the winding-up and dissolution of the Society.

(C) Finance.

1. The Members of The Society of Architects joining the R.I.B.A. will not be required to pay entrance fees. The subscriptions for all Members of the various classes of the R.I.B.A. to be as follows :—

Fellows	£5 5*s.* 0*d.* per annum.
Associates & Licentiates	£3 3*s.* 0*d.* per annum.
Students	£1 1*s.* 0*d.* per annum.

2. The surplus of assets over liabilities of the Society was estimated at the last audit in October 1923 at £7,000. It is estimated that if the scheme is carried through the R.I.B.A. will have an additional income of between £5,000 and £6,000 a year.

APPENDIX.

Opinion of Mr. Edward Shortt, K.C.

On the advice of the Parliamentary Agents of the R.I.B.A., the opinion of Mr. Edward Shortt, K.C. (late Home Secretary), was obtained.

The case submitted to Mr. Shortt and his opinion upon it are appended.

Royal Institute of British Architects.

Memorandum for Opinion of Counsel.

1. The architectural profession demand that a serious attempt should be made to obtain the Statutory Registration of Qualified Architects.

2. At present there are two independent professional organisations in this country :—

(*a*) The Royal Institute of British Architects, with over 5,000 members and students and a network of "Allied Societies" and Branches (37 in number), covering the whole country, and embracing several thousand additional members. The R.I.B.A. is the Royal and Chartered body founded 90 years ago to foster the art of architecture and protect the interests of the profession.

(*b*) The Society of Architects, founded 40 years ago, an unchartered body of some 1,600 professional members and students, completely independent of the R.I.B.A. and endeavouring to discharge similar functions to those of the R.I.B.A.

3. The Society of Architects have declined to support and would almost certainly oppose a Registration Bill promoted by the R.I.B.A. on the only lines which are acceptable to the Council of the R.I.B.A., but would support a Bill which provided for the establishment of a new federal organisation to control the whole profession.

4. The R.I.B.A. will not promote or acquiesce in a Bill which hands over the control of the profession to a new body independent of the R.I.B.A., and will only support a Bill which confirms the chartered position of the R.I.B.A. as the supreme governing body of the profession.

5. As a way out of this *impasse*, the Council of The Society of Architects propose to dissolve their Society on condition that their members are admitted into the R.I.B.A., so leaving the R.I.B.A. with its network of "Allied Societies" as the sole and supreme professional organisation of Architects in the Kingdom.

6. If this solution is accepted, there is no obstacle to the drafting of a Registration Bill on the lines desired by the R.I.B.A.

The opinion of counsel is desired on the following question :—

"Has the R.I.B.A. a better chance of success with its Registration Bill if it absorbs The Society of Architects as suggested in paragraph 5, or if it leaves the Society in its present independent state ?"

Opinion.

Having regard to paragraphs 3 and 4 of these instructions, I do not think that any Bill could succeed in present circumstances. But if The Society of Architects dissolve, as suggested in paragraph 5 of these instructions, and the Members are admitted into the R.I.B.A., the hands of the R.I.B.A. would be immensely strengthened. Coming to Parliament, as they would, for the protection of the public as well as for their own better regulation, they would speak with the united and unanimous voice of the whole profession. I am of opinion that their chances of success would be infinitely greater than they would be in present circumstances.

E. Shortt.

3, Hare Court, Temple, E.C.1.
April 9, 1924.

Both the Royal Institute and the Society of Architects have issued statements referring to the scheme.

The R.I.B.A. states: "It is proposed that the R.I.B.A. should absorb the Society of Architects. The proposal is supported by most of the leaders of the profession, because of its immense value in dealing with all matters on which it is desired to influence public action, apart from and in addition to the question of registration.

"(1) As a Council we have declined, in the interests of the R.I.B.A., to consider a registration policy which does not leave the R.I.B.A. supreme as the registration authority.

"(2) The Council of the Society of Architects could not see their way to support an R.I.B.A. Bill on these terms, but offered to consider the dissolution of their Society and the absorption of their members by the R.I.B.A. as an alternative.

"(3) As it was obvious that no success could be achieved if an organised body of architects, such as the Society, numbering some 1,700 members, were not in agreement with our proposals, we agreed to consider absorption, providing the position of our examined classes could be secured and no new class of members created.

"(4) The terms now submitted embody these vital principles. The R.I.B.A .will then occupy the undisputed position of being (with its allied societies) the only organised body of architects in Great Britain, the Associate class still retaining its distinction of being composed solely of men who have passed our examinations.

"(5) The class which will be mainly increased in numbers is the Licentiate class. This is a dying class, and by the effluxion of time will cease to exist altogether, leaving the R.I.B.A. with Fellows and Associates only, and no further admittances to membership without examination.

"If returned to office the Council will at once submit to the General Body proposals for confirmation.

"That members of the Royal Institute will support these proposals and take a broad and statesmanlike view of the situation is the earnest wish of the Council and of the members of the Allied Societies' Conference."

The Society of Architects states: "There are indications that any criticism by members may be directed chiefly to the proposal to transfer them to a class of 'Licentiates' within the Institute, but this class of 'Licentiates' must not be confounded with the present one, the members of which have no corporate existence within the Institut The new class of 'Licentiates' are to ha full corporate membership of the R.I.B.A and voting powers on all subjects, includir the Charter and By-laws, and the right describe themselves as Chartered Architects ar to use the affix 'L.R.I.B.A.' The Society proposal was for the new class to be describ as 'Members' of the Institute, but inasmu as the term 'Member' in a general sen would include Fellows, Associates ar Licentiates of the R.I.B.A., its use could n be restricted to one class of membershi There are some who consider the designati 'Licentiate' as suggestive of higher qualific tions than that implied by 'Member.'

"The only object of the Council of t Society in agreeing in principle to amalgam tion with the Institute is for the purpose accomplishing the main object for which t Society was founded and is being carried o viz., the attainment of statutory registrati of architects. The Council of the Society of the opinion that such amalgamation is necessary preliminary to registration, and th the chance of obtaining statutory registrati will be enormously strengthened and increas by amalgamation with the Institute, which itself pledged to pursue the same object ar has given an undertaking to the Society, the event of the amalgamation taking plac to promote a Registration Bill and to purs it until it becomes an Act.

"The Council trusts that if and when t time comes that the members of the Socie are called upon to make a decision in rega to amalgamation, they will regard the pr cess of absorption merely as a means to end, and that any who for personal reaso might, in normal circumstances, have f disinclined to accept the proposed terms transfer will realise that they are the me bers who, if they are far-seeing and generc enough to put aside personal feelings a support the Council, will be amongst the without whose aid it would have been i possible for the Society to take advantage the opportunity now afforded it of accompli ing the main object for which it was founded

MEETINGS

Saturday, *April* 26.

Royal Institute of British Architects.—Visit Kensington Palace.

Monday, *April* 28.

Illuminating Engineering Society.—Discuss on "Some Problems in the Lighting of Tex Mills," by Mr. E. L. Oughton and Mr. P. Waldram. At 18, John-street, Adelphi, W.C 8 p.m.

Architectural Association.—Mr. H. Crich Millar on "The Role of Phantasy in Lif At 34, Bedford-square, W.C.1. 7 p.m.

London Society.—Dinner. At Hotel Victo W.C.2. 7.45 p.m.

Tuesday, *April* 29.

London Association of Master Decorator Annual General Meeting.

Builders' Clerks and Benevolent Institutio Annual Dinner. At King's Hall, Holb Restaurant. 6.30 p.m.

Wednesday, *April* 30.

Royal Society of Arts.—Sir H. Maybury "London Dock District and Its Roads." 18, John-street, Adelphi, W.C.2. 8 p.m.

New Hospital at Epsom.

The new West Park Mental Hospital, wh the London County Council has had built its estate at Epsom, and which is to be ope by Mr. Wheatley, Minister for Health, June 20, occupies 97 acres, and will have about £750,000. There will be accommoda for 2,000 patients, and the institution is fourth of its kind on the L.C.C.'s Epsom es of 1,040 acres.

WAGE DISPOSAL FOR COUNTRY HOUSES

By H NAY C. ADAMS, M.Inst.C.E., M.I.Mech.E., F.R.San.I.
(Lecturer on Sanitary Science, Northern Polytechnic Institute).

E sewage from isolated or independent ences, or blocks of cottages, may be dealt by a conservancy system or a water-carriage m. In the former the excretal matter is ted in pail-closets or privies, which are ied periodically and the contents buried e ground, while the slop water and liquid s are either thrown on to the garden d, or, preferably, discharged into drains convey it from the immediate vicinity of dwelling. In a complete water-carriage m water-closets are used and the whole e foul matter from the premises is collected system of drains.

ere are several alternative methods of g with the sewage delivered by the s. It may be collected in a cesspool, should be watertight and sufficiently large ld about three months' flow of sewage. revent the cesspool filling too quickly, all ater should be separated from the foul and should be carried off by a distinct set ains. In order to avoid the expense and asantness of emptying the cesspool it is times allowed to fill up and overflow on to venient plot of land, but this is an undesir- arrangement because in such circumstances ewage is in a highly septic condition and ot be exposed on the ground without e. Further, during frosty weather the e will pond on the surface, while during weather the ground will tend to become logged, and during some of the remaining growing crops are better without the ation of sewage; consequently overflows enerally prohibited. The manurial value sewage is small, as it is diluted with such a atively large volume of water, but if it is desired to put it on the land it should low through a small tank, holding about he daily flow, to intercept the solid matter. accumulated matter should be removed this tank weekly, and some arrangement be made for dealing with the liquid during times as it cannot be put on the land. her method is to pass the sewage through a entation tank and dispose of the liquid by rigation, or alternatively the sewage may mpletely purified, when the effluent water e discharged into any convenient ditch or . The cesspool system is certainly cheaper st cost than a proper purification plant, s emptying is a continual source of expense, as usually performed, is a most objection- peration. Except for very small property, the quantity of sewage is similarly small, ification plant is decidedly to be preferred. sanitary and convenient, and the cost of p is negligible; it requires very little vision, but such should be given regularly; f properly designed and managed with ry intelligence it will purify the sewage fter year without any nuisance from smell herwise.

effective and economical purification and al of the sewage from isolated habitations of the most difficult problems of sanitary e on account of the small and highly- ntrated volume of sewage, the variable and the frequent rushes of bath and ry waters. From the structural point of difficulties usually arise from the absence icient slope in the surface of the ground to the sewage to be treated and discharged h a level that it will gravitate freely to natural stream which will carry it away. uantity of sewage to provide for is cal- d on the basis of a certain number of s per day per head of the persons present house, and varies within wide limits. responds very closely with the quantity of used, for, after all, sewage is only the pure supply fouled by soap, grease and other ties resulting from the cleansing of houses ensils, from personal ablutions and from y processes, together with urine and fæces emanating from the body. For cottage property with water-closets and fixed baths the quantity may be 15 gallons per head per day, but if such fittings are not installed the quantity may be as low as 10 gallons. For larger property, hospitals, &c., 40 gallons per head per day is not an excessive allowance, while for industrial schools and public institutions 30 gallons may be expected. Visitors must be included with the residents, and allowance should be made for horses (15 gallons per day) and carriage and car-washing (8 to 15 gallons per day each).

The design of the works must necessarily allow some latitude in the quantity of sewage that can be dealt with, but it is equally detrimental for the allowance to be excessive as to be insufficient. If the number of persons in residence varies greatly from time to time it is advantageous to arrange the installation in two parts, only one of which would be used when the daily flow of sewage is small. Generally speaking, the greater the volume per head the weaker the sewage. The presence or otherwise of water-closets does not materially affect the strength of the sewage or the difficulty of purification. The purification of sewage is partly a process of digestion whereby the fætid organic matter is resolved into its harmless elemental parts, and water-closet sewage has already been digested to some extent in its passage through the body, while it also brings with it a considerable volume of diluting water. It is a mistake to think that sewage requires less treatment when there are no water-closets.

The purification of the sewage is effected by micro-organisms consisting of low forms of animal and vegetable life which multiply very rapidly. It has been stated that sixteen million organisms are produced in one day from one bacterium These organisms exist in the sewage itself and are retained in the purification plant while the sewage passes slowly through it. The plant should be devised to provide suitable environment for the organisms to develop, and to maintain them in a high state of efficiency. The organisms consist of anaërobic bacteria living and working without air and aërobic bacteria which require an ample supply of light and air. The function of the former is to break down and liquefy the organic compounds and reduce them to simpler forms, while the aërobic bacteria oxidise and nitrify the organic matter in solution and complete the purification of the sewage. It follows, therefore, that a complete plant must consist of two distinct portions—first, a tank where the greater part of the solid matter in suspension is intercepted and partially liquefied, and, second, a bed for the aërobic bacteria, called a filter, freely exposed to the air, to render the organic matter harmless and the effluent fit to discharge into any small water-course. A typical arrangement is shown in Farrer's improved automatic distributor illustrated in Fig. 1. Proposals are frequently put forward for treatment of sewage in tanks only, on the assumption that the resulting liquid is "half" purified and that as the visible solid matter is extracted no harm can result from the discharge of the effluent. This is totally wrong, as the sewage is not partially purified but only prepared for purification, and the liquid is actually more offensive than the crude sewage, because decomposition is in a more advanced state.

Septic sewage is that which has undergone extended decomposition under anaërobic conditions, and a septic tank is one designed and worked to produce that result. Any tank will become a septic tank if it is of large capacity relative to the daily flow at the time, and if the sludge is allowed to remain for long periods in the tank. A tank through which the sewage passes in a short time and from which the sludge is removed frequently is called a semi-septic, non-septic, liquefying, or sedimentation tank. In the case of town sewage the operation of breaking down the solids in suspension is commenced during the passage of the sewage through the sewers, and sewage travelling some distance is partly septicised when it reaches the works; consequently the period of detention in the tanks has been reduced so as to stop the anaërobic action from proceeding too far, because septic sewage is more difficult to treat on open filters.

In the case of private installations the circumstances are quite different. The sewage reaches the outfall in a few minutes, paper and fæces arrive in an unbroken condition, and the suspended solids in the slop and waste water are practically unacted upon. Obviously, a longer period of detention must be given before the sewage is suitable for treatment on a filter. The discharge of large volumes of hot waste water from the house is detrimental, but the effects can be nullified by a fairly large tank, the liquid in which will exert a cooling effect. As the sewage passes through a tank the light flocculen

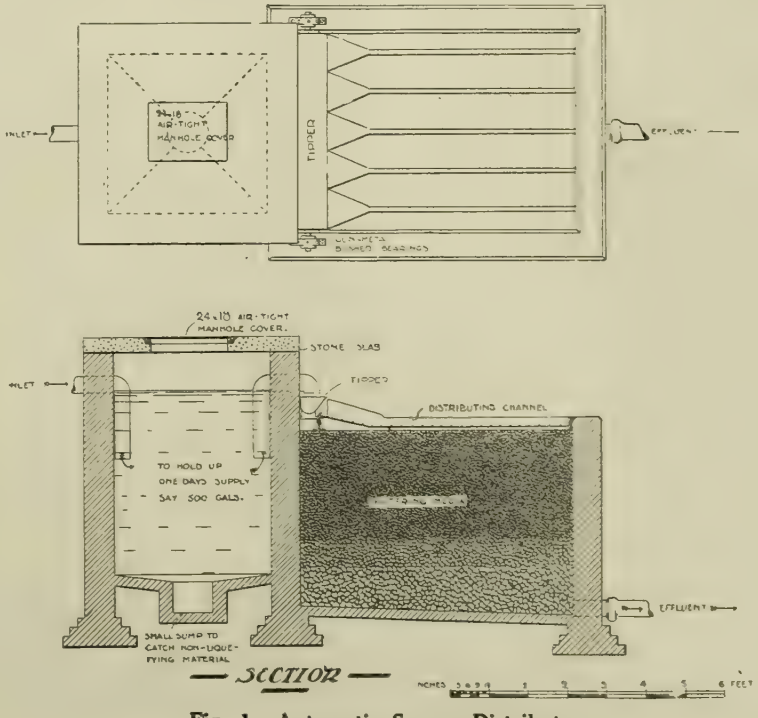


Fig. 1—Automatic Sewage Distributor.

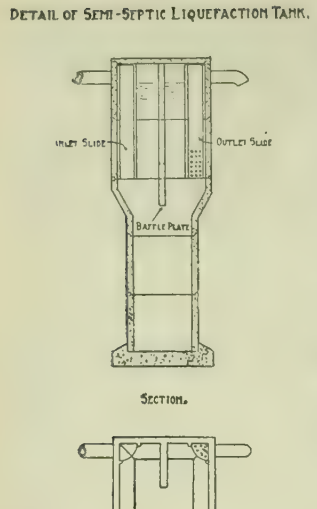


Fig 2.

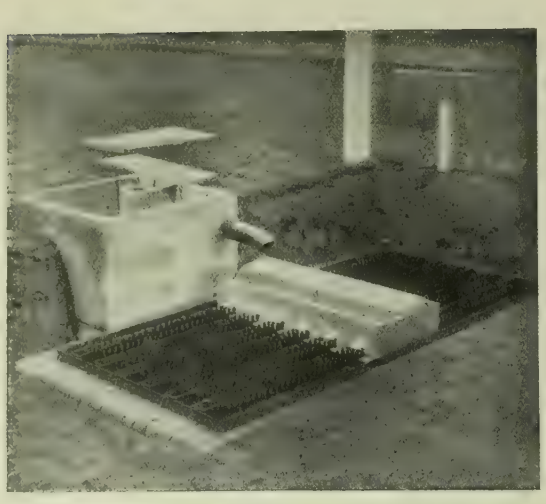


Fig 3.—Semi-Septic Tank and Filter Distributor for House with Ten Persons.

matter rises to the surface and forms a scum, while the heavier suspended matter sinks to the bottom as sludge. The liquid at or about the middle of the depth of the tank is therefore fairly clear, consequently the outlet should be arranged to draw off the liquid at a level 15 in. to 24 in. below the surface. The inlet should be similarly submerged to prevent disturbance of the scum or sludge. For the same reason the total depth of the tank should be from 5 ft. to 6 ft. In order to secure the necessary detention of the liquid, the volume of the tank should be equal to from one to one-and-a-quarter times the total daily flow. The rate of inflow to the tank will correspond with the flow of sewage from the house and may vary from nil to forty times the average flow. The best results would be obtained by an even rate of flow through the tank, but as this is impracticable the area of the tank should be comparatively large so that a sudden flow of bath waste shall not unduly raise the surface level and increase the "head" of discharge; and the outlet should be restricted or controlled. A small pipe, say, 1½ in. diameter, or an orifice, would effect the retardation of the flow through the tank, but they would be very liable to become choked in use without constant cleaning. A floating weir with narrow outlet gives good results, but it is expensive; it allows any rush of bath or laundry water to pond up in the tank and flow out at an even rate. In order to effect a thorough mixing of the fresh sewage with that already in the tank, the inlet and outlet should be arranged to prevent a straight flow through, thus an elongated form of tank is desirable; a proportion frequently adopted is length twice the width. In the tank designed by Messrs. Tuke & Bell (Fig. 2) the circulation of the liquid is brought about by a baffling partition wall. Fig. 3 shows a complete installation by the same firm. It will be desirable generally to cover the tank to prevent the possibility of smell, but ventilation should be provided by means of a fresh-air surface inlet and 3 in. vertical outlet shaft at least 6 ft. high. A sump should be formed in the floor in a convenient position to permit the insertion of a pump for the removal of the sludge. The sludge resembles watery mud in consistency, and can be easily removed with a chain pump of the usual type.

The filter may consist of any hard vesicular material with a rough, unglazed surface, and that is not likely to break down or disintegrate under the weather and working conditions. Gasworks' or destructor works' clinker is good, but there is apt to be too much coke mixed with the former. Coke will probably crush in the bed, and the resulting dust may interfere with the porosity of the filter. Blast-furnace slag is extremely good if the glassy type be avoided. Gravel is not desirable, as the surface is too smooth to afford safe lodgment for the bacteria, which may be washed away by an excessive flow at any time. Burnt ballast is undesirable, as in use it tends to revert to a clayey character and solidifies in the bed. The material should be freed from all dust and be washed before use. In forming a filter a concrete foundation, 6 in. thick, is laid over the site with falls to one point for the discharge of the effluent. On the concrete, two or three lines of 3 in. butt-jointed field pipes are laid, converging to the outlet. It is advantageous slightly to recess the surface of the concrete to form cradles for these pipes. The pipes are then surrounded and covered with a layer 6 in. thick of large clinker, say, 4 in. gauge, and then the remainder of the bed built up with material broken to ¾ in. gauge. The total depth should be about 5 ft., but if the available fall is limited the depth may be reduced to 3 ft. as a minimum. The quantity of material required depends upon the strength of the sewage; a good result should be produced with 1 cub. yard to every 50 to 70 gallons of the daily flow. The outside of the bed may be enclosed with light concrete or brick walls, or encased with expanded metal supported on a light T-iron framework.

A new filter has no purifying effect, but after sewage has been run through it for some time each particle of the material in the bed becomes coated with a layer of bacterial growth. The sewage is distributed over the surface of the bed, and as it slowly trickles or percolates through it comes into intimate contact with the bacteria, and is converted into a clear, harmless liquid. An even distribution of the sewage over the surface is an essential to success, and many designs of distributors have been evolved to effect this. Two types are shown in Figs. 1 and 3, which consist of a number of troughs from which the sewage overflows fairly regularly on to the surface of the bed. Another design, the invention of Mr. F. Wallis Stoddart, is shown in Fig. 4, and consists of a plate with V-shape corrugations slotted at the top and having holes in the bottom through which nails are placed. As the sewage fills up in the troughs it overflows and runs down to the underside of the V, where it collects and drops from the bottom of the nails in the form of a fine rain. A distributor which involves the discharge of the sewage through small holes is generally very efficient, but requires frequent attention owing to the tendency of the holes to clog up. With a small and very variable flow, as from a domestic installation, it is necessary to provide an automatic tipper which collects the sewage flowing from the tank and which falls over when full, ejecting the sewage through all the distributing channels on one half of the bed. The tipper in its position is then ready for discharging on other half of the bed as soon as it is full ag

If the levels permit, the effluent water be run direct into a small stream, but desirable that the flow of the stream sh exceed that of sewage in the ratio of at 5 to 1. If such a stream is not available, sometimes in view of other circumsta double filtration is desirable. In such two filters are constructed at such levels the effluent from the bottom of the first flow on to the top of the second, at the bo of which the final effluent will be deliv To obtain a scheme worked throughou gravitation a fall of about 8 ft. is desir although one could be arranged with sli less. When a suitable fall is not availabl extra tank has to be constructed to collec effluent from the filter. The capacity of tank depends upon the frequency with whic contents are pumped out; the liquid is and can remain in the tank an indefinite pe Any efficient pump can be used, worke hand or power. If automatic pumpin required a wind engine and pump ma useful combination.

If the soil is fairly light, the sewage, passing through a tank, may be dispose by sub-irrigation, thus avoiding an arti filter bed. About 1½ square yards of lan required for each gallon of the daily The plot should be prepared by laying ordi 3 in. perforated butt-jointed pipes with j ½ in. apart, in grid-iron form, at a dept 12 in. below the surface of the ground, falling about ½ in. per yard towards extremities. Junction boxes with stops sh be provided to regulate the flow. A syph or tipper discharge should be used to e the sewage reaching the extreme limits o irrigation ground, and the main delivery should be close jointed. Each discharge sh be sufficient to fill all the pipes. The d buting pipes will require to be taken up peri ally and cleaned; it is, therefore, desirab lay them on narrow concrete beds, sli hollowed, which not only form guides fo pipes, but ensure their being laid and m tained in correct lines and gradients. sewage will become puirfied as it sinks thr the ground, and may be allowed to flow through natural courses provided no su water in the neighbourhood is used for dri purposes. Where necessary the ground ca under-drained to collect the effluent by field pipes laid at a minimum depth of but, of course, a safe outlet must be provi

There are no patents in the principl sewage purification, nor in the design o works for the purpose as outlined herei there is plenty of scope for individual but certain fittings, such as the distribu of which there are numerous patterns, protected. It is impossible to advocate particular method; each case must be consi and the solution rest on the judgment o sanitary engineer.

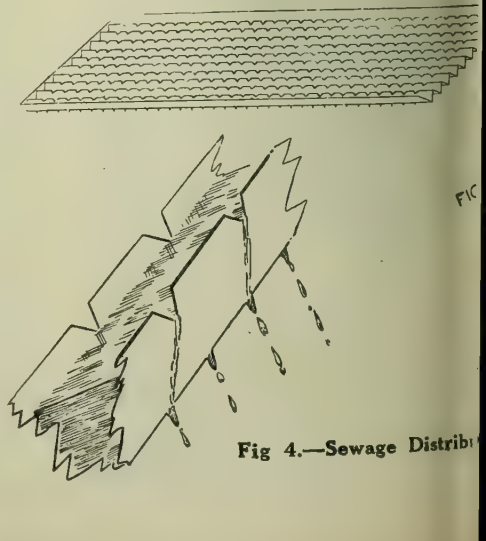


Fig 4.—Sewage Distribu

ELECTRIC LIFTS

At a recent meeting of the Institution of ectrical Engineers Mr. H. Marryat read a per entitled "Electric Passenger Lifts."

After giving some historical notes on the bject he said given the necessary particulars a building the lift engineer would be able to lculate the probable traffic. It must be mitted, however, that the lift engineer himself l not usually employ any scientific method in iving at the number of passengers per minute ich would require lift service on each par- ular floor during the busy part of the day. ch would draw upon his own experience and me-made formulæ. If these could be collated e general advantage would be served and ny mistakes avoided.

Some interesting figures derived from Ameri- n practice were given in a paper by Mr. rrison P. Reed from which it was learnt that New York City from 65 to 100 sq. ft. of rent- le floor space was the average allowance per rson occupying an office building. In other ies the allowance should be increased to 0 sq. ft. per person and it was estimated that ift service should be provided to empty such ildings above the first floor in from 40 to 60 nutes. It was, however, doubtful if American ures of that description applied to this untry. The only English pronouncement at he could find was contained in a paper read cently by Mr. C. H. I. Day, in which he said— ferring to a large office building—that the erage density of population was about 120 sq. of floor space for each occupant, but when e or two large firms occupied a whole building e population was almost certain to be denser an this, amounting perhaps to as much as sq. ft. of floor space per person.

In the absence of any definite information on at point, Mr. Day said it was considered safe assume about 110 sq. ft. per person as a fair erage. He also said that in buildings where sts had been made the rate of traffic flow at the siest time of the day had been found to be ch as to include the equivalent of the entire pulation of the building in 45 minutes, and at the passenger traffic could be predeter- ned by allowing for a period of rush from 15 20 minutes, during which time a number equal one-third of the population of the building s dealt with.

Figures derived from his own observation re not in agreement with this; he had not t amassed sufficient data to permit of his king an authoritative pronouncement.

In the first place the buildings in which lifts re usually installed had been divided into arge number of classes and each class had been parately examined under conditions which, believed, applied to that particular class. r instance, in large drapery establishments l multiple-store buildings he counted the mber of persons per minute proceeding from ground floor to upper floors. In office buildings of the class usually sub-let to a large number of different tenants he took no notice of persons arriving at or departing from the basement, ground floor or first floor, but made a count upon the second floor of all persons arriving at, passing, or departing from that floor. In office buildings in which several or all the floors were occupied by the same tenant—an insurance office, for instance—he counted the number of persons arriving at and departing from each floor, so as to check the inter-floor traffic; and in buildings where there was a restaurant on one of the floors a separate census was taken of the number of persons arriving at and departing from the restaurant, in order to check the special traffic so created. In taking that census of traffic in existing occupied buildings, he had at the outset been faced with the fact that existing lift accommodation was, in almost every instance, insufficient. It had been necessary, therefore, to count not only persons using the lifts but also those using the staircases.

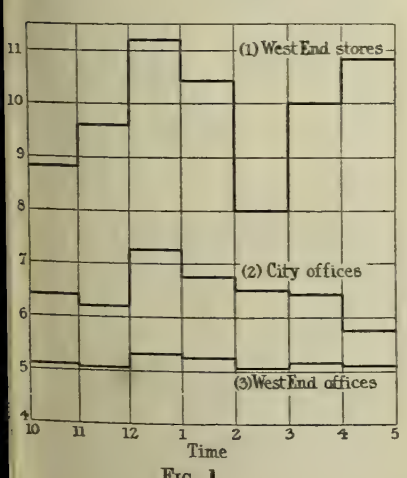


Fig. 1.

In Fig. 1, curve (1) represented the average traffic counted in a group of West End drapery establishments. In each case the number of persons proceeding per hour from the ground floor to any other floor had been counted, and the curve represented the average of all establishments examined. Curve (2) represented a similar average deduced from a count taken in a large group of City office buildings of the class in which the floors were sub-let to a variety of tenants. The curve indicated the number of persons per hour who arrived at or passed the second floor. In order to obtain a more accurate estimate of the period between 1 o'clock and 2 o'clock mid-day, the more detailed curves shown in Fig. 2 were prepared. The third example in Fig. 1 comprises a similar group of offices situated in the West End of London. The different characteristics were strikingly shown. In the latter case there was no "rush" period, so that in order to provide the same lift facilities for the same population, less lift capacity was required.

To arrive with more accuracy at the lift capacity required for a City office building of the class usually sub-let to a variety of tenants, it would be observed from Fig. 1 that the largest amount of traffic occurred between noon and 1 p.m. As the effect of the dinner-hour traffic was not clearly indicated, it was decided to take detailed observations over the whole period from 11.30 a.m. to 2.30 p.m. in order to arrive at the true maximum traffic requirements on the building.

Eleven office blocks comprising both large and small buildings were selected. In every case care was taken to watch not only all lifts but all staircases simultaneously. A count was made upon the second floor of every person arriving at, departing from, or passing that floor in each direction. The result of that count had been carefully reduced to persons per hour per 1,000 sq. ft. of rental floor area above the first floor. The observations were recorded at the end of every minute, and plotted for each separate building in the series of curves shown, the average of which was given in Fig. 3. Some interesting things might be learnt from this. It would be noticed at once that the traffic was inclined to move in bunches, and that had the observations been taken over 2-minute intervals the curve would have been very different in form. A curve had been prepared to illustrate this, and showed clearly the errors likely to arise from taking a count over any period longer than one minute, as it was the maximum traffic, and not the average with which the lift engineer had to deal.

Fig 3 showed that the average traffic per hour per unit of floor space taken during the period 11.30 a.m. to 2.30 p.m. was approximately 6.98, and between 12.10 p.m. and 1.10 p.m., 7.5. If, however, provision were made for the average traffic only, it was obvious that many people would either wait for several minutes for lift service or use the stairs in preference.

It might be considered unnecessary to provide accommodation calculated upon a maximum traffic which might only occur during a single minute of the day, but in that connection it must be remembered that the curve itself was an average of 11 typical buildings and that the maximum of 9.6 must be compared with the maximum of over 20, shown for a 1-minute period on three of the individual buildings. It was reasonable, therefore, to provide for the maximum indicated in Fig. 3.

The effect of providing a lesser lift service might be gauged by reference to Table 1, which gave figures for City (London) office buildings.

Table 1.

Lift capacity in persons per hour per 1,000 sq. ft. rental floor area above first floor.	Number of minutes during the day when lift capacity will be insufficient.
7	84
7.5	56
8	33
8.5	14
9	5
9.5	1

Assuming that a lift capacity of 9.6 persons per hour per 1,000 sq. ft. of rental floor area above the first floor in the class of building specified were allowed, and taking the New York allowance of 65 to 100 sq. ft. of rental floor space per inhabitant—say 82.5 sq. ft.—the lift capacity arrived at would allow for emptying the building above the first floor in 1 hr. 15 min., a figure which differed altogether from those arrived at by American authorities and by Mr. Day, but which was, he believed, when applied to buildings in the City of London, a more accurate one.

In order, then, to discover the lift capacity in such a building, the following formula might be used:—

$$\frac{9.6A}{NL}$$

where A = thousands of sq. ft. rental floor area the first floor;
N = number of circular trips, including stoppages, which could be made per lift per hour; and
L = number of lifts.

Having discovered the total lift capacity required, it was next necessary to decide the number of lifts to be employed and their speed.

As about 30 seconds represented the limit of patience to be expected of the average city man waiting for a lift, a building could not be considered to be adequately served when the occupants or visitors were asked to wait longer. To calculate the number of lifts required to handle a given traffic and give a half-minute service, the overall speed of the lifts—allowing for all stoppages—must be known. The number of stoppages a lift might be required to make in the course of a return journey from the ground floor and back again varied considerably, but in the class of building considered it was found to average about one stop for every 42 ft. of running. Allowing 12 seconds per stop for loss in acceleration, deceleration, opening and closing of gates and for the time taken by the passengers in entering and leaving the car, together with a further allowance to cover

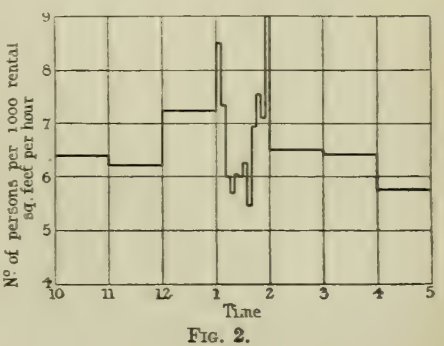


Fig. 2.

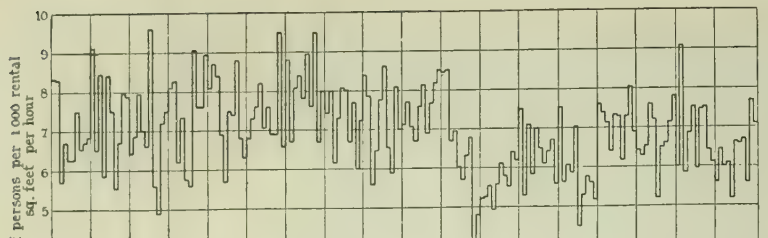


FIG. 3.

general loss of time, the overall time in seconds required for the circular trip would be :—

$$\frac{60 \times 2T}{R} \times \frac{2T \times 12}{42}$$

where R = running speed of lift in ft. per min.,
T = total travel of lift in feet in one direction.

In the case of a lift with 100 ft. travel and a running speed of 200 ft. per min., the overall time for the circular journey would be 117 seconds. In such a city office building two lifts of given capacity might not provide the required service, whereas three would more than do so, but by slightly increasing the speed the two lifts would suffice.

He made an allowance of 12 seconds for stoppage and lost time in an all-round average service. This would only be found sufficient provided the car were not too large. If the capacity was more than 10 persons—including attendant—the time allowance and the total lift capacity must be increased accordingly. It must also be assumed that the lifts were suitably situated and designed with wide openings for the easy ingress and egress of passengers. Under such conditions the effect of running speed upon overall speed might be set out as in Table 2 for a lift of 100 ft. travel.

TABLE 2.

Running Speed.	Overall time per circular trip with 100 ft. travel.
ft. per min.	secs.
100	177
200	117
300	97
400	87
500	81
600	77

The saving in overall running time fell off as the running speed was increased, so there must come a point at which additional capital cost was not justified by the saving in time. In Table 3, approximate figures were given in order to indicate the relation of running speed to capital cost for a lift designed for a load of 10 persons.

TABLE 3.

Running speed.	Extra cost (approx.) of machinery and safety devices (July, 1923).
ft. per min.	£
60	—
100	25
200	75
400	150
500	190
600	200

The figures did not represent a large percentage upon the cost of a lift of the travel and capacity under consideration, and, when taken in conjunction with a consideration of the saving of rent and attendance, would generally work out in favour of the higher-speed lift.

In Fig. 4 were shown diagrammatically the methods of reeving more usually employed, in (*a*), (*b*), (*c*) and (*d*), the winding engine being indicated at the head of the well, and in (*e*), (*f*), (*g*) and (*h*) at the foot. The ideal arrangement was indicated in (*a*), in which the driving sheave spanned the distance between the suspension points of the car and counterweight. Arrangement (*b*) was not so satisfactory but might be necessitated by considerations of economy, because the smaller the diameter of the driving sheave the less expensive were the motor and gear, or because the distance between the car and counterweight centres was too great to be conveniently spanned by a single sheave, or in order to comply with the particular building plan. Arrangement (*c*)—sometimes termed the "full-wrap drive"—might be employed where the out-of-balance load was considerable and there was danger of rope slip on the driving sheave. It was possible with this method of reeving to employ U grooves instead of the usual V grooves on the driving sheave, thereby greatly reducing the wear on the ropes. With this arrangement the idler sheave might be so placed [as in (*b*)] as to act as a diverting sheave in cases where the driving sheave could not be designed to span the distance between the car and counterweight. Arrangement (*d*) showed an adaptation of reeving which might be applied to (*a*), (*b*) or (*c*), introducing a 2 : 1 reduction in car speed. This method and further extension of the same principle might be conveniently employed when very heavy loads had to be raised at low speed. It would be noticed that in this diagram was introduced for the first time an S or backward bend in the rope. Such bends should be avoided where possible as they were much more destructive than a series of bends in the same direction.

Diagrams (*e*), (*f*), (*g*) and (*h*) showed similar arrangements but with the winding engine at the foot of the well. In these arrangements the lengths of the ropes were greatly increased and S bends were introduced in every instance. The arrangements with diverting sheave shown in (*f*) was for some reason exceptionally destructive of the ropes.

Whatever system of reeving was employed, the larger the diameter of the sheaves used the longer would be the life of the ropes. In these diagrams only one rope was indicated, but it must be understood that in passenger lift practice from four to six or more ropes running side by side were employed.

In the concluding part of the paper the lecturer outlined a number of experiments had made on the effect of various forms of for lift acceleration on the passenger.

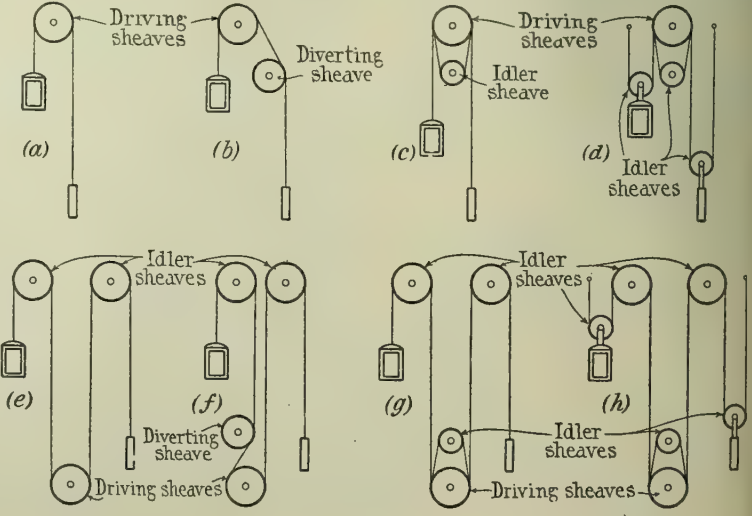


FIG. 4.

Trade Facilities Bill.

During the Committee stage of the Trade Facilities Bill, Mr. Sunlight moved an amendment to provide that State guarantees in regard to loans under the Bill might be granted on an undertaking of a co-operative society or trade union to advance deposits for house purchase for its members. He said that so long as the Nation's credit was to be used to encourage employment at home, he saw no reason why certain of the credits might not be earmarked to finance our own workpeople to enable them to obtain the deposit money with which to purchase their own houses. He considered that the organisation of trade unions and co-operative societies provided the machinery by which working people could be assisted to purchase their houses. He urged the amendment as a possible solution of the housing problem and he suggested that a credit of £10,000,000 should be ear-marked for the advancing of deposit money to those who desired to buy their houses. By these means he contended that in a very short time we should have £100,000,000 worth of houses being built.

The Government, however, were unable to accept the amendment, which was negatived.

Cost of Bricks.

In the House of Commons, Mr. Palin asked the Minister of Health whether he was aware that in South Yorkshire the cost of bricks had increased during the last few weeks by 10s. per thousand, one increase of 5s. about six weeks ago and another of 5s. last week, and that the cost of lime had also increased by 3 per ton; and whether he would take steps to prevent these continual increases in the cost of building materials.

Mr. Wheatley said he was aware that in certain parts of Yorkshire increases had taken place in the price of bricks, though he could not without further inquiry, accept the figures in the question as accurate. He was not aware that there had been any general increase in cost of lime, although he was informed that there were instances of increase in price in certain parts of Yorkshire. Such increases in prices as had been recorded were at present being investigated by the Committee on Prices of Building Materials and the question of any further steps that might be necessary to prevent increases in cost of building materials would be dealt with in connection with the Government's housing proposals.

THE BUILDING TRADES EXHIBITION

CEMENT CONGRESS

A NUMBER of papers on the manufacture and of cement were read at a Congress arranged Olympia this week by the Institution of ictural Engineers, and from those of more ortance to our readers we take the following :

ctural Steelwork reinforced with Concrete.

Ir. Ewart S. Andrews, B.Sc., A.M.Inst.C.E., paper on this subject, said in recent years ctural steelwork and reinforced concrete progressed upon somewhat parallel lines, comparatively little had been done in bining the two methods of construction. s was probably due to the fact that the two hods of construction had been regarded as petitors, and the specialists in each of the hods had concentrated upon demonstrating advantages of the one compared with those he other

n actual practice with structural steelwork steel was very often encased in concrete to ease its fire-resisting properties and to imise the dangers resulting from rusting. h encased steelwork was, however, almost riably designed so as to be capable of carry- the loading without any allowance whatever the additional strength of the steelwork due ts casing of concrete.

rom the results of experimental investiga- s which were already available it was e clear that the strength of structural steel- k could be increased very considerably by ns of the concrete casing, and it would ear that considerable advantages in practice d be obtained by combining structural lwork with concrete casing in such a manner the strengthening effect of the concrete n the steel could be allowed for in the design advantage still be taken of the protective lities of the concrete

lthough the proposed method of con- cting by means of comparatively light ctural steelwork encased in concrete had been developed to any very large extent e would appear to be several advantages e derived from its adoption. In the first e the light structural steel members could made strong enough to support the dead ght of the structure and the necessary ering so that erection could proceed very h more quickly than in the case of ordinary forced concrete work, because it was no er necessary to wait for the concrete to set re proceeding with the next stage. Con- rable economies could also be effected in centering because the concreting need not eed quite so quickly, and the dangers attend- upon striking centering comparatively kly would be minimised.

caling first with the question of columns, a amount of test results were already available. ne set of tests, columns built up of angle at four corners connected together by onal bracing and by batten plates were d both plain and filled with concrete, and est results showed that at three months illed columns were between 50 and 60 per stronger than the plain steel columns.

another series of tests carried out in the ersity of Illinois on the built-up section oyed in the United States, and known as Gray " column, consisting of four pairs of s back to back with batten plates between at 16 in. centres, tests were made for the columns and for various forms of concrete s. Here again the increase in strength was considerable, and was approximately 40 ent. increase in the case in which the con- just filled in the spaces between the steel.

ts were also made upon columns of the form which were (*a*) provided with a plain oofing external casing 2 in. thick, (*b*) pro- with a fireproof external casing 2 in. thick wire spiralled around the steel section.

plain fireproofed columns failed at a load almost exactly 50 per cent. that at which the plain steel columns failed.

In the spirally-reinforced columns two types were tested, in one of which the spiral reinforcement was 0.75 per cent., the spiral reinforcement in the other being 1 per cent. These were taken up to the full loading capacity without failure, although two of those with 0.75 per cent. spiral failure were considered to be near failure at a load just about double that at which the plain steel column failed.

The authors of the paper describing these tests stated among their conclusions that: " A basis for design which seems rational is to determine the strength of the steel column by the use of the column formula for the slenderness ratio of the steel columns, and then to consider the concrete of the core section (without reference to the length of the column for any length ratio, say a length of 15 diameters) to have a stress value proportional to the strength of the plain concrete, say, two-thirds of the cube strength. A suitable factor of safety would, of course, be somewhere applied."

These tests were made at 60 days, and at the end of six months the strength of the encased columns would clearly have increased considerably further with the increased strength of the concrete.

From these figures it was clear that a considerable increase in strength of a structural steel column might be expected to accrue from the fireproof casing with which it was surrounded, and that it would be worth while to pursue the subject farther to analyse additional test results that might be available with a view to arriving at a rational basis for practical design.

Coming to the question of beams it would be found that considerable increase in strength was given by the concrete casing. It had been the practice for some time of some designers to design the beams of an ordinary filler beam concrete floor upon a working stress of 10 tons per sq. in. in place of 7.5 tons per sq. in. as employed in ordinary design; others had followed the practice of designing filler beam floors by means of the formulæ resulting from the theory of reinforced concrete beams in which the area of the reinforcement was relatively high.

The results had recently become available of some extremely valuable tests made by Professors McKay, Gillespie and Lelnan for the Steel Fabricators' Section of the Canadian Manufacturers' Association, upon the strength of steel beams encased in concrete.

In these tests 10 in. steel beams 16 ft. long and 5 ft. apart were first tested plain by loading them and measuring the stresses in the flanges by means of extensometers. The first load placed upon the beams was the load equal to the dead weight of the concrete floor system and casing which it was intended later to cast between and around the steel beams. The next load was that calculated to produce a maximum stress of 16,000 lb. per sq. in. in the steel and corresponded to the combined dead and superimposed load for which the floor was designed. This designed load was 185 lb. per sq. ft. of floor area, and the test results for the plain steel agreed extremely well with the results obtained from the ordinary beam theory. A reinforced concrete floor slab of 1 : 2 : 4 concrete was then cast on the beams together with a casing of usual proportions, and after the concrete had set fresh values were taken of the stresses in the flanges of the beams. The stress in this case was bound to be in almost exact agreement with the stress previously found for the same load, and one could infer from this the interesting fact that with this form of construction there would be no compression stress in the concrete itself in the direction of the beams due to its own weight, the explanation apparently being that the resultant deflection occurred before the concrete had set and was entirely taken up in the beam.

Tests were then made to find the stresses in the beam for various superimposed loads placed upon the floor, and it was found that for the designed load of 185 lb. per sq. ft. this stress in the beam was only 9,530 lb. per sq. in. instead of 16,000 lb. per sq. in., and that in order to produce a stress in the steel of 16,000 lb. per sq. in. the inclusive load per sq. ft. had to be increased to 330 lb. per sq. ft.

This meant that the encased beam was 80 per cent. stronger than its calculated value to produce the working stress. The tests were not continued to destruction in either case, but he had no doubt that if they had been, the comparative strengths at the ultimate load would have been very much the same as that at the safe working stress.

A calculation based upon treating the combined section as a reinforced concrete T-beam with a large section reinforcement gave a result almost midway between the design value for the ordinary steel beam and the value found in these tests. From this it followed that the ordinary assumption that the concrete contributed nothing to the resistance of tensile stresses was one that erred on the safe side.

A consideration of the results both for columns and beams indicated that the concrete casing had an important strengthening effect upon the steelwork, and that they might look for considerable economy in design by a combination of ordinary structural steelwork with concrete.

The age of the concrete at the date at which the tests were made was 23 days only, and there was every reason to believe that the construction would increase considerably in strength beyond the above amounts with increase in time.

He believed that there were great possibilities for improved construction to be obtained by a combination of structural steelwork with reinforced concrete, and that the present position in which structural steelwork was regarded as a rival of reinforced concrete was one which did not result in obtaining the most scientific combination of steel and concrete for constructional work.

Uniformity in Concrete.

In a paper entitled " The 'Modulus' of Density of Concrete as a Means of Maintaining Uniformity throughout," Mr. A. S. Grunspan, B.Sc., A.C.G.I., A.M.Inst.C.E., said the question of density when relating to concrete for all purposes, and particularly when the concrete was to withstand a hydrostatic pressure, was all important to the engineer, and hence it was no wonder that he was tempted to administer " patent medicines " to the concrete when he had doubts as regarded its " bodily fitness." In order to procure good and dense concrete it was essential to pay attention to the degree of cleanliness of the aggregates, their grading, the chemical and mechanical properties of the cement, the mixing of the aggregates with the cement, and last, but not least, the amount of water to produce complete binding.

No matter how good a concrete might be obtained by the exercise of the above mentioned measures, one often heard that still better results would be achieved by the use of such and such an admixture, of which there appeared to be plenty on the market, and the bulk of which, by the way, left him very cold.

It appeared to him that from the known percentage of voids in the coarse material, sand, cement and the known amount of water used, a function termed the modulus of density of the concrete could be derived. This function would give an insight into the concrete's closeness of texture, and should enable them to adjust a mixture analytically rather than empirically.

It was generally assumed that the sand was so specified as to fill the voids of the coarse

material chosen for the work. and the binder (cement plus water) filled the voids of the cement. If, therefore, they began with known materials containing a known percentage of voids, and finished with a conglomerate in which the binder had a well-defined volume, the ratio of the volume of binding material (*i.e.*, the granular volume or the volume of the cement free from voids plus the volume of water) to the volume of voids which the binder had to fill, should give an insight into the density of the concrete, and that ratio he called the modulus of density.

It appeared that the density modulus was directly proportional to the amount of cementitious material used in a given mixture and inversely proportional to the percentage of voids in the coarse material, and consequently the percentage of voids in the sand.

It should not be misunderstood that by increasing the amount of water the amount of cementitious material and thereby the density modulus would be increased. The amount of water to be used was better understood nowadays, and no one with any knowledge of concrete would use more water than could possibly be helped. It remained, therefore, either to increase the amount of cement or choose an aggregate possessing a smaller percentage of voids; the latter, if at all possible, was to be preferred, for too fat a concrete was attended by many risks which it was advisable to avoid.

Engineers in the past used lime as an admixture to the cement in order to obtain a denser concrete. To some extent that practice was still being followed. The addition of lime, however, meant a reduction in the strength of the concrete, and could not on that score be always recommended. It was consequently very important that the nature and property of an admixture singly and in association with the cement be carefully studied by an expert before its use was decided upon.

The properties to be looked for after being satisfied that the admixture was free from elements likely to react adversely on the concrete, was the capacity to fix the calcium hydroxide, liberated from free lime which the cement or even the aggregates contain when the cement hydrated on setting.

The calcium hydroxide, particularly in concretes exposed to sea action, or when under the action of highly volatile spirits and light oils, was a source of weakness, and any "reagent" which was likely to absorb it was worthy of consideration.

It was known that if an active siliceous material were added to the cement it combined with the free lime, and produced a cementitious material instead of calcium hydroxide. Tests had been carried out on concrete in which trass had been embodied with good results.

It seemed to be quite common practice when specifying a mixture for a given concrete to stipulate that the sand and aggregate be well graded, without any reference as to the maximum percentage of voids the aggregate was to contain. It was obviously wrong to specify a mixture before the aggregates were settled on and chosen. The most obvious thing to do was to determine as accurately as possible the percentage of voids of the sand and coarse material each time a fresh consignment reached the work. From the specified mixture it could then be ascertained whether or not the mixture gave the same density modulus and the specifications varied accordingly.

Setting Time of Portland Cement.

"Some Disturbing Factors in Cement Setting" was the title of a paper by Mr. H. K. G. Bamber, who said in the course of his experience in the cement industry he had found that the factor in the use of cement least understood, and productive of the most difficulty, and sometimes disappointment, to the user, was the property which cement possessed—in combination with water—of consolidating itself into a permanent rock-like mass, enlocking in the process any materials with which it was in contact and which was not chemically repellent.

It should be obvious to all users of cement that the time limits of this process of consolidation, generally known as "setting," must be outside the time limit required for the sum of the mechanical operations employed for properly mixing the cement and water with the aggregates to be used, and placing the resultant plastic mass into its required station, otherwise the crystallisation constituting the setting would be interfered with or perhaps destroyed.

In the preparation of concrete the fact should never be overlooked that the binding material, *i.e.*, Portland cement, before use, in its dry state, was chemically active and in a state of unequilibrium until the requisite quantity of water was added and absorbed to encourage the chemical changes and combinations with establishment of equilibrium resulting in setting, the progressive processes of which must not be disturbed.

Much of the trouble which arose from time to time in the hands of some consumers in connection with the use of this material was the result of the failure to appreciate that Portland cement although in itself a completely manufactured material, was really in its dry condition, as sold, an unstable chemical compound always seeking to satisfy itself by absorption with water, which it proceeded to do with the greatest avidity as and when opportunity accidentally or intentionally was afforded. Unless cement possessed this property it could not fulfil the purpose of its creation, and, therefore, its power to act in such manner must not be judged to its detriment.

He had known a case where an aggregate which appeared under ordinary examination to be suitable in all respects, turned out to be useless with one high-grade Portland cement, and satisfactory with another; both being well-known brands of the highest quality, testing far in excess of the British Standard Specification requirements. Chemical and physical examination failed to detect the disturbing element which, while permitting one cement to set satisfactorily, absolutely destroyed the setting properties of the other, a change of aggregate resulting in both cements being satisfactory. Such an experience is an indication to the engineer of the importance of thorough investigation into the character of concrete aggregates proposed to be used before actual work was commenced. It was always advisable to test the aggregates to be employed especially if not obtained from recognised and approved sources, with the brand of cement intended to be used.

At all times the best results were likely to be obtained by the use of slow setting cement. It was a fallacy to suppose that greater strength was obtained at early dates by the use of moderately quick setting cements, which were always more liable to be injured if the work were not carried out with the greatest expedition. The greatest safeguard the engineer possessed was to obtain slow-setting cement from absolutely reliable sources, and, when it came into his possession or under his supervision, to protect it with all reasonable care against atmospheric influences, regulating constructional operations so that the time taken for their complete performance was not extended beyond the time when the cement commenced to set, which might vary from day to day, depending upon the temperature and hygroscopic condition of the atmosphere.

Portland Cement in Sea Water.

Mr F. E. Wentworth-Sheilds, O.B.E., M.Inst.C E., speaking on "Portland Cement in Sea Water," said the experts who had studied the question of how to prevent the decomposition of cement concrete and mortars by sea-water might be roughly divided into two opposite camps, namely, those who had sought to protect the cement by altering its chemical composition or adding material which should affect the chemical actions involved, and, on the other hand, those who had sought to protect the concrete by preventing the admission of the sea-water into the bulk of the material; in other words, by making it highly impermeable.

As regarded the chemical school, the earliest and perhaps the most famous was the great French chemist Vicat, although a very large amount of valuable research had been carried out since his time, particularly in France and Germany. Vicat first explained the chemical action of sea-water on cement and laid down rules for its composition in order to secure it stability. He pointed out that lime was th most vulnerable ingredient in cement, and tha there should be only a sufficient quantity presen to combine with the other salts. Since his tim many attempts had been made to vary th ingredients so as to produce a cement whic would be more permanent. It seemed to b generally assumed to-day that cement whic complied with the standard specifications o Great Britain and other countries was suitabl for use in sea-water, but this view was some times contested.

Several materials had been suggested a additions to Portland cement for the purpose o increasing its chemical stability in sea-wate Of those by far the best known and most used i pozzolana or trass, which was much favoure by harbour engineers in Europe. It had not bee very popular in Great Britain, although Smeato used it in conjunction with lime to make hi mortar for the Eddystone Lighthouse in 175 Apparently its virtue consisted in the fact tha it combined with the lime which is freed durin the process of setting of Portland cement, an thus prevented the formation of the dangerou sulphate of lime. Although trass occurred i many different places, it was by no means a equally suitable for this purpose.

There were a large number of experts wh considered that modern Portland cement, woul make a concrete which was very durable in sea water, provided the concrete be made in suc a way as to offer a high resistance to the passag of the water into its mass. If the concrete w highly impermeable it was claimed that wh little sea-water penetrated could do no har as the solid products of the chemical action i volved tend to choke up the pores of the co crete and make it the more impermeab Whereas in the case of a porous concrete t products got washed out leaving fresh surfac to be attacked by a fresh supply of sea-wat

It was well to bear in mind that there was such thing as an absolutely impermeable co crete. All one could hope to do was to redu the size and proportion of voids, and thus to ma the resistance to the passage of sea-water great as possible. We had, however, at lea certain conclusions on the matter. First th mixture must be rich in cement. Any concre containing mortar poorer than 1.2 was like to be useless in cases where sea-action w feared. The stones and sand should be w graded, *i.e.*, they should vary in size fr coarse to fine, and at all costs a large proporti of fine sand was to be avoided. The concr should be well mixed by a good machine. T proportion of water should be carefully det mined as either an excess or defect of wa when gauging was liable to produce por concrete. Pouring concrete under water sho be avoided, as concrete moulded in this way v of doubtful quality and very permeable.

It had been suggested that denser concre would be produced by the use of special cemen but he had met with no experiments which conclusive on this point. Again, many terials were on the market for which it claimed that if mixed with concrete or mo they greatly decreased its permeability. elaborate investigation was made into a num of such materials by the American Bureau Standards in 1911. It tended to show that addition of such materials was of little us the case of rich mixtures, and that some of t decreased the strength of the mortar.

They still wanted a really good test for permeability. Several methods had been u such as determining the actual volume materials used in a cubic unit of concrete, hence the proportion of voids, or again measu the quantity of water which could be fo into or through a slab of known dimensio a unit of time. But these methods were and did not tell exactly what was wanted. they could test for permeability as easil they could test for strength and compare test with a standard, it would not be before they should be able to use va materials to make a concrete which would the greatest possible resistance to the destru action of sea-water.

THE ARCHITECTS' AND SURVEYORS' ASSISTANTS' PROFESSIONAL UNION

A CONVENTION of delegates of the Architects' nd Surveyors' Assistants' Professional Union as held at the Building Exhibition, Olympia, April 19 and 21. Mr. J. W. Denington, .R.I.B.A., President of the Architects' and urveyors' Assistants' Professional Union, esided.

The following resolution was passed at the pening of the first session :—

"That this National Convention of delegates pproves of the Executive Council's action in tting up a benevolent fund for the benefit of embers as laid down in the rules governing that nd; further, that it calls upon all branches, at e discretion of their committees, to devote rofits from social events to this fund" for e purpose of founding a benevolent fund r architects' and surveyors' and builders' chnical assistants.

The General Secretary, Mr. John Mitchell, id existing funds, with one notable exception, ere useless so far as the general assistant in the rofessions was concerned. Instead of being a nd which waited until desperate application n the part of those entitled to its help was ecessary, as was so common amongst benevo- nt funds, he hoped that this fund would go rward with its good work in the homes and ves of assistants in needy circumstances, and eize every opportunity to prosecute the good ork for which it was intended. Its objects are unique: besides including for the ordinary ontingencies of accident, distress, illness or dden emergency, grants to widows and rphans, the endowments and maintenance of st homes for members and the securing of enefits from sanatoria and convalescent homes nd similar institutions, it proposed to grant emporary loans to assist the younger members following up the professions. It was difficult to stimate how many young architects and sur- eyors had been prevented from attaining the ll maturity of their activities through the lack capital to buy books and materials for tudy. Membership of the fund was divided nto "donors" and "life members," and every ember of the Union was entitled to relief from he fund. Before any public action had been aken the sum of about £200 had already been ollected; one member of the Union had given 100.

An important report was presented by the Executive Council of the Union dealing with the vercrowding and educational facilities preva- nt in the architectural and surveying profes- ons. Its chief points dealt with the large umbers of young men entering these professions. n Aberdeen and Glasgow it was found from tatistics that there was an excess of learners ver requirements of 335 per cent. and 416 per ent. respectively. Throughout the country it as found that the pupil system, although oribund in London and Liverpool, exceeded he training undertaken by schools by 5 to 1. n a large town in S.W. England 22 architects ere engaged as principals; there were 15 paid ssistants and 16 premium-paying pupils. No tatistics dealing with this side of professional mployment had previously been obtained. he report also pointed out that from the formation supplied the schools must be garded as a source of overcrowding equally ith the apprenticeship system. It urged that greater control over the evening classes should e obtained by the professional institutes. nother disturbing factor was the very large umber of men who have entered the professions ithout any training whatsoever. In the archi- ctural profession the percentage was approxi- ately 11.8 and in the surveying profession bout 1.6 per cent. The report suggested that practical way out of the difficulty would be by he construction of joint boards throughout the ountry with representatives of the Royal nstitute of British Architects, the Allied ocieties and the Surveyors' Institution, &c., nd the Architects' and Surveyors' Assistants' Professional Union. The Convention approved of the report in its entirety.

A motion was passed which approved of the alteration of the rules of the Union to include for a Provident Section. This would guarantee to members £1 per week per share during a period of unemployment and £1 per week per share during sickness. At the end of each year the surplus remaining in the fund would be distributed equally between all members in proportion to their holding. These provisions would mean much to the assistant of to-day who seldom remained in a position for any long period owing to the type of work and employ- ment. He was sometimes confronted with a short spell of unemployment between the termination of one situation and his obtaining another.

The National Convention instructed the Executive Council to proceed with the setting-up of divisional councils all over England and Wales and similar in character to those at present in existence in Scotland. Those councils to consist of delegates representing the branches in their area and to advise the Executive Council of the best means of forwarding the work of the Union and furthering the interests of assistants in their division.

The following motion was passed relative to the Joint Committee set up by the Union and the R.I.B.A. to thoroughly explore the questions of overcrowding in the professions, the principle of minimum salaries for assistants and the direct representation of the Union on the Council of the R.I.B.A. :—

"That this National Convention of delegates notes with satisfaction the assurance given to the Union that in any future steps taken by the Council of the R.I.B.A. the views of the Union will receive careful consideration, further that it approves of the pledges given the Union by that Council that joint inquiries will be made into the questions of overcrowding, minimum salaries, and direct representation of the Union on the R.I.B.A. Council, and re-affirms its strong belief that only by the satisfactory settlement of these questions can the future well-being of the profession be assured."

Owing to the great outcry by all classes of professional assistants who were members of learned institutions and who were not allowed to deduct (under Schedule E) the subscriptions paid thereto from their income-tax assessments unless this payment was an indispensable condition of their employment, the grievance being that such proof of its necessity was not required by employers (under Schedule D).

"That this National Convention of delegates strongly protests to the Chancellor of the Exchequer against the ruling of the Board of Inland Revenue that employees who are members of learned Institutions cannot deduct (under Schedule E) subscriptions paid thereto from their income-tax assessments unless as an indispensable condition of the tenure of their employment as employers assessed under Schedule D and demands that steps be taken to remove this disqualification on the employee and such amendment to the law as may be necessary to this end be introduced immediately into the House of Commons."

The resolution it was hoped would draw the attention of the Government to an instance which certainly ought to be remedied, there being no justification for its adoption in the one case and its retention in the other.

A further motion on income-tax was proposed by the Manchester Branch and the Executive Council, and was carried unanimously :—

"That representations be made to the Chancellor of the Exchequer with a view to obtaining a rebate off the income-tax for subscriptions paid to the Union and an allowance for the provision of technical books and the maintenance of instruments."

The following motion regarding minimum salaries was carried :—

"That this National Convention of delegates approves of the action of the Executive Council, on December 31, 1922, in amending the scales of basic minimum salaries, and approves those stated in the pamphlet circulated and appended to this resolution" :—

Minimum Salaries.

(Figures based on the Cost of Living at December 31, 1922.)

19 years of age and over .. £3 8s. 0d. per week.
26 years of age and over .. £5 11s. 0d. per week.

The Union has decided that the salaries of all professional and technical assistants covered within its membership should be computed from the following July 1914 basis, viz. : £2 per week at 19 years of age, £3 10s. per week at 26 years of age. To these is to be added temporary increment according to the Civil Service Award at



"The Builder" Stand at Olympia.

present operating, viz.: 130 per cent. on the first £91 5s. per annum, 60 per cent. on the next £108 15s. per annum, *less* 1-26th of the total temporary increment for every five points fall in the Board of Trade index of the cost of living below 130 per cent. above the July 1914 standard; thus, if the cost of living is 80 per cent. above that of July 1914, 10-26ths of the total temporary increment is to be deducted. Richer experience, unusual talent and higher office responsibility, however, entitle their owner to equivalent extra remuneration. This should in all cases be computed and added to the above minima, which only represent the ordinary grades of service and are in no case meant or desired to fix a standard. Any doubt as to the precise assessment of a member's salary under this heading should be followed by an inquiry to the General Secretary of the Union. The co-operation of all members is invited to establish and maintain these scales.

A motion of the Manchester Branch that the Union should take immediate steps to affiliate to the National Federation of Building Trades Operatives was fully discussed and was lost by 275 votes to 75.

The Executive Council was instructed to enter into negotiations with the National Federation of Building Trades Employers, the Royal Institute of British Architects, the Society of Architects, and similar associations to secure recognition of the Union's scale of wages—this was carried unanimously.

Motions for the automatic expulsion of members from the Union and the paying of an entrance fee of £2 to be paid by members joining for the first time and members rejoining were withdrawn in view of the opposition of the Executive Council.

The Convention further instructed the Executive Council to consider the advisability of obtaining the services of a full time organiser for furthering the interests of the Union.

PLAYS AND PLAYHOUSES.

A lecture was given under the auspices of the Architects' and Surveyors' Assistants' Professional Union at the Building Exhibition on April 14 by Miss Amelia Defries and Mr. T. P. Bennett, F.R.I.B.A., Head of the architectural department, Northern Polytechnic, London, on "Plays and Playhouses."

Miss Defries having dealt with the question of a National Theatre, Mr. Bennett, speaking from the architect's point of view, said that the problem of the theatre was one of the greatest antiquity. If one inquired into the subject it would be found that in the Byzantine period of architecture mosaics were designed and shown publicly for the education of the people, and that in mediæval times the theatre might be said to resemble one of their modern halls in an incompleted state. So far as the problem of the auditorium was concerned it was easy to understand. The three primary considerations were that the audience should see the stage clearly, hear well, and should have adequate seating accommodation. One of the most difficult problems confronting the architect was the question of the sides, where the audience heard, although hearing better they saw less, whilst those directly in front of the stage saw more and heard less. This brought them to the subject of acoustics and upon this particular subject there was no actual formula which could be worked upon and adhered to by the architect. For instance, the scenery absorbed the acoustics, and therefore various types of scenery meant various degrees of acoustics; again the movements of air and temperature affected them. There was little doubt that a great amount of research work was required upon this all-important subject in order that they might have definite and clearly understood views which would give dependable results. The two general dangers to be contended with in arranging the materials used in the interior were those of absorption and echo, and it was interesting to note the effect which could be arranged for their judicious selection. The following list gave various materials ranging from hard and resilient to soft:—Marble, hard plaster, plaster, wood, silk, and then again to the hard material of heavy tapestries.

The decoration of theatres could very well start with the stage opening and it was as well to point out that very few architects seized the chance of framing the opening in a suitable manner. One of the troubles to be contended with in giving attention to decorations was the bulky arrangements necessary to provide for the constant supply of fresh air and ventilation. One interesting problem which had been more or less satisfactorily solved was that of fireproofing the building. In order to make the auditorium as fireproof as possible the stage roof was made inflammable in order to permit of the fire spreading to the stage roof.

The building of the theatre was, Mr. Bennett concluded, to his mind, one of the most important and interesting tasks which could fall to the lot of an architect.

Mr. Chas. McLachlan thanked the lecturers for their most interesting contribution on this subject.

"OLD WESTMINSTER" & ITS HISTORIC BUILDINGS

THE second of two lantern lectures was given this week by Mr. Herbert A. Cox, F.C.A., at the Building Exhibition on the historic buildings of the Palace of Westminster descriptive of those which have disappeared and also of those remaining. On the panorama views showing the precincts of the Abbey in the sixteenth century, attention was called to the west gate, built by Edward III, in which was the Almonry; it was in this gateway that Caxton set up the first printing press in England in 1482, and later when it was a prison the royalist Lovelace there wrote when confined:—

> "Stone walls do not a prison make,
> Nor iron bars a cage;
> Minds innocent and quiet take
> That for an hermitage."

The principal buildings of the Palace, viz., Prince's Chamber, Old Parliament Chamber (House of Lords), Painted Chamber, Court of Requests (House of Lords, 1823-34), St. Stephen's Chapel and College of St. Stephen's were briefly described, having been dealt with in detail at the first lecture. The origin of the fire of 1834 was narrated and a specimen of a wooden tally shown. It was explained that the tally system having been discontinued in 1826, an order for the destruction of the vast accumulation of tallies led to the outbreak of the fire which consumed the chambers used by both the Upper House and the Commons. Views were shown of the ruins of St. Stephen's Hall and the Cloisters, together with the restoration of the latter.

Westminster Hall was illustrated by several photos and drawings which have appeared in *The Builder* with descriptive articles on the restoration of the roof (see January 5 and November 16, 1923). Two views were also shown (1) of the north side with the flanking towers and magnificent porch built by Richard II (the time was before the restoration of 1820) and (2) of the west side in 1882, when the old Exchequer buildings were cleared away (on the opening of the new Law Courts) revealing the six buttresses erected by Richard II, but now almost entirely hidden by modern offices (see photograph on this page). Illustrations depicting historic scenes, which took place in Westminster Hall, were also given.

Architects at the Building Exhibition.

At the Building Exhibition several hundred members of the Royal Institute of British Architects, the Architectural Association, and the Society of Architects met last week to inspect the exhibits.

Waterproof Sandpaper.

The sole British concessionaires of "Wetordry" waterproof sandpaper, Messrs. R. W. Greeff & Co., Ltd., state that this material is making rapid strides amongst all classes of painters and decorators who have been quick to realise and appreciate its advantages. Careful experiments made by a large number of users of the now well-known "Wetordry" brand of waterproof sandpaper under widely varying conditions show invariably a considerable saving both in material and labour over dry rubbing down with ordinary sandpaper. It has been proved that the breathing of dust is one of the chief causes of sickness among painters. This can be avoided by rubbing down wet. "Wetordry" waterproof sandpaper is a material which can be used on any kind of job. The point in regard to ease of working is that rubbing down wet, the sandpaper cuts the surface with a minimum of effort; all attention can be given to getting a good finish without undue fatigue. Also the water reduces scratching. "Wetordry" can be rinsed in water from time to time to remove accumulated paint and thus be used over and over again. It lasts, it is claimed, eight times as long as dry sandpaper



Westminster Hall, West View.
[From a photograph taken in 1882.]

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

R. WHEATLEY, in making his promised ement on housing, said that the broad lts under the 1923 Act up to April 1 were ollows:—For the eight months in which the had been in operation 8,140 houses had been pleted, 30,405 houses were under construc-, while the contracts made or certificates ed by local authorities covered a further 46 houses. Of the 38,545 houses which had n completed or were in course of construction, e than half he had reason to believe were to or sale. It was well to bear in mind that if verage annual output of probably 100,000 ses was required to meet the normal increase opulation and the annual depreciation of ses of a similar kind, when the output was w that number the accumulated shortage not being reduced.

he Government had received an extraordi-ly valuable report, and he desired to express thanks of the Government to all those in industry who spent so much time and skill framing an industrial policy to meet the ional needs. The main point to be noted in report was that the industry had come to conclusion that, on the basis of a long-term gramme of house-building, it could secure n an augmentation of the building labour of country as would ensure a production of ses which would go far to meet the essential ds of not only keeping pace with the normal and, but of making good the present shortage l doing something effective to get rid of slum ditions. Without pledging themselves to the ails of all the recommendations in the report, Government were prepared to accept the nciple of a long programme, and were hopeful t this would command the support of all ties in the House. The representatives of building industry authorised him to state t they would be prepared to attend non-party tings or party meetings of the House rested in housing and explain the report and wer questions.

bad been a fixed principle of all recent slation in aiming at a solution of the housing blem that the matter should be tackled on basis of a partnership between the Govern-t and the local authorities. Accordingly, oon as the industry was in a position to rt as to what was practicable, he summoned nference of the local authorities' associations reat Britain. He met their representatives April 15, and explained to them the prin-es which it seemed necessary to observe. se he might sum up as follows:—The pro-on of houses in numbers sufficient to meet needs he had described; the adoption of a programme as a means of securing the ssary augmentation of the resources of the ding industry; the provision of houses for ng at rents within the capacity of the ers. The local authorities undertook to a Committee to consider these principles to go into the necessary financial arrange-s. He hoped to conclude the negotiations on as possible after the recess and to lay e the House the complete proposal.

Empty Houses.

. Lorimer asked the Minister of Health had any information with reference to where houses were kept empty for the erate purpose of obtaining a high price hem.

. Wheatley said that representations had received from a number of local authorities g attention to the fact that unoccupied es were held for sale at enhanced prices, letailed statistics on this point were not able.

Dispossession of Tenants.

C. Cayzer asked the Minister whether he ware that some landlords were dispossessing ts on the assertion that they needed the s for personal occupation and then, when enants had left, were putting the struc-tures up for sale with vacant possession; and whether, seeing that this was absolutely opposed to the spirit of the law, he would, in the event of such cases being submitted to him, take steps to make such action illegal.

Mr. Wheatley said that provision was already made to meet cases of this kind. Under the existing Act the court could require the landlord to pay compensation to the tenant for loss or damage sustained if possession of a house was obtained by misrepresentation, and to direct that the house in question should not be decontrolled.

Bricklayers' Average Work.

Mr. E. Simon asked the Minister whether he was aware that, in the Report on a housing programme (Cmd. 2104), the estimate of the labour required was based on a bricklayer laying 300 bricks a day, whereas it had recently been estimated that the average number laid by each bricklayer in the Manchester housing contract was 600 daily; and was he prepared to recommend acceptance for 15 years of a scheme based on this output.

Mr. Wheatley said he was not aware that the estimate contained in the Report referred to was based on a bricklayer laying 300 bricks a day, and he did not know on what the hon. Member was basing his statement. He would, of course, be aware that a bricklayer performed other duties besides the actual laying of bricks.

A Newspaper Interview.

Sir K. Wood asked whether the statement of the Chancellor of the Exchequer contributed to an American paper on the financial arrangements of the housing scheme represented the Government's policy and programme.

Mr. Snowden said that the statement made by him to an American newspaper reported in British newspapers was based on declarations made in the House as to the estimated costs of houses and the rents. The deductions from those declarations as to the general lines of the scheme were obvious and depended on the cost of the houses and the rents at which they were let coming within the estimates indicated in the House and in relation to previous subsidies. The amount of the subsidy to be borne by the State and the local authorities was obviously a matter for discussion between the Government and the local authorities.

Houses Completed.

Mr. Wheatley informed Mr. E. Simon that the number of houses completed during the years 1921, 1922, and 1923 under the Housing, Town-Planning, &c., Act, 1919, were 68,255, 74,769 and 15,679 respectively. Under the Housing (Additional Powers) Act, 1919, 18,414 houses were completed in 1921, and 14,230 in 1922. Under the Housing &c., Act, 1923, 3,506 houses were completed during 1923. Information as to the number of houses erected without State assistance during the three years in question was not available, but according to returns obtained from local authorities in England and Wales as to building by private enterprise without assistance from public funds it was estimated that over 39,000 houses of not more than £26 rateable value in the provinces and £35 in the Metropolitan Police districts, were completed during the year ended September 30, 1923. Some of these houses were no doubt larger than those provided under the Act of 1923.

Evictions.

The Liberal Prevention of Eviction Bill has passed the Committee stage. The principal clause provides that the existence of alternative accommodation shall not be a condition of an order or judgment on any of the grounds specified in paragraph (d) section 4 of the Rent and Mortgage Interest Restrictions Act, 1923:—"Where the landlord, or the husband or wife of the landlord became landlord before July 31, 1923, and the dwelling-house is reasonably required by him for occupation as a residence for himself, and the Court is satisfied that, having regard to the alternative accommodation available for landlord and tenant respectively, greater hardship as regards conditions of living would be caused by refusing to grant an order or judgment for possession than by granting it."

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in typescript?—ED.

Glasgow Building Materials.

SIR,—I should be obliged with any information relating to the materials now used in Glasgow in the construction of (*a*) external walling (ashlar and dressings); (*b*) internal walls and partitions; (*c*) as to whether reliable facing and stock bricks are obtainable in the locality, and if they are at all likely to suit the climate or local taste if introduced into a building of any size in Glasgow or locality; and (*d*) prices generally, compared with London. J. H. H.

Asbestos Pantiling.

SIR,—Have any of your readers had experience of the use of asbestos pantiles? If so, I should be most glad to know whether they have found them satisfactory in use. I have a very excellent sample before me which should look very charming, but it appears very light, and one feels doubtful if such tiles would not be liable to lift in a high wind. The cost, however, is so low that it suggests a way of arriving at a very artistic finish to a cheap building.

ANXIOUS.

Houses in Blocks of Four.

SIR,—I notice that in blocks of four houses with a central passage way, some architects arrange the first floor party wall to stand over the centre of the passage way, while others plan the first floor interlocking, the party wall standing alternatively on one wall of the passage way or the other.

I should be interested to hear which method is considered the best and most economical, and no doubt some of your readers will be able to satisfy me upon the point.

HOUSING.

Gables to Pantiled Roofs.

SIR,—Can you inform me if it is possible to obtain right and left-hand pantiles without special making? If it is not possible, perhaps one of your readers with experience in this variety of tiling can advise me of the best treatment for the verges of a gable in a pantiled roof to avoid the one-sided appearance that would result if tiles all of one hand were used on both verges.

COTTAGE BUILDER.

Restoration of Old Cottages.

We have received a communication from a firm of manufacturers, stating that no one has, in reply to this query, suggested waterproof cement. They state defective damp courses are a common source of trouble, and the only way to cure, apart from cutting out for and inserting a new horizontal damp-proof course, is to strip off the plaster on the *inside* and give the wall a coat of cement mortar waterproofed with cement waterproofing powder. The room becomes dry as soon as the cement has set hard: no other method is so quick in effecting a cure. (When a horizontal damp course is inserted a long time elapses before the moisture left in the wall is drawn out by evaporation. Also it is expensive and there is a danger of settlement cracks.) When the cement is dry it is advisable to give a coat of absorptive limed plaster, because cement surfaces are more susceptible to condensation than plaster surfaces. If a cement finish is desired it is better to finish with a wood trowel (float) as condensation is less frequent upon a rough surface.

Fire Protection.

Mr. W. Daniel Smith, F.A.I., P.A.S.I., informs us that he is engaged in preparing a paper upon the subject of "Fire Protection in Building Construction," and would be glad if manufacturers of fire-resisting materials would send him particulars to 3, Castellain Mansions, Maida Vale, W.9.

THE BUILDING TRADE

LIME FOR CONSTRUCTIONAL PURPOSES

In comparison with other industries, the lime industry in this country must be classed as backward, both in its manufacture and application. Although isolated cases of recent improvements in the method of production are not absent, there are still kilns in operation which are not far removed in their construction from those in use centuries ago. So far as the use of lime is concerned it might almost be said that the present age is less efficient than its predecessors, because it is claimed that the excellence of some of the Roman mortars, made twenty centuries ago and still in existence, is due to the extreme care exercised in the slaking of the lime and the preparation of the mortar, and it can hardly be claimed that extreme care is exercised in these operations nowadays.

With the present system there is no opportunity for the testing of lime such as occurs in connection with cement and other materials, and consequently it is difficult to specify a standard of quality for lime. Consequently, the value of lime is judged largely by its appearance, and under this standard a consignment of lime that is composed of large lumps is generally regarded as acceptable, while lime in smaller pieces or in dust form is looked upon with suspicion. There is no sound basis for such a judgment, because there is no reason why the large lumps of lime should be any better for building purposes than small pieces or dust.

Then, again, as all lime for building purposes requires slaking before it can be used, the lime which slakes with the least trouble is usually more favoured than a slower slaking lime. Such a distinction is in opposition to the merits of the material, because a slow-slaking lime indicates an argillaceous lime (sometimes termed grey lime) which for many purposes is more advantageous that the rapid-slaking white lime or fat lime. In this connection the question arises why the builder takes upon himself the slaking of lime when this operation could be performed by the manufacturer with more satisfactory results.

There are thus two defects of the lime industry (namely, the absence of a standard of quality and the marketing of a material only partly manufactured, *i.e.*, unslaked lime) which are the cause of many unsatisfactory circumstances and could be remedied by one change, namely, the sale of slaked lime, otherwise known as hydrated lime. In the United States practically the whole of the lime used by the builders is sold in the slaked condition, and similarly in France. In the former case the bulk of the lime is white lime, while in France the lime of commerce is usually argillaceous or grey lime. In both cases the tonnage sold is many times greater than the British output of lime, and it is therefore reasonable to assume that this method of marketing lime does not restrict its use.

Slaked or hydrated lime is sold as a dry powder packed in sacks. Its slaking is performed under strictly regulated conditions with the correct amount of water, and with proper methods there is no risk of unslaked material liable to "blow" being produced. For the white lime as produced in America mechanical hydrators are in use, which, while designed to save labour, are also effective in producing a perfectly slaked material. For the hydrated grey lime as produced in France slaking cannot be completed during the few minutes while the material passes through a mechanical hydrator, and storage for periods up to three weeks is needed before hydration is complete.

When hydrated lime is used it is possible to impose a standard of quality which can be based upon chemical composition and upon strength, and the user can therefore, by taking the necessary steps, ensure that he is receiving a pure material and one with the qualities he desires. At the present time in this country, owing to the preference for lime in large pieces which, as already stated, is an unsound basis of judgment, manufacturers have to adopt methods of manufacture which are unnecessarily costly, but if the use of hydrated lime became general it would be possible to economise in manufacture, and the consumer should thus have the advantage not only in receiving a standardised material capable of being tested, but a material at a lower price. In addition the user of lime would be saved the tedious process of slaking and would be free from the risks of incomplete slaking which can now arise under the haphazard conditions which frequently apply.

REPORT OF THE BUILDING COMMITTEE

Mr. John E. Yerbury writes:—

The report of the Building Committee on the Provision of Houses will no doubt attract the attention and criticism it deserves.

With 15 years' absolute control as to when, how, where, and at what price building should be carried out; with complete control with regard to the numbers who shall enter the trades connected with building; will the spirit of altruism govern those with this vast authority, and will they always think first of the public and be content with the wages and profits of the present competitive system? I wonder! The building industry, already sheltered against foreign competition, importing hardly anything except timber, is to be protected against competition at home by a 15 years' guarantee from the State of a continuous definite programme to provide 2½ million houses. If this is done, and the numbers allowed to enter the industry are restricted, what a lovely hospital for slack times will be found for the then united employer and worker in the building industry, joined in brotherly confidence by the merchants and manufacturers engaged in production for their service. But what of other industries, not sheltered, without guarantees for 15 days. Parliament can sanction expenditure on 2½ million houses easily enough, but how will it control cost? Prices have gone up before the ink of the report is dry.

The report says "houses are being built to-day at the lowest possible cost." But this cannot be true. "The lowest possible cost" is the actual cost plus fair wages for good output, and a fair profit to all concerned with service. I went to the Building Exhibition and there I met and talked with "all sorts and conditions of men" interested directly—or, like myself, indirectly—in the trade. I wanted to hear why building costs were so high that I couldn't get more work; and most certainly am not convinced that houses are being built to-day as cheaply as possible. The manufacturer says that coal (so largely used in production of building material) prices are daylight robbery and the railway freight charges iniquitous. The merchant says he could not reduce his prices as he would like to because he was in the combine and prices were fixed. The builder said the output of the men could be increased without sweating by anything from 25 per cent. to 50 per cent. The worker said the employer's one thought was to lower wages and increase profits. While the client said he would not built at the price, and I wondered if I should in that event get paid at all for my time, trouble, and advice.

To return to the report:—"Skilled men are fully occupied in most sections with current work and there is a pronounced shortage of labour in certain sections. Much labour and material used in commercial building is not transferable to house building and could not be easily diverted. There should not be any restriction of private or commercial work in the interest of the community."

Of course, there is truth in these statements, but somehow I seem to see the subconscious mind of the business man at work in the construction of the report, assisted by the—a subconscious—desire of the worker to prot himself regardless of his fellow-workers in oth trades. I don't want to restrict anything, even housing for 15 years; but why the restr tions of private work should be more agai "the interest of the community" than the restr tion of housing I can't quite see. The organi worker is quite right to see that his trade is diluted in a panic, and so increased by spe effort that it may be flooded, and its earn capacity lessened by the competition of dilu overstocking the market in normal tin But will Parliament accept the recommendat that a Committee of interested persons shall to the man in the street, "your son shall enter any one of the dozen trades occupied building"? I had always thought that building trade employers, as a whole were gr supporters of "private enterprise"; but there be any need for enterprise under scheme of the report?

The impression left with me is that, hav made a great effort to apply itself to housi the Committee subconsciously dealt with position of those interested in the build industry, thinking it was the same thing, proving all the time that it isn't. Housing only a 10 per cent. interest.

The method for supply of labour again see to show the working of the subconscious mi To supply full demand for housing, restrict number of houses; until the new supply created when it will be put on housing (I won if it will release the best worker for commer or luxury building, which must not be stricted lest the heavens fall) unless requ for more profitable work. Although commer work be slack, and housing contracts so pres that higher wages are offered, the Governm must allow the Committee to prevent a tran lest the productive power of the builder commercial works be crippled by the depart of his men to housing. Will the workers supp their representatives in this recommendatio

If I may suggest some constructive critici I should say:—

(1) The Statutory Committee most certai should have an outside Chairman, and he sho be a lawyer of accepted ability.

(2) The Government, other industries cerned with building, and "the communi should be represented.

(3) The local authority and the commu should be represented on the local branch c mittees.

(4) In the report on materials I notice "50 basins"—a bath in every house may l necessity, but surely we might save the h pressed manufacturer from those 50,000 bas

(5) If something must be restricted I t luxury buildings should be so restricted b housing.

(6) I fear the Committee having menti 50,000 houses will be content with two-th of that number if the demand for comme buildings continues, as it probably will; housing requirements must not act adve to other sections of the industry. I w put it the other way, other work must not pre the full 50,000 houses being provided.

(7) Manufacturers undertake that suf shall be adequate, and increased produ should lower prices. Adequate to the n of the community or to the effortless produ of the manufacturer? Let the State sub the provision of material for housing, and encourage effort on the part of private enter

(8) The Committee have power not on check increases, but also to insist upo creases—otherwise is there likely to be a effort on the part of the producer?

(9) There is to be an Act of Parliame prevent anyone exploiting the situation. restrictions of output either of material or l be exploiting the situation? If so, let us a one clause Act of Parliament passed at or

ENT RESTRICTION NIGHTMARE

e it not serious to the owners of property
nt Rent Restriction proceedings would
ly ludicrous. In the first instance a
tery was made that tenants of working-
nements were being evicted in large
s, although they were unemployed,
object of the Bill introduced by the
of Health was to deal with this alleged
e and clauses 1 and 3 were the really
l clauses, clause 2 being subsidiary and
tenants of all classes of restricted
Clause 1 would have placed the burden
taining the unemployed rent free upon
llords, and as it proved incapable of
ent so as to make this a charge upon
unds it was rejected in the House of
ns. In the meantime, the facts which
lleged made this clause essential, under
proved to a great degree fictional;
ber of evictions of unemployed though
of absolute proof were shown to be
eatly exaggerated and in very many
s it was "the dog who was dying," *i.e.*,
ll landlord, unable after great patience
ny rent and yet liable for the rates.
was impossible to provide a measure
hould provide for the real hard cases of
oyed persons out of public funds the
should surely have been allowed to drop
e death of the Bill introduced by the
r of Health, but the Government, having
a storm in a teacup, were unwilling to
subject drop, and they seized upon Mr.
Bill, which is entitled a "Bill to Prevent
onable Eviction of Tenants," as having
active title, and announced that they
mend it so as to carry out their inten-
This Bill, like some novels, relied upon
to excite public interest, but the con-
was disappointing, for it consisted of
ise which only modifies the grounds upon
a landlord can obtain possession.
r the Act of 1923 section 4 subsection (1)
ph iv, where a landlord became the land-
fore June 30, 1922, he could obtain
on if he required his house for occupation
dence for himself or for any son or daugh-
18 years of age without showing that
ive accommodation was available, but
came landlord after that date by par-
v) the Court had to be satisfied that
hardship would be caused by refusing
t an order for judgment for possession
granting it. In Committee the clause
imons' Bill has been amended as follows:
phs iv and v are repealed and one clause
ituted for them—"where the dwelling-
reasonably required by the landlord
upation as a residence for himself and
rt is satisfied that greater hardship—
arising from the absence of alternative
odation or otherwise—would be caused
ing to grant an order than by granting

ffect of all this "pother" is curious.
phs iv and v relate only to cases where
f of the existence of alternative accom-
n can be dispensed with, but it has
been held that in making orders for
n under section 4 (1) (d) of the Act of
e Court must take into consideration
ion of both landlord and tenant under
ral words, "and in any such case as
the Court considers it reasonable to
ch order or give such judgment" (See
n *v.* Rabbits, *The Times*, April 3;
illiamson *v.* Pallant, *Weekly Notes*,
).

ffect of all the energies of the Govern-
s been to introduce into paragraphs
, which specifically only deal with the
of the necessity of considering alterna-
mmodation, the very question they were
to avoid, to "plentifully declaring"
retion of the Court was laid down in
e cases, and to create a contradiction
between the new paragraph which is
their place, and paragraph (d), which
s with precisely identical circumstances.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	C'p'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/8½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/6	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5½	1/2
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/7½	1/2½
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	

(For rates of wages in the Building Trade in Scotland, see page 701).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

APRIL 26.—**Aberdare.**—SCHOOL.—For the erection of a new boys' school (to provide accommodation for 272 children). Messrs. Thomas Roderick & Sons, architects, Clifton-street, Aberdare. Deposit £2 2s.

APRIL 26.—**Breconshire.**—NEW MANSE.—For erecting for the Trustees of Pennel Calvinistic Methodist Church, Bwlch, a new manse at Bwlch, Breconshire. Mr. F. J. Hurley, architect, Crickhowell.

APRIL 26.—**Clynderwen (Pemb).**—PAINTING.—For painting at Gelly Mills, Clynderwen. The Office of Gelly Mills.

APRIL 26.— **Dukinfield.**— HOUSES.— Erection and completion of 10 pairs of parlour-type houses on land situate in Birch-lane, Dukinfield. Mr. Joseph Gibson, of Messrs. Lindley & Gibson, Market-avenue, Ashton-under-Lyne. Deposit £2 2s.

APRIL 26.—**Langholm.**—PAINTING.—For painter work and fencing of four blocks of two houses each, for T.C. Mr. J. B. Gladstone, architect, 100, High-street, Lockerbie. Deposit £1 1s.

APRIL 26.—**Newlyn.**—REPAIRS.—For various repairs to St. Peter's Church. Mr. H. Maddern, architect, 11, Morrab-road, Penzance.

APRIL 26.—**Pontycymmer (Glam).**—PAINTING AND REPAIRS.—For painting, inside and outside, the Pontycymmer Constitutional Club and carrying out all repairs required. Mr. H. Harding, secretary, Constitutional Club, Pontycymmer (Glam).

APRIL 26.—**Reigate.**—HOUSE.—Erection of a house in the Castlefield-road for the Baths Superintendent, for the T.C. Borough Surveyor, Municipal Buildings, Reigate.

APRIL 26.—**Trewoon.**—SUNDAY SCHOOL.—Erection of new Wesleyan Sunday School at Trewoon. Messrs. Andrew & Randall, architects, New Inn Chambers, St. Austell.

APRIL 28.— **Acton, W. 3.** — PAINTING AND CONSTRUCTION.—(1) Painting and decorating houses on the East Acton Housing Estate, (2) the construction of a new bathroom, &c., at the Isolation Hospital, for the Borough of Acton. Municipal Offices, Acton, W.3.

APRIL 28.—**Andover.**—OFFICES, &C.—For the erection of new offices, folding partition, &c., at Andover (New-Street) Girls' and Infants' Council School, for the C.C. Mr. A. L. Roberts, County Architect, The Castle, Winchester. Deposit £1 1s. by cheque payable to Hants County Council and crossed "Lloyd's Bank, Ltd., Capital & Counties Branch, Winchester."

APRIL 28.—**Barnsley.**—PAINTING.—For painting, cleansing and decorating administrative block and Long Block at the Kendray Hospital, for the T.C. Borough Engineer, Fairfield House, Barnsley.

APRIL 28.—**Bournemouth.**—SHELTERS AND BUNGALOWS.—For the erection of office, shelters and bungalows on the Undercliffe Drive near Bournemouth Pier, and for office, shelters and bungalows on the Undercliffe Drive near Toft Steps, for the T.C. Mr. F. P. Dolamore, F.S.I., Borough Engineer, Town Hall, Bournemouth.

APRIL 28.—**Bradford.**—SHED.—Erection of a weaving shed at Slack-road, Wibsey, near Bradford. Messrs. Moore & Crabtree, architects, Queensgate Chambers Bradford.

APRIL 28.—**Camberwell.**—PAINTING.—For painting and decorating work at the Council's Nursery, Grove-lane, Camberwell, for the B.C. Mr. William Bell, Borough Engineer, Town Hall, Camberwell, S.E. 5.

APRIL 28.—**Carnarvon.**—HOUSE.—Erection of a house. Mr. Robt. Pierce, F.R.I.B.A., Insurance Chambers, Carnarvon.

APRIL 28.—**Chalfont St. Peter.**—FIRE STATION.—For erection of fire station for Joint Fire Brigades' Committee of Gerrard's Cross and Chalfont S. Peter's P.C. Mr. J. Milliner, High-street, Chalfont St. Peter.

APRIL 28.—**Chesterfield.**—COLLEGE.—For the erection of a technical college in Infirmary-road, Chesterfield, for the Derbyshire E.C. Mr. Percy B. Houfton, architect, Furnival Chambers, Chesterfield. Deposit £2 2s.

APRIL 28.—**Eccles.**—PAINTING.—For painting and decorating interior of Public Library, for the T.C. Borough Engineer, Town Hall, Eccles. Deposit £2 2s.

APRIL 28.—**Glamorgan.**—VARIOUS WORKS.—For carrying out for the C.C. the following works:—(1) Graigcefnparc Council School—relevelling playgrounds, building retaining walls, sloping ways, &c.; (2) Maesmarchog Infants' School—building new infants' department; (3) Maesteg Secondary School—levelling and fencing of playing field; (4) Pontardawe Secondary School—levelling and fencing of playing field; (5) Kenfig Hill Council School—new temporary classrooms; (6) Rhiwfawr Council School—new playsheds and improvement of playgrounds; (7) Bryndu Council School—levelling and fencing; (8) Garw Secondary School—restoration; (9) Blaengarw Council School—retaining walls; (10) Troedrhiwfuch Council Schools—repairs; (11) Hengoed Boys' School site—levelling and fencing; (12) Pentyrch School House site—levelling and fencing; (13) Derwen Deg School site—levelling and fencing.

APRIL 28.—**Heckmondwike.**—ALTERATIONS.—For alterations to the power station, Bath-road, for the U.D.C. Electricity Dept.'s Offices, High-street, Heckmondwike. Deposit £1.

APRIL 28.—**Launceston.**—HOUSES.—For the erection of ten workmen's dwellings, for the T.C. Mr. J. Burford, Borough Surveyor, Guildhall, Launceston.

APRIL 28.—**Monifieth.**—HOUSES.—For the erection of two houses for the T.C. Mr. D. Gowans, Town Clerk, Monifieth.

APRIL 28.—**Sheffield.**—HOUSES.—Erection of 220 houses on Manor Estate, City-road, Intake, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield. Deposit £2.

APRIL 28.—**Southampton.**—ALTERATIONS, &C.—Alterations, remodelling, &c., at New Alresford Council School, for the Hants County Council. Mr. A. L. Roberts, County Architect, The Castle, Winchester, on and after April 10, between the hours of 9 a.m. and 4 p.m.; Saturdays 9 a.m. and 12 p.m. noon. Deposit £1 1s., payable to Hants County Council and crossed "Lloyd's Bank, Ltd., Capital and Counties Branch, Winchester."

APRIL 28.—**St. Albans.**—COTTAGES.—Erection of 12 cottages (three blocks of four) in Folly-avenue, for the Corporation of the City of St. Albans. Mr. J. Ashurst, C.E., City Engineer and Surveyor, 96, Victoria-street, St. Albans. Deposit £2 2s.

APRIL 28.—**Various Places.**—PAINTING.—For cleaning and repainting station buildings, &c., at the following places:—(11) Droitwich, Hartlebury, &c.; (12) Bicester, Ardley, &c.; (13) Evesham, Pershore, &c.; (14) Tyseley; (15) Lapworth, Bordesley, &c.; (16) Hockley, West Bromwich, &c.; (17) Wellington (Salop), Market Drayton, &c.; (18) Kidderminster, Oldbury, &c., for the G.W.R. Co. Engineer at Wolverhampton Station.

APRIL 28.—**Wakefield.**—SHELTERS.—Supply of ten sectional wooden shelters, to the West Riding Public Health Committee. West Riding Architect, County Hall, Wakefield.

APRIL 29.—**Huddersfield.**—VILLA.—Erection of a villa residence in Butternab-road, Beaumont Park, Huddersfield. Messrs. Lunn & Kaye, architects, Milnsbridge.

APRIL 29.—**Longton.**—EXTENSION.—For the extension of the Post Office, Longton (Staffs), for H.M. Commissioners of Works. Contracts' Branch, H.M. Office of Works, King Charles-street, S.W.1. Deposit £1 1s.

APRIL 29.—**Rochdale.**—ROOF.—For stripping off and repairing roof at Workmen's Club. Secretary, Club, Rochdale.

APRIL 29.—**Sevenoaks.**—SHED.—Erection of a light steel-framed cart shed at the Council's Depot, for the U.D.C. Surveyor, Council Offices, Argyle-road, Sevenoaks.

APRIL 30.—**Bradford.**—LAIRAGES.—For erection of lairages adjoining Filey-street, St. James's Market. City Architect, Town Hall, Bradford.

APRIL 30.—**Burgh-by-Sands.**—EXTENSION.—For extension of Burgh-by-Sands public hall, for the Trustees. Mr. Thos. F. Armstrong, Rose Mount, Burgh-by-Sands.

APRIL 30.— **Greenwich.**— HOUSES.— Erection and completion of 50 houses (some of which are partially erected) on the No. 3 Section of the Housing Estate at Charlton, for the Metropolitan Borough Council of Greenwich, S.E. Town Clerk's Dept., Town Hall, Greenwich. Deposit £2 2s.

APRIL 30.—**Maidstone.**—ALTERATIONS.—For alterations and additions to Trinity House, Church-street, for Kent County Ophthalmic Hospital. Messrs. Ruck & Smith, 86, Week-street, Maidstone. Deposit £1 1s.

APRIL 30.—**Manchester.**—HUT.—Supply at Abergele of a wood sectional sleeping hut, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

APRIL 30.—**Newton-on-Ouse.**—CHURCH, &C.—Erection of new Wesleyan church and school, Newton-on-Ouse. Mr. J. Francis Todd, architect, Easingwold.

APRIL 30.— **Nuneaton.**— HOUSES, &C.—For the erection of 34 houses on the Attleborough Housing Estate, for the Corporation. Mr. R. C. Moon, A.M.I.C.E., Borough Engineer and Surveyor, Municipal Offices, Queen's-road, Nuneaton. Deposit £2 2s.

APRIL 30.—**Ossett.**—PUMPING STATION.—Erection of a pumping station on site of old Pildacre Colliery, for T.C. Mr. H. Holmes, Borough Surveyor, Town Hall, Ossett.

APRIL 30.—**Ramsgate.**—THEATRE.—For construction of a portable theatre on the foreshore, for the T.C. Mr. T. G. Taylor, Borough Engineer, Albion House, Ramsgate.

APRIL 30.—**Salisbury.**—EXTENSION.—For extending the Municipal Offices, Endless-street, for the T.C. City Engineer, Municipal Offices, Salisbury.

APRIL 30. — **Southend-on-Sea.**—SCHOOLS.—Erection of proposed new secondary schools, Westcliff, for the County Borough of Southend-on-Sea E.C. Mr. H. Farrands, M.A., Director of Education, Education Offices, 20, Warrior-square, Southend-on-Sea. Deposit £3 3s. (cheques to be made payable to the Southend Corporation).

APRIL 30.—**Stocksbridge.**—HOUSES.—Erection of 26 houses on Shay House site, for the U.D.C. Mr. J. N. Singleton, Stocksbridge. Deposit £2.

APRIL 30.—**Todmorden.**—HOUSES.—For the erection of 16 houses on Royd Housing Estate, for the T.C. Mr. H. Crabtree, Borough Surveyor, Municipal Offices, Todmorden.

MAY 1.—**Ballymena.**—PAINTING.—For painting, &c., interior of Connor Presbyterian Church. Rev. H. V. Clements, Connor Manse, Kells, Ballymena.

MAY 1.—**Carlisle.**—PAINTING.—For internal painting and decorating of the Court Houses and offices, Carlisle, for the C.C. Mr. J. Forster, County Architect, The Courts, Carlisle.

MAY 1.—**Carrbois.**—PAINTING.—For painting Mechanics Institute and caretaker's house. Mr Whinsie, Secretary, Carrbois.

MAY 1.—**Conway.**—HOUSE.—For the erection children's home for 40 children at Llandudno Junct for the Conway B.G. Mr. S. C. Foulkes, archit Central Chambers, Colwyn Bay. Deposit £1 1s.

MAY 1.—**Maesbury.**—EXTENSION.—For exten of Congregational Church Schoolroom, Maesbury. R. Roberts, Llwyn Onn, Maesbury.

MAY 1.—**Poole.**—HOUSES.—For the erection o houses with fences and drains, for the T.C. Mr. Newman, Borough Surveyor, Municipal Offices, P

MAY 1.—**Portsmouth.**—FLATS.—Erection and c pletion of four blocks of flats in Voller-street, Landp and for the maintenance thereof in thorough repai six calendar months from the completion thereof the Portsmouth Town Council. Mr. Arthur W. W Borough Engineer, Town Hall, Portsmouth.

MAY 1.—**Trowbridge.**—PAINTING.—For interior coration work at Isolation Hospital, for the Commit Mr. W. J. Mann, Clerk, Glenion-street, Trowbridge.

MAY 2.—**Merthyr Tydfil.**—HOUSES.—For erect for the B.C., 50 houses at Pontscallog, Dowlais, 28 houses at Aberfau. Borough Architect, Co Offices, Merthyr Tydfil.

MAY 3.—**Alnwick.**—CONVENIENCE.—For erectio urinal at Cemetery for the Burial Board. Mr Middlemiss, Clerk, Alnwick.

★MAY 3.—**France.**—CEMETERY CONSTRUCTIO Construction of approximately 35 cemeteries in Fra for the Imperial War Graves Commission. Cont 1924 "T," Secretary, Works Department, Imp War Graves Commission, 82, Baker-street, Lon W.1. Deposit 15 guineas.

MAY 3.—**Pembrokeshire.**—BUILDINGS.—For erec for the County Small Holdings Committee: (1) house and outbuildings at Llysfran; and (2) hou The Croft, Llysfran. Mr. Owain Thomas, Co Architect, County Offices, Haverfordwest. Dep £1 1s.

MAY 3.—**Rochester.**—HOUSES.—For the erectio 60 houses, for the T.C. Mr. W. Law, City Surve Guildhall, Rochester. Deposit £5 5s.

★MAY 5.—**Amersham.**—BUILDING WORKS.—Er ing works only, viz.: New boiler house, engine h and laundry building, sanitary annexe, &c., for Guardians of the Amersham Union, at the Amers Poor Law Institution. Guardians' Architect, Ernest E. Fetch, A.R.I.B.A., 5, Broom-road, Tedd ton, Middlesex. Deposit £2 2s.

MAY 5.—**Barnsley.**—DEMOLITION.—For the pu down of property, Church-street, Barnsley. Mr Taylor, Fairfield House, Barnsley.

MAY 5.—**Barnsley.**—PAINTING.—For cleansing painting gates and railings of St. Mary's Church; for T.C. Borough Engineer, Fairfield House, Barn

MAY 5.—**Cardiff.**—ALTERATIONS.—For alteratio lavatory at 11, Park-place, for Board of Guard Mr. R. Stephenson, Clerk, Union Offices, 11, Park-p Cardiff.

MAY 5.—**Cardiff.**—ALTERATIONS.—For alter to bathroom at Ely Lodge, for Board of Guard Mr. R. Stephenson, Clerk, Union Offices, 11, Park-p Cardiff.

MAY 5.—**Dorking.**—COTTAGES.—For the erection completion of 50 cottages, for the U.D.C. Mr. S Gettings, Surveyor, Council Offices, Dorking.

MAY 5.—**Evesham.**—CONVENIENCES.—For the vision of a public sanitary convenience at the T Hall, for the T.C. Mr. J. Abbott, Surveyor, Town Evesham.

MAY 5.—**Margate.**—ROOF.—Construction of r inforced concrete roof, &c., to the boiler house economiser house at the Corporation's Water Pumping Station at Wingham, near Canterbury; for a false ceiling to the coal store at the statio the T.C. Borough Engineer, 13, Grosvenor-Margate.

MAY 5.—**Pontypridd.**—HOUSES.—For erecting f Pontypridd U.D.C. 60 houses on the Duffryn s Rhyd-y-Felin (Pontypridd). Mr. W. E. Lowe, veyor, Council Offices, Pontypridd (Glam). D £3 3s.

★MAY 5.—**Portsmouth.**—RUBBER FLOORIN Works to be done and materials to be supplied in nection with laying rubber flooring to the main dors of the Town Hall in the Borough of Portsm Borough Engineer's Office, Town Hall, Portsmou

MAY 5.—**Southampton.**—PUBLIC BATHS.—Erec public baths at Woolston, for the T.C. Bc Engineer, 33, French-street, Southampton. D £2 2s.

MAY 5.—**Stoke-on-Trent.**—POINTING.—For pc work at Penkhull Children's Homes, for the B.G A. R. P. Piercy, Union Offices, Stoke.

★MAY 5.—**Wallington, Surrey.**—HOUSES.—Er and completion of 44 brick-built houses on the J Orchard, Beddington Corner Site, for the Bedd and Wallington U.D.C. (Housing Scheme N Architect, Mr. S. F. R. Carter, A.M.Inst.C.E., Er to the Council, Council Offices, Wallington. I £2 2s.

★MAY 5.—**Wandsworth.**—ADDITIONS.—For tions and additions to the Borough Engineer's 215, Balham High-road, S.W., for the B.C. E. J. Elford, Borough Engineer, 215, Balham road, S.W. 17.

★MAY 5.—**Wandsworth, S.W. 18.**—PAVILI Sports' pavilions at King George's Park, Wands and the Furzedown Recreation Ground, Stre for the Wandsworth B.C. Mr. E. J. Elford, M.Ins Borough Engineer, 215, Balham High-road, S.W

MAY 6.—**Aberdare.**—POST OFFICE.—For erection of a new post office and telephone excha the Commissioners of H.M.Works. Contracts I H.M. Office of Works, King Charles-street, Deposit £1 1s.

MAY 6.—**Durham.**—PAINTING.—For external ing at Ryhope Secondary School, for C.C. Mr Dawson, Director of Education, Shire Hall, Dur

MAY 6.—**Hatfield, Herts.**—COTTAGES.—Erec 24 cottages in the parish of Hatfield, for the Messrs. Crickmer & Foxley, architects, 1, Linco Fields, London, W.C.2. Deposit £2 2s.

—**Welwyn, Herts.**—COTTAGES.—Erection of s in the parish of Welwyn, in the county of for the Welwyn R.D.C. Mr. H. G. Cherry, 97, Jermyn-street, St. James, S.W.1. 2s.

—**Aberdare.**—PUBLIC HALL, &c.—For erect- he Aberdare United Services Club and In- d., a new public hall and billiard room, &c., street. Aberdare. Mr. Gwilym Bosher, 29, Victoria-square, Aberdare. Deposit

—**Littlehampton.**—CONVENIENCES.—For the f public conveniences in St. Martin's-lane, D.C. Surveyor. Town Offices, Littlehampton.

—**Salford.**—TILING.—For tiling floors, walls gs of kitchen, scullery and larder at Ladywell n. Eccles New-road, for the T.C. Medical Health. 143, Regent-road, Salford.

—**Llandudno.**—CHILDREN'S HOME.—Erec- new Children's Home (40 children) in Baden d, Llandudno Junction, for the Guardians or of the Conway Union. Mr. S. Colwyn rchitect, Central Chambers, Colwyn Bay. 1s.

9.—**Tilbury, Essex.**—HOUSES.—Completion tion of 208 houses in Tilbury, now in varying partial construction under four sets of speci- respectively covering 48 and 58 houses in the Chadwell Ward, and 42 and 60 houses in Ward, for the Tilbury U.D.C. Mr. A. W. Clerk to the Council. Council Offices, Tilbury.

—**Glamorgan.**—VARIOUS.—For all works at Hall. Cardiff, and for individual works at tions as follows:—(1) Clydach; (2) Neath (3) Maesteg; (4) Pontardawe; (5 and 7 ll; (6) Ystalyfera; (8 and 9) Pontycymmer; lottyn; (11 and 13) Hengoed; and (12)

—**Finchley.**—PAINTING.—For painting and ks at schools, for the U.D.C. Mr. P. T. surveyor, Church End, Finchley, N. De- s.

12.—**Mansfield.**—HOUSES.—Erection and n of 74 houses 3 blocks of six houses, 2 blocks uses, and 24 pairs, all type A. 3, for the e Borough of Mansfield. Mr. Warrick Thomp- e, M.Inst.C.E., Borough Engineer and Sur- ket-street, Mansfield. Deposit £2 2s.

—**Port Talbot.**—PAINTING.—For the painting ious schools within the Borough. Mr. Moses Port Talbot.

15.—**Kingston-upon-Thames, Surrey.**—ADDI- HOSPITAL.—Erection of buildings to provide accommodation for nurses at (*a*) Brookwood spital, (*b*) Netherne Mental Hospital, for the Asylums Visiting Committee of the Surrey uncil. Mr. J. F. Hodgson, M.S.A., architect, -street, Guildford.

15.—**London, S.W.2.**—REMOVAL AND RE- TIONS.—Removal of the existing public over- n urinal, situate at Webber-street, New Cut. e-erection of same on a refuge in the centre of ay of the said street and the provision of new d stoneware stalls, &c. Borough Engineer's wn Hall, Brixton Hill, S.W.2.

16.—**Ilford, Essex.**—MEMORIAL HALL.— a circular memorial hall, about 30 ft. average faced with Portland stone and red bricks d with reinforced concrete dome, in Hatch- rd, for the Chairman and Members of the ar Memorial Fund. Messrs. C. J. Dawson, llardyce, architects, Clock House Chambers, Deposit £5.

19.—**Various Places.**—GAS MAINS.—Supply- fixing of gas mains, services, fittings, &c., and other buildings provided or maintained uncil, based upon the Council's Schedule of each work for the London County Council. to the Council. The County Hall Room estminster Bridge, S.E.1. Deposit £1 1s.

20.—**Featherstone, Yorkshire.**—HOUSES.— f 50 houses at Streethouse, near Pontefract. eatherstone U.D.C. Mr. Samuel Chesney, ... Council Offices, Featherstone, near Ponte- eposit £2 2s.

22.—**Barry.**—PAINTING.—For painting inside de of No. 5, Park-road, Barry. Owner, at ven.

ADE.—**Leeds.**—ADDITIONS.—For alterations ns to the "Marquis of Lorne" Hotel, Leeds. Smith's Tadcaster Brewery Co., Ltd. Mr. Wilson, architect, Kirkgate, Tadcaster.

—**Llandyssul.**—PLASTERING.—For plaster- and outside of farmhouse, &c. Mr. Thomas, Farm, Llandyssul.

RE.—**Slebech (Pemb).**—ADDITIONS.—For n additional wing to a house at The Rhos. ate Estate Offices, Narbeth (Pemb).

NITURE, MATERIALS, etc.

—**Clayton-le-Moors.**—MATERIALS.—For rials and tar for one year, for the U.D.C. gson, Surveyor, Council Offices, Clayton-le-

—**Devon.**—FURNITURE.—For supply of for one year, for Education Committee. The Castle, Exeter.

—**Glasgow.**—MATERIALS.—For supply of ater materials for T.C. Public Works Office, bers, 64, Cochrane-street, Glasgow.

—**Alnwick.**—SPRAYING MACHINE.—For sup- spraying machine of 200 gallons capacity. Olson, Surveyor, Alnwick.

—**Bolton.**—CEMENT.—Supply of Portland the T.C. Borough Surveyor, Bolton.

—**Islington.**—MATERIALS.—For the supply tons of granite or slag tar macadam, (*b*) and other ironwork. Borough Engineer, N.

—**Shoreham-by-Sea.**—MATERIALS.—For sup- materials, for the U.D.C. Town Surveyor, Shoreham-by-Sea.

APRIL 29.—**Glasgow.**—MATERIALS.—(1) Brass mountings; (2) electrical fittings and accessories; (3) glazier work; (4) iron gas fittings; (5) lamp pillars; (6) paints and oils; (7) stained and lettered glass panes; (8) tin-plate, copper, &c.; for the Lighting Department. Office of the Lighting Department, 20, Trongate, Glasgow.

APRIL 29.—**Great Yarmouth.**—WOOD BLOCKS.—For supply of 300,000 creosoted fir paving blocks, to the T.C. Mr. S. P. Thompson, Borough Engineer, Great Yarmouth.

APRIL 29.—**Lambeth.**—FIRE EXTINCTEURS.—Supply of fire extincteurs to the B.G. Mr. James L. Goldspink, Clerk, 128, Brook-street, Kennington, S.E. 11.

APRIL 29.—**Lambeth.**—LOCKERS.—Supply to the B.G. at their Lambeth Hospital of 200 oak ward lockers. Mr. J. L. Goldspink, Clerk, Offices, Brook-street, Kennington-road, S.E. 11.

APRIL 30.—**Bedlington.**—MATERIALS.—For the supply of dry and tarred Whinstone slag or limestone for either six or twelve months, to the U.D.C. Mr. J. W. Pooley, Surveyor, Bedlington.

APRIL 30. — **Huyton-with-Roby.** — MATERIALS.—Supply of 500 tons 2½ in. tarred slag macadam and 200 tons ¾ in. tarred slag macadam, to the U.D.C. Mr. H. Finister, Surveyor, Public Offices, Huyton.

APRIL 30.—**Ramsgate.**—REFUSE WAGONS.—For supply of four refuse wagons suitable for horse haulage, for T.C. Mr. T. G. Taylor, Borough Engineer, Ramsgate.

MAY 1.—**Gildersome.**—GRANITE SETTS.—Supply of 900-1,000 tons of 4 in. by 5 in. granite sets, to the U.D.C. Mr. W. Wilby, Surveyor, Gildersome.

MAY 6.—**Belchamp.**—MATERIALS.—Supply of broken granite and slag, to the R.D.C. Mr. S. Allpress, surveyor, Sudbury, Suffolk.

MAY 13.—**Richmond.**—MATERIALS.—Supply of grey lime, Buxton lime, sewage precipitants, and filter press cloth to the Richmond Main Drainage Board. Mr. William Fairley, Engineer, West Hall-road, Kew Gardens, Surrey.

ENGINEERING, IRON AND STEEL.

APRIL 26.—**Portland.**—RESERVOIR ROOF.—For taking down existing roof of the Yeates Reservoir, Portland, and the construction of a reinforced concrete roof, for the U.D.C. Mr. R. Davison, Surveyor, Council Offices, Portland.

APRIL 26.—**Swadlincote.**—TANK.—Construction of a water tank in reinforced concrete (capacity 8,500 gallons), for the U.D.C. Mr. George A. Taylor, Surveyor, Council Offices, Swadlincote, near Burton-on-Trent. Deposit £1.

APRIL 28.—**Poole.**—BRIDGE.—For construction of a new bridge over the Channel dividing Poole from Hamworthy, for T.C. Messrs. Livesey, Son & Henderson, 14, South-place, London, E.C.2. Deposit £5 5s.

APRIL 28.—**Rotherham.**—BRIDGE.—Construction of the abutments for a steel bridge and in the approach works to such bridge, which will carry the Bawtry and Tinsley main road over the River Rother, Rotherham, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

APRIL 29.—**Acton.**—BRIDGE.—For the reconstruction of Mason's Green-lane Bridge, Acton, W., for the G.W.R. Co. Engineer, Paddington Station, W.

APRIL 29.—**Laira.**—BRIDGE.—For the reconstruction of a bridge over Old Laira-road, Laira, near Plymouth, for the G.W.R. Co. Engineer, Paddington Station, W.

APRIL 29.—**London.**—FENCING.—Supply and erection of wrought-iron fencing, Shooters Hill Pumping Station, Kent, for the Metropolitan Water Board. Chief Engineer, 173, Rosebery-avenue, E.C.1.

APRIL 29.—**Maidenhead.**—BRIDGE.—For the reconstruction of Craufurd College Bridge under the Wycombe Branch Line, near Maidenhead, for the G.W.R. Co. Engineer, Paddington Station, W.

APRIL 29.—**Paddington.**—STEELWORK.—For the supply of about 163 tons of steel girders and other iron and steel work of British manufacture, to the G.W.R. Co. Engineer, Paddington Station, W.

APRIL 30.—**Langford.**—BRIDGE.—For the reconstruction of Langford Bridge, near Maldon, for the Essex C.C. Mr. W. H. Morgan, County Surveyor, Old Court, Chelmsford.

APRIL 30.—**London.**—LATHES, &c.—Supply of lathes, and other machine tools, for Testing Shop, Rosoman-street, Clerkenwell, E.C.1., for the Metropolitan Water Board. Chief Engineer, 173, Rosebery-avenue, E.C.1.

MAY 1. — **China.** — **BRIDGE.** — **The Commercial Councillor at Peking has forwarded to the Department of Overseas Trade copies of the official text of a call for tenders by the Hai Ho Conservancy Commission, for the erection of a bridge over the Hai Ho at Tientsin. Tenders must be in the hands of the Commission before noon on May 1, 1924. The cost of erecting the new bridge has been roughly estimated at Tls. 700,000, say £105,000. Department of Overseas Trade, 35, Old Queen-street, S.W.1. Reference 11647/F.E./E.C./2.**

MAY 1.—**Egypt.**—ROOFS, &c.—Construction of steel roofs and shelter of Alexandria new station, for the Egyptian State Railways. Inspecting Engineer, Egyptian and Sudan Governments, Queen Anne's Chambers, Broadway, Westminster, S.W. Charge £6 3s.

MAY 1.—**Pontypool.**—HEATING INSTALLATION.—For the installation of steam and exhaust pipes and low pressure heating and hot water services at the Institution of the Board of Guardians. Mr. T. P. H. Watkins, Clerk, Union Offices, Pontypool. Deposit £5 5s.

MAY 2.—**Durban, Natal.**—WATER SCHEME.—For supply of large sluice valves, valve tower ironwork, pipes, &c., for Vernon Hooper Dam in Shongweni Water Scheme, for T.C. Messrs. Webster, Steel & Co., 5, East India-avenue, London, E.C. Deposit £5 5s.

MAY 5.—**Brackley.**—PUMPING PLANT.—For erection of crude oil engine and well pump to lift 8,000 gallons of water per hour at Waterworks Pumping Station, for T.C. Mr. E. J. Silcock, Corporation Engineer, 25, Victoria-street, Westminster, S.W.1. Deposit £5.

MAY 7.—**Salford.**—HEATING APPARATUS.—For heating and hot-water service at the Maternity and Babies' Hospital, Seedley-road, Seedley, for T.C. Medical Officer of Health, 143, Regent-road, Salford.

MAY 8.—**Barking.**—BRIDGE.—For the construction of the bridge over Barking Creek on the line of the East Ham and Barking By-pass, for the Ministry of Transport. Chief Engineer, Roads Department, Ministry of Transport, 7, Whitehall-gardens, S.W.1. Deposit £100.

MAY 9.—**South Africa.**—COAL ELEVATORS.—Supply and erection of five coal elevators and ten coal shutes, for the Rand Water Board. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 13429/ED/EC/2.

MAY 10.—**Poulton-le-Fylde.**—BRIDGE.—Construction of a bridge over the London, Midland, and Scottish Railway in the township of Poulton-le-Fylde, for the Lancashire C.C. County Surveyor and Bridgemaster, County Offices, Preston.

MAY 12.—**Dewsbury.**—REINFORCING BARS.—Supply of mild steel reinforcing bars (approximately 35 tons) for use in the construction of a ferro-concrete tank, for the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury. Deposit £2 2s.

MAY 12.—**Dewsbury.**—TANK.—Construction of a ferro-concrete tank (500,000 gallons capacity), and other appurtenant works, for the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury. Deposit £2 2s.

MAY 30.—**London.**—STEELWORK.—Supply to the South Indian Railway Co. of structural steelwork (Machine Shop). Company's Offices, 91, Petty France, Westminster, S.W.1. Charge £1.

JULY 1.—**Chili.**—HARBOUR WORKS.—**For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.**

ROAD, SANITARY, AND WATER WORKS.

APRIL 26.—**Chelsea, S.W.**—SANITARY WORK.—Taking out the existing (upon four floors) and erecting new sanitary fittings, plumbing, and other work to the turret of the new Ward Block at the St. Luke's Hospital, Cale-street, Chelsea, S.W., for the Guardians of the Parish of Chelsea. Guardians' Architect, Mr. Edmund J. Harrison, 23, Berkeley-road, Crouch End, N.8.

APRIL 26.—**Glasgow.**—CONVENIENCE.—Construction of a public convenience in Alexandra Park (1) mason. brick, joiner, &c., works: and (2) sanitary fittings, Office of Public Works, City Chambers, 64, Cochrane-street, Glasgow.

APRIL 26.—**Ongar.**—ROADS.—For the laying of about 39,000 superficial yards of bituminous grouted macadam, for the R.D.C. Mr. H. C. Phillips, Surveyor, Ongar, Essex.

APRIL 26.—**Otley.**—ROADS, &c.—For water mains. streets, sewers and drains, Newall Carr-road Housing Scheme, for the U.D.C. Surveyor, Council Offices, Otley. Deposit £3 3s.

APRIL 26.—**Reigate.**—SEWER.—For the construction of 360 yds. of 9 in. stoneware pipe-sewer in Park-lane, for the T.C. Borough Engineer, Reigate.

APRIL 26.—**Walsall.**—ROADS.—For remaking portion of Watery-lane, for the T.C. Borough Surveyor, Walsall.

APRIL 28.—**Alnwick.**—DRAINAGE.—For laying 144 yards of 6 in. sanitary pipes at Christon Bank, for the R.D.C. Clerk, Alnwick.

APRIL 28.—**Chepstow.**—TARVIA SPRAYING.—For spraying with Tarvia, for the U.D.C., about 24,000 sq. yds. of roads. Mr. J. N. Jefferies, surveyor, Bridge-street, Chepstow (Mon).

APRIL 28.—**Chorley.**—SEWAGE WORKS.—For the construction of sewage disposal works, for the T.C. Messrs. Dodd & Watson, County Chambers, Corporation-street, Birmingham. Deposit £5.

APRIL 28.—**Dartford.**—ROADS.—For the reconstruction in tarmacadam of portion of the carriageway in Highfield-road, for the U.D.C. Mr. J. J. Hurtley, Clerk. Council Offices, Dartford. Deposit £1 1s.

APRIL 28.—**Dartford.**—ROADS.—For making-up Christchurch-road, Marlborough-road, and road from Wellington-road to Marlborough-road, and construction of sewer in Shepherds-lane, for the U.D.C. Mr. J. J. Hurtley, Clerk, Council Offices, Dartford. Deposit £1 1s.

APRIL 28.—**Islington.**—ROADS.—For paving with asphalte part of the carriageway of Crouch Hill, for the B.C. Borough Engineer, Municipal Offices, Tyndale-place, N.1.

APRIL 28.—**Kempton.**—WATER MAIN.—(*a*) For laying 7¼ miles of cast iron water main; (*b*) for laying 450 yds. of 52 in. steel pipes and contingent works from Kempton to Greenford, for Metropolitan Water Board. Mr. H. E. Stilgoe, Chief Engineer, Offices of the Board, New River Head, Clerkenwell, E.C.1. Deposit £20.

APRIL 28.—**Musselburgh.**—ROADS.—Construction of granolithic foot pavement and kerb at Edinburgh-road, for the T.C. Mr. John Barclay, Burgh Surveyor, Musselburgh.

APRIL 28.—**Rochford.**—SEWERS.—For the construction of about five miles of 7 in., 8 in., and 9 in. stoneware sewers, for the Parish of Hadleigh, for the R.D.C. Mr. John H. Blizard (Lemon & Blizard), 7, Victoria-street, Westminster. Deposit £5 5s.

APRIL 28.—**Romford.**—SEWERAGE.—For laying about 350 yards of 6 in. and 9 in. diameter foul sewer in Brentwood-road and Manor-road, for the U.D.C. Mr. F. G. Beaumont, Surveyor, 73, South-street, Romford. Deposit £1 1s.

APRIL 28.—**Swindon.**—TENNIS COURTS.—For laying down eight hard tennis courts, for the T.C. Borough Surveyor, 34, Regent-circus, Swindon.

APRIL 29.—**Basford.**—SEWERAGE WORK.—For emptying and refilling bacterial filter beds at Sewerage Works, for the R.D.C. Mr. Stephen Maylan, Surveyor, Public Offices, Rock House, Stockhill-lane, Basford Nottingham. Deposit £1 1s.

APRIL 29.—**Bolton.**—TRAMWAY.—For the laying of about 2¼ miles of single tramway, 4 ft. 8½ in. gauge, together with passing places, in the Westhoughton Urban District, for the T.C. Borough Engineer, Town Hall. Bolton.

APRIL 29.—**Liverpool.**—TENNIS COURTS.—For the construction of two asphalte tennis courts, Prince's Park, for the T.C. Land Steward and Surveyor Municipal Buildings, Liverpool.

APRIL 29.—**Torquay.**—WATER WORKS.—For laying about 3¼ miles of 12 in. and ¾ mile of 7 in. cast-iron pipes, for the T.C. Mr. Samuel C. Chapman, Waterworks Engineer, Town Hall, Torquay. Deposit £2 2s.

APRIL 30.—**France and Belgium.** HEADSTONES.—Total supply of 15,000 headstones, packed and delivered, F.O.R., to be divided into a number of contracts, none of which shall be for less than 100 headstones. The Secretary, Works Department, Imperial War Graves' Commission, 82, Baker-street, London, W.1.

APRIL 30.—**Hemel Hempstead.**—ROADS.—For sewering and making up of a private street about 300 yards long for the T.C. Mr. W. R. Locke, Borough Surveyor, Hemel Hempstead, Herts.

APRIL 30.—**Lanchester.**—SEWAGE WORKS.—Construction of 1,300 lin. yds. of 6 in. pipe sewer at Medomsley Edge, for the R.D.C. Mr. G. W. Westgarth, Surveyor, Lanchester.

APRIL 30.—**Swansea.**—SEWAGE WORKS.—For construction of sewerage works at Llansamlet, for T.C. Mr. J. R. Heath, Chief Engineer, Main Drainage Dept., Guildhall, Swansea. Deposit £5 5s.

APRIL 30.—**Wembley.**—ROADS.—For the tarpainting of approximately 100,000 yards super of roads, for the U.D.C. Mr. C. R. W. Chapman, Surveyor, Council Offices, Wembley, Middlesex.

MAY 1.—**Bolton-upon-Dearne.**—ROADS.—For making up Cross-street, Goldthorpe, for the U.D.C. Mr. W. H. Adams, Council Offices, Bolton-upon-Dearne. Deposit 10s. 6d.

MAY 1.—**Cannock.**—ROADS.—Reconstruction of Littleworth-Rawnsley-road, for the U.D.C. Mr. Robt. Blanchard, Engineer, Council Offices, Cannock.

MAY 1.—**Swansea.**—TAR PAVING.—For the relevelling and tar-paving of playgrounds, &c., at the Oystermouth Council School, for the T.C. Mr. Ernest Morgan, Borough Architect, 3, Prospect-place, Swansea.

MAY 2.—**Doncaster.**—SEWER.—For laying 92 yds. of 12 in. pipe sewer in the back lane at Campsall, for the R.D.C. Mr. W. R. Crabtree, Nether Hall, Doncaster.

MAY 2.—**Northampton.**—ROADS.—For the construction of the new by-pass road at Geddington (length about 800 yards), for the C.C. Mr. C. S. Morris, County Surveyor, County Hall, Northampton. Deposit £2 2s.

MAY 2.—**Shaftesbury.**—SEWERS, &C.—For the laying of about 1,600 yards of sewers and drains, for the T.C. Mr. John Partridge Jenkins, Town Hall, Shaftesbury. Deposit £1 1s.

MAY 3.—**Faversham.**—ASPHALTING.—For 3,150 sq. yds. of double-coat asphalte to be laid on the London-Dover road, for the T.C. Mr. S. Percy Andrews, Borough Surveyor, 20, West-street, Faversham. Deposit 10s.

MAY 3.—**Margate.**—ROAD.—Making-up new road, 80 ft. wide, east of Palm Bay, Margate, for a length of 1,116 ft., for the T.C. Borough Surveyor, 13, Grosvenor-place, Margate.

MAY 5.—**Barnsley.**—ROADS.—For making-up of Foster-street, Conway-street, and Victoria-street, Stairfoot, for T.C. Borough Engineer, Fairfield House, Barnsley.

MAY 5.—**Eccles.**—ROADS.—For making-up Armitage-street, Dorning-street, Lime-street, Oak-street, eleven back passages in the same neighbourhood, for T.C. Mr. T. S. Picton, Borough Surveyor, Town Hall, Eccles. Deposit £1 1s.

✱MAY 5.—**London, S.W.**—STREETS AND SEWERS.—Construction of streets and sewers in connection with the development of the L.C.C., East Hill Estate, Wandsworth, for the L.C.C. The Architect to the Council, The County Hall Room No. 3), Westminster Bridge, S.E. 1. Deposit £1 1s. to the Cashier.

MAY 5.—**Pontypridd.**—ROADS AND SEWERS.—For carrying out for the Pontypridd U.D.C. the following works:—(1) Formation and ballasting of about 740 lineal yards of roadways; (2) constructing and laying of about 1,900 lineal yards of 9 in., 6 in. and 4 in. sewers with 6 in. surface water drains in connection with the proposed erection of 60 houses at Rhyd-y-Felin. Mr. W. E. Lowe, Surveyor, Council Offices, Pontypridd. Deposit £1 1s.

MAY 5.—**Watford.**—ROADS.—For the kerbing, channelling and paving of about 3,300 yds. of footpath in Rickmansworth-road, for the T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.

MAY 5.—**Watford.**—ROADS.—For the making up Sydney-road, Part 2 (290 yards), Whippendell-road, Part 4 (850 yards), for the T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.

MAY 7.—**Glamorganshire.**—STREET WORKS, &C.—For carrying out for the Cardiff R.D.C. the following works:—(1) Street improvements and construction of surface water drains at (*a*) Bishop's-road, &c. (part of), (*b*) Westbourne-crescent (part of), and (*c*) Queen-street (part of), all at Tongwynlais, and (2) sewer extension—(*d*) construction of about 630 lineal yards of 9 in. earthenware pipe sewers with manholes, &c., at Pantbach-road, Whitchurch, and (*e*) widening of Station-road, Rhoose. Mr. William Farrow, 20, Park-place, Cardiff.

MAY 7.—**Prestwich.**—SEWERS.—Construction of 330 yards surface water and soil sewers along Sandy-lane, for the U.D.C. Mr. M. A. Piercy, Surveyor, Town Hall, Prestwich. Deposit £1 1s.

MAY 8.—**Clun.**—ROADS.—For widening the Purslow-Hopton Heath-road and erection of fencing in connection therewith, for the R.D.C. Mr. H. A. Elliott, Surveyor, Bishop's Castle, Salop. Deposit £2 2s.

MAY 8.—**Newbury.**—ROADS.—For resurfacing various streets, for the T.C. Borough Engineer, Newbury.

MAY 12.—**Mitcham.**—ROADS.—For the making up of Garden-avenue, for the U.D.C. Surveyor, Broadway House, London-road, Lower Mitcham.

MAY 15.—**Bingley.**—ASPHALTING, &C.—For the following works: Bingley Training College—(1) Asphalting playing ground; (2) building of accumulator house. Education Department, County Hall, Wakefield.

✱MAY 15.—**Upper Norwood.**—SEWERS AND ROADS.—Works required to be done and materials supplied and used in the formation and laying out of sewers and builders' roads for the development of a portion of the Bloomfield Hall Housing Estate, Central Hill, Upper Norwood, for the Lambeth B.C. Mr. Osmond Cattlin, Assoc.M.Inst.E.C. (Chartered Civil Engineer), Borough Engineer, Town Hall, Brixton Hill, S.W.2. Deposit £2 2s.

Competitions.

(*See Competition News, page* 668.)

Auction Sales, Tenders, etc.

✱APRIL 28.—**London, E.C.**—Messrs. Alfred Savill & Sons will sell by order of the Trustees under the will of D. McIntosh, Esq. (deceased), valuable freehold building estate, Romford, Essex, adjoining the town, known as Marshall's Park, extending to about 117 acres, including residence, buildings, and cottages. Auctioneers, 69, South Audley-street, London, W.1.

APRIL 29.—**Stockwell, S.W.**—Messrs. Veryard Yates, F.A.I., will sell, without reserve, at 255, Clopham-road, timber, fittings and building materials, arising from the demolition of the aircraft buildings, Regent's Park. Auctioneers, 365, Norwood-road, S.E.27.

APRIL 29 AND 30.—**Banbury, Oxon.**—Mr. F. H. Clark will sell, without reserve, at Banbury Filling Factory, Central Stores Depot No. 423, timber and building materials accruing from the demolition of the Filling Factory, Banbury, Oxon. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18, or of the same firm at the Filling Factory, Banbury, Oxon.

APRIL 29.—**Fulham.**—Messrs. Green & Son will sell, at "The Hermitage," 84, Little-road, large quantities of building materials. Auctioneers, 72, King-street, Hammersmith, W.6.

APRIL 30, AND FOLLOWING DAY.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell in lots at the Merchants' Hall, Baltic Exchange, St. Mary Axe, E.C., contractors' and builders' plant and stock from Tilbury Housing Scheme, by order of Messrs. Trollope & Colls, Ltd., on account of completion of contract. Auctioneers, 11, Billiter-square, E.C.3.

✱APRIL 30–MAY 1.—**Seal, Kent.**—Messrs. Cronk will sell, by instructions from Lord Hillingdon, at "Wildernesse," Seal, Kent (about 2 miles from Sevenoaks), building materials and plant, timber, ironmongery and tools in the estate workshops and timber yards. Auctioneers, Sevenoaks.

MAY 1.—**Merton.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, at High-street, Colliers Wood, building materials, arising from demolition of premises. Auctioneers, 365, Norwood-road, S.E. 27.

MAY 2.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell will sell by order of Messrs. C. J. Wells & Sons, Ltd., on account of the completion of the London-Tilbury road contract, at the Merchants' Hall, Baltic Exchange, St. Mary-Axe, E.C., contractors' plant. Auctioneers, 11, Billiter-square, E.C.3.

✱MAY 6.—**Farnborough, Kent.**—Messrs. Veryard & Yates, F.A.I., will sell, at 1.30, without reserve, on site opposite "George and Dragon" Hotel, building materials arising from demolition of shop premises, also building plant. Auctioneers, 365, Norwood-road, S.E.27.

MAY 6.—**London, W.1.**—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament, Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers 20, Hanover-square, W.1.

MAY 22.—**Hertfordshire.**—Messrs. Knight, Frank & Rutley will sell by direction of Mr. Lionel Frank, as a whole or in lots, in the Hanover-square Estate Room (unless previously sold privately), the freehold residential property, The Grange, Cheshunt, Hertfordshire. Auctioneers, 20, Hanover-square, W.1.

MAY 27.—**Near Gerrard's Cross (Bucks).**—Messrs. Knight, Frank & Rutley will sell, by direction of Commander J. A. L. Hay, R.N., freehold agricultural and sporting property, known as Pickeridge Farm, about 171 acres; also about 18 acres of building sites. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

APRIL 28.—**Swansea.**—Quantity Surveying Assistant required in the Borough Architect's Department by the County Borough of Swansea. Borough Architect, 3, Prospect-place, Swansea.

APRIL 28.—**Swansea.**—Clerk of Works required to act under the direction of the Borough Architect for the new elementary school, Town Hill, by the County Borough of Swansea. Borough Architect, 3, Prospect-place, Swansea.

✱APRIL 30.—**Cornwall.**—Clerk of Works required in connection with the Land Settlement Building work by the Small Holdings and Allotments' Committee of the Cornwall C.C. Mr. J. Wilson, County Land Agent, County Hall, Truro.

APRIL 30.—**Neath.**—Temporary Quantity Surveyor required by Glamorgan C.C. Education Committee. County Architect, Metropolitan Chambers, Neath.

✱MAY 3.—**Crewe.**—Architectural Assistant required by the Corporation in the Borough Engineer's Department. Mr. E. G. Timbrell, B.Sc., A.M.I.C.E., Borough Engineer and Surveyor, Municipal Buildings, Crewe.

MAY 7.—**Port Talbot (Glam).**—The B.C. requires the services of an engineer. Mr. Moses Thomas, Town Clerk, Port Talbot (Glam).

MAY 8.—**Carmarthen.**—The Carmarthen R.D.C. is to appoint a surveyor of highways for the sub-district of St. Clears. The Municipal and Cy. Engineers or Surveyors' Institution. Mr. John Saer, 7, Hall-street, Carmarthen.

TRADE NEWS

William Shepherd & Sons, Ltd.

We are informed by this firm that, u
Trade Marks Act, their trade mark, "Sh
has duly been registered in Class 50. T
"Shepfast" now supplements entir
word "Stickfast," which they have pr
used to describe their product.

Vigilant Sprinklers, Ltd.

We have received an interesting p
from this company, describing the
system of fire protection by automatic sp
A Vigilant Automatic Sprinkler, it st
the same effect as a pail of water i
available at every part of the buildi
day and night; it requires, however, n
help, but immediately extinguishes
with a minimum of damage, and at t
time sounds an alarm.

NEW BUILDINGS LONDON

Ealing Common.—HOUSES.—Buildin
lopments are now taking place at
Common by Messrs. W. Daley & Co.
Birch-grove, Acton. The site consist
acres and is within three minutes' wa
Ealing Common Station. The house
from four bedrooms and two reception
semi-detached type upwards, and roo
garage if desired.

Acton.—HOUSES.—A number of ho
now being erected by Messrs. W. Dale
of 58, Birch-grove,

Builders' Estates.

Mr. Frederick John Dove, of St. S
Bedfont, Middlesex, governing dir
Messrs. Dove Bros., Ltd., Studd-street. I
builders and contractors (net pe
£24,085), £43,697.

Mr. Thomas Nash (76), of Tat
South, Heaton Chapel, Lancs, build
personalty, £1,490), £16,534.

The British Empire Gas Exhibit Comi

We are informed by the British Em
Committee that thirteen miles of g
have been laid at Wembley to bring g
hundreds of exhibitors. At least tw
cubic feet of gas per week, they state
used by Messrs. Lyons for catering pu
enough to supply a town of 20,000 inh
Five thousand gas burners, giving a t
of over 500,000 candle power, have
stalled for the whole of the Amuseme
The British Empire Gas exhibit in the
Industry will occupy a space of over 12,(
A noteworthy feature will be the
collection of gas fires, ten millions of
now in use in this country, and ga
of which there are five million installed

Builders' Wages.

The full executives of the buildi
unions, representing the National F
of Building Trade Operatives, met re
consider the offer of the employers t
wages a halfpenny an hour. They d
submit the offer to a ballot of their
The decision is an endorsement of the
report of the Negotiating Committee

"In the opinion of the Negotiat
mittee, the terms expressed in the e
letter of April 15 cannot at the m
improved by further attempts at neg
We therefore advise that the whole
placed before our members, and a b
be taken as to whether they are pr
support their demands by strike ac
that such notice as is required by the
tion of the National Wages and (
Council be tendered, to give eith
freedom to act as they decide."

The actual date of the ballot is not
but will take place during the next w

POSED NEW BUILDINGS & OTHER WORKS *

se lists care is taken to ensure the accuracy of the information given, but it may occa- appen that, owing to building owners taking the responsibility of commencing work ns are finally approved by the local authorities, "proposed" works at the time of have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. District Council; R.D.C. for Rural District Council; E.C. for Education Committee; Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for f Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

N.—Plans passed by T.C.: Two houses, venue, for Mr. William Grant, contractor. J. & J. Cameron, architects; extension of 12, Exchange-street, for Talbots, Ltd., manufacturers, per Mr. William E. Gauld. hostel for lady students at 52, Skene-terrace, berdeen University Court, per Messrs. A. Mackenzie & Son, architects; bungalow, oad, for Mrs. Sophia L. Davidson, 363, reet, per Messrs. M'Andrew & Sutherland. bungalow, Tanfield Walk, for Mr. William ish merchant, per Messrs. Walker & Duncan, four bungalows, Burns-road, for Mr. John son, Mr. George Cruickshank, and Mr. Fraser, clerk, per Mr. Arthur C. Bruce,

WYTH.—The T.C. has decided to erect a Bath Rock, at an estimated cost of £365.

DS PLAIN.—The U.D.C. have approved mitted by the South Derwent Coal Co., Ltd., ction of 60 houses at New Carmyers. An has also been received that the South Moor o., Ltd., propose building a number of houses at New Kyo.

—Plans passed by U.D.C.: House, Laurel- Mr. C. H. Isaacs; 20 houses, Park-drive. Allen & Potter; house, Sheen Common- Mr. G. A. Gale; six houses, Gerard-road, Ives Bros.; conversion of No. 19, Cleveland- three self-contained flats, by Mr. Roy sewers, Park-drive, by Mr. Walter Smith.

D.—Plans passed by T.C.: Mr. W. E. G. Mr. C. Turner, house, Kimbolton-road: Mr. Inskip, for Mr. J. T. Clayton, house, Kim- d: Mr. E. H. C. Inskip, for Mr. T. E. Sinfield ndon-road.

K.—The licensing justices have approved extensions to the "King's Head" Hotel. tect is Mr. S. H. Lawson.

RD.—The Markets Committee's recommenda- the construction of additional cold storage lation at the rear of the wholesale meat Filey-street, has been approved and tenders arrying out of the work are being invited. loore & Crabtree, architects, of Queensgate, ng tenders for the erection of a new weaving Tibsey Slack.

ND.—Plans passed by U.D.C. are as follows: ouses at Brynteg, for Messrs. Banner & : house for Mr. J. W. Morris; shops and at Ewenny-road, for Mr. W. M. Powell.

L.—The City Council has approved of exten- ng carried out at the Ham Green Hospital. nated cost is £33,000.

RLEY.—Plans passed: Three pairs of houses ria-road, for Mr. J. L. Horn, of Eccleshill.

RTHENSHIRE.—The Llandilo R.D.C. is to r powers to carry out alterations to the accommodation, and to proceed with a water cheme.—Mr. J. Howard Morgan, architect to t Counties Mental Hospital Committee, Car- , has submitted a report to the Committee extensive repairs, &c., necessary to the on.—The C.C. is recommended by a sub- ee to accept the offer of the Prison premises 50, for conversion to County offices. It is ly proposed to convert part of the buildings ng purposes.

ON.—The Parish Council is to invite tenders uilding of 12 houses.

BOROUGH.—Four hundred houses are to be by the Conisborough Housing Association.

TT.—The U.D.C. has approved plans for tion of 64 houses at The Grove, Consett, for sett Iron Co., Ltd.

MOUTH.—The T.C. has offered to present a site Dartmouth Cottage Hospital Trustees for the thereon of a mortuary.—The T.C. has decided to the M.H. for sanction to borrow £6,000 erection of flats in High-street. The Council to invite tenders for a block of four houses y's Meadow.

ASTER.—The Low Temperature Carbonisation , of London, propose to establish 500 retorts negotiating with the Corporation for a suitable which to erect their works.

R.—An inquiry by the M.T. has been held ng the application of the Corporation to £45,000 for the construction of a road up the cliff.—Sir William Crundall, chairman of the Board, gave details of proposals of the or building a large dock at the eastern end of ner Admiralty harbour, which was handed the Board last year, and said that 60 miles of would be constructed for dealing with coal ore.

FIELD.—A new retort house is to be erected Gas Works and other improvements effected, stimated cost of £5,000.

EE.—Plans and sections of proposed new s, &c., have been lodged at the office of the gineer: Blackness-avenue, semi-detached villa, on T. Stewart: Camperdown-street, Broughty ffices for the E.C.; Harrow-street, bungalow, Gardiner.

CROFT.—A site for a new school has been d in the plan for a new estate at Dunscroft, 00 houses are to be erected.

AM.—The District Committee of the Miners' Fund has approved of the following schemes: Erection of ambulance house and caretaker's house at Heworth Fanny, also of a similar scheme at Heworth John and Ada; erection of a reading room and construction of a recreation ground at North Biddick, and erection of a groundsman's house and two shelters at Dawdon.

ELLAND.—Six houses are to be erected by Messrs. A. & H. Sutcliffe, at Lower Bradley.

ESTON.—For the purpose of erecting an additional 24 houses of the working-class type, the U.D.C. has decided to make application to the M.H. to borrow £9,240.

FEATHERSTONE.—Plans passed: Three houses at Pontefract-road, Purston, for the South Kirby, Hemsworth and Featherstone Colliery Co., Ltd.; and conversions at Moorland View, for the trustees of W. W. McHughes.

FORMBY.—Plans passed by U.D.C.: house for Mr. Morris Kay, Paradise-lane; pair of semi-detached houses, Watchyard-lane, for Mr. Loines; house, Moss Side, for Mr. V. Blanchard; two pairs houses, Raven Meols-lane, for Major Roome; house, Montague-road, for Mr. Robertson; three bungalows, Argarmeols-road, for Mr. Gregson; house, Shireburn-road, for Mr. Godfrey; five pairs houses, Whitehouse-lane, for Mr. J. Lovett.

FRODINGHAM.—The old Council Chambers at Frodingham are to be converted into a maternity home.

GILLINGHAM.—Plans passed by T.C.: House, First-avenue, Captain Jones; house, First-avenue, Mrs. R. Capeling; house, Bredhurst-road, Mr. J. R. Carter; two bungalows, 42 and 43, Orchard-road, Mr. F. W. Knight; house, Canadian-avenue, Mr. Greenwood; and two houses, Barnsole-road, Mr. A. W. Little.

GLAMORGANSHIRE.—The Penybont R.D.C. has applied for sanction to erect a further 100 houses.—The Pontypridd U.D.C. is to invite tenders for the erection of 60 houses under 1923 Housing Act. Schemes to be proceeded with by the Pontypridd U.D.C. are as follows: Rhondda-road improvement, estimate £5,500; Ynysybwl-road diversion, £3,000; Duffryn-road improvement, £1,500; Ynysyngharad Park footbridge, £500; Station-square to Maesycoed widening, £1,000; Pwllgwaun sewer, £400; bath construction at Cilfynydd, £200; private street works at Sion-street, £2,500.

GREASBOROUGH.—Two houses, Church-street, for Mr. R. Cooper.

HALSTEAD.—Plans passed by U.D.C.: Three bungalows, Weevers-road, for Mr. F. W. Drury.

HORSFORTH.—Plans passed: Pair of houses in Stanhope-drive, for H. E. Riley; pair of houses in main road, for Messrs. Jennings & Rainbow; two pairs of houses in Victoria-crescent, for Messrs. Read Bros.; pair of houses in Rawdon-road, for J. Marsden's trustees; pair of houses in Victoria-walk, for Mr. J. B. Lee.

HULME CULTRAM.—Plan passed: Shop, Eden-street, Silloth, for G. Finley.

KEIGHLEY.—Plans passed by T.C.: bungalow at Oakworth-road, for J. Calvert; two houses at Grafton-road, for J. Driver & Son; house at Hog Holes-lane, for Arthur Nicholson; two houses at Highfield-lane, for Baron Roff. The M.H. has sanctioned the erection of ten new houses at Steeton.

LAMPETER.—The T.C. is to consider a scheme for recreation ground lay-out, to include construction of an artificial lake.

LLANELLY.—The G.W.R. Co. has notified the B.C. that plans for the proposed new railway station and sidings are well advanced.

LONDON (HACKNEY).—Plans passed by B.C.: Mr. E. J. Saunders, Wesleyan Central Hall, Mare-street; Messrs. L. H. & R. Roberts, extension to the electricity sub-station, Dalston-lane.

LONGBENTON.—The M.H. have agreed to the erection of 40 houses as an instalment and intimated that favourable application will be given to the proposal of building another 40 when substantial progress has been made with the first batch.

LONGTON.—The R.D.C. have approved a plan submitted to them for the erection of a new auction mart.

LOWESTOFT.—Plans passed: Two cottages, Beccles-road, for Mrs. R. Peck.

MERTHYR TYDFIL.—The B.C. is to acquire a housing site at Abercanaid, and is endeavouring to obtain a site at Merthyr Vale.

MIDDLESTONE MOOR.—A movement is on foot to build 12 single homes at Middlestone Moor, for the widows of deceased aged miners, in Coundon, Leasingthorne, and Middlestone.

MONMOUTHSHIRE.—The C.E.C. has requested the architect to submit plans for a new school at Markham. The Committee has been requested by the Llantarnam U.D.C. to provide new school accommodation at St. Dial's.—The C.C. is to carry out a diversion of the main road between Chepstow and Newport.

MORLEY.—Plans passed: Milk house, High-street, for Messrs. J. Sharp & T. Hall; conversion of house into two separate houses in America Moor-lane, for Mr. E. Pearson; house, Scatchard-lane, for Mr. A. Hartley.——The Surveyor has been instructed to prepare estimates for the making watertight of the pond in the public park.

NEWCASTLE.—The office-bearers of the Church of the Divine Unity are giving careful consideration to the question of the erection of a new church in that city.

NEWPORT (MON).—Plans passed by T.C.: Mendalgief-road, three houses, for W. Christerson; Cardigan-place, two houses, for J. Broadfoot; Vivian-road, bakery, for L. Fearis; Vine-place, stables, for Geo. Clarke; Surrey-place, two houses, for E. W. & S. H. Weston; Oswald-road, house, for Ivor James; Spitty-road, three houses, for Arthur Whant; Allt-yr-yn-road, house, for S. G. Atkins; Lliswerry-road, two houses, for W. H. Lewis; Cornwall-road, two houses, for E. King & Co.; Alteryn-road, two houses, for Wm. Watts; Batchelor-road, house, for J. Lewis.

NEWTON ABBOT.—The U.D.C. has received sanction from the M.H. to borrow £1,055 for the construction of a reinforced concrete roadway in Market-square.

OSSETT.—Plans passed: House and shop, Dewsbury-road, for Mr. Hinchliffe Oldroyd.——Tenders are being invited by the B.S. for the erection of a new pumping station on the site of the old Pildacre Colliery.

PAIGNTON.—A site has just been secured upon which to erect a new Roman Catholic Church.

PEMBROKESHIRE.—The Narberth R.D.C. has applied for sanction to borrow £3,650 for road widening works.

PENZANCE.—The T.C. has decided to apply for sanction to borrow £1,800 for the purpose of carrying out a scheme prepared by the B.S. for providing lavatory accommodation on the site of the old post-office.

PLYMOUTH.—The Special Works Committee is applying to the M.H. for sanction to a loan of £15,000 for the improvement of Lanhydrock-road; a scheme is being drawn up by a sub-committee of the Corporation for the extension of the mental hospital.

PONTARDAWE.—The Council has instructed the architect to select a site for erection of houses at Cwmllynfell.

PUDSEY.—The Corporation propose to invite tenders for the erection of between 100 and 200 houses of the concrete type.

RHONDDA.—The U.D.C. is to construct a bathing pool at Gelli Park, at an estimated cost of £400. The Council will also lay out as a recreation ground certain lands at Trehavod.

RHYMNEY.—The U.D.C. has received plans of 50 houses which the Tredegar Coal & Iron Co. propose to erect at Abertysswg.

ROTHWELL.—Plans passed: House, at Carlton, for Mr. A. Gray; house, Leadwell-lane, for Mr. R. H. Ward.

RYTON.—The U.D.C. Council's architects are now in a position to obtain tenders for the erection of 30 houses at Hexham Old-road.——The U.D.C. has received sanction from the M.H. to borrow £34,000, for road construction.

ST. AUSTELL.—Revised plans for the extension of the Cottage Hospital have been approved by the Hospital Committee. The estimated cost of the work is over £3,000.

SEDGEFIELD.—An inquiry has been held by Mr. H. E. Bryne, Inspector on behalf of the Ministry of Health, relative to the application of the R.D.C. to borrow £2,200 for works of private street improvements in West Cornforth; also for £2,600 for private street improvements in the parish of Ferryhill; and £1,150 for similar work in the parish of Chilton.——Plans passed by R.D.C.: House and shop, Dean Bank, for Mr. J. McKeen; bungalow, Ferryhill, for Mr. J. Wallis.

SHOTTON.—A proposed technical school for Deeside is to be erected at Shotton.

SOUTH KIRBY (YORKSHIRE).—A site is being selected upon which to erect a new elementary school; the approval of the West Riding C.C. is being sought.

SOWERBY BRIDGE.—Plans passed: Four houses, for Mr. F. Stockton.

SPENBOROUGH.—Plans passed: Two houses, Huddersfield-road, Liversedge, for Mr. J. W. Pickles; house, Halifax-road, Hightown, Liversedge, for Mr. B. Anderson; two houses, Union-road, Liversedge; house, Corn Mill-lane, Liversedge; house, at Little Gomersal; house, Huddersfield-road, Liversedge; house, Roberttown-lane, Liversedge; two houses, Bradford-road, Cleckheaton; two houses, Church-lane, Gomersal, and two houses at Church-lane, Gomersal.

STANLEY (YORKS).—The Surveyor to the U.D.C. has been instructed to prepare a plan for the erection of a mortuary in Coach-road.

STOCKTON.—Plans passed by the U.D.C.: Pair of semi-detached houses, in Leven-road, West Norton, for Mr. J. W. Harrison; house in Hartburn-road, for Mr. F. H. Ridley; pair of bungalows in Yarm-road, for Mrs. H. Brown and Mrs. Moodie; pair of semi-detached houses in Junction-road, Norton, for Rev. J. W. F. Phillipson.

TORPOINT.—The Antony Estate has laid out plots for the erection of 44 bungalows, the building of some of which is already in progress.

WEST PENWITH.—The R.D.C. has decided to engage Mr. A. P. I. Cotterell, engineer, to prepare plans and specifications for a water supply and sewerage scheme for Carbis Bay and Lelant for presentation to the M.H.

WILLESDEN.—Plans passed by U.D.C.: Two houses, 82–88, Chatsworth-road, Cricklewood, for C. W. B. Simmonds.

YEOVIL.—The Somerset and Dorset section of the National Farmer's Union have decided to erect their new bacon factory on a site which has recently been acquired at Yeovil.

FIRES.

CROYDON.—A fire broke out at Croydon recently on the premises of Messrs. J. Gurney Nutting & Co., motor-body builders, Oval-road, and extended to the adjoining buildings of Messrs. Cresswell & Co., builders, and the Croydon Wood Heel Co. In a short time all the buildings, which cover an area of 80 yds. by 30, were a mass of flames. Damage was done to the extent of many thousands of pounds.

LEICESTER.—A fire occurred recently at the large hosiery factory of Messrs. Toller & Lankester, at Leicester. The building was destroyed, involving a loss of £30,000.

SELBY.—A destructive fire has occurred on the premises of Messrs. W. Bursell, Ltd., forage merchants Station-road.

* also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose ..	9 10 0
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick:— 2½ in.	11 3 0	3 in.....	13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
Headers.....	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6 per yard.	
Pit Sand	14 9 „ „	
Thames Sand	15 6 „ „	delivered 2 miles radius Paddington.
Best Washed Sand.....	15 6 „ „	
¾ in. Shingle for Ferro-Concrete	14 0 „ „	
½ in. „	15 0 „ „	
¾ in. Broken Brick.....	10 6 „ „	
Pan Breeze	7 6 „ „	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above.....	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White.....	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime.....	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube.....	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube.....	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube.....	4 4
Do. do. delivered on road wagons at above stations, per ft. cube.....	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides ..... „	27/-
Sawn three or four sides ..... „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.).....Per Ft. Super	5 3
6 in. rubbed two sides, ditto..... „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) ..... „	1 5½
1½ in. to 2 in. ditto, ditto ..... „	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks.....Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.).....Per Ft. Super	5 4½
6 in. rubbed two sides ditto ..... „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags..Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.	s. d.
Plain ..... per ft. cube	6 6
Moulded ..... „ „	7 9
Cills ..... „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	32 0	3 × 11	31 0
4 × 8	27 0	2 × 11	32 0
4 × 7	27 0	3 × 9	30 0
3 × 8	25 10	2½ × 9	30 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	25 0	3 × 4	25 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£36 0	1 × 9	£34 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	23/-	1½	38/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/-
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	21/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle	0 2 9
Dry Wainscot Oak. per ft. super, as inch	0 2 0 to 0 2 6
⅜ in. do. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube ..	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt. ..	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12.....	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9.....	18 12 6
22 by 11.....	31 5 0	16 by 10	17 12 6
20 by 12.....	29 15 0	16 by 8	13 15 0
20 by 10.....	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅜ in. to ½ in...	13 10 0
⅜ in.	14 10 0	⅛ in. to 2½ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.....	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.....	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.....	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.....	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.....	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.....	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars.....	13 10 0	to	14 10 0
Staffordshire Crown Bars— good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	1
Hoop iron, basis price	16 10 0	..	1
Galvanised	31 0 0	..	3
Soft Steel Sheets, Black— Ordinary sizes to 20 g...	15 0 0	..	1
„ „ „ 24 g...	16 0 0	..	1
„ „ „ 26 g...	18 0 0	..	1
Sheets Flat Best Soft Steel, C.R. & C.A. quality Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	2
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	22 10 0	..	2
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	2
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	2
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	2
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	2
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	2
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	2
Best Soft Steel Sheets, 26 g.	26 0 0	..	2
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	2

METAL WINDOWS—Standard sizes suitable f plete houses, including all fittings, painti coats, and delivery to job, average price ab to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)

LEAD—Sheet, English, 4 lb. and up	
Pipe in coils	
Soil Pipe	
Compo pipe.....	
NOTE—Country delivery, 30s. per ton extra; lo 3 cwt., 2s. per cwt. extra and over 3cwt. and cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cw	
Old lead, ex London area, at Mills ..... per ton	32 0 0 ..
Do., ex country, carriage forward ..... per ton	33 0 0 ..

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB CO IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/-

NEW RIVER PATTERN SCREW DOWN STOP- UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in
41/6	62/-	92/-	174/-	300/-	588/-

NEW RIVER PATTERN SCREW DOWN MAIN

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per d

NEW RIVER PATTERN CROYDON BALL VALVES

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/-

DRAWN LEAD P. & S. TRAPS WITH BRASS C SCREW.

	1½ in.	1½ in.	2 in.	3
8 lbs. P. traps ..	33/-	41/-	56/-	101/-
8 lbs. S. traps ..	35/-	45/-	66/-	126/-

COPPER—	£ s. d.	
Strong Sheet ....per lb.	0 2 3	..
Thin „ .... „	0 2 4	..
Copper nails .... „	0 2 3	..
Copper wire .... „	0 2 4	..
TIN—English Ingots „	0 2 10	..
SOLDER—Plumbers' „	0 1 3	..
Tinmen's ..... „	0 1 5	..
Blowpipe ..... „	0 1 7	..

PAINTS, &c.

Raw Linseed Oil, in pipes .....per gallon	
„ „ „ in barrels .... „	
„ „ „ in drums .... „	
Boiled „ „ in barrels .... „	
„ „ „ in drums .... „	
Turpentine in barrels ..... „	
„ in drums (10 gall.)	
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots	per ton delivered
Red Lead, Dry (packages extra)....per ton	
Best Linseed Oil Putty.....per cwt.	
Filocol .....per cwt.	
Size. XD Quality .....fkn.	

[Concluded on next page.]

* The information given on this page has bee compiled for THE BUILDER and is copyright. C this list is to give, as far as possible, the aver of materials, not necessarily the highest or lowe and quantity obviously affect prices—a fact wh be remembered by those who make use of this li

ES CURRENT OF MATERIALS (*contd.*)

GLASS.

LISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
fourths....	3½d.	32 oz. fourths.....	8½d.
thirds	4½d.	32 ,, thirds .....10½d.	
fourths ..	5½d.	Obscured Sheet. 15 oz.	4d.
thirds	6½d.	,, ,, 21 ,,	5½d.
fourths ..	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
thirds	8d.	En'lled 15oz. 5½d., 21oz. 7½d.	

price according to size and substance for squares om stock.

LISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
lled plate	4½d.
ugh rolled	5½d.
ugh rolled	5½d.
gured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
lled Sheet	6d.
hite Rolled Cathedral	5½d.
nted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Varnish	Outside	0 14 0
Ditto	ditto	0 16 0
Copal	ditto	0 18 0
Copal	ditto	1 0 0
Copal Carriage	ditto	1 4 0
Ditto	ditto	1 12 0
Varnish	Inside	0 18 0
Pale Paper	ditto	0 18 0
Copal Cabinet	ditto	1 2 6
Copal Flatting	ditto	1 0 6
Drying Oak	ditto	0 18 0
Hard Drying Oak	ditto	0 19 0
Copal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
Japan Gold Size		0 10 0
Black Japan		0 10 6
and Mahogany Stain (water)		0 12 0
swick Black		0 7 6
n Black		0 14 6
ting (patent)		1 5 0
h and Brush Polish		0 17 0
d Dryers in Terebine		0 9 0
ss Black Enamel		0 7 0

PRIL 28.—**Monifieth.**—HOUSES.—Erection wo houses at Ferry-road, Monifieth, for n Council. Schedules, &c., can be obtained Mr. D. Gowans, Town Clerk, Monifieth, his office, 26, Commercial-street, Dundee; om Mr. C. A. Mackenzie, Burgh Surveyor, fieth. Plans may be seen at office of itect, Mr. C. A. Mackenzie, Monifieth.

THE SCOTTISH BUILDER

BOYS FOR BUILDING TRADE

The negotiations which the Edinburgh Education Authority has been carrying on for some time with the Edinburgh, Leith, and District Building Trades' Association and the National Union of Building Operatives were brought to a conclusion at a conference held at the W. M. Ramsay Technical School to consider a suggested scheme for (1) encouraging boys to enter the building trades and (2) providing them with preliminary training. Over 40 representatives of the employers, operatives, the Education Authority, and the Merchant Company were in attendance. Mr. W. M. Ramsay, of the Education Authority, presided.

The scheme suggested, said the Chairman, provided that boys should be selected for preliminary training at the W. M. Ramsay Technical School, 20 each in masonry and bricklaying, 10 each in joinery and plaster work, and five in slaters' work; that the boys should attend the school daily, except Saturdays, for six hours, during six months; that this preliminary training should be accepted as an equivalent part of apprenticeship; that a maintenance allowance of 5s. per week should be paid to each lad during the six months, to be repaid by the employer to whom the lad was eventually allocated; that the training should include theoretical as well as practical indoor and outdoor instruction, the proportion to be settled by a committee composed of six representatives each of the employers, of the operatives, and of the Education Authority, with a representative each of the Merchant Company and the Heriot-Watt College, and that a grant should be asked from the Government.

Lord Dean of Guild Forrest; Mr. Watson, President of the Master Builders' Association; Mr. Gove, Secretary of the National Federation of Building Operatives, and Councillor Allan expressed general approval of the proposals. Eventually the following resolution was moved by Mr. Watson, seconded by Mr. Gove, and unanimously adopted, viz.:—"That this conference approves generally of the suggested scheme for encouraging boys to enter the building trades and for their preliminary training at the W. M. Ramsay Technical School, and remits to a joint committee of representatives of the masters, operatives, and the Education Authority to work out the scheme." A vote of thanks was accorded to the Chairman on the motion of the Lord Dean of Guild.

NEW BUILDINGS IN SCOTLAND.

Dunoon.—EXTENSIONS.—It is proposed to carry out some improvements at the Cottage Hospital, which include the erection of a lodge and the extension of the operating room.

Coatbridge.—ACCOMMODATION.—The Lanarkshire E.C. propose to ask the Catholic authorities to submit a report with regard to additional accommodation required at St. Augustine's R.C. School, and also as to the advisability of erecting a new school adjoining the existing school in Kildonan-street, Coatbridge.

Glenboig.—SCHOOLS.—The Lanarkshire E.C. has instructed the Master of Works to prepare plans for a new schoolhouse in connection with the Glenboig School. The authority has also recommended the Catholic authorities to erect a new infants' school in connection with the Glenboig R.C. School, which would form the nucleus of an entirely new school.

Elgin.—HOUSE.—The T.C. has passed plans submitted by Mr. W. Morris, Aberlour, for a house at Victoria-crescent; and also for additions at the George Restaurant, Batchen-street.

Aberdeen.—HOSPITAL WORK.—At a recent meeting of the Hospital Committee of the Aberdeen District Board of Control plans and specifications for alterations and additions to Kingseat Mental Hospital were considered, and after making a few minor alterations to the plans the Committee agreed to remit them to the General Board of Control in Edinburgh for approval.

Paisley.—HOUSES, &C.—The Dean of Guild Court has passed the following plans: J. & J. Crangle, self-contained bungalow at Gartmore-road; W. Semple, self-contained house at Greenock-road; John Bryce, two tenements at Neilston-road; and R. W. Crawford, cottage in Calside-avenue.

Edinburgh.—BUNGALOWS, &C.—Plans passed by the Dean of Guild Court: Mr. A. Forbes, six bungalows at Queen's-gardens, Blackhall; A. L. Goodwin, bungalow at Corstorphine-road; G. A. Innes, bungalow at Brunton; G. S. Peat, bungalow at Midmar-drive, Morningside; W. & C. Skinner, four flatted villas at Craigleith-road; J. Sutherland, villa at Harelaw-road, Colinton; Alexander Sim, double villa at Riselaw-crescent, Comiston-road; W. A. Robertson, villa at Barnshol-road, Colinton; John M'Kay, double cottage at Queen's-road, Blackhall.

COMPETITIONS, CONTRACTS, &c.

NO DATE.—**Inverness.**—DEPARTMENT.—Various works of proposed new primary department at the Royal Academy, Inverness, for the Inverness County Education Authority. Schedules, &c., from Master of Works, 11, High-street, Inverness.

NO DATE.—**Lochee.**—ALTERATIONS, &C.—Alterations and additions to St. Margaret's School, Ancrum-road, Lochee, for the Dundee Education Authority. Schedules, &c., from Offices of the Authority, Shore-terrace, Dundee.

Fires.

Damage estimated at about £50,000 was caused recently by fire in the wool-spinning factory of Messrs. Alexander Bros., Ltd., Kilmarnock.

UILDING TRADE WAGES IN SCOTLAND.*

HE following are the present rates of wages in the building trade in the principal towns of land. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors may occur:—

	Mason.	Brick-layers.	Car-penters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plas-terers' Labourers.
deen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½		
rie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
ndria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
oath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½		
	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½		
gate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½		
gowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—		
ss	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
oridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
barton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
ries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½		
ee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
rmline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
urgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½		
k	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2		
niels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½		
ow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
ock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½		
lton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
k	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2		
sburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½		
ness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d. to 1/2½		
rnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
ldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
all	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0		
k	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½		
	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
rwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
g	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
gshire (Eastern rict)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
w	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		

*The information given in this table is copyright. The rates of wages in the various towns in England and are given on page 695.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork:—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	5	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	62	0
Do. Do. in flats	"	60	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7	
Do. service	"	1/10	2/5	2/10	4/3		
Do. soil	"						
Bends in lead pipe	each					3/3	8/-
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	2
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	4
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

RENTICESHIP ASSOCIATION

Council of the Skilled Employment and ıticeship Association recently issued its enth annual report. It states that during years there have been many signs through- e country of a revived interest in appren- p and of a desire to reintroduce the . New schemes of apprenticeship have, , recently been set on foot in different of the country in various trades, but a etermination manifested by both em- s and employed is needed to make these es a success. In many cases the period at whole time day technical schools is ed as part of the apprenticeship. A serious e of the present continued slackness of is the loss of skilled men due to their tion to the Colonies and the United and while in some trades the employers' tions are insisting that their members eep up their full quota of apprentices, ers the employers are unwilling to bind elves owing to the uncertain position ne rather antiquated state of apprentice- w, and are only willing to take learners re not indentured; in most trades, too, de unions by local agreements limit the r of apprentices in proportion to the ymen. This practice, while good in works out badly, and it is open to doubt er in a very few years even under the t slackness of trade the supply of crafts- will be found sufficient for our needs, in the event of a trade revival the nation rtainly find itself short of skilled artisans. n industry needs, the report continues, nen with brains and powers of invention, he future industrial well-being of the ry undoubtedly depends in a large measure dustry being able to command the services rkers endowed with a mentality and power iative of a high order; but many processes been so sub-divided and simplified by inery. even in highly-skilled trades that is great difficulty in providing an all- training in craftsmanship in the workshop he factory.

Association is awaiting with interest the ation of the details of the scheme of the ry of Labour for the after-care work of hildren leaving the elementary schools, is at present carried out by the London y Council.

GOVERNMENT HOUSING

onnection with the Government's Housing als, the Minister of Health, accompanied Under-Secretary of Health for Scotland, ly received representatives of various tions of the local authorities in England ales and Scotland, including the Associa- f Municipal Corporations, the Urban t Councils Association, the Rural District ils Association, and the Corporation of Scottish Boroughs. Representatives of ondon County Council were also present. inister made a full statement on the hous- estion and on the steps taken by the ment up to the present time in the ation of their housing policy.

sequently the representatives of the local ities in England and Wales and in Scotland ered the Minister's statement and in- d him that they had agreed on the follow- solution:—

hat, having heard the statement of the er. this Conference, representing the ation of Municipal Corporations, the District Councils Association, the Rural t Councils Association, and the London y Council, appoint a Committee to ne the points raised in the Minister's and the proposals contained in the t of the National House Building Com- and to report thereon to this Conference lso to consider and report (*inter alia*) State subsidy is necessary to enable local ities to proceed with the erection of for the working classes."

Scottish representatives concurred in solution.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

ABERDEEN.—For (1) additional public lavatory accommodation for ladies at the Mansion House of Hazlehead; and (2) the conversion into a shelter of the old cottage within the Hazlehead polities, for the T.C.:—

Shelter—
Mason, &c.—*R. & S. Pringle..... £207
Carpenter, &c—*A. Hall & Son..... 101
Lavatory—
Carpenter, &c.—*Isaac Wishart & Son 221

ABERDEEN.—For the erection of 86 houses, for the T.C.:—

Brick and Concrete—			
*Corporation Works Department	£17,566	0	0
Carpenter—			
*George Lyall, Jun.....	11,322	2	2
Plaster and Cement—			
*Sellar & Company.....	3,086	13	0
Slater—			
*Forbes Morrison	3,138	14	0
Plumber—			
*A. M'Robb	4,569	0	0
Electrical—			
*J. Blaikie & Sons, Ltd.....	578	0	0
Painter and Glazier—			
*J. H. Davidson.....	1,044	3	6
Total	£41,304	12	8

ADEL.—For laying of new sewers to provide drainage for the Cookridge Garden Estate, for the Wharfedale R.D.C.:—
*H. J. Pullar, Rotherham £3,554

BARNSTAPLE.—For erection of 13 houses, Newport Building site, for the T.C. Mr. J. H. L. Brewer, Town Clerk, High-street, Barnstaple:—

J. Wakley, Barnstaple	£6,967	0	6
J. Morish & Sons, Barnstaple ..	6,654	0	0
The Western Builders, Barnstaple	6,495	0	0
W. Slee & Sons, Barnstaple	6,435	0	0
Holcombe & Sons, South Molton	6,417	18	0
*W. J. Squire, Barnstaple	6,380	0	0

BATLEY.—For extensions to Westfield Mills at Staincliffe, for Messrs. W. Crabtree & Sons, Ltd. Mr. W. Hanstock, architect, Batley:—

Mason's work—			
*Harrison Spensley & Son, Morley	£1,765	2	

BENENDEN, KENT.—Detached house for Mr. J. D. Boylan. Mr. Arthur H. Burtenshaw, architect:—

F. Marshall & Sons	£2,075	0	
Lewis Edwards, Hawkhurst	1,832	0	
Elliott & Sons, Tenterden	1,821	17	
*R. Weeks & Sons, Tenterden	1,740	0	

BRADFORD.—For erection of 40 semi-detached houses at New Lime, Greengates:—
*A. Dickinson & Son, Idle.

BRADFORD.—For alterations at Thackley Open-Air School, for the T.C.:—

Masons' work—			
*W. Dawson & Sons.....	£126	18	8
Joiners' work—			
*R. H. Clarke	358	10	0
Plumbers' work—			
*R. Hainsworth	73	7	6

BRIDGNORTH.—For erection of 16 non-parlour type houses, for the T.C.:—
*Messrs. Amies & Sharratt..... £6,784

BRIDGNORTH.—For erection of public lavatories at the south end of West Castle-street, for the T.C.:—
*T. E. Lay & Son..... £288

EASTHAMPSTEAD.—For the erection of 10 houses, for the R.D.C.:—
*V. J. Berry, Winkfield £4,799

GELLYGAER.—For erection of (*a*) 50 houses; (*b*) 26 houses, Bargoed Heolddu site, for the U.D.C. Mr. P. Jones Williams, architect, Council Offices, Hengoed, Glam.:—

50 *Houses, Bargoed—*			
Simms & Cooke, Nottingham..	£26,950	0	0
Evan James, Ystrad Mynach	24,190	8	8
Batten & Jones, Ebbw Vale ..	23,632	0	0
*Horace J. Davis & Son, Bargoed	22,303	0	0
26 *Houses, Bargoed—*			
Simms & Cooke, Nottingham	13,550	0	0
Geo. Davies & Sons, Ystrad Mynach	12,230	0	0
Batten & Jones, Ebbw Vale ..	11,510	0	0
*Horace J. Davis & Son, Bargoed	11,202	0	0

HERTFORD.—For laying 830 yds. of 6 and 4 in. cast-iron water mains, for the T.C. Borough Surveyor, Hertford. Quantities by Mr. S. M. Senior, Assoc.M.Inst.C.E., M.Inst.T., M.Inst.M & Cy.E., Borough Surveyor and Engineer:—

Gunn, Macneill, Ltd., London..	£876	2	10
G. Percy Trentham, Ltd., London	840	0	0
James Haworth, Stainforth	795	7	10
A. E. Farr, London.....	792	15	0
W. & C. French, Buckhurst Hill	789	18	2
Chas. Ball, Letchworth.....	772	12	3
*George Roberts, Bengeo.....	777	4	7

HIGH HALDEN, KENT.—Alterations and additions to "Little Crampton," for Mr. F. R. Clapham. Mr. Arthur H. Burtenshaw, architect, Tenterden:—

R. Bridge, Tenterden	£377	10	
W. P. Woodgate, High Halden....	360	0	
*W. Elliott & Son, Tenterden.....	353	6	

KIDDERMINSTER.—For erection of new lavatories at the Children's Home, Franche:—
*C. Walker & Son, Kidderminster..... £258

LEEDS.—For concretors' work and granited rock asphalte paving in (1) Kirkstall-road; and (2) North and South-street improvement, for the Highways Department of the Corporation:—

(1) *Concretors' work—*
*David Speight & Sons, Leeds.
*Joseph Speight & Sons, Leeds.
Asphalters—
*Messrs. Bradshaw's, Ltd., Manchester.
(2) *Concretors' work—*
*By City Engineer's Department.
Asphalters:
*Messrs. Bradshaws, Ltd., Manchester.

LEEDS.—For erection of an electricity sub-station in Buslingthorpe-lane, for the Corporation:—
‡John Ferguson & Sons, Ltd., Leeds.

LEEDS.—For erection of an electricity sub-station in Montreal-avenue, Chapel Allerton, for the Corporation:—
‡ John Ferguson & Sons, Ltd., Leeds.

LEEDS.—For demolition of existing shop property and erection of new banking premises, for the Midland Bank, Ltd., at the junction of Meadow-lane and Victoria-road. Messrs. Perkins & Bulmer, architects, Leeds:—
*Messrs. Wm. Nicholson & Sons, Ltd., Leeds.

LONDON.—For making up Adley-street, for the Hackney B.C.:—

Mears Bros., Weardale-road, London	£1,393	19	8
G. Hodge, London	1,335	18	2
William Griffiths & Co., Ltd., Hamilton House, London	1,249	16	0
The London and County Public Works, Ltd., London ..	1,236	10	3
Anderson, G. J., London	1,200	16	2
*Fitzpatrick & Son, London	1,178	7	6

LONDON.—Erection of two shops at Bennett's Castle-lane, Becontree, for the L.C.C.:—

Baker, Hammond & Laver, Ltd., Rainham	£2,328	0	
James Eaton & Sons, Chelmsford ..	2,250	0	
W. J. Cearns, Stratford	2,185	15	
Clements (Grays), Ltd., Grays	2,180	0	
H. C. Horswill, Forest Gate	2,160	0	
Hammond & Miles, Ltd., Ilford	2,098	0	
*F. W. Romain & Sons, Chadwell Heath	1,926	0	

LONDON.—For (1) alterations to existing furniture and the provision of additional furniture for the Branch Library; (2) installation of electric light; and (3) redecoration of the building, as follows:—

(1) *Alterations to existing furniture and new furniture—*			
F. Sage & Co., Ltd., Gray's Inn-road	£439	0	
G. M. Hammer & Co., Bermondsey..	378	0	
Fuller Hills, St. Alphege Works ..	319	5	
H. Groves & Son, Stockwell-street ..	260	0	
*Libraco, Ltd., 42, Southwark-street, S.E.	239	0	
(2) *Installation of electric light—*			
R. Marchant, Greenwich	262	0	
H. W. Pope & Co., Deptford.....	248	10	
A. J. Hewens & Sons, Lewisham....	234	10	
*Haycraft & Sons, Ltd., Deptford Broadway	224	0	
(3) *Redecoration—*			
J. Hocking & Co., 38, Delafield-road	284	0	
W. Mills & Sons, Ltd., Kirkside-road	256	0	
W. Bickerton, Catford.....	222	10	
*W. Bailey, Greenwich	216	19	

MANOR ESTATE.—For the erection of 146 houses. Mr. F. E. P. Edwards, F.R.I.B.A., City Architect, Town Hall, Sheffield:—

*M. J. Gleeson, Sheffield— 101 houses	£35,083	2	7
*J. Laver & Sons, Ltd., Sheffield— 19 houses	7,170	10	0
*C. W. Alflat, Sheffield— 26 houses	9,160	0	0
146 houses	£51,413	12	7

LONDON.—For repairs to various houses owned by the Hammersmith B.C.:—

	Percentage (May 1, 1924, to March 31). 1925. above.	below.	1926. above.	below.	1927. above.	below.
J. McManus, Ltd., 237, Hammersmith-road	95%	—	—	—	—	—
*Pioneer Works, Ltd., 254, King-street, W. 6	—	7½%	—	5%	—	5%
G. F. Rice, 61, Macfarlane-road, W. 12	Schedule rates.					
C. P. Roberts & Co., Ltd., Tyssen-street, Dalston-lane	30%	—	—	—	—	—

(Subject to adjustment in event of rise in wages.)

MIDDLESBROUGH.—For erection of 30 houses, Acklam-road Garden Colony, for the T.C. Mr. S. E. Burgess, Borough Engineer, Municipal Buildings, Middlesbrough :—

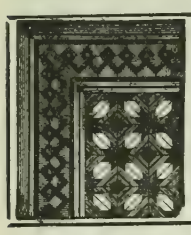
*Borough Engineer, Middlesbrough £11,700

NEWPORT (MON.).—For interior decoration of fifty houses on Somerton housing site, for the T.C. :—

*F. W. Lawrence £400

PORTSMOUTH.—For alterations and renovations at "Gorseway," Hayling, for Mr. J. D. Gilbert. Messrs. C. W. Bevis & Son, architects, Southsea :—

Tanner Bros.	£330
Sharp & Sons	297
*John Lay & Co.	280



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Waddington Bros., Wath-on-Dearne	£138,516
T. Wade & Sons, Ltd., Wath-on-Dearne	137,383
T. Hopkinson, Ltd., Worksop	135,937
W. Marlow & Sons, Sheffield	132,308
B. Pumfrey, Ltd., Gainsborough	131,835
J. W. Waller, South Elmsall	128,925
W. Birch & Sons, York	128,776
W. H. Treherne, Ltd., Rotherham	126,944
Swift Bros. & Haslam, Doncaster	125,427
Gelder Bros. & Woodcock, Pontefract	124,129
H. M. Nowell & Co., Ltd., Stockton-on-Tees	124,053
W. Horner, Pontefract	122,922
Jennings & Son, Ltd., Barnsley	122,369
Firth & Whittington, Doncaster	121,525
*Smith Bros., Ltd., Burnley	117,045

PONTEFRACT.—For erection of (1) bungalow for Mr. E. H. Clarke; (2) bungalow for Mr. F. H. W. Holmes. Messrs. Garside & Pennington, architects, Pontefract :—

Contract No. 1 :

Builders' work— Brown & Lodge	£618	3	6
Joiners' work— Midgley Pease	360	4	0
Plumbers' work— W. Pearson & Son	158	18	11
Tilers' work— Stewart Bros.	160	8	4
Plasterers' work— Mr. Harrison	79	12	3
Painters' work— R. Wheatley & Son	57	10	5

(All of Pontefract.)

Contract No. 2 :

Builders' work— Brown & Lodge	£299	13	10
Joiners' work— Midgley Pease & Son	173	8	4
Plumbers' work— W. Pearson & Sons	128	15	6
Plasterers' work— Mr. Harrison	39	18	1
Tilers' work— Stewart Bros.	65	4	11
Painters' work— R. Wheatley & Son	26	11	10

(All of Pontefract.)

SHEFFIELD.—For the reconstruction of bridge carrying Broughton-lane over the L. & N.E. Railway and the canal of the Sheffield and South Yorkshire Navigation Co., for the Corporation :—

‡Messrs. John Wilson & Sons, Birmingham £24,450

THORNABY.—For the erection of 50 houses, for the T.C. :—

*Boyd & Ward £17,625

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WORCESTER.—For erection of class-room Open-Air School, for the E.C. :—

*C. H. Kimber £28

WORKSOP.—For erection of 50 houses, R road Housing site, for the U.D.C. Mr. G. Ra Surveyor, Council Offices, Worksop :—

*Mr. M. McCarrick, Worksop..... £475 1

Victoria and Albert Museum.

The Victoria and Albert Museum is open until 9 p.m. on two evenings each namely, on Thursdays and Saturdays. library and the students' rooms of the de ment of engraving, illustration and de and textiles, will also be open on these eve when the usual facilities for study wi afforded. No charge is made on any da admission.

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CXXVI.—No. 4239. MAY 2, 1924.

TIDYING UP

the making of a fine city or town the well-considered lay-out of streets and open spaces and the design of buildings of architectural quality are not alone sufficient; important as they are. We have far to go in our practical and artistic education before we can venture to think n the lay-out or in the architecture of our cities the con- s will always be at hand for the easy attainment of either; architects and town-planners were not the optimists they arily must be their outlook would indeed be depressing. tectural design has never been more discussed than in times, and never, probably, has the general average of tectural attainment been higher, and we believe we can that we have in all parts of the country architects who dy to meet any demand which we can reasonably expect likely to get for better buildings from any improved taste in the near future; while never before, in this y at least, were there so many town-planning experts sight and imagination who are conscious of our needs ady to give us what we ought to have.

o of the greatest obstacles to progress and improvement well-being are apathy and ignorance, and it is these omings which make possible and which make us tolerate venly and untidy streets and public places. Many people ke a pride in their homes, where tidiness, cleanliness and are as necessary to their happiness as well-cooked food armth and comfortable clothing, are willing, in common hose who seem to prefer dirt to cleanliness and who make r a necessary detail in their daily life, to accept without n the avoidable dirt, untidiness and slovenliness of our ys and byways, our open spaces, our public buildings— lly our railway stations and their surroundings. People ence and of lesser eminence write eloquent and sometimes e letters to our daily papers, advocating some great improvement or reform which, at the best, will take carry out, while the little things that matter are ignored. little co-operation on the part of our leading citizens, f the small but none the less important evils every city from could be remedied, and yet which, for want of this ation, we have endured so long. With some such effort, e not prevent the practice of placing garbage receptacles eir contents along our streets to be emptied into refuse such a time as the business men and others are pro- to their work, or of lowering beer barrels into cellars ns of ropes which either arrest our progress or drive us road? With a movement similar to the "Don't spit" gn, which has had such successful results, should we find eets and public places littered with cigarette and match and our parks and public resorts made a wilderness of ss and litter on Bank Holidays and Sundays? A sus- and properly conducted campaign of enlightenment urely be successful in developing a public conscience in ter. The thoughtless destruction, in the Spring, of the n trees of Epping Forest should be just as much an as birds' nesting by boys.

re glad to think that these evils are being dealt with in by the Scenery Preservation Committee, which met at sion House last week under the chairmanship of the Lord Mayor, who remarked that he had had more messages in connection with the meeting than with any other meeting since he became Lord Mayor. We believe the best-informed public opinion is ready to support such a movement as well as the following resolution, which was unanimously carried:—"That this meeting, recognising the widespread and ever-increasing nuisance and injury to public amenities caused by the growing habit of littering public thoroughfares, parks, commons, and the countryside generally with waste-paper, cigarette-boxes, empty tins, picnic refuse, and other rubbish, and desiring to call attention to the need for the formation of a healthy public opinion opposed to such practices, undertakes to support the efforts of the Scenery Preservation Committee, and invites the co-operation of local and educational authorities, conservators of commons, and of all the societies, clubs, and other institutions interested in the preservation of scenery and the decencies of civilised life."

A number of messages in support of the object of the meeting from distinguished persons who were unable to be present were read. The Prime Minister wrote:—"You can depend upon my giving you every support of the kind you wish for your new venture. You put your finger on the right spot when you say that it is a conscience that is required and, I would add, a lively sense of the conduct which a person owes to himself as well as to other people."

The matter is of great importance, and yet of such a character as to appear to need nothing more than the support of leading citizens to ensure the success of the movement. No vested interests are involved and no heavy expenditure of money, but just that enlightened support and sympathy for a wholesome and necessary movement which has been started, but which needs to be directed to the end we have in view. The present is the time to take action, for as the Lord Mayor remarked:—"Now that the summer was approaching, it was desired to arouse public opinion to the need for putting an end to a great and growing nuisance. He was told that it cost the Office of Works £400 a month to remove the litter from the Royal Parks alone. The only remedy lay in the development of a sound public opinion in opposition to the practice, and if parents and guardians and teachers everywhere would set an example for the children to follow the object would soon be attained." Those excellent movements, the Boy Scouts and Girl Guides have already had instilled into them by practice that, when camping or bivouacking, their ground should be left as clean as they find it, or a little cleaner, and the matter might very well be taken up in our elementary and other schools.

What we want is a civic society in every town, for the question is one which cannot be dealt with successfully without the development of a civic sense. Advertisers have shown their good sense by removing disfiguring boards along our railways and roads, and now the public must do their part to make our public places clean and tidy and prevent a nuisance which they are largely responsible for, and which they can, in a large measure, control. Everyone must be aware that there are many needless and annoying excrescences in our towns in the way of projecting railings, areas, &c., which would really come within the power of our municipal authorities, and it is in such matters that civic societies could exercise a powerful influence

NOTES.

The R.A. Exhibition.

The Architectural Gallery at the Academy is somewhat of a disappointment this year. There is a lack of distinction about most of the subjects, and the general effect of the gallery is spoilt by three large models which are too large for the space—the effect would have been better visualised had they been smaller. Domestic work, which has so often provided special interest, does not make much appeal, though there are some quite nice houses shown, and ecclesiastical work is a very small feature in the collection. Business and public buildings are chiefly in evidence. We must admit that the public receive every year some sort of impression about modern architecture from the Royal Academy, such as they can find nowhere else, but in a mechanical age like this it is possible they are more impressed by the photographic representations, or misrepresentations, such as are to be found at the Empire Exhibition, than in the Academy collection of variously rendered drawings. When we consider how architecture touches us at every part in our daily life and how it leaves a record of our time in a concrete form for the future, it is to be regretted that the methods of sustaining and stimulating public interest in it are not better managed. We venture to suggest that a higher standard of work might be insisted on in the architectural exhibits, for we could readily exchange several of the present exhibits for some which have been rejected. So long as the chief principle of procedure in the hanging is to make an effective balance on the walls, we shall fail to get the best results.

The Proposed Amalgamation of the R.I.B.A. and the Society.

The scheme of amalgamation of the R.I.B.A. and the Society of Architects, which has been agreed to by the Councils of the two bodies, has been very favourably received by the profession, while a good deal of satisfaction has been expressed that there is now such an excellent opportunity of securing a really representative architects' Institute. The following letter, signed by all the surviving Past-Presidents of the R.I.B.A. who have held office since the year 1902, addressed to all members of the Institute, is an indication of the support which the scheme is receiving:—"We have read with great satisfaction that the Councils of the R.I.B.A. and The Society of Architects have agreed upon a complete scheme for the amalgamation of the two bodies. In our opinion this amalgamation will immensely strengthen the influence and authority of the Royal Institute, and we hope that it will receive the undivided support of our members. For many years this question has been under discussion, and a splendid opportunity has now arisen to settle on broad lines the difficulties of organisation and administration which the existence of two societies doing similar work has caused in the past. To secure the representation of the profession by one great Institute is an ideal we have always hoped to see realised, and we desire most earnestly to appeal to members to support the Council's scheme in every way in their power.—Yours faithfully, ... Webb (President 1902-1904), T. E. ... cutt (President 1906-1908), Le... Stokes (President 1910-1912), Reg... T. Blomfield (President 1912-1914), ... W. Simpson (President 1919-1921), ... Waterhouse (President 1921-1923).

Architecture and Modern Life.

The vital significan... the architect of the c... ing times is dwelt on ... article on "Archit... and Modern Life" in the Literary S... ment of *The Times*, and the write... gests that the architect who has pro... for a long time past been living und... patronage of wealth and could ... into being palaces must now l... reconcile himself to much s... affairs. Whether those architects ... have suffered under the economic d... ties of housing schemes will see i... a change for the better, we hardly ... A few architects have done fairl... with housing schemes, but it seems ... likely they will be able to repeat ... successes. As someone remarke... other day, it might be best to stand ... the whole business of housing an... on definite types of plans and constr... and let the whole business go o... shelling peas, and so, of course, eli... the need for any architects at all. ... enterprising firms are at work n... excellent housing schemes into ... architects of ability will be enab... infuse some artistic and individual ... but we fear this method will b... exception. By way of compensati... writer suggested that architects ca... on a really vast scale. Where ?... A very pertinent criticism of n...



Thaxted From a sketch by Mr. I. W Knight, A.R.I.B.A.

is that in domestic buildings the tect is happier and more truly sents humanity in his designs than usiness or public buildings. "The ces are that the house will be a ht to the eye and the town hall an cial exercise in lifeless design." The e notes, suggested by Mr. Chas. iott's book on "Modern English itecture," raise considerations of moment to architects. And it is asy to limit the view when we come iscuss the art of architecture in its ion to the public sense. We should o know how much that same public, h perhaps takes pleasure in our ging streets, would appreciate the ism implied in the remark, "With awful example of Kingsway before eyes it is almost incredible that nt-street should have been wantonly oyed."

Fixed ntracts.

The communication from Mr. Max Clarke, which we published in our last number, is a reminder that we be again on the threshold of another ling-scale contract" period. When s began to drop rapidly in the last ears we felt, with relief, that we had the last of another unpleasant relic he war. Is it not possible for the B.A. and the Builders' Federation to and devise some method by which practice may be avoided? There is inly no system more calculated to t the recovery of the building in- y or to alarm intending building rs. The industry needs every tonic an find, and anything calculated to as a sedative must be rigorously led in the interests of all parties in- ted in building, not forgetting the actor.

The ousing estion.

Amongst the plethora of advice and dictation about housing we now and then get a glimpse of lurid light he matter. Of such is a letter by Wolmer, who most emphatically tains that the remedy lies in cheaper s. Capital and labour, he thinks, ine to keep prices up, and he avers both wages and prices of materials come down. He asks how, when ng operatives earn £4 2s. a week, overtime, and engineers and miners 50s. and agricultural labourers 25s. we look for economic rents. He that subsidies (rising to the tune early forty millions per annum) t solve the problem. "Unless every- s wages are to be forced up by tion, so that they can afford to he rent the builders exact, the only on of the housing problem is to cheaper houses"; and, further, community should arm the Govern- with power that would prevent the building materials combine, rade unions, or unreasonable land- s from impeding the building of houses." We wonder if the general public realise that the country is not able to solve its pressing problems by adding steadily to its existing burdens.



Place Poissoniere, Chartres. From a sketch by Mr. F. W. Knight, A.R.I.B.A.

Indian Art.

There is no one who speaks with more appreciation of the native aspirations of our great dependency than Lord Ronaldshay, and his speech at the annual meeting of the India Society showed the same understanding. There were those who feared that with the establishment in India of Government schools of art under art masters recruited from England there would be a lack of apprehension of the characteristics of Indian genius, and the atmosphere of Indian thought and setting would be clouded by European influence and the more material characteristic of western art. The Indian Society of Oriental Art, formed in 1907, encouraged the work of the Tagore school, formed by the two brothers of the famous Indian poet, and Lord Ronaldshay, quoting from the statement of Mr. Gauuli that "its exponents sought to escape from the photographic vision, and the material objectives of life to secure an introspective outlook on things which takes one away from the material objectives of life," pointed out that they sought to maintain the deductive and essential characteristics of the art of India." But are such characteristics that of one nationality only, or those which underlie all that emerges as the purest in art. As art is in no particular time seen in its fulness, neither is it of a particular race or country, and the spirit which the Indian Society desires to foster for Indian art is the same as that which underlies the art of any race not held down by "material objectives." To understand and sympathise with this Indian point of view is to understand ourselves better.

Victoria and Albert Museum.

It will be a source of much gratification to students and craftsmen in the arts that the restrictions as to closing at the Museum—the result of the war—should now have been relaxed. The Museum will now remain open until 9 p.m. on Thursdays and Saturdays. To many craftsmen occupied with other business during the day this will be a great boon.

GENERAL NEWS

Professional Announcements.

Mr. W. H. Brewer has now joined Mr. Charles J. Ford, F.S.I., as partner. The business will be continued under the style of Ford & Brewer.

Mr. R. Kitching Ellison, A.R.I.B.A., has moved to 4, York Buildings, Adelphi, W.C.2.

Morley College.

Morley College is to be transferred from its present home, in Waterloo-road, S.E., to the site of the Old School of the Yorkshire Society in Westminster Bridge-road.

The lessees of the "Old Vic," which is now being enlarged and improved, have re-purchased from the Morley College the portion of the building with which they parted forty years ago. The purchase of the new building and its reconstruction to suit the needs of the College will entail an expenditure of £26,000.

Fordyce Academy.

The new secondary department, erected at a cost of approximately £7,000, was opened recently by Mr. L. F. Davidson. The new buildings form a separate school for the higher grade department, and consist of four class-rooms, science room, art room, assembly hall, and cloak rooms, with ladies' and gentlemen's staff rooms. The buildings are on modern lines, and were designed by Mr. Jas. Wood, A.R.I.B.A.

Clopton Bridge.

Representatives of the Warwickshire County Council, the Stratford-on-Avon Town Council, and of the Society for the Preservation of Ancient Monuments, waited on the Minister of Transport, Mr. Harry Gosling, recently, to discuss what measures should be taken to provide suitable facilities for traffic across the Avon, near Clopton. It was agreed that Clopton Bridge, the only crossing in that neighbourhood, was inadequate for the amount of traffic, but there existed divergence of opinion as to what steps should be taken to alleviate the congestion. The Stratford Town Council and the Warwickshire County Council wished to widen the present bridge, but the Society for the Protection of Ancient Buildings proposed that a new bridge should be thrown across the river higher up, thus preserving the beauty of Clopton Bridge. After hearing the views of the various parties, Mr. Gosling suggested that the Ministry of Transport, the Town Council, and the County Council should consult with the Ancient Monuments Board regarding the appointment of an architect to advise on the best course to be adopted.

Builders' Estates.

George Shears, of Bournemouth, retired builder and plumber (net personalty £12,335), £12,491.

Thomas Nash, of Heaton Chapel, builder (net personalty £1,490), £16,534.

Mr. Isaac Chambers, of 6, Willoughby-avenue, Lenton, Notts, joiner and builder, £8,490.

Mr. William Rhodes Atkinson (68), of Brookfield, Bingley, Yorks, joiner and builder, left net personalty, £23,411.

Ancient Arch in Burton Bridge.

The Burton-on-Trent Town Council decided recently to take no steps to preserve an arch of the ancient bridge across the River Trent unearthed during the operations for the widening of the present more modern structure. The arch had existed for probably 800 or 1,000 years. The Mayor, in presenting the report of the committee, said the arch had been inspected by a representative of the Society for the Preservation of Ancient Buildings, who advocated its preservation. The Committee considered three schemes prepared by the Borough Surveyor—one, to preserve the arch in its entirety at a cost of £500 or £600; another of a more modified character; and a third which would authorise removal of certain parts of the arch, so as not to interfere with the bridge widening. This last scheme, which would preserve the arch in part, so that it would be indirectly visible from the bridge, would cost £100, and the Committee recommended it for adoption. In the course of discussion it was stated that the arch was in a somewhat dilapidated condition, but there was already in existence at the other end of the bridge, situated on private property, a similar structure, in a better state of preservation and used, in fact, as a cellar. Archæologists could no doubt obtain permission to inspect the latter if desired.

MEETINGS

SATURDAY, *May* 3.

Edinburgh Architectural Association.—Visit to Trinity College Church and Cannongate Church, Edinburgh.

MONDAY, *May* 5.

Royal Institute of British Architects.—Annual General Meeting. At 9, Conduit-street, W.1. 8 p.m.

MONDAY, *May* 5—FRIDAY, *May* 9.

Town Planning Institute.—Exhibition and Conference. At Palace of Arts, Wembley.

TUESDAY, *May* 6.

Royal Institute of British Architects.—Annual Dinner. At Trocadero Restaurant, Piccadilly, W. 7 p.m.

WEDNESDAY, *May* 7.

Town Planning Institute.—Annual Dinner. At Savoy Hotel, Strand, W.C.2. 7.30 p.m.

COMPETITION NEW

Leeds Public Libraries.

The assessor, Mr. Percy S. Worth F.R.I.B.A., has made the awards in the follo competitions :—

BURLEY LIBRARY.—(1) Mr. G. B. How Oldham.

(2) Messrs. Foggitt & Addison, Leeds.

(3) Mr. A. E. Dixon, Leeds.

BRAMLEY LIBRARY.—(1) Messrs. Foggi Addison, Leeds.

(2) Messrs. Parkin & Sheffield, Leeds.

(3) Messrs. Kitson, Parish & Ledgard, L

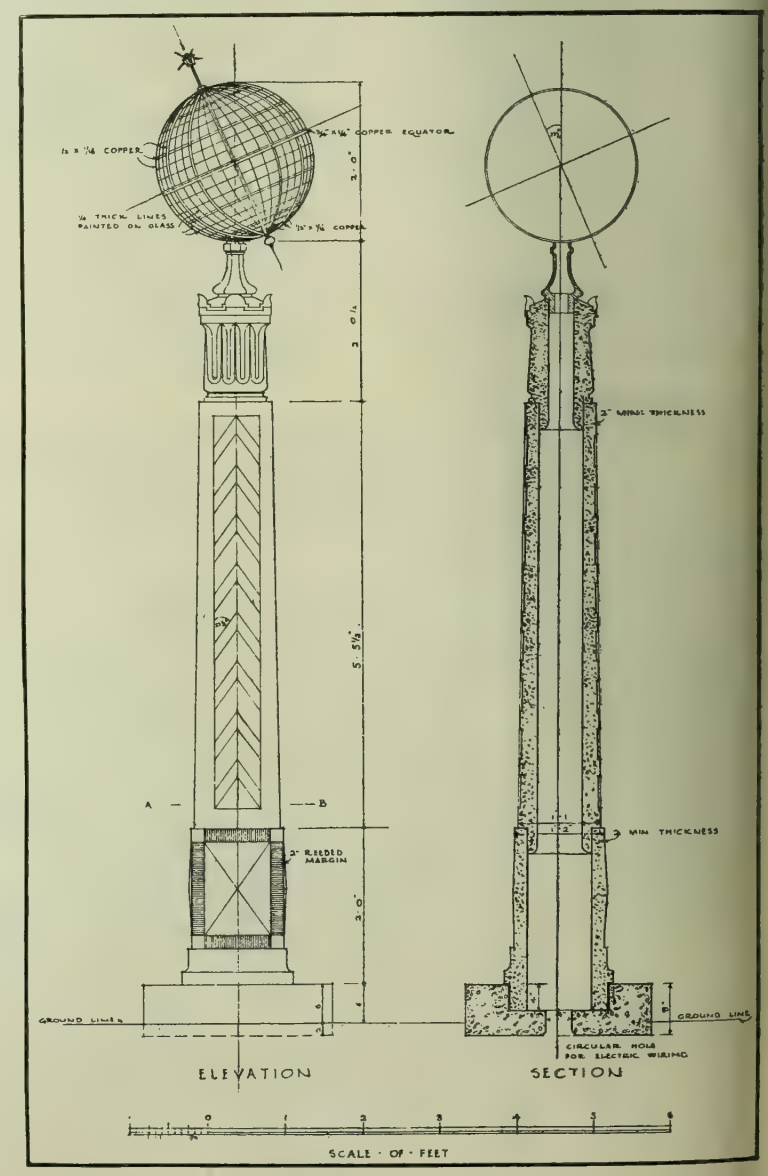
The design placed first in each compet is given this week.

Public Hall, Glasgow.

Designs are invited for a public hall, to approximately £25,000. Premiums of £100, £75, and £50 are offered respecti A plan of the site, together with terms conditions can be obtained from the Offi Public Works, City Chambers, 64, Coch street. Sending-in day, July 4.

Other Competitions.

Other competitions still open include following (the dates given are, first the sen in date, and second the issue of *The Build* which full particulars were given) :—Indus Designs (June; Dec. 21, 1923). Ross-S Memorial (Sept. 30; Feb. 1).



Details of Concrete Posts: The British Empire Exhibition.

MESSRS. SIMPSON & AYRTON, FF.R.I.B.A., Architects. (*See p.* 721.)

LONDON TRAFFIC.—I.

By MAJOR HARRY BARNES.

London Traffic Bill is likely to mark an
n London Government. It establishes
verybody wants, the beginnings of a
sed control, though under a form not
ybody's liking. On that aspect, the
l aspect, I shall not say much here.
re, as may be expected, differing views
o which much time need not be given.
put, what is now proposed is a com-
between the English method of ruling
eas through elected representatives, and
tinental system of placing considerable
ve power in the hands of an official such
fect or a burgomaster. Each system has
ts. Our system in the long run rests
genuine standard of development of the
nity; the Continental system, by placing
rable power in the hands of a cultured
nay effect in a little while improvements
ch we have long to wait. We are very
here of powers given to official persons,
ntly so. We have always held strongly
iew that policy was to be settled by the
representatives of the community, and
e expert was to be confined to the
on of the policy.

London Traffic Bill shows a middle
The Minister of Transport, who is an
representative and is open to the control
iament, is to be the instrument of the
His powers under the Bill are limited, as
shown later, both in extent and in time.
overnment has promised to limit the
on of the Bill to three years. The
r is to be helped by an Advisory Com-
It is clearly intended that the Chairman
Committee is to be an official of the
y of Transport, and there seems little
hat Sir Henry Maybury is intended to
that position.

Committee itself will be comprised of
ordinary members and six additional
rs. Of the twelve ordinary members,
l be appointed by a Secretary of State,
the L.C.C., two by the City Corporation,
by the Ministry of Transport to repre-
e County Councils, County Boroughs
tropolitan Boroughs in the Traffic Area,
from nominees made by those bodies
o the Ministry of Transport. The six
ial members represent labour and
employed in traffic operations in the
ion of two and four, chosen after con-
n with these interests. The comment
his method of forming the committee
it is selective and not elective, and, if
put, should amount to the statement
e method permits the Minister to pack
mittee with persons likely to be amenable
ntrol.

rea over which the Minister is to exercise
ers is set out in the Act, and is roughly
with a radius of twenty-five miles from
Cross. It comprises the administrative
of London and of Middlesex and parts
ounties of Berks, Buckingham, Essex,
l, Kent, and Surrey.

s the machinery which the Bill sets up.
intended to be produced by it? Its
is connected with London traffic.
lan in the Street the question of London
mainly a question of waiting for buses
't come, or if they do come are full,
y are not full are held up at every street
y pedantic policemen who don't seem
e that the route one is on is always
portant than the route one is not on.
for 'buses. When it comes to tubes,
lan in the Tube it seems that at rush
ere are too few trains and at other times
y. He sees seats he cannot occupy, and
a straphanger by compulsion and not
e. For the trams he is thankful, his only
t being that they stop short of his
on or take him a too roundabout way.
es he finds there are neither buses,
r tubes, and learns it is because some-
her they don't pay, and in consequence
o operate them fail to receive what they consider to be their due, and so failing cease to operate at all. Then the man in the street gets out an old bicycle or begs a lift in a lorry or hoofs it, and calls a plague on everybody's house. That is the traffic problem, to take everybody where they want, when they want, how they want, and at a price within their means.

Do that and you will satisfy the folks on the street, but there are others. The labourer is worthy of his hire, and none are more conscious of that fact than those that furnish our traffic facilities. Then there must be dividends, and everything, wages, running costs and dividends must come out of fares. So this London Traffic Bill is to be passed, and I wonder what those who gather that somehow or other the promise of it helped to settle the tramway strike are expecting it to do. Let me endeavour to enlighten them. I hope their expectations are not set too high. If they are they will be disappointed. If the prominence given to the Bill has been considerable, its intentions are very modest. The positive powers it gives to the Minister are few. They are as follows :—

The first power deals with the nuisance created by the making of roads or road maintenance and improvement. These do undoubtedly create a nuisance. They place the most effective obstacles to traffic that could possibly be placed in the street. It will be recognised that adequate traffic facilities depend not only on the number of vehicles available, but the speed at which they can travel. Two vehicles travelling fast may make as many journeys as three vehicles travelling slow. Nothing makes for slowness so much as having the roads "up," and it is in the hope that he may prevent more roads being up than is absolutely necessary that the Minister is to be given certain powers over the local authorities. The powers are these: Twice a year all the local authorities in the traffic area are to give the Minister a statement showing how many roads they mean to have "up" in the next six months to the extent of one-third or more of their width.

All these statements are referred by the Minister to his advisory committee, and on their report the Minister may prohibit or restrict the execution of the works, and set out the order in which they are to be done, and so inform the authorities.

They may object within fourteen days and if they do the Minister is to consider, confirm or amend his order.

Of course, the local authorities are not the only offenders in the matter of breaking up the roads—the gas and water and electric lighting companies all do their share—so the Minister is empowered to send all such bodies a copy of the order he has made, and they must then do what work they want to do within the time in which the roads are up; if not, they must wait for another twelve months unless they satisfy the Minister they could not do the work when the roads were up, and that the work could not wait for twelve months. The local authorities are to be allowed to do emergency work as the need arises, and the statutory companies to make, alter or repair service connections. Last of all, these powers are only to be exercised in respect of certain streets which are to be prescribed by the Minister.

This is a very useful measure, if rather humdrum, and in so far as it removes some part of the delay caused by street repairs is an indirect augmentation of traffic facilities.

The second power is more modest still. It deals with a consequential effect of the breaking up of roads. After the Minister has determined what shall be done and the order in which it shall be done, there still remains the manner in which it is done. There is a tendency to "sprawl" in these matters, too much room is taken up by material, more than is necessary. Material is carelessly spread about and, generally, a greater obstruction is created than is reasonably required.

To remedy this the vigilant police officer is to be called in. He is to keep his eye not on what the road authority is doing, but on what the statutory bodies are doing in this respect, and if he thinks it necessary he is to report to the road authority, who is to inspect, and if he thinks it necessary to give the person concerned twenty-four hours' notice to mitigate the obstruction, and if the parties fail, the road authorities may step in and do the work themselves. The parties so notified have a right of appeal to the Minister, who must then consent or otherwise to the road authorities' action. This is again a useful provision, and on the principle that time saved is money saved, should be a boon to the traveller.

The next power is more important. It is a power given to the licensing authority to lay down the routes in the City of London and the metropolitan police district on which regular omnibus services may be established, with the power to fix their starting and terminating points. Having done this the licensing authority may attach to the licence of an omnibus all or any of the following conditions :—

(1) That it shall not ply for hire except as a regular service.

(2) That it shall ply on approved routes.

(3) That it shall not ply on approved routes or any part thereof.

All conditions are subject to appeal to the Minister, and the last condition may only be imposed on the ground that the 'bus is not suitably constructed or equipped for such a route.

The licensing authority is to have power, after they have fixed the routes, to call in all licences and affix the conditions stated to new licences.

The provisions in the Bill which follow are the most important of all. They are based on what may perhaps be termed the overt and the covert situations.

The overt situation is alleged to be that a large part of the congestion of traffic on the London streets in the central part of the City is due to the presence of too many 'buses. It is said that along certain routes the 'buses provided are more numerous than the traffic justifies, and that it would be in the interest of the traveller that selective action should be taken and the number of 'buses restricted to the number that the traffic demands. The covert situation is alleged to be that, having established a general system of 'bus traffic and extended it even beyond the limits of profitable return, the London General Omnibus Company now find their most lucrative routes invaded by competitive 'buses, which skim the cream of the traffic without undertaking the more onerous service that is entailed in providing for the suburban and more remote traffic. This is felt, and not unnaturally, as a grievance. No one who sees the competitive "'bus, occasionally copied from that of the L.G.O.C. down to the last detail, even to attempts to imitate the name, showing an ingenuity difficult to adequately characterise, and actually appropriating the route number which, if anything is the "goodwill" of a 'bus, but must sympathise with the feeling created. Such action has undoubtedly precipitated the situation, which came to a crisis in the recent tram strike, and hastened the introduction of a London Traffic Bill. Sympathy must not, however, obscure the importance of the action which the Traffic Bill proposes to allow, and its consequent effects upon the general community and the travelling public. With this I propose to deal in a concluding article.

Hospital Architecture.

We understand that a new method of treating in one building patients suffering from different infectious diseases without danger that infection will be transmitted from one to another has been installed at the London Fever Hospital, Islington. It consists, as it were, of a glass house in which patients with measles, scarlet fever and diphtheria are lying within a few feet of one another but they are all secured against cross-infection by thick glass partitions through which no microbes can pass. These partitions are also dust-proof.

CORRESPONDENCE

Westminster Abbey : North Transept.

Sir,—Under the Rose window is a passage which may be called the middle stage arcade. It has been rebuilt three times since about 1670. Some representations of the front made before this time agree in showing four bays of the arcade in the middle space and two in each of the side-aisle spaces.

From this and other evidence I concluded that the original arcades were divided thus | 2 | 4 | 2 |. Mr. Hurst Seager argues that the present division | 3 | 5 | 3 | suits the conditions better. Apart from record evidence I believe that the three bays in the aisle divisions of this arcade are out of scale and not in harmony with the Westminster "feeling," which is large and liberal. The sketches which I published in *The Builder* from a seal were made some fifteen years ago when it was first shown to me, and the proportions given to the arcade are no more accurate than rough notes are apt to be.

Looking at the existing arcade, it is quite difficult to think that there was originally one bay less in each space. On examining the three arches of the side-aisle spaces in detail, however, it will be seen that the openings are very narrow and narrower than those in the central space; even so the outer columns of the jambs are *left out* so as to get more width—it has obviously been very difficult indeed to squeeze in three bays. With the arrangement | 2 | 4 | 2 | the *spacing* was similar both at the sides and in the middle.

The exact *height* of the old arcade is not known, and the present one is crowned by a cornice-like moulding which reduces the height available, while all the passage floors in the church have only narrow string-mould fronts. Again, the mouldings of the arches intersect much where they meet above the springing: the main piers might well have been bigger so as better to separate the arches and clear out the spandrels more. Further, the arches of the triforium ranging with this arcade have wide arches struck from centres below the springing. Finally, there is the evidence of the remarkable distortion of the arches below this arcade done, as I pointed out, to bring these arches central with the spacing of the arcade above uniting with it in one whole, instead of having two narrow unrelated bands across the front. For myself I say again I accept the record of the old representations that the arcade was arranged thus | 2 | 4 | 2 |, and not as at present | 3 | 5 | 3 |.

In disputes it is difficult to keep any particular matter from becoming enlarged with irrelevancies and clouded by misunderstandings. In the first sentence of Mr. Hurst Seager's letter which concerns me, he says (italics mine): "In 'Westminster Abbey and Craftsmen' he condemns in good round terms the late John L. Pearson's restoration of the façade of the north transept *on the grounds that it was not in accordance with the original design.*" This is so contrary to what I regard as the right principle of guarding our precious ancient monuments, that for once I must try to correct the statement without undertaking further correspondence on these questions.

My view, as expressed in 1906, is that the front, partly mediæval and partly recased by Wren, should have been maintained as it was by careful repair. "The front still retained a good deal of original work, and the alterations often reflected in some degree what they replaced. The smile of the old work shone as it were through an ungraceful veil, and the whole front still possessed a certain lightness and spring." On the last great and thorough "restoration" I wrote: "*Continuity* is what we should advocate in opposition to all chopping and change. The gallery under the Rose has been restored in respect of the number of bays in accordance with Wren's work. I have nothing to say against this."

W. R. Lethaby.

Registration.

Sir,—During the discussion prior to the last R.I.B.A. Council Election you allowed me space for an attempt to voice the views of the smaller practitioners, and I venture to trespass again on your courtesy with a view to placing befo confrères some figures which I have c from the R.I.B.A. *Kalendars*, and wh think throw a considerable amount of li the real effect of the proposals recent forward by the Council.

All matters of governance are in these question of majorities, and it is th essential in considering the present pr to grasp the essential facts as to whe control of the Institute is *now* and/or wil the future. At the present momen majority of the corporate members Institute have entered it by examinatio figures being as follows:—

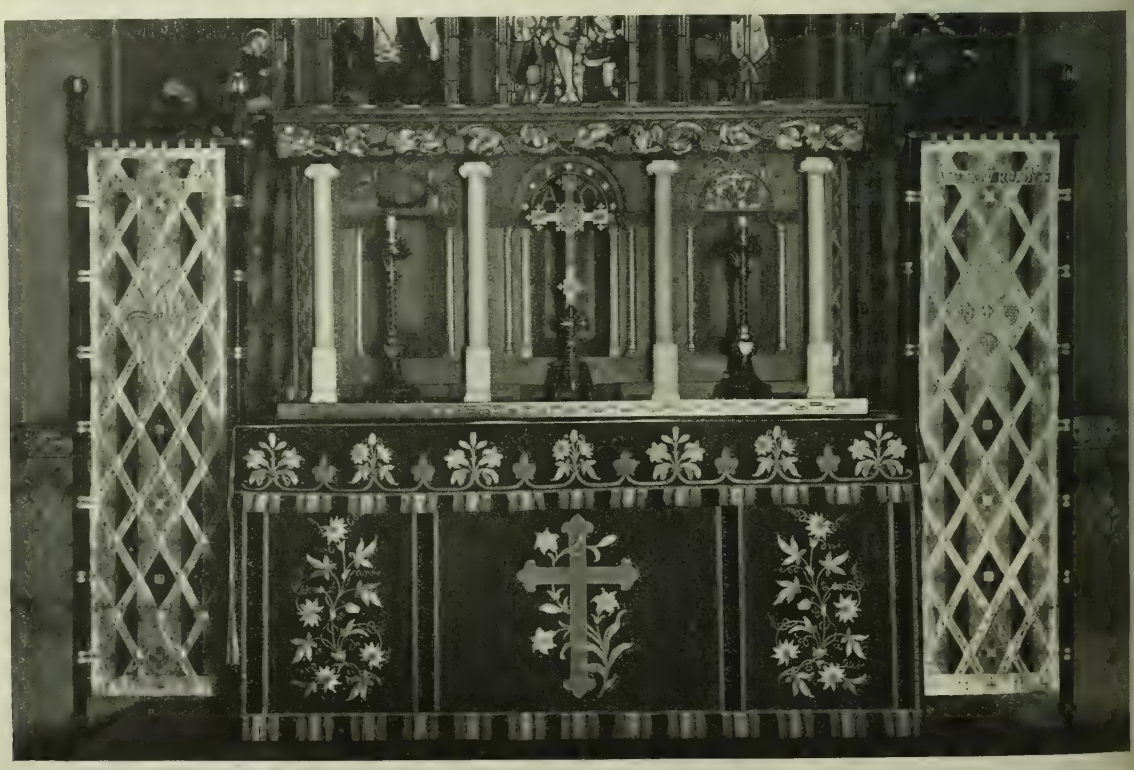
1. Fellows elected from the class of Associates	
Associates	
2. Fellows elected from the Licentiate class	180
Fellows directly elected before 1910	305
Fellows directly elected 1910–1923 inc.	11
Majority of corporate members who have entered by examination	

Even if the franchise is extended to the Licentiates corporate members the would still be in the same hands, as the would then stand—

Examined Fellows and Associates as (1) above	
Fellows as (2) above ..	496
Licentiates	1,402
Majority	

Under the present proposals, howeve control would pass to fresh hands as follo

Fellows as (2) above	496
New Fellows from "Society" ..	200
Members of "Society"	
Licentiates R.I.B.A.	
Total	



General View of Reredos and Hangings in Hillingdon Church. Executed by Mr. John D. Batten.

amined Fellows and Associates
as (1) above 2,814
jority of members who have *not* ——
passed R.I.B.A. tests .. 421

t must also be remembered that the Allied ieties are not likely to accept an inferior tus for their members (the majority of whom not members of the R.I.B.A.) than the ociety" has obtained, and if unification is to an anything it cannot stop at the present posals.

s far as I am aware no figures have been lished showing the actual composition of se Societies, and I therefore give them :—

	F.R.I.B.A. and A.R.I.B.A.	Lic. R.I.B.A.	Non-Members R.I.B.A.
ed Societies in ngland & Wales	711	225	893
itute of Ire-nd	15	3	121
ttish Incorpora-on	148	106	242
	874	334	1,256

n these figures then a further influx of 1,256 nbers may be anticipated who have hitherto n only affiliated and have had no member- in the Institute.

s the issue is presumably limited to the ted Kingdom, I have not mentioned the roximately 1,500 members of the overseas ed Societies who are not members or Licen- es of the R.I.B.A., although the circulars out by the Council are backed by repre- atives of the Cape and New Zealand.

n this connection it may be of interest to note , of the 45 additional names appended to Council's circular letter, 15 are those of lemen who are neither members nor Licen- es and, of these, two cannot be found in current *Kalendar* in any capacity.

lso the weight behind all these signatures is so great as might appear, since two names ear on behalf of a Society of only 21 members Associate R.I.B.A., 1 Fellow, 3 Licentiates, 16 non-members R.I.B.A.), and another esents 3 Associates, 2 Licentiates, and 26 members.

the aggregate they stand for societies having tal membership of 825 corporate members B.A. (who are not likely to be unanimous), Licentiates, and 1,533 non-members.

mention these facts because after all the al issue is a domestic one to the Institute its corporate members, and will be held by y to concern them and them alone.

the foregoing I have endeavoured to state without controversy, in the hope that so d they may be of use to my fellow members rally.

WILFRID TRAVERS.

ndon.

Architectural Education.

t,—While appreciating the sympathy by Chitle in his letter of March 7, regarding tectural education in India, I would like rrect any false impression which he may conveyed by his criticism of the School of bay, which is recognised as the foremost tectural institution in India.

is true that the students are only called to work in the school for two hours every ing, which at first sight may not appear sufficient. It must not, however, be ten that they spend the rest of the day ce work, which affords them the opportun- f acquiring practical experience, this a part of the training. The authorities ally make arrangements for providing with this unique and valuable opportunity. ther feature of the School programme, is not mentioned by him, is the paying quent visits to the places of historical st such as Delhi, Agra, Ahmedabad and r, where the best examples of Indian ecture can be seen. The students even no expenses on these visits beyond that of

result created by this system is of so practical importance that many of the students of the School are seen doing responsible services and beneficial works throughout the length and breadth of India like any other Western qualified architect.

Referring to Mr. Chitle's plea for the teaching of the young architects in India on sound foundations, he does not mention the scheme already drawn by both Mr. G. Wittel, F.R.I.B.A., the late consulting architect to the Government of Bombay, and Prof. Robert W. Cable, A.R.I.B.A., F.S.A. It is a great pity that the scheme approved by the Government has not yet been carried into effect.

I agree with Mr. Chitle that the question ought to come before the coming International Congress, and the R.I.B.A. should use their influence on the Government of India for the advancement of architectural education in that country. If a representative is required, in my humble opinion Prof. Robert W. Cable is the most suitable personality on the subject, whose close attachment to the School and great enthusiasm for the young Indian architects is such that it cannot be spoken of without great respect and admiration. He is now in London and might consent to be a representative at the forthcoming International Congress if asked to do so.

H. H. KHAN.

London.

Ten Years of Construction.

SIR,—The paper by Mr. Ewart Andrews on "Structural Steelwork Reinforced with Concrete," reported in your issue of April 11 is extremely instructive. Some years since, in preparing the drawings for a large post-office, for which building there were certain objections to the use of reinforced concrete, as usually constructed, I went into the question of having light steelwork embedded in concrete, the steelwork being of sufficient strength to take the dead load and the combined strength of the steel and concrete taking the total load.

Making some researches as to whether anything of that nature had been done I found in the "Engineering Record" of September 7, 1907, a view and particulars of a reinforced concrete building in San Francisco in which the steelwork formed a complete unit and was erected complete before any concrete was applied. The steel frame consequently could be thoroughly examined by the architect or engineer and they could be satisfied that all was right before it was embedded in concrete. In the same paper in the issue of October 26 there was a description of the McGraw building, New York, in a paper by Mr. William H. Burr. The building was 11 stories high. The stanchions consisted of four angles connected by latticing, fitted in with concrete and with 2 in. external concrete as fireproofing material. The overall size of the stanchions to the lower story was 2 ft. 5 in. × 2 ft. 5 in., and of those to the top story 1 ft. 2 in. × 1 ft. 2 in. The concrete was 1: 2: 4 worked to 750 lbs. to the inch. The usual working stress for ordinary reinforced concrete columns in New York was then only 350 lbs. to the inch.

Stanchions of this type combine with great carrying capacity great convenience in erection. The steel may be erected ahead of the concrete and give support to the shuttering. The girders were reinforced with rods that had screwed ends passed through holes drilled in the angle steels of the stanchions and nutted. Some of the lower rods were turned up in the usual manner. The great point of the building was that all the steelwork was framed together, was complete in itself and did not depend upon the adhesion of the concrete.

I found in the transactions of the Institution of Civil Engineers a paper describing some warehouses in China that were constructed in a similar way.

Some object to reinforced concrete, as usually constructed, owing to the possibility of inferior workmanship, such, for instance, as all the rods not being in their correct positions, or the possibility of their being displaced by ramming, endangering the safety of the structure. When the steelwork is all previously framed these objections do not apply and probably, owing to the absolute certainty that everything is quite correct, it might be possible to work to a lower factor of safety.

The L.C.C. regulations require to be revised. At present concrete casing to steelwork is considered to be so much additional load instead of added strength.

W. J. H. LEVERTON.

London.

The R.I.B.A. and Amalgamation.

SIR,—I have received many communications and telephone messages from Licentiates with regard to the proposals of the Council. and shall be obliged if you will allow me to take advantage of your columns to appeal to all Licentiates to return their voting cards to the secretary without loss of time.

I have personally replied to the Council's question with an emphatic "Yes," and I find that the other members of our class, with whom I am in touch, are in entire agreement with the views of the Licentiates' Committee expressed in that reply.

There are no doubt one or two points of detail upon which we may have some suggestions to make in the future, but I think it would be a mistake to raise any questions, or discussions of any kind, at the present moment. Our policy, I think, should be to support the Council in every way possible in all the localities where we have representatives, and in the Press, wherever we can do so with any advantage. Since the Council's proposals will give us the vote and representation, any suggestions that we may have to make will come with much greater force in the future when we are equal to other Members, and should be left until we are in that position.

The proposals of the Council have generously recognised our claim to a voice in affairs without quibbling and without futile restrictions; and the Council has courteously invited us to express our opinions, and with equal generosity and courtesy I sincerely hope we shall reciprocate unanimously.

JOHN E. YERBURY.

London.

SHEFFIELD SOCIETY OF ARCHITECTS

AT the annual general meeting held on April 10 Mr. J. R. Wigfull presided. The minutes of the last meeting were read and confirmed, and Mr. H. Fieldsend and Mr. F. J. Powell were proposed and seconded as Associate Members of the Society. The annual report was read and approved on the proposition of Mr. A. F. Watson, seconded by Mr. F. E. P. Edwards. Mr. J. R. Wigfull proposed, and Mr. A. F. Watson seconded, that the annual statement of accounts be adopted. Mr. H. Webster and Mr. H. Nowill were appointed honorary auditors.

Votes of thanks to the retiring officers were then passed. The election of officers for the session 1924–25 resulted as follows :—President, Mr. H. L. Paterson, F.R.I.B.A.; Vice-President, Mr. F. E. P. Edwards, F.R.I.B.A.; Hon. Treasurer, Mr. R. Fowler, F.S.I.; Hon. Secretary, Mr. H. B. S. Gibbs, A.R.I.B.A. Council: E. M. Gibbs, F.R.I.B.A., T. Winder, Lic.R.I.B.A., W. C. Fenton, F.R.I.B.A., W. J. Hale, F.R.I.B.A., A. F. Watson, F.R.I.B.A., C. B. Flockton, F.R.I.B.A., J. R. Wigfull, F.R.I.B.A., W. G. Buck, Lic.R.I.B.A., J. Amory Teather, Lic.R.I.B.A., H. I. Potter, A.R.I.B.A., J. M. Jenkinson, A.R.I.B.A., F. H. Wrench, A.M.I.C.E., Lic.R.I.B.A., C. M. Hadfield, F.R.I.B.A., E. M. Holmes, B.Eng. F.S.I., A. Whitaker, J. C. P. Toothill, A.R.I.B.A.

The total membership now stands as follows:—One Honorary Member, 25 Fellows, 46 Associates, 2 Students, and 6 Lay Members, making a total of 80, as against 77 last year.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

Notes from the Minutes.

We take the following notes from the Minutes of the Council meeting held on April 14 :—

Crafts Exhibition.—On the recommendation of the Art Standing Committee the Exhibition Committee was instructed to organise a crafts exhibition in the R.I.B.A. galleries in the course of the next session.

London Traffic Bill.—On the recommendation of the Town Planning Committee it was decided to transmit to the Minister of Transport an expression of opinion in favour of making the London traffic area as wide as possible.

Architectural Copyright.—On the recommendation of the Practice Standing Committee it was decided to support two members on cases of distinct infringement of architectural copyright.

Fellowship.—Under the provisions of By-law 12, Mr. H. S. Goodhart-Rendel and Mr. G. C. Lawrence were, by a unanimous vote, elected Fellows of the R.I.B.A.

Street Architecture Metal.

The jury appointed by the Council of the Royal Institute of British Architects for the award of the R.I.B.A. Street Architecture Medal has been reconstituted as follows :—

The Earl of Crawford and Balcarres (Hon. Fellow), chairman.
Mr. J. Alfred Gotch, President R.I.B.A., F.S.A.
Sir Edwin L. Lutyens, R.A., F.R.I.B.A.
Mr. E. Guy Dawber, Vice-President R.I.B.A., F.S.A.
Mr. Walter J. Tapper, F.R.I.B.A.

R.I.B.A. Lectures.

Mr. Sydney Perks, F.S.A., has altered the title of the lecture which he will deliver at the R.I.B.A. general meeting on Monday, May 19, at 8 o'clock, from "London Town Planning Schemes, 1666 and After," to "The Scheme for a Thames Embankment after the Great Fire of London."

Architectural Education.—The arrangements for the papers to be read and the discussions to be held during the International Congress on Architectural Education have been revised, and it has now been decided that papers shall be read on the past, present and future of architectural education in Italy, France, America and England. The Prince of Wales is to be patron of this Congress.

THE LONDON SOCIETY

ANNUAL DINNER.

On April 28 the London Society held its sixteenth annual dinner at the Hotel Victoria. The Rt. Hon. the Earl of Crawford and Balcarres presided. Among those present were : Sir Aston Webb, Major Chamier, Captain E. D. Chamier, Mr. Guy Cholmeley, Mr. W. R. Davidge, Mr. J. Scott Duckers, Lady Hughes, Mr. and Mrs. C. Lewis Hind, Sir Arthur and Lady Holbrook, Sir John P. Miller, Sir Henry and Lady New, Sir Alfred Rice-Oxley, Lady Riddell, Sir John Simpson, Sir James L. Walker, Sir Reginald Blomfield, Sir Harry Brittain, M.P., Sir Frederic G. Kenyon, Mr. W. Pett Ridge.

After the loyal toast had been honoured, Sir Reginald Blomfield said he would like shortly to recapitulate the position in regard to the City churches. On the one hand they found ecclesiastical authority embarking on a campaign of spoilation ; on the other hand another body opposed to this campaign. When a thing was wrong in principle details were largely immaterial, but one of the most conspicuous features of this measure was that the City churches were not "pulling their spiritual weight," because they were filled only to a small extent on Sundays. That was perfectly natural, because a great part of the City was absent on Sunday. But what the promoters of the measure did not state was that a tremendous part of the work was done on weekdays, when the churches were a haven of rest for many over-worked men and women in the City. That was a very vital and important work and should be better known than it was.

The sites of the churches were very valuable property, and the authorities seemed to think that they could deal with them as they liked—that the Church could do what it liked with its own. They conceived the Church as composed of the whole body of its members, lay and clerical, and from that point of view they objected very strongly to this property being dealt with in a manner that was incompatible with the duties of trustees. If the Church pulled down what it knew was extremely valuable property, there was nothing to prevent it doing the same thing with St. Paul's Cathedral or Westminster Abbey, or the Colleges and Foundations, and dividing the proceeds among themselves. That was a very dangerous thing, for, after all, custom was not a mere scrap of paper. When they talked about pulling down churches and re-erecting them they did not fully understand the situation.

With regard to the bridges there were three in the arena. He was of opinion that Lambeth was an absolute necessity, having regard to the work thrown on Westminster Bridge. The whole question of London bridges was a most difficult one, and could not be settled by methods years behind the time. If a building fulfilled its condition satisfactorily it was good architecture. Waterloo Bridge was the most admirable structure in the world, but was designed for totally different conditions from those that obtained to-day. He walked across it five days a week, and had regarded it from every point of view, but did not believe that its widening would have any material effect on its appearance.

Every person of intelligence was opposed to the St. Paul's Bridge because it would imperil the foundations of the Cathedral. He was opposed to it because it would endanger Wren's incomparable masterpiece. He regretted that the Charing Cross Bridge idea seemed to be vanishing, and although he hoped that they were still struggling on he confessed that he was rather pessimistic. They suffered from a lack of foresight on the part of their predecessors and themselves. They had a distinctive habit of dealing with things as they came along and in detail, instead of treating them as one big comprehensive scheme.

Sir Harry Brittain, M.P., said when coming back to London he always felt he was coming back to the most interesting city in the world. However, it was true they were the untidiest city in Europe. The only remedy was to establish a consciousness in the minds of the people. It was as important to get rid of litter as to have pure water and food. Another aspect was the smoke of London. He suggested there was nothing the Society could take up with such prospect of immediate success as the doing away of the filth in air. It was always dangerous to prophesy, but he believed with the aid of British science smokeless fuel could be manufactured on a commercial basis within a period of twelve months. If the Society could help in those matters it would indeed deserve well from the citizens of London.

Mr. Lewis Hind, Sir Frederic Kenyon, and Mr. Pett Ridge also spoke.

The Chairman, responding to the toast of his health, proposed by Sir Aston Webb, said they were all agreed the London churches must be religiously preserved. He was all for tidiness ; all for improving the exteriors and interiors of their buildings. The Society now had 1,200 members, and its work was well known. There was much to be done. They needed 5,000 members. After all, surely there were that number of lovers of London. There were critical times in front of them, but he believed great results could be achieved if they received the support of the public to which they were so richly entitled.

THE ARCHITECTURAL ASSOCIATION

A GENERAL meeting of the Architectural Association was held at 35, Bedford-square, W.C.2, on Monday evening, Mr. E. Stanley Hall, F.R.I.B.A., in the chair.

The following were unanimously elected members :—

A. D. Connell — M. J. H. Somake
B. R. Ward — D. D. Robinson

Mr. V. Newton Moss and Mr. R. S. C were reinstated as members.

The Council's nominations for the House for 1924–5 were announced as follows :—

President : Mr. H. S. Goodhart-Rendel.
Vice-Presidents : Messrs. J. Alan Slater L. S. Sullivan.
Hon. Treasurer : Mr. Gilbert H. Jenkins.
Hon. Editor : Mr. Manning Robertson.
Hon. Librarian : Mr. A. H. Moberly.
Hon. Secretary : Mr. M. T. Waterhouse.
Past President : Mr. E. Stanley Hall.

Ordinary Members of Council (10 *to be elected*) Messrs. W. H. Ansell, A. S. G. Butler, A. Edwards, J. M. Gatti, C. L. Gill, P. D. Hepwo Joseph Hill, C. H. James, A. B. Knapp Fis E. J. T. Lutyens, H. I. Merriman, O. P. Mi F. W. Newman, S. C. Ramsey, A. B. Ll. Robe W. Scotter Owen, Philip Tilden, C. Co Voysey.

Dr. H. Crichton Miller, M.A., then gave address entitled "The Rôle of Phantasy Life." He pointed out that psycholog found it convenient to classify phantasy u three headings : (1) Compensatory phant characteristic of childhood and exemplifie the case of an ill-treated child who loo forward to the time when it would be str enough to get its revenge on its torment (2) inspiratory phantasy ; and (3) crea phantasy. Creative phantasy, he said, c rather from the sub-conscious mind, and ceived things of which the conscious mind incapable. In recommending architects cultivate creative phantasy, he urged them to do so altogether at the expense of the ma of-fact and objective mind. Creative phan might produce a house which, although it m satisfy æsthetically and be quite unlike anyt else, would be deficient of such an esse feature as a scullery, while the house prod by the practical man who had no cre phantasy would probably be as perfect could be in its sanitary and domestic arra ments, but would not satisfy the eye æ tically. It was therefore necessary to fus two, and the most successful architect w be him who combined creative phantasy the practical requirements of life.

In the ensuing discussion, Mr. Stanley H said he felt very much in sympathy wit lecturer's views, but a difficulty in giving to phantasy lay in the fact that the would not always accept such a point of It was sometimes discouraging when an a tect told his client that he proposed to ex his phantasy only to be informed that the did not like it, or had a phantasy of his ow

Mr. A. H. Moberly said he would lik compare the lecturer's point of view wit views of Professor Lethaby, who felt tha one hope of present-day architecture l architects keeping their minds conscious purely practical aims.

EXHIBITION NOTE

The British Industries Fair is again op the tenth consecutive year and will ass form a most useful function for British It is only necessary to traverse the many of the Exhibition to realise what great po ties for trade lie in all these many exhibits. pottery show does not strike one as quite a as usual, but it is evident a large num manufacturers are at work. Some of the are very effectively designed, as those Moorcroft Co. and Birks, Rawlins & Co. great Exhibition at Wembley should bring increasing numbers to our Empire Window at the White City.

EVERYDAY ARCHITECTURE

'HE author* addresses this sequence of essays he public, and all architects and builders owe a debt of gratitude for this attempt stimulate public interest in the beauty or ness of their surroundings. Architecture is languishing from lack of skill or knowledge; quires opportunities, and opportunities must made. We have frequently doubted the dom of trying to educate the public by supply- drawings of houses and details which they uire for a few shillings and think they can oduce through a local builder, regardless of ition, aspect or local conditions. Mr. ertson—wisely, we think—depends upon nd common sense reasoning in his appeals to public. The vicissitudes of domestic archi- ure often seem exhausted as a subject, but n the author has courage and freshness of ression, the subject comes up again with a appeal. The author is essentially modern in outlook; he has something to say, as well he power of saying it. He is nearly always nite—an excellent quality in an architect— n it is so easy to be negative in architectural ters. The writing is forcible, with a touch umour, qualities which give the book a par- lar value to those who seek a livelier delight architecture. The author covers a wide ge of subjects in the eighteen chapters in the k, and from a literary point of view they eal to us as serious contributions upon netic and philosophic criticism advanced by eone in authority, rather than as a "sequence ssays." The book deals broadly with the le subject of our everyday environment, and attitude throughout is, in the main, consis- . The case against all forms of ugliness is ed, and remedies and improvements are gested on practical lines. "We must not t ugliness," he says, "as if it were either nomical, practical, or inevitable." He deals n the clearing of the slums, with advertise- nts in public places, and with smoke filth and recalling to our minds the words of the nortal Alice:

"If only these were cleared away
It really would be grand."

Many excellent and suggestive points are ed and discussed shrewdly, such as: the uiry whether the style of cottage design ved mainly through the Government housing mes is only a matter of passing fashion; suggestion that one practising architect can lly be expected to criticise frankly and y the work of a brother architect; the lady former" who instructs us in public con- ing the sort of house women want and h men have prevented them from having; that in the supply of houses at lowest cost overnment department nor public body can the speculative builder.

e agree with the author in his comments n the general level of public taste, although public may find a difficulty in understanding se of the words "practical," "economy," "materialism," in relation to architectural gn. Wren, he says, was practical in the true e of the word; he achieved the best results the materials and funds available, but we the fear that an ignorant public will not nguish the difference between best results apparent value for money. It is evident the author has a clearer conception of the itectural significance of "economy" and ctical utility" than the speculative builder. eel we are moving on the right lines when ear an architect telling us that the move- towards directness of expression in archi- re is partly the result of a search for strict omy, and that if practical utility had been ed to its logical conclusion we would not the modern parlour and suburb.

. Robertson makes clear the distinction een the speculative builder and the jerry er, and the majority of thinking people d agree with him that the speculative builder of the last century merely provided what the public expected and wanted. It is rather an unfortunate conclusion to come to that there is no one in particular who can be held responsible for the ugliness of our modern towns, and it seems a hopeless business waiting for public taste to improve. We like the idea of the suggested triple alliance between the public, the builder, and the architect, and we wish the author had outlined some working scheme on these lines. He would make an excellent liaison officer. No greater service could be rendered to this country than an arrangement which would save us from another avalanche of vulgar, depressing houses similar to those of pre-war days, proclaiming the hopelessness of our social conception of civilisation. Sound advice is given to the builder of small houses. The author advises him to curb the irresponsible demands of the purchaser, to set his face against shams, standardised decoration, and pretentious ornaments generally; in short, he advises him to build without affectation or "artistic fuss." No sounder advice has ever been given, and yet we would wager that nine out of every ten laymen would think these words were being addressed by the builder to the architect. In its search for a better England the public has much to learn, and this book will help to teach it many things.

The three sketches of houses on p. 29 should be an education to builders and the public. We would have preferred to head the first sketch Elemental (since Utilitarian does not connote lack of grace), and sketch 3, Proportion, Sense, and Utilitarian.

We are glad to see that the author considers the introduction of a new standard of housing to be of immensely greater significance than the economic failure of the housing schemes. We have always had the feeling that the real value of the movement was being obscured in the desire to obtain as much as possible through public funds as the main object, and afterwards—chaos. This feeling is borne out in Mr. Robertson's comment that we are subsidising houses out of public money without making any stipulation whatever as to the maximum number to the acre. He does not state that under the prevailing conditions failure was obvious from the beginning, and we are a little in doubt whether he considers the experiment can be continued and financially justified under normal conditions.

The author illustrates the difference between architectural control and the absence of it when he says that the housing schemes produced results of real permanent value, whereas the Grant to Private Persons produced miserable results. It is not easy to understand why he should assume that the economist gave his approval to this grant "without a guarantee that the taxpayers' money was being used to subsidise creditable work." From the purely economic standpoint the economist was opposed in theory to the whole principle of the subsidy in any form, but in face of the Rent Act and the state of public feeling the problem passed from the economist into the realms of the politician. The problem of how we spend our money is a social study, and it is entirely erroneous to suppose that the economist is interested either in the lowest priced house or in how the owner spends his surplus money. The author is severe upon the Victorian age for its worship of material prosperity; but making every allowance for the conflicting elements which appear when a new social order is being built up, we wonder what share of the blame falls upon the architect for these monotonous rows of pretentious villas which seem to be the fruits of snobbery and humbug. Did he not contribute by propagating his own particular form of pedantry?

A review of this book would be incomplete without a reference to the excellent introduction by Mr. Selley. He confines himself to the question of housing, and, incidentally, we think he touches the crux of the question when he asks what all the housing reformers were engaged on "during the halcyon days when materials and labour were cheap and the poor property-owner had ten per cent. of his houses empty on his hands." The replies might be that the great war taught us to think differently, or that it provided the opportunity to put the ideals into practice. Nevertheless, the sceptic is at liberty to doubt whether the means have not completely overshadowed the end. Mr. Selley tells us that builders will welcome every attempt to raise the public taste for something better in housing than that which they have been contented with in the past. This is refreshing news.

Mr. Robertson is to be congratulated on his book, which should make a general appeal to the public, and a special appeal to the builder and the architect. It comes at an opportune moment, and will be a distinct help in clearing up many points affecting the development of the housing problem, whether we continue in the future to build through the State or as individuals.

* "Everyday Architecture." By Manning Robert- .R.I.B.A., F.R.A.S. (London: T. Fisher Unwin, Price 8s. 6d. net.

SCENERY PRESERVATION COMMITTEE

At a meeting of this Committee, over which the Lord Mayor (Sir Louis Newton) presided at the Mansion House recently, it was resolved to invite the co-operation of all bodies interested in preserving the amenities of the countryside in a campaign against various growing nuisances.

Mr. F. W. Jowett (First Commissioner of Works) apologised for his absence from the meeting owing to engagements in his constituency. "The subject you are considering," he wrote, "is one that has given much concern to my Department. That there is need for a strenuous campaign of enlightenment no one who visits our parks and open spaces, particularly after a Bank Holiday, can deny. It is sad that for want of a little thought so much of our beautiful countryside should be destroyed."

The Marquess Curzon wrote that he was heartily in sympathy with the campaign.

The Lord Mayor said that after a Bank Holiday the open spaces of London were littered with paper, tins and cigarette packets, and in the country the hedges and banks were strewn with the articles thrown away by occupants of motor-cars and chars-à-bancs.

Sir Martin Conway, M.P., then moved the resolution mentioned above, to which Mr. Hilton Young, in seconding, also protested against the "uglification" of the countryside. The char-à-banc, an excellent development in itself, was, he said, the principal cause of the growth of the nuisance, and one had to go farther and farther afield to reach undefiled country.

The resolution was carried unanimously.

[This matter is referred to in our leader of this week.]

Mr. Alfred B. Yeates, F.S.A., writing recently in the *Times* on this subject, said:

"Cannot the new Commission of Fine Arts quickly give a guiding hand to those responsible for the beauty of the London parks? In the last week, near Hyde Park Corner on the north side of the Row, a quiet open space of grass with surrounding flower beds has been sadly spoilt by a monument placed in the centre. The authorities have just started alterations to the fine circular sunk garden at the end of Mount-street. This, though not quite satisfactory, was at any rate in scale, and a pleasant feature in this rather level part of the park. Clipped hedges and a simple rearrangement of the flower beds would probably have sufficed to have made it more interesting. It seems a pity the public should have to bear needless expense on schemes open to criticism."

Hull's £300,000 Scheme.

Town-planning schemes involving the expenditure of approximately £300,000, were approved by the Hull Corporation Works Committee recently for submission to the Government Unemployment Grants Committee.

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ILLUSTRATIONS

R.A. Exhibits.

We illustrate this week two exhibits at this year's Royal Academy Exhibition, namely, "Rebuilding of Nos. 36-44, Moorgate-street, E.C., for the Ocean Accident and Guarantee Corporation, Ltd." (Sir Aston Webb, P.R.A., & Son, architects); and "Project for a London Site," a study by Sir Edwin L. Lutyens, R.A.

Libraries at Leeds.

We give this week the first premiated designs in the competitions for branch public libraries at Burley and Bramley, Leeds. The design placed first for the Burley Library is by Mr. G. B. Howcroft; for the Bramley Library the design of Messrs. Foggitt & Addison has been accepted. The full result is given on p. 708. The work of erection of the libraries will be carried out under the direction of the authors of the designs placed first, subject to the approval of the Carnegie United Kingdom Trustees, who have made grants to the Leeds City Council in respect of these libraries.

Bristol Cathedral's New Vestries.

On Saturday last, April 26, the Bishop of Bristol dedicated the recently completed addition to the Cathedral buildings. The work forms the most important part of the scheme of renovation that has been in hand since the autumn of 1922.

The building, illustrated this week, has been erected and planned to provide much-needed vestries, and to occupy the site of the destroyed monastic buildings on the east side of the cloister, and brings back to something of its former appearance the range south of the Chapter-house that in pre-suppression times included the monastic dortor and its sub-vault. The chief building is about 56 ft. long and 32 ft. wide, and includes vestries for the Chapter, Honorary and Minor Canons, Lay Clerks, and Choirs.

In addition, a new library has been built over a room, formerly perhaps the "warming-house" of the monastery, and adjoining the new vestries at the south-west angle. Between the vestries and the Cathedral, the passage forming the old communication between the dortor and the church (by means of the "night stairs" in the south transept) has been opened and repaired.

The materials used throughout are Brandon Hill rubble for the walls, and dressings from the quarry on Dundry Hill. These materials were almost exclusively used in the old portions of the Cathedral buildings.

The work has been carried out by the contractors, Messrs. William Cowlin & Son, of Bristol, from the designs and under the personal superintendence of Mr. Roland Paul, F.S.A.

The heating forms part of the scheme for heating the Cathedral buildings, carried out by Messrs. G. N. Haden & Sons, of Trowbridge, and with the electric light installation by the Colston Electrical Co., has been under the superintendence of Mr. Malcolm T. Evans, consulting engineer.

The glazing, including new heraldic glass in the Chapter vestry, has been executed by Messrs. Joseph Bell & Son; the metal-work by Messrs. F. & R. Edbrooke, and the plumbing by Messrs. H. A. Pritchard & Son—all of Bristol.

The "Fortune" Theatre.

Built on a site in Covent Garden, this is the first theatre to be built in this country since the war. It is called "The Fortune," thus reviving the name and the memories of the famous house in which Shakespeare acted. The theatre has been built for Mr. Laurance Cowan, the playwright.

The present building adjoins the Scottish National Church in Crown-court, which has a right-of-way through the whole length of the site from Russell-street to the gallery exit of the church, and has made the planning of the theatre difficult. Allowance had to be made for this passage, which measures 9 ft. in width, and the site charter permitted building under and over it. Without this passage the site measured only 3,430 sq. ft., and this is the real space available for auditorium and stage. The smallness of the site necessitated a choice of construction which would yield the greatest saving in space, and after careful consideration ferro-concrete was decided upon, without any facing of brick or stone. The consequence of this is that actually only 5 in. of ferro-concrete separates the upper circle wall from the building line. The concrete was made of Derbyshire pearl spar and "Atlas" white cement, and the whole face was finally bush-hammered with automatic tools. The London County Council Regulations demanding at least seven days before centering is struck prevented effective brushing and washing, and the automatic tool was resorted to out of sheer necessity. Otherwise, the concrete face would have presented a much more colourful and sparkling appearance, since any tool work on spar or marble has the effect of deadening the refractive value of the material. The windows are made of mild steel, and the frames are set in the face overlapping the concrete, the windows being thus more or less flush with the building line. This saves special reveal work. No attempt has been made to mould the concrete in any way, and the only ornamentation introduced has been done by ribbons of cast lead.

In the interior no attempt was made at a style effect, and line and colour were relied upon entirely. In spite of the smallness of the site the stage itself occupies roughly two-fifths of the space available, together with the dressing rooms more than one-half. There are fifteen dressing-rooms, including a rehearsal room, and there is a suite of offices over the top of the auditorium along Russell-street.

The electrical installation has been carried out by Messrs. Ohms, Ltd., under the direct supervision of Mr. P. Godfrey, who acted as consulting engineer. The electrical intake rooms have been equipped by Messrs. Ernest F. Moy & Co., who are also responsible for the stage switchboard. The stage electrical installation is a combination of the English batten and spotlight system with the Schwabe Hazait system of indirect lighting. The stage hoisting gear, as well as many other items connected with the stage equipment, has been supplied by Messrs. Bullivant & Gimson. Messrs. Merryweather are responsible for the safety curtain.

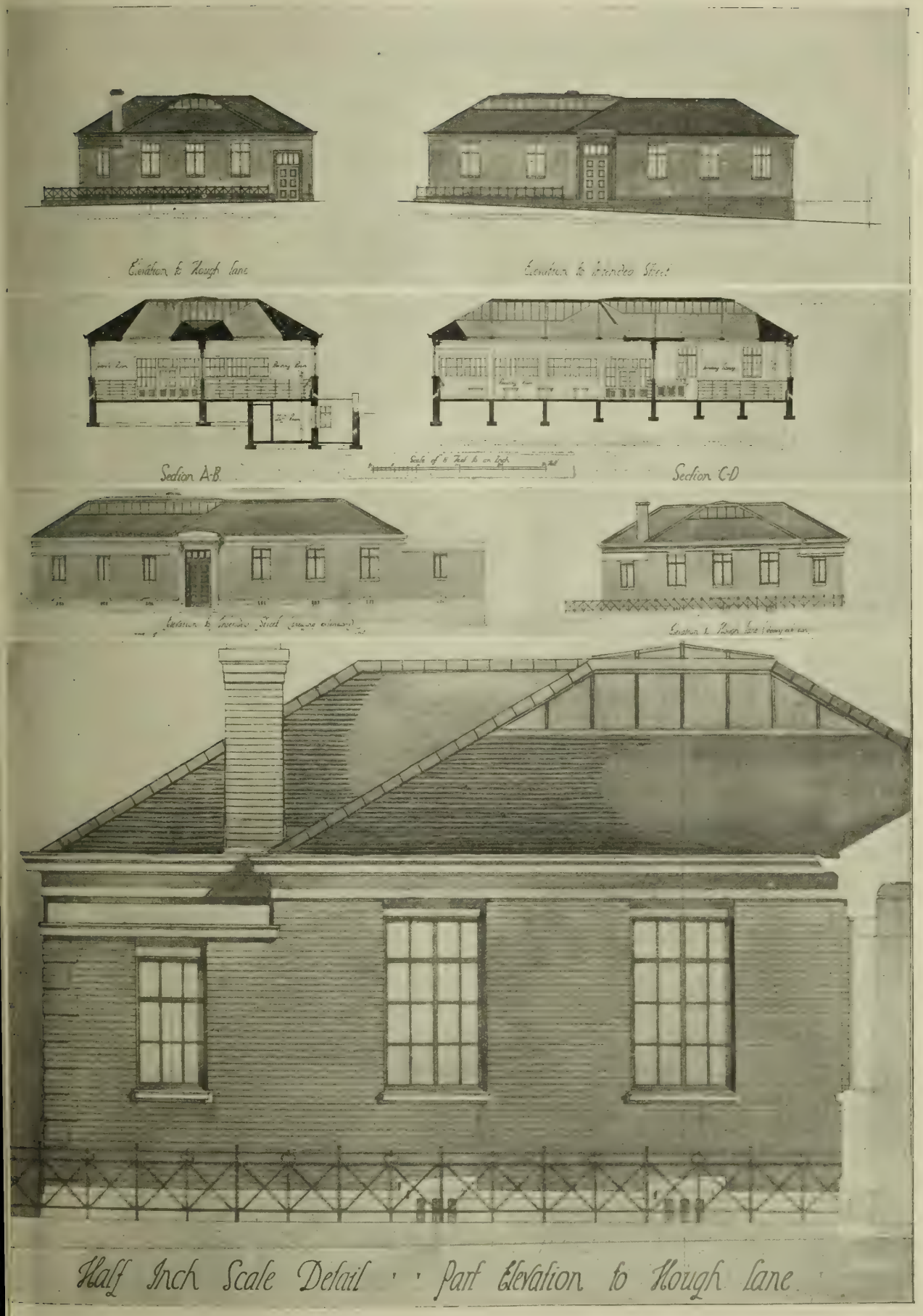
This theatre is the first building in London with a non-combustible stage roof, as required by the new regulations, and the skylight opens automatically in case of fire. The auditorium is heated by a plenum system, the distribution of the warm air being effected by means of a warm-air chamber extending through the whole space under the floor of the stalls, with outlets under the seats giving not more than 10 ft. per second flow in a space of 100 sq. in. each. Small plenum spaces are arranged under the dress circle and upper circle, and no gratings have been placed in the walls in any single instance. The extract chamber is on the roof, and the extraction of the air is effected in one place only, exactly over the proscenium arch. This has been done in order that, in the event of a fire occurring on the stage, no flames or smoke would invade the upper circle, but would be drawn straight up on the auditorium side of the proscenium arch during the time required for the fire curtain to descend. All other portions of the building, including the stage and the roof of the stage, are heated by means of a low-pressure hot-water system. The general contractors are Messrs. Bovis, Ltd. The principal marble work was executed by Messrs. Ansell & Odling & Sons, and the lead and iron work by Messrs. Henry Hope & Sons, Birmingham. Messrs. Galsworthy, of Newman-street, W., the sanitary installation has been carried out by Messrs. Davis, Bennett & Co. The curtain and draperies were executed by Messrs. J. A. Chapman & Co., of Great Portland-street, W. The seating work is by Messrs. Archibald D. Dawnay & Sons, Ltd.

The sighting line of the seating is the result of a test made from all quarters of the theatre, and a clear unobstructed view of the stage is obtainable, whilst tip-up comfortable seats are provided from stalls to gallery—a truly welcome improvement.

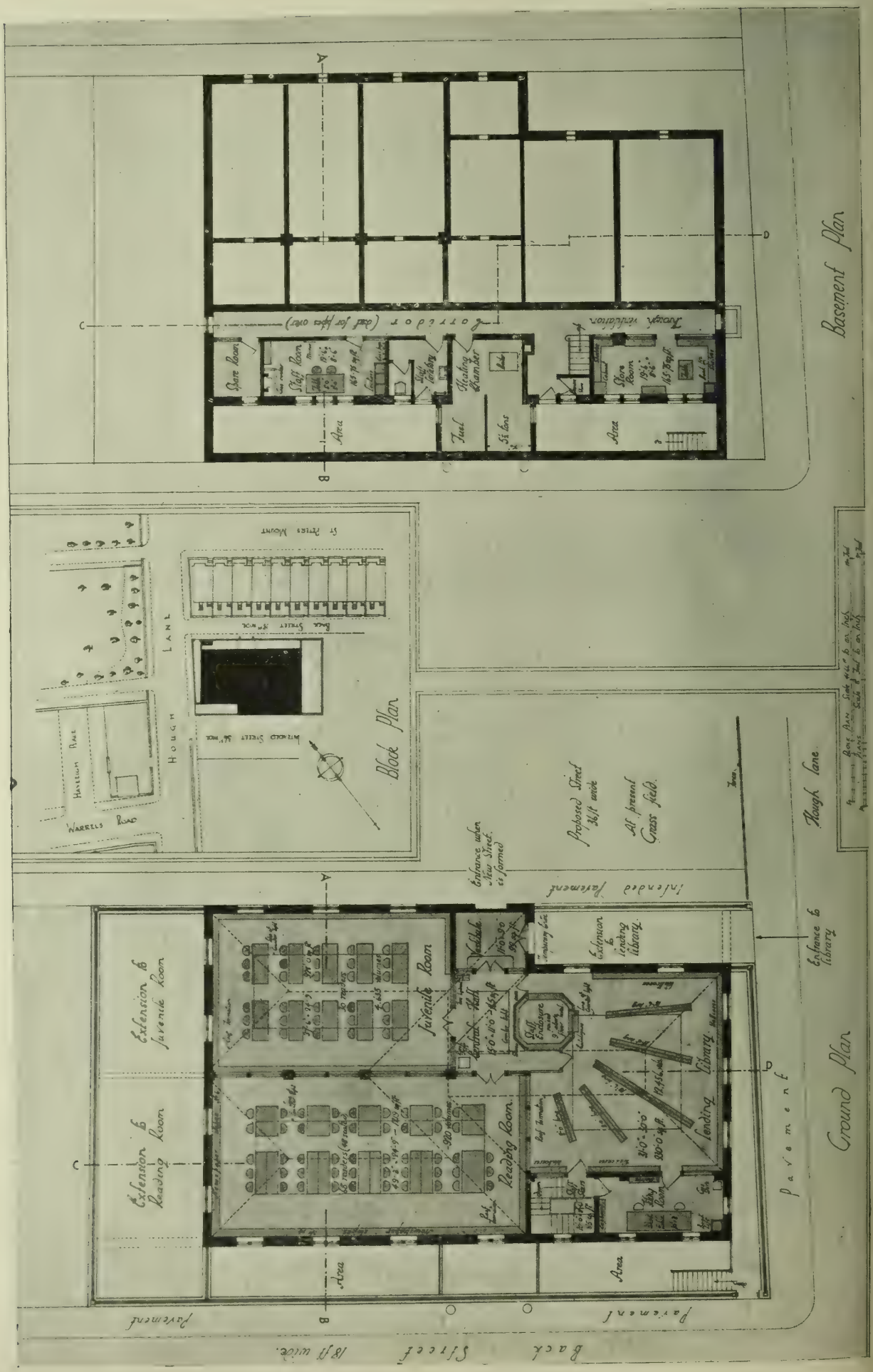
Mr. E. Schaufelberg was the architect.



The "Fortune" Theatre: View from the Stage. Mr. E. Schaufelberg, Architect.



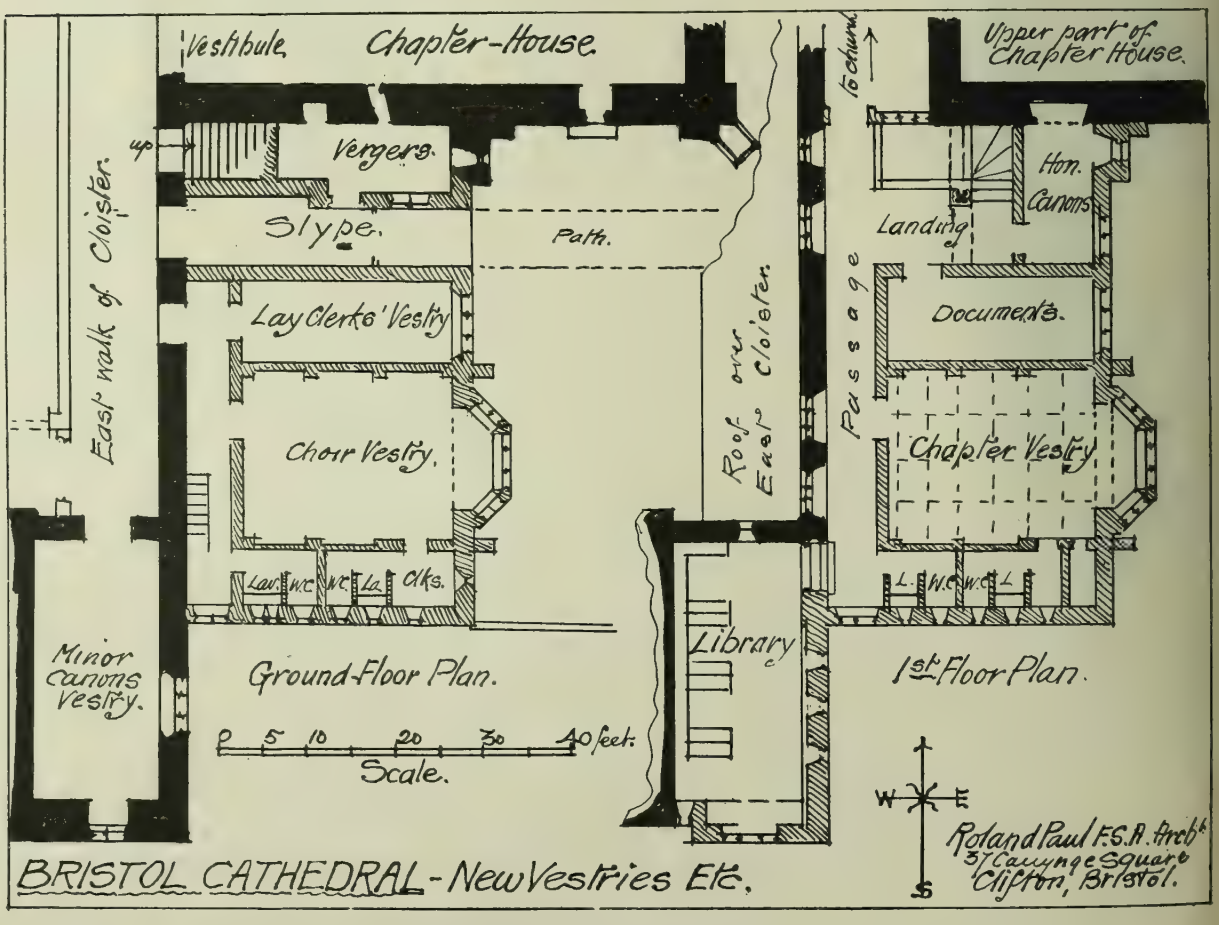
Bramley (Leeds) Library Competition. Design placed first: By Messrs. Foggitt & Addison.



Bramley (Leeds) Library Competition.—Design placed first: By Messrs. Foggitt & Addison.



New Vestries and Library.



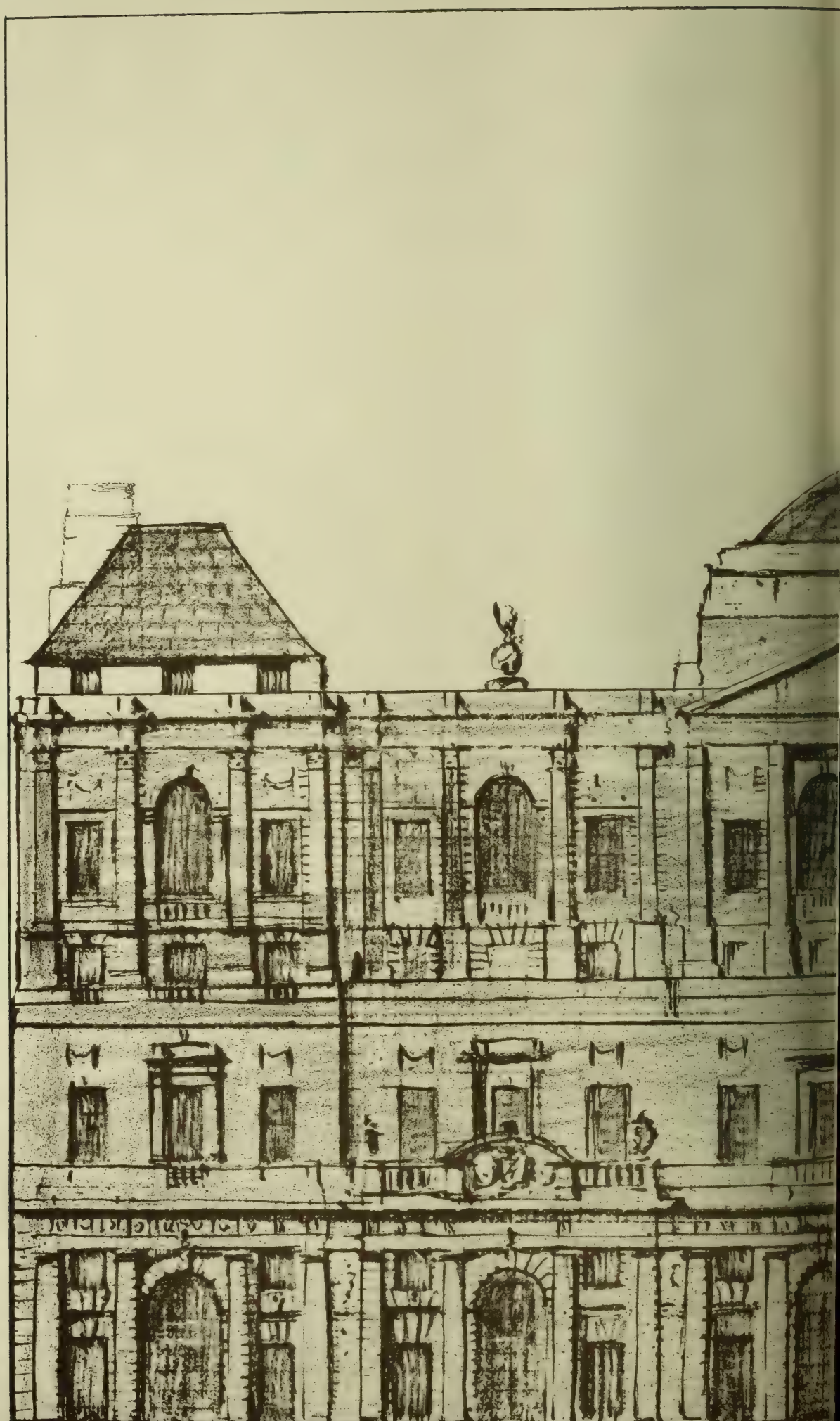
Additions to Bristol Cathedral.
MR. ROLAND PAUL, F.S.A., Architect.



R.A. EXHIBITION.

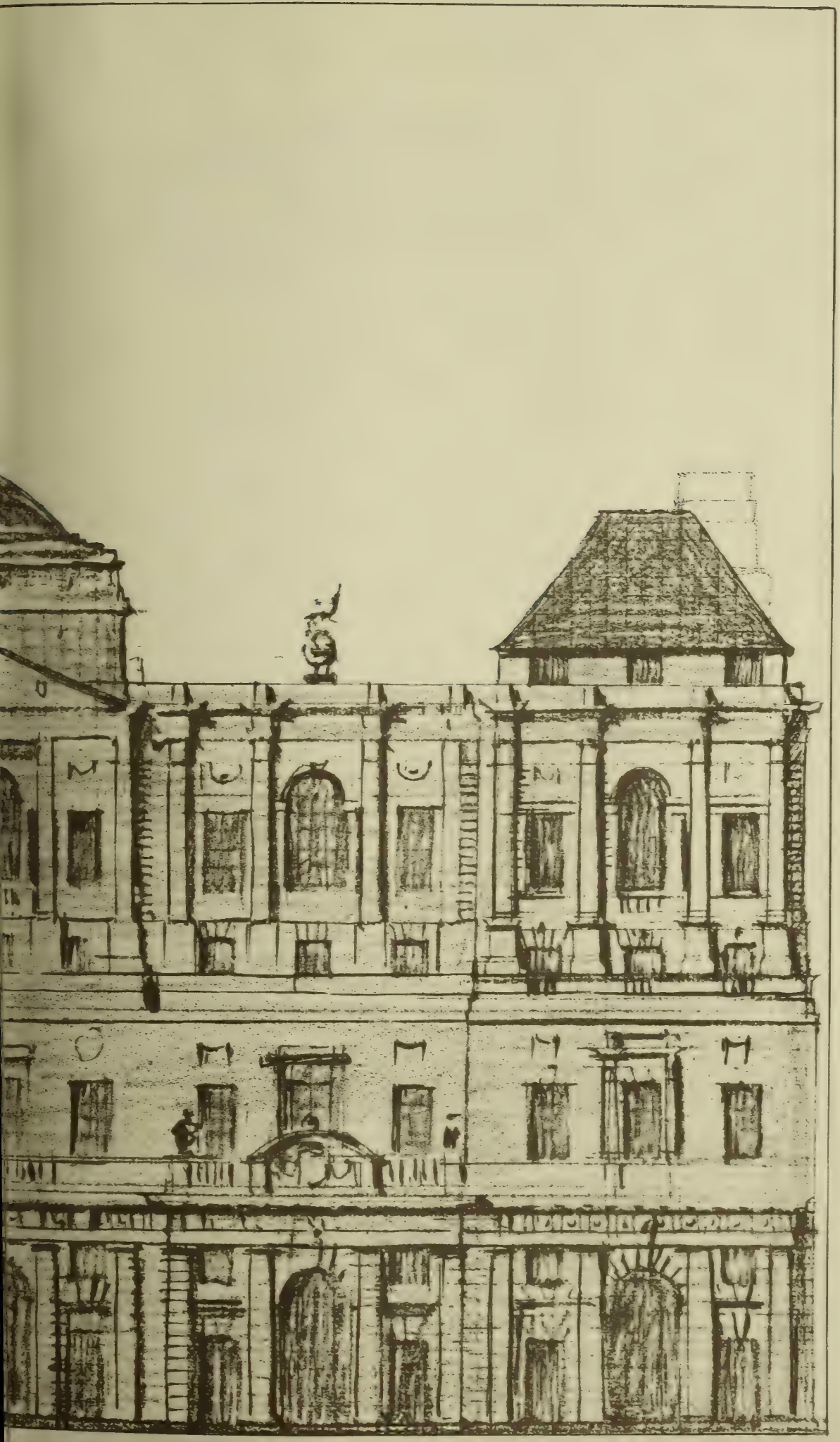
REBUILDING OF Nos. 36-44, MOORGATE, E.C., FOR THE OCEAN ACCIDENT & GUARANTEE CORPORATION, LTD.

SIR ASTON WEBB, P.R.A. & SON, ARCHITECTS.



R.A. EXHIBITION.

PROJECT FOR A LONDON



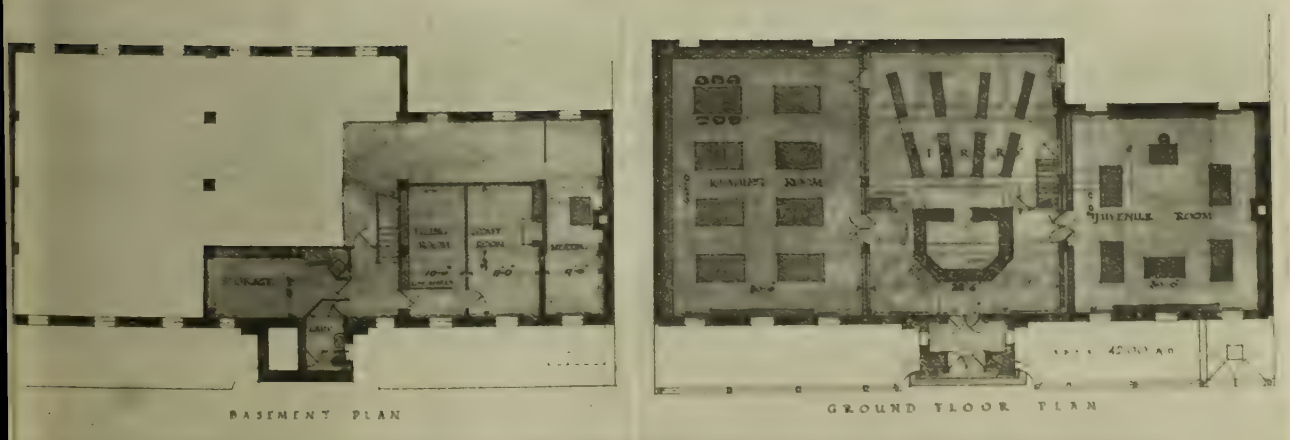
WIN L. LUTYENS, R.A.



Additions to Bristol Cathedral. The New Vestries from South-East. Mr. Roland Paul, F.S.A., Architect.



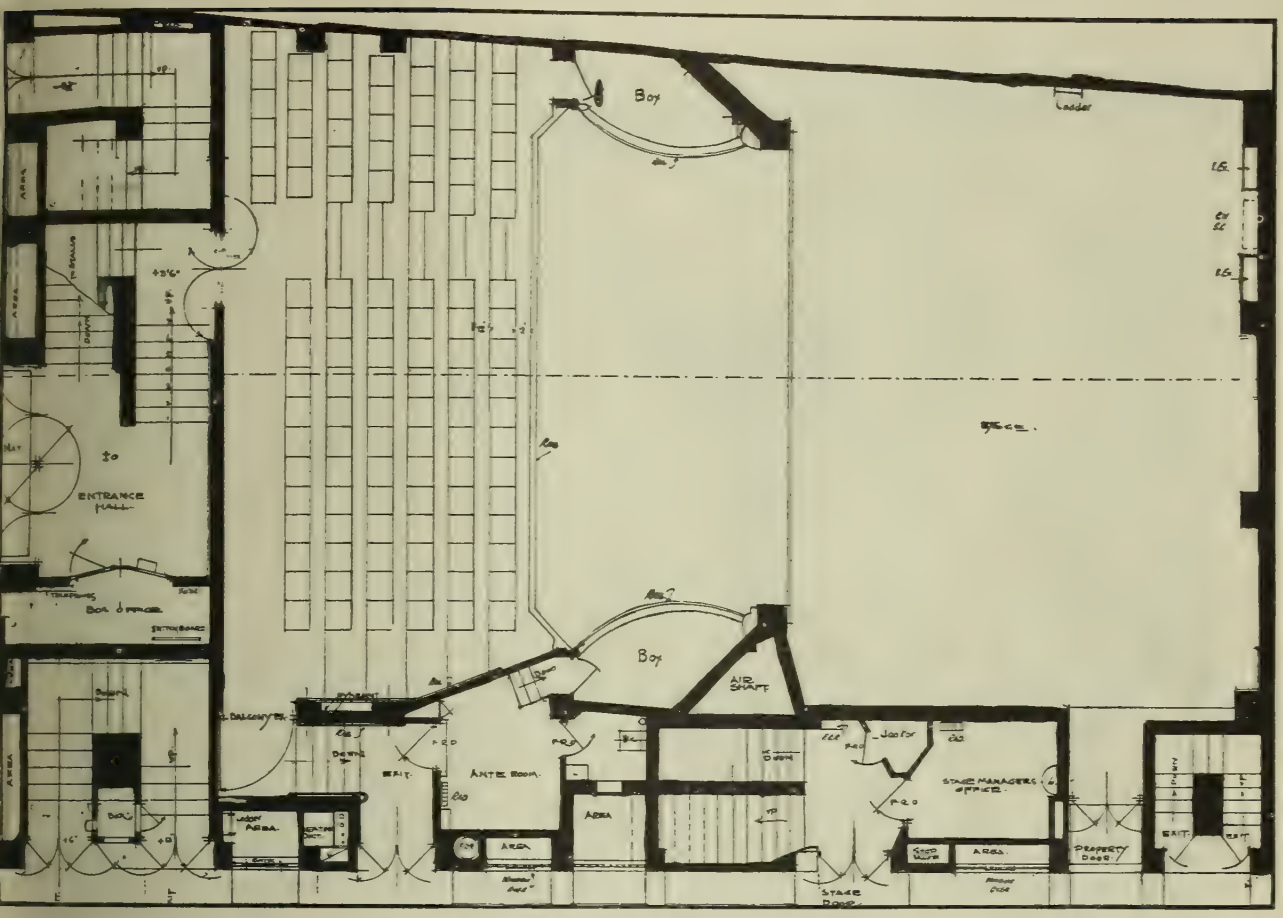




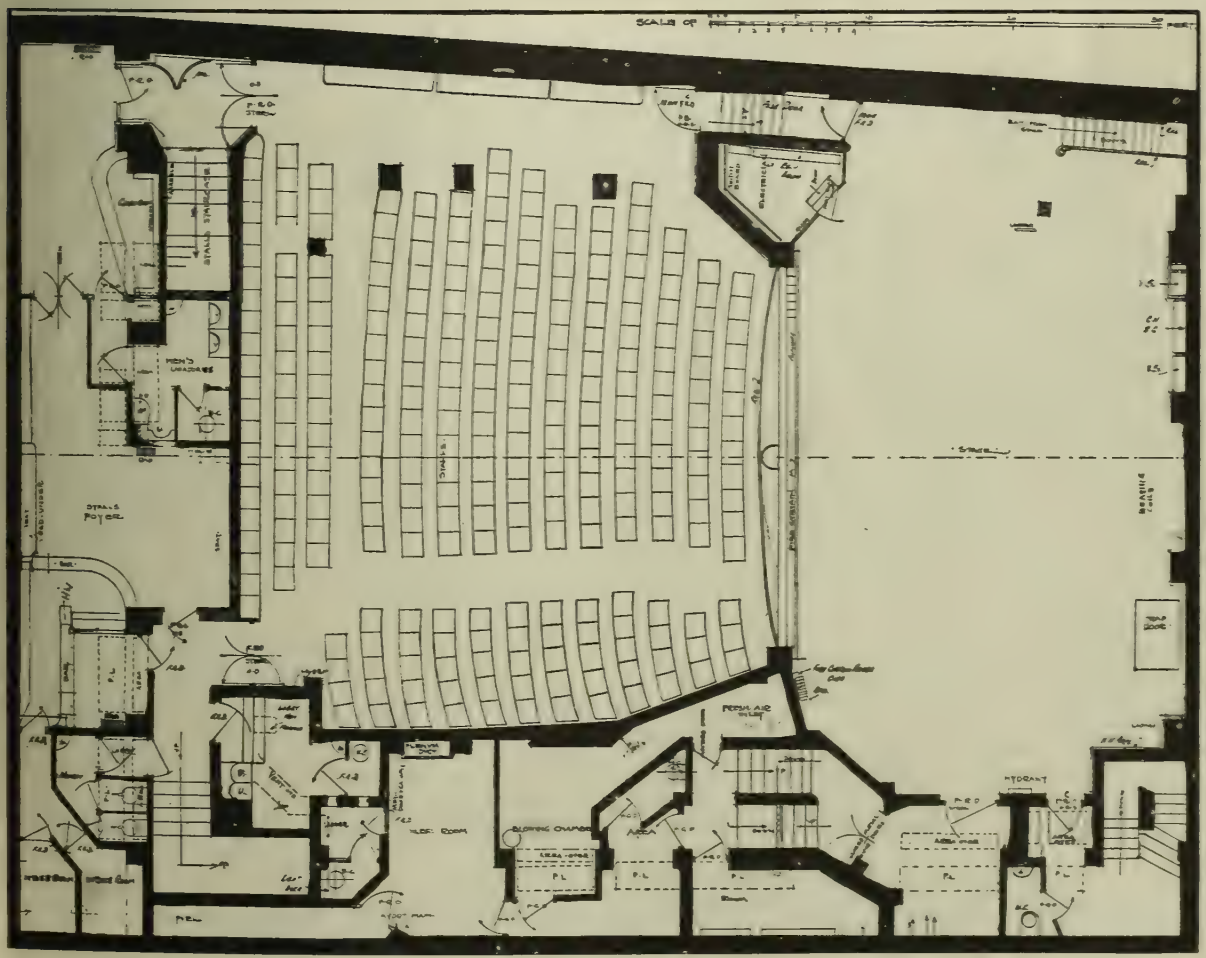
Burley (Leeds) Library Competition. Design placed first: By Mr. G. B. Howcroft.



The "Fortune" Theatre. Mr. E. Schaufelberg, Architect.

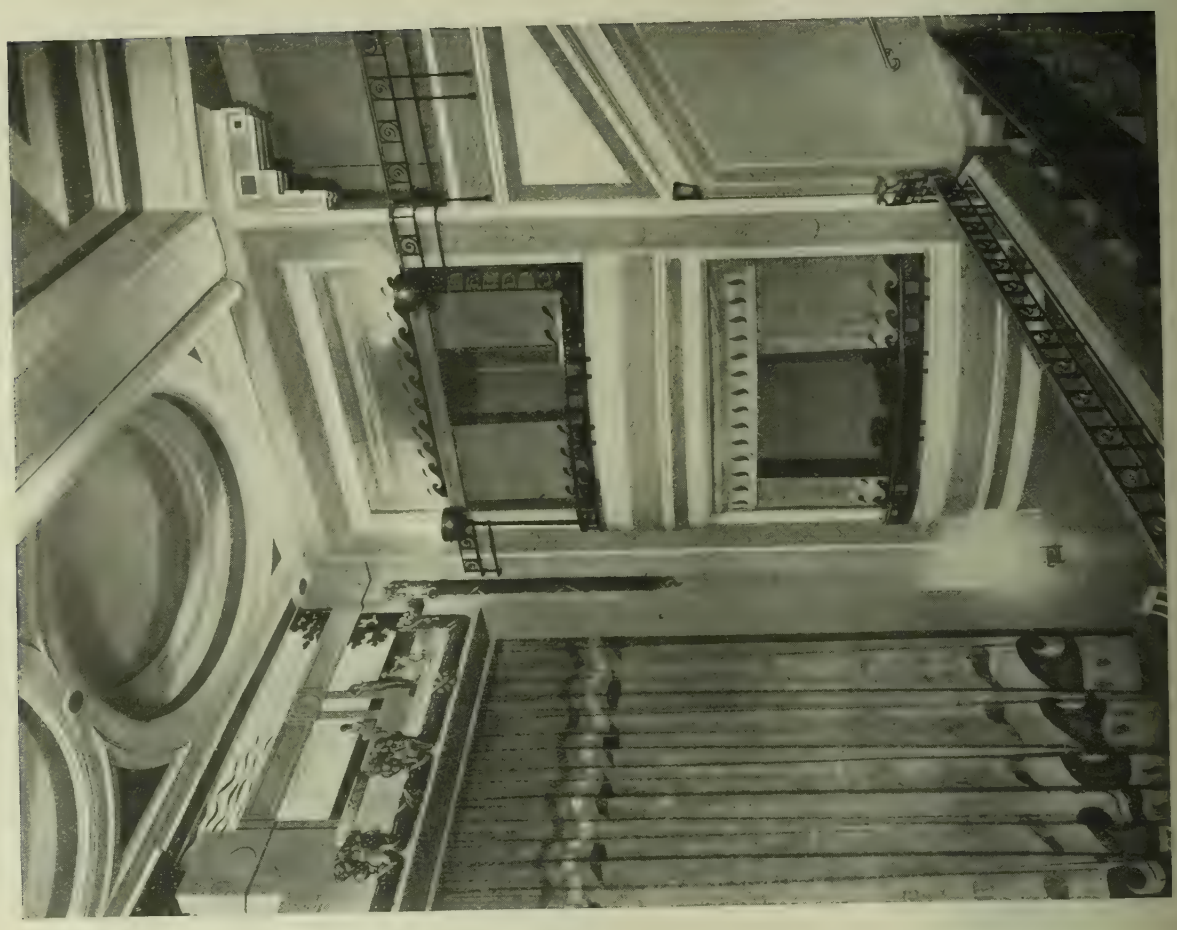


BALCONY PLAN.

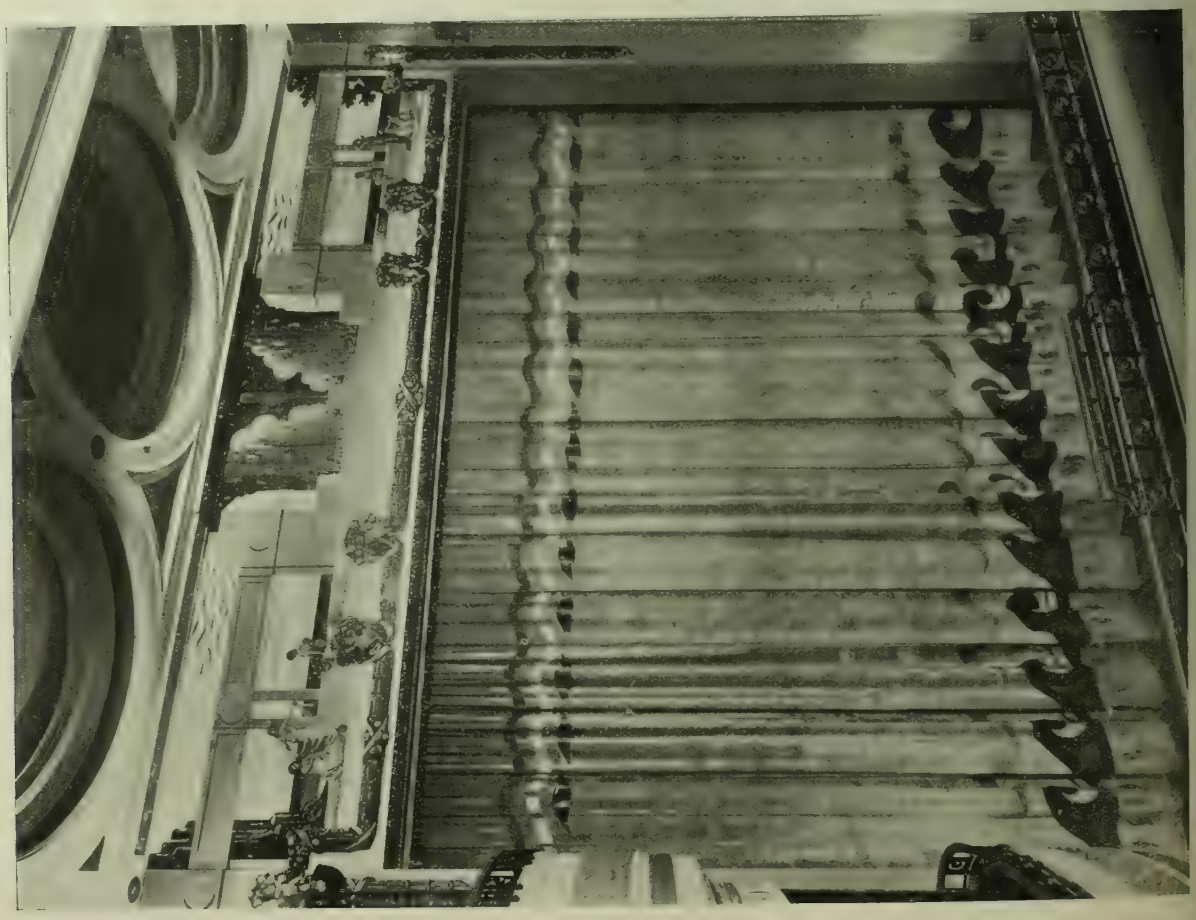


GROUND FLOOR PLAN.

The "Fortune" Theatre. MR. E. SCHAUFELBERG, Architect.



INTERIOR VIEW.



THE STAGE CURTAIN.

The "Fortune" Theatre. Mr. E. Schaufelberg, Architect.

BRITISH EMPIRE EXHIBITION

n April 23, His Majesty, accompanied by Majesty the Queen, inaugurated the open- of the British Empire Exhibition. Imagina- is baffled by the vastness of this exhibition, h is an honour to the enterprising spirit ne British race, and also to the capability ritish architects.

venty millions of pounds have been spent in Wembley's walls, where all the gates he Empire are to be found, from the ntic East to the progressive West, com- ng every part of the vast Commonwealth by the perseverance of an ingenious le. There exists a promise for the future the immense power of the British Empire contribute more and more to every branch ctivity of mankind; that the Empire is lagging behind other nations, but rather aking the lead, by new inventions, by k of spirit, and vigour and energy. This bition is really the Empire in miniature, it is a world-wide event, unique in history of industry and architecture.

aced between the Swedish Exhibition ch has been a revelation in the progress rchitecture) and the forthcoming Inter- nal Exhibition of Decorative Arts in s, 1925, which France is feverishly pre- g, Wembley is bound to attract the e scientific and artistic world's attention. immense amount of work has been ac- blished within a very short space of time, ne praise of the organisers and the chief itects, Sir J. W. Simpson and Mr. well Ayrton. We must understand that xhibition provides always an opportunity display not only of industrial products also of architectural beauties. In every bition there is that provisory part which emolished after the function has ceased, the part which is to remain permanent, e used on other occasions. Thus of the ering souvenirs of the International Paris bition of 1900, two gems of French archi- re remain, *i.e.*, the Pont Alexandre III, the Petit Palais. Wembley will suffer same fate. Parts will be demolished, e portions will show to the future genera- the achievements of contemporary archi- re. The gigantic Stadium reveals the ing conception necessary to meet a sport- need, and the Palace of Industry will be erpetual reminder of our architectural cities.

me of our young architects, burning with spirit of revolution in art, would have rred to see more accent in modernism. let us say, first of all, that a style in tecture is only created after painful and nuous efforts for years and years. Here re in a British Exhibition, and every- from the smallest product to the biggest ing must be British: industry as well as tecture. The architects have judicially oyed the correct amount of modernism e expression of a new material. Rein- l concrete has but little artistic past, we are sure that the representatives r dominions will recognise the Mother- by its architecture as actually ex- ed. What would have happened had it otherwise?

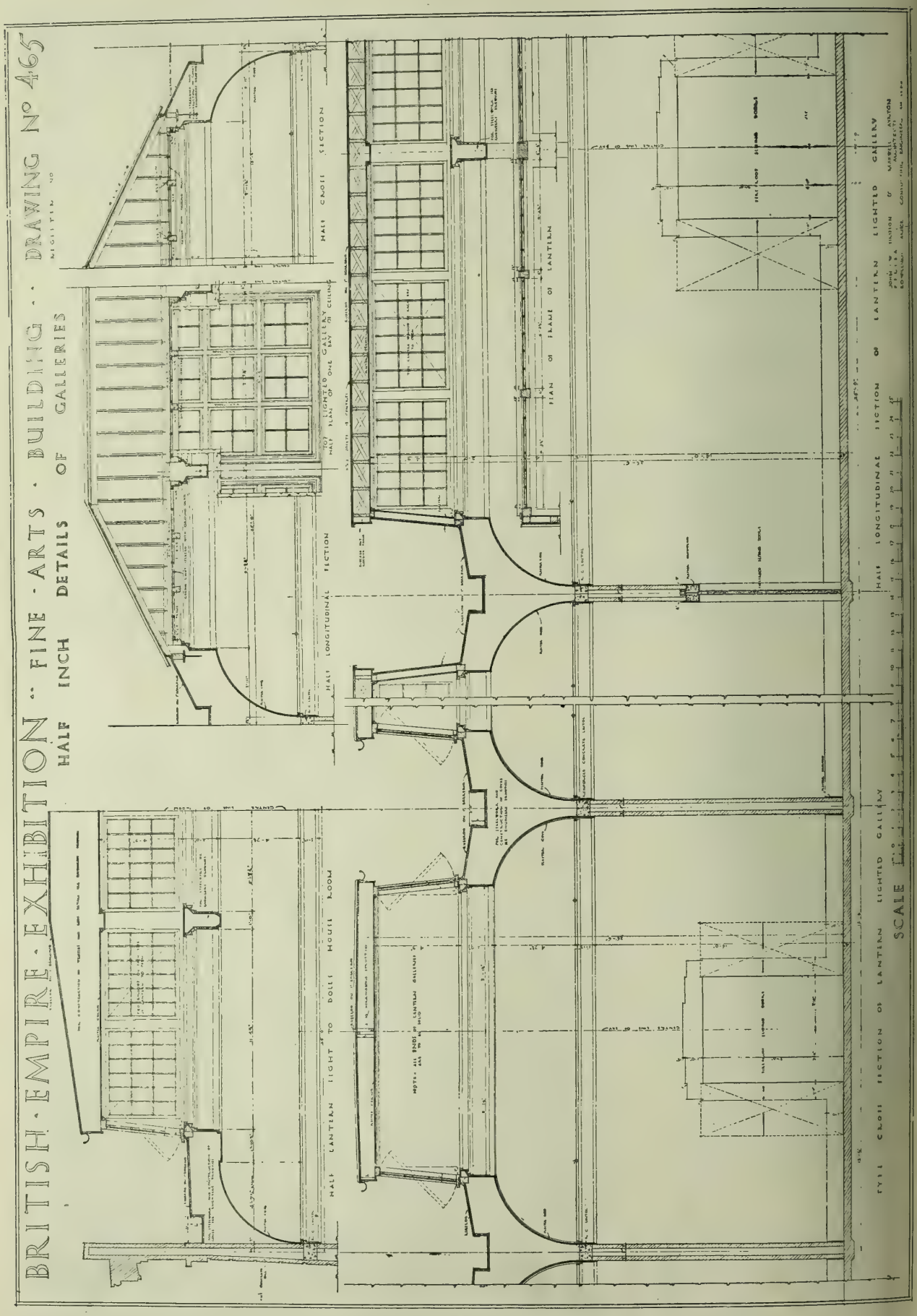
art from the artistic side of an exhibi- there is that most important factor, the cial side, which commands modern life, o a large extent the returns must justify xpense. Hence some forcible restrictions e expenditure with regard to architecture. bley has been chosen as the site for the ition on account of its easy accessibility. hundred and twenty-six stations in al London will be used by the flood of rs who will reach the exhibition in an ge of eighteen minutes. Tubes, trains, and trams converge to Wembley, and l wide motor-roads have been built so traffic congestion will be avoided. Two of land have been converted into a concrete courtyard with eight plat- where, on each, four buses will be simultaneously loaded and 100,000 passengers daily can alight. An inquiry office and inter- preters assist visitors in every way, and arrangements have been made so that during the busiest moments of the day 800 buses will run—each leaving at an interval of fifteen seconds. The general lay-out of the plan, covering a total area of about 220 acres, in spite of the difficulties of the site, is ex- cellent. Its monumental lines are impressive, harmonious and comprehensive, despite its vastness. The main access is from the north, close to the station, with a monumental avenue of about 250 ft. wide, leading to the chief decorative feature, the Stadium. This avenue is the main axis of the plan, bordered by the most important buildings, the Palace of Industry and the Palace of Engineering. The second axis, crossing perpendicularly the first, leads from the Indian Pavilion to New Zealand and is bordered by the Pavilions of Canada and Australia; so the principal features of the exhibition have been grouped, very correctly, round these two main axes. Facing the north entrance and commanding the central alley of the plan, the Lloyds Bank building stands, symbol of the power of capital in every industrial enterprise. Further on and beyond the lake, on the same axis, the *Times* building is to be found, another symbol of the importance of journalism in modern life. At this point we should express our regret that the latter building, being a feature in the centre of the main axis, and the perspective view of which will be enjoyed from the Stadium, on account of the difference of level, has not had its roofing more carefully studied.

The Palaces of Industry and Engineering are a gratifying evidence of the power of the greatest manufacturing country in the world, and it is very logical that the industrial sec- tion of the United Kingdom should occupy the two largest buildings, and in these two halls lies the proof that science and invention, working together, can produce wonders in this old country. No words can express the intense emotion that the constructive audacity of the builder conveys when we see the admirable perspective view of the interior of the Palace of Engineering, with its trusses of 75 ft. methodically and scientifically spaced. Sir Evan Williams is the engineer responsible for the whole of the constructional work. The Hall, by far larger than Trafalgar Square, covers 13 acres, and con- tains the latest engineering developments dealing with raw material, sea, land and motor transport and lighting. It contains a power station built by several firms, and a new and astonishing system of using elec- tricity. The shadows of Watt, Stephenson and Faraday will gloat over the scientific treasures contained in this building.

The Palace of Industry, with its reinforced concrete trusses, shows a very beautiful symbolic frieze painted in yellow and blue. And here we find what the inventive spirit of an architect can do, and how he can treat such an old thing as a column in a new way, with an evident inspiration from the lotus- shaped Egyptian columns. Here we find, too, how colour forms an integral part of architecture, and how the lesson which has been bequeathed to us by the Byzantines in decorating large surfaces of wall-space can be applied successfully to the areas that rein- forced concrete give us. The Palace of Industry gives accommodation to everything which is not included in the Engineering Section, including chemistry, both cotton and wool textiles, food specialities, soap and cigarette manufacturing, etc. The exteriors of these two buildings are expressed in a powerful way where the vertical lines of rein- forced concrete are accentuated by square pillars, carried still higher by flagstaffs which are supported by beautiful and dignified lions' heads. Going farther, always on the main avenue, and towards the Stadium, the visitor crosses a lake, spanned by highly pitched bridges and from which one has the finest view of the whole exhibition, towards the minarets and cupolas of the Indian section, carrying the mind back to far-off Eastern civilisations, and from which the mystic vision is completed by native boat-races on the lake. It is for this reason that the arches of the bridges have been built so high, and we find, on the other hand, that the slightly encumbered main avenue, either by accident of level or of small buildings or kiosks, breaks the monotony of the perspective view, and helps to conceal agreeable surprises which the visitor is always pleased to discover. From the same bridges one enjoys the sight of a noticeable kiosk which has a peculiar covering of curved glass. The two central bridges lead to the Stadium, while the others, on the left and right respectively, lead to the Canadian and Australian Pavilions. The former abounds in rich details, while the latter (of which Mr. Oakshott is the archi- tect) is remarkable for its large bays



British Empire Exhibition: H.M. Government Building.



Messrs. Simpson and Ayrton, F.F.R.I.B.A., Architects.

nd includes a pavilion and a cinema
heatre, the whole covering a total area
f approximately five and a half acres.
bright frieze shows the natural wealth
hich has contributed to the prosperity
f the Dominion. These two Dominions give
display of their agricultural products,
ining, sheep-raising, farming, forestry, fur
dustry and fishery. The Stadium is the
rgest existing in the world, with a seating
pacity for 120,000 people. Its largest
mensions are roughly 900 by 620 ft.
cidentally, it may be mentioned that
orts grounds are planned from north to south
avoid players having the disadvantage
the sun, and this has been done since
e time of the Curiaces. Restaurants and
a-rooms are provided, the latter with a
odern decoration of gold, red and black.
he planning and organisation of the Stadium,
hich is a very difficult architectural problem,
d which needs a special description, has been
ccessfully thought out. The two strong
wers, terrace and reinforced concrete arches
ve to the elevation its peculiar expression.
To the left of the second main axis of the
an comes India (Mr. White Allens, archi-
ct). In a series of courts India is exhibit-
g the bewildering resources of ten large and
enty smaller provinces and states, each
ving a special section. With its white
alls, its minarets and domes, and the interior
untains and pool, this pavilion is invested
th a subtle oriental mysticism and suddenly
ansfers the visitor from the activity of the
estern pavilions to the agreeable exotic rest-
lness of Eastern life.
It has often been stated that this building
modelled on the Taj Mahal, designed by
a-Mohamnad, and many newspapers have
llen into this error. A rectification is neces-
ry, as the general lines of the building belong
the sixteenth-century Mogul architecture.
he main entrance is closely related to the
osque of Futtipore-Sikri. (Mussulman
dian architecture is characterised by two
stinct periods, the one preceding the Mogul
a and where the influence of the Jaina style
edominates, and the one which follows,
hich is of Persian influence, and which
ained its most flourishing period under
mperor Akbar.)
Close to India, Burma lies. Here are the
arters where the East is in full swing.
st Africa, Nigeria, the Gold Coast, Ber-
uda, Palestine, Cyprus and Malta are
uped together, and their neighbours across
bridges over the railway track are Ceylon,
ng-Kong and the West Indies. Burma is



British Empire Exhibition: Ceylon Pavilion.

by far the most artistic section. Here we find art for art's sake, and many a lesson could be learnt by studying the Burmese artistic traditions, the origin of which is lost in the mists of antiquity. The exquisite native temples, with their graceful spires, from which little bells tinkle at every breath of wind, evoke the melancholy and serene atmosphere of a far-distant Buddhist retreat. This corner is one of the most picturesque sections of the exhibition, with its souvenirs of Mandalay and the Arakan Pagoda; and what beauty is to be found in that wonderful and gorgeous shrine of carved teak! The high golden votive pillar within the Burmese enclosure and its banner of gold and white, and the two prayer-calling bells, enhance the architectural effect and complete the vision.

Close by, West Africa, with a walled city of more than three acres, wherein are found the pavilions of Nigeria, Gold Coast and Sierra Leone, displays a mud village throbbing with native life. The plain walls, without mouldings, and of most successful colouring, are pierced here and there, showing that the interest is to be found within the walls, where covered ways and picturesque huts will carry the visitor back to life amidst primitive tribes.

The East African Pavilion offers an example of exotic architecture with white walls and green painted woodwork. The contrast of voids and solids is most pleasant and the proportions very successful. Round a square courtyard busy Oriental bazaars display their attractive wares. Nothing has been omitted. Kenya, Uganda, Zanzibar, Nyassaland, the Sudan, with the Dam of Assouan, are all present.

Across the South Bridge we reach Ceylon, with its wide open portico flanked at both extremities by circular towers, the pointed roofs of which are supported by small columns. The horizontal lines are predominant in this building and curiously worked out. A close neighbour is Hong-Kong, with its green roof and picturesque inscriptions, banners, and streets thronged with busy Chinese shops and shoppers in their native dress, contrasting vividly with the red and black painted bamboo trusses.

Facing the gardens which precede the Ceylon Pavilion, West Indies and British Guiana lie, with their Colonial architecture, and comprise Jamaica, Trinidad, Barbados, the Bahamas and Falkland Islands.

The British Government Pavilion, guarded by huge lions, is approached by an old gate and is situated on the longitudinal axis of the Canada Pavilion. It would be difficult to describe the charm of the mediæval archway with its harmoniously shaded bluish slates and pointed towers surmounted by dovecots. The shops, preceded by two long colonnades, in reinforced concrete columns, are bound to interest visitors on their way to the British Government Pavilion. Expressive, significant and impressive, representing the power and strength of the whole Empire, the architecture is in keeping with the Palaces of Engineering and Industry. It includes a court of honour surrounded by galleries and a panorama, while four staircases lead to the upper floor. Newfoundland lies close by, and with its delicate architecture evokes the charm of the seventeenth-century French style.

The Union of South Africa has its pavilion next to the Stadium and near the railway track. Everything which contributes to its wealth, the fertility of the soil, as well as its industrial capacity, is suggested in a pavilion built in the old Dutch fashion, with a huge red-tiled roof, the entrance feature reproducing, on a larger scale, Groot Constantia. A powerful effigy of Van Riebeck, the first Dutch colonist, surmounts the central motif. Here artists are enabled to see the famous blue clay of Kimberley, and a beautiful display of gold quartz from the Reef. Here, too, one may peep at the Veldt, teeming with its animal population, and a Zulu village, complete with a royal kraal in the centre. The organisation of an ostrich farm, with a paddock and pens for sheep and goats, will attract architects interested in country architecture.

The decoration of luxurious sleeping railway-cars and dining saloons is another interesting feature. Malaya lies on the longitudinal axis of Australia, showing graceful yellow-striped minarets and an elegant dome. An open courtyard leads to the entrance, and here we have



British Empire Exhibition: Bridge across the Great Lake.

a vividly coloured specimen of adapted Musulman architecture

New Zealand, facing India beyond the ornamental lake, is a British adaptation of Italian Renaissance. Remarkable carved panels crown the colonnades of the two wings, and the interior is certainly very fine. Original carved frames round the doors and friezes running along the walls contribute to the general effect. An Art Gallery where the latest theory on top-side lighting has been applied should prove of great interest to architects and others. Maori and Samoan huts accompany this building, where agriculture and marine exhibits show the activities of the overseas Dominion.

The Palace of Arts, behind the Palace of Industry, and close to the Conference Hall, shows another method of lighting art galleries. This, too, will be of interest to architects. The walls are covered with a dark, bluish-grey canvas, which absorbs all light and thus avoids reflection. The entrance hall has a fine red-and-black decolite floor. A beautiful basilica, where blue tones predominate, is a most attractive feature attached to the Palace of Arts, and lovers of artistic lettering will find therein splendid examples—executed by members of the Society of Scribes, one of whom, Miss Spooler, shows a beautifully transcribed "Ten Commandmants" on a goatskin. There is a stone inscription by Mr. Laurence Christie, and Mr. Johnston exhibits some of his work. Enthusiasts of English architecture will certainly admire a delightful nineteenth-century-period room by Professor A. E. Richardson.

The conference and concert hall has been built with all the scientific requirements that acoustics demand. Mr. Sutherland, of University College, has been the specialist consulted on the matter, and here again architects will be interested in the way sounds from the stage are reflected upon the auditorium.

The amusement park is an important section of the Exhibition, and occupies fifty acres. All modern thrills and delights are provided, including jazzing motor-cars, a giant switchback, and the biggest scenic railway ever constructed. Minute precautions have been taken for the safety of the public, and the construction of this park is a technical puzzle.

The largest bandstand ever erected, with a seating accommodation for 10,000 people, and carefully designed so as to throw the sound in every direction, has a square check-pattern modern decoration. Near the bandstand huge restaurants will cater for the public. An immense modern painted frieze, by Mr. Oliver Bernard, is the main exterior embellishment.

Every architect has not the good fortune to attach his name to such a work as Wembley, but every architect surely will find a source of profit from the profusion of subjects treated. Wembley, itself a small world, stands before the world as an example of the courage and progress of the race.



British Empire Exhibition: South Africa Pavilion.

COLOUR IN ARCHITECTURE.

In a recent lecture at the Central School of Arts and Crafts, Sir Banister Fletcher discussed the further development of architectural style which was consequent on the removal of the capital of the Roman Empire by Constantine in A.D. 324, from Rome to the old Greek colony Byzantium, which he re-named Constantinople, and to which the Turks gave the name of "New Rome." This daring change was made largely from commercial considerations, and it indicated not only the progressive commerce of those days but also the foresight and enterprise of the first Christian Emperor, which secured for him the title of "Constantine the Great."

Constantine had established Christianity as the State religion in A.D. 323, and it was only in accordance with human nature that differences and disputes should arise, and Constantinople was ready to take the lead of one division of the Church when, later, it was divided. A basilican church was there erected by Constantine, and this site was afterwards selected by the great building Emperor, Justinian, for his great church of the "Hagia Sophia," or Divine Wisdom. Roman tradition, Greek talent, and Oriental surroundings combined to develop a curiously clever compound of architectural character, which was now known as Byzantine. It was a compromise between the Roman science of construction and the accepted Eastern methods of domical building. Certain aspects of Eastern Christianity also contributed modifications to the plan, for in the East there was only one altar, in great contrast to the many altars of the Roman church. This sanctuary was jealously cut off from the rest of the church by a huge iconostasis or painted screen. Here again the East differed from the West; in the former which dreaded idolatry, no carved figure was permitted, and so it came about that coloured marbles and glowing mosaics were used to sheath the walls both within and without. This one and only altar, and a use of a central dome, together made a great central space more natural than long-drawn nave and aisles of basilican type. The great new feature was the use of a circular dome brought by means of pendentives in the angles to a square plan, and it was this dome which made the main tendency of Byzantine architecture vertical in effect.

Housing Progress in Scotland.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to March 31, 1924:—

	Completed.	Under Construction
1919 Act	23,929	2,962
Private Subsidy Schemes	2,324	—
Slum Clearance Schemes	412	1,199
1923 Act.....	57	2,280
	26,722	6,441

Of the total number of houses completed and under construction under the 1923 Act, 832 are by the local authorities and 1,505 by private enterprise.



Australia Pavilion.

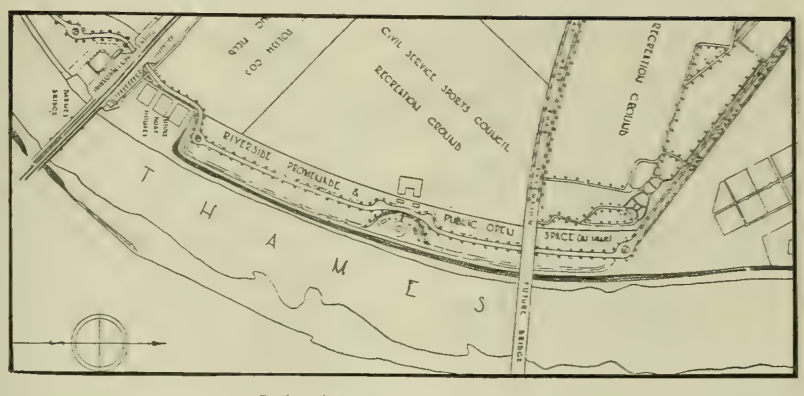


East Africa Pavilion.

British Empire Exhibition.

HISWICK RIVERSIDE PROMENADE

HE accompanying plan and bird's-eye view us by the Surveyor to the Council for wick, Mr. Edward Willis, were a few since issued for the information of the s and for publication. As nearly as can scertained from these draughts the work esented as being "already in hand" is laid on the lines designed by Mr. A. B. tt, who was awarded the first premium he banned competition held last year n all members of the Royal Institute ritish Architects were precluded from sub- ing designs. The result certainly justified unified action of the Institute and as this ue, seems identical with the winning which will be found illustrated in *The ler* for November 2 last, we can only to our critical objections on that occasion. impartial remarks then made are still y warranted and cannot be wisely ignored. omparing the outline plan herewith repro- l with the original drawings, and also our wer's remarks in regard thereto, on page of our last volume, the reader will be en- l to follow precisely the points still open question. The only essential difference een the present proposal and Mr. tt's design is that now a high level road, ing seemingly from nowhere in particular, tangent off Burlington Lane wide of Chis- Station, at Grove Park, here crosses the hore over the gardens and promenade ding on to a high projected bridge span- the Thames. This incongruity will com- ly cut off the view up stream westwards, lso shut out of sight the Oxford and Cam- e Boat Race from the crowds assembled e promenade situate to the east or right- of this obstruction. The Barnes railway e at the other extremity is unavoidable, hy a similar obstacle should be thus incon- ately introduced to spoil the unique ex- e of this uninterrupted river walk is inex- ble, seeing that the road and bridge might well have been located a little farther to ast on the confines of the sewage works nd the length of this promenade, which w to be made lobsided with horrid ws and interference with sunshine, so tial for both flowers and visitors, to say ng of the sightseers every Lent. Another e appears more or less apparent judging the bird's-eye sketch, which shows a wide ped foreshore pitchered with rubble and ed by a flight of steps in front of the band- , as proposed by Mr. Elliott. On the before us this battered frontage assumes more the dimensions of a somewhat ally inclined wall, but the steps are left A good solid wall we reckon essential e a durable foundation on the sand or mud fit for a solid stadium's construction led to hold vast moving crowds, and for keep of the pleasure-grounds, too, besides g to hold back the tidal waters and tides' pressure. The tennis grounds at ar are still to be provided and the band- of course, but behind that, and rather as g apart, there has been introduced a big ned structure, possibly an assembly or



Chiswick Meadow Lay-out.

club house, perhaps a sort of casino, which was cut out from the competition in the revised conditions. Whatever it may be the edifice is set down in the bird's-eye picture regardless of the main perspective set out of the whole thing, by delimitating it to a different scale and entirely different manner, making a most unworkmanlike performance. The Boat Race crowd still appears to be left free to obtain unhindered the full run of the entire premises regardless of annual damage to the parklike environments of the scheme, which will be trampled down by a stadium throng of excited outsiders, the greater part arriving by trains and cars to the discomfort of residents and ratepayers.

THE STRAND AND THE ADELPHI

MR. J. SLATER lectured recently before the London Society on this subject. Sir Aston Webb presided.

In the course of his remarks Mr. Slater said that the topographical history of the city of London could only be dealt with piecemeal. London was an agglomeration of many individual units, and the more they studied those units, each with its own separate idiosyncrasies, and traced their growth and development and final absorption in the huge London that they now knew, the deeper and wider became their interest.

The Strand was originally, as its name implied, simply the river bank, from which the foreshore sloped down to the lapping waters of the Thames. In those days the river was the great highway, and the road, so badly was it kept up, was nothing but a by-way. In 1353 the roadway was well nigh impassable, so deep and muddy was it, and it was not till the end of the fourteenth century that there were any dwelling-houses there. The first mention of any building of importance occurred in the reign of Henry III, when the Hospital or Chapel of St. Mary Rouncivale was founded. In the same king's reign Peter of Savoy received a grant of a considerable portion of land on the Thames in the way called the Strand, and here the first Savoy Palace was built.

The original area on the south side of the Strand was occupied by the Inns, as they were called, of the various bishops: Exeter, Chester, Llandaff, Lichfield, Durham and others had their palaces there. In Arundel House the Earl of Arundel collected a number of works of art from Greece and Rome, but those statues soon ceased to be properly cared for and became miserably neglected. Three of the lanes still leading out of the Strand were of great antiquity—Milford-lane, Strand-lane, with its old Roman Bath, and Ivy Bridge-lane.

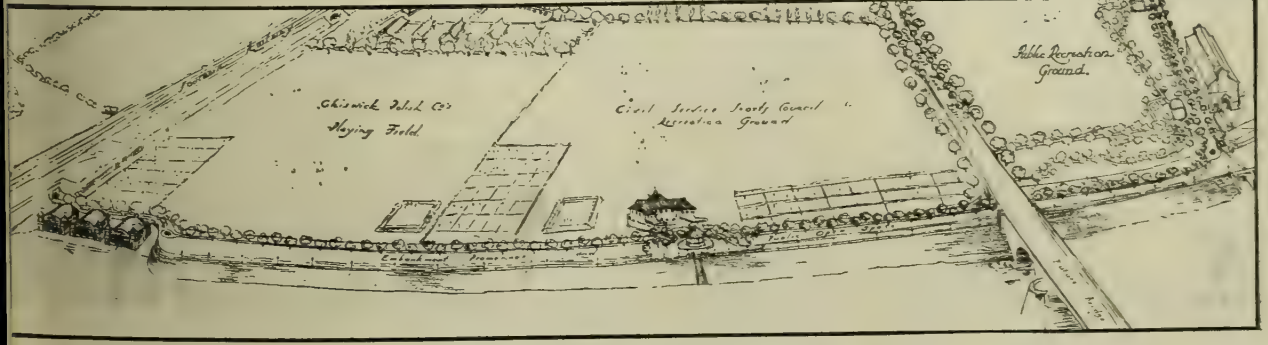
Somerset House was one of the principal mansions built there, the original Palace dating from 1549. Durham House had many interesting associations with it. Sir Walter Raleigh occupied the mansion for about 20 years York House was built on the site of the present Charing Cross Station, and was occupied by George Villiers, Duke of Buckingham; in 1672 the Duke sold the whole site to some speculators who developed it, and commemorated in the streets they laid out the names and titles of the Duke with an amazing thoroughness. They found George-street, Villiers-street, Duke-street, Buckingham-street and Of-alley.

The house of the Society of Arts, in which they were now assembled, was built by the brothers Adam for the Society in 1772 The brothers Adam left their mark, not only in the Adelphi, with which their names will always be associated, but in many other parts of London. There still existed, spanning what is now Durham House-street, a charming little bridge connecting the two buildings on each side which used to belong to Coutts, the banker.

Mr. Slater concluded by expressing the hope that the London Society, which was doing yeoman service for them in rousing the public interest in the City, in preserving what was old, but not worn out, would succeed in ensuring the New London should be worthy the dignified traditions of the Old London, and merit the words of eulogy addressed to the London of the past by William Dunbar, the Scottish rhymer, who wrote four hundred years ago:—

"O toune of tounes, patone without compare,
London, thou art the floure of cities all."

At the conclusion a vote of thanks was passed to the lecturer.



Chiswick Riverside Promenade.

TOWN-PLANNING INSTITUTE

Mr. W. T. Lancashire (City Surveyor, Leeds) presided over the last meeting of the Town-Planning Institute, held at 92, Victoria-street, S.W., when Mr. F. M. Elgood gave the second portion of his paper on "Buildings and Building Lines, including Zoning" (as defined in the Model Town-Planning Clauses issued by the Ministry of Health), and was followed by Mr. Parker Morris (Town Clerk of Macclesfield) with a paper on the same subject.

Mr. Elgood, on the subject of height of buildings, said he was not sure that in most schemes a great deal more consideration might not usefully be given to height zoning, not alone for the purpose of ensuring sanitary convenience, and a sufficiency of light and air, but for architectural and natural effects; it should be possible to make stipulations in specific and limited instances which would not outstep the bounds of reasonableness and would not, therefore, provoke claims for compensation. The provisions of Model Clause 31, dealing with the space within the curtilage of buildings which might be covered by buildings, gave ample scope for reasonable treatment of various cases. Easier conditions were allowed in the case of buildings existing before the scheme was initiated, when alterations were made in their extent; but this might operate hardly in some cases and unequally in many. Take, for instance, an industrial building having a curtilage area of 900 sq. yds. with a building area of 700 sq. yds., and a height of over 30 ft.; although the building already exceeded the two-thirds proportion allowed for new industrial buildings, yet under the Clause it would be permitted to extend its area by 20 per cent., making it 840 sq. yds. out of a total curtilage area of 900 sq. yds., which was a proportion of more than eight-ninths. Granted that some latitude ought in fairness to be given to existing buildings, without some limit of proportion, and, if the cases were at all numerous, it might nullify the advantages of the Clause in some areas. Besides, it would form a bad precedent to a Council who might be asked to exercise their powers under the proviso (a) of the clause, in the case of an industrial building side by side with the last, having a similar curtilage area of 900 sq. yds., but a building area already covered of only 500 sq. yds. Here without the consent of the Council the building area could only be increased to 600 sq. yds. It seemed to him it would be fairer and better to omit the second paragraph of the Clause altogether, relying upon a Council's discretion under the proviso specified. Was there, possibly, some subtle distinction between the words "a building whose erection is commenced before" and "a building erected before"? Only seven lines separated these two phrases, and one was left wondering. It was significant that in the four cases in which a Council could at their discretion vary the ordinary proportion between curtilage and building area, in none was there any appeal against its decisions.

Building lines were dealt with in the Model Clauses in three divisions, viz.: (1) building lines for streets shown on the Map; (2) building lines for new streets not shown on the Map; and (3) building lines for existing streets where the line was not shown on the Map. It was assumed that normally building lines should be shown and figured on all streets shown on the Map. Whether division (3) above was to provide for accidental omission, or whether it might be thought that owing to varying conditions in the same street it was not practicable to determine the line when the scheme was made, it seemed likely that in not doing so a Council was only postponing, if not actually increasing its difficulty. The question of a possible claim for compensation, if the line were fixed and shown on the Map, might be a consideration in deciding this point, as a Council might be less willing to incur the risk to begin with than when building actually took place and the occasion arose to fix the line. If the determining of the building line was postponed until plans for a building were submitted, notices would have to be given to all owners of land concerned, and attention was drawn thereby more prominently, not only to the effect of the building line, but to the rights which were specifically given under Model Clause 57 to owners then to claim compensation. On this question of compensation for injury due to the fixing of building lines, there was no advantage in dwelling in the clouds. Although it was originally believed that the subject fell within the exceptions mentioned in Section 59 (2) of the Act of 1909, and that provided the Ministry certified the building lines as being reasonable no case for compensation could arise, this appeared now not to be so, as it was not covered by the words "which prescribe the space about buildings." Apart from the importance of securing ample space between buildings on opposite sides of streets for the purpose of admitting freely light and air, there were at least two other vital factors to be considered, viz., provision for future road-widening and æsthetic effect. In all cases, too, the subject deserved serious thought in connection with height zoning.

Mr. Morris said he was glad that great stress had been laid on the importance of density and character zoning, for what other aspect of town planning affected the individual to the same extent? The Model Clauses relating to zoning had certainly been drafted with some aim at simplicity, but he was inclined to think they would have been more intelligible had they followed the natural sequence of events and did not put the cart so frequently before the horse. Clause 20, which contained the procedure for determining the extent of land units, to his mind tended to make complicated what could be stated quite simply. The phraseology of the clause was not too fortunate and there was no necessity for using the long-winded phrase, "any road dedicated to the public." Why not use the term "highway"? Mr. Elgood had pointed out that whilst there was a definite provision prohibiting the erection of dwelling-houses and residential buildings on land not included in the land unit there was no similar provision affecting the erection of any other types of building. Unless the Clause was extended to include all buildings it was possible that a non-residential building, the plan of which had been approved under the by-laws, might be commenced without the land unit being defined and when the land unit was defined it might conceivably be found that the building might represent more building units than were allowed by the scheme to be on the land unit. Furthermore, if the building happened to be erected for the purposes of a railway, canal, &c., no building plan would be submitted and no land unit could ever be presented under Clause 20 as it was now drawn. Were such buildings intended to be above the law? The draftsmen of the Model Clause Table had failed to appreciate that a scheme must be easily intelligible to the man in the street. To say whether any particular building could be erected in an area he would have to convert the negative form of the Model Clause Table into a positive form. The table of Mr. Elgood was much bolder than that of the Model. It showed a special residential zone which could never be defiled by any industrial buildings, and again it showed a special industrial zone in which dwelling-houses and most public buildings were prohibited. There might be some danger in excessive rigidity, but there was very serious danger in leaving too much discretion with a local authority, as unless the technical official had a strong hold of his committee he foresaw many buildings being erected in a residential area which should not be there. Touching on the clauses dealing with appeals Mr. Morris favoured appeals going to the magistrates with a further appeal to Quarter Sessions. Professor Abercrombie and Professor Adshead had expressed disapproval of supplementary zoning by any easy method on the ground that important amendments might be made in a scheme without them being thoroughly considered. That amendments were very easily suggested w evidenced by the fact that in the last two months two amendments had been suggest in the Chesterfield scheme, which covered onl small area. He suggested it was better rely in the case of small amendments on power of the Ministry of Health to dispe with some of the Procedure Regulations t adopt the system of Supplementary Zon Orders. In the case of the Chesterfield Or no claims were made for injurious affect caused by the building line clauses. Accord to the decision in the case of Ellis *v.* Ruis Northwood Urban District Council a provis in a scheme which prescribed a building l by reference, for example, to a line on the m might, if it injuriously affected the value o man's property, give rise to a claim for co pensation. But, if he interpreted the decis correctly, a provision in the common form o building by-law dealing with the sufficiency the space about buildings which stated that building should be erected nearer to the cen or side of a street than a certain distance wo not give rise to a claim for compensation, pr ded the Minister considered such a provis to be reasonable.

Mr. Raymond Unwin, as connected with Ministry of Health, thanked Mr. Elgood Mr. Morris for their fair and construc criticism of the Model Clauses, and said t suggestions would receive consideration f those able to deal with them from the l point of view. With regard to the critici made at the previous meeting, it was not intention of those who framed the clause tie up the development of a city with dead land. What they were really trying t was to give the living expert a chance f time to time of putting finishing touches to work he had begun. He himself was q convinced of the necessity of completin stages. In the case of the Ruislip scheme planning was complete before town plan was carried through, and it was possibl allocate in detail with safety. That, how could not be done in the case of many of large schemes before them to-day. To pr a town the scheme had to be cast wide, they must complete the details as they along. He would press that as regarded sch they should take a middle line, and confidence in the local authorities. P should not be given to the expert at the he made the first plan to tie the thing up leave no one the power to untie it excep means of a new scheme; but they should to the local authority having regular e advice so that supplementary work would be carried out except on good and well tho out lines.

Mr. T. Alwyn Lloyd pointed out the nece for zoning in regard to the height of resid buildings. Nowadays they saw a tremen development in bungalow building, and whole character of areas was changing for reason, and in cases where there were no s regulations the most unfortunate results tecturally were being obtained. He a with Mr. Raymond Unwin as to the nec of completing sections of their developm stages.

The discussion was continued by Mr. Rimmer, Mr. L. M. Jopling, Mr. G. L. P and Mr. F. L. Thomson.

The Chairman expressed approval gen of the Clause, and said that whilst they all glad that so few alterations had been necessary in the Ruislip scheme, yet i obvious that large industrial cities like required totally different treatment. Mr cashire gave the figures of Leeds, whic tained 33,000 back-to-back houses of forbidden as far back as 1876. Industri town like Leeds changed constantly, and clothing factories used to be lofty bu the more recent buildings erected wer floor only. On the housing sites of Leed encouraged factories for light industries. were clean, and there was no object trains. The time of the people was and congestion in the centre of the relieved.

THE ARCHITECTS' AND SURVEYORS' ASSISTANTS' PROFESSIONAL UNION

HE third of a series of four lectures arranged ler the auspices of the Architects' and Sur- ors' Assistants' Professional Union was held he Building Exhibition, Olympia, on April 23. n address was given by Mr. H. V. Lanchester, .I.B.A., Past President of the Town-Plan- Institute, on "Traffic and the Roads." he course of his remarks he said considering r English roads, whether from the point of v of the motorist or others using them, it le for clearness to begin with the briefest ible summary of their history.

he earliest tracks they could trace were those he Neolithic period, when the tribes at that e occupying the land determined the best es by which to move their flocks from one ure to another. The lower grounds seemed ave been densely wooded and the habitation redatory beasts, so that they found those ls taking the shortest lines across valleys following escarpments and hill tops. Where natural formation failed to make the line ious guidance appeared to have been rded by natural or artificial landmarks. se routes were retained for trade and war, served the early agricultural developments re the advent of the Romans. They were, hey knew, distributed in accordance with the of the land at that time, leaving large dis- ts untouched as inappropriate to the activi- of that stage of civilisation. When the nans took up the great work of organising country in accordance with their political em, they planned an entirely new system of ed roads, primarily for the movement of ps, but at the same time so complete as to be e than adequate to other requirements. As were aware, those roads were fairly direct their general alignment, and with a few ptions absolutely straight from camp to p, and placed a day's march (about 20 miles) rt. A map indicating all the known roads red the country well served with routes most ully planned except from one point of view, of much more importance than then, namely, of gradient, which was obviously a minor ideration with so little wheeled traffic. le many of those roads had remained anently employed, large sections of the an scheme had gone out of use, and could raced only by fragments to be found here there. This abandonment was not con- ed with any unsuitability in the roads, but as due to the dismemberment of Britain r the Saxons and its only partial re- gration under the Feudal system. Not until r times did they recover anything resem- the unity of control exercised by the Ro- s, and even then nothing equivalent to their ency in sustained organisation. Of course increasing population and production the try became covered with a network of es, but many of those were only pack horse , and the art of road-making having lapsed routes were often in a hopeless state where al conditions were unfavourable.

the early days of wheeled traffic this became finitely the case that very circuitous routes to be taken in bad weather, sometimes in- ng detours more than doubling the distance een one town and another. Stone sets were employed in the cities and no other effi- mode of road-making being known, roads d ground soon got so cut up as to become ssable. Where the ground was open les struck out new tracks until the old had ered, and they found at places very wide sometimes subsequently narrowed by es. A number of experiments in road ing carried on for about a century finally allised in the definite specification of dam, and a reliable surface capable of ing the increasing wheeled traffic came into al use. With easier and more comfortable it, travel increased rapidly, and immense er of coaches and post chaises sped along their main roads. New roads and improvements in alignment were found necessary, and towards the end of the eighteenth century an era of road building set in which lasted till the advent of the railway.

Macadam, Telford and other leading engineers were engaged on the work, and the return for the capital was provided by means of tolls. The primitive type of gate, the turnpike, gave the name to them, and the period during which those roads were built had been termed the turnpike age. In the midst of this activity the railroad and steam engine came on the scene and after a few years of incredulity everyone became convinced that the day of the road was over. Roads ceased to be a profitable investment for capital, which was promptly transferred to rail enterprises. Not only this, but on the railroads securing popular favour railway schemes were often laid out in a manner detrimental to future road development, particularly in the neighbourhood of the towns. Outside the towns things remained in this position until towards the end of the nineteenth century, when the development of the combustion engine as the driving power for road vehicles brought the road into enormously increased use, and demanded a reconsideration of the problems of road planning and construction. The first problem to arise, that of dust, was not a new one. In coaching days the Bath-road was kept watered from end to end, but a better solution was now found, and without recapitulating the recent history of road-making, it would suffice to affirm that they could now form roads physically and economically suitable for motor traffic.

In regard to town roads, the eighteenth century provided them with good schemes and spacious roads, and much of their subsequent deterioration, including encroachments, took place in early Victorian times when the railway filled the public eye. The road plan of London south of the Thames dated from that period, and Great Dover-street was a good example of a by-pass road. Edinburgh and Bath might also be quoted as notable examples, but many of their smaller towns retained their mediæval plans, and not even then at their original standard, market places having been filled in with buildings and the roads having suffered from gradual encroachments particularly near the busy centres.

Their future roads were now being dealt with by two methods. Road systems were being framed under town planning, or more comprehensively, under regional-planning schemes, while large arterial roads were being planned and constructed to connect towns at a considerable distance from each other.

In the first case a careful study had to be made of the existing roads, their use, their adequacy and their connections. The trend of development had also to receive consideration and the new road pattern built up on those factors, providing for the relief of overcharged routes, safety at junction points and a free movement of traffic between industrial and residential areas, so that the business of the district might be carried on without the handicap of inadequate communications.

In the second case the determining factor was mainly the economics of transport, whether a road service could operate advantageously as against the existing railway facilities. Per ton mile the road was at a disadvantage but this might be outbalanced by economics in transhipment and terminal collection and delivery. For the shorter distances and for some classes of goods the case for the roads might be regarded as established, but for 100 miles and over it was possible that further investigations were needed before such roads could be justified on economic grounds. Undoubtedly a good case could be made out at the moment, but the railways were short of plant, and it was also questionable if they were working at a maximum of efficiency and a maximum of profit, as they might be capable of doing in competition with an alternative means of transport.

In regard to traffic congestion in their great cities, motor transport had at least doubled the capacity of their streets, and, if all the traffic could be carried on at the uniform higher speed of the motor, there would be a still further gain. The abolition of the horse-drawn vehicle had been frequently advocated, and though this must take place sooner or later, it was still felt that too great a hardship to certain classes of business would result from it. An intermediate course was open, namely, the exclusion of the horse from the main roads, but this would involve a degree of supervision that rendered it economically doubtful. It might be assumed that for the moment neither of those alternatives was likely to meet with acceptance.

At the conclusion of the lecture a vote of thanks was proposed by Mr. G. Marlow and Mr. John Mitchell, General Secretary of the Architects and Surveyors' Assistants' Professional Union.

[A report of the concluding lectures will be given in our next issue.]

STRUCTURAL SAFETY

In view of certain structural mishaps that have taken place recently, it is interesting to note that a joint committee has been constituted in America to inquire into the matter. The following, according to the *American Architect*, is a resolution which outlines the scope of the work of the Joint Committee :—

"Resolved, That it is the intention of this Joint Committeee to conduct an inquiry into matters of public safety so far as they are concerned with the design and erection of buildings and other structures."

"Resolved further, that it is the purpose of the Committee to follow its investigation with the formulation of such recommendations as may seem wise for the societies represented in the Committee to endorse with respect to the procedure by architects, engineers and builders, and to recommend also such legislation, if any, as may seem expedient to bring about improved conditions."

"Structural safety and the responsibility therefore is not definitely established in this country (America). Buildings collapse, often attended with fatalities, and no person is adjudged to be guilty of negligence or incompetency. There are many elements which enter into structural safety, among which are the architect and engineer, and their supervision of the construction, the contractors and their supervision of the construction, their use of specified materials, and the adequacy of the construction equipment.

"One of the principal aims of the Committee will be to consider and correlate the relationship of all these elements and to formulate such legislation as will definitely fix the responsibility for structural safety. The recommendations of this Joint Committee will be submitted to the organisations which they represent. The ultimate intention is to secure legislation conforming to these recommendations. This is an important matter which affects everyone connected with the building industry, and the Committee should receive all possible assistance in its work."

Books Received.

The Works of Sir John Soane. Edited by Arthur T. Bolton. (London: Sir John Soane Museum.) Price 6s. 6d.

Modern Architectural Art. Sir John J. Burnet & Partners. (London: Ed. J. Burrow & Co., Ltd.) Price 5s.

The Advertiser's A B C. Compiled and published by T. B. Browne, Ltd., London. Price 21s.

Masters of Architecture, Nicholas Hawksmoor. By H. S. Goodhart-Rendel. (London: Ernest Benn, Ltd.). Price 10s. 6d. net.

THE NATIONAL HOUSING MANUAL *

Mr. Aldridge stands high among housing pioneers, and his great knowledge and experience invest "The National Housing Manual" with peculiar importance. Beginning with prehistoric cave and lake dwellings, the author, taking us through Egypt and Assyria, Greece and Rome, reaches the foundations of existing work in Chapter 7, which deals with the influence of the Renaissance on housing conditions. The bulk of the book is naturally reserved for modern times from 1760 to the present day. The book is not an impartial survey in the sense of merely giving all sides of the question and leaving the reader to form his own conclusions; its attitude is well summarised on page 196: "There are four arguments—each of them unanswerable—in favour of the deliberate adoption of a comprehensive State Housing policy in every civilised country." Mr. Aldridge is the uncompromising champion of State housing as against housing by private enterprise, although in the last paragraph on page 477 it is hinted that State financial aid should not be a permanency. The Housing and Town Planning Council hardly does justice to those who consider that any form of State housing—either by State or Municipal building or by subsidising private enterprise—is an evil only to be tolerated so long as it is really necessary, but who also insist that we should never revert to the old form of indiscriminate building.

Every thinking man knows that to go back to 1890 methods would be absurd, but he wants to know why State housing is the only alternative. It has been said that the truth lies in reconciled differences, and may it not here be found in a course midway between uncontrolled private enterprise of the 1890 type and State housing of the Addison type? We believe that if there had existed a controlling public conscience towards housing during the nineteenth century it would have been possible to build the right kind of house at the right density on economic lines, and we are also convinced that State housing cannot be carried on really efficiently, in which belief we are supported by Major Barnes, himself an advocate of State housing.

Now it is essential that housing shall be carried out by the agency that can do it most cheaply on proper lines, and it is no less vital that the agency in question shall be under more drastic and efficient control than was provided by the old by-laws. We need not marshal evidence to show that the house-builder can organise and build more cheaply than anyone else, and the ever-present need for control cannot be better shown than by the poor results achieved under Dr. Addison's grant to private persons. We are therefore in agreement with Mr. Aldridge to the extent that the State should take the reins of control and drastically exercise its power through the local authorities, but this does not in any way imply permanent State or Municipal housing. The two issues are separate and distinct. Everyone recognises that a State subsidy is necessary to tide over the present crisis, and that somehow the disused brickfields must be reopened, but in dealing with Major Barnes's book in these columns we emphasised the principle that industry must eventually pay its own employees wages sufficient to keep them in a suitable condition, and this postulates the payment of an economic rent for an adequate house. If industry as a whole cannot do this, it cannot be done at all, since even if the houses are paid for entirely by the State, the money still represents the proceeds of industry. Industry always has to bear the burden, and a direct shouldering of responsibility is surely better than an indirect and wasteful spreading of the same burden on the same shoulders. Between these two alternatives there lies the difference between a healthy self-reliance and a supine shelving of responsibility on the State and local authorities. If, therefore, "a comprehensive housing policy" were to mean a policy of permanent close control in amenities and density, coupled with a determination to abandon subsidies as soon as industry could stand on its feet, we should agree wholeheartedly. Once the housing arrears have been overtaken, State interference should be limited to maintaining the standard, but not through a policy of permanent subsidies or of doing the work itself. It would be a pity if hostility and prejudice to private enterprise in general should strangle or delay the results that it might achieve; the end is more important than the means, and the arrears with which we are faced are appalling. Supposing it were found that State housing could produce 1,000 houses at a cost of £600,000, but that private enterprise could, under control, produce the same houses for £500,000, is it not clear which method we should adopt? Comparative figures of costs, showing how municipal houses compare in cost with houses of the same type built by private enterprise at the same time would be instructive.

Any book containing such a mass of information must of necessity be bulky, but this work is at least 25 per cent. larger than it need be, and is correspondingly more expensive. Much that is formidable in this volume is due to a style which all through fogs the issue and strains the intelligence of the reader, diverting it from the point. We lay some stress upon this fault because every writer is liable to it, no one more so than the busy man who has little time to turn his phrases and whose work contains the findings and opinions of various committees. The verbose style is here definitely injurious because it does not give the excellent subject matter a fair chance. The real meaning lies hidden like silver surrounded by layers of newspaper. It is precisely because the book is so extremely valuable that we mention a fault that can be avoided in future. As a reference book for the use of local authorities this work is unrivalled. It contains the full text of the thirteen Housing Acts passed from 1890 to 1923; it describes the formation and scope of public utility societies; it enters fully into past evils; and contains excellent guidance for the future in all relevant matters, including estate development, the planning and design of houses and the clearance of slum areas. We are glad, therefore, to see that it comes within the terms of a Local Government Board memorandum enabling local authorities to purchase out of the rates books immediately connected with the duties of local government, and that at the time one writes some four hundred local authorities have ordered copies.

Whatever housing policy may be adopted by this or any future government, the responsibility of maintaining a high standard will rest upon the shoulders of our local authorities. The work of interesting and educating these public bodies has been carried out mostly by the Housing and Town-Planning Council; it is, therefore, only fitting that the secretary of this body should produce the first volume that deals with every facet of the housing question.

* "The National Housing Manual." By Henry R. Aldridge. (The National Housing and Town-Planning Council, 41, Russell-square, London, W.C.1. 1923.) Price £2 2s. net.

Town Planning.

The text of the Bill, supported by Lord Muir-Mackenzie, and entitled "An Act to consolidate enactments relating to Town Planning in England and Wales," has recently been issued. It deals with the power of local authorities to prepare or adopt town-planning schemes and provides that the council of every borough or other urban district, containing a population according to the census taken in the year 1921 of more than 20,000, shall, before January 1, 1929, prepare and submit to the Minister a town-planning scheme, in respect of all land within the borough or urban district, in respect of which a town-planning scheme may be made under the Act.

LIBRARY PLANNING

We take the following extracts from a article by Mr. W. W. Fortune in the Februa number of *The Librarian*:—

In remodelling an old library or in plannir a new library for the open-access syste conditions of space and light govern the lay-o so that no two libraries are precisely the sam One of the most important considerations that of supervision or oversight of the librar One cannot altogether stop the loss of book but with adequate supervision the loss can minimised. Ample gangway space must allowed for readers. A little expert plannir may make all the difference between succe or failure.

In planning the staff enclosure, a knowled of a few leading requirements will make for t efficiency of the service. Lack of attention detail inevitably causes trouble, confusion a waste of time. The first consideration is th the "in" counter requires to be longer than t "out" counter, because the charging syste takes space, and for quick service the corre position for the issue trays is on the "in counter—the closest point of service. Anoth reason for the extra length of counter is accommodate a queue of readers at rush hou The "out" counter only requires sufficie space for the divisional racks in which the da issue is roughly classified. A useful purpo can be served by marking off a portion of t "out" counter on which readers can lea their bags, parcels, &c., whilst in the library.

In order to protect the charging trays a other work on the counter top, it is advisal to have a raised ledge 9 or 10 in. high by 6 i wide, on which readers can place their boo This ledge can be of plate glass supported brackets. The use of the return end of t staff enclosure as a book-shelf for return books is a debatable point. Readers collect front of the staff enclosure and interrupt t oversight of the library. An alternative plan for the bookshelves to face the staff. If divid up into a series of bins, one for each class, t books can be roughly classified as they come and cleared at convenient intervals.

The entrance and exit wickets should not wider than 2 ft. Wide and heavy wickets the cause of trouble to the mechanism controlli them. The equipment of the interior of t staff enclosure requires consideration. Defin spaces for definite purposes expedite the servi Desk accommodation for the staff is necessa A swing stool is convenient as it can be put of the way when not required. Card draw are required for the register of borrowe Orderly racks and ticket racks are wanted the enquiry window.

Open-access is a live proposition, and tendency is to limit the size of the library seeing to it that only live books are shel Weeding-out is therefore a matter for conside tion. Considerations of space, position entrance, size of library, probable issue, num of staff, are factors which control the plann of a library for open-access.

Modern Swedish Architecture.

An important exhibition of "Modern Swe Architecture" has been arranged by the Ar tectural Association, which, with the permiss of the Council of the R.I.B.A., will be held the Galleries at 9, Conduit-street. The hibition will consist of drawings and ph graphs of the work of twenty of the lead architects of Sweden, together with models various buildings, including a large model the new Town Hall of Stockholm. The exh tion will be opened on Monday, May 12, 3 p.m., by His Excellency, Baron Palmstie Swedish Minister in London. All member the Architectural Association are invited attend the opening. On the evening of this at the General Meeting of the Architect Association, a paper, on "Modern Swe Architecture," illustrated by lantern slides, be read by Mr. Hakon Ahlberg, of Stockh

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

*** We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.*

Swept Tiling.

Sir,—The term "swept tiling" is probably derived from the natural arc described by the head of a broom during sweeping operations. We speak in similar fashion of the "sweep" of a drive or of a car "sweeping round a corner." As applied to tiling it indicates the curve of a roof which is circular on plan, or more particularly the curve of a valley where neither special valley tiles nor lead gutter are used, the surfaces of the two arms of the roof being "swept" round in a curve to meet in continuation the one of the other without an abrupt change of surface.

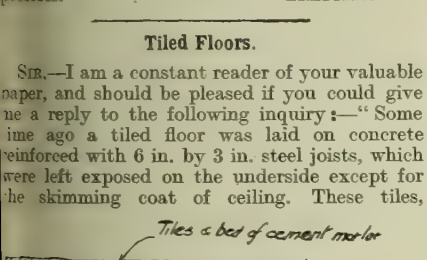
The method of procedure is to fir up the valley to an easy curve upon which the battens will curve upwards to meet at right angles. The tiles are then laid in the ordinary fashion until the adjacent two of each course meet at their bottom corners, when the remaining gap is filled up with ordinary "tile and half" tiles laid alternately right and left-handed.

The practice is of ancient precedent and appears very efficient and effective in actual practice, as do most processes evolved out of the ingenuity of the craftsman who wishes to be as independent of the help of other trades as possible.

"Tradition."

Tiled Floors.

Sir,—I am a constant reader of your valuable paper, and should be pleased if you could give me a reply to the following inquiry:—"Some time ago a tiled floor was laid on concrete reinforced with 6 in. by 3 in. steel joists, which were left exposed on the underside except for the skimming coat of ceiling. These tiles,



Section through Floor.

although laid in a good bed of cement mortar, have become loose. Do you think the exposure of the ironwork is likely to account for this, and if the reinforcement had been 5 in. by 3 in. with 1 in. of covering on underside, things would have been different?

J. W. Watson.

Asbestos Pantiles.

[Reply to "Anxious."]

Sir,—Yes, we had the first batch of these pantiles (dun colour) made and fixed by the manufacturers. They have now been on the building two years and are quite satisfactory. We don't think you need have any anxious moments as to the use of them. We had something like 20 squares laid; the colour is still good. You will not find them lift, as each tile is fixed with one long galvanised slate nail.

G. Cummins & Son.

Houses in Blocks of Four.

[Reply to "Housing."]

Sir,—I think there is little doubt but that the "interlocking" arrangement of the first floor plans of blocks of four houses is the more economical arrangement, entailing as it does only the provision of a centre arch or beam across the open passage way. The arrangement of a centre division wall on the first floor demands a series of beams across and a central beam through the building down the centre of the passage way.

Beyond the considerations of economy, the first method has the additional advantage of allowing a central window over the passage way as a desirable architectural feature.

The main disadvantage is that it is extremely difficult to arrange convenient first floor plans to both houses concerned. The central wall allows considerably more freedom in planning, and more recent practice seems to indicate that the majority of architects consider that the slight extra cost in beam work is well repaid by the added convenience in plan.

"Majority."

Cost of Shops.

Sir,—We should be very much obliged if you would state what you consider a fair price per cub. ft. for rebuilding shops after a fire, exclusive of fixtures.

Copp Bros.

Barry.

[Reply to Messrs. Copp Bros.]

Sir,—It is quite impossible to quote a figure that would prove a useful guide upon which to base an estimate for the work indicated. Such work varies enormously according to the class of building intended, and the materials proposed and the district in which the work occurs, besides the probable outcome of current trade disputes. Building work varies in cost by more than 50 per cent. in different parts of the country. Local advice will be more useful than anything I could put forward.

G. M. A.

Stains on Cement.

Sir,—I shall be much obliged if any of your readers can inform me if there is any known method, other than colouring or painting, for cleaning and removing deep stains and vegetation from cement compo external plastering of a building with heavy dressings and enrichments so as to restore it to anything like its original appearance and even tone.

Torquay. A. Watson.

THE SURVEYORS' INSTITUTION

Mr. J. Inglis Davidson (president) presided at the annual dinner of The Surveyors' Institution at the Connaught Rooms recently. About 350 members and guests were present, including Lord Parmoor (Lord President of the Council), Lord Dunedin (Lord of Appeal), Right Hon. John Wheatley, M.P. (Minister of Health), Sir Ernest Pollock (Master of the Rolls), Sir Francis Floud (Secretary, Ministry of Agriculture), Sir Edwin Savill (vice-president), Mr. J. D. Wallis (vice-president), Mr. Dendy Watney (vice-president), Mr. J. H. Hunter (chairman, London County Council), Right Hon. H. P. McMillan, K.C. (Lord Advocate), Colonel G. E. Kent (president, Auctioneers' and Estate Agents' Institute), Sir John Oakley (past president), Sir Richard Hopkins (chairman, Board of Inland Revenue), Mr. John Wilmot (past president), Mr. L. G. Dease (president, Land Agents' Society), Sir Theodore Chambers, Mr. Eustace Hills, K.C., Brigadier-General Sir Henry Maybury (Director-General of Roads), Sir Howard Frank, Mr. E. M. Konstam, K.C., Mr. C. H. Bedells (member of the council), Lieut.-Colonel George Courthope, M.P., Colonel E. M. Jack (Director-General, Ordnance Survey), Mr. Stanley Hicks (member of the council), Mr. H. M. Cobb (vice-president), Mr. W. R. Smith, M.P. (Parliamentary Secretary, Ministry of Agriculture), Mr. W. Edgar Horne (past president, Mayor of Westminster), Mr. Arthur Vernon (past president), Mr. J. A. Gotch (president, Royal Institute of British Architects), Sir W. A. Robinson (secretary, Ministry of Health), Mr. E. A. Rawlence (member of council), Mr. T. H. Ryland (president, National Farmers' Union), Sir William Haldane, Sir Henry Rew, Sir Harry Courthope-Munroe, K.C., Mr. Christopher Turnor, Mr. C. B. Fisher (member of council), Professor Dunstan (principal, Royal Agricultural College, Cirencester), Mr. J. E. Bidwell (member of council), Colonel H. Cobb, Lieut.-Colonel J. Grimwood, Sir Gordon Nairne, Mr. G. S. Rentoul, M.P., Sir Henry Tanner, Sir William Wells, Mr. A. Norman Garrard (hon. secretary), and Mr. A. Goddard (secretary).

Sir Theodore Chambers, in proposing the toast of "His Majesty's Ministers," said it was the stability and character of Englishmen that carried England through. Lord Parmoor had been one of the oldest friends of the Institution, and they also came into intimate contact with the Ministry of Health. They wished Mr. Wheatley every success in dealing with the problems of housing, town planning and slum areas, and were prepared to give him all the information and knowledge within their power.

Lord Parmoor (Lord President of the Council), responding, said they had to do what was best for social service and social claims so that every party should have an interest in the country, a fair hearing, and a fair representation. In these complex problems the Surveyors' Institution played a part of responsibility. Members of the Institution were in their way intellectual trade unionists; they protected their own members in order that they might carry out their work in a proper manner. That was the duty of all trade unionists, whether manual or intellectual, as regarded their objects and aims. It was of the utmost importance that in any attempt to solve the complexity of modern life any Government, whether Labour or not, should have all the advice and assistance it could get from an experienced body like the Surveyors' Institution.

The Right Hon. John Wheatley said he was delighted to be able to express to them, on behalf of his Ministry, their appreciation of the generous manner in which they had come to the aid of that department in carrying out the essential business of the country. During his period at the Ministry of Health, continued Mr. Wheatley, the department had had to undertake the purchasing of 48,000 acres, at a cost of £10,000,000, an average of something like £200 an acre. They had been indebted to the Surveyors' Institution for a great deal of assistance in intelligent criticism and suggestions in connection with the procedure and practice of town planning. Local authorities had been under an obligation to the Institution for similar assistance in the work which they had had to undertake. They had also been indebted to them for the assistance they had rendered in connection with the proposals for a reform of the system of rating and valuation. They had requested him specially to thank the Institution for that assistance, and to tell them that it was greatly appreciated.

Sir Ernest Pollock (Master of the Rolls) and the Right Hon. H. P. McMillan (Lord Advocate) responded to the toast of "The Bench and Bar," proposed by Mr. H. M. Cobb.

Lord Dunedin (Lord of Appeal) submitted the toast of "The Surveyors' Institution."

The President, responding, said Lord Dunedin had referred to the wonderful growth of membership and influence of the Institution since its foundation in 1868, which, starting with the figure of about 200, was now over 6,000. Since their examination system was established over forty years ago, upwards of 15,000 candidates had sat for examination, of whom 10,000 had proved successful. The foundation of the Institution scholarships, and the establishment of the College of Estate Management had both proved valuable factors in raising the standard of professional knowledge by providing facilities for sound technical training. Although the bill for the registration of the profession introduced last session did not progress further, he hoped that in the near future Parliament might recognise the necessity of protecting the public from unknowingly employing unqualified persons on the important duties which surveyors were called upon to perform. In conclusion, the President referred to their close association with the architects' profession, and said that perhaps the greatest triumph of the architect in these days would be the designing of a workman's dwelling which could be let at an economic rent, but the higher efforts of that profession lay in the designing of buildings suitable for the site.

THE BUILDING TRADE

BUILDING EXHIBITION HANDICRAFT SECTION

"THE NEW CRAFTSMANSHIP."

THIS was undoubtedly one of the most interesting and intrinsically, perhaps, the most important portion of the recent exhibition, because through it is projected the promise of the future in building and craftsmanship. The work of the different schools participating in it is seen to be putting forth the buds and blossoms of a new spring hue for craftsmanship, fuller of vitality, and freed from many old conventions. They form a retaliation on the standardisation threatening a helotry for the worker and relate us once more to tradition. Much credit is due to the direction for the insistence on the real issues in relationship to art, which founds it on the labours of the people rightly guided, through a training in craftsmanship shaped on the true principles of construction, the resources lying in materials and the human impulse which would preserve freedom for personality.

The schools contributing to this exhibition were the following:—The Northern Polytechnic Institute; the London County Council School of Building, Brixton; the Trades Training School, Great Titchfield-street; Regent-street Polytechnic; Borough Polytechnic Institute; and one or two provincial schools. Among those enumerated, the Northern Polytechnic Institute, to whose good work we have before drawn attention in these columns, takes a high place, the students' work exhibited being of the most creditable character. The average age of students is about 16. In the masons' section we have already referred to a charming headstone, the only defect in an otherwise excellent piece of work being the rather exaggerated battering of the sides. A low relief of heraldic character, by F. Richardson, carved in marble, was very successful. There was good constructive work shown in the joinery section, and a well-carved oak panel of "linen fold" design deserves mention. The craft of lead work was illustrated by good examples, the successful rain-water head and ventilating head being among the best. The painted decoration shown, though painstaking, was lacking in any particular merit, the designs for friezes being somewhat conventional in the "use and wont" sense of the word.

The Trades Training School exhibit, of which Sir Banister Fletcher is the director, showed work of quite equal merit, and there was much to interest us, some of the examples being quite amongst the best in this Craft Section. There being apparently no age limit for the student, there was work shown by adults, such as a figure panel of stained glass. Other leaded glass, fresher in character, was also shown, and one with a leaf pattern on plain glazing was quite successful. Metal work was shown of varied character; one example to be noticed being a small balcony front, or screen, apparently incomplete, as the parts were not all welded together; this was of a well-designed, flowing character, and conveyed the pleasant impression where sensibility to the beauty of form and curvature has been appreciated. A phenomenon of quite distressing character at the present time, when contrasted with these attributes, is the cast-metal work to be seen on some of the large new buildings going up in central London. We inquired recently of an architect the reason of the stark and baldly angular design, so standardised and poor, to be observed in the iron screens in front of the windows and elsewhere, which elicited the reply: "I suppose because it is cheap." But we have instances from an earlier date of cast-metal work quite successful in its freedom of design, forming a charming contrast to this rigid emasculated iron work, which serves so little purpose as ornament. We are training students in these schools towards the new craftsmanship which is directing itself in form and spirit to the recovery of the old, applied to modern conditions, and we must embrace the hope that the large employers, contractors and architects co-operating in this movement will absorb more of this better spirit. Examples of graining were on view in the Trades Training School exhibit as an attempt to revive a craft much fallen into decline, but which in the case of old examples scattered about the country has quite its own characteristics and charm. We must look to such craft training as is to be seen at these schools to recover the human impulse from the standardisation which is always in danger of overwhelming it, and in this work the co-operation of employers and architects is most important, and their responsibility towards it is great.

The exhibits of the L.C.C. School of Building at Brixton included painted friezes, drawings of period interiors, heraldic painting, joinery, masonry, lead work, colour combing, etc., from which the scope and variety of the instruction might be discerned, and much of the students' work was deserving of appreciation. We confess, however, to regarding with mixed feelings the well-executed and rather elaborate drawings of "period" interiors, which seem to us not quite in the spirit of the aim for vital craftsmanship. These are of a somewhat unreal and somnambulistic character, though very well executed. Nor do we think it desirable to encourage a side of decoration and furnishing so unrelated to the realities of present life. Would it not be better to show us how under modern conditions we may best create beautiful surroundings growing really out of our life and its needs, which is towards greater simplicity? Surely the new craftsmanship fostered in these schools—which is a return to the spirit of the old—is better occupied in shaping what fills our present life rather than in composing interiors, disembodied from the reality on which our work should rest. But though saying this, it is not in any disparagement to the standard of the work of this school, which is in no way less worthy of attention than others we have noticed.

The Regent-street Polytechnic was another school showing students' work of a very capable character; some good woodwork was to be noticed, though an exhibit of "Gothic" oak panelling was not among the best. There was a sense of youth and vitality over the students' work, an enthusiasm which it was a great credit to the direction to have created. For their work has particular significance to-day. The absence of tradition so observable may, through the work of such schools—which brings the student once more into association with traditional methods—recover for us what we have lost, and in the fulness of time re-forge the links of a broken tradition which ruthless industrialism has sundered. The best craftsmanship is forever to be associated with the best design; as we restore this human impulse, coupled with sound construction and the inspiration of materials to our labour, we may see changes fraught with blessing to the future of life.

It is better to found our craftsmanship on a good groundwork of traditional examples, leaving it to happen that our own personal feeling will impose itself later, writing over the old the spiritual experience of the new. But this groundwork should have its source in the best tradition, and for the prospects of the world we shall learn best through the

COMPARISON OF PRICES OF BUILDING MATERIALS BETWEEN AUGUST 4, 1914, AND MAY 1, 1924

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	April 1, 1924. £ s. d.	May 1, 1924. £ s. d.	Rise or Fall during Month. (Per cent.)
Bricks—					
Best Stocks	1 16 6	3 3 6	3 19 0	3 19 0	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 13 6	2 13 6	—
Grey Stone Lime	1 8 0	2 7 0	2 10 9	2 10 9	—
Bath Stone	1 7½	1 7	2 9½	2 9½	—
Portland Stone	2 4½	2 10½	4 4	4 4	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	25 10 0	25 10 0	—
3 in. × 11 in.	15 0 0	50 0 0	31 0 0	31 0 0	—
2 in. × 11 in.	—	51 0 0	32 0 0	32 0 0	—
2 in. × 7 in.	—	46 0 0	25 0 0	25 0 0	—
3 in. × 4 in.	—	—	25 0 0	25 0 0	—
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
R.S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	13 10 0	13 10 0	—
Mild Steel Bars	9 5 0	21 0 0	12 10 0	12 10 0	—
Steel Bars	9 5 0	19 10 0	13 0 0	13 0 0	—
Cut Nails	11 10 0	20 0 0	20 10 0	20 10 0	—
Sheet Lead	22 15 0	40 0 0	46 10 0	42 0 0	—9.68
Glass—					
15 oz. Sheet	2	7	3⅛	3⅛	+3.70
21 oz. ,,	3	8	5	5¼	+5.00
26 oz. ,,	3¼	9	6	6	—
Raw Linseed Oil	2 4	8 4	3 10	3 9	—2.17
Turpentine	2 6	11 0	6 9	6 5	—4.94
Ground English White Lead	30 5 0	60 10 0	60 5 0	57 10 0	—4.56
White Lead Paint	—	83 10 0	83 15 0	80 15 0	—3.58
Red Lead	28 10 0	47 0 0	54 10 0	54 10 0	—

eedom and aspiration of mediæval art. nd it is in considering this point of view at we would urge upon the directors of these hools, so evidently capable and desirous of iblic service, that the standard of design t before the student is of the best, not in e worldly sense of its glittering facilities, ut of its spiritual worth, on the impulse hich, drawn from what was above it, kept it ee from worldly influences and founded it on eauty and truth.

Owing to the illness of the Earl of Birkenead, the prizes to the winners in the craftsanship competitions were presented by rincess Louise, Duchess of Argyll. Mr. J. A. Gotch presided, and said the interest of the Royal House in art and industry was too well-known to need any sort of remarks from himself. He considered all competitions in craftsmanship were a salutary and a wholesome departure. It induced those who were engaged in the crafts to do their best in the time at their disposal. It also excited the spirit of emulation, which was healthy in all sorts of craftsmanship. The work done that afternoon, in a period of six hours, was most gratifying in view of what they heard of the limitation of output. In conclusion he had great pleasure in proposing a vote of thanks to Princess Louise.

Princess Louise then presented the following prizes and diplomas:—

Section.	Name.	School Attended.	Award.
UMBING (over 20)	T. E. Freeman	Brixton School of Building	1st Prize.
	F. J. Lake	Brixton School of Building	2nd ,,
	E. C. Fromhold	Polytechnic, Regent-street	3rd ,,
	E. J. Hoyle	Brixton School of Building	Diploma.
	A. Porter	Trades Training School, Gt. Titchfield street.	,,
	H. Gennills	Trades Training School, Gt. Titchfield-street.	,,
,, (under 20)	J. H. Galliford	.. ..	1st Prize.
	G. J. Nash	Northern Polytechnic	2nd ,,
	J. Ratcliff	Brixton School of Building	3rd ,,
	W. E. Keys	Northern Polytechnic	Diploma.
	S. Newland	Northern Polytechnic	,,
	W. S. Bettle	Polytechnic, Regent-street	,,
ICKWORK (over 20)	J. H. Slade	Trades Training School, Gt. Titchfield-street	1st Prize.
	Arthur Bathe	Trades Training School, Gt. Titchfield-street	2nd ,,
	E. V. Cox	Brixton School of Building	3rd ,,
	A. Richards	Trades Training School, Gt. Titchfield-street	Diploma.
	A. E. Tinber	Trades Training School, Gt. Titchfield-street	,,
,, (under 20)	W. G. Pope	Northern Polytechnic	1st Prize.
	F. Witney	Northern Polytechnic	2nd ,,
	R. Carpenter	Northern Polytechnic	3rd ,,
	H. G. Thwaites	Trades Training School, Gt. Titchfield-street	Diploma.
	L. Wright	Brixton School of Building	,,
AZING (over 20)	S. E. Adam	Central School of Arts and Crafts	3rd Prize.
	W. J. Leach	Central School of Arts and Crafts	Diploma.
,, (under 20)	S. Mears	Central School of Arts and Crafts	2nd Prize.
	C. Clements	Trades Training School, Gt. Titchfield-street	3rd ,,
ASONRY (over 20)	F. Richardson	Northern Polytechnic	Diploma.
	J. Dennithorne	Central School of Arts and Crafts	,,
	H. W. Parker	Central School of Arts and Crafts	,,
,, (under 20)	A. Low	Brixton School of Building	1st Prize.
	H. Carter	Trades Training School, Gt. Titchfield-street	2nd ,,
	F. W. Walters	Brixton School of Building	3rd ,,
INTED ORNAMENT (over 20)	J. R. Callard	Northern Polytechnic	Diploma.
,, ,, (under 20)	B. S. Gomersall	Devonshire School of Lettering	1st Prize.
	J. E. Lay	Northern Polytechnic	2nd ,,
	E. T. F. Paintin	Brixton School of Building	3rd ,,
	F. E. Aves	Northern Polytechnic	3rd ,,
	J. A. Evans	Northern Polytechnic	3rd ,,
	A. R. Turner	Northern Polytechnic	Diploma.
INTING (Plain) (over 20)	F. J. Lester	Brixton School of Building	1st Prize.
	W. H. Little	Trades Training School, Gt. Titchfield-street	1st ,,
	H. J. Okill	Brixton School of Building	2nd ,,
	C. H. Milton	Northern Polytechnic	3rd ,,
	T. C. Godwin	Northern Polytechnic	Diploma.
	A. W. Todd	Northern Polytechnic	,,
,, (under 20)	P. G. Skinner	Trades Training School, Gt. Titchfield-street.	1st Prize.
	B. Granshaw	Northern Polytechnic	2nd ,,
	W. E. Sharpe	Northern Polytechnic	3rd ,,
	J. Joslin	Northern Polytechnic	Diploma.
	P. G. Skinner	Trades Training School, Gt. Titchfield-street	,,
-PENTRY (under 20)	A. P. Callick	Brixton School of Building	1st Prize.
	A. Wilson	Northern Polytechnic	2nd ,,
	W. G. Edwards	Northern Polytechnic	3rd ,,
	W. Butler	Erith Technical Institute	Diploma.
	L. M. Culley	Brixton School of Building	,,
	W. Cook	Northern Polytechnic	,,
	J. C. Cameron	Northern Polytechnic	,,
,, (over 20)	H. V. Cross	Northern Polytechnic	1st Prize.
	H. E. Begernie	Brixton School of Building	2nd ,,
	G. S. Dibbens	Brixton School of Building	3rd ,,
	E. N. Mason	Northern Polytechnic	Diploma.
THWORK (over 20)	J. A. Hulett	Central School of Arts and Crafts	1st Prize.
	L. W. Blackmore	Central School of Arts and Crafts	Diploma.
STERWORK (Plain) (over 20)	C. Hurley	East Ham Technical College	1st Prize.
	G. C. Kettlety	East Ham Technical College	Diploma.
,, (under 20)	G. Stanbury	Trades Training School, Gt. Titchfield-street	3rd Prize.
	J. A. Sawyer	L.C.C. Arts and Crafts, Shepherd's Bush	Diploma.
,, (Bench) (under 20)	H. Predgen	Trades Training School, Gt. Titchfield-street	1st Prize.
	E. Cruckshank	L.C.C. Arts and Crafts, Shepherd's Bush	2nd ,,
	C. J. Garwood	Camberwell School of Arts	Diploma.
ERY (over 20)	O. D. Smith	Northern Polytechnic	1st Prize.
	J. Critchley	Widnes Technical School	2nd ,,
	F. Francis	Widnes Technical School	3rd ,,
	W. H. Whitley	Acton and Chiswick Polytechnic	Diploma.
	H. E. Begernie	Brixton School of Building	,,
	R. D. Grange	Brixton School of Building	,,
,, (under 20)	G. L. Breeze	Brixton School of Building	1st Prize.
	L. J. Ridley	Northern Polytechnic	2nd ,,
	T. C. Young	Brixton School of Building	3rd ,,
	J. Royce	Brixton School of Building	Diploma.
	A. P. Callick	Brixton School of Building	,,
	C. Chinchen	Brixton School of Building	,,
	H. Harry	Northern Polytechnic	,,
	J. Peters	Widnes Technical School	,,

BUILDERS' FOREMEN AND CLERKS OF WORKS

The Institution of Builders' Foremen and Clerks of Works held their annual dinner recently at the Holborn Restaurant. Sir Frederick Rice presided.

After the loyal toasts had been honoured the President proposed the toast of the "Houses of Parliament."

Mr. Wheatley, responding, said Sir Frederick had referred to builders in the House of Commons. He (Mr. Wheatley) did not see why the House of Lords should not be recruited from the ranks of the Institution of Builders' Foremen and Clerks of Works.

As Minister of Health, continued Mr. Wheatley, he hoped to remove the dreadful sufferings that resulted from the shortage of houses. One of his first desires had been to bring the various sections of the building industry together, and tell them that they were the people to provide houses if they were to be provided at all. He wanted them to put their knowledge and experience at the disposal of the State, and help the Government out of its housing difficulties. In reference to the Housing Report, Mr. Wheatley said it represented a large amount of time, labour and service by experienced men that had been placed gratuitously at the service of the nation. He thanked the building industry for the work they had put in the Report. He hoped the same spirit would be put into the actual solving of the housing problem itself. They had to remember they were building not only for this generation but for the generation to come. He hoped they would build houses worthy of the British race.

Sir Frederick, in proposing "The Institution," said it was founded in 1842 by four people, three of whom were builders' foremen. Up to the present they had spent £26,318 in pensions, and he made an urgent appeal that the fund should be supported.

After Mr. F. J. Dexter had responded, Mr. Roland B. Chessum, proposing the "Architects and Surveyors," said, as a representative of the London Master Builders' Association, he thought they would receive the most careful consideration from the authorities with regard to the subjects that were occupying their joint consideration. They should not consider that the relations between representative parties must necessarily be antagonistic — the relationship had changed even in his lifetime.

Sir Chas. J. Ruthen responded.

Mr. E. J. Partridge then proposed the "Master Builders and Contractors," to which Mr. F. Thorne responded.

Other toasts were given by Mr. F. L. Dove, Sir Nicholas Grattan Doyle; and, in conclusion, the President proposed the "Honorary Secretary," to which Mr. E. Scarchfield responded.

THE BUILDING EXHIBITION.

On Wednesday last week, at the main stand of *The Builder*, at the Building Trades Exhibition at Olympia, a very large number of exhibitors gathered for the purpose of listening-in to the choirs, the opening ceremony, and H.M. the King's Wembley speech, which, by arrangement with Messrs. Burndept, Ltd., was broadcasted there.

Metal Work.—In our issue of April 18 our description of Messrs. Haskins' stand at the Building Exhibition was a little misleading. There were, of course, only two processes exhibited. One was solid extruded bronze and the other Haskins' "Kalamein" bronze drawn on a hardwood core. This bronze was nearly ⅛ in. thick, as fully described in their leaflet.

We regret that in our issue of April 18 the name of the Lewbart Manufacturing Co., Ltd., was spelt incorrectly.

BUILDING THROUGHOUT THE AGES

In his sixth lecture* on "The Romance of Building Throughout the Ages," given before the junior members of the Liverpool Branch of the Amalgamated Society of Woodworkers, Mr. George W. Thompson dealt with the English Gothic period.

The buildings erected by the Romans in England, he said, were destroyed by the barbarians who followed them, and even after the Saxons were converted to Christianity they did not prove good builders. They dwelt in wooden houses, and their churches were usually of wood. The few stone buildings remaining were constructed of rough rubble with dressed stones at the angles. Openings were either circular or triangular headed, and were sometimes divided by a baluster. Roofs were probably of wood or loose stones arranged in horizontal layers meeting at the apex. Piers and columns were short and crowned with square blocks. Mouldings consisted of simple ovolos and hollows.

English Gothic architecture could be conveniently divided into the following periods :—

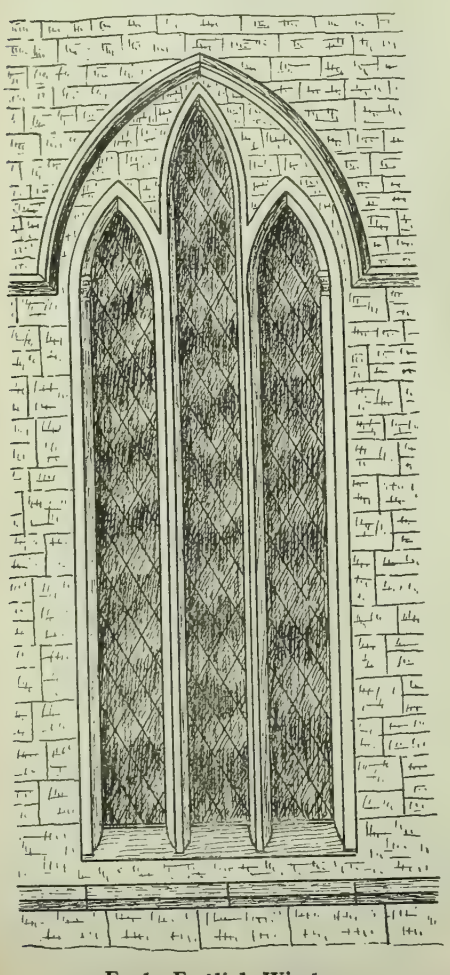
Anglo-Saxon ..	449 (date of arrival of Anglo-Saxons) to 1066 (Conquest).
Norman ..	1066 to end of twelfth century.
Early English..	To end of thirteenth century.
Decorated ..	To end of fourteenth century.
Perpendicular..	To end of fifteenth century.
Tudor	First half of sixteenth century.

Norman was bold and massive; windows usually narrow and deeply splayed with semi-circular heads; doorways deeply recessed and richly ornamented with zig-zag moulding and bead; roofs vaulted or of wooden trusses, usually of king-post form inclined at 45 degrees, and covered with lead; columns low, massive, polygonal or circular. Clustered piers were also employed. Capitals were of cushion form and sometimes carved and scolloped. Mouldings: Zig-zag, chevron, billet, double cone, and embattled.

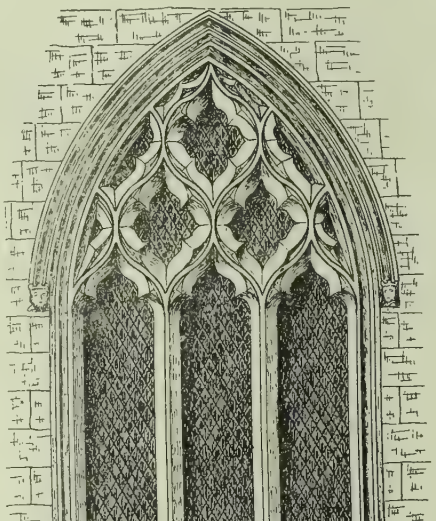
Early English, also known as Lancet and Pointed, was distinguished by tall, narrow, lancet openings, boldly projecting buttresses and pinnacles, and steeply-pitched roofs (60 deg.). Slender groups of shafts were used in place of massive pillars. Walls were thick and built of rubble; pointed arches and richly ornamented doorways with carved foliage were used; tracery was developed; capitals were frequently moulded; mouldings bold and deeply undercut.

Decorated, also known as geometrical and curvilinear, had increasing richness of ornament; bigger windows of two or more lights divided by mullions; roofs of moderate pitch and sometimes with open framing: columns composed of small shafts surrounding and attached to a central column; capitals carved with foliage resembling leaves of oak, ivy, maple, and vine; stained glass was introduced; fittings, such as screens, choir stalls, pews, and pulpits were improved; shrines and tombs became elaborate; crockets and finals to pinnacles and canopies increased in importance.

*Earlier lectures in this series were given in *The Builder* as follows :—1, Feb. 1; 2, Feb. 15; 3, Feb. 29; 4, March 14; 5, April 4.



Early English Window.



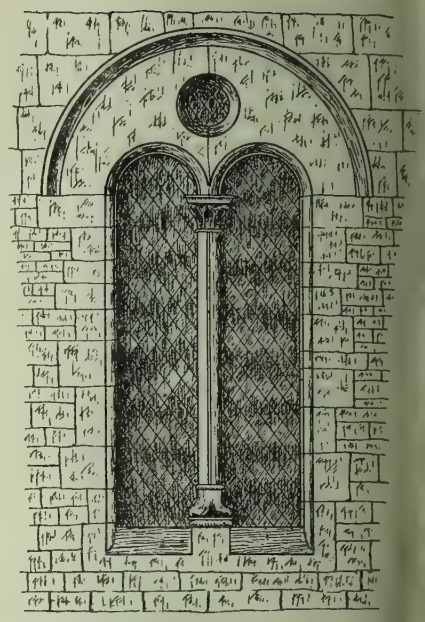
Decorated Window.

In the Perpendicular, also called rectilinear, walls were profusely decorated with sculptured panelling; parapets were embattled; flying buttresses were used; windows consisted mainly of mullions which produced a perpendicular effect; roofs were open timbered of low pitch and of hammer-beam construction richly carved. Westminster Hall roof, constructed in 1399, was considered one of the finest wooden constructions in history. The columns consisted of four circular shafts; ornament embraced sculptured foliage, the Tudor rose, the fleur-de-lis, and the portcullis.

The Tudor style was included in the last fifty years of the Perpendicular period, which it resembled.

The great difference between Classic and Gothic was that the former was always rectilinear, *i.e.*, every support or part supported was either horizontal or vertical, whereas in Gothic the horizontal, vertical and oblique lines all tended to support each other.

Classic buildings were always symmetrical, whereas in Gothic there was no symmetry whatever. Look at the regularity of the Parthenon and compare it with the irregularity of West minster Abbey. As in Classic styles, the grea principle followed was to secure ornamental con struction, not ornament for ornament's sake In both styles ornament or decoration forme part and parcel of the structure.



Norman Window.

SMOKE ABATEMENT

The Smoke Abatement Society states that deputation of the recently formed Inter-Parli mentary Committee on Smoke Abatement waite upon Mr. Wheatley, the Minister of Healt recently. Those present included Lord Newto Mr. E. D. Simon, M.P., Sir Harry Brittain, M.P Mr. Sidney Jones, M.P., and Major J. B. Birchal M.P.

It was urged by the deputation that furth steps should be taken by the Ministry of Heal to give effect to the recommendations of t Departmental Committee on Smoke Abatemer and to introduce without delay into Parliame a reasonable measure to bring into line wi modern methods of power production t present antiquated law with regard to smo nuisances.

The opinion was expressed that a Smo Abatement Bill would be regarded as a n contentious measure, and that there would a general disposition on the part of all politi parties to facilitate the passage of a Bill.

In the course of his reply, the Society sa Mr. Wheatley intimated that the Ministry Health would at once consider how far it w possible for the Department, by encouraging a facilitating educational work in the provinces, help forward the smoke abatement moveme They would further give sympathetic conside tion to the request of the deputation that effort should be made to prepare and submit Parliament a further Bill, at an early date.

In connection with the above it is interest to note that Mr. W. D. Scott Moncrieff, Brighton, claims to have invented a smoke fuel which will remove the smoke nuisance in cities. The fuel consists of ordinary coal I tially carbonised in a special retort, and it be used for household and commercial purpo It is stated that it burns brightly and gives great heat without the slightest smoke.

Mr. A. A. Lucas, the manager of the Newha Gas Company, stated that experiments he made with the new fuel extending over tw months had proved very successful. "It g out no smoke when consumed," he said, "ar of almost the same thermal value as coal. by-product of tar, which is very rich in light is doubled, and the gas extracted is of gre calorific value than that obtained by the methods."

ENT RESTRICTION

shall soon expect to receive a copy of Rent Bill delivered each morning with ily paper. Mr. Simon's Bill, as amended e Government, may be rushed through nent at short notice; but it remains seen whether any provision will be introto take the place of clause 1 in the Govern- Bill, which was recently negatived. Simon's Bill stands it practically consists clause repealing paragraphs (iv) and (v) section (1) of section 4 of the Rent tion Act, 1923, and substituting the ing clause for them: "When the landlord husband or wife of the landlord became rd before July 31, 1923, and the dwelling is reasonably required by him for occuas a residence for himself, and the is satisfied that, having regard to the tive accommodation available for landnd tenant respectively, greater hardship rds conditions of living would be caused using to grant an order or judgment for sion than by granting it."

understand the Government proposes ling this clause by striking out any nce to the date at which the landlord e landlord, and any mention of the nd or wife of the landlord, and by adding therwise" after the word "accommodaand that it is also proposed to incorporate 3 of the late Bill in this Bill.

pointed out in our issue of last week the effect clause 3 would have, and that it l be limited to the case of working-class ngs and evictions of working-class tenants. s a clause is introduced in this Bill with nce to the eviction of unemployed tenants, il to see that any case has been made for hurried legislation. Legislation on Rent istion is becoming a craze, and every e member may introduce a new nostrum lling landlords and restricting—not rents—he provision of houses.

recent case, Williams *v.* Perry (*Weekly*, April 5), raised an important point the Rent Acts. Certain premises, from t, 1914, to March, 1919, had been let as business premises and partly as a ng house, this being within the Acts n Grand Stand *v.* Clarke, *The Builder*, 27, 1919, now section 12, subsection (2). The tenant having gone out in March, the landlord, the plaintiff in this case, t them to another tenant, the defendant, distinct understanding that they should ed solely as business premises. The nt went into occupation, but shortly ards in breach of his agreement sublet f the premises as a dwelling house, or d them himself. The standard rent of remises in August, 1914, had been d. a week, but in January, 1922, the ad been raised to £4 a month.

action had been brought by the ff to recover rent, and in the action the ant alleged that the rent exceeded that d by the Rent Act, and he counterd in respect of sums which he said nted over-payments in excess of rent ted by the Act.

County Court Judge had given judgor the defendant on the claim and for a £16 on the counterclaim.

plaintiff appealed, and a Divisional has reversed the decision of the County udge.

the defendant it was contended that ance a standard rent attaches to a house inues to attach to the house (see sec-2, subsection (6)), and King *v.* Yorke ly *Notes*, 1919, p. 59; *The Builder*, ry 28, 1919) unless the identity of the es is destroyed (see Phillips *v.* Barnett, 2 K.B. 799; *The Builder*, September 9,

Divisional Court held that they not accede to that argument as the ent between the plaintiff and defendant e premises should be used solely as s premises was as effective as a phyconstruction to take the premises out protection of the Act.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Accrington	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Altrincham	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Ashton-under-Lyne	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Barnsley	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Barrow-in-Furness	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Barry	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Bath	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 1½
Bedford	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Birkenhead	1 9	1 9	1 8½	1 9	1 9	1 9	1 8½	1 4
Birmingham	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Bishop Auckland	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Blackburn	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Blackpool	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Bolton	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Bournemouth	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Bradford	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Brentwood	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 1½
Bridgwater	1 4	1 4	1 4	1 4	1 4	1 4	1 4	1 0
Brighton	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Bristol	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Burnley	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Burton-on-Trent	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 1½
Bury	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Cambridge	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Cardiff	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Chatham	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Chelmsford	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Cheltenham	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 1½
Chester	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Chesterfield	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Colchester	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Coventry	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Crewe	1 6	1 6	1 6	1 6	1 6	1 6	1 6	1 1½
Darlington	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Derby	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Doncaster	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Dudley	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 1½
Durham	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
E. Glam. (Mon. Vall)	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Eastbourne	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Exeter	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 4½	1 1½
Folkestone	1 4	1 4	1 4	1 4	1 4	1 4	1 4	1 0
Gloucester	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 4½	1 1½
Grantham	1 6	1 6	1 6	1 6	1 6	1 6	1 6	1 1½
Grays	1 8	1 8	1 8	1 8	1 8	1 8	1 7	1 3
Grimsby	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Great Yarmouth	1 4½	1 4½	1 4½	1 4½	1 4½	1 4½	1 4½	1 0½
Guildford	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Halifax	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Harrogate	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Hartlepools	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Hastings	1 4	1 4	1 4	1 4	1 4	1 4	1 4	1 0
Hereford	1 5	1 5	1 5	1 5	1 5	1 5	1 4	1 0½
Huddersfield	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Hull	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Ipswich	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Lancaster	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 2
Leamington Spa	1 6	1 6	1 6	1 6	1 6	1 6	1 6	1 1½
Leeds	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Leicester	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Lichfield	1 6	1 6	1 6	1 6	1 6	1 6	1 6	1 1½
Lincoln	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Liverpool	1 9	1 9	1 8½	1 9	1 9	1 9	1 8½	1 4
Llanelly	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
London	1 8	1 8	1 8	1 8	1 8	1 8	1 8	1 3
Loughborough	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Luton	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Maidstone	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Manchester	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Mansfield	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Merthyr Tydfil	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Middlesbrough	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Newcastle-on-Tyne	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Newport, Mon.	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Northampton	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 2
Norwich	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Nottingham	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Oakham	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Oldham	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Oxford	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Plymouth	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 2
Pontypridd	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Portsmouth	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Preston	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Reading	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Rochdale	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Rochester	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Rugby	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 2
St. Albans	1 6	1 6	1 6	1 6	1 6	1 6	1 6	1 1½
St. Helens	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Scarborough	1 7	1 7	1 7	1 7	1 7	1 7	1 7	1 2½
Sheffield	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Shrewsbury	1 6	1 6	1 6	1 6	1 6	1 6	1 6	1 1½
Southampton	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Southend-on-Sea	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Southport	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
South Shields	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Stockport	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Stockton-on-Tees	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Stoke-on-Trent	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Stroud	1 4½	1 4½	1 4½	1 4½	1 4½	1 4½	1 4½	1 1½
Sunderland	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Swansea	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Swindon	1 5	1 5	1 5	1 5	1 5	1 5	1 4½	1 0½
Taunton	1 4½	1 4½	1 4½	1 4½	1 4½	1 4½	1 4½	1 1½
Torquay	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 5½	1 1½
Tunbridge Wells	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Wakefield	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Walsall	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 6½	1 1½
Warrington	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
West Bromwich	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Wigan	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Windsor	1 5	1 5	1 5	1 5	1 5	1 5	1 5	1 0½
Wolverhampton	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½
Worcester	1 6	1 6	1 6	1 6	1 6	1 6	1 6	1 1½
York	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 7½	1 2½

(For rates of wages in the Building Trade in Scotland, see page 741).

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. **Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.**

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

MAY 3.—**Alnwick.**—CONVENIENCE.—For erection o urinal at Cemetery for the Burial Board. Mr. R. Middlemiss, Clerk, Alnwick.

MAY 3.—**Brynmenin (Glam).**— ALTERATIONS.—For carrying out the alteration of Betharran Chapel, Brynmenin, for the Chapel Committee. Mr. C. E. Jones, architect, 8, Caldre-street, Bridgend. Deposit £1 1s.

May 3.—**France.**—CEMETERY CONSTRUCTION.—Construction of approximately 35 cemeteries in France, for the Imperial War Graves Commission. Contract 1924 "T." Secretary, Works Department, Imperial War Graves Commission, 82, Baker-street, London, W.1. Deposit 15 guineas.

MAY 3.—**Pembrokeshire.**—BUILDINGS.—For erecting for the County Small Holdings Committee: (1) New house and outbuildings at Llysfran; and (2) house at The Croft, Llysfran. Mr. Owain Thomas, County Architect, County Offices, Haverfordwest. Deposit £1 1s.

MAY 3.—**Rochester.**—HOUSES.—For the erection of 60 houses, for the T.C. Mr. W. Law, City Surveyor, Guildhall, Rochester. Deposit £5 5s.

MAY 5.—**Amersham.**—BUILDING WORKS.—Building works only, viz.: New boiler house, engine room and laundry building, sanitary annexe, &c., for the Guardians of the Amersham Union, at the Amersham Poor Law Institution. Guardians' Architect, Mr. Ernest E. Fetch, A.R.I.B.A., 5, Broom-road, Teddington, Middlesex. Deposit £2 2s.

MAY 5.—**Barnsley.**—DEMOLITION.—For the pulling down of property, Church-street, Barnsley. Mr. H. Taylor, Fairfield House, Barnsley.

MAY 5.—**Barnsley.**—PAINTING.—For cleansing and painting gates and railings of St. Mary's Churchyard, for T.C. Borough Engineer, Fairfield House, Barnsley.

MAY 5.—**Cardiff.**—ALTERATIONS.—For alterations to lavatory at 11, Park-place, for Board of Guardians. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

MAY 5.—**Cardiff.**—ALTERATIONS.—For alterations to bathroom at Ely Lodge, for Board of Guardians. Mr. R. Stephenson, Clerk, Union Offices, 11, Park-place, Cardiff.

MAY 5.—**Dorking.**—COTTAGES.—For the erection and completion of 50 cottages, for the U.D.C. Mr. S. S. Gettings, Surveyor, Council Offices, Dorking.

MAY 5.—**Edinburgh.**—PAINTING.—For painting work at the Royal Infirmary of Edinburgh. Works Department Office at the Hospital.

MAY 5.—**Evesham.**—CONVENIENCES.—For the provision of a public sanitary convenience at the Town Hall, for the T.C. Mr. J. Abbott, Surveyor, Town Hall, Evesham.

MAY 5.—**Linthwaite.**—HOUSES.—Erection of 30 scullery-type houses, for the U.D.C. Mr. Joe Ainley, architect, 3, Chapel Hill, Huddersfield.

MAY 5.—**Margate.**—ROOF.—Construction of a reinforced concrete roof, &c., to the boiler house and economiser house at the Corporation's Waterworks Pumping Station at Wingham, near Canterbury; also for a false ceiling to the coal store at the station, for the T.C. Borough Engineer, 13, Grosvenor-place, Margate.

MAY 5.—**Musselburgh.**—LIBRARY, &C.—Erection of rural branch library and janitor's house, High-street, Musselburgh, for the Midlothian Education Authority. Joiner and glazier works, plumber work, plaster and cement works, slater and harler works. County Education Offices, 1, India Buildings, Edinburgh.

MAY 5.—**Pontypridd.**—HOUSES.—For erecting for the Pontypridd U.D.C. 60 houses on the Duffryn site at Rhyd-y-Felin (Pontypridd). Mr. W. E. Lowe, Surveyor, Council Offices, Pontypridd (Glam). Deposit £3 3s.

MAY 5.—**Portsmouth.** — RUBBER FLOORING.—Works to be done and materials to be supplied in connection with laying rubber flooring to the main corridors of the Town Hall in the Borough of Portsmouth. Borough Engineer's Office, Town Hall, Portsmouth.

MAY 5.—**Reading.**—FLOORING.—Supplying and laying sectional wood flooring for three Badminton courts. Mr. V. C. Martin, 17, Bedford-row, W.C.1.

MAY 5.—**Southampton.**—PUBLIC BATHS.—Erection of public baths at Woolston, for the T.C. Borough Engineer, 33, French-street, Southampton. Deposit £2 2s.

MAY 5.—**Stoke-on-Trent.**—POINTING.—For pointing work at Penkhull Children's Homes, for the B.G. Mr. A. R. P. Piercy, Union Offices, Stoke.

MAY 5.—**Sutton St. Edmund.**—PAINTING.—For painting South Ean Bank and Chapel End Council Schools. Mr. W. T. Penny, Clerk, Sutton St. James, Wisbech.

MAY 5.—**Wallington, Surrey.**—HOUSES.—Erection and completion of 44 brick-built houses on the Miller's Orchard, Beddington Corner Site, for the Beddington and Wallington U.D.C. (Housing Scheme No. 2). Architect, Mr. S. F. R. Carter, A.M.Inst.C.E., Engineer to the Council, Council Offices, Wallington. Deposit £2 2s.

MAY 5.—**Wandsworth.**—ADDITIONS.—For alterations and additions to the Borough Engineer's Office, 215, Balham High-road, S.W., for the B.C. Mr. E. J. Elford, Borough Engineer, 215, Balham High-road, S.W. 17.

MAY 5.—**Wandsworth, S.W. 18.** — PAVILIONS.—Sports' pavilions at King George's Park, Wandsworth, and the Furzedown Recreation Ground, Streatnam, for the Wandsworth B.C. Mr. E. J. Elford, M.Inst.C.E., Borough Engineer, 215, Balham High-road, S.W. 17.

MAY 6.—**Aberdare.**—POST OFFICE.—For the erection of a new post office and telephone exchange, for the Commissioners of H.M.Works. Contracts Branch, H.M. Office of Works, King Charles-street, S.W. 1. Deposit £1 1s.

MAY 6.—**Blaydon.**—HOUSES.—Erection of 24 houses at Chopwell, and of 50 houses at Bleach Green, Blaydon, for the U.D.C. Surveyor, Council Offices, Blaydon-on-Tyne. Deposit £2 2s.

MAY 6.—**Castletownroche.**—REBUILDING.—For rebuilding of Castletownroche Station building and goods store, for the Great Southern & Western Railway Co. Chief Engineer, Inchicore, Dublin. Deposit £1 1s.

MAY 6.—**Durham.**—PAINTING.—For external painting at Ryhope Secondary School, for C.C. Mr. A. J. Dawson, Director of Education, Shire Hall, Durham.

MAY 6.—**Hatfield, Herts.**—COTTAGES.—Erection of 24 cottages in the parish of Hatfield, for the R.D.C. Messrs. Crickmer & Foxley, architects, 1, Lincoln's Inn Fields, London, W.C.2. Deposit £2 2s.

MAY 6.—**Irlam.**—HOUSES.—For the erection of 24 new houses, off Lords-street, Cadishead, in blocks of six each, for the U.D.C. Mr. W. H. Gamble, Surveyor, Council Offices, Irlam.

MAY 6.—**Leicester.**—PAINTING.—For painting and decorating the interior of the De Montfort Hall, for the T.C. Mr. E. G. Mawbey, City Surveyor, Town Hall, Leicester. Deposit £1.

MAY 6.—**Ormskirk.**—PAINTING.—For painting at Institution of Board of Guardians. Master, at Institution.

MAY 6.—**Welwyn, Herts.**—COTTAGES.—Erection of 40 cottages in the parish of Welwyn, in the county of Hertford, for the Welwyn R.D.C. Mr. H. G. Cherry, architect, 97, Jermyn-street, St. James, S.W.1. Deposit £2 2s.

MAY 6.—**Widnes.**—HALL, &C.—For the erection of a hall and clubroom at Halebank, Widnes, for the Loyal Ireland Blackburne Lodge of the Independent Order of Oddfellows. Mr. Herbert Baguley, architect, 5, Victoria-terrace, Ball-o-Ditton, Widnes. Deposit £3 3s.

MAY 7.—**Aberdare.**—PUBLIC HALL, &C.—For erecting, for the Aberdare United Services Club and Institute, Ltd., a new public hall and billiard room, &c., at Cross-street, Aberdare. Mr. Gwilym Bosher, architect, 29, Victoria-square, Aberdare. Deposit £2 2s.

MAY 7.—**Brighton.**—HOUSES.—Completion of building eight houses on the Moulscombe Housing Estate, for the T.C. Mr. S. C. Garrett, Hon. Secretary to the Panel of Architects, 34, Ship-street, Brighton.

MAY 7.—**Bristol.**—COTTAGES.—For the erection of one block of four cottages at Richmond-terrace, Avonmouth, for the T.C. Mr. C. F. Dawson, City Estates Surveyor, The Exchange, Corn-street, Bristol. Deposit £1 1s.

MAY 7.—**Cardiff.**—FIREMEN'S QUARTERS.—For the erection of firemen's quarters at the Central Fire Station, Westgate-street, for the T.C. Mr. T. Peirson Frank, City Architect, City Hall, Cardiff. Deposit £2 2s.

MAY 7.—**Crook.**—SCHOOL.—Erection of infants' school at Sunniside, Crook, to accommodate 80 children, for the Durham C.C. Mr. F. Willey, Architect, 34, Old Elvet, Durham.

MAY 7.—**Graythorp.**—SCHOOL.—Erection of school to accommodate 150 children, for the Durham C.C. Mr. F. Willey, Architect, 34, Old Elvet, Durham.

MAY 7.—**Hull.**—BATHS.—For the erection of cottage baths in Albert-avenue, for the T.C. City Architect, Guildhall, Hull. Deposit £2 2s.

MAY 7.—**Inverness.**—HOUSES.—Erection of six four-roomed workmen's dwelling-houses; two blocks of two houses at Portree; and one block of two houses at Kyleakin, for the C.C. Mr. Jas. A. H. Mackenzie, Architect, Portree.

MAY 7.—**Kirkcudbright.**—PAINTING.—For painter work for four blocks of two houses each, for the T.C. Mr. John Gibson, Town Clerk, Kirkcudbright. Deposit £1 1s.

MAY 7.—**Littlehampton.**—CONVENIENCES.—For the erection of public conveniences in St. Martin's-lane, for the U.D.C. Surveyor, Town Offices, Littlehampton.

MAY 7.—**Manchester.**—GLAZING.—For the patent glazing of a portion of the roof of the Smithfield Fruit and Vegetable Market, for the T.C. General Superintendent, Markets Office, Town Hall, Manchester.

MAY 7.—**Manchester.**—SCHOOL.—Erection of the new Secondary School for Boys in Sandy-lane, Chorlton-cum-Hardy, for the T.C. Education Offices, Deansgate, Manchester. Deposit £2 2s.

MAY 7.—**Marshland.**—HOUSES.—Erection of six houses at Clenchwarton, and eight at Hay Green, Terrington St. Clement, for the R.D.C. Mr. L. F. Eagleton, 38, King-street, King's Lynn. Deposit £1 1s.

MAY 7.—**Pontardulais (Glam).**—ERECTION OF HOUSE, SHOP, &C.—For erecting a house, a garage, show-rooms, and lock-up shop at Pontardulais. Mr. Frank Jones, The Garage, Pontardulais. Deposit £1 1s.

MAY 7.—**Salford.**—TILING.—For tiling floors, walls and ceilings of kitchen, scullery and larder at Ladywell Sanatorium, Eccles New-road, for the T.C. Medical Officer of Health, 143, Regent-road, Salford.

MAY 7.—**Stillington.** — ALTERATIONS. — Alterations and improvements at Stillington Mixed Council School, for the Durham C.C. Mr. F. Willey, Architect, 34, Old Elvet, Durham.

MAY 7. **Washington.**—ADDITIONS.—For additions to Washington Secondary School, for the Durham C.C. Mr. F. Willey, Architect, 34, Old Elvey, Durham.

MAY 7.—**Whiteleas.** —SCHOOL.—Erection of scho accommodate 250 children at Whiteleas, near S. Sh for the Durham C.C. Mr. F. Willey, Architect, 34 Elvet, Durham.

MAY 8.—**Cardiff.**—HOUSES.—For the erection lots) of 50 houses at Ely, for the T.C. Architect, Hall, Cardiff. Deposit £2 2s.

MAY 8.—**Felinfach (Cardigan).**—ALTERATIONS, & For carrying out for the Trustees of the West Church at Mydroilan, Felinfach, alterations, new ing arrangements and renovations. Mr. T. D Evans, architect, Llandyssul.

MAY 8.—**Fishguard.**—BUNGALOW.—For erectio bungalow on Penslade, Fishguard. Mr. J. B Windy Hall Villa, Fishguard. Deposit £1 1s.

MAY 8.—**Fishguard.**—VILLAS.—Erection of two detached villas on Penslade, Fishguard. Messrs Thomas & Co., Goodwick House, Fishguard. De £1 1s.

MAY 8.—**Llandudno.**—CHILDREN'S HOME.— tion of a new Children's Home (40 children) in B Powell-road, Llandudno Junction, for the Guar of the Poor of the Conway Union. Mr. S. Co Foulkes, architect, Central Chambers, Colwyn Deposit £1 1s.

MAY 8.—**Llanon (Card).**—BRIDGE WORKS.— carrying out, for the Cardiganshire (South Divi Main Roads Committee, repairs to Morfa Br between Llanon and Aberarth and repairing improving Nebo Bridge, about one mile from Cross Llanon. Mr. J. Davies, County Surveyor, H Llandyssul, or at 3, Market-street, Aberayron.

✱MAY 8.—**London, W.7.**—PAINTING AND REPAI Painting and repairs to gutters, down-pipes, &c., re to certain chimneys and lantern lights, and fo decorating cottage for the Managers of the Ce London District School, Greenford-avenue, Han W.7. Deposit 10s. Treasury Note.

MAY 8.—**Peterborough.**—HOUSES.—Erection o houses on the Grange-road Estate, for the T.C. Surveyor, Broadway, Peterborough. Deposit £1

MAY 8.—**Wortley.**—HOUSES.—For the erectio 75 houses at Mortomley and, alternatively, 45 h at Mortomley, 20 at Ecclesfield, and 10 at Tanke respectively, for the R.D.C. Mr. F. Thurlby, veyor, Wortley. Deposit £2 2s.

MAY 9.—**Mytholmroyd.**—CLUB.—For erection club. Mr. H. E. Hinchliffe, architect, Halifax.

MAY 9.—**Tilbury, Essex.**—HOUSES.—Compl of the erection of 208 houses in Tilbury, now in var stages of partial construction under four sets of s fications (respectively covering 48 and 58 houses i North, or Chadwell Ward, and 42 and 60 house the South Ward), for the Tilbury U.D.C. Mr. A. Buckner, Clerk to the Council, Council Offices, Tilb

MAY 10.—**Blackhall.**—MINERS' HOMES.—Erecti 10 Aged Miners' Homes at Blackhall Colliery. James Hamilton, Blackhall Colliery.

MAY 10.—**Briton Ferry (Glam).**—HOUSES, &C.— erecting at the Brynhyfryd-road (North) site, Bi Ferry, for the Neath Borough Council, 20 ho Also for paving, kerbing, channelling, and stone pipe sewers, works in connection with same. M A. Clarke, Borough Engineer, Gwyn Hall, Neath (G Deposit £3 3s.

✱MAY 10.—**Egham.**—ALTERATIONS.—For the tion of a billiard room, bar and various struc alterations to premises at 159, High-street, for Building Committee of Egham and District C tutional Club. Mr. G. W. Booth, 155, High-s Egham.

MAY 10.—**Glamorgan.**—VARIOUS.—For all wor County Hall, Cardiff, and for individual work Police Stations as follows:—(1) Clydach (2) N (County); (3) Maesteg; (4) Pontardawe; (5 a Kenfig Hill; (6) Ystalyfera; (8 and 9) Pontycym (10) Pontlottyn; (11 and 13) Hengoed; and Taffs Well.

MAY 10.—**Neath.**—HOUSES.—For the erecti 20 houses (parlour type); also for paving, k and channelling and stoneware pipe sewers in nection with housing scheme, for the T.C. M Alex. Clarke, Borough Engineer, Gwyn Hall, N Deposit £3 3s.

✱MAY 10.—**Newport, Salop.**—SCHOOL.—Erect a Secondary School to accommodate 120 girls, at port, for the Salop County Council Higher Edu Department. Mr. W. H. Pendlebury, M.A., Sec for Higher Education, County Buildings, Shrew Deposit £2 2s.

MAY 12.—**Finchley.**—PAINTING.—For paintin other works at schools, for the U.D.C. Mr. Harrison, surveyor, Church End, Finchley, N. posit £1 1s.

MAY 12.—**Mansfield.**—HOUSES.—Erection completion of 74 houses (3 blocks of six houses, 2 of four houses, and 24 pairs, all type A. 3), f T.C. of the Borough of Mansfield. Mr. Warrick T son, Assoc.M.Inst.C.E., Borough Engineer and veyor, Market-street, Mansfield. Deposit £2 2s

MAY 12—**Middlesbrough.**—OFFICES.—Erecti new Harbour Master's Offices at the Dock Middlesbrough, for the Tees Conservancy Comm Mr. James Forbes, 19, Grange-road West, M brough.

MAY 12.—**Port Talbot.**—PAINTING.—For the pa of the various schools within the Borough. Mr. Thomas, Port Talbot.

✱MAY 13. — **Crawley.** — HOUSES. — Erecti eight houses, in two blocks of four each, in road, Crawley, for the Horsham R.D.C. Mr. Guildford, Surveyor to the Council, 42, Albion-t Horsham. Deposit, £1 1s.

MAY 13.—**Lambeth.**—FIRE ESCAPE STAIRC For the erection of fire escape staircases at La Hospital at Kennington, for the Board of Gua Mr. James L. Goldspink, Clerk, Brook-street, K ton-road, S.E. Deposit £2.

✱MAY 13.—**London, S.E.**—FIRE ESCAPE STAI —Erection of fire escape staircases at the La Hospital at Kennington, for the Guardians Parish of Lambeth. Mr. James L. Goldspink, the Guardians, Board Room and Offices, Brook Kennington-road, S.E.11, any day (except Sat between the hours of ten and five. Deposit £

AY 13.—**London, N.18.**—PAINTING.—Internal ng, &c., of the Nurses' Home, North Middlesex tal, Silver-street, Edmonton, for the Guardians Edmonton Union. Guardians' Architect, Mr. . Mummery, 34, Bloomsbury-square, W.C.1.

Y 13.—**Manchester.**—ALTERATIONS.—For alteraor public washhouse at the new Islington Baths, e T.C. City Architect, Town Hall, Manchester. it £1 1s.

AY 14.—**London, E.C.1.**—CONVERSION.—Convertisting stables into a garage at the Administrative . 53, Clerkenwell-road, E.C.1, for the Guardians Holborn Union. Mr. Chas. J. Cross, Clerk to the ians. Administrative Offices, 53, Clerkenwell-E.C.1. Deposit £1 1s.

Y 14.—**Penllwyn (near Aberystwyth).**—MANSE.—recting a manse at Penllwyn, for the Trustees of ethodist Chapel. Mr. J. Lewis-Evans, architect, reat Darkgate-street, Aberystwyth.

Y 15.—**Kingston-upon-Thames, Surrey.**—ADDITO HOSPITAL.—Erection of buildings to provide onal accommodation for nurses at (*a*) Brookwood l Hospital, (*b*) Netherne Mental Hospital, for the ic Asylums Visiting Committee of the Surrey y Council. Mr. J. F. Hodgson, M.S.A., architect, High-street, Guildford.

Y 15.—**London, S.W.2.**—REMOVAL AND REERECTION.—Removal of the existing public overd iron urinal, situate at Webber-street, New Cut, e re-erection of same on a refuge in the centre of adway of the said street and the provision of new azed stoneware stalls, &c. Borough Engineer's Town Hall, Brixton Hill, S.W.2.

Y 15.—**Salford.**—HOUSES.—For the erection of 38 and flats on the Littleton-road Housing Estate, e T.C. Mr. Charles Swain, architect, 12, nge-street, Manchester.

AY 15.—**Southend-on-Sea.**—CAR SHED.—Supply ection of an extension to the existing car shed on st boundary of the London-road Depot, for the ration of Southend-on-Sea. Mr. Robert H. Dyer, gh Engineer, Municipal Buildings, Clarence-road, nd-on-Sea. Deposit £2 2s.

16.—**Ilford, Essex.**—MEMORIAL HALL.—ng a circular memorial hall, about 30 ft. average ter, faced with Portland stone and red bricks oofed with reinforced concrete dome, in Hatchlford, for the Chairman and Members of the War Memorial Fund. Messrs. C. J. Dawson, Allardyce, architects, Clock House Chambers, ng. Deposit £5.

17.—**Doncaster.**—HOUSES.—For the erection of ses on the Warmsworth-road site, for the T.C. E. Ford, Housing Surveyor, 3 Priory-place, ster. Deposit £2 2s.

17.—**Leyburn.**—ADDITIONS.—Erection of a ouse and bathroom at Brough Hill (Bainbridge). F. King, Kingston Cottage, West Witton, rn.

AY 17.—**London, E.C.1.**—CLEANING AND PAINTBrushing down the brickwork and painting the r wood and ironwork of the Town Hall, for the ry Borough Council. Borough Surveyor's between the hours of 10 and 4 (Saturdays ed), Finsbury Town Hall, Rosebery-avenue,

19.—**Barnet.**—CONVENIENCES.—Erection of iences at Old Court House Recreation Ground, U.D.C. Surveyor, Council Offices, Wood-street,

19.—**Bury.**—FIRE STATION, &C.—For the erec a fire station and a mortuary and appurtenant n Stanley-street, for the T.C. Mr. J. Ainsworth Borough Engineer, Bury. Deposit £2.

19.—**Camberwell.**—PAINTING.—For external of approximately 200 houses at the Council's Housing Estates, for the Camberwell B.C liam Bell, Borough Engineer, Camberwell, S.E.5

19.—**Liskeard.**—ALTERATIONS, &C.—For repairs ptations to the farm buildings at East Trehunist uethiock, near Liskeard, for the Cornwall C.C. Land Agent, County Hall, Truro. Deposit

19.—**Neston.**—HOUSES.—For the erection of 24 16 at Parkgate and 8 at Neston, for the Mr. Arthur Tillotson, Town Hall, Neston, near ead. Deposit £1 1s.

19.—**Various Places.**—GAS MAINS.—Supplyfixing of gas mains, services, fittings, &c., ls and other buildings provided or maintained. Council, based upon the Council's Schedule of r each work for the London County Council. to the Council, The County Hall (Room Westminster Bridge, S.E.1. Deposit £1 1s.

19.—**Wakefield.**—PAINTING.—For the outside of main buildings (female side) at the West Mental Hospital, Wakefield. Mr. W. E. H. Architect, West Riding Mental Hospitals ffice, Wakefield.

9.—**Wakefield.**—SANITARY ANNEXE.—Erection tary annexe at the West Riding Mental Hosakefield. Mr. W. E. H. Burton, Architect, ding Mental Hospitals Board Offices, Wakeeposit £1.

.—**Dundalk.**—FENCING.—Supply and erection g and gates to ex-Servicemen's houses in Urban District, for the Commissioners of Forks. Mr. J. J. Healy, Secretary, Office of forks, Dublin.

20.—**Featherstone, Yorkshire.**—HOUSES.—of 50 houses at Streethouse, near Pontefract, Featherstone U.D.C. Mr. Samuel Chesney, A., Council Offices, Featherstone, near Pontedeposit £2 2s.

20.—**Retford, Notts.**—ALTERATIONS AND ONS.—Alterations and extensions to Rampton stitution, Retford, Notts, for the Commisf His Majesty's Office of Works. Contracts M.O.W., King Charles-street, London, S.W.1. 1 1s. (payable to the Secretary).

21.—**London, S.W.**—PAINTING, DECORATION AIRS.—Painting, decoration and repairs, at el in the Fulham-road Workhouse, 367, oad, S.W., for the Guardians of the City of ter Union. Clerk to the Guardians, Guardians' rince's-row, Buckingham Palace-road, S.W.

✱MAY 21.—**Newcastle, Staffs.**—TELEPHONE EXCHANGE.—Erection of a Telephone Exchange at Newcastle, Staffs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

✱MAY 22.—**Wimbledon.**—EMPLOYMENT EXCHANGE.—Erection of an Employment Exchange at Wimbledon, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1 Deposit £1 1s. (payable to the Secretary).

✱MAY 23.—**Blaydon, near Newcastle-on-Tyne.**—ALTERATIONS.—Alterations to the Post Office and Telephone Exchange, Blaydon, near Newcastle-on-Tyne, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

✱MAY 24.—**Darwen, Lancs.**—POST OFFICE.—Erection of a new Post Office at Darwen, Lancs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

✱MAY 24.—**Kingston-upon-Thames.**—HOUSES.—Erection of 10 pairs of parlour-type houses and 12 pairs of non-parlour type houses, for the Corporation of the Borough of Kingston-upon-Thames on their housing estate. Borough Surveyor, Town Clerk's Office, Municipal Offices, Kingston-upon-Thames. Deposit £1 1s. (Builders will be at liberty to tender for the whole or a less number of both or either type of such houses, as they may desire.)

MAY 24.—**Salford.**—ALTERATIONS.—For alterations and new offices at Broughton High School for Girls, for the T.C. Secretary for Education, Education Offices, Chapel-street, Salford.

MAY 27.—**Chorley.**—ALTERATIONS.—For small alterations at Isolation Hospital, for the Chorley Joint Hospital Board. Messrs. Buckley & Catterall, architects, Chorley.

✱JUNE 2.—**London, E.C.2.**—RE-DECORATION.—Re-decoration of the Hoxton Public Library, Pitfield-street, N. 1, for the Shoreditch B.C. Mr. T. L. Hustler, Borough Surveyor, Town Hull, Old-street, E.C. 2.

✱JUNE 6.—**Lough Derg, Co. Donegal.**—FOUNDATIONS.—Constructing the foundations (to be built partly in the Lake) of the proposed new church designed by the late Professor W. A. Scott, at St. Patrick's Purgatory. Thomas J. Cullen, F.R.I.A.I., architect, 25, Suffolk-street, Dublin.

NO DATE.—**Abertridwr (Glam).**—ADDITIONS, &C.—For making alterations to and erecting additional buildings to the Workmen's Hall and Institute, Abertridwr. Mr. G. Kenshole, Architect, 30, Charles-street, Cardiff. Deposit £3 3s.

NO DATE.—**Barnsley.**—HOUSES.—For the erection of houses, Huddersfield-road, Barnsley. Mr. Albert P. Haigh, architect, 2, St. Mary's-place, Barnsley.

NO DATE.—**Birkenhead.**—PLASTERING.—Plastering for 230 houses. Messrs. Selwood, Lloyd & Co., Hoylake-road Estate, Birkenhead.

NO DATE.—**Fauldhouse.**—HOUSES.—Erection of 100 houses at Fauldhouse, for Messrs. Barr & Thornton. Mr. W. Baillie, architect, 2, West Regent-street, Glasgow.

NO DATE.—**Rochdale.**—EXTENSIONS.—Extensions to premises in Nelson-street, Rochdale, for Messrs. Iveson Bros. Mr. T. Townend, Architect, District Bank Chambers, Rochdale.

NO DATE.—**Ulceby.**—VICARAGE.—For the erection of new vicarage at Ulceby, near Grimsby, for the Rev. G. H. Newton. Mr. G. R. C. Harding, A.R.I.B.A., 29, Broadgate, Lincoln.

FURNITURE, MATERIALS, etc.

MAY 6.—**Belchamp.**—MATERIALS.—Supply of broken granite and slag, to the R.D.C. Mr. S. Allpress, surveyor, Sudbury, Suffolk.

MAY 6.—**Birkenhead.**—MATERIALS.—For stores for the Electricity Department, for one year. Mr. G. P. Shallcross, Borough Electrical Engineer, Craven-street, Birkenhead.

MAY 6.—**Glasgow.**—STORES.—For the supply of materials, &c., for six and/or twelve months to the Tramways Department. Mr. James Dalrymple, General Manager, 46, Bath-street, Glasgow.

MAY 6.—**London.**—GALVANISED SHEETS.—Supply to Director-General, India Store Department, of corrugated M.S. sheets, galvanised. Branch 12, Belvedere-road, S.E.

MAY 7.—**Droxford.**—MATERIALS.—Supply of 3,000 tons of granite, basalt and limestone to the R.D.C. Mr. A. V. Carter, surveyor, Droxford.

MAY 9.—**London.**—RAILWAY MATERIALS.—Supply to the Bombay, Baroda, and Central India Railway Co. of steel material (angles, flats, plates), &c. Mr. S. G. S. Young, Secretary, 91, Petty France, S.W.1. Charge £1.

MAY 10.—**Norton.**—MATERIALS.—For stone required for the various Highways of the R.D.C. Mr. J. E. Moulding, Clerk, Council Offices, The Edge, Sheffield.

MAY 12.—**Wakefield.**—SHELVING.—Supply and erection of steel shelving at the Registry of Deeds, Kirkgate, Wakefield. West Riding Architect, County Hall, Wakefield.

MAY 13.—**Richmond.**—MATERIALS.—Supply of grey lime, Buxton lime, sewage precipitants, and filter press cloth to the Richmond Main Drainage Board. Mr. William Fairley, Engineer, West Hall-road, Kew Gardens, Surrey.

MAY 16.—**London.**—TIN SHEETS.—Supply of tin sheets to the India Store Department. Branch 12, Belvedere-road, S.E.

ENGINEERING, IRON AND STEEL.

MAY 5.—**Brackley.**—PUMPING PLANT.—For erection of crude oil engine and well pump to lift 8,000 gallons of water per hour at Waterworks Pumping Station, for T.C. Mr. E. J. Silcock, Corporation Engineer, 25, Victoria-street, Westminster, S.W.1. Deposit £5.

MAY 5.—**Dublin.**—STEELWORK.—Supply and fixing of steelwork at the Relief Telephone Exchange, Shipstreet Barracks, Dublin. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin.

MAY 5.—**Ventnor.**—GROYNES.—For the construction of two timber groynes on the foreshore, opposite Undercliff House, for the U.D.C. Mr. D. V. Howard, Surveyor, Town Hall, Ventnor, I.W.

MAY 6.—**Leicester.**—ELECTRIC LIGHTING.—For remodelling electric lighting at the De Montfort Hall, for the T.C. Mr. E. G. Mawbey, City Surveyor, Leicester. Deposit £1.

MAY 6.—**Rhondda.**—WATER AND BRIDGE WORKS.—For the following works for the Rhondda U.D.C., Gas and Water Dept.:—The supply of 4,100 yards of 15 in., 300 yards of 4 in., and 600 yards of 3 in. cast-iron pipes, Class D. Laying and jointing about 4,100 yards of 15 in. cast-iron water main with the necessary valves, &c. Mr. O. Thomas, Engineer, Gas and Water Offices, Pentre, Rhondda.

MAY 7.—**Salford.**—HEATING APPARATUS.—For heating and hot-water service at the Maternity and Babies' Hospital, Seedley-road, Seedley, for T.C. Medical Officer of Health, 143, Regent-road, Salford.

MAY 8.—**Barking.**—BRIDGE.—For the construction of the bridge over Barking Creek on the line of the East Ham and Barking By-pass, for the Ministry of Transport. Chief Engineer, Roads Department, Ministry of Transport, 7, Whitehall-gardens, S.W.1. Deposit £100.

MAY 9.—**London.**—ROOF WORK, &C.—Supply to the South Indian Railway Co. of 1, roof work; 2, spare parts of carriages and wagons. Company's Offices, 91, Petty France, Westminster, S.W.1. Charge 10s. each.

MAY 9.—**South Africa.**—COAL ELEVATORS.—Supply and erection of five coal elevators and ten coal shutes, for the Rand Water Board. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Reference 13429/ED/EC/2.

MAY 10.—**Poulton-le-Fylde.**—BRIDGE.—Construction of a bridge over the London, Midland, and Scottish Railway in the township of Poulton-le-Fylde, for the Lancashire C.C. County Surveyor and Bridgemaster, County Offices, Preston.

MAY 12.—**Dewsbury.**—REINFORCING BARS.—Supply of mild steel reinforcing bars (approximately 35 tons) for use in the construction of a ferro-concrete tank, for the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury. Deposit £2 2s.

MAY 12.—**Dewsbury.**—TANK.—Construction of a ferro-concrete tank (500,000 gallons capacity), and other appurtenant works, for the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury. Deposit £2 2s.

MAY 12.—**South Crosland.**—BRIDGE.—Widening of Bentley Bridge, which carries the Lockwood and Meltham main road over Folly Dyke, South Crosland, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

MAY 30.—**London.**—STEELWORK.—Supply to the South Indian Railway Co. of structural steelwork (Machine Shop). Company's Offices, 91, Petty France, Westminster, S.W.1. Charge £1.

JULY 1.—**Chili.**—HARBOUR WORKS.—**For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.**

ROAD, SANITARY, AND WATER WORKS.

MAY 3.—**Faversham.**—ASPHALTING.—For 3,150 sq. yds. of double-coat asphalte to be laid on the London-Dover road, for the T.C. Mr. S. Percy Andrews, Borough Surveyor, 20, West-street, Faversham. Deposit 10s.

MAY 3.—**Margate.**—ROAD.—Making-up new road, 80 ft. wide, east of Palm Bay, Margate, for a length of 1,116 ft., for the T.C. Borough Surveyor, 13, Grosvenor-place, Margate.

MAY 5.—**Barnsley.**—ROADS.—For making-up of Foster-street, Conway-street, and Victoria-street, Stairfoot, for T.C. Borough Engineer, Fairfield House, Barnsley.

MAY 5.—**Coulsdon and Purley.**—SEWER.—For the construction of 230 lin. yds. of 9 in. sewer and manholes, &c., for the U.D.C. Mr. R. Chart, Surveyor, Council Offices, Purley. Deposit £2 2s.

MAY 5.—**Eccles.**—ROADS.—For making-up Armitage-street, Dorning-street, Lime-street, Oak-street, eleven back passages in the same neighbourhood, for T.C. Mr. T. S. Picton, Borough Surveyor, Town Hall, Eccles. Deposit £1 1s.

MAY 5.—**London, S.W.**—STREETS AND SEWERS.—Construction of streets and sewers in connection with the development of the L.C.C., East Hill Estate, Wandsworth, for the L.C.C. The Architect to the Council, The County Hall Room No. 3), Westminster Bridge, S.E. 1. Deposit £1 1s. to the Cashier.

MAY 5.—**Pontypridd.**—ROADS AND SEWERS.—For carrying out for the Pontypridd U.D.C. the following works:—(1) Formation and ballasting of about 740 lineal yards of roadways; (2) constructing and laying of about 1,900 lineal yards of 9 in., 6 in. and 4 in. sewers with 6 in. surface water drains in connection with the proposed erection of 60 houses at Rhyd-y-Felin. Mr. W. E. Lowe, Surveyor, Council Offices, Pontypridd. Deposit £1 1s.

MAY 5.—**Watford.**—ROADS.—For the kerbing, channelling and paving of about 3,300 yds. of footpath in Rickmansworth-road, for the T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.

MAY 5.—**Watford.**—ROADS.—For the making up Sydney-road, Part 2 (290 yards), Whippendell-road, Part 4 (850 yards), for the T.C. Mr. D. Waterhouse, Borough Engineer, Municipal Offices, 14, High-street, Watford. Deposit £2 2s.

MAY 6.—**Fife.**—ROADS.—For strengthening and resurfacing with tar macadam or mesaphalte grouted macadam about 7 miles of roadway from Cupar via Ceres and Pitscottie, to near Tongues of Clatto, for the Fife C.C. Mr. W. Boyd, Road Surveyor, 12, Crossgate, Cupar-Fife.

MAY 6.—**Kingsbury.**—ROADS.—For tarspraying certain roads, for the U.D.C. Surveyor, Council Offices, Kingsbury, N.W.9.

MAY 6.—**North Bromsgrove.**—ROADS.—For the reconstruction and repair of a length of approximately 1,150 yards of road, for the U.D.C. Mr. Francis T. Levens, Clerk, 110, High-street, Bromsgrove.

MAY 6.—**Rhondda.**—WATER MAINS, &C.—(65) Supply of 4,100 yds. of 15 in., 300 yds. 4 in., and 400 yds. 3 in. cast-iron pipes, Class D; (66) Laying 4,100 yds. of 15 in. cast-iron water main, &c.; (67) supply and erection of two steel water storage tanks at Blaenclydach, for the U.D.C. Mr. Octavius Thomas, Engineer, Gas and Water Offices, Pentre, Rhonadd.

MAY 6.—**Skipton.**—ROADS.—Taking up and relaying the street paving at Grassington, for the R.D.C. Mr. A. Rodwell, surveyor, Skipton.

MAY 7.—**Glamorganshire.**—STREET WORKS, &C.—For carrying out for the Cardiff R.D.C. the following works:—(1) Street improvements and construction of surface water drains at (*a*) Bishop's-road, &c. (part of), (*b*) Westbourne-crescent (part of), and (*c*) Queen-street (part of), all at Tongwynlais, and (2) sewer extension—(*d*) construction of about 630 lineal yards of 9 in. earthenware pipe sewers with manholes, &c., at Pantbach-road, Whitchurch, and (*e*) widening of Station-road, Rhoose. Mr. William Farrow, 20, Park-place, Cardiff.

MAY 7.—**Great Harwood.**—ROADS.—For reconstructing carriageway in Heys-lane, for the U.D.C. Mr. A. H. Dunkin, Surveyor, Town Hall, Great Harwood.

MAY 7.—**Prestwich.**—SEWERS.—Construction of 330 yards surface water and soil sewers along Sandy-lane, for the U.D.C. Mr. M. A. Piercy, Surveyor, Town Hall, Prestwich. Deposit £1 1s.

★MAY 7.—**Woolwich, S.E.18.**—TERRAZZO PAVING, &C.—Terrazzo paving and works in connection at the Infirmary, Plumstead High-street, S.E.18, for the Guardians of the Poor of the Woolwich Union. Messrs. Whincop & Channer, architects, 47, Thomas-street, Woolwich. The site of the work can be inspected any day at The Infirmary (Steward's Office), copies of specifications are not supplied.

MAY 8.—**Clun.**—ROADS.—For widening the Purslow-Hopton Heath-road and erection of fencing in connection therewith, for the R.D.C. Mr. H. A. Elliott, Surveyor, Bishop's Castle, Salop. Deposit £2 2s.

MAY 8.—**Newbury.**—ROADS.—For resurfacing various streets, for the T.C. Borough Engineer, Newbury.

MAY 12.—**Mitcham.**—ROADS.—For the making up of Garden-avenue, for the U.D.C. Surveyor, Broadway House, London-road, Lower Mitcham.

MAY 9.—**Downpatrick.**—ROADS.—For reconstruction in asphalte macadam and reinforced concrete of certain sections of roads in County Down, for the C.C. Mr. J. G. Wilkin, County Surveyor, Court House, Downpatrick.

MAY 10.—**Ebbw Vale.**—ROADS.—For spraying about 45,000 super yds. of road with "Liquaphalt," for the U.D.C. Mr. P. I. Davies, Surveyor, Council Offices, Ebbw Vale.

MAY 12.—**Kirkcaldy.**—ROADS.—For reforming the roadways in tar macadam, and incidental works, at the Infectious Diseases Hospital. Mr. George B. Deas, Civil Engineer, Central Chambers, Kirkcaldy. Deposit £1.

MAY 12.—**Rothwell.**—ROADS.—For kerbing and asphalting 18,000 super yds. of road, for the U.D.C. Mr. J. Southwart, surveyor, Rothwell. Deposit £1 1s.

MAY 13.—**Cranbrook.**—SEWER.—For the construction of about 1,159 lineal yards of 6 in. sewer with manholes, for the R.D.C. Mr. J. H. Bailey, Sanitary Surveyor, Penryn, Cranbrook.

MAY 13.—**Kidderminster.**—BORE.—For the sinking of a bore, varying from 20 to 10 in. diameter, at Cookley, near Kidderminster, for the R.D.C. Messrs. Fiddian, Barratt & Deeley, 13, Church-street, Stourbridge. Deposit £2 2s.

MAY 13.—**Kilmarnock.**—WATER MAINS, &C.—(*a*) Laying of 800 yds. of 6 in. and 4 in. water piping; (*b*) the supplying and laying of 980 yds. of fire clay sewers of various diameters; (*c*) the excavation and bottoming of 4,650 yds. of roadway; and (*d*) erection of 573 yds. of stob and wire fencing in connection with the erection of 54 houses, for the T.C. Mr. William Dunbar, Burgh Surveyor, Market Bridge, Kilmarnock.

MAY 13.—**Queensbury.**—ASPHALTING.—For the tar asphalting to playgrounds at Queensbury Catherine Slack Council School, for the West Riding E.C. Education Department, County Hall, Wakefield.

MAY 13.—**Yeadon.**—WATER WORKS.—Laying cast-iron pipe line from Carr Bottom Reservoir, Burley, to Reva Reservoir, Hawksworth, for the Waterworks Co. Mr. H. A. Johnson, Engineer, 14, The Exchange, Bradford. Deposit £2 2s.

MAY 14.—**Denny.**—WATERWORKS.—Part duplication of main pipe from Broadside Reservoir to Denny, for the T.C. Messrs. Crouch & Hogg, Civil Engineers, 17, Lynedoch-street, Glasgow. Deposit £2 2s.

MAY 14.—**Scunthorpe and Frodingham.**—SEWERAGE WORKS.—For the construction of 112 lin. yds. of 12 in. and 1,470 lin. yds. of 9 in. diameter earthenware pipe sewers and other works, for the U.D.C. Mr. W. Farrar, Surveyor, Council Offices, Scunthorpe. Deposit £2.

MAY 14.—**St. Colomb.**—ROADS.—For reconstructing 3½ miles of road, for the R.D.C. Mr. T. T. Strongman, surveyor, St. Colomb-road, Fraddon.

MAY 14.—**Thrapston.**—ROADS.—(1) Widening of main road, rough pitching and steam rolling; (2) laying of 8,900 yds. of 9 in. by 4 in. concrete kerb in various parishes; (3) building of concrete wall, for the R.D.C. Mr. Arthur C. Bradbury, surveyor, Bridge-street, Thrapston.

MAY 15.—**Bingley.**—ASPHALTING, &C.—For the following works: Bingley Training College—(1) Asphalting playing ground; (2) building of accumulator house. Education Department, County Hall, Wakefield.

MAY 15.—**Lambeth.**—SANITARY.—For removal of overground iron urinal at Webber-street and re-erection of same. Borough Engineer, Town Hall, Lambeth, S.W.

★MAY 15.—**Upper Norwood.**—SEWERS AND ROADS.—Works required to be done and materials supplied and used in the formation and laying out of sewers and builders' roads for the development of a portion of the Bloomfield Hall Housing Estate, Central Hill, Upper Norwood, for the Lambeth B.C. Mr. Osmond Cattlin, Assoc.M.Inst.E.C. (Chartered Civil Engineer), Borough Engineer, Town Hall, Brixton Hill, S.W.2. Deposit £2 2s.

MAY 16.—**Preston.**—ROADS.—For making-up Dart-street, Clyde-street, Mersey-street, back roads between Dart-street and Clyde-street, Clyde-street and Mersey-street, and back road Mersey-street, for the T.C. Borough Surveyor, Town Hall, Preston.

MAY 16.—**Saffron Walden.**—ROADS.—For resurfacing with tar macadam a portion of High-street and Little Walden road, for the T.C. Mr. A. H. Forbes, Borough Surveyor, Saffron Walden.

MAY 19.—**Uttoxeter.**—WATER SUPPLY.—Construction of about 8 miles of 7 in. water main, together with turbine pumping station, service reservoir, and other incidental works, for the U.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £7 7s.

MAY 21.—**Hammersmith.**—ROADS.—For the making-up of Section 2, Bloemfontein-road, for the B.C. Mr. R. Hampton Clucas, Borough Engineer, Town Hall, Hammersmith. Deposit £3 3s.

Competitions.

(*See Competition News, page* 708.)

Auction Sales, Tenders, etc.

MAY 2.—**London, E.C.**—Messrs. Fuller, Horsey, Sons & Cassell will sell by order of Messrs. C. J. Wells & Sons, Ltd., on account of the completion of the London-Tilbury road contract, at the Merchants' Hall, Baltic Exchange, St. Mary-Axe, E.C., contractors' plant. Auctioneers, 11, Billiter-square, E.C.3.

★MAY 5.—**Bloomsbury.**—Messrs. Veryard & Yates, F.A.I., will sell, at 1 o'clock, without reserve, building materials, &c., from demolition of the Y.M.C.A. "Shakespeare Hut," at Gower-street. Auctioneers, 365, Norwood-road, S.E.27.

MAY 6.—**Farnborough, Kent.**—Messrs. Veryard & Yates, F.A.I., will sell, at 1.30, without reserve, on site opposite "George and Dragon" Hotel, building materials arising from demolition of shop premises, also building plant. Auctioneers, 365, Norwood-road, S.E.27.

MAY 6.—**London, W.1.**—Messrs. Knight, Frank & Rutley, at the Hanover-square Estate Room, situate at Wimbledon Common, within half-an-hour by motor of the Houses of Parliament, Freehold, Edgecombe Hall, Beaumont-road; extensive range of outbuildings, in all extending to over 14 acres. Vacant possession will be given on completion of the purchase. Auctioneers 20, Hanover-square, W.1.

★MAY 12.—**Reigate.**—Messrs. Watkin & Watkin will sell, subject to nominal reserve, Reigate, well-known sand pit, adjoining railway, suitable for contractor's yard. Auctioneers, Reigate.

★MAY 20.—**Watford.**—Messrs. Humbert & Flint will sell, at 6 o'clock, 146 building plots on the Cassiobury Estate. Auctioneers, Watford, Herts, and 11, Serle-street, W.C.2.

MAY 22.—**Hertfordshire.**—Messrs. Knight, Frank & Rutley will sell by direction of Mr. Lionel Frank, as a whole or in lots, in the Hanover-square Estate Room (unless previously sold privately), the freehold residential property, The Grange, Cheshunt, Hertfordshire. Auctioneers, 20, Hanover-square, W.1.

MAY 27.—**Near Gerrard's Cross (Bucks).**—Messrs. Knight, Frank & Rutley will sell, by direction of Commander J. A. L. Hay, R.N., freehold agricultural and sporting property, known as Pickeridge Farm, about 171 acres; also about 18 acres of building sites. Auctioneers, 20, Hanover-square, W.1.

Public Appointments.

MAY 3.—**Crewe.**—Architectural Assistant required by the Corporation in the Borough Engineer's Department. Mr. E. G. Timbrell, B.Sc., A.M.I.C.E., Borough Engineer and Surveyor, Municipal Buildings, Crewe.

MAY 7.—**Port Talbot (Glam).**—The B.C. requires the services of an engineer. Mr. Moses Thomas, Town Clerk, Port Talbot (Glam).

MAY 8.—**Carmarthen.**—The Carmarthen R.D.C. is to appoint a surveyor of highways for the sub-district of St. Clears. The Municipal and Cy. Engineers or Surveyors' Institution. Mr. John Saer, 7, Hall-street, Carmarthen.

★MAY 10.—**Liverpool.**—District Building Surveyor for the City Building Surveyor's Department required by the Health Committee of the Corporation of Liverpool. Town Clerk, Municipal Buildings, Dale-street, Liverpool, endorsed "District Building Surveyor."

★MAY 12.—**Chichester.**—CLERK OF WORKS.—Clerk of Works required in connection with the erection by contract of 38 houses. Town Clerk, Chichester, endorsed "Clerk of Works."

★MAY 14.—**Doncaster.**—Architectural Assistant required in the Estates and Race Surveyor's Department by the Borough Council of Doncaster. Mr. R. E. Ford, Assoc.M.Inst.C.E., Estates Surveyor, 3, Priory-place, Doncaster.

★MAY 14.—**India.**—Stonemason (Works Assistant) for new Delhi, required by the Government of India. Two years' agreement, extensible by either one or two years, at the option of Government. The Secretary to the High Commissioner for India, 42, Grosvenor-gardens, S.W.1.

★MAY 14.—**Preston.** (1) Quantity Surveyor, (2) Assistant for Private Street Works, and (3) Quantity Surveyor and Draughtsman, required by the C.B. Mr. Alfred Howarth, Town Clerk, Town Hall, Preston.

★NO DATE.—**Cheltenham.**—ARCHITECTURAL ASSISTANT.—Architectural assistant required temporarily by the B.C. of Cheltenham. Borough Engineer, Municipal Offices, Cheltenham.

NEW BUILDINGS IN LONDON

Regent-street. — REBUILDING.— The C Royal is now being rebuilt. The architects Messrs. Henry Tanner, of 3, Hanover-squa W.1. The building will be erected in th sections in order to keep the business of Café in going order. The general contract are Messrs. Trollope & Colls, Ltd. Messrs. M land, Hayne & Co., Ltd., are the contract for the steelwork, Messrs. Higgins & Griffi for the electrical work, Messrs. R. Crittall & for heating and hot water, and the Express Co. for the lifts. The decorative work in first section will be carried out by the follow firms: Main entrance, The Bromsgrove Gu Ltd.; entrance hall, crush halls, main stairca Messrs. Turpin; banqueting rooms: Mes Harrods, Ltd., Messrs. Robersons (Knigl bridge), Mr. Sydney Laughton, Messrs. Hamp & Sons, Ltd., Messrs. H. H. Martyn & Co., L Messrs. Battiscombe & Harris; stair balustrade: Messrs. Comyn, Ching & C balcony balustrade: Messrs. Bagues, L mosaic work: Messrs. J. Whitehead & S Ltd.

PATENTS.

APPLICATIONS PUBLISHED.*

207,893.—R. H. Rogers and T. Perry: C crete roofs and partitions.

207,896.—A. Cole: Fibre-board boxes.

207,897.—A. E. White (B. E. Willett): S ladders.

207,899.—S. Brentnall: Domestic fire-gra

207,908.—J. O. Roberts: Screens c vertible into other articles of furniture.

207,915.—J. M. Hall: Moulds for and met of moulding ferro-concrete building-slabs.

207,919.—Plauson's (Parent Co.), Ltd. (H. Plauson): Paints, and methods of ma facturing the same.

207,940.—G. Jones and G. F. Davis: I teners for windows and doors.

207,963.—L. H. Clark: Casement stay.

207,999.—W. H. Dorman & Co., Ltd., O. H. G. Steed: Rotatable pipe joints.

208,007.—W. Bachmann: Mortise locks.

208,015.—F. Randall: Taps.

208,022.—W. C. Kohler: Hollow sheet of reinforced concrete metal.

208,062.—F. Poulter: Fasteners applica b windows and doors.

208,078.—M. Fuber: Lock with se tumblers.

208,101.—J. Carroll and J. William Stair-rod fastening devices.

186,059.—R. Lissner: Hinge for doors windows.

187,587.—A. N. Macnicol: Centrifugal m ing machines for the manufacture of con pipes.

189,795.—H. Van Zijll: Building metho

191,742.—R. Freudenberg: Process of ma a substitute for wood.

192,035.—Scott & Son Proprietary, I Centrifugal apparatus for manufacturing crete pipes.

192,715.—J. C. Muller: Apparatus for ad ing and fixing the setting of partly-cut ma of paper and pasteboard, while still conn together in a continuous strip.

196,907.—La Ceramique Nationale Soc. A Colour-distributing apparatus for the auto manufacture of tiles with inlaid designs.

198,694.—A. C. Byerley and G. A. H. Robl Floor coverings.

199,350.—I. E. Lanhoffer and O. E. Lanh Process for the manufacture of asbestos-ce compositions.

208,192.—C. T. Lutz: Device for han bricks and other building-blocks.

208,203.—F. B. Craig: Hot-water he systems.

208,254.—W. P. Thompson (E. E. Hei Means for raising and lowering windows.

* All these applications are now in the st which opposition to the grant of Patents upon may be made.

PROPOSED NEW BUILDINGS & OTHER WORKS *

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABERDEEN.—Plans passed by T.C.: Bungalow, Richmondhill-place, for Mr. John Smith, per Messrs. Sutherland & George, architects; villa, Queen's-road, for Mr. George M'Intyre, per Mr. George Watt, architect; bungalow, Norfolk-road, for Mr. Donald M. Fraser, per Messrs. Sutherland & George, architects; house and shop, Great Northern-road, for Miss Annie Coutts, per Mr. George Watt, architect; pavilion, Seafield-road, for the Governors of Robert Gordon's Colleges, per Messrs. Tawse & Allan, architects; playshed and latrines at Skene-square Public School, for the Aberdeen Education Authority, per Mr. J. A. O. Allan, architect; bungalow, Albury-place, for R. & J. Reid, Ltd., per Mr. William E. Gauld, architect; two houses, Albury-place, for R. & J. Reid, Ltd., per Mr. W. E. Gauld, architect; two houses, Craigie Park, for Mr. James Watson, per Mr. W. E. Gauld, architect; house, Seafield-road, for the Governors of Robert Gordon's Colleges, per Messrs. Tawse & Allan, architects.

ACCRINGTON.—The Corporation have made application for sanction of a scheme of extensions to the electricity generating station, estimated to cost £55,000. Plans have been approved for 11 houses and four semi-bungalows in Claremont-road and Livingstone-road, for Messrs. Hamibal, Ramsbottom & Sons, Ltd.

ALDERLEY EDGE.—The U.D.C. are proposing widening of dangerous corners in Macclesfield-road and Chorley Hall-lane.

ALTRINCHAM.—The E.C. are proposing making provision of an open-air school in Dunham Park, and have instructed the County Architect to prepare estimates of cost.

ASHBY.—Plans passed by R.D.C.: House at Packington, for Mr. W. Hutchinson.

ASHTON-UNDER-LYNE.—Provision of playing fields on land situate near Canterbury-road is proposed by the T.C. The trustees of the late Earl of Stamford and Warrington have been requested by the T.C. to construct a road 50 ft. wide on the west side of the Oldham, Ashton and Guide Bridge railway, between Manchester-road and Katherine-street.

AUDENSHAW.—The scheme for a new public bowling green off St. Annes-road includes the erection of a bowl house and provision of lavatories and a water supply.

BARNSLEY.—The Baths Sub-Committee has under consideration the question of the provision of Turkish Baths. Plans have been passed by the Hospital Committee as follows:—(1) A new mixed Infectious Diseases Block; (2) an additional Block for administrative purposes, providing 27 bedrooms for the nursing staff. The building proposed will consist of ground, first and second floors, and is planned to be placed to the east of the present administrative block.

BARROWFORD.—The Manchester & County Bank have purchased property in Gilburn-road from the Council for £824 for proposed extensions to their local branch.

BEBINGTON.—The Port Sanitary Authority are proposing a new landing stage at New Ferry for use of their hospital.

BEDFORD.—Plans passed by R.D.C.: Cottage, at Goldington, for Mr. E. H. C. Inskip; bungalow at Clapham, for Mr. F. J. Izzard; cottage, at Fenlake, for Mr. J. Keech; cottage at Keysoe, for Mr. W. Filsell; pair of cottages, at Harrowden, for Mr. S. Nicholls; bungalow, at Clapham, for Mr. L. R. Gale; cottage, at Wootton, for Mr. C. Cook; cottage, at Willington, for Mr. S. Nicholls; bungalow, at Bromham, for Mr. R. R. Waghorn; eight cottages, at Clapham, for Mr. F. E. Dawson; bungalow, at Wilstead, for Mr. W. Fox; house, at Biddenham, for Mr. W. F. Denby; pair of cottages, at West End, Oakley, for Mr. W. Quenby.

BELFAST.—Plans passed: Two semi-detached villas, Stranmillis-road, for Messrs. J. & A. D. Shortt: architect, Mr. J. McAlcry; Badminton hall, in Alexandra Park-avenue, for the "O.D. Cars Co."; spire to Willowfield Church, Woodstock-road: architect, Mr. R. Lynn; ten semi-detached villas, Somerton Road, for Mrs. M. A. Taggart; villas, Stranmillis-road, for Mrs. E. Nixon; eight semi-detached villas, Oldpark-road, for Mr. R. Wylie; villa in Bristol-avenue, for Mr. W. C. Watson: architect, Mr. J. W. C. Corte; two villas in Malone-avenue, for Mr. E. L. Smyth; 12 villas in Hillsborough-drive, for Mr. J. H. Barton: architect, Mr. R. Barton; three villas, in Dawnmore-road, for Messrs. Blackwood & Jury: architects, Messrs. Blackwood & Jury; villa in Divis-drive, for Mr. J. O'Reilly; villa in Myrtlefield Park, for Mr. R. W. Arend: architect, Mr. T. R. Eagar; six villas in Martinez-avenue, for Mr. S. Nelson: architect, Mr. R. Lynn; villa, on Castlereagh-road, for Mr. A. McMillan: architect, Mr. J. Scott; four villas in Malone-avenue, for Mr. N. B. Kilpatrick: architect, Mr. T. R. Eagar; conversion of police barracks into shop and dwelling-house, for Mr. J. Graham; villa on Antrim-road, for Mrs. M. Turtle: architect, Mr. J. G. Smyth; villa on Innisfoyle-road, for Mr. W. Robson: architect, Mr. F. R. O. Rippingham; premises ("The Rock") on Falls-road, for Mrs. Beatrice O'Neill; architect, Mr. W. J. Convery; villa in Maryville Park, for Miss A. F. Montgomery: architect, Mr. T. R. Eagar; four villas in Marlborough Park, for Mr. Alexander Murdoch: architect, Mr. T. R. Eagar; four villas on Sandown-road, for Messrs. Sinclair & Boyd; five villas on Antrim-road, for Mr. A. McIntyre; three lock-up shops on Limestone-road, for Mr. R. N. Boyd; four villas in Holland Park, for Mr. Frederic Carroll: architect, Mr. Jackson G. Smyth; eight semi-detached villas in Claar Park, for Mr. J. Buckley: two villas in Park-avenue, for Mr. J. Johnston, builder and architect; two semi-detached villas in Ormiston parade, for Mr. C. Dickey: architect, Mr. W. J. Walsh.

BENTLEY (YORKS).—Bentley Bridge is to be widened, tenders for which are to be invited by the West Riding C.C.

BEXHILL.—Plans passed by the T.C.: House Hartfield-road, by Mr. G. P. Bishop; house, De La Warr-road, by Mr. J. H. Lye, for Mr. W. Shannon; house, Amherst-road, by Messrs. Virley & Heather, for Mr. G. Ockenden; house, Beaulieu-road, by Messrs. J. Williams & Sons, for Colonel F. J. Henson; science room at "St. Bernards," Hastings-road, by Mr. G. H. Gray, for Miss Miller; residence, South Cliff, by Mr. J. E. Maynard, for Mrs. Morriss; road and sewer, Chantry-avenue, by Mr. P. H. Oxley, for Mr. A. F. Brook; house, Cooden-drive, by Mr. E. H. Gandy, for Miss J. E. Bone; bungalow, Cranston-avenue, by Mr. J. E. Maynard, for Mr. A. Gaukroger; house, Glyne-ascent, for Mr. G. H. Gray; house, Manor-lane, by Mr. G. H. Gray, for Mr. H. W. Hayward; house, Warwick-road, by Mr. D. B. Sceats, for Miss Edwards; house, Colebrooke-road, by Mr. C. W. Freeman, for Messrs. T. W. Mason and Son, Ltd.——The Buildings Committee recommends approval of the following plans: House, Colebrooke-road, submitted by Mr. J. H. Lye, on behalf of Messrs. Mason & Son, Ltd.; house, Turkey-road, by Mr. J. H. Lye, for Mr. Allen; two cottages, Little Common, by Mr. J. H. Lye, for Mrs. G. Dicks; pair of semi-detached houses, Springfield-road, by Mr. D. B. Sceats, for Mr. W. J. Taylor; detached cottage, Meads-avenue, by Messrs. Stevens & Son, for Mr. A. E. Aucock; house, Westcourt-drive, by Mr. E. H. Gandy, for Mrs. Douglas Mann; two houses, Barnhorn-lane, by Messrs. Matthews & Co., for themselves; house, South Cliff, by Mr. J. E. Maynard, for Brig.-General Wood; house, Magdalen-road, by Mr. J. E. Maynard, for Mr. W. G. Harris; pair of semi-detached houses, De La Warr-road, by Mr. G. H. Gray, for Mr. E. Errey; pair of semi-detached houses, West-parade, by Messrs. Wall, Callow & Callow, for Mr. G. Ravenshear; house, Richmond-avenue, by Messrs. Wall, Callow & Callow, for Mr. O. Cooke; house, Collington-lane, by Mr. J. E. Maynard, for Mr. A. Thomas.

BIRSTALL.—The local E.C. has decided to carry out alterations at the Council School, comprising the subdividing of the main large classroom into three separate rooms.

BLACKBURN.—The B.G. are applying for sanction for a loan of £24,588 to defray cost of the erection of a nurses' home, and have decided to purchase Whinney Edge Farm of over 7 acres for £870.

BLACKPOOL.—The congregation of Raikes'-parade Wesleyan Church are raising funds for installation of a new organ and decoration of the church, estimated to cost £2,000.—The Building Plans Committee have approved of a new St. Mark's Church at Layton.——Plans and estimates have been prepared for the proposed widening of the main Blackpool to Preston main road, extending from the Blackpool borough boundary to the "Clifton Arms" at Marton. The estimated cost of the schemes is £40,733.

BOWLAND.—The D.C. have agreed to carry out road improvements at Whitewell and Paythorne, estimated to cost £1,125.

BRECONSHIRE.—The C.C. proposes to widen a bridge at Talybont; the estimated cost is £2,000.

BRIDGEND.—The Governors of the Bridgend and District Cottage Hospital propose to erect a new hospital. Lord Dunraven has been approached for a site.

BRIGHOUSE.—Plans passed by T.C.: H. Castle & Co., pair of semi-detached bungalows, Bracken-road West; V. Taylor and B. Margerison, pair of houses, Halifax-road; St. Martin's Parish Church Trustees, parish hall and institute, Church-lane.

BROMLEY.—Plans passed by T.C.: Mr. J. M. Colvin, house, Wanstead-road; Messrs. Ecott, Widgery & Ecott, bungalow, Mayfield-road; Mr. H. G. Pharo, bungalow, Woodside-road; Messrs. Culpin & Bowers, house, Park-avenue; Messrs. Culpin & Bowers, house, Park-avenue; Mr. B. Head, bungalow, Sunningdale-road; Mr. F. G. Crickett, four houses, Burnt Ash-lane.——Mr. F. Danby Smith, F.R.I.B.A., has been asked to prepare sketch plans of new offices for the R.D.C. at Orpington.

BURNLEY.—Minor road improvements at Wheatley-lane and Briercliffe have been authorised by the R.D.C.——Suitable sites are to be acquired by the B.C. for the erection of 70 to 80 houses.——Efforts are to be made to obtain permission for the full scheme for the construction of the proposed new arterial road from Todmorden-road to Colne-road, estimated to cost £100,000.——For streets improvements, the T.C. are recommended to purchase 86, Church-street and 105, 165–177, St. James'-street, for a sum of £5,815 15s.

BURY.—The Parochial Council of St. Paul's Church are proposing a decoration scheme estimated to cost about £1,500.—The managers of the Parish Church are proposing certain repairs and improvements to the school and playground, estimated to cost £600.—The Committee of the Central Labour Club has acquired a site in Irwell-street for the erection of suitable club premises.

CAMBRIDGE.—Plans passed by T.C.: House, Haig-road, for A. Moore; two houses, Leys-road for S. Ginn & Sons; bungalow, Vinery-road, for F. C. Watts; house and garage, Huntingdon-road, for A. Tavener; house, Fulbrooke-road, for S. Chapman; house, Haig-road, for F. Gordon Nobbs; bakehouse, Belgrave-road, for R. Bainbridge; house, Milton-road, for F. P. Hardwick; showrooms, Bridge-street, for C. F. Cox; three houses, Victoria-road, for J. C. Newman; four houses, Haig-road, for Kidman & Sons; house, Garlic-row, for J. W. Lee; house, Haig-road, for Miss K. Taylor; house, Milton-road, for A. Sitch; house, Cherryhinton-road, for E. J. Papworth; house, Newton road, for Miss Hodges; two houses, Haig-road, for H. Williams; house, Trumpington-road, for Mrs. H. J. Martin; shops and factory, Fitzroy-street, for the Master, Fellows, and Scholars of Jesus College; house, Mill-road, for C. J. Woolfenden.

CARDIGAN.—The T.C. has decided to construct a new road along the beach, at an estimated cost of £600.

CARMARTHENSHIRE.—The Llanybyther R.D.C. has received plans for a house for the station master, to be erected by the G.W.R. Co. at Maesycrugiau.

CASTLEFORD.—Plans passed by U.D.C.: House, Smawthorne-lane, for the trustees of St. Michael's Church; bakery and w.c., Perseverance-street, for Mr. Birkby.——The Surveyor to the U.D.C. has been instructed to prepare plan of an improvement at Ferrybridge-road.

CHEADLE.—Mr. J. B. Milner, builder, is erecting houses on the Mornington-road Estate, and the U.D.C. are proposing the diversion of a public footpath, and making of a more commodious roadway. The surveyor has been instructed to prepare estimates of cost for road improvements in Ack-lane, and it is proposed to acquire land for the widening of Albert-road, Cheadle Hulme.

CHESTER.—A technical school is proposed to be erected by the Flintside E.C., the probable site being at Shotton.

CHESTERFIELD.—The Highways Committee has passed plans: House, Bridge-street, for Mr. Geo. Webber; house at Hasland, for Mr. George Bennet; two houses, Newbold-road, for Mr. J. Needham; two houses, Newbold-road, for Mr. W. Draper; four houses, Newbold-road, for Mr. W. Bargh; house, Storforth-lane, for Mr. W. H. Slator; two houses, Brookside, for Mr. F. Wilkins; house, Linden-avenue, for Mr. H. R. Aylwin; Miners' Welfare Institute, Chester-street, for the Miners' Welfare Committee; house and shop, Storforth-lane, for Mr. A. Symonds; bungalow, Handley-road, New Whittington, for Mr. F. Hubbuck; house, Storforth-lane, for Mr. E. Marriott; house, Storforth-lane, for Mr. G. H. Briddon; house, St. Margaret's-drive, for Mr. W. W. Brown; house, Newbold-road, for Mr. A. W. Cooke; house, Newbold-road, for Mr. E. J. Barlow; house, Newbold-road, for Mr. R. Garrie; house, King-street, Birdholme, for Mr. D. Laughton; house, King-street, Birdholme, for Mr. G. Heathcote; two houses, Foxley Oaks, Old Whittington, for Messrs. Wm. Cummings & Co., Ltd.; house, King-street, Whittington Moor, for Mr. A. A. Empson; two houses at Spital, for Mr. A. Richmond.—The T.C. has had sanction to a loan of £7,000 for the purchase of Packman's land in Derby-road for a re-housing scheme. The Surveyor has been asked to prepare plans for 50 houses.

CHORLTON-CUM-HARDY.—The Committee of the Conservative Club are proposing shortly to extend their premises. A scheme is on foot for the purpose of raising £2,000 with the object of increasing the accommodation of the Wesleyan Sunday School, Manchester-road.

CLITHEROE.—Plans have been approved by the T.C. for two houses to be erected in Bucclough-avenue. A proposal for the erection of 250 houses in the Claremont district is under consideration. Acquisition of land for the widening of West Bradford-road has been settled and the M.T. has agreed to make a grant of £1,066 towards the cost. The widening of Railway-road is to be proceeded with at once.

COATBRIDGE.—The Dean of Guild Court passed plans for the erection of an additional fifty three-apartment houses in connection with a State-aided scheme at Cliftonville, Coatdyke, at an estimated cost of £22,000. Lining was also granted for the erection of a new ward, new operating theatre, and nurses' quarters at the Alexander Hospital, Coatbridge, the estimated cost being £7,000.

COCKERMOUTH.—Messrs. Martindale & Martindale, architects, have submitted an application to the U.D.C. for subsidy in respect to 10 houses, forming part of three sections of the Cockermouth private building scheme at Castlegate. The estimated cost per house is £650.

COVENTRY.—The E.C. has decided to carry out extensions at Stoke Park Secondary School at an estimated cost of £10,200.

COWES.—Plans passed: Bungalow, Worsley-road, for Mrs. Hinchcliffe; bungalow, Park-road, for Mr. Carter; house, Solent View, for Mr. Gooby.

CROMPTON.—Plans passed by the D.C.: New central school, to be erected in Manor-road, Shaw.

DARWEN.—Funds are being raised in aid of the War Memorial at St. Joseph's R.C. Church, which is to take the form of the erection of a chapel, estimated to cost £2,500 to £3,000.

DIDSBURY.—280 houses are to be erected near Didsbury Park by the Roughcast Building Co.

DONCASTER.—Hamilton Lodge, situate near the Race Course, is to be purchased by the local Public Health Committee, for conversion into a Maternity Hospital, subject to the approval of the M.H.

DUBLIN.—Plans passed by T.C.: Marrowbone-lane, 6A, 6, 7, 8, shops and dwellings, for Mr. P. Reynolds; 10 houses, Vernon-avenue, Clontarf, for Mr. D. Fitzgerald.

DUKINFIELD.—Plans have been approved by the T.C. for the erection of a pavilion, for Messrs. Kenyon & Sons, Ltd. Tenders are to be invited for the erection of 10 pairs of houses of the parlour type, off Birch-lane, for the T.C.

EDINBURGH.—It is proposed to erect new wash-houses in St. Stephen's and Broughton Wards, and in Leith and Portobello districts. The Plans and Works

* See also our List of Contracts, Competitions, etc.

Committee of the T.C. has recommended that the Council should make provision for the erection of the washhouses in conveniently situated places.——Plans granted by Dean of Guild Court: Mr. W. J. K. Bone, bungalow, at Woodhall-road, Colinton; Corporation of Edinburgh: 20 houses, at Saughton Hall-drive, and 18 houses, at Sheriff Brae, Leith; Mr. G. Graham, 24 houses, at West Relugas-road; Mr. James Storrar, villa at Spylaw Park, Colinton; Mr. James Welsh, house, at Old Dalkeith-road.

FEATHERSTONE.—The U.D.C. anticipate shortly being in a position to erect 150 houses on the Pursron site, in addition to the 50 houses on the Streethouse site, for which tenders are now being invited.

FECKENHAM.—Baptist manse at Astwood Bank.

FINDOCHTY.—The local harbour is to be considerably extended at an estimated cost of £23,000, the work to be completed to the satisfaction of the Scottish Fishery Board.

GLAMORGAN.—The Pontypridd, Rhondda, Mountain Ash and Caerphilly U.D.C.s project the joint erection of a maternity hospital.—Plans passed by the Bridgend U.D.C. are as follows: Two houses at Bryntcg, for Messrs. Tickner & Farrington.—The Ogmore and Garw U.D.C. has applied for sanction to erect 40 houses at Gilfach Goch. The Council has received sanction to borrow £10,000 for housing purposes under the Small Dwellings Acquisition Act.—The Neath R.D.C. is to put in hand considerable private street works.—The estimates of the County E.C. include provision of 28 new schools; additions to six schools at estimated cost of £14,650; erection of eight special subject centres at estimated cost of £15,750; and remodelling of three existing departments at estimated cost of £8,107. The provision for secondary education during the year include erection of seven new schools at estimated cost of £136,000; additions at four schools, estimated cost £5,875; six laboratories, at estimated cost of £12,000; erection of two dwelling houses at the training colleges, estimated cost £1,450; and erection of a "quiet room" at training college, £500. In addition six engineering laboratories, at an estimated cost of £67,750, are to be erected.

GLASGOW.—The T.C. has forwarded to the Scottish B.H. for approval plans of a clinic to be erected at Springburn, at an estimated cost of £4,500.

GRAVESEND.—Plans passed by the T.C.: Messrs. H. F. & E. L. Rae, house at Parrock-avenue; Mr. W. J. Holland, pair of houses at Cross lane; Messrs. Bridgland & Clay, house at Singlewell-road, for Mr. W. Stone; Mr. T. Bennett, pair of houses at Holly Bush-road, for Mr. H. L. Archer; Mr. C. Vincent, house at Holly Bush-road, for Mr. F. A. Howe; Mr. A. Neale, pair of semi-detached houses at St. James'-avenue, for Mr. Le Crone.

GUIDE BRIDGE.— A new church of the asbestos type is to be erected on a site in Denton-road, with seating accommodation for 270 persons, estimated to cost £1,000. Tenders are to be obtained.

GUILDFORD.—Plans passed by T.C.: Pair of houses, Stoke-road, Stoke Park Estate, by Messrs. Hodgson Lunn & Co., for Messrs. Prickett & Ellis; bungalow, Worplesdon-road, by Mr. J. Lake, for Mr. A. Nash; house, Boxgrove-road, by Messrs. Clemence & Co., for Mr. S. F. Bonner; house, Mountside, by Mr. L. R. Hiscock, for Mrs. B. F. Farris; house, Worplesdon-road, by Mrs. A. Butcher, for Mrs. A. Butcher; house, One Tree Hill, by Mr. A. C. Burlingham, for Messrs. Stanley Ellis, Ltd.; house, Worplesdon-road, by Mr. J. Lake, Godalming, for Mr. W. Shackleton; house, Cline-road, by Mr. A. Peters, for Mr. A. Peters; house, Harvey-road, by Mr. H. Ascroft, for Mr. A. W. Brooking; bungalow, off Aldershot-road, by Mr. C. H. Lawson, for Mr. C. H. Lawson; pair of houses, Grange-road, by Mr. Holt, Weston-road, for Messrs. Waltham and Warrener; house, Pit Farm-road, by Messrs. Stanley Ellis, Ltd., for Miss A. H. Jifkins; house, Bray-road, by Mr. W. G. Sheppard, for Mrs. Miles; pair of houses, off Joseph's-road, by Messrs. Hodgson Lunn & Co., for Messrs. H. J. & W. Cox, Aldershot; house, Epsom-road, by Mr. D. Grazebrook, for Miss A. D. Grazebrook; shop and offices, Northstreet, by Messrs. Hodgson Lunn & Co., for West Surrey Central Dairy Co., Ltd.

HARWICH.—Plans sanctioned. Bungalow in Fronks-road, for Mr. W. R. Clothier; house near Tollgate, for Mr. Bradford; bungalow near Tollgate, for Mr. F. J. Knight; house near Tollgate, for Mr. Mosley; house, Sea Garden Estate, for Mr. Dobson; bungalow near Tollgate, for Mr. Blowfield; 10 houses in Manor-lane, for Messrs. Fisher & Woods; house and outbuildings in Fronks-avenue, for Mr. J. W. Carlyon Hughes.

HESTON AND ISLEWORTH.—Plans passed by U.D.C.: Mr. G. H. Kettlewell, for two houses, Hanworth-road; Mr. Cyril A. Farey, for Church hall, Bulstrode-road; Mr. J. Power, house, Harvard-road; Mr. A. J. Thair, house, The Grove; Mr. T. Chapman, bungalow, Harte-road; Messrs. Roper, Son & Chapman, bungalow, Sutton-road; Messrs. Roper, Son & Chapman, house, Bulstrode-road; Messrs. P. Chase Gardener & Co., two houses, Cambridge-road; Mr. B. W. Kilby, house, Bulstrode-road; Messrs. P. Chase Gardener & Co., bungalow, Lampton-road; house, Barrack-road; house, Hibernia-road; and house, Hounslow-gardens; Mr. W. R. Gray, house, New Heston-road; Messrs. P. Chase Gardener & Co., house, Bulstrode-road, and house, Bath-road; Mr. Glenister Woodger, house, Pears'-road.

HEXHAM.—Plans passed by U.D.C.: house, Elvaston Park Estate, for Hanson & Son; building, Sun Inn-yard, for F. J. Guthrie.

HEYWOOD.—Application is to be made by the T.C. to the M.H. for sanction to borrow £6,000 for the erection by the Corporation of 12 houses in Barley Hall-street.——The T.C. have accepted the recommendation of the Housing Committee to borrow £10,200 to build 102 houses.

HOYLAKE.—Plans have been approved by the U.D.C. for the erection of 38 houses of the working-class type in Elm-grove.

HURST.—Messrs. Marshall & Sons propose erecting six houses in Higher King-street.

KING'S LYNN.—Plans passed by T.C.: House "Fairlawn," for Mr. Clarke; house, Chase Estate, for Mr. E. V. Eglington; pair of hous s, Chase Estate, for Messrs. T. W. Broad and R. Mendham; pair of houses, Chase Estate, for Messrs. H. J. Mindham and L. Emmerson; conversion of shop and house into offices, St. James'-street, for Messrs. W. H. Johnson & Sons, Ltd.

KIRKHAM.—A sub-committee has been formed to consider a scheme for extension to the Church Memorial House. A lecture hall and extension to billiard room is proposed.

LANCASTER.—The Governors of the Lancaster Royal Grammar School have approached the Lancashire C.C. in regard to the extension of the school.

LEES.—Plans have been approved for the erection of 17 houses for Mr. A. Gill and three houses to be erected in John-street.

LEVENSHULME.—At Barlow-road 26 houses are being built by the Manchester and Salford Co-operative Society.

LEYLAND.—The War Memorial scheme for the Parish Church is to take the form of a Parochial Hall. Negotiations are in hand to acquire the Old Vicarage, which it is proposed to convert for that purpose.

LITTLEBOROUGH.—The Surveyor has been instructed to proceed with the work of improvements to Lake Bank, Hollingworth Lake, estimated to cost £1,009.

LIVERPOOL.—A new R.C. school is to be erected on a site in New Hall-lane. Plans are awaiting the B.E. approval. The Housing Committee of the T.C. are proposing the erection of flats and other dwellings on the new arterial roads. Seven types of dwellings are to be considered estimated to cost £70,000.

LLANDYSSUL.—The Main Roads Committee have instructed their Engineers to proceed with the scheme of the proposed new road between Llanarth and New Quay, and obtain tenders. The M.T. have agreed to make a grant of 50 per cent. towards the cost.

LLANGENNECH.—It is proposed to provide a new Public Elementary (Central) School.

LONDON (LAMBETH).—Plans passed by B.C.: G. Ferguson, two new streets leading out of Tulse Hill to Elm Park; P. A. Hamilton, building, Tinworth-street.

LONDON (POPLAR).—Plans passed by B.C.: C. Yates & Co., mess-room, &c., at Sun Flour Mills, St. Leonard's-street.

LONGRIDGE.—The work of relaying the school yard of the boys' school of the parish church is estimated to cost £160.

LYTHAM ST. ANNES.—The T.C. have passed plans for the erection of 80 houses, chiefly in the St. Anne's district.

MALDEN.—A clinic is to be erected at an estimated cost of £1,800.

MANCHESTER.—The directors of the Deansgate Temperance Hotel have purchased the property adjoining the hotel known as Mawson's Chambers, 28 to 32, Deansgate, together with the whole of Shepherd's-court. This land is to be used for extension of the hotel and for the erection of a super garage. Mr. S. W. B. Jack, of Carlisle, has been appointed architect.——The E.C. decided that the accommodation of a school proposed to be built on the Wilbraham-road Estate should be increased from 300 to 1,200 children. A garage is being built in Deansgate, Manchester. The architects for the work are Messrs. Foden, Hemm & Williams.

MARGATE.—Plans passed by T.C.: Two houses, Rancorn-road, Lang & Troughton; house, Royal Esplanade, A. B. Vanner; two houses, Wellis-gardens, All Saints'-avenue, G. B. Clark; garage, Eaton-road, Foster & Barber; milk store, Park-place, P. Thunder; four houses, Wellesley-road, S. Crofts; two houses, Rancorn-road, W. H. Lang; two houses, Eaton-road, H. V. Emptage; six lock-up garages, rear of Almaplace, St. Peter's-road, C. N. Beeston; house, Holly-lane, Northdown, R. Elliott & Co.; kitchen, Hotel Florence, Wallis, Gilbert & Partners; house, junction of Lower Northdown and Dane-roads, H. Blundell; four houses, road off Nash Court-road, H. V. Emptage; six houses, Ramsgate-road, Wood & Co.

MERTHYR TYDFIL.—Mr. F. Thackeray, Borough Architect, Merthyr Tydfil, is preparing a scheme for the insanitary areas for Dowlais. The scheme involves the provision of 90 new houses on the Galon Uchaf Estate.—The Corporation has had preliminary plans for a viaduct at Fiddlers Elbow.—The B.G. has prepared plans of proposed extensions to the workhouse.

MIDDLETON.—Plans passed by T.C.: Three houses, Nos. 93, 95 and 97, Rochdale-road, for Mr. E. Partington, by Messrs. R. Partington & Son; house, Hollin-lane, for Mr. W. Taylor, by Messrs. Taylor & Simister, architects; bungalow, Hollin-lane, for Mr. Murdoch, by Mr. H. Ogden; five houses, Durnford-street, for Messrs. Robson, Heywood & Bebut, by Messrs. W. & J. Bebut; two houses, High Barn-road, Alkrington, for Mr. A. Taylor, by Messrs. Taylor & Davies; four houses in Home-drive, Alkrington, by Messrs. Redfern & Sons; house, Manchester New-road, for Mr. H. Rothwell, architect; assembly hall and headquarters, Wade-street, Middleton Junction, for 3rd Middleton Troop Boy Scouts, by Mr. H. Rothwell, architect, Chadderton; thirteen houses, Kenyon-lane, for Mr. J. R. Okell; bank premises, corner of Wood and Long-streets, for the Midland Bank, Ltd., by Messrs. Taylor & Simister, Oldham.

MIDLOTHIAN.—The Calder District Committee have received notification from the Scottish B.H. of their approval for tenders being accepted for the erection of 24 houses at West Calder.

MONMOUTHSHIRE.—The Llanfrechfa U.D.C. has passed plans for two new lock-up shops, for Mr. Titley.——The St. Mellon's R.D.C. has received intimation that plans have been completed for the widening of Basseleg Bridge and that work may now be put in hand by the Council.——The G.W.R. Co. is to take up and relay the sidings at Newport North Dock, used for banking and storing in the open.——The Newport Chamber of Trade has urged the T.C. to acquire property down to and including the "Tredegar Arms," with a view to carrying out immediately the proposed widening of the station approach.——The Pontypool Labour Party has decided to purchase for £400 a plot of freehold ground on which to erect a clu —The C.E.C., subject to approval of Ministry, h decided to accept the tender of a building compa formed to carry on the business of the late Mr. R. Moon, the successful tenderer for erection of n schools at Ynysddu, to complete the work for £11,0

NELSON.—It is proposed that plans should be p pared in the B.S. department for adapting the op access system at the public library.——The T.C. a applying to the M.H. for sanction to borrow £1,178 fencing.——Mr. R. Jacques has prepared plans for t lay-out and erection of houses on the Chapel Ho Estate and Dobson Farm Estate, for Messrs. H. Walton and A. Edmondson.

NEWBURY.—Plans passed: House at Andover-roa Wash Common, for Mr. W. Midwinter; house Pound-street, for Mr. A. Brazier; house in Andov road, for Dr. A. Gordon Leggatt.

NEWMARKET.—Plans passed by R.D.C.: G. Wats & Co., Newmarket, bungalow, Cheveley Park; L. Cole, bungalow, Cheveley Park, by Mr. V. Barn Duchess-drive: Linsell & Edmondson, two detach houses, Woodditton-road; Mr. H. M. Burr, two c tages, for the Earl of Derby, Norwich-road, Snailwell.

NORTHAMPTON.—Plans passed by T.C.: Two hous Loyd-road, for Messrs. Sale & Co.; house, The Aven Dallington, for Mrs. G. Barker; house, Balmoral-ro for Mr. F. W. Beard; house, Balmoral-road, for W. F. Lock; house, Balmoral-road, for Mr. A. Green; four houses, Birchfield-road, E., for Mr. C. Rainbow; two lock-up shops, Ambush-street for Fred Clarke; house, Ransome-road, for Mr. De seven houses, Ransome-road, for Northampton operative Society, Ltd.; house, Harborough-road, Mr. A. W. Dickins; tennis pavilion, Osborne-ro for Mrs. E. E. Rushton; two houses, St. George avenue, for Mr. A. Holloway; six houses, Cedar-ro for Messrs. Sale & Co.; house, Lime-avenue, Mr. G. W. Gamble; house, King Edward-road, Mr. S. Strickland; sub-station, Ruskin and Beetl roads, for Northampton Electric Light & Power Ltd.; house, Christchurch-road, for Mr. W. H. Fost

NORTHENDEN.—The Northenden Branch of t British Legion have acquired an extensive site adjoini on which it is proposed to erect a social club.

OLDHAM.—The Trades and Labour Council a proposing the erection of a Trades' Hall, as a cent organisation; various sites have been considered.— The Parochial Council of St. Peter's Church are p posing improvements and decoration scheme for th schools.——The Maternity and Child Welfare Co mittee are proposing the erection of a children's h pital. Application is to be made to the M.H. f sanction.

PAIGNTON.—The U.D.C. has adopted a schen prepared by Messrs. F. W. Vanstone & Son, for rende ing watertight the lower reservoir at Great Park Plans as follows passed: Sixteen houses, Elmban garden, Conway-road, for Messrs. F. & A. C. Drew part lay-out, and 59 houses, Longstone-lane, Twee ways, for Mr. L. G. O. Shiner; 12 pairs cottag Tweenway Model Village, for Mr. L. G. O. Shine five pairs cottages, Tweenway Model Village, for M L. G. O. Shiner; three pairs cottages, Tweenway Mod Village, for Mr. L. G. O. Shiner; three cottag Tweenway Model Village, for Mr. L. G. O. Shine block of six cottages, Tweenway Model Village, Mr. L. G. O. Shiner; two blocks of four flats Tweenway Model Village, for Mr. L. G. O. Shine one block of four flats, Tweenway Model Village, Mr. L. G. O. Shiner.

PEMBROKESHIRE.—The County Main Roads Co mittee is considering the widening of Stepaside Brid at an estimated cost of £1,300; and of repairing Lla haden Bridge.——The Committee has applied for gra toward the cost (£3,350) of widening the Fishguar Newport-road.——The sum of £1,500 is to be expend on improving Canaston Bridge and Cross Hands-roa ——The C.C. is to confer with the Haverfordwest B. on proposed repairing of Haverfordwest new bridge, an estimated cost of £1,300.——The Narbeth R.D. is to construct a new bridg eat Felenfach, at an es mated cost of £750.

PENRITH.—Plans passed by R.D.C.: Two hous at Southwaite, for Mr. F. Pickering; house, at Lazon for Mr. H. Gornall; house, at Stainton, for Mr. J. G

PETERBOROUGH.—Forty houses are to be erected the new road at Walton by Mr. A. W. Ruddle.

PONTYPOOL.—The M.T. has approved and indicat a 50 per cent. of cost grant, the U.D.C.'s scheme reconstructing the Town Bridge and improving Low Crane-road, at an estimated cost of £3,700.

POULTON.—The Parochial Church Council of t Parish Church are proposing to erect a new Paroch Hall, and also are endeavouring to obtain a site for t erection of a Mission Hall at Carleton. The W Memorial Committee of the T.C. have asked Mr. Gilbe Scott, R.A., to report on possible sites and subm designs. Sanction has been given to the E.C. by t M.H. for the borrowing of £1,000 for the purchase a site for a public elementary school at Frenchwood.

PRESTON.—Plans passed by T.C.: J. Nightinga two houses, Addison-road; H. Heaton, for H. Charnle house, Lytham-road: F. Howorth, for J. Varley, houses, Salisbury-street, Swarbrick & Gaunt, t bungalows, Lytham-road; D. Ainsworth, danci hall, Geoffrey-street; W. R. Bryning, for Mess Hawthorn & Bayman, two houses, St. Thomas'-roa A. C. M. Lillie, for Royal Infirmary, V.D. Treatme Centre, Stanleyfield-road: W. D. T. Munford, Preston Industrial Co-operative Society, Ltd., offic Carrol-street; W. Crossthwaite, for Z. Montagu house and shop, Plungington-road; P. H. S. Shepper for G. Richardson, two houses, Gorse-grove.

PUDSEY.—The T.C. has decided to lay new wat mains at the Lane, Smalewell: Roker-lane; a Richardshaw-lane. The estimated cost is £1,150, which application for sanction to borrow this amou is being sought.

RAMSGREAVE.—The R.D.C. have approved pla for the erection of two bungalows, and three pairs semi-detached houses in Preston Old-road.

ROCHDALE.—The General Purposes Committ decided to re-erect the turret on the Town Hall. T

Waterworks Committee submit the following schemes:—Regrading of catch-water drain at Warland Reservoir, estimated cost £6,150; laying of 8 in. main along Queensway from Lower-place to Castleton, estimated cost £2,000; renewal of 6 in. main in Whitworth-road, estimated cost £1,800. Total estimated cost of the whole works, £27,450.

ROTHERHAM.—The Housing Committee recommends the erection of 70 houses on the Eastdene Estate. The Surveyor is to report as to likely sites for a new library.—The B.E. submitted plans showing the proposed alterations to the Town Hall buildings.

RUSHDEN.—Plans passed by U.D.C.: Two houses, Higham-road, for Messrs. H. Lack and D. Farmer; house, Newton-road, for Mr. H. Hodgkins; bungalow, Wymington-road, for Mr. H. Murdin; house, Newton-road, for Mr. H. Pennis; house, Oakley-road, for Mr. W. Wright; house, Oakley-road, for Mr. A. Sanders; house, Oakley-road, for Mr. J. A. Ashford; house, Newton-road, for Mrs. K. B. Rice; house, Essex-road, for Mr. F. Wrighton; house, The Hayway, for Dr. Greenfield.

ST. ASAPH.—Plans are in hand for converting the Grammar School into a dual school, and are being prepared by the County Architect.

SAFFRON WALDEN.—Plans submitted by Mr. J. Custerson, for two houses, in Audley-road, one for Mr. S. Wenman, and the other for himself, were passed by the T.C.

SHREWSBURY.—Sir Charles A. Nicholson has inspected Shrewsbury Castle, and made recommendations for internal alterations for its conversion into a Council Chamber. A committee has authorised expenditure not exceeding £1,100 on preliminary work in connection with the adaptation.

SLOUGH.—Plans passed by U.D.C.: House, Windsor-road, for Miss A. A. Hamblett; house, Chalvey-road, for Mr. A. Reckett; house, London-road, for Mr. A. H. Webbe.

STRETFORD.—Lancashire C.C. proposes an expense of £20,000 on extensions at the Stretford High School for Girls.——The B.E. have approved generally the site for the provision of a new central school at Gorse Hill.——Inquiries have been instituted by the D.C. for securing an option of purchase of a suitable plot of land for the provision of additional houses in the Seymour-grove district.

SWANSEA.—Plans passed by T.C.: Sewer, Norton, for Mr. P. J. Haywood; two houses, Glanmor Estate, for Messrs. Bevan & Morgan; house, Manor-road, for Mr. H. Strawbridge; house, Cecil-street, for Mr. A. T. John; bakehouse, Jersey-street, for Mr. W. J. Fry; house, Overland-road, Mumbles, for Mr. B. F. Hoppe; house, Glynderwen-crescent, for Mr. W. A. Burgess; house, Glanmor Estate, for Messrs. Jones Bros.; house and shop, Springfield-street, for Mr. M. P. Phillips; two houses, Derwen Fawr-road, for Messrs. Watkins & Jones; house, Langland, for Mr. G. Thomas; house, Pinewood-road, for Mr. B. N. Jones; two houses, Oystermouth-road, Blackpill, for Mr. J. Lewis; six houses, Queen's-road, Coedsaeson, for Messrs. Bennett Bros.; house, Long Oaks-avenue, for Mr. J. Poley; two houses, Aberdyberthi-street, for Mr. S. Govier; new street off Newton-road, Mumbles, for Messrs. W. & T. Beynon; two houses, new street, off Newton-road, Mumbles, for Messrs. W. & T. Beynon; layout and 24 houses, Murton, for Mr. W. E. English; six houses, Caswell-road, for Mr. G. P. Symons; two houses, Tycoch Estate, for Rogers & Davies; house, Tycoch Estate, for Mr. S. R. Mullis; house, Tycoch Estate, for Mr. J. C. Wilson; bungalow, Tycoch Estate, for Mr. C. S. Mears; bungalow, Tycoch Estate, for Mr. B. A. Williams; bungalow, Cnap-llwyd, for Mr. C. W. Cooke; bungalow, Tycock Estate, for Mr. W. C. Fursland; bungalow, Penrice-street, for Mrs. Mary Evans; house, Llan-llien-wen-road, for Mr. T. Watkins; house, St. John's-road, for Mr. E. E. Rowe; house, St. John's-road, for Mr. C. Rowe; house, St. John's-road, for Mr. S. Davies; house, St. John's-road, for Mr. B. C. Porter; bungalow, Hendrefoilan-road, for Mr. A. F. C. Downer; two houses, Pentregethin-road, for Messrs. Harris & Macleod; house, Waunarlwydd-road, Cockett, for Mr. F. Hollingdale; bungalow, Tower-road, for Mr. E. H. Thompson; house, Tycoch Estate, for Mr. F. C. Stentiall; 26 houses, Gelli Grafog-street, for the Danygraig Housing Society, Ltd.; bungalow, Ravenhill-road, for Mr. Hy. Hecknell; bungalow, Mynydd-bach-y-glo, for Mr. Thomas Bartlett; house, Llwyn-mawr, Sketty, for Mr. F. Williams.

TENBURY.—Plans passed; House, Worcester-road, for Mr. Yarnold.

THORNABY.—The North Riding E.C. propose a central school at Thornaby, to accommodate 300 children.

THORNTON.—Plans passed by U.D.C.: Bungalow, School-road, for Mr. J. Harrison; two pairs of houses, Gordon-avenue, for R. Lancaster & Sons; pair of bungalows, Lawson's-road, for R. Lancaster & Sons; five pairs of bungalows, Grange-avenue, for Messrs. Greenwood & Co.; house, Grange-avenue, for Mr. Greenwood; shop, Fleetwood-road, for Fleetwood Co-operative Society; memorial schools, Hough Lea-road, for Vicar and Wardens St. Andrew's Church; three shops and house, Nutter-road, for Mr. Penswick.

TROWBRIDGE.—The U.D.C. has granted subsidies in respect of two houses to be built by Mr. E. A. Smith, at Upper Studley, and eight houses by Messrs. E. Linzey & Son, at the Down and in Bradford-road.

TYNEMOUTH.—Plans passed by T.C.: Four houses, Silly Mill-lane, by Mr. W. Stockdale, for Messrs. Robinson & Browse; lay-out of central plot, Kenners Dene Estate, by Mr. A. K. Tasker, for Kenners Dene Estate Co.; semi-detached houses, sites No. 70 and 70A, The Crescent, Kenners Dene Estate, by Mr. A. K. Tasker, for Messrs. J. F. Newbold & Co.; social club, Lesbury-street and Chatton-street, East Howdon, by Messrs. Cackett & Burns Dick, for the Committee of the East Howdon Social Club; lay-out of Dene Estate, Tynemouth, by Mr. A. K. Tasker, for Kenners Dene Estate Co.

UPPINGHAM.—The R.D.C. has passed plans for three houses, for the Staveley Iron Co.

WADDINGTON.—The trustees of the Wesleyan Church are proposing to convert a house, adjoining their property, into a vestry and lecture hall.

WARDLE.—Plans were approved for ten additional houses to be erected in Worcester-avenue by Holland Estates, Ltd. The C.C. have offered a grant to the D.C. towards the cost of the Greengate widening. Land has been acquired by the D.C. in Birch-road for use as a recreation ground.

WHITBY.—Plans passed by R.D.C.: House, at Glaisdale, for Mr. John Yeoman, by Mr. A. E. Young; two pairs houses at Darnholme, Goathland, for Mr. H. B. Corner, by Mr. A. E. Young; conversion of coach-house and stable into a Parish Room at the Vicarage, Robin Hood's Bay, by Messrs. Chorley & Gribbon, Leeds; two houses, at Coach Bank, Sleights, for Mr. W. G. Clegg.

WHITWOOD.—Plans passed: Two houses, Lumley-street, for Mr. Fryer; six houses, Leeds-road, Cutsyke, for Messrs. Lumb & Co.

WHITWORTH.—Lancashire C.C. is negotiating for a site at Hallfold for a new school.——Mr. R. Roberts is proposing to erect 16 houses on a site at Facit.

WITHINGTON.—The Manchester Libraries Committee decided to include in next year's estimates £10,000 for the erection of a branch library in Wilmslow-road. Funds are being raised by the members of the P.M. Church, Burton-road, for repairs to the buildings and re-decoration of the interior.

WOKINGHAM.—Plans passed by T.C.: Two houses, Wellington-road, for Mr. W. J. White.——A scheme for a new water supply, estimated to cost £36,000, is being considered by the R.D.C.

WREXHAM.—A proposal is on foot by the Denbighshire E.C. for the establishment of a new Technical Institute at Acton Park.

YEOVIL.—The T.C. has decided that plans shall be prepared for new municipal offices, and public museum and library.

YSTRADGYNLAIS.—The R.D.C. has been informed by the G.W.R. Co. that plans are nearly completed for a station to be erected at Penrose.

FIRES.

BOLTON.—A fire occurred recently at the Star Mount Printworks of Messrs. J. Brown & Co., Ltd., Bradley Fold, Bolton. The damage is estimated at over £25,000.

KILMARNOCK.—A destructive fire has occurred at Irvine Bank Mills, the property of Alexander Bros., Ltd., worsted spinners, New Mill-road.

NORWICH.—Mr. Herbert Daniel's boot and shoe factory in Bull Close-road, has been burned out. Adjacent property was damaged.

MUSSELBURGH.—A fire has occurred at the Eskmills Net Factory.

NEW INVENTION

THE "Riddick" patent door furniture was among the clever inventions exhibited recently at the Building Trades Exhibition, Olympia. The principal points of this ingenious device are:—(1) No screws, therefore it cannot work loose. (2) No parts to wear out, or get loose; and it can be adjusted to 1-100 of an inch.

The method of fixing is simple:—One knob is a fixture; the fixed knob and rose are held on one side of the door, the spindle passed through the door; the adjusting piece (which works to the thickness of the door to 1-100th of an inch) is then fitted, followed by the rose and half of the second knob; the washer is then put on the spindle, followed by the locking nut; and the other half of the knob is then screwed on tightly, resulting in a perfectly rigid fixture. It is suitable for mortise or rim locks.

Messrs Evans & Ronald, Ltd., 7, Denman-street, S.E.1, are marketing this fitting.

MUNICIPAL TRADING

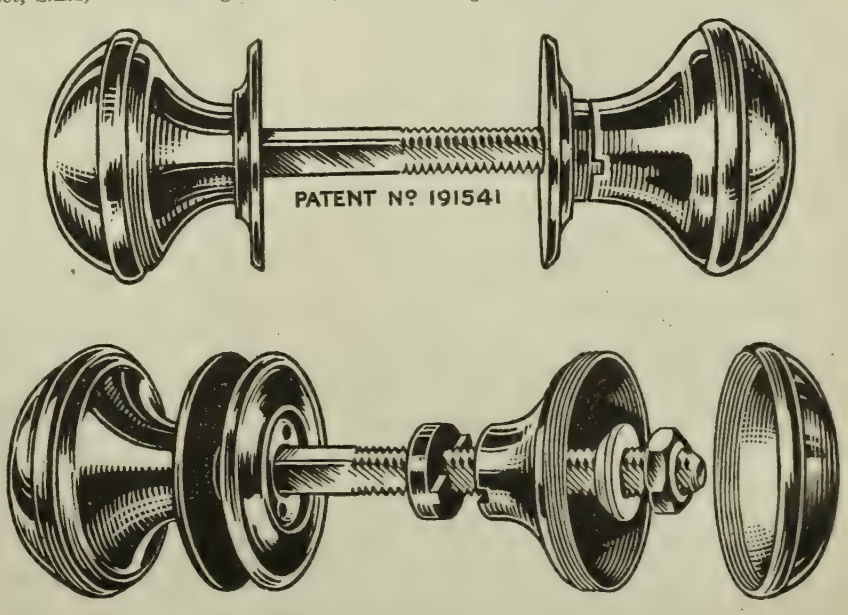
A BILL has been presented by Mr. H. Morrison, supported by several Labour Members, including Mr. Barnes, Mr. Lansbury, and Mr. W. Thorne, entitled "The Local Authorities (Enabling) Bill," which would give the councils of counties, the larger boroughs and the urban districts the widest powers to purchase, undertake, and carry on any business or undertaking within their areas for the acquisition of gain or the promotion of commerce, art, science, recreation, charity, or any other object which might be lawfully carried on by a company.

The funds are to be raised by borrowing money, subject to the sanction of the Board of Trade, up to one quarter of the rateable value in the area, and even beyond that by provisional order confirmed by Parliament.

Twenty-five years ago municipal trading was advocated as salutary, and the ratepayers were promised speedy relief in the rates from the profits to be gained; but we imagine the ratepayers have suffered some disillusionment by now, and the evidence given before the Court of Inquiry into the circumstances attending the strike on the tramways is a sufficient comment on this Bill. Tramways, perhaps, might be termed the most legitimate form of municipal enterprise and the least subject to risk, yet what was the evidence given before the Court of Inquiry? It was shown that the West Ham Tramways, for the year ending March 31, would show a loss to be paid out of the rates of £45,500. The Walthamstow Tramways Committee estimated their loss for the present year at about £13,000, or 6½d. in the £ on the rates. The Bexley Heath Council put their loss for the current year at £6,500, or 7d. in the £. The Erith Council had put the loss at £8,100, for which 10.23d. had been allowed in the rates, but the actual loss was greater, and would involve 1s. in the £. The figures for the London County Council are more particularised. When the tramways, in 1920-1, first came upon the rates, according to the report of the evidence of the Comptroller to the County Council, the loss was £590,000; the following year there was a loss of £88,000, also charged to the rates. Last year there was a net surplus of £230,000, but they now looked for a deficiency of £105,000. The undertaking had drawn from the rates altogether £698,000, and payments made to the rates were £325,000.

Are the ratepayers, besides supporting the unemployed, to engage passively in gambles of such a nature?

The present Bill provides that no payment shall be made out of the common fund for the purpose of reducing rates; but from the summary which has appeared it is by no means clear how losses are to be provided for, and at any rate such undertakings would form a charge on the rateable value of the areas.



PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	3 19 0
Second Hard Stocks	3 14 0

Per 1,000. Delivered at London Goods Stations.

	£ s. d.
Fletton, at King's Cross	2 13 3
Do. grooved for plaster	2 15 3
Do. Bullnose	3 8 3

	£ s. d.
Best Blue Pressed Staffs.	9 0 0
Do. Bullnose	9 10 0
Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick:—
2½ in. ..... 11 3 0 3 in. 13 2 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.		
Thames Ballast	10 6	per yard.	
Pit Sand	14 9	„ „	
Thames Sand	15 6	„ „	delivered 2 miles radius Paddington.
Best Washed Sand	15 6	„ „	
¾ in. Shingle for Ferro-Concrete	14 0	„ „	
½ in. „	15 0	„ „	
¾ in. Broken Brick „	10 6	„ „	
Pan Breeze	7 6	„ „	

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 10 9
Chalk Lime	2 10 9
Best Ground Blue Lias Lime	2 13 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1¼ in. to 2 in. ditto, ditto „	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£25 0
4 × 9	32 0	3 × 11	31 0
4 × 8	27 0	2 × 11	32 0
4 × 7	27 0	3 × 9	30 0
3 × 8	25 10	2½ × 9	30 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	25 0	3 × 4	25 0

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£36 0	1 × 9	£34 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	23/-	1½	38/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/-
1¼	33/6
1½	38/6

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	21/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 9
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Hip and valley tiles (per dozen) { Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2¾ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3½d.
4½ in.	1/5¼	1/4	4d.
5 in.	1/7¾	1/5¼	5d.

O.G. GUTTERS.

3 in.	1/6¼	1/2¾	3½d.
3½ in.	1/6¼	1/2¾	3½d.
4 in.	1/7¾	1/4	3½d.
4½ in.	1/9¼	1/6¼	4d.
5 in.	2/1¾	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5¾
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11¾	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0
Hoop iron, basis price	16 10 0	..	17 10
„ Galvanised	31 0 0	..	32 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 0 0	..	16 0
„ „ „ 24 g.	16 0 0	..	17 0
„ „ „ 26 g.	18 0 0	..	19 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/- to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet. English, 4 lb. and up	42 0
Pipe in coils	42 10
Soil Pipe	45 10
Compo pipe	48 10

NOTE—Country delivery, 30s. per ton extra; lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	28	0 0	—
Do., ex country, carriage forward per ton	20	0 0	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin „ „	0 2 4	.. —
Copper nails „	0 2 3	.. —
Copper wire „	0 2 4	.. —
TIN—English Ingots „	0 2 10	.. —
SOLDER—Plumbers' „	0 1 3	.. —
Tinmen's „	0 1 5	.. —
Blowpipe „	0 1 7	.. —

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3
„ „ „ in barrels „	0 3
„ „ „ in drums „	0 4
Boiled „ „ in barrels „	0 4
„ „ „ in drums „	0 4
Turpentine in barrels „	0 6
„ in drums (10 gall.) „	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 10

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms." "Park." "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 80 15

Red Lead, Dry (packages extra) per ton	54 10
Best Linseed Oil Putty per cwt.	0 16
Filocol per cwt.	0 15
Size. XD Quality fkn.	0 3

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim this list is to give, as far as possible, the *average* price of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

URRENT OF MATERIALS (*contd.*)

GLASS.

HEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
s....	3½d.	32 oz. fourths	8½d.
s	4½d.	32 „ thirds	10½d.
hs ..	5½d.	Obscured Sheet. 15 oz.	4d.
s	6½d.	„ „ 21 „	5½d.
hs ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
s	8d.	En'lled 15oz. 5½d., 21oz.	7½d.

according to size and substance for squares ock.

OLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
late.....	4½d.
olled	5½d.
olled	5½d.
Rolled, Oxford Rolled, Baltic, Oceanic, c, Stippolyte, and small and large	
ish white	6½d.
to, tinted	9d.
heet	6d.
olled Cathedral	5½d.
do.	7½d.

Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon: £	s.	d.
.....	Outside	0	14	0
.....	ditto	0	16	0
.....	ditto	0	18	0
.....	ditto	1	0	0
Carriage	ditto	1	4	0
.....	ditto	1	12	0
ish	Inside	0	18	0
aper	ditto	0	18	0
Cabinet	ditto	1	2	6
Flatting	ditto	1	0	6
g Oak	ditto	0	18	0
Drying Oak	ditto	0	19	0
Varnish	ditto	1	0	0
o	ditto	1	2	0
o	ditto	1	12	0
Gold Size		0	10	0
Japan		0	10	6
ahogany Stain (water).....		0	12	0
Back.....		0	7	6
k		0	14	6
patent)		1	5	0
Brush Polish		0	17	0
ers in Terebine		0	9	0
ck Enamel.....		0	7	0

—**Shotts.**—HOUSES.—Erection of 22 houses at Dykehead, for the District iddle Ward of Lanark. Intending ould communicate with Mr. P. C. using and Town Planning Depart- trict Offices, Hamilton.

THE SCOTTISH BUILDER

CARPENTERS' AND JOINERS' ASSOCIATION OF SCOTLAND

AT the annual general meeting of the North-East of Scotland Master Carpenters' and Joiners' Association, held recently at Aberdeen, Mr. John Buchan, Aberdeen (the President), said that the depression in the building trades dated back to 1910–11, when the influences of Mr. Lloyd George's 1909 Budget, imposing taxation on land values, began to be felt. Speculators who had looked on building as a first-class investment, providing a reasonable return, looked to other channels. Building declined, and then came the war and grievous post-war restrictions. The most serious difficulty, he continued, with regard to the recommendation of the National House-Building Committee for a fifteen years' programme of 2,500,000 new houses would perhaps be the shortage of labour. The deficiency might be met by the Joint Apprenticeship Committee's stimulus and the removal, for a time at least, of all restrictions as to the number of apprentices any one employer might have. The Committee did not attempt to deal with strikes. It had been wisely suggested that strikes should be made illegal and punishable until a Government Inquiry had been made into the dispute. Let the Government come out with a bold policy, clear off all building and rent restrictions, and let there be free trade and fair dealing in property. Let them do something to lessen the cost of materials and transport, and, above all, change the burden of taxation to something other than rents. Builders and speculators would then rally to the erection of houses, and the present deficiency would soon be met by the best of all methods—private enterprise.

OBITUARY

THE death occurred recently of Mr. James Salmon, F.R.I.B.A., which took place at his residence, 48, Jane-street. A native of Glasgow, Mr. Salmon was the elder son of the late Mr. W. F. Salmon, and was sole partner of Messrs. James Salmon & Son, architects, Blythswood-square. The firm was founded about 1825 by his grandfather, a magistrate of the city of those days, Bailie James Salmon, so that Mr. Salmon carried on the traditions of a business which has existed in the city for almost a century. In the course of his career Mr. Salmon did a great deal of work for public authorities, and among other buildings in Glasgow which were erected to his designs were a number of blocks of mercantile offices in the centre of the city. They include the Mercantile Chambers, 53, Bothwell-street; the St. Vincent Chambers, 144, St. Vincent-street; and the Lion Chambers, 170, Hope-street. Mr. Salmon was also interested in the design of internal furnishing and decorations, in which he did a great deal of work. It was one of his views that the architect should not confine himself merely to securing the beauty and symmetry of the external and interior appearance of a building, but that he should be responsible for its completion down to the smallest detail for the purpose for which it was designed.

Mr. Salmon had travelled extensively in Europe, having visited nearly every country on the Continent and studied and sketched its architecture. Besides his Fellowship of the Royal Institute of British Architects he was a Fellow of the Institute of Scottish Artists, and for many years he was a member of the Chelsea Arts Club and of the Incorporations of the Hammermen and the Wrights of Glasgow.

Sir James Lawton Wingate.

Sir James Lawton Wingate, President of the Royal Scottish Academy from 1919 until the beginning of this year, when he resigned owing to failing health, died recently at Edinburgh.

Sir James was a landscape painter and exhibited regularly in the Royal Scottish Academy exhibitions from 1865. He was 78 years of age, and was knighted in 1920.

NEW BUILDINGS IN SCOTLAND

Broughty Ferry.—The B.H. has sanctioned the erection of two-roomed houses for Broughty Ferry, under Dundee's Housing Scheme. They have also approved of the erection of 60 houses on the Forthill site.

Turriff.—The T.C. has decided to erect seven additional houses at Manse-terrace.

Brechin.—The Dean of Guild Court has passed plans for an additional block of two houses on the Trinity-road site, at a cost of £1,100; also plans for a new pavilion to be built in the public park.

Aberdeen.—Plans passed by the Corporation :—For the erection of 10 houses, and for alterations to 14 existing premises, amounting in all to the value of £19,620. The Health Committee has recommended the erection of spray baths on a site adjoining Hanover-street School. The estimated cost of this is £3,500.

Perth.—The Directors of Perth Infirmary have decided to establish a maternity ward at the Infirmary.

Wallyford.—£3,000 has been granted by the Trustees of the Miners' Welfare Fund for the provision of a miners' institute at Wallyford. A site has been secured at the east end of main street.

Prestwick.—The Dean of Guild Court has passed the following plans :—Mr. John Wyllie, cottage, in Whitehall-avenue, at a cost of £2,400; Mr. R. S. Govan, three houses, in Berelands-road, £2,400; Mr. W. Kane, four houses, in Briarhill-road, cost £2,800; Mr. W. Stewart, cottage in Crofthead-road, at a cost of £1,400; W. Govan & Sons, Prestwick, cottage in Broompark-crescent, £550; and W. Baird & Co., 12 houses in Glenburn-road, at an estimated cost of £4,800.

Auchterless.—The Standing Joint Committee of Aberdeen C.C. has decided to purchase the police station at Auchterless.

LDING TRADE WAGES IN SCOTLAND.*

lowing are the present rates of wages in the building trade in the principal towns of Every endeavour is made to ensure accuracy, but we cannot be responsible for errors occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.	Plas-terers' Labourers.
.....	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
.....	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
.....	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
.....	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
e	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
n	1/7½	1/6½	1/7	1/7	1/6	1/6	1/6½	1/2	
.....	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
.....	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½	
.....	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d. to 1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
.....	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Eastern	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	

*rmation given in this table is copyright. The rates of wages in the various towns in England and Wales on page 733.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.
Deal wrot moulded and rebated	per foot cube	14

		1"	1¼"	1½
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2
Deal shelves and bearers	"	1/5	1/7	1
Add if cross tongued	"	2d.	2d.	2

STAIRCASES.

	1"	1¼"	1½"	2"	2½
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	-
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	-

		s.
Housings for steps and risers	each	0
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0
Mahogany handrail; average 3 in. × 3 in.	" "	6
Add if ramped	" "	11
Add if wreathed	" "	23

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2
Sash fasteners	11½d.	Mortice locks	5
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	1
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.
Rolled steel joists	per cwt.	17
Plain compound girders	"	20
Do. stanchions	"	23
In roof work	"	28

RAIN-WATER GOODS.

		3"	4"	5"	6
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4
Ogee Do. Do.	"	2/4½	3/1	3/10	4
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4
Do. nozzles for inlets	"	2/2	2/7	3/10	4

PLUMBER.

		s.
Milled lead and laying in flashings and gutters	per cwt.	60
Do. Do. in flats	"	58
Extra labour and solder in coated cesspools	each	6
Welt joint	per ft. run.	0
Soldered seam	" "	1
Copper nailing	" "	0

		½"	¾"	1"	1½"	2"	4
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7	
Do. service	"	1/10	2/5	2/10	4/3		
Do. soil	"					3/3	
Bends in lead pipe	each						
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.
Render, float and set in lime and hair	per yard sup.	2
Do. Do. Sirapite	" "	2
Do. Do. Keen's	" "	3
Add sawn lathing	" "	1
Add metal lathing	" "	2
Portland cement screed	" "	3
Do. plain face	" "	1
Mouldings in plaster	per 1 girth	0
One-and-a-half granolithic pavings	per yard sup.	4

GLAZIER.

21 oz. sheet plain	per foot sup.	0
26 oz. Do.	" "	1
Obscured sheet	" "	0
⅛ in. rolled plate	" "	0
¼ in. rough rolled or cast plate	" "	1
¼ in. wired cast plate	" "	1

PAINTER.

		s.
Preparing and distempering, 2 coats	per yard sup.	0
Knotting and priming	" "	0
Plain painting 1 coat	" "	0
Do. 2 coats	" "	0
Do. 3 coats	" "	0
Do. 4 coats	" "	0
Graining	" "	0
Varnishing twice	" "	0
Sizing	" "	0
Flatting	" "	0
Enamel	" "	0
Wax polishing	per foot sup.	0
French polishing	" "	0
Preparing for and hanging paper	per piece 2/- to	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of information given on this page is copyright.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

Denotes *accepted*. † Denotes *provisionally accepted*.
Denotes *recommended for acceptance*.
Denotes *accepted subject to modifications*.

BASLOW.—For the erection of a bridge at Baslow, in the Derbyshire C.C.:—

*Lehane & Co.	£20,381

BEDFORD.—For carrying out Clapham water scheme, for the R.D.C.:—

*Course & Carne, Bedford	£775 7 3

BEDFORD.—For structural alterations and repairs to Dynevor Lodge, for Mr. L. M. Hawkins. Mr. G. P. Allen, F.R.I.B.A., architect and surveyor, High-street, Bedford:—

J. Corby & Son, Bedford	£210
Manning & Son, Bedford—Painting and decorations.	

BEDFORD.—For the erection of a new garage at No. 1, Harpur-place. Mr. G. P. Allen, F.R.I.B.A., architect and surveyor, High-street, Bedford:—

H. Bowler, Bedford	£203
S. Foster, Bedford	197
Warton & Goodship, Bedford	193
C. Negus, Bedford	190
W. Laughton, Bedford	181
*J. Corby & Son, Bedford	169

BEDFORD.—Additions forming new cloak-room accommodation at Ampthill-road Infants' School, for the Bedford Borough E.C. Mr. G. P. Allen, F.R.I.B.A., architect and surveyor, High-street, Bedford:—

W. Goldsmith, Bedford	£149 0 0
B. Litchfield, Bedford	137 10 0
H. Bowler, Bedford	118 0 0
W. Laughton, Bedford	117 0 0
J. Corby & Son, Bedford	114 0 0
C. White, Bedford	111 19 6
S. Freshwater, Bedford	102 0 0
*S. Foster, Ltd., Bedford	100 0 0

BOGNOR.—For the erection of houses, for the U.D.C.:—

*Thompson & Son	each £445

BOGNOR.—For construction of road in connection with housing scheme of the U.D.C.:—

*H. W. Seymour	£3,343

BRIDLINGTON.—For the construction of a proposed new south side sea wall (constituting half of the proposed wall extending from the Spa Promenade to Britt's Wall), for the T.C.:—

*J. T. Levitt, Hull and Hornsea	£53,123

CASTLEFORD.—For repairs to chimney at the sewage works and fixing of a lightning conductor, for the U.D.C.:—

*Waring & Tomlinson.	

CHESTERFIELD.—For the erection of women's and children's ward at the Chesterfield Royal Hospital:—

Maule & Co., Nottingham	£8,129 10

CONSETT.—For erection of cottage houses, in blocks of two, four, six, and eight, for the U.D.C. Mr. F. A. Coyle, architect, 29, Newmarket-street, Consett:—

Accepted for 50 houses, comprising 26 "A2" type and 24 "A3" type—	
Wm. Ayton & Sons, Blackhill	£15,410
Accepted for 100 houses, comprising 56 "A2" type and 44 "A3" type—	
Rutten & Sons, Esh, co. Durham	30,620
Accepted for construction of roads and sewers—	
Crombie & Son, Sunderland	2,621

DERBYSHIRE.—For the erection of bridge over the Dove, on the Derby-Burton-road, for the C.C.:—

*G. F. Tomlinson, Derby	£30,862

FALMOUTH.—For erection of a pavilion at Gyllyngvase Beach, for the Corporation:—

Strongman & Sons	£538 14

H.M. OFFICE OF WORKS.—Accepted during March:—

Building Works.—Aston (Birmingham) Employment Exchange—Erection: Harry H. Crump, Birmingham. Bangkok—Steelwork: Frodingham Iron and Steel Co., Ltd., Scunthorpe. Barrow-in-Furness Housing Estates—Mason, slater, plasterer, &c.: W. H. Paul, Barrow-in-Furness; plumber, painter and decorator: T. Lloyd, Barrow-in-Furness. Basingstoke P.O.—Joinery: Elliotts, Ltd., Newbury. Belfast (Stormont Castle)—Erection of pump house: J. & W. Stewart, Belfast. Bodmin P.O.—Asphalte: Engert & Wolfe, Ltd., London, E. Brierley Hill P.O.—Alterations, &c.: E. Woodward, Birmingham. Brighton Sorting Office, &c.—Granite work: Fenning & Co., Ltd., London, E.C.; joinery: Allensor, Ltd., Watford. Catterick Telephone Repeater Station—Joinery: The Building Equipment Co., Ltd., Chesterfield; painting: Elliot & Reoch, Annan; plastering: Pollock Bros., Annan. Chapeltown Telephone Exchange—Plastering: Phillips, Leeds; plumbing and painting: G. Thompson, Leeds. Cheltenham Telephone Exchange—Adaptation of Wolseley House: W. J. B. Halls, Ltd., Gloucester. Chesterfield P.O.—Alterations, &c.: George Longden & Son, Ltd., Sheffield. Enfield Telephone Exchange — Erection: Albert Monk, London, N. Gateshead Telephone Exchange — Erection: Stanley Miller, Newcastle-on-Tyne. Gloucester Telephone Repeater Station — Steelwork: John Lysaght, Ltd., Bristol. Gosforth P.O., &c.—Glazier and painter: John G. Cole, Newcastle-on-Tyne. Halifax P.O.—Painter: R. Rawlinson & Sons, Burnley; Plumber, glazier, &c.: W. Ward & Sons, Halifax. Hereford Station Sorting Office—Asphalte: La Brea Asphalte Co., Ltd., London, E.C.; steelwork: Rubery, Owen & Co., London, W.C. Leigh (Lancs) Telephone Exchange—Erection: T. Collier & Sons, Leigh; asphalte: Bolton Stone, Concrete and Asphalte Co., Ltd., Bolton; steelwork, &c.: Joseph Webb & Sons, Ltd., Bury. Newington (Edinburgh) Telephone Exchange—Erection: John Taylor, Clydebank. New Malden Telephone Exchange—Fencing: W. Turner, Riley & Co., Ltd., London, S.W. Newport (Mon) Telephone Repeater Station—Erection: William Bowers & Co., Hereford; asphalte: La Brea Asphalte Co., Ltd., London, E.C. North Telephone Exchange—Plumber: J. Knight & Son, London, S.W. Northwich P.O.—Extension: Joseph H. Molyneux, Northwich. Port Isaac (Cornwall)—Erection of cottages: Carkeek & Sons, Ltd., Redruth. Sloane Telephone Exchange—Stonework: The South Western Stone Co., Ltd., London, S.W.

Engineering Service.—Somerset House (East Wing)—Heating: Buckleys (London), Ltd., London, W.C.

HESTON & ISLEWORTH.—For supply of materials to the U.D.C.:—

*Brookes, Ltd.—	
Alderney Granite—(*a*) £1 0s. 6d. per cu. yd., at Church Ferry; and (*b*) £1 5s. at Depot.	
Alderney Granite Chippings—(*a*) £1 1s. 9d. per cu. yd., at Church Ferry; and (*b*) £1 6s. 3d., at Depot.	

HULL.—For the erection of a fire station, for the T.C.:—

*P. T. Kettlewell, Hull	£16,428

LEADGATE.—For erection of R.C. Schools. Mr. Frank A. Coyle, architect, 29, Newmarket-street, Consett:—

Meegan & Brudenell, Consett	£5,985 2 4
R. Gallacher, Blackhills	5,267 9 9
J. E. Walker, Leadgate	5,190 0 0
Thos. Lumsden, Newcastle-on-Tyne	5,187 0 0
C. Groves, Chester-le-Street	4,854 12 11
P. Duffy, Stanley	4,468 12 6
R. Southern, Dipton	4,164 10 0
*Lough Bros., Ltd., Consett	4,160 0 0

LEEDS.—For demolition of old shop property and erection of new premises, for W. Greenwood, jeweller, in Briggate:—

*Wm. Irwin & Co., Ltd., Leeds.	

LEEDS.—For the laying of sewers for the Cookridge Garden Estate at Adel, for the Wharfdale R.D.C.:

*H. J. Pullar, Rotherham	£3,554

LONDON.—For the cleaning and painting of schools for the L.C.C.:—

Ben Jonson (*Mile End*)—	
Stoneley & Co., Forest Gate	£2,045 0 0
Clements (Grays), Ltd., Grays	1,990 0 0
H. C. Horswill, Forest Gate	1,895 0 0
Griggs & Son, Westminster	1,855 0 0
Turnbull & Son, Fenchurch-street	1,818 0 0
F. & T. Thorne, Isle of Dogs	1,814 0 0
W. Simms, Stepney	1,810 0 0
*R. Woollaston & Co., 40, Turner's-road, Limehouse, E.3.	1,738 10 0
Buckingham-terrace (*Kensington, N.*)—	
F. W. Dean, Baker-street	1,551 0 0
Harrison & Co., Cricklewood	1,527 0 0
G. Godson & Sons, Ltd., Kilburn-lane	1,495 0 0
A. & F. Polden, Shepherd's Bush	1,440 0 0
*C. Berger, 12, Cambridge-place, Paddington	1,241 11 0
Catherine-street (*Shoreditch*)—	
Holland & Hannen and Cubitts, Ltd., Gray's Inn-road	1,595 0 0
John C. Mather, Northampton-street	1,236 0 0
Whitbys, Ltd., High Holborn	1,217 5 0
G. Keetch, Hackney	1,177 0 0
*Geo. Butters, 26, Warneford-street, Hackney, E.9.	1,094 0 0
W. T. Lawrence, Russell-square	—
C. P. Roberts & Co., Ltd., Dalston	—
Chessums, Ltd., Tottenham	—
Enfield-road (*Hackney, C.*)—	
Barrett & Power, Hackney	1,167 0 0
W. Silk & Son, Ltd., Homerton	1,156 0 0
S. Shaw, Barnsbury	1,154 0 0
*C. P. Roberts & Co., Ltd., 36, Tyssen-street, Dalston, E.8	1,121 0 0
Hanover-street (*Islington, S.*)—	
The Pitcher Construction Co., Ltd., Holloway	1,961 0 0
Holland & Hannen and Cubitts, Ltd., Gray's Inn-road	1,758 0 0
A. Monk, Lower Edmonton	1,755 0 0
S. Shaw, Barnsbury	1,690 0 0
Stevens & Sons, Crouch-hill	1,422 0 0
J. C. Mather, Northampton-street	1,366 0 0
Patman & Fotheringham, Islington	1,352 0 0
*Whitbys, Ltd., 28–30, Eagle-street, High Holborn	1,325 0 0
J. Groves & Sons, Tottenham	—
F. Cottrell, Ltd., Crouch-hill	—
Latchmere, The (*Battersea, N.*)—	
Curd Bros., Barnes	3,176 0 0
W. Hammond, Battersea	2,733 0 0
H. S. Lee, Ltd., St. John's Hill	2,670 0 0
Arthur Phelps & Wilton, Ltd., Streatham-place	2,645 0 0
R. A. Jewell, Ltd., Fairfield-street	2,587 10 0
Robert S. Ronald, Wandsworth	2,532 0 0
*Chappell Bros., 304, Balham High-road, S.W.17	2,174 0 0
Holliday & Greenwood, Battersea	2,163 0 0
Sims & Russell, Westminster	2,147 0 0
J. Garrett & Son, 83, Balham-hill, S.W.12	£2,138 0 0
Laxon-street (*Bermondsey, W.*)—	
W. Akers & Co., Ltd., South Norwood	1,878 0 0
Castle Bros., Ltd., Southwark	1,565 0 0
H. Kent, Hither Green	1,523 12 6
A. Black & Son, Forest-hill	1,510 0 0
Douglass, Hasle & Co., Ltd., Woolwich	1,477 0 0
Thomas & Edge, Woolwich	1,475 0 0
H. Groves & Son, Greenwich	1,415 0 0
Cole, Loasby & Co., Ltd., Museum-street	1,310 10 2 (plus 5 per cent.)
E. C. Sames & Co., Southwark	1,391 0 4
*J. Scott Fenn, 42, William-street, Woolwich	1,348 18 0
J. W. Dixon & Son, Bermondsey	—
Plumstead-road Central (*Woolwich, E.*)—	
G. H. Sutch & Sons, Plumstead	1,763 10 0
A. G. Shorter, Greenwich	1,630 0 0
W. Mills & Sons (Builders & Contractors), Ltd., Blackheath	1,610 0 0
Hill & Gurr, Bromley, Kent	1,610 0 0
Thomas & Edge, Woolwich	1,598 18 0
H. Groves & Son, Greenwich	1,577 0 0
Douglass, Halse & Co., Ltd., Woolwich	1,540 0 0
J. Scott Fenn, Woolwich	1,457 9 0
*D. C. Bowyer, Heron Works, Belvedere, Kent	1,230 4 6
Riley-street (*Bermondsey, W.*)—	
A. Black & Son, Forest Hill	1,290 0 0
A. Logan, Victoria-street	1,285 0 0
A. T. Peyton, Lewisham	1,250 0 0
W. Bickerton, Catford	1,143 0 0
W. Bailey, 40, Pelton-road, East Greenwich	1,139 0 0
G. Parker & Sons, Ltd., Peckham.	Net cost + 17½ per cent.
Shillington-street (*Battersea, N.*)—	
F. Stevens, Denbigh-place	3,176 7 11
A. Roberts & Co., Ltd., Kensington	2,909 0 0
Prestige & Co., Ltd., Grosvenor-road	2,901 0 0
Holliday & Greenwood, Battersea	2,841 0 0
Lole & Co., Chelsea	2,706 0 0
Bostels, Ltd., Ebury-street	2,442 0 0
H. S. Lee, Ltd., St. John's-hill	2,378 0 0
*Thomas Carr, 19, Broad-court, Bow-street, W.C.2	2,233 0 0
Wornington-road (*Kensington, N.*)—	
H. J. Edgar, Lancaster-gate	3,226 0 0
J. Kinninmont & Sons, Chilworth-street	3,190 0 0
F. Foxley & Co., Ltd., Lancaster-gate	3,145 0 0
John McManus, Ltd., Hammersmith	1,940 0 0
A. Roberts & Co., Ltd., Kensington	1,918 0 0
J. P. Williams, Ltd., Notting-hill	1,860 0 0
A. & F. Polden, Shepherd's Bush	1,649 0 0
Bovis, Ltd., Upper Berkeley-street	1,425 0 0
B. Colley & Sons, Ltd., Notting-hill	1,366 0 0
*M. Greenwood & Son, Ltd., 6, Gray-street, Manchester-square, W.1	1,234 0 0

MANCHESTER.—For new block of offices, corner of Ridgefield and South King-street, to be erected for Messrs. J. H. Dawson & J. A. Martin:—

**Structural steelwork*—Heenan & Froude, Ltd., Manchester.	

MANCHESTER.—For the erection of a six-story warehouse, in Stevenson-square, for Messrs. Henry Vollmer & Son, Ltd.:—

**Structural steelwork*—Heenan & Froude, Ltd., Manchester.	

MARGATE.—For erection of 48 non-parlour type houses, at Garlinge, for the B.C. Mr. W. R. H. Gardner, architect, 12, Grosvenor-place, Margate:—

	24 houses in pairs per house.	24 houses in blocks of 8. per house.
Elliott & Co., Margate	£598 0	£579 0
Rice & Son, Margate	586 0	554 0
Sharman, Ltd., Ransgate	518 0	515 0
Operative Builders, Birchington	491 0	497 0
Ross & Co., Westgate	493 0	486 0
J. Roach, Margate	500 0	475 0
Baker & Sons, Margate	474 0	497 6
*Mitchell & Son, Broadstairs	448 10	435 0

MARGATE.—Erection of children's lavatory in Dane Park, for the T.C.:—

*A. Ross & Co.	£295

MARGATE.—For the supply of materials to the T.C.:—

*Hallett & Co., cement—£2 7s. per ton.
*Young & Son, hard stock bricks—£3 19s. 2d. per 1,000.
*Young & Son, second stock bricks—£3 14s 2d. per 1,000
*Doulton & Co., sanitary pipes, &c.

NAVAN.—For structural alterations at the County Hospital, for the Committee:—

Wm. Goulding, Dublin	£27,894
Keating & Sons, Dublin	26,384
W. & A. Roberts, Dublin	25,495
James Russell & Sons, Navan	25,378
Luke Madden & Sons, Creewood	25,299
Wallace & Co., Clontarf	25,086
Thomas McMilne	24,280
Alex. Bull & Co., Ringsend	22,725
Chas. Doyle, Mullingar	22,405
E. Delany, Navan	22,030
S. Henly & Sons, Drogheda	21,719
*Patrick Coldrick, Navan	20,900
(*Accepted subject to the deletion of certain work at schedule prices, to reduce the cost.)	

OTTERY ST. MARY.—For widening and improving the Ayington-road, for the U.D.C.:—

Fothergill Bros., Exeter	£7,200

PORT GLASGOW.—For painter work of 27 blocks of 98 houses, Chapelton, for the T.C. Messrs. Duncan & Copland, architects, 160, Hope-street, Glasgow; quantities by Messrs. George B. Walker & Son:—
*Peter Mackie, Port Glasgow .. £597 0 11½

PRESTON.—For alterations at the Destructor Works, for the Cleansing Committee:—
Brickwork, steelwork, &c.—
*John Turner, Preston £4,397

PRESTON.—For the supply of market stall boards and trestles, for the Markets Committee of the T.C.:—
*J. Carter, Walton-le-Dale..... £155 0 9

PRESTON.—For taking down and re-erecting palisade walls to gardens in Addison-road West, for the T.C.:—
*Levi Yates £210 2 9

ROCHDALE.—For the construction of ferro-concrete bridge over the River Roch, at Hamer, for the B.C. Plans prepared by the Borough Surveyor:—
*R. & T. Howarth, Rochdale.

SHAW.—For the erection of a new central school in Manor-road, for the Lancashire E.C.:—
*S. & J. Smethurst, Ltd., Oldham £14,615

TAUNTON.—For construction of foundations for boilers, at Electricity Works, for the T.C.:—
*T. H. Moggridge & Sons £459

THORPE BAY.—For the erection of a house, according to plans and specification prepared by Mr. Graham Lloyd, Castle Hadleigh, Essex:—
Brittain & Son, Ltd., London .. £2,080 0 0
J. Wilson, Thorpe Bay 1,533 10 0
*W. L. Carruthers, Southend .. 1,457 16 6

TROWBRIDGE.—For electric lighting installation at Institution of the Board of Guardians:—
*King & Co., Trowbridge £439

TYNEMOUTH.—Supply of six carts, for the Cleansing Dept. of the T.C.:—
*G. Davidson & Son..... £254 5 0

WAKEFIELD.—For granited rock asphalte paving on a concrete foundation in Barnsley-road, for the Yorkshire (W.R.) Tramways, Ltd. (approx. 4,000 super. yds.):—
*Tunstall's Rock Asphalte Co., Ltd., Leeds.

WALSALL.—For provision of fire escape at Pelsall Hall Sanatorium, for the T.C.:—
*Walker Bros. £114

WOMBWELL.—For erection of 30 houses, and construction of roads and sewers, &c., Tunstall Cross, for the Dearne District Light Railways Joint Committee. Messrs. Garside & Pennington, Ropergate, Pontefract:—

	Houses. £ s. d.	*Roads and Sewers.* £ s. d.
A. Taylor & Son, Wombwell	14,997 11 9	1,879 0 0
Jenkinson & Son, Doncaster	14,620 4 7	1,591 5 6
E. E. Dickinson, Bolton-on-Dearne	16,035 14 2	2,011 19 6
Swift Bros. & Haslam, Ltd., Doncaster	13,933 2 1	1,601 15 8
Treherne, Ltd., Rotherham	14,024 9 2	1,702 10 6
Smith Bros., Ltd., Burnley	14,696 5 5	1,991 9 2
B. Pumfrey, Ltd., Gainsborough	14,475 0 0	—
*Firth & Whittington, Doncaster	13,169 16 8	1,536 12 0
Marlow & Son, Sheffield	14,277 10 0	1,785 0 0
Ward & Son, Wombwell	14,035 10 10	2,237 11 3
Oakland & Co.	14,918 19 2	1,623 13 4
Waddington Bros. Wath-on-Dearne	14,851 15 10	—
Wade & Son, Wath-on-Dearne	15.375 2 1	—
W. Birch & Sons, York	14,544 2 1	1,800 0 0

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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

CXXVI.—No. 4240. MAY 9, 1924.

UNITY AND REGISTRATION

THE scheme for the amalgamation of the R.I.B.A. and the Society of Architects, which has been agreed to by the Councils of the two bodies, has now been before the profession for some weeks, and sufficient time has elapsed for opinion in regard to the proposals e crystallised. If the many communications which have d us are a reliable indication of the trend of opinion, can be no doubt the proposals have been well received—ecause of any finality about them as a solution of the lt problems which confront the profession, but because appeal they make to common sense and reason, though se common sense is after all a very rare sense such an is sometimes made in vain. We cannot think it will this occasion, and we believe it would be little short of ster if the sincere and earnest efforts of those who are ng wholeheartedly to dispose of the primary obstacle to lement are frustrated. Few of those who have given l consideration to the status of the architectural profession ve failed to see that the principal obstacle to any efforts e it a position in the country comparable with that held er great professions has been the existence of two repre-ive bodies, the Institute and the Society, and the fact he Councils of these bodies have actually agreed upon a e of amalgamation is an authoritative endorsement of lief that the scheme provides the way, possibly the only y which the interests of the profession may be advanced. from the individual opinions which have reached as, we hat the Councils of the following Allied Societies give wholehearted support to the efforts which are being to obtain unity: Berks, Bucks and Oxon A.A.; stershire A.A.; Glasgow Institute; Liverpool Archi-l Society; Manchester Society of Architects; Northern Northamptonshire Association of Architects; Notting-ad Derby Architectural Society; South Wales Institute of cts; Yorks and East Yorkshire A.A.; the Ulster Society hitects, and the Wessex Society of Architects. This es some indication of the support which the movement ving, but we know the proposals contained in the amal-on scheme have not been unanimously approved—that, s, would have been too much to expect, though we hope ll finally be adopted unanimously—and there are those ject to them because they provide for amalgamation nstead of after Registration; but what has given the a special value is that here we have definite and agreed ls by the two parties without whose support nothing e done, and that an excellent opportunity is afforded of ng at last a really representative Institute which will take e with the other great professional societies of the country g with all the prestige and power of a united profession nterests of architects and architecture and with Regis-as its first obligation.

believe we are on firm ground in stating that an over-ng majority of the members of the two societies desire amalgamation if it be the only way to advance the s of the profession, and that many of them a d to give a good deal to attain this object. But there e in both societies who have doubts and misgivings, o fear they may be sacrificing the substance for some natical gain. No cause can be won and no dispute torily settled without a frank recognition of the argu-of an opponent, and believing that the principal nts of the present amalgamation proposals are members Institute, it may serve a useful purpose to remind s of that body that the proposals of the Council arose irst instance from a desire to meet the wishes of the profession in the matter of Registration. The Institute did not proceed hastily, but took note of the fact of the substantial majority in favour of that measure which was shown by our own plebiscite and that of the Society of Architects, and finally gave its support to the movement. While this was a step which gave registrationists much satisfaction, it was soon realised that the Act of Parliament which was necessary to give architects the protection they desired would be very difficult, if not impossible, of attainment unless the Bill for the purpose were promoted by a united profession. The movement for unification which followed has resulted not only in the present amalgamation proposals, but in the formation of an opposition, whose chief supporters have been lifelong registrationists, but who fear that if unification or amalgamation is agreed to and a number of unqualified men enrolled as members without examination, the prestige of the Institute and those of its members who have passed a difficult qualifying examination will suffer, while even then Registration might prove unattainable. Implied in this argument is the admission that Registration in any event will be difficult to obtain, but in our view without amalgamation it is really the abandonment of Registration by registrationists, for no one now believes that Parliament or the country would pay any attention to such a movement unless it had behind it the support of a united profession. In our judgment all interests in the profession should support this scheme of amalgamation, especially registrationists, who might just as well make up their minds at once that the Registration of architects by Act of Parliament is unattainable without the backing of a powerful and fully representative body. If Registration is a good thing the unity now possible is an essential preliminary to obtaining it.

The fears of the opponents of the amalgamation proposal that the prestige of the Institute would suffer are, in our opinion, chimerical. Registration of architects has been obtained in other countries in much the same way as it is proposed to obtain it here, with none of the evil results which, we are told, follow. The Architectural Institute of British Columbia did not like the idea of taking everybody in, but found it was the only way to get Registration and recognition by the Parliament of the Province, and they have already found, in the course of three years, "that the process of elimination of the undesirables has commenced and has shown a much more rapid clean out" than was anticipated. In the Province of Saskatchewan, Canada, where architects have been registered by Act of Parliament since 1911, "incompetent and undesirable members who, of necessity, had to be admitted at first, have to a large extent been eliminated"; all new members must have the necessary qualifications, and the standard of architecture has greatly improved. The immediate effect of the Registration law in the State of New York is that "the hordes from the cellars and by-ways pouring into our occupation is effectually stopped, the polluted stream soon began to clear by the influx of well-trained men, and places the profession on a higher plane in public estimation." There are registration laws in twenty-three States, and not one has been repealed.

If the fulfilment of long-cherished hopes that the time would come when the architectural profession would stand before the country as a united body, determined to pull its whole weight to secure the ends it has in view, is an achievement which all architects should welcome, then surely we have a right to expect all parties in the profession to take stock of the question in no party spirit and to use their influence and vote to obtain, while there is yet time, that peace within their ranks which appears to be of paramount importance if it is to take its place with others in the public service for the good of each and all.

NOTES.

The Medal for Street Architecture.

THE choice of the Shepherd's Bush Pavilion, by Mr. Frank T. Verity, for the award of the medal for street architecture, will probably be generally acceptable, and whilst we should have hardly imagined it to be well enough known to secure the largest number of votes, the award speaks well for the sagacity of the committee. Mr. Verity has been known as an architect with definite leanings towards French grace and refinement, and some of his blocks of flats have evidenced this. Theatre design has been one of his especially successful studies, and in the Academy this year his ability in this direction will be at once recognised. Curiously, whilst he has been specially happy in his appreciation of scale in his buildings, the medal award can hardly have been largely influenced by consideration of this. The award is a recognition of an architect's attainments, and we congratulate Mr. Verity on being the recipient of the award.

The R.I.B.A. Dinner.

THE R.I.B.A. Dinner on Tuesday, a report of which we give on p. 753, was a very successful function, and though the absence of some well-known members was noted, the many distinguished men present was a pleasing indication of the position the Institute occupies in our public life. The speeches were all more or less pertinent, which cannot always be said of after-dinner speaking, and the President, Mr. J. A. Gotch, made an almost ideal speech, in which he showed by quotations from poets and authors how little architecture owes to literature in allusions to the art and what an ignorance is so often displayed by poets and writers. We are glad to think more knowledge of the art is shown by popular writers to-day, but we have still a long way to go before the subject will receive the well-informed attention it should.

The Competition System.

THE confidence that public bodies now generally place in the competition system, as regulated by the Royal Institute of British Architects, is very gratifying. There was a time when some reluctance was in evidence against placing a final decision in the hands of an assessor, but the conduct of properly regulated competitions has developed such a close co-operation between promoters and assessors that the former may be said to retain a very large voice in the matter, while the power to modify a selected design completes the protection that the R.I.B.A. conditions afford to the promoters. It may be said that the competition system is now generally accepted throughout the best informed opinion in the country as providing the best means of arriving at the best solution for any important building problem.

The Rights of the Artist.

THE French Minister of Education, M. de Jouvenel, is endeavouring to amplify the rights which artists in France possess under the law of 1920. This law enables the artist, if a work of art is put up for sale, to claim a percentage of the excess over the original price paid for it. It is established under the new decree that, if several artists contributed to the work sold, they shall share proportionate rights in the increase. It is recognised in France that it is for the general interest to encourage artists to create, by securing for them a claim on the profits of the property they have created. On any profit in excess of the original price paid to the artist, 25 per cent. we believe is the amount to which he becomes entitled. The want of equity existing is shown, even in France, where two daughters of the painter J. F. Millet are in receipt of pensions from the State, because of their straitened circumstances, in spite of the fact of the immense sum realised by the resale of his pictures. There have been glaring instances in recent years of this injustice to the artist, where his poverty has compelled him to part with his work at nominal prices, afterwards realising large profits to others. The recognition which a great artist receives is seldom that of his contemporaries, and his circumstances often compel him to part with his work for a pittance. It is but equity that both himself and his family should share in the value which he has created, and that there should be some better security for the encouragement of creative work. We hope that this country will take example from France in establishing the rights of artists on a more equitable basis.

Westminster (District) Station.

WE may easily do less than justice to the many changes which—here a little and there a little—are contributing that improvement to the amenities of London which is so desirable. And to any traveller used to the dark cavernous approach to Westminster Station, which swallowed him up into its obscure vortex, the new spacious and very



Steep Valley, Brisbane. (*See p.* 762.)



View of Town Belt, Dunedin. (*See p.* 762.)

pleasant approaches full of daylight an agreeable colour are a sheer delight. I must have been a difficult business out o its former conditions to reconstruct thes new corridors and approaches, and show us how much can be done to ameliorat conditions where there is the will t do it. The little lunettes, so poor i themselves, yet do a service in makin manifest how desirable and interesting would be if the spaces occupied b them were devoted to real mural painting fitter in scale and treatment to the sur roundings. We suggest to the enter prising publicity department of th Underground Railway that the wa spaces thus filled with brightly painte and attractive themes would set a crow on an improvement so admirably planne

The Paper Nuisance.

IT will enable us to forı some idea of the magnitud of the injury to the decenci of our corporate life that costs the Office of Work £400 per month in summer to pick u scattered paper in the Royal Parks alon and this only a small item in the expen if we include commons, greens, and ope spaces which also suffer from this abus The condition after a Bank Holiday our public spaces is deplorable, an though we believe local authoriti require those who cater for public amus ments on these occasions to clear up aft them, we have observed cases in whi this is only half done. A wind springs u and blows quantities of paper and oth refuse which attaches itself to fenc and entangles itself in all sorts of oth ways, so that the way-sides for days afte wards present a most unsightly a pearance. It is satisfactory, however, know that public feeling is aroused the matter, of which the recent meeti in the Mansion House, which had t support of so many prominent nam is evidence. It is hoped that eve society and public or private body i terested in the movement will give th support to such a much-needed improv ment. We fear that the stalls a roundabouts and swings, the fairs whi appear and disappear at each pub holiday, contribute indirectly very mu to this disorder, and perhaps some way approaching the proprietors and an appe to their public spirit would be helpf The more traditional and popular amu

nts provided for the people by these rs are in themselves excellent things, d provide cheap and innocent pleasure, ich it would be a loss to discountenance, t their methods are in need of some endment in regard to litter.

Litter in Public Places.

We are glad that public attention is being brought to bear on a point we have so often drawn attention to, e untidiness of a certain section of the blic in scattering all kinds of litter in blic places and resorts. This is a wing evil which should be attacked, it negatives, the movement which has ently received such impetus, of securing uty spots for the public benefit and the provision of recreation grounds. e nuisance is, however, not confined parks and such resorts, for the whole ntryside is being defiled by the untidy bits of a large section of the population. tention is being drawn at the moment the preservation of the Malvern Hills m injury by the quarrying operations, the beauty and enjoyment of the Hills lmost as much destroyed by the litter t is scattered about them. There is, rever, a curious difference in various ilities in this respect. In no city that know of is greater latitude allowed he public in the use of the many parks ossesses than in Bath, and yet all the ks are a model of order and tidiness. s is not the result, so far as we are re, of the enforcement of any parti- r by-law, but we imagine it arises n the fact that all classes have for y years been allowed this freedom with little supervision, and the people e, therefore, learnt to appreciate the ntages they enjoy, and to take care he property they are permitted so y to use. If we are right in this ction, it appears to some extent to be atter of education, and education in mon decency should be inculcated in schools.

The ictoria emorial

The practical completion of the Victoria Memorial by the placing of the large bronze groups over the side arches shows us the full zation of the sculptor's vision. We fraid the final verdict will be that whole design is overfeatured, and together with the varied scale of the es, must always detract from its ty. The memorial contains some admirable sculpture, but is lacking straint.

ictural ilations the ndon unty uncil.

The articles by Mr. Ewart Andrews, and letter by Mr. W. J. H. Leverton that we recently published, draw attention to the strength that is unquestionably added to the structural work by the concrete in which usually embedded to make it fire- ing. It is hardly conceivable that regulation of an up-to-date body like the L.C.C. should treat the concrete as so much dead weight instead of allowing for the greatly increased strength that experiments have proved it gives to the steel framing. As everything that is possible should now be done to bring down the present high cost of building it is imperative that the regulations should be revised.

Taxation of Land.

In the general expressions of relief that the first Budget of the Government should be so sound in its main outlines, the fact must not be lost sight of that it was made the medium for the announcement that a Bill would speedily follow having for its object the taxation of land in some form or other. With the experience as to the disastrous influence on building which was exercised by the last attempt at taxation of land values, and the loss to the community which resulted therefrom, the announcement that it is to be revived in any form gives ground for anxiety, and as the municipalities are to be encouraged in housing schemes there seems every reason to fear that it is private enterprise that will suffer from any renewed experiment in this direction. The Bill, which the Chancellor of the Exchequer has announced will make an early appearance, will be awaited with anxiety, and at present there is no indication of the lines upon which it will be framed. That it will not revive the preposterous principles of the Act of 1909-10, with its chimerical "site value," can only be assumed from the statement of Mr. Snowden that "it is to be well thought out and as simple as possible." No one could thus characterise the scheme of 1909-10, which resulted in confusion and cost to the private owner and little or no profit to the Exchequer.

Sir Aston Webb's Accident.

The uncertainties of life have been brought home to us very unpleasantly by the serious accident to Sir Aston Webb and other Academicians on Saturday night as they were returning from the Academy banquet. Fate has decreed disasters to many distinguished men in our streets, and often without any clear evidence of carelessness. The lives of respected and popular men are of much value to the community, and we have all reason to be grateful when, as we may happily foresee in this case, the distinguished victims are likely to make a good recovery. The services of Sir Aston Webb to the profession have been so great and varied that all of us join in hopes of a speedy recovery, and are glad to think that our hopes will be realised.



Ghadiali Pole, Baroda. (*See p.* 762,)

GENERAL NEWS

Professional Announcements.

Mr. J. H. Norris, Licentiate R.I.B.A., has taken into partnership Mr. L. H. Shattock, A.R.I.B.A. The business will be continued under the style of Norris & Shattock, at 51, High-street, Guildford, and 16, Church-street, Godalming.

Mr. G. H. Treacher has taken offices for private practice at Gresham House, 11, Warwick-street, Worthing.

Exhibition of Architecture at Wembley.

The exhibition of architecture now being arranged by the Royal Institute of British Architects and the Architecture Club, will be held in the galleries of the Palace of Art, British Empire Exhibition, Wembley, from May 26 to July 5. The exhibition will be opened by Lord Crawford at 3 p.m. on May 26, and will consist of photographs and models of the recent work of living architects in Great Britain and Ireland, India, and the Dominions.

Durham Architectural Society.

At the annual meeting of the Durham and Northumberland Archaeological and Architectural Society, held at Durham recently, the following officers were elected for the ensuing year: President, Mr. Hamilton Thompson, of Leeds; Vice-Presidents, Mr. Jos. Oswald and Mr. W. H. Wood, Newcastle; Hon. Secretary and Treasurer, Mr. J. Gradon, Durham. Mr. W. Richardson (Wallsend), Mr. H. S. Harrison (Durham), Mr. Pybus (Newcastle), and Mr. T. Lofthouse (Middlesbrough) were appointed to the Committee.

Architects' Benevolent Society.

The Annual General Meeting of subscribers and donors will be held in the Rooms of the Royal Institute of British Architects, 9, Conduit-street, W., on May 13. The President of the Society, Mr. J. Alfred Gotch, F.S.A., will take the chair at 5 p.m.

Architects' Assistants' Benevolent Fund.

The Architects' and Surveyors' Assistants' Professional Union has launched a benevolent fund for the benefit of its members and their dependents. The objects of the fund are: (i) temporary relief to members in cases of distress, illness, accident or sudden emergency; (ii) temporary loans to assist younger members in following up the profession; (iii) grants to widows and orphans; (iv) to acquire, endow or partially endow and maintain rest homes for members; (v) to secure for members any benefits obtainable from sanatoria, convalescent homes and similar institutions by the payment of subscription from the fund. Further particulars may be obtained from the Secretary of the Union, 36, Victoria-street, S.W.1.

COMPETITION NEWS

The Harrogate Infirmary.

The committee of Harrogate Infirmary invite designs for the extension of this Infirmary. Mr. Sydney D. Kitson, F.R.I.B.A., has been appointed assessor. Premiums of 150, 100, and 50 guineas will be awarded respectively. Applications, together with cheque for two guineas, should be made to Mr. Geo. Ballantyne, Secretary, The Infirmary, Harrogate, by May 31. Sending-in day September 30.

National Theatre.

The sending-in day for this competition has been changed from April 26 to May 15.

Other Competitions.

Other competitions still open include the following (the dates given are, first the sending-in date, and second the issue of *The Builder* in which full particulars were given):—Industrial Designs (June: Dec. 21, 1923). Ross-Smith Memorial (Sept. 30; Feb. 21). Glasgow Public Hall (July 4; May 2.)

CORRESPONDENCE

Royal Academy Drawings.

SIR,—"Confession is good for the soul," and one might be tempted to add that "criticism is the life blood of art." Pleading this excuse, I venture to draw attention to an illustration in your issue for May 2, taken from the R.A. Exhibition and entitled "A Project for a London Site."

In these days of discussions and articles on theory and composition of architecture, it is truly sad to find some of its leading exponents disobeying almost every article of their creed, and finding that the Academy, of course, must then go and hang the drawing.

I am perfectly willing to acknowledge my errors if it be proved to me that I am wrong, but the following points in this particular drawing seem to me to attract unfavourable notice:—

(1) Employing an order to the top story of a building, where it serves no purpose except as meaningless ornament or wall decoration.

(2) Unhappy fenestration, by the restless use of arch and lintol, to the top story. The general effect of this story, owing to its huge windows, being to crush down the rest of the building.

(3) Lack of emphasis to the main entrance.

(4) Skyline. The corners are obviously quarrelling with the dome. The one detracts from the other and the further addition of—presumably—two groups of sculpture, midway between dome and corners, irritates the eye with their fussiness.

(5) The lines of the centre pedimented block are not carried down below the second floor and the question immediately arises—whether the dome has any relation to the plan or not.

One might, of course, say that the corners represent projecting wings, the main body of the building being set back, with an arcaded wall represented by the lower order, leading to a forecourt. But does this even then justify the foregoing points? There is not even a shadow to indicate this conjecture, and shadows have been used on other parts of the design.

What is the good of exhibiting a drawing unless it expresses its motifs? It misleads instead of inspiring appreciation, and it certainly does not educate the public, who even yet have only a hazy idea of what architects are for. Their lack of interest in the "Mistress Art" is obvious, judging from the deserted state of the architectural room at the Royal Academy.

There is only one reason I can find for this drawing having been exhibited, and that is to show students what not to do. I have derived great use from it in illustrating its faults and possibilities to two of my pupils. Take the top story of the design by itself, fold the paper so that only the upper portion can be seen, and at once bar the ends with their hipped roofs, you have a delightful composition beautifully in scale; or, again, fold the sheet so that the drawing can only be seen from the first floor upwards. The first floor gives a solid base—if, of course, you eliminate the baroque swag ornaments—for the same top story, and the contrast of the two, still barring the hipped corners, is quite successful. Imagine, again, the restfulness of the skyline if you carried the hipped roof along the entire front and eliminated the dome.

Tolstoi said: "Art is a human activity, transmitting feelings," and it should devolve on the shoulders of our leaders to carry this out with a singleness of purpose that has only one end, namely, of making architecture symbolic of truth.

The hopes of the future are in the youth of to-day, and it is up to us all to maintain these ideals.

A. ARCHER-BETHAM.

Modern Swedish Architecture.

SIR,—May I call the attention of your readers to the very important exhibition of "Modern Swedish Architecture," which has been arranged by the Architectural Association, and for which the Council of the R.I.B.A. have kindly lent their galleries. The exhibition will be opened by the Swedish Minister, Baron Palmstie on Monday, the 12th inst., at 3 p.m.

The architects of Sweden have gone to siderable trouble and expense to prepare send the exhibition over to England, and hoped that the architects of England will s their appreciation by visiting the exhibi in large numbers. The exhibition consist drawings, photographs, and a number of mo all of which will not fail to arouse interest.

F. R. YERBURY.

South Moor Hospital Competition.

SIR,—I will not encroach upon your valu space by discoursing at length upon my into the wilds of Durham or on the qualit the roads in that wonderful county; but I w like, if you will allow me, to draw atten to one point, in connection with the a competition, which struck me very forcibl

I notice that according to the conditions down the cost of the building is not to ex £12,500. In order to bring their estim within that figure the authors of the t premiated designs base their estimate the cube figure of 1s., 1s. 3½d., and 1s. 6d. ft. cube. As the cost actually will in probability work out at nearer 1s. 9d. pe cube, this means that the cost of carrying these designs would work out at approxima £21,800, £17,300, and £14,500, or, in o words, 75 per cent., 38½ per cent., and 16½ cent., above the stipulated cost. In my opi all competitors who based their estimates figure lower than 1s. 6d. per ft. cube shoul disqualified, as it is otherwise hardly fai those who strictly adhered to the conditio

I may mention that I was not a competit the above competition, so that my remarks entirely disinterested. They are only mad order that in future all those who enter competitions may realise that, where any of cost is mentioned, it is only for amusem and no serious note need be taken of it.

"ANOTHER ARCHITECT

Unity and Registration.

SIR,—I should like to welcome the statesm like action of the R.I.B.A. Council in prod their excellent scheme for the fusion of R.I.B.A. and the Society of Architects.

The only hope of obtaining registrati to go to Parliament as a united profession.

It is obvious that one society representin profession is more likely to succeed than tw

Architects in most of the Dominions actually obtained registration, and surel of the mother country can get it too if we u

JOHN COLERIDGE, F.R.I.B.

The Institute Election.

SIR,—The importance of this election t Royal Institute cannot be over-estim Every member of the Institute should vot the questions for each are:—

Do I want Registration?

Do I want the Institute to be supreme

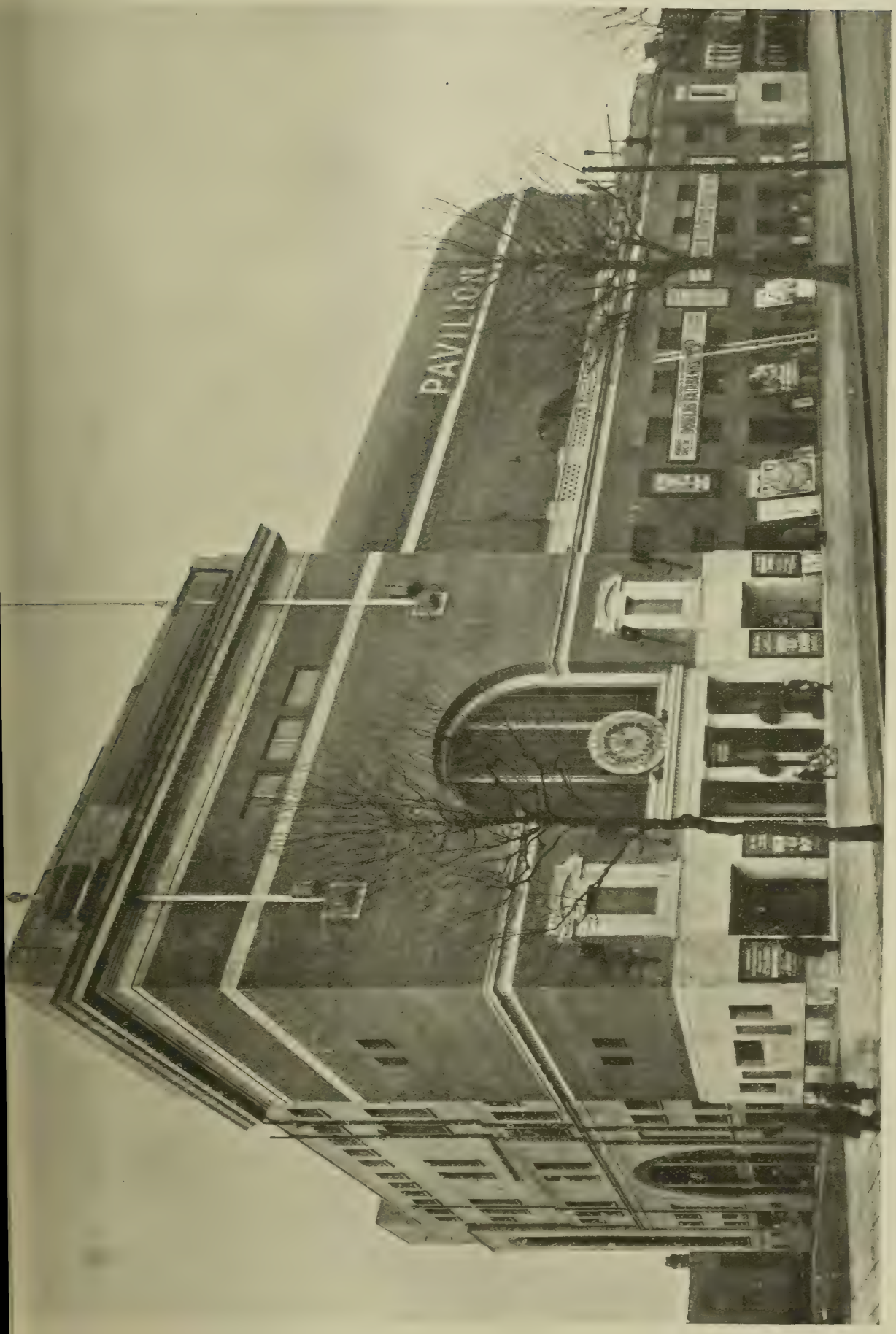
If the answer in both cases is, yes, th only one vote to give and it is for the list out by the Emergency Committee. The of the Defence League makes against b great profession and a great Institute.

There can be no doubt of this, they have in office and while there produced a Regist Bill which placed the Institute under the l a nondescript Board, and relegated it t position of a subservient Registry.

Let every member before voting exami respective list of supporters of the riva posals and ask himself whether the suggest the Defence League can be accepted, n that the great body of eminent men wh supporting the proposals of the Counc supporting a policy which is against th interest of the Institute and its mem Merely to ask such a question is to dismis preposterous. We want a great professio we want the Institute to be supreme.

There is only one policy which can a both ends, it is the policy of the Council sup by the Emergency Committee.

HARRY BAR



Shepherd's Bush Pavilion. Mr. F. T. Verity, F.R.I.B.A., Architect.

[Mr. Verity has been awarded the R.I.B.A. Street Architecture Medal, 1924, for this building.]

ARCHITECTURE AT THE ROYAL ACADEMY

In the long perspective of Academy exhibitions during some forty or fifty years past the general trend of criticism has, of course, varied greatly, but to-day, as yesterday, the thoughts of all those who are looking for the coming of beautiful buildings will still unite in some bond of sympathy whatever their personal predilections may be. It is surely right and wise for all architects to study contemporary work and get all the stimulus and encouragement they can from it, remembering that we are all built up of a variety of influences, many of which we are almost unconscious of.

Though the practice of architecture in recent years seems wanting in the vitality and movement which characterised the various revivals of the nineteenth century, there is perhaps more unity in thought and purpose and we may feel some encouragement in the thought that so far as town architecture is concerned we are likely to gain something in dignity and sobriety of effect. If pleasure buildings and business premises are lacking in gaiety and lightness, we can point to the gravity of jails, schoolhouses and town halls, with some satisfaction, even though it be somewhat grim. When we get a structure like that of Messrs. Selfridge's, so out standing in size and so clearly in view down the long perspective of Oxford-street, we may see some justification for its dignified and impressive treatment, and a long way further west we can still feel some genuine satisfaction for the equally bold and more English treatment of Waring & Gillow's fine block. But do not the cement fronts of Nash's buildings seem to us more closely in sympathy with their purpose in their simplicity and delicacy than the heavily-detailed stone frontages which are taking their place? The massive proportions of stonework strike one as going beyond their proper function as a mere dressing to the real construction behind. The finely-executed metal shop frontages in Berlin are surely nearer the mark than are most of our attempts at giving an appearance of solid stone construction to our steel-framed buildings.

One of the most interesting drawings is the sketch study (see our last issue) for a London building by Sir Edwin Lutyens. In this design we see how the natural instinct of one who has brought some real vitality into modern architecture enables him to achieve success by well studied outline and mass and by distinction of detail and to achieve variety and picturesqueness in a Renaissance street front just as he has done in some of his best country houses. His "Castle Drogo," 1185 and 1188, will probably be a notable place, but he has chosen to illustrate it by mere silhouette drawings, which show a curious and singularly unattractive sky-line. Reverting to business premises, we have the President's agreeable frontage (1276) to Nos. 36–44, Moorgate (which we illustrated last week), in which a narrow front is skilfully handled; Oxford-street premises by Messrs. Gibson & Gordon (1236), with a telling pavilion treatment; P. & O. Offices (1223), by Messrs. Collcutt & Hamp, a well-balanced front; a design for the Holt Building, by Mr. Curtis Green (1222) a frontage of distinction just lacking the cohesion that would have completed its value; Sir Reginald Blomfield's Centre Bay at Barker's (1211), an interesting detailed drawing governing a good Renaissance treatment; office building, by Oswald P. Milne and Paul Phipps (1213), suggesting some good grouping of features; rebuilding of 58–60, Charing Cross (1224), by Messrs. Hayward & Maynard, a good design, though it is a little out in scale perhaps; new premises, Jermyn-street (1229), by W. Thrale-Jell, a quiet broad treatment of a simplicity we should like more of; a detail drawing of insurance offices (1333), by Prof. Beresford Pite, showing his skill and invention to a degree that somewhat mars the breadth; a telling mass of the Hudson Bay offices' entrance, by Messrs. Mewes & Davis, which shows a fine pillared entrance way; the colliery offices (1342), by A. Gilbert Scott, which promises to be a very pleasing building with good proportion and telling breadth; three of the Empire Exhibition pavilions, the *Times* building, by Oswald P. Milne and Paul Phipps (1302), an interesting design, the all metal Pavilion (1308), by W. D. Sinclair, and the Food Pavilion (1209), by Ed. Maufe.

Amongst the works which serve as factors in our hopes for modern architecture we count on such things as the Churches, by Walter Tapper (1252) and G. Gilbert Scott (1246); the Cottage Hospital, Weybridge (1289), by Kenyon & Lavock; the Deal Hospital (1292), by Messrs. Adams, Holden & Pearson; admirable work by Messrs. Walter Brierley & Rutherford, and other houses at Cowfold (1165); Ed. Maufe's little bank at Amesbury (1199); A. G. R. Mackenzie's pavilion at Bournemouth (1277) and the able scheme for the Raffles College (1288), by Messrs. Farey & Graham R. Dawbarn; the Cairo Hospital Medical School, by Nicholas and Dixon Spain; the business premises (1195), by Oliver Hill; and the Vigo House (1192), by Sir J. Burnet and Partners.

But even the best of the subjects in the Academy leave us with a feeling of uncertainty as to what architects are really aiming at. We certainly can discover some more definite ground when we come to domestic work, to hospitals, or the best of our church work, but architects cannot apparently control the shopkeeper, enthuse our public bodies with high aspirations, or yet give a definitely logical expression to modern forms of construction. Why is this, with so many able architects amongst us? Our hopes must lie largely in the future and we must try to co-ordinate the forces of education in some way so that we may neither suffer for the lack of sound teaching on the one hand or the vivifying influence of personal influence from our best architects on the other hand. Mr. Bodley once told us that he felt at a loss to convey to students at the Academy the real why and wherefore of his own designs, though he quite agreed with us as to that being the thing they all wanted to know. Courage, conviction and concentration, modified by a divine discontent, may form a panacea for our needs.

Following the order of the catalogue, we will now refer to other subjects not already noted. The "House near Warwick" (1155), by P. D. Hepworth, has a definite distinction by the nice emphasis of parts: the slight entrance projection carved up to the eaves gives an agreeable note of interest flanked by plain walling and the design is very nicely presented. A comfortable-looking house at Hampstead Garden Suburb (1157) is by C. M. Hennell and C. H. James; and another good design of similar Georgian type (1161) is here, by Lowry and Woodhouse, this latter one illustrating the value of a high-pitched roof. The bank premises for Welwyn (1163) by Louis de Soissons, indicates the value to be obtained by pleasant proportion. The admirable low-proportioned house (1165), by Brierley & Rutherford, we have referred to before. A somewhat unusual and pleasing effect of solids and voids is to be noted in "Lordship's Close" (1168), by W. J. Kieffer. An excellent small house design is "Appleshaw" (1167)—a good plan and nicely balanced elevation—by Ernest Allen & Partners. One of Mr. Guy Dawber's nicest houses is that at Queen Camel (1172). "The Churchill Rectory" (1173), by Knapp-Fisher, Powell & Russell, is especially pleasing, both a subject and an unusually nice drawing, the character of which we should like to see more followed: sincere, simple work like this is far better than the quantity of theatrical self-conscious drawing we see so much of now. The two subjects in one frame—against R.A. regulations!—(1177), by Oliver Hill, are good, sound work. "The Round House" (1178), by Cooke & Harrison, is a clever piece of planning and may make a good result; there arise many useful corners on such a plan, but the various rooms need very careful treatment to achieve success; the exterior is not quite so effective as the plan would suggest of possibilities. A thoroughly old-world air hangs over the house, "Hilles" (1184), by Detmar Blow: it is an agreeable, picturesque design of good balance, and owes something to a pleasant sympathetic representation. "North Munstead" (1189), by Harold Falkner, has a sturdy vigour, telling pourtrayed. The "Vigo House" (1192), by Sir J. J. Burnet & Partners, promises to be a good street frontage, though one might hope will not run to the cost of the flanking dom A sweet Gloster building is "Warneford Hou (1194), by Andrew N. Prentice. Of war memo als we have here two—the Cape Helles (1196), Sir J. Burnet & Partners, and that at Aberde (1201), by A. M. & A. G. R. Mackenzie—bo have pronounced excellencies. Mr. Herb Baker's "Garden Court Bank of England" (12 is so illustrated that it is difficult to form estimate of its promise; the drawbacks of design may be more apparent than real, and actuality we may find rhythm, refinement a dignity. The Hudson's Bay Co. new offices are have a fine pillared entrance through the fr block to St. Helen's-place by Mewès Davis Allom (1209). It seems a pity that so lon frontage as the Gramophone Factory Offi (1210), by Wallis Gilbert & Partners, was treated with less monotony.

Sir Reginald Blomfield has a good de drawing of Barker's new premises (1211), wh shows skill and refinement of handling. new Library for Exeter (1212) is not very co prehensible in the drawing by its archit Sidney K. Greenslade. It is very like in char ter to his Welsh Museum. A somewhat fr treatment of an office building (1213), by Osw P. Milne & Paul Phipps, is somewhat awkwar illustrated. The Morgan Greenfell Bank (1 is a nice, refined piece of Renaissance work Mewes & Davis. An original and telling ef is the brick wall with a steep-pitched w gabled porch in the centre forming the f to the "Masonic Hall, Stroud," Falconer, Baker & Campbell. This draw suggests an interesting Continental tit the object of the front of the building wo appear to be the effective setting of the entra which is certainly fully accomplished.

The new P. & O. Offices (1223), by Collcu Hamp, is far removed from Collcuttian tin it promises a well-balanced dignified build with a touch of Greek feeling, but there some who are more pleased with designs like Wakefield Town Hall. The cinema is st prominent feature with us to-day, and prob will outlast the skating rink craze; among better treatments of it is that in Kensin Road (1226), by Messrs. Granger & Leathart Dixon-Spain touches with interest all subjects, and a very pleasing treatment be noted in the Mosque from Cairo (1227 Messrs. Nicholas & Dixon-Spain. A compet design of quality is that for the Greenwich F (1228), very well presented in elevation and by Horace Field and Dighton Pearson. new building for the Society of Friends (123 Mr. Hubert Lidbetter seems just a little staid even for the Friends.

The able design for Cairo Hospital (1238 Lanchester Lucas & Lodge, is unfortuna the effect the bird's eye view gives of a cro congestion of the wards.

At this point on the walls interest reach active stage, for we have two admirable chu entered by Walter Tapper and Geo. G Scott (1243 and 1246); a good east end, ney Church, by H. P. Burke-Downing; V Caroe's big church of St. Helens (1244); excellent new meeting room of the R.I by Arthur Keen (1242), and well consi subjects by Austen Hall (1241), and Richa & Gill (1247)—a frankly modern ware buildings in Gresham Street. Then we hav impression of a restored Scotch Abbey Ch which we really find to be an excellent of Gothic by Brierley & Rutherford, a Mer Chapel for Durham School (1249): is no strongly marked horizontal crowning the a little hard on the pointed arches? The grouped block of Record Office (1253 Francis Troup; the very satisfactory Memorial for Birkenhead (1255), by Budden; the vigorous design for Church, H

(1256), by Edward Maufe; the very success-
War tablet (1257), by Major Lafontaine and
ginald Hallward; and a good church, by
lip J. Marvin (1261), are all noticeable things.
e latter church shows the value of a good
se of scale in design.

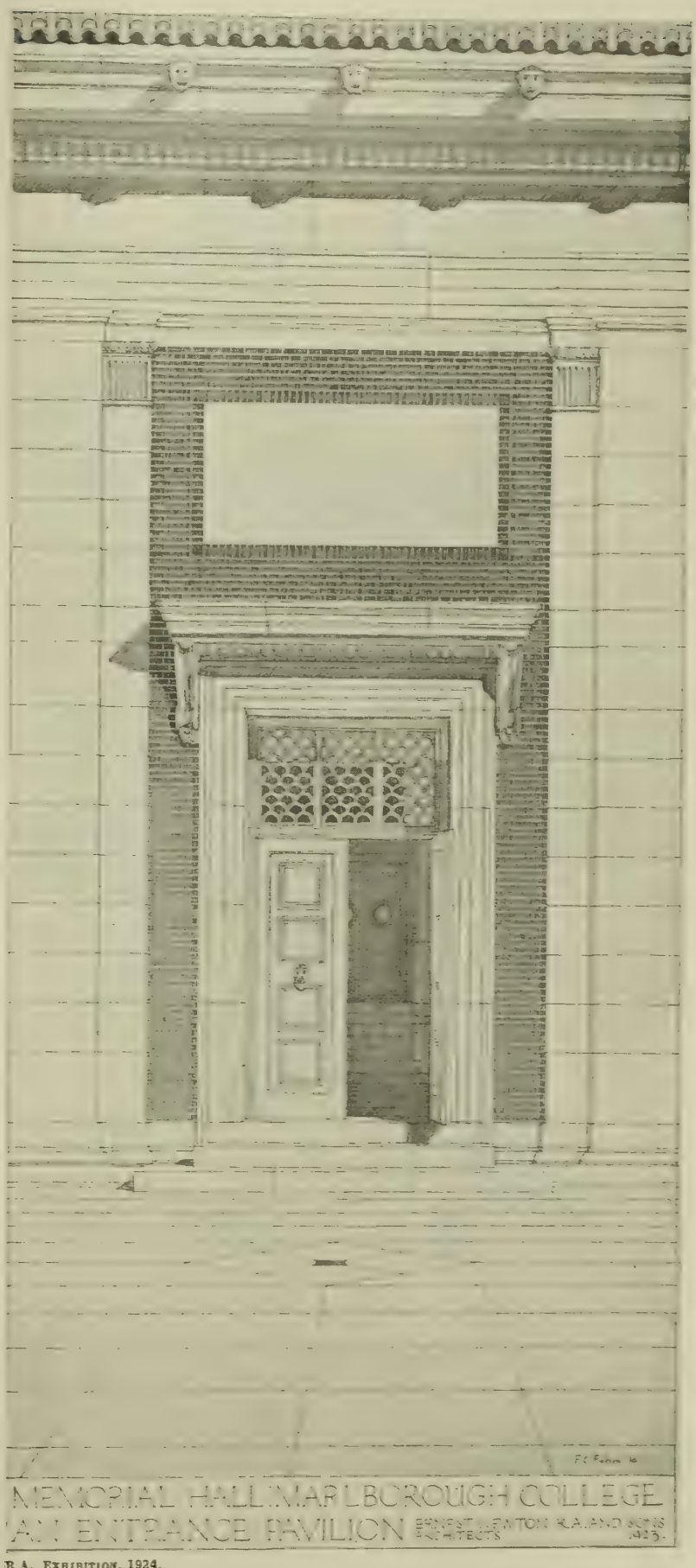
A pleasant little subject is the chapel at
Brabanconne (1265), by one whose hand has
lost its cunning, Leonard Stokes, and
rsdale. Some good decorative work in glass
mosaic appears on the walls, including
able mosaic designs by R. Anning Bell, and
should not overlook the rich delicacy of
et in the casket for "Tee H" (1263) by
e Smithers.

The Bath Abbey Memorial Chapel Altar (1268),
Sir T. G. Jackson, has a somewhat attenuated
k if it is in stone. Sir Thos. has a nice little
morial chapel at Stapleford Church (1282).
he illustrations are given of the large school
g built at Ballards by Sir Aston Webb &
(1272 and 1273), the quality of which was
er seen in last year's Academy. We are glad
note the partnership of Forsyth and Maule
work again at Stow (1279) and Bath (1281).
he characteristic work by H. Percy Adams,
den & Pearson, is seen in the Westminster
pital alterations (1287). The Harrogate
(1303), by Messrs. Farey, Simmons &
ards, is a pleasing piece of simply designed
k. The Plaza Theatre, Piccadilly Circus
1), by F. T. Verity, has some freshness of
rest, but we feel that it would almost gain by
omission of the dome. An excellent piece of
lo-Chinese design is the China University
eway (1343), by Fred Rowntree & Sons: the
bination of the steadiness of line with the
ese picturesqueness is very happy. One
ld not overlook a very well-designed little
age at Hornchurch (1329), by A. Edgar
sford. Decorative designs by Martin
rers (1344 and 1347); and a processional cross
Walter Stoye (1337) about exhaust our list
notes, which we do not pretend cover all
well-trodden ground of the architects'
way. We can hardly call it one of the
biest years for stimulus and encouragement
we feel sure architects would do better i,
were less inclined to do always as others do

"A GLORIOUS TRADITION"

a recent lecture of this session's course on
cient Architecture at the Central School
rts and Crafts," Sir Banister Fletcher
ved the course of Byzantine architecture
s later developments as it travelled from
antinople in the East to the prosperous
of Venice farther West, and to other art
es in western Europe, where it had sur-
sporadically down to the present day.
e, at the head of the Adriatic, rose and
beautified by the devotion of her sons,
were not satisfied with a distant cathedral
rcello, so, like the Romans, built their
of worship close to the ordinary place of
gation, in their case the Great Piazza of
ark's, where arose the great Byzantine
dral, like Venice herself, proud, dominating,
nagnificent, in a blaze of colour, with its
ilded domes glittering in the blue of the
Within, brilliant mosaics told the tale of
reation in the dim mysterious light that
l through small Eastern windows.

Banister then referred to the chief monu-
of Byzantine art in other lands—Greece,
e, and even England, concluding by giving
glimpses of the great Byzantine cathedral
tminster, impressive by reason of its vast
l proportions, and one day to be coated
nosaics in the Venetian manner, which
enable them to realise the generous
bution made by Italy's sun and skies to
es of decoration. Meanwhile, in north-
Europe architecture of line and form re-
l of more value than architecture of colour,
as perhaps in better accord with the cold
f their English climate.



R.A. Exhibition, 1924.

Mr. William G. Newton, M.A., A.R.I.B.A., Architect.

PAINTING AT THE ROYAL ACADEMY

GENERALLY speaking, the exhibition of some 859 pictures (excluding miniatures and etchings, &c.) at the Royal Academy of 1924 will be found interesting by those who are students of the various styles of painting. The British school of painting is full of clever executive ability. Of that there can be no doubt at all. The artist to-day has learned his or her trade as a painter. What is the next step? Dexterity in painting counts for little if it is not supported by stimulating intelligence. On one of the initial pages of the Academy catalogue a quotation from Sir Joshua Reynolds, P.R.A., states that, "The great end of art is to strike the imagination." In other words the genuine aim of art is to lift one's thoughts into a higher spiritual plane, to transcend the material environment of everyday life. The writer of poetry, through the abstract suggestion of words, can almost immediately convey the reader's mind into an interesting atmosphere created by the poet; the painter's work is more laborious, with the more difficult problem of inducing the spectator to get behind, as it were, the surface of paint (as applied to canvas or paper) so as to comprehend the message of the artist to the outside world.

It is therefore of every importance that the means or manner of a painting should in no way interfere with the end in view, *i.e.*, the sentiment of the picture. Mr. George Clausen is entirely successful in this respect in his two landscapes. The artist has sought to express the intensity of his emotion in plain, simple language. It is only a master that can eliminate so much of Nature's detailed forms and yet retain the suggestion of detailed information. Mr. Clausen has something to say in art, and his sincerity, luckily for those who appreciate his work, prevents him from using glib passages of paint. Every picture that he exhibits shows evidences of profound thought and much artistic wisdom. He has no rival either here or abroad for producing brilliant sunlight effects in early morning landscape subjects, wherein the dazzling and luminous rays of the sun are felt even in the reflected glow in the shadows.

Mr. Philpot's picture, "The Resting Acrobats," is much to be commended. To begin with, the colour is beautiful, the tones are accurately rendered, and the drawing excellent. Last, but by no means least, the artist has produced an atmosphere of realism to the well-rendered performers that is not always associated with his paintings. It is one thing for the public viewing the activities of acrobats in a travelling circus and enjoying maybe the apparently light-hearted and smiling mien of the performers when in the ring, but it is quite another affair to know and understand these people in their home life, with all the hardships that circus life entails. The physical exhaustion of the woman is pitiable, whilst the devotion of the emaciated-looking boy hugging a pet monkey gives the essence of a dramatic human touch.

"A River in France," by Philip Connard (No. 22), possesses a gaiety that is peculiarly Mr. Connard's own style of expressing himself in paint. The picture abounds in a healthy vitality and is an easily rendered landscape, combined with various figures grouped at different intervals.

The best portrait in the whole exhibition is Mr. Sargent's "Sir Philip Sassoon, Bart." It is a marvellous piece of work showing the accumulated knowledge of artistic experience. There is no bravado in the way of sweeping brushwork or accidental qualities often associated with modern oil painting. The constructional power of the head, the poise of the body, and the masterly left hand low down in the picture are rendered in the manner of a consummate master.

In Gallery No. II there is a decorative panel picture by Mr. de Glehn (No. 67), entitled "Leda." An elegant nude figure is depicted bathed in luminous sunlight, and the delicacy of the subtle warm and cool greys is a testimony to the ability of the painter. In the same gallery Mr. de Glehn's picture "On the Cliff, Cornwall," has all the spontaneous charm and illusion of a vigorous sketch done directly from Nature. Sir William Orpen's picture of "The Viscount Milner" (No. 110) is a worthy representation of this artist's undeniable skill in portraiture.

Of the two still-life paintings by Mr. H. Davis-Richter, the one entitled "Ecstasy" (No. 131) has the greater artistic appeal. The rich tones of the background help to enhance the decorative qualities of the superbly-painted flowers. Mr. Davis-Richter knows, too, how to select a frame that has some definite association with the enclosed picture. Mr. Richard Jack has an outstanding painting of Miss Doris Jack (No. 135), in which his deft arrangement of a black mantilla shawl is admirably manipulated so as to give piquant contrast to the full length figure. The light touches of gold on the brownish coloured dress are very well rendered.

Mr. Charles Sims's large portrait of "H.M. The King" naturally occupies the place of honour in No. III Gallery. There is no doubt that it is a very fine painting indeed, and that Mr. Sims has risen well to the occasion, not having lost his inimitable charm of colour harmonies, of which there is some danger when portraying the reds that are inevitably associated with regal costumes. The only portion of this remarkable picture that calls for criticism is the triangular position of the legs. There is a lack of stability in design here that is not altogether pleasing.

Mr. L. Campbell Taylor's picture, entitled "The Corridor" (No. 175), conveys a sense of security and rest not always attainable in modern artists' paintings. The delicately-toned walls of the corridor, painted with such deliciously cool tints, are a perfect setting to the well-drawn figures grouped together in the more distant part of the picture; the whole result produces a philosophic content and real æsthetic beauty, somewhat reminiscent of the Dutch School of Painting, but the personality of the artist is none the less evident throughout the whole picture.

Mr. Arnesly Brown is very convincing in his three landscapes, each of which is painted with that sureness of handling that has so long distinguished Mr. Brown's work. Of recent years his pictures show a marked tendency towards thoughtful and concentrated pattern, and the pictures have consequently gained in artistic value. An artist like Mr. Arnesly Brown, who has had so much experience of studying Nature in her different moods and in observing her unlimited opportunities of detailed forms, has more to say in painting when he undertakes to subordinate his subject to a coherent design than a painter who is not so familiar with Nature. Mature knowledge of Nature peculiar to landscape life is a great asset to an artist, who is then able to leave out or put in detailed shapes, just as much or as little as is demanded by the subject in hand. There is little to choose in Mr. Brown's three landscapes, although No. 188, "The Sunny and Silver Trent," in Gallery No. III, is the most important in its dimensions.

Congratulations are due to Mr. Sidney Lee, who is making such good progress with his landscapes in oil. Two of his paintings face each other in the large Gallery. "The Top of the Pass" (No. 151) is remarkable for its fine tone values and sparkling effects of light, coloured rocks or stones peeping out in places through the warm-coloured verdure in the foreground. The other painting, entitled "Amongst the Dolomites" (No. 192), shows a wealth of brilliant colouring of these fascinating mountains, combined with Mr. Lee's reputation for logical knowledge appertaining to rock strata. His two pictures of Venice are well worth studying for his original conception in treating Venetian subjects. In his picture of "Sunset: The Rice Harvest in Izumo, Japan," Sir H. Hughes-Stanton departs from his customary colour scheme of restrained hues to one of lighter and much brighter colours. The result is a pleas ambient effect, suggestive of sunset co effects.

Mr. William Rothenstein and Miss Anni Swynnerton each have a picture in No. Gallery which have been purchased by President and Council of the Royal Acad under the terms of the Chantrey Bequest. of these pictures were painted some years and have been exhibited before.

Not very well hung, but excellently pai Miss Beatrice How's picture, entitled Brittany" (No. 262) has a suggestive style. means employed are very slight, but the cha terisation of the woman and baby are masterly. An adjoining picture, "The Tha from My Studio Roof," by Mr. J. G. M depicts the artist's skill in painting the effe brilliant sunlight on water. There are pictures of Mr. Alfred J. Munnings that cal particular mention. One is "Rosemary Eddie de Rothschild" (No. 276), the othe "The White Canoe" (No. 318). In the fo subject two children are riding ponies wit easy grace, the figures and ponies being houetted against a blue sea of unusual freshn There is an air of spontaneity throughout whole picture, with the added charm of lo colour. The second subject, depicting ladies in a canoe, is admirable for the exacti of restrained tones of the flesh tints, hats, w and foliage beyond. It has one serious d back—the trees and bush forms should been painted with more serious attentio structural growth, so as to make their ap ance more acceptable in the general design o picture.

Mr. Harry van der Weyden's picture, " Tide," is a genuine representation of theshin of moonlight on the muddy banks and wat a tidal river. The effect is poetical and tho ful from the standpoint of sentiment, w another painting, entitled "The Christch Bend," by Miss Emily Court, is full of the he vigour of life, wherein boats, water, sky, &c., help to illustrate the fact that Miss essayed, and successfully, to give the appea of a fresh breeze blowing throughout the sul

"Epping Forest" and "A Surrey Landsc both by Mr. Richard Jack, are rather surpr The Surrey landscape is immeasurably su to Epping Forest. The Forest subject is in execution, whereas the other picture is good; the deep tones of the trees immedi above the cottages are rich and sonorous help to give the sky much luminosity, n through force of contrast.

Miss Amy K. Browning has a ma painting of a girl and dog entitled "Love (No. 339), which would have looked better if not hung quite so high up. M Vicat-Cole has a picture in the same ga although not so good as last year it has m it that is worthy of close attention. The "Old Bridge at Yiewsley" (No. 356), is t of the subject with its attendant barges. tone and colour of the bridge is good, two or three trees on the extreme right-han of the picture are quite classical in form clouds also are painted with due rega structural form.

Mr. Terrick Williams's picture, "Quiet ing, Honfleur," is one of the best things thi has given us. Of excellent design, sup by low-toned colour effects, the correspo result is stately and dignified. The count of Mr. Williams's impressive work is s Mr. Charles Simpson's painting, "The E Season" (No. 403). It is a powerfully-h canvas depicting many fisher-folk packin conveying fish along the quay-side for purposes. The feeling of diffused su intermixed with men, women and houses only have been achieved by serious study spot, supported by keen observation part of the artist.

The best picture sent in this year's Ac from Mr. Algernon Talmage is undou "The Waning Moon" (No. 530). Mr. T is always to be relied upon to give us goo values in his landscape paintings, but wh is allied to something of desirable interes as a moonlight subject, then one can æsthetic pleasure from his work. A

-painting of "Haystacks," by Mr. D. Murray nith (No. 560), sparkles with the vibration used by broken paint, textures and luminous louring matter. A joyous little picture!

An artist with modern tendencies, Mr. A. aker Clack, exhibits two pictures in Gallery o. X. Their respective titles are "In Pro-nce" (No. 604) and "Trépied par Etaples" o. 597). Of the two the latter subject is e better. The tonal values of this picture are nsistently well managed, and convey the ence of warm sunlight without any conven-nal struggling to express it. There is a tain whimsical charm in "Portrait with imroses," by Norah Neilson-Gray. The ure is well placed on the canvas with the ater weight of the costume appropriately ced in the lower part of the picture, thus ring stability and support to the rest. The imroses are delightfully painted, those in adow being rendered with luscious trans-rency.

The manner in which the water-colour room hung is pleasing and effective. It contains really fine painting by Mr. L. Lee Hankey itled "Slumber" (No. 713). A girl in bed, h a patch-work quilt resting in a negligent nner on the bed, is painted in beautifully nned water-colour washes of delicate hues, ggesting all manner of details without actually pressing them. The picture is tuned up to acert pitch through the introduction of a touches of bright colours on the quilt, trasting with the pearly greys generally ead over the greater portion of the picture.

Mr. Walter H. Allcott wisely chose a paper h an interesting granulated surface when he nted "Siena: Morning" (No. 781). The rkmanship is scholarly throughout, and the ing of early morning light is truthful to ture's conception of it. Another water our of charming, simple colour expressed flat washes, of "Amberley Bridge," by George S. Ingles, is worthy of attention; (No. 801), "The Little Viaduct," by A. R. Middleton-Todd.

Mr. W. Russell Flint (recently elected as Associate of the Royal Academy) is seen to h advantage in "The Harvesters, Aragon," also in his oil-painting, "The Lemnians" . 361). The latter picture is somewhat lar to the oil-painting he exhibited in last 's Academy. The result is better in this ure; the drawing and modelling of the semi-es show controlled skill, and the pattern rally is ably arranged, the deeper-toned urs make a good setting to the lighter tints.

The Nativity," a large water-colour by Miss thy Hawkesley (No. 816), is painted in the known style of flat pattern decoration, cal of this clever artist, and the picture led "Vista in the Queen's Dolls' House," Mr. A. Van Anrooy (No. 826) is a remarkable evement of scientific detail being carefully essed without any loss of artistic impulse.

Obituary.

. C. W. Denny, who passed away after a illness on May 1, was well known in the ing industry in London as a clerk of works, had acted in that capacity on many im-nt contracts. Until recently he occupied osition of secretary of the Incorporated s of Works' Association, and the esteem in h he was held by the members of that body hown at a presentation held six weeks ago. response from all parts of Great Britain to ppeal of the organisers of the presentation tribute which could have been made only capable and loyal official. The late Mr. y was a versatile man. As a clerk of works ined the respect of all with whom he came ontact, and as a teacher of building sub-he did good service for the Surrey, Kent, esex, and London County Councils. He keen photographer and horticulturist, and earlier years he was prominent as an an and cyclist.

Thomas Jenkinson, of Annesley House, house-lane, died recently at Bentley. He ounder of the firm of builders and con-rs, known as Messrs. T. Jenkinson & Sons.



Mr. J. Alfred Gotch (President) occupied the chair at the annual dinner of the Royal Institute of British Architects at the Trocadero Restaurant, Piccadilly, on Tuesday evening. Amongst a distinguished gathering om members and guests were Lord Charnwood, the Earl of Midleton, the Marquess of Northampton, Lord Olivier, Lord Sumner, Lord Thomson, Professor Patrick Abercrombie, Mr. Maurice B. Adams, Sir Ryland Adkins, Mr. Henry V. Ashley, Alderman Alfred Baker, Major Harry Barnes, Mr. Thomas Barron, Sir James Bird, Dr. W. A. Blackstone, Mr. Edward T. Boardman, Mr. H. Chalton Bradshaw, Mr. Walter H. Brierley, Mr. H. W. Brittan, Mr. Herbert T. Buckland, Sir John J. Burnet, Mr. C. McArthur Butler, Sir A. R. de Capell-Brooke, Mr. D. Y. Cameron, Mr. Walter Cave, Mr. Basil Champneys, Major Hubert C. Corlette, Mr. E. Guy Dawber, Mr. Reid Dick, Mr. Rudolf Dircks, Mr. J. Murray Easton, Sir Banister F. Fletcher, Mr. Henry M. Fletcher, Sir George Frampton, Mr. Percival M. Fraser, Mr. Hastwell Grayson, Mr. W. Curtis Green, Mr. W. H. Gunton, Mr. E. Stanley Hall, Mr. Stanley Hamp, Mr. Everard J. Haynes, Mr. Henry T. Holloway, Mr. P. W. Hubbard, the Right Hon. F. W. Jowett, Mr. Arthur Keen, Mr. G. C. Lawrence, Sir Walter Lawrence, the Bishop of London, Mr. Ian MacAlister, Lt.-Col. Stuart Mallinson, Mr. H. Matthews, Mr. Fred May, Dr. J. S. Maynard, Mr. Percy W. Meredith, Mr. Thomas R. Milburn, Mr. Gerald Moira, Mr. Alan E. Munby, Mr. John Murray, Mr. William G. Newton, Mr. E. J. Partridge, Mr. Henry Poole, Mr. G. P. Powis, Sir Humphry Rolleston, Dr. Alexander Russell, Mr. Henry A. Saul, Sir Amherst Selby-Bigge, Sir Cecil Harcourt Smith, Mr. J. C. Squire, Mr. T. S. Tait, Mr. Walter Tapper, Mr. Sydney Tatchell, Mr. Percy E. Thomas, Mr. Raymond Unwin, Mr. C. F. A. Voysey, Mr. A. B. Walkley, Major F. A. Wallis, Mr. Edward Warren, Mr. Paul Waterhouse, Sir Lawrence Weaver, Mr. Maurice E. Webb, Mr. Herbert A. Welch, Mr. William Woodward, Mr. F. R. Yerbury.

After the loyal toasts had been proposed by the President and enthusiastically honoured, Sir Amherst Selby-Bigge proposed "The Royal Institute of British Architects," and referred to the Ethiopians and Cyclopeans. The Cyclopeans were individualists; they did not care what anyone else did. But since the days of the Cyclopeans the architects had learnt a great deal, and that there was a great deal to be learnt. They realised that it did not do not to care what other architects were doing or not doing. Architecture was a high art; it did not call down automatically the Promethean fire of inspiration. In the sphere of education for art they were up against great difficulties: more difficult than in any other sphere of education. A system of education must have room for the free development of the talent of the individual—not the talent of the genius—genius the incorrigible. But genius was not condemned to futility; it was a question of keeping the heads of genius among the stars, and at the same time to keep their feet on the ground. The Royal Institute of British Architects was a great organisation—a great professional organisation. He owed a great obligation to the Institute, and institutes of a similar character.

The President, in responding, said that on behalf of the Institute he thanked Sir Amherst Selby-Bigge for the interesting manner in which he had proposed their health. He did not propose to follow him very closely in what he had said because he thought they would perhaps be pleased to be taken away from the ordinary atmosphere which pervaded the Institute. He would, therefore, content himself in welcoming so many distinguished guests who were interested in architecture, for the greater the number of those other than architects who were imbued with an interest in architecture, and could look at the art with discerning eyes the better it would be for the public and the better for architecture. When they reflected upon the arts, it was obvious that architecture was the most obvious; it was the most visible, intruding itself in the most insistent way on the consciousness of the world at large. It was desirable that the public should have some knowledge of the principles underlying it—its external expressions needed no urging. Perhaps one reason for the lack of knowledge might in part arise from the fact that architecture had played no great part in literature. No poet of the past had sung its glories, its splendours. No prose writer, not even Ruskin, had taken it as his theme in a manner so attractive and so well informed as to be both fascinating and truly educational. The reason was not far to seek. No poet, no prose writer, had really interested himself in architecture. Inspiration might give a delightful faculty of expression, but it would not give a knowledge of the intricacies underlying the visible manifestations of architecture. The subject was not an easy one. He could imagine a poet struggling for months to master his subject sufficiently to start upon his epic and finally bursting into only petulant song. But while they searched the pages of the poets in vain for rhapsodies upon their art, they would find allusions to it. Chaucer, for instance, gave a mental picture of a mediæval hall. Spenser was rather more particular, and brought before the eye some of the glorious palaces of the Elizabethan day. The embodiments of architecture, so far as they came within their ken, continually appealed to poets. Shakespeare had many allusions to it. Milton, too, had a few slight pictures of buildings as he saw them. Pope had some entertaining references to architecture, but it was more in the way of satire. Gray's familiar lines aptly illustrated the interior of an Elizabethan house. Coleridge also referred to architecture. Many other poets might be quoted as describing what they saw, although without really understanding it. Perhaps Browning burrowed deeper than the rest. One school of philosophers said that the Gothic arcade derived its form from the grove of trees, which was converting a charming fancy into matter-of-fact nonsense. Another school of philosophers said that while Greek architects placed their columns outside their buildings, Gothic architects placed them inside for a change. There was no abiding epic on architecture in the field of poetry or prose, and if any enterprising poet would deal with architecture in an epic it might convert architecture into something palpitating with warmth and colour.

Mr. E. Bertram Kirby, further responding, said the Liverpool Architectural Society was senior to any other architectural society in this country with the exception of the Royal Institute. Their close alliance was of great value; its significance might easily be lost. Only a few years ago the union between them was by no means so cordial as to-day. A short time back the alliance might have been considered a generous experiment. However, it had now attained to the dignity of a permanent union. He would also like to mention that in his Society, excluding students, two-thirds of its members, and, for the first time in its history, the Council, were members of the Institute. There was a great advantage from this close co-operation and alliance. It was not an exaggeration to say that its pres-

tige would not be what it was to-day without the allied societies. Together they formed a body which was of Imperial significance. It promised to be even larger in its scope than at present. He would express to Sir Amherst Selby-Bigge the thanks of the allied societies for the toast he had proposed, and to the manner in which the President had responded.

The toast of "The Arts" was proposed by the Vice-Chancellor of the University of Oxford, who, after expressing his sympathy with Sir Aston Webb in the accident which had prevented him from being present that evening, said he thought there was no time when art was more needed. It was not easy to forget the hideous buildings erected when they had to approach London through miles and miles of ugly houses. Especially did they need a knowledge of the arts when it was proposed to destroy some of the remaining Wren churches in the City of London; everyone who really represented the arts, or was keen on the arts, would wish that the hands of the destroyer would be spared and that those masterpieces would not be confiscated. Was there not a real need for the teaching of the arts when they remembered the great tendency to practise and preach the cult of the ugly? A great deal of modern art had cast away all tradition and made up for its lack of originality by departing from the traditions of those who made beauty in the old days. Sir Amherst Selby-Bigge had said that heresies of one generation were the orthodoxies of another; sometimes that was so, but he thought in the majority of cases the heretics who had become orthodox were very few indeed. Occasionally a person who made a departure went right, but the majority went all wrong. Those who made new departures which were successful were those who kept some traces of the old traditions. He was glad to know that art was now taking some part in the teaching of the children of the masses.

In responding, the Earl of Midleton said he was once President of the Union of Oxford, and the first time he met Mr. Waterhouse when engaged on work at Oxford the Committee differed with their architect on every point. In the chaotic times that existed nowadays it was comfort to go with the architects where the flowing tide was with them. It was surely a truism that art of the higher nature was swamped by mechanical art. He could not help thinking of the remarks Lord Beaconsfield made in regard to the aspirations of his party some eighty years ago: "He did not think that the country had done anything for the people; in place of the monastery it had given the workhouse." Within two miles of this neighbourhood they could see the three most monstrous buildings erected in London. For instance, they had the Albert Memorial; sandwiched in between the Houses of Parliament and Waterloo Bridge they had Charing Cross Bridge; then they had the Griffin as a substitute for Temple Bar. It was a tradition at the War Office that the Duke of Wellington, when asked if the architect of certain new barracks should have his name embossed on the building, refused, saying that punishment should be meted out according to the offence! Reverting to commercial art, it had done something for the higher forms of art which had never been achieved before. It enabled people to see works of art which would otherwise have been impossible.

Mr. J. C. Squire, who also responded, said the art of being President of the Royal Institute had been raised in late years to a fine art—Mr. Paul Waterhouse instituted a magnificent tradition, and that was being carried on with equal success by Mr. Gotch. The art of being Bishop of London was also flourishing, for he believed no man had done more to make opportunities for contemporary architecture. He believed the chief thing about the arts in the present day was that they had come out to the arena. In the Victorian age there were those who protested against the ugliness of the age and those who spent their time taking refuge from it. It was not a good thing to take refuge from surroundings, and it was good to know that the arts were now coming into the arena and getting into touch with the public, and attempting to do what the public wanted; that was sufficient to justify them in thinking that the arts were now more flourishing than they were a generation ago.

Mr. E. Guy Dawber proposed "The Guests." In the course of his remarks he said at a gathering of architects he was always glad to meet with men of other professions and other spheres of action; it enlarged their sympathies, and helped them to understand their respective interests. It was given to few to understand and appreciate the arts of music, sculpture and painting; but, whether they liked it or no, everyone must to a certain extent study the art of architecture, because on their daily walks it was brought to their notice on every side, and they could not get away from it; and in the amount of building going on in London and the provinces he felt the architects of this decade must stand or fall in the future. They all as a profession owed a great deal to the illustrated press and the press in general, for there was no question it aroused the more educated classes to an enthusiasm for architecture and an appreciation of their art, particularly on the domestic side, that had not been in evidence since the Victorian era.

In responding, the Bishop of London said he felt it a special compliment that they should have invited him to be present, and he hoped they would not think him the iconoclast the press made him out to be. He would not go into the question of the City churches, but he could assure them that no one admired beautiful architecture more than he. He would rather resign his See than see hands laid on such beautiful churches as St. Bartholomew the Great or the church he opened the other day. He also wanted to see that nothing was done to endanger the safety of St. Paul's Cathedral. He knew nothing about whether the proposed St. Paul's Bridge would endanger the Cathedral, but he called upon them to see that nothing was done which would endanger it. The art of architecture was the art most needed to-day. The housing was appalling, and was responsible for most of the immorality which they met. He wanted churches, but he could not get them. He used to build five churches every year before the war, but he had only succeeded in having o built since, and the cost had been £18,0 The Church could not afford that cost—it h not got the money. How were they to d with that tremendous problem? The Chur was short of money, and he wanted archite to tell him how they could get the churc they needed and at the same time spare t City churches.

Lord Olivier also responded.

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ILLUSTRATIONS

Our illustrations this week are all Royal Academy Exhibits, further particulars of which are given on p. 755.

KING'S COLLEGE, CAMBRIDGE, CO PETITION.

The Council of the Royal Institute of Brit Architects have had their attention called to t recent correspondence in the professional pr on the subject of the Collegiate Buildings Co petition for King's College, Cambridge. At t request of theCouncil the matter was investigat by a Committee, which submitted the followi report:—

"We have made a careful examination of t instructions issued to the competitors in t competition, and also the correspondence a comments which have appeared in the Pr regarding the successful design.

"We have also interviewed Messrs. Budden Rowse, the winners of the competition; Mess Tait & Rees, the writers (with Mr. Gordon H of the letter which was the subject of the co plaint; and Mr. Lovett Gill, the Assessor.

"It should be observed, firstly, that the Co petition was a small private limited competiti and as such did not come under the regulatio of the R.I.B.A., and, in point of fact, was not accordance with those regulations; second that so far as the cost, planning and style of proposed buildings were concerned, cert suggestions only were made in the instructi issued to the competitors, but emphatica there were no binding conditions; and, thir the award having been made by the assessor, confirmed by the Building Committee and Governing Body of King's College. We are opinion, first, that the assessor was perfec justified in the award which he made, and t Messrs. Budden & Rowse won the competit by perfectly fair means and without violat any conditions; second, that the letter sig by Messrs. Tait, Holt & Rees was unfair co ment in that it charged Messrs. Budden & Ro with violating conditions; and, further, it dicated that they had won the competition unfair means, and as a result other let appeared in the Press which, in the m accepted the statements of Messrs. Tait, Ho Rees as the truth; and,third, that Messrs. Bud & Rowse have suffered professional injury result of the letters published in the Pre particularly as a result of that signed by Me Tait, Holt & Rees. We therefore recommend Council to call upon Messrs. Tait & Rees to i a statement in the Public Press withdrawing offending letter and apologising to Me Budden & Rowse."

This report was approved by the Counc the R.I.B.A. on March 3, 1924.

At the request of the Council Mr. Thos Tait, A.R.I.B.A., and Mr. Verner O. R A.R.I.B.A., have written the following le and Mr. Gordon H. G. Holt has asked t allowed to associate himself with it:—

April 4, 192

Sir,—With reference to our letter which published in the Technical Press in Nover last regarding the above competition, we informed that the successful architects, Me Rowse & Budden, have been prejudic affected by the statements contained there

On reflection we frankly admit that assertion that the winners had violated an the conditions was wrong and that the infer contained in the letter that Messrs. Row Budden had won the competition by t means was entirely unjustified.

We sincerely regret our action has pre cially affected Messrs. Rowse & Budden, the causing them to suffer damage, and we ask t here and now to accept our very sincere apo

Yours faithfully,

Thos. S. Tait.
V. O. Rees.



R.A. Exhibition, 1924.

Cape Helles War Memorial, Gallipoli.

Sir John J. Burnet, A.R.A., & Partners, Architects.

*



R.A. Exhibition, 1924.

Mosque, Kasr-el-Aini Hospital, Cairo.

Messrs. C. Nicholas & J. E. Dixon-Spain, FF.R.I.B.A., Architects.



R.A. Exhibition, 1924.

Weybridge Cottage Hospital.

Selected Design: By Messrs. Kenyon & Livock, F. and A.R.I.B.A., Architects.



R.A. Exhibition, 1924.

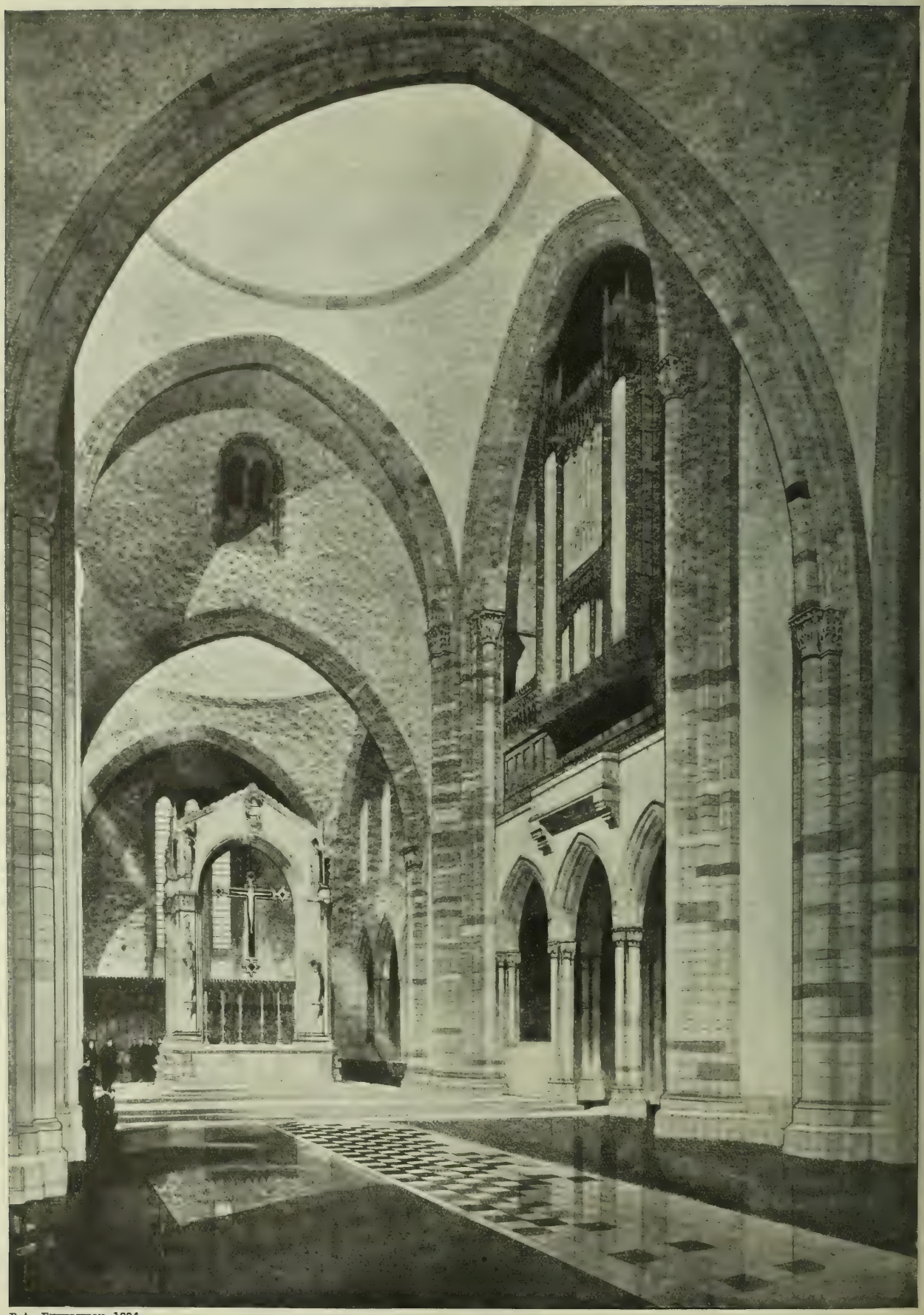
Messrs. W. H. Brierley, F.R.I.B.A., & J. H. Rutherford, Architects.



R.A. Exhibition, 1924.

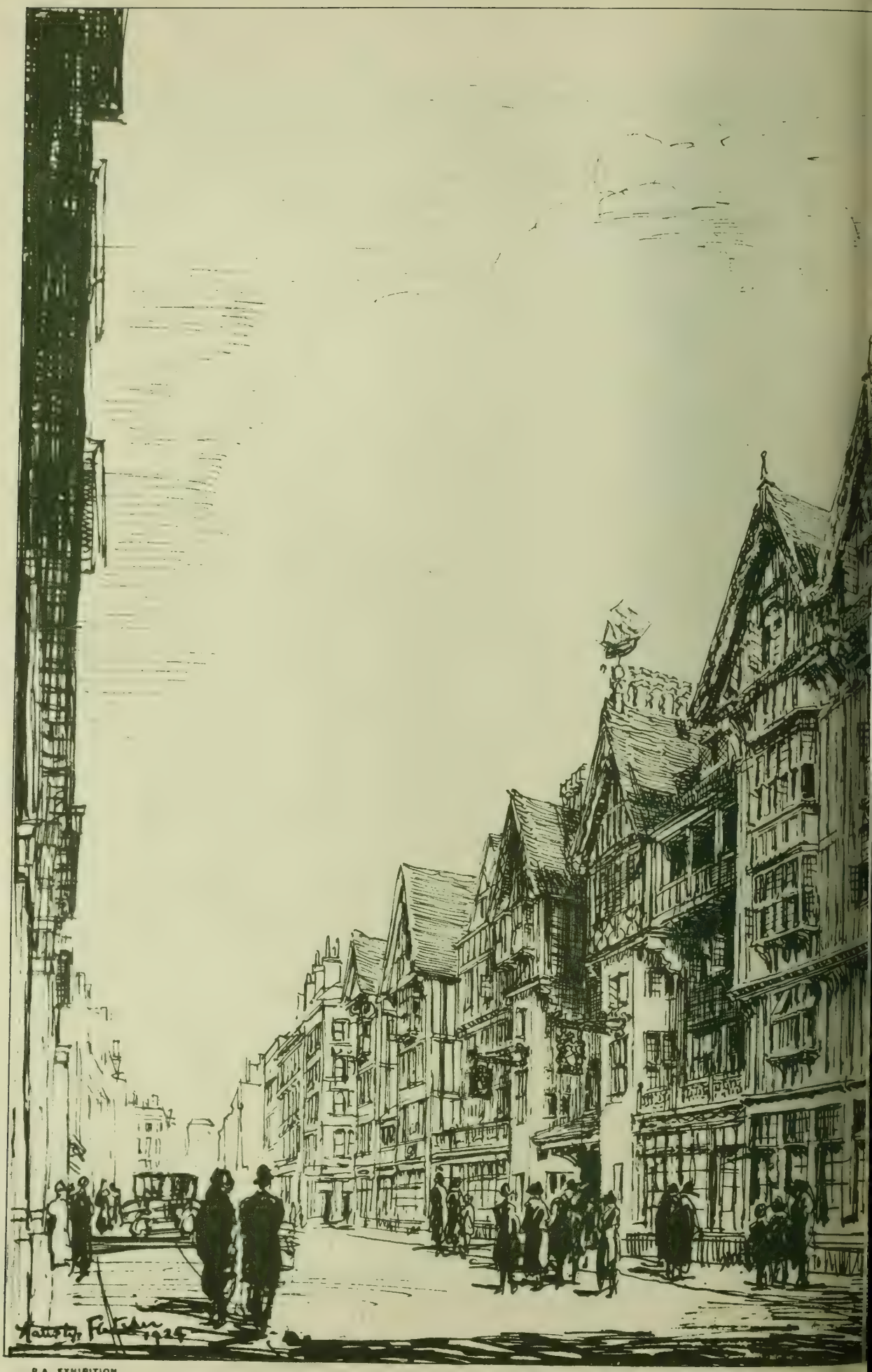
Addition to Westfield College, Hampstead: Garden Front.

Mr. W. Curtis Green, A.R.A., Architect.



R.A. Exhibition, 1924.

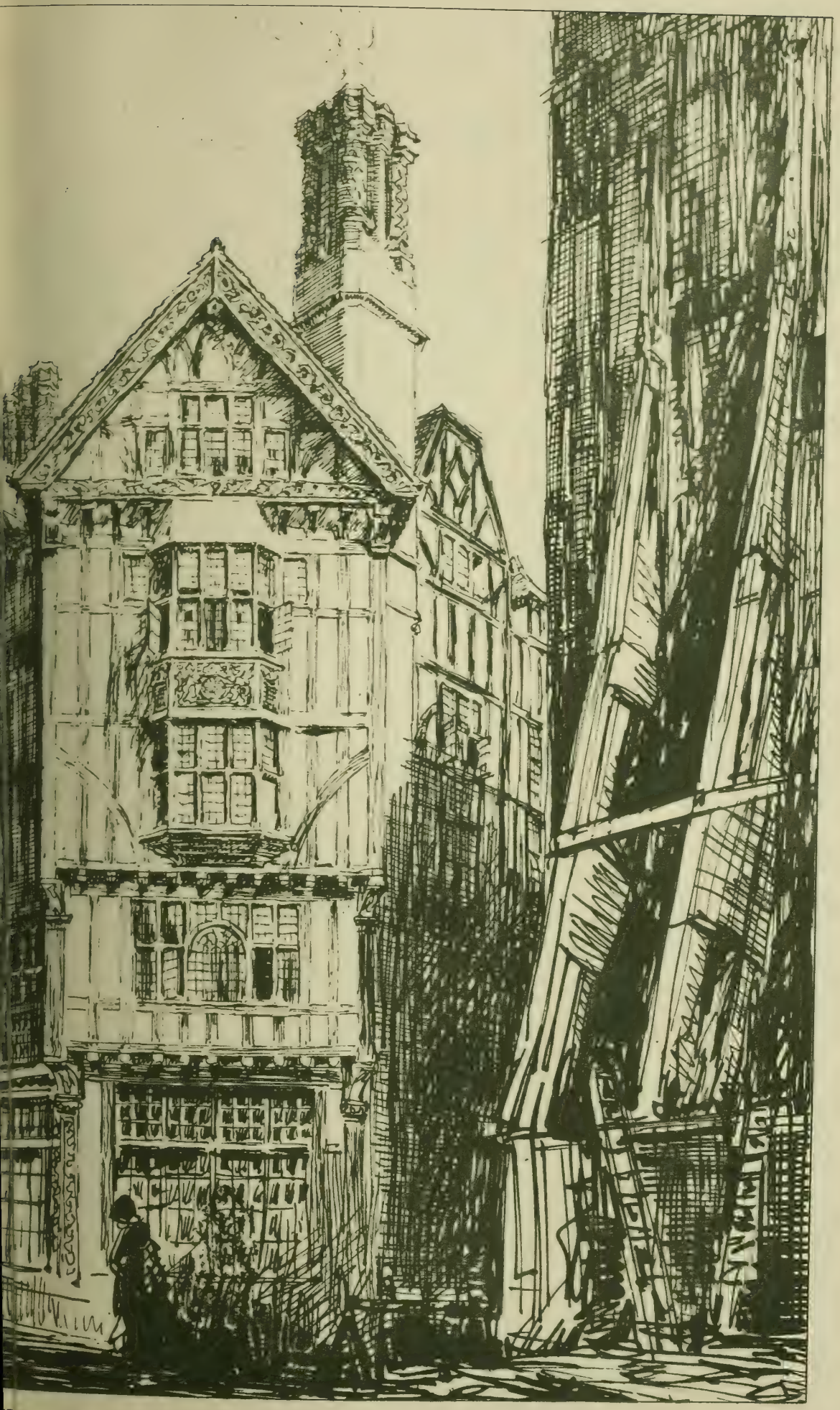
New Church, Ampleforth Abbey, Yorkshire. Mr. G. Gilbert Scott, R.A., Architect.



R.A. EXHIBITION.

NEW BUILDING, ARGYI

THE LATE EDWIN T. HALL, & MR. E



E.T.W.

... ARCHITECTS.



DINING HALL.



R.A. EXHIBITION.

ENTRANCE FRONT

THE RUSSELL SCHOOL, BALLARDS, ADDINGTON, SURREY.

SIR ASTON WEBB, P.R.A., F.R.I.B.A. & MR. MAURICE E. WEBB, F.R.I.B.A., ARCHITECTS.



R.A. Exhibition, 1924.

Alterati

Messrs. H. Percy Adams, Charl



Hospital.

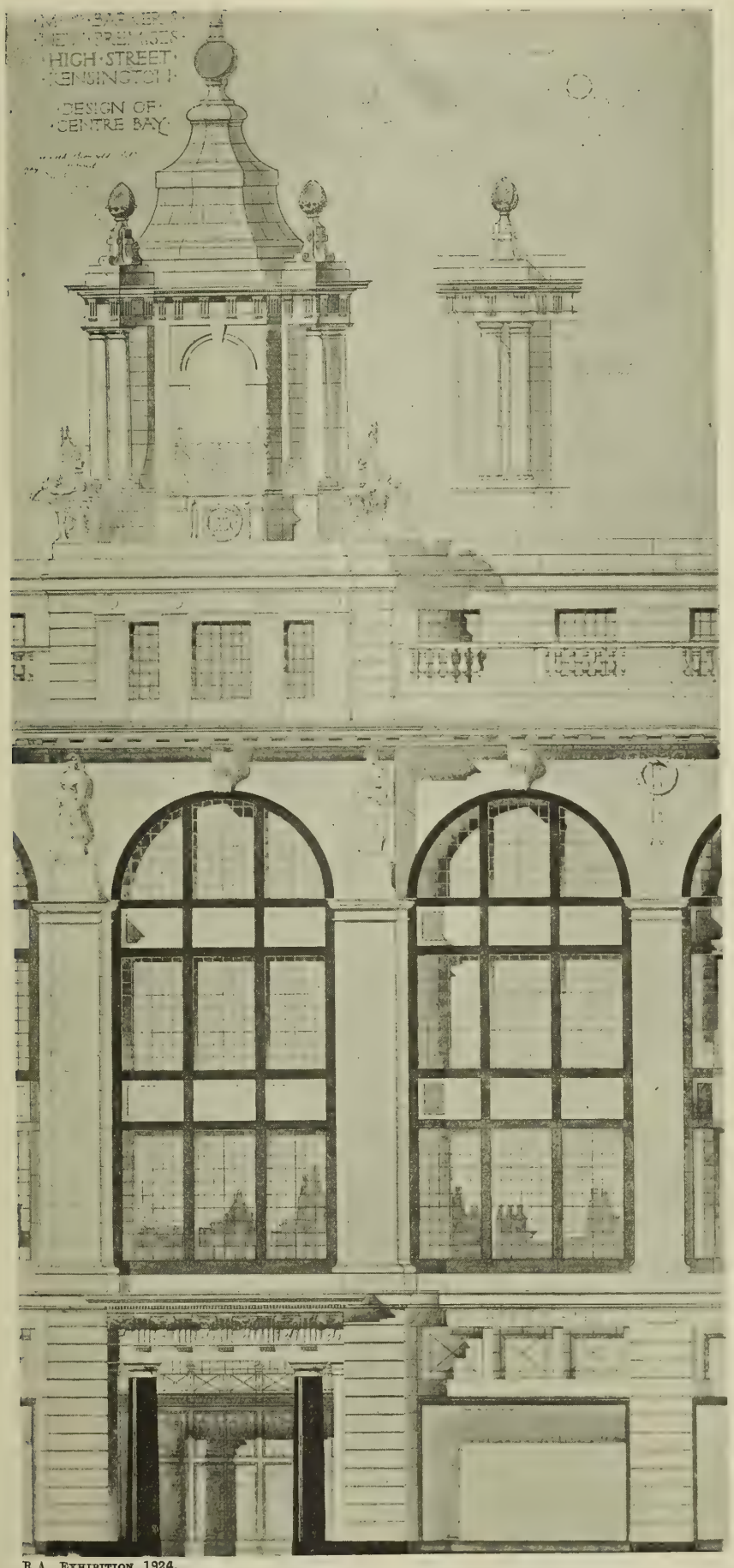
Pearson, FFF.R.I.B.A., Architects.



R.A. Exhibition, 1924.

Castle Drogo, Devon.

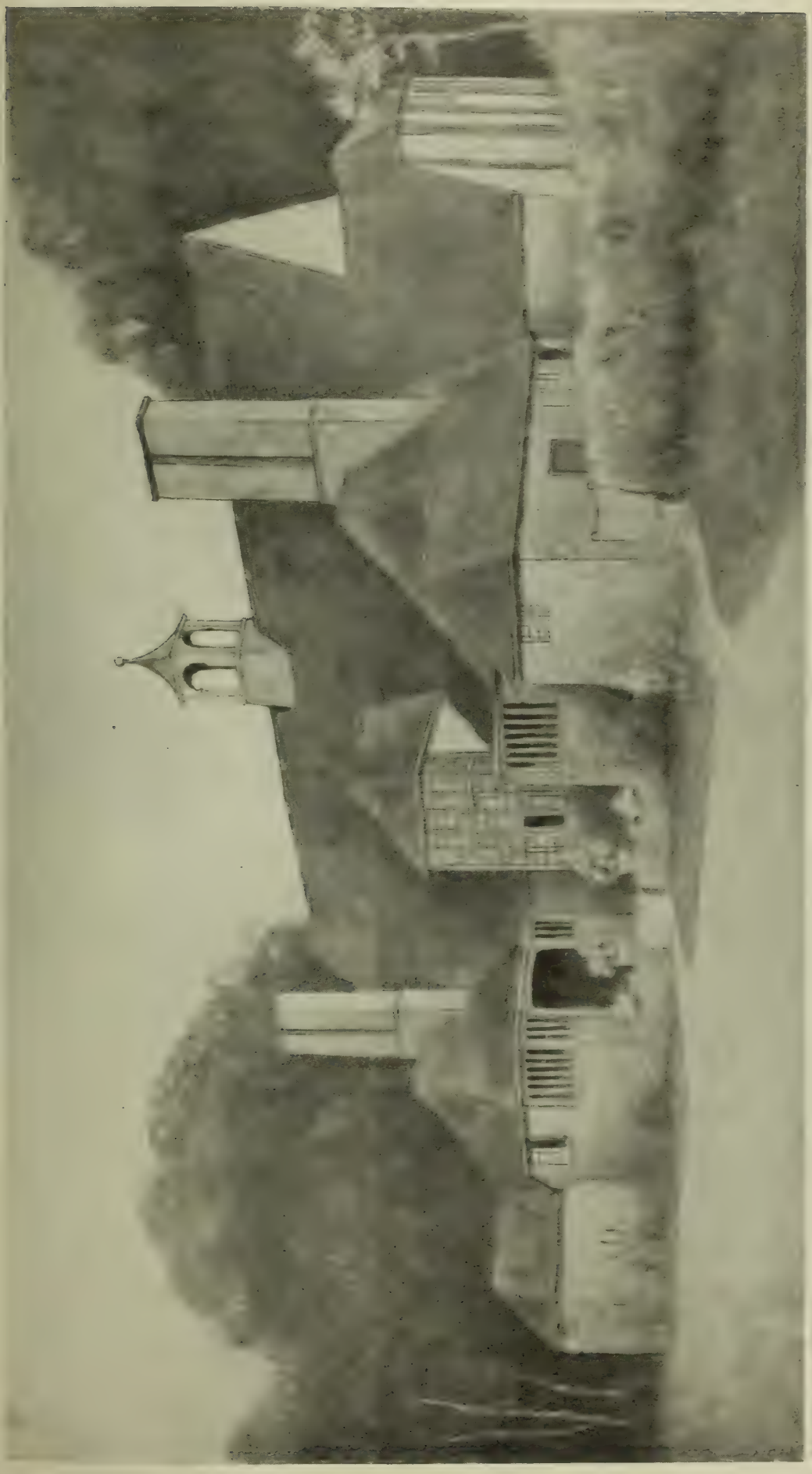
Sir Edwin Lutyens, R.A., Architect.



R.A. Exhibition, 1924.

Centre Bay, Messrs. Barker's New Premises, High Street, Kensington.

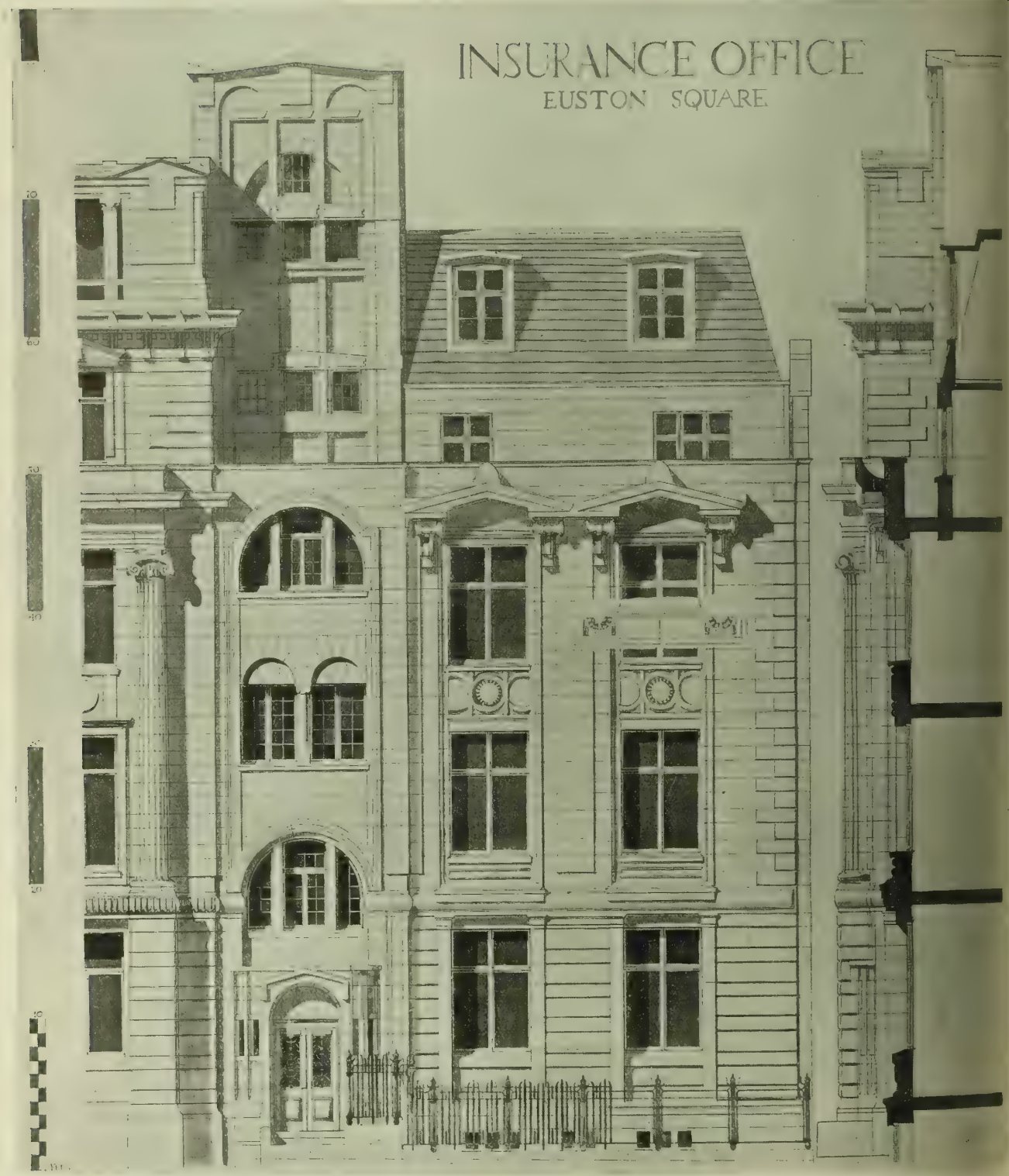
Detail of Façade, by Sir Reginald Blomfield, R.A.



Women's Institute at Milford, Surrey.

Messrs. Baillie Scott & Beresford, Architects.

R.A. Exhibition, 1924.



R.A. Exhibition, 1924.

Addition to Insurance Office, Euston-square, N.W.

Professor Beresford Pite, F.R.I.B.A., Architect.



R.A. Exhibition, 1924.

Proposed Rebuilding of Nos. 58–60, Charing Cross.

Messrs. Hayward & Maynard, Architects.



R.A. Exhibition, 1924.

House and Stables at Queen Camel, Somerset. Mr. E. Guy Dawber, F.R.I.B.A., Architect.



R.A. Exhibition, 1924.

The Plaza Theatre, Piccadilly Circus, W.

Mr. Frank T. Verity, F.R.I.B.A., Architect.



South Elevation

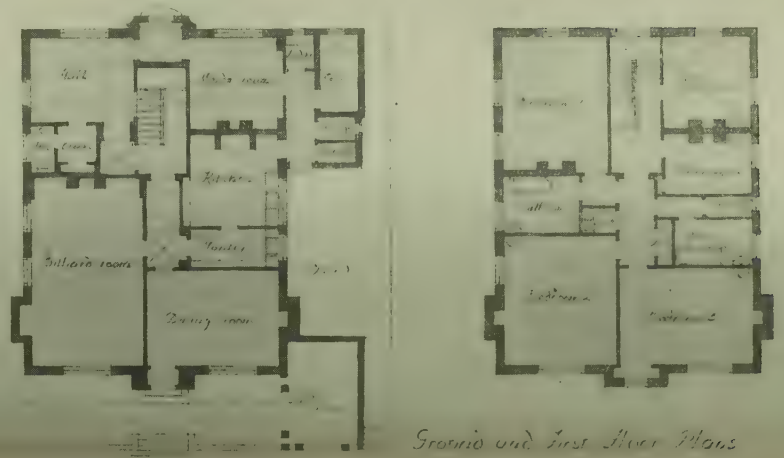


North Elevation

Scale — Elevations 8ft and Plans 16ft to the



West Elevation



Ground and First Floor Plans

R.A. Exhibition, 1924.

Golf Cottage, Woking. Mr. Horace Field, F.R.I.B.A., Architect.



R.A. Exhibition, 1924.

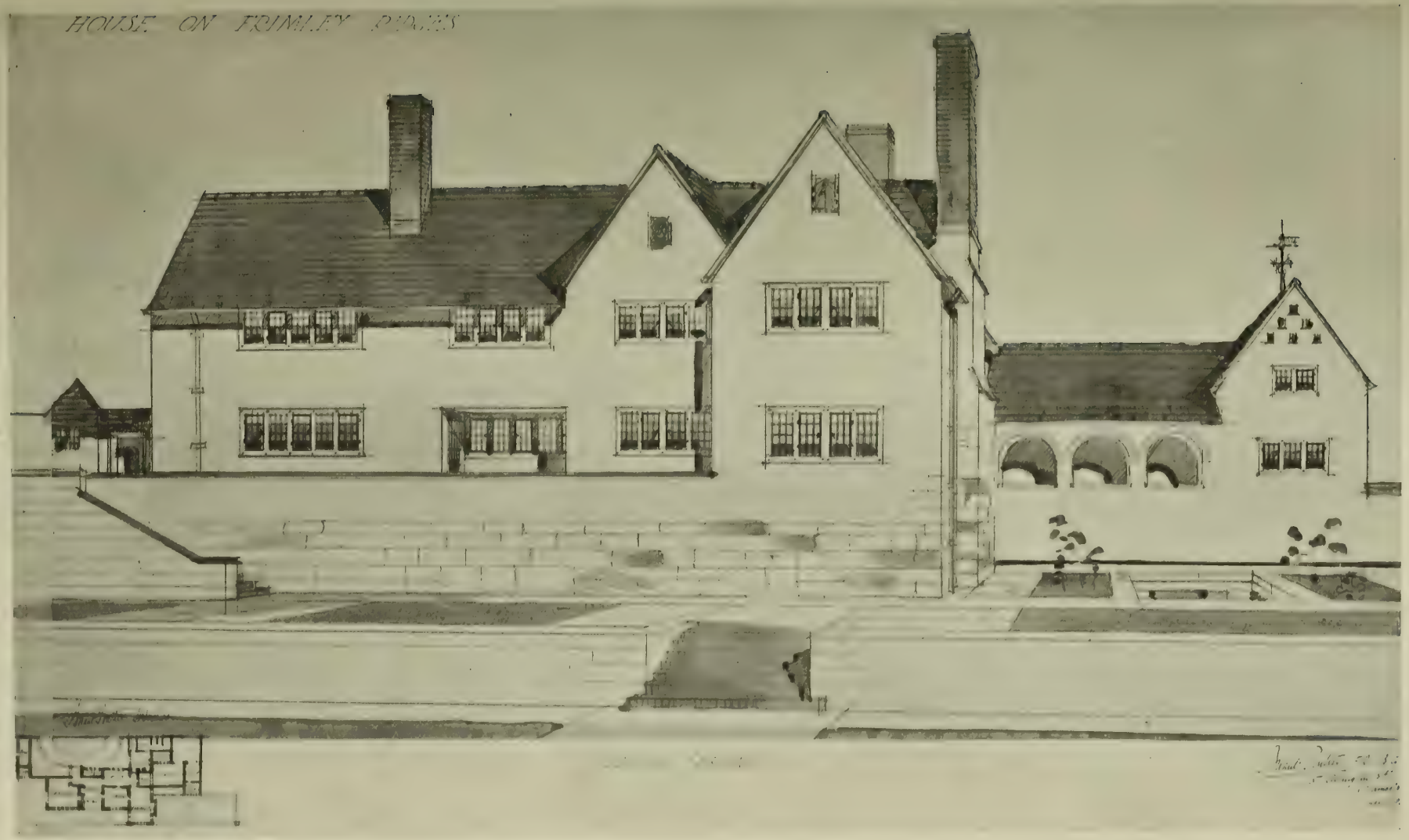
Entrance to Food Section, Palace of Industry, British Empire Exhibition, Wembley. Mr. Edward Maufe, F.R.I.B.A., Architect.



R.A. Exhibition, 1924.

New Meeting Room of the Royal Institute of British Architects, 9, Conduit-street, W.

Mr. Arthur Keen, F.R.I.B.A., Architect.



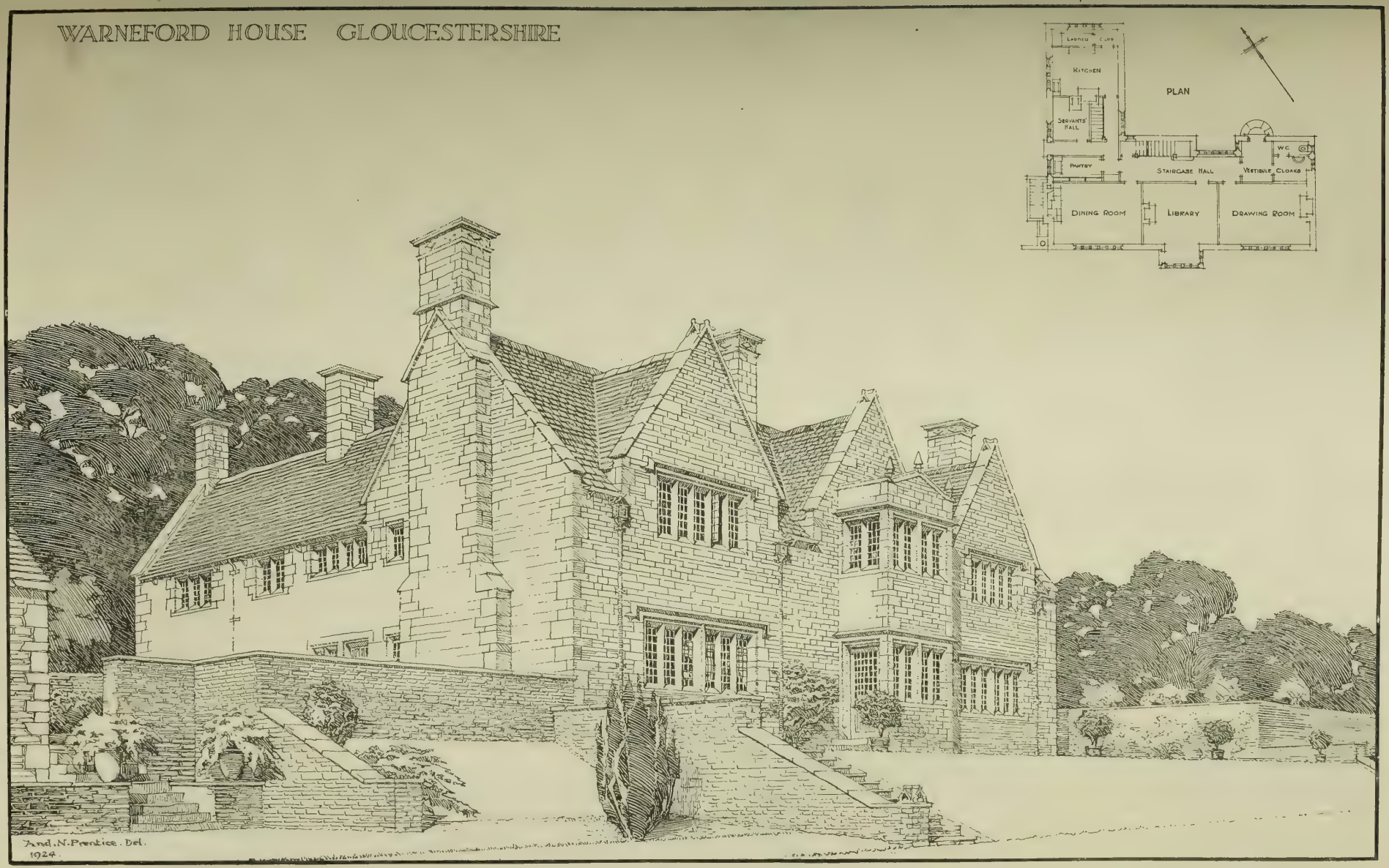
R.A. Exhibition, 1924.

House on Frimley Ridges. Mr. Briant Poulter, F.R.I.B.A., Architect.



R.A. Exhibition, 1924.

Hall and Class Rooms, Uppingham School.



R.A. Exhibition, 1924.

Warneford House, Gloucestershire.

Mr. A. N. Prentice, F.R.I.B.A., Architect.



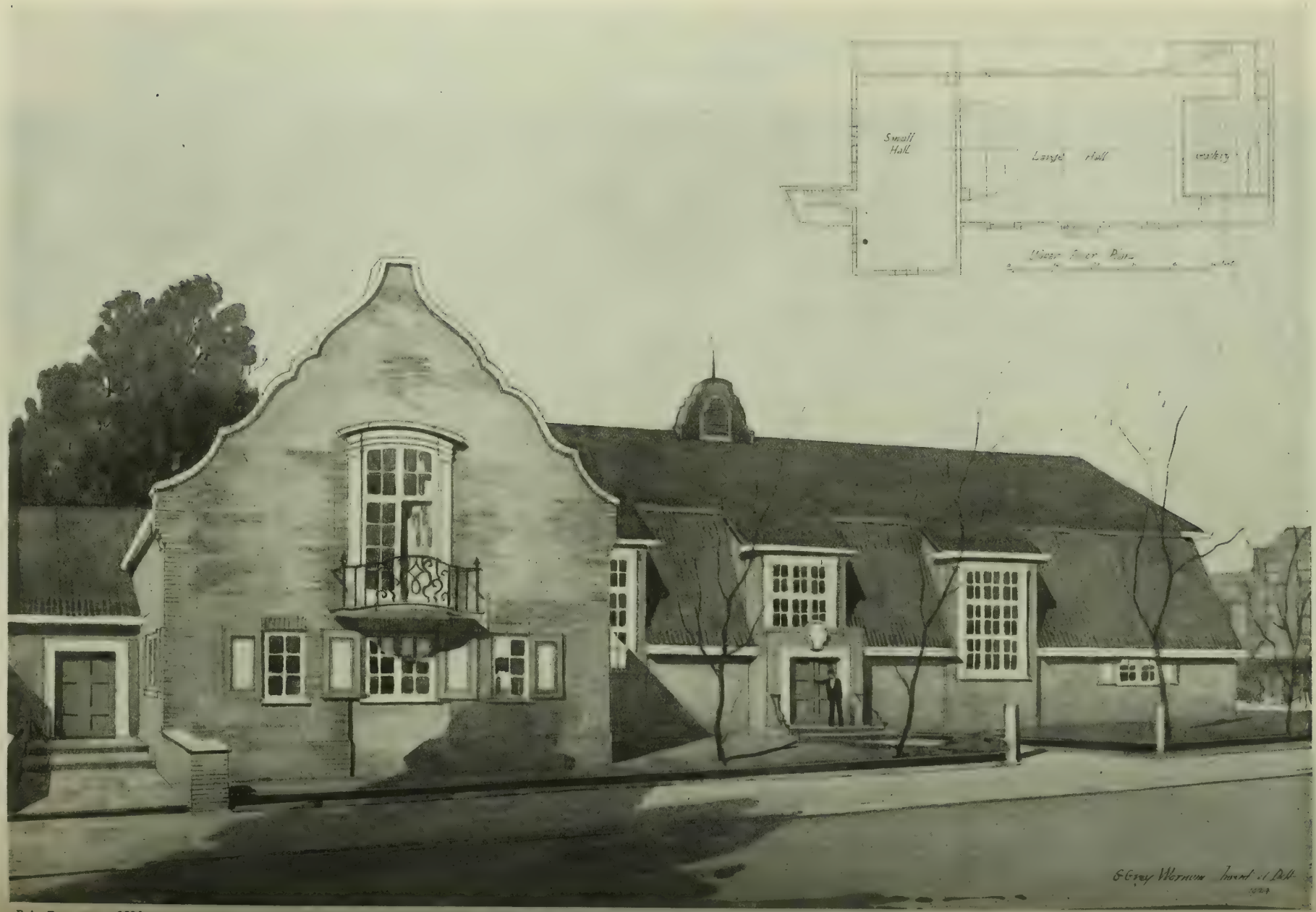
R.A. Exhibition, 1924.

Bishopsgate Telephone Exchange, Mr. J. H. Markham, A.R.I.B.A., Architect.



R.A. Exhibition, 1924.

Antrobus House, Amesbury. Mr. Geoffrey Fildes, A.R.I.B.A., Architect.



R.A. Exhibition, 1924.

St. James's Church Hall, Muswell Hill. Mr. G. G. Wornum F.R.I.B.A., Architect.

ROYAL ACADEMY EXHIBITS

Particulars of a number of the Royal Academy Exhibits illustrated in this issue are given below :—

Messrs. Liberty & Co.'s New Premises, Argyll-place, W.

Within a few yards of the new Regent-street, and just behind their East India House in that street, Messrs. Liberty & Co.'s half-timber building is fast nearing completion. In Regent-street the Crown has insisted that the rebuilding shall follow the traditional Renaissance style, and laid down the principle of designing the street by blocks so that each block of buildings is a unity of design, though may consist of a number of different shops.

In Argyll-place Messrs. Liberty have the freehold of an island site bounded by Argyll-place, Great and Little Marlborough-streets, and Kingly-street, and here they are free to develop their own ideas of the setting in which to display their business. Messrs. Liberty rejected the scheme of having on this site a Renaissance building which might be linked in design with their new East India House in Regent-street, and decided to erect their present black and white building. With a view to maintaining the domestic scale, the motive of design has been rather a series of shops—a minster "row"—than a single great pile. The examples of the craftsmen's works with which Messrs. Liberty concern themselves will be shown in rooms of a height and kind that people live to live in, where the wares can be judged by a true scale of domestic surroundings and not dwarfed or given fallacious qualities as in the vast emporia with stories 20 ft. high or more.

Notes of historic interest are woven into the design. There are many old Tudor coats of arms made from designs of Mr. Kruger Gray, and wrought by Mr. Laurence Turner. On the gable facing Regent-street are the arms of Queen Elizabeth; on the entrance door the arms of Great Harry's six wives are grouped together, perhaps for the first time in history. High above the main entrance is a gilded copper weathercock, a model of the *Mayflower*; small as it looks from below, this is over 4 ft. high, and weighs over a hundredweight. This ship, as well as the windows, picked out with little tinted pictures on glass, is the work of Messrs. Wainwright & Waring. The lead gutters and downpipes are nearly all specially designed by the architects, and made by Mr. J. L. Emms.

Of the building itself, designed by Messrs. Edwin T. & E. Stanley Hall, the timbers were obtained from two old men-of-war. There are some five miles of timber in the framing of the building, varying in size from 15 in. sq. to 6 in. by 5 in. The stonework is Portland. The blocks have never been sawn, but are chiselled right from the quarry face. The brick chimneys were specially made by the Daneshill Brick & Tile Works, Ltd., of Basingstoke. The roofing tiles are hand-made Tucker's tiles from Loughborough, and the stone roofs of the entrance porch are of Herefordshire stone slabs.

Internally there is a wealth of carved oak and teak; oak stairs with solid steps and carved balustrades and panelling; tiers of deep galleries about open wells covered with heavy timber-beam roofs, with linenfold and other carved dadoes. Messrs. Liberty have themselves largely designed and made at their Shaftesbury workshops the panelling and fitments of the interior; and there is much interesting and curious plaster enrichment to the friezes and ceilings of the showrooms.

In spite of its old-world appearance, the building satisfies all the L.C.C. and Westminster Act requirements as to hygienic, fire resisting, and fire escape requirements. There are four main staircases serving all floors, three subsidiary staircases, and four lifts. The interior is subdivided into eight fireproof compartments, and there is a total floor area of about 3 acres. A sprinkler installation is installed throughout, and an automatic fire alarm rings to a fire-call station. The basement galleries are ventilated by the Ozonair system, and a central vacuum-cleaning plant is installed.

The entrance to the building is immediately opposite the lower end of Argyll-street. A large oak screened vestibule opens into a central gallery, open from the ground floor to the roof. On each side of this is a similar gallery, and open wells with wide balconies on every floor. At the extreme west of the western gallery is a wide open staircase of oak enriched with carved posts and panelled balustrades. The whole of the ground, first and second floors, and portions of the basement, third and fourth floors, are allocated to showrooms.

On the third floor are the counting house and other offices, and on the fourth and fifth floors are kitchens and dining rooms for a staff of 1,100 men and women. In the basement is the boiler house, which supplies heat and hot water to Messrs. Liberty's new Regent-street block, and to their premises across Little Marlborough-street, as well as to this building. Here, too, are a pair of deep-water wells, the Ozonair and vacuum-cleaning plants, and the electrical switch-board room. There are over two thousand electric lighting points, and about 40 miles of electric wiring, including 12 miles of conduit. The shop window lights are controlled by a clock-work process, so that the lights may be cut out automatically at any given time after the building is shut for the night. In the office portion on the third floor is a telephone exchange. Synchronised clocks are also installed in all the principal departments.

This building is already connected by a subway and bridge to Messrs. Liberty's premises in Little Marlborough-street, and by a subway to East India House. A portion of East India House adjoining Foubert's-place has already been built; this block will be completed up to Argyll-place as soon as the old shops can be vacated. There will then be direct access from East India House to the Tudor building in the basement, and also by a bridge across Kingly-street on the second, third, and fourth floor levels.

The following firms are principally concerned in the carrying out of this building :—Contractors: Messrs. Higgs & Hill, Ltd.; consulting electrical engineer: Mr. H. E. Keen; chief clerk of works: Mr. A. Turner; engineering clerk of works: Mr. E. J. Ison; head foreman of works: Mr. J. Corfield. Craftsmen and sub-contractors: Messrs. Liberty & Co., Ltd., internal panelling and decoration; L. A. Turner, wood carving; Kruger Gray, heraldic designs; J. L. Emms, ornamental leadwork; Cecil Ern & Co., Ltd., art metal work; Wainwright & Waring, Ltd., steel casements, shop windows, weather vane, &c.; Daneshill Brick & Tile Works, Ltd., ornamental chimney stacks; Dorman, Long & Co., Ltd., steelwork; South Western Stone Co., masonry; F. J. Barnes, Ltd., Portland stone; Mather & Platt, Ltd., sprinkler installation; Leo Sunderland & Co., Ltd., electrical work; Art Pavements & Decorations, Ltd., Biancola partitions; Acme Flooring & Paving Co. (1904), Ltd., parquet flooring; Benham & Sons, Ltd., kitchen fittings; British Challenge Glazing Co., patent skylights; Comyn, Ching & Co., Ltd., ventilators; Castles' Shipbreaking Co., Ltd., old ship timber, oak and teak; Dennison, Kett & Co., Ltd., steel rolling shutters, &c.; Dent & Hellyer, Ltd., sanitary fittings; Doulton & Co., Ltd., sanitary fittings; Shanks & Co., Ltd., sanitary fittings; G. N. Haden & Son, Ltd., heating and hot water; G. Matthews, Ltd., decorative wall tiling; Ozonair, Ltd., Ozonair ventilation; Davey Paxman & Co., Ltd., boilers; Patent Victoria Stone Co., Ltd., staircases and paving; Albert J. Shingleton, skylight and shop blinds; The Synchronome Co., Ltd., electric clocks; Waygood-Otis, Ltd., lifts; Thomas Faldo & Co., Ltd., asphalte; Siegwart Fireproof Floor Co., Ltd., fireproof floors; J. A. King & Co., pavement lights; W. Mallinson & Son, Ltd., wainscot; Le Grand Sutcliff & Gell, Ltd., artesian wells; Roberts, Adlard & Co., Ltd., tile and stone roofing; Sturtevant Engineering Co., Ltd., vacuum cleaning plant; Associated Fire Alarms, Ltd., fire alarms; S. Lintern, teak sinks; Joseph Kaye & Son, Ltd., ironmongery; Carter & Aynsley, Ltd., ironmongery; Horace W. Cullum & Co., Ltd., cork flooring; Bell's United Asbestos Co., Ltd., Decolite flooring.

New Church, Ampleforth Abbey, Yorks.

The work at present being undertaken consists of only about one-third of the entire scheme. This is being built on at the west end of the existing church, the present west wall being pierced with a wide arch to connect the old work with the new. Later on the intention is to pull down the existing church and to complete the remainder of the new scheme. Broadly speaking, the completed building will consist of three large compartments or bays, separated by transverse arches and roofed with domical vaults. The vault over the central bay will be at a higher level than those over the two end bays, and above will rise the central tower. The western-most bay (the one now being built) will form the monks' choir, while the central and eastern bays will accommodate the boys from the College and also the public. Along the south side of the building will be two rows of chapels, one row being level with the floor of the church and the other placed in a crypt below; this arrangement was suggested by the steep slope of the ground. One of the chapels at the main floor level will be the war memorial chapel, which, it should be noted, is included in the present section of the work. The walling is faced externally with rubble-work, with wrought quoins and dressings. Bramley Fall is the stone used both for rubble and dressed work. Internally the walls will be plastered, the piers, arches and other dressings being of Blue Hornton stone. The domed ceilings will be of reinforced concrete, plastered, while the outer roof will also be of reinforced concrete, covered with greenish grey slates. As regards the question of style, an early type of Gothic has been adopted, with a suggestion of Romanesque feeling, though no round arches have been employed. The site is a very fine one, the building being situated high up on the southern slope of a steep hill, and it will stand out very prominently when seen from the valley below. Internally, the most distinctive feature will be the reredos. This will stand in an isolated position at the junction of the retro-choir, or monks' choir, and the main body of the church. It will take the form of a large arch, embellished with sculpture and carving, and will form a kind of canopy over the two altars which will be placed back to back below it; one of these altars will serve the retro-choir, and the other the main body of the church. The reredos will be constructed of blue Hornton stone.

The general contractors are Messrs. Holloway Bros., Ltd. The blue Hornton stone is being supplied and worked by Messrs. J. F. Booth & Son. The reinforced concrete engineers are the Trussed Concrete Steel Co., Ltd.

Mr. G. Gilbert Scott, R.A., is the architect.

Westfield College, Hampstead.

This drawing shows part of a recent addition made to Westfield College, Hampstead. Mr. W. Curtis Green, A.R.A., is the architect. The general contractors were Messrs. J. W. Falkner & Sons.

Barker's New Premises.

This drawing is an ½ in. scale detail of the centre bay of Messrs. Barker's new premises, High-street, Kensington. The bay is the centre of five bays, executed in Portland stone, the spaces between the piers and windows being filled in with Mazzano marble panels set in a frame of Belgian black marble. The columns by the entrance are of Belgian black with bronze caps, gilt. The whole of the façade and exterior of the building has been designed by Sir Reginald Blomfield, R.A., architect, of New-court,

Temple, the interior and constructional work being designed by Mr. H. L. Cabuche, O.B.E., architect. Additional particulars of this building will be given in a further issue.

New War Memorial Chapel at Durham School

The chapel has been designed on simple and dignified lines. The plan consists of a wide nave and chancel under one continuous roof, with short transepts, and a wide open narthex: a small chapel north of the chancel, and a vestry and sacristy south of it. The chancel is ample for a large gathering, and the vestry and sacristy (containing 300 sq. ft.) are placed on the south of the chancel with direct communication with the chancel and south transept, and also with the outside. The interior of the chapel is to be treated with a simple scheme of arched vaulting, which is to be executed in fibrous plaster. The walls are to be faced on the outside with local flat-bedded scutch faced rubble of a warm and broken colour (of yellows, reds and browns, such as can be seen at the cathedral and college). The stone for all dressings such as plinths, sills, strings, windows, doors, copings, etc., to be from the same local quarries. The internal walls are to be plastered (for colour decoration), and provision is being made for a future panelled dado up to the window-sill level.

The general contractors for the work are Messrs. Rudd & Son, Ltd., of Grantham, and the architects are Messrs. Brierley & Rutherford, of 13, Lendal, York, who were successful in a limited competition for the chapel held last year, and for which Sir Charles Nicholson was the assessor.

Women's Institute, Milford.

This building is now being erected in the village street at Milford, in Surrey. It consists of a main hall with open timber roof, having a raised stage at one end and a gallery at the other. The projecting wings to road contain kitchen premises, sitting room and lavatory. The walling is built of 2 in. bricks from Messrs. Pascall, of Wrotham. The heating system is by Messrs. Norris & Dutton, of London. The casements and glazing by Messrs. George Wragge, Ltd. The builders are Messrs. F. Milton & Sons, of Witley, Surrey. All the woodwork is in English oak.

Messrs. Baillie Scott & Beresford are the architects.

Cottage Hospital at Weybridge.

This illustration shows the selected design for the Cottage Hospital, Weybridge, plans of which were published in *The Builder* for February 22.

The site being somewhat peculiar in shape (the only approach is by a narrow strip of land leading from the main street), it was decided that the whole of the hospital must be planned on the back portion of the land, with the exception of the porter's lodge and ambulance garage, which were designed as gate lodges to join the entrance from the road.

The hospital comprises: Wards for twelve male patients, twelve female patients, and six children; and six single-bed wards for private patients. A feature of the hospital is a complete therapeutic department with men's and women's wards, physical exercise rooms, recovery, bath department, diathermy, and private wards. There is an operating unit and the usual administration offices. The wards have been planned with their axes north and south, and the private wards have been given a south aspect. The nurses' and maids' rooms are placed in the second and third story over the central block. The ward roofs have been kept flat to allow for future extension. The architects are Messrs. Arthur Wm. Kenyon, F.R.I.B.A., and Stanley G. Livock, A.R.I.B.A. The perspective drawing is by Mr. Cyril A. Farey.

Mosque, Kasr-el-Aini Hospital, Cairo.

This drawing forms a detail of Messrs. Nicholas & Dixon-Spain's design for the Egyptian State Hospital at Cairo. The plan of the Mosque is peristylar following generally the arrangement exemplified in that of Sultan Al-Malik al Muayyad Shekh at Cairo. It consists of a three-aisled chief lîwân and flanking single-aisled lîwâns, all open and with flat coffered ceilings. The Mihrâb and Minbar exhibit some concentrated ornamentation, but the general architectural effect is in terms of arcading. The fountain in the centre of the Sahn is ornamental as a Meidâ is provided in the extremity of each of the flanking lîwâns.

Additions to Insurance Building, Euston-square.

This addition is a wing on the north side of the block of offices erected at the corner of Euston-square and Euston-road some few years since. The addition contains offices, housekeeper's quarters, and cloak rooms. The elevation is of Portland stone; the construction of the floors and roof is steelwork and concrete. The builders are Messrs. Foster & Dicksee, Ltd., of Rugby; and the steelwork is by Messrs. H. Young & Co., of the Thames Ironworks. Professor Beresford Pite is the architect.

House and Stables, Queen Camel.

This house and stables, &c., which are now practically completed, are built in the local manner with stone from the Keinton Mandeville quarries, with the roofs in dark sand-faced tiles; and the windows ordinary wooden casements and frames. The builders are Messrs. Bird & Pippard, of Yeovil; the heating and sanitation has been executed by Messrs. Dent & Hellyer, of London; electric lighting and bell installation and plant, by Messrs. Waring, Withers & Chadwick, of London; door and window furniture, by Messrs. J. Elsley, Ltd., of London.

The architect is Mr. E. Guy Dawber, F.S.A., F.R.I.B.A.

The Plaza Theatre.

The Plaza Theatre is in course of construction at the corner of Lower Regent-street and Jermyn-street. The main contractors are Messrs. Arthur Vigor, Ltd.; and the principal sub-contract which has been given to date is for steelwork, to Messrs. Moreland, Hayne & Co., Ltd.

Mr. Frank T. Verity, F.R.I.B.A., is the architect.

Golf Cottage, Woking.

The house is built on the site of a smaller building removed for this purpose. Local bricks used were supplied from Knaphill and tiles from Messrs. Mitchell, at Guildford, and Messrs. Van Straaten. The general contractors were Messrs. Mardon, Bull & Co., of Farnham, Surrey; heating and hot water, Messrs. Comyn, Ching & Co.; electric wiring by the Woking Electric Supply Company; electric fittings, Messrs. Gillham & Jones, Newman-street, W.1; carving in the wood brackets, etc., to doorways, Messrs. W. Aumonier & Son; the sanitary fittings, including baths, lavatories, and fireplace interiors, Messrs. McDowall, Steven & Co.; w.c. fittings, Messrs. Tylor; range, Messrs. Smith & Welstood.

Pavilion—Palace of Industry.

This Pavilion has been designed for Messrs. Spillers' Milling & Associated Industries Ltd., by Mr. Edward Maufe, M.A.Oxon, F.R.I.B.A. It forms an entrance to the Food Section in the Palace of Industry, and in it each of these associated firms has its separate exhibit, grouped in deep alcoves lighted from above by hidden lights. There is an outer and inner hall, the alcoves of the latter being designed round a central office. The exterior, though a serious contribution to exhibition architecture, is gay and full of colour, symbolising the golden corn and the green of the earth, while through the arches is seen the velarium, like a white cloud against a blue background. High up at the end of the inner hall is an excellent map by Mr. Macdonald Gill, showing the distribution of Messrs. Spillers' various activities. The lettering was carried out by the Dorian Workshops; the electric lighting by the Springvale Electrical Company; the velarium and banners by Messrs Heal & Son; the fibrous plaster work by Messrs. W. Aumonier & Son; the flooring being "Paraflor" supplied and laid by the North British Rubber Company. The general contractors were Messrs. Holloway Bros Ltd.

Meeting Room at the R.I.B.A.

The new Meeting Room, at 9, Conduit-street, is the outcome of a small plot of ground being acquired at the rear of premises in Maddox street. The new room is roughly square, about 46 ft. by 46 ft., and lighted by a central glass dome, supplemented by domes in the four corners in order to secure abundant light for drawings hung on the walls. As far as possible the walls are left perfectly plain in order to give hanging space for exhibition purposes. The old doors have been re-used, but a new piece of panelling has been put behind the platform to receive the names of the R.I.B.A. prize-winners and to reflect sound. The whole question of acoustics was studied by Mr. Hope Bagenal, and by his advice the wall opposite the platform and the frieze along both sides of the room are padded with Cabot quilting in order to prevent an echo while the sound is reflected from the platform end of the room by means of wood panelling. The result is very satisfactory.

Messrs. John Greenwood, Ltd., were the builders, the domes were made by Boulton & Paul, Ltd., the glass roofs by the British Challenge Glazing Co., the heating and ventilation by J. Jeffreys & Co., Ltd., the electrical work by Messrs. Locke & Soares, and the acoustic work by the May Construction Co., Ltd.

The architect is the Hon. Secretary, Mr. Arthur Keen.

Uppingham Hall and Class-rooms.

The hall and fifteen class-rooms form two sides of a quadrangle, which has now been laid out with a turfed lawn and stone paved walk, almond trees, and beds of lavender. The buildings are of Welldon stone and Edmonton Weston walling and roofed with gray and russet slates in graduated courses. The drawing shows the class room wing from the north. The class rooms are on the south or quadrangle side, and the corridors on the north. The arrangement of gable-end and roof grows out of this plan. The two upper ranges of class-rooms and corridors are floored with grey rubber. The ground floor is laid with "Decolite." The internal walls are finished with a painted dado and white distemper above. The paintwork in the corridors is grey; there are various colour schemes in the class room dados—grey, bright apple-green, dark blue-green, with gold or silver on the radiators. The whole of one wall in each room is painted to serve as a blackboard. The hall will accommodate 900. Its open timber roof is of Douglas fir, tanned by exposure to the weather and used as it came from the saw-mill. The wrought-iron work is slightly emphasized with colour and gilding. The external doors are of teak and the lead turrets have been gilded dot.

Messrs. Ernest Newton, R.A., & Son are the architects; general contractors, Benfield & Loveley, Ltd., Oxford; heating and electric lighting, Wenham & Fowler, Croydon; hall—glazing, Crittall Manufacturing Co., Ltd.; oak floor, Acme Flooring Co.; class-rooms—glazing, Browclough & Sanders, Lancaster; flooring, "Decolite," Bell's United Asbestos Co., Ltd.; flooring, india-rubber, Charles W. L. Lambe, Ltd. The fireproof floors were built to design and under the superintendence of Oscar Faber, O.B.E.

Marlborough College Memorial Hall.

The drawing shows one of the two entrance pavilions which flank the main colonnaded front facing the garden and forecourt. It is built of Portland stone and narrow brick. The doors will be painted blue-green. The grill above the doors is bronze, and can be opened to clean the plate glass. The paved terrace is of York stone, with one square of green Connemara marble on the axis of each entrance door. There will be no inscription in the plain stone s

ove the door. The vestibule beyond the door 19 ft. square and paved with Portland stone d slate dots. From it a flight of seven steps ds to an inner lobby of oak which stands inside e hall and gives access by means of double ing doors to an ambulatory 8 ft. wide, which ns round the back of the semi-circular audi-ium, and is divided from the tiered seats by broad oak balustrade with standard lanterns t. high arranged on each side of the seven ngway openings, which give on to the seats. e names of the fallen will be cut on the frieze an Ancaster stone dado running round the ditorium wall between the sash windows.

Messrs. Ernest Newton, R.A., & Son are the chitects; general contractors, Holloway Bros., d.; carving (names), Mr. Laurence Turner; ne and oak, Mr. Esmond Burton; bronze d leadwork, Thos. Elsley, Ltd.; heating, ring and lead glazing, Wenham & Fowler, ydon; Roman tiles, Messrs. Ames & Finnis.

Warneford House, Sudgrove.

This house has recently been erected in the tswold Hills between Stroud and Cirencester, d occupies the site of an old stone manor use which was totally destroyed by fire in 14. A good deal of the old stone and stone tes have been re-used in the new house, but ond this nothing of the old house remains cept the garden and outbuildings. The new ne used has been quarried on the estate. e entrance front is to the north, and the ncipal front to the garden is south over-king a charming view of the Stroud valley. interesting feature of the interior of the use is that the staircase, doors, and wood-rk generally have been treated and stained a light, warm grey colour, unpolished, and whole of the walls have been distempered a similar tone.

Messrs. Jacob Long & Son, of Bath, are contractors for the building; Messrs. ung, Austen & Young have carried out the ting and hot-water work; casements by ssrs. R. E. & C. Marshall, of Cheltenham; ded glazing by Messrs. G. Farmiloe.

The illustration is from a pen-and-ink draw-by the architect, Mr. A. N. Prentice.

Bishopsgate Telephone Exchange.

This building is being erected to house an omatic telephone installation. As the build-only faces on to narrow and unimportant ets the greatest simplicity of treatment was ed for. The brickwork is faced with London ks, with joints raked out so as to give a sunk earance; the recessed faces around the dows are formed of dark bricks from the old dings found on the site. The stonework, pt for the plinth and the architrave and ice of doorway, which are in granite, is all in land stone. The contractors are Messrs. sums, Ltd., and the Portland stonework is g worked by Messrs. Frank Mortimer, Ltd.; granite is being supplied by Messrs. Brookes, , and the steelwork is by Messrs. Archibald awnay & Sons, Ltd.

he architect is Mr. John H. Markham, .I.B.A., of H.M. Office of Works.

Antrobus House, Amesbury.

his building serves a double purpose in that a museum and a village club, bequeathed r the will of Lady Antrobus to the town of sbury. These public rooms are flanked on side by a small library and a caretaker's ge and by a residence for the curator. iew of the old-world character of Amesbury, as considered advisable that the new build-should follow traditional lines. The total of the works will be within £9,000.

e architect is Mr. Geoffrey Fildes, A.R.I.B.A. contractors are Messrs. James & Cockerell, alisbury; heating and hot water, Young, en & Young, London; facing bricks, nas Lawrence & Sons, Bracknell, Berks; ue sand-faced tiles, Wiggins & Co., Ham-smith; asphalte, Engert & Rolfe, Poplar; nongery, James Gibbons, Ltd., London; mental wrot iron, Gardiner, Sons & Co., Bristol; entrance gates, Messrs. Hart, Peard & Co., Ltd. (the Birmingham Guild).

St. James's Church Hall, Muswell-hill.

This work has not yet gone out to tender, and when executed will probably be considerably amended. The design reproduced is to provide a hall for 300 seats, and an additional 100 seats in the gallery. There is a small hall on the first floor at the back of the building to seat 200 persons. Classrooms, retiring-rooms, and kitchen are placed under this small hall. The site is at the corner of Fortis Green-road and Birchwood-avenue. The exterior walls are intended to be of multi-coloured bricks with picked red brick dressings. Mr. G. G. Wornum, F.R.I.B.A., is the architect.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

Domestic Hot Water Supply.

Sir,—I have been called in to examine a domestic hot water supply system which was found to be unsatisfactory in not providing in reasonable time a good supply of hot water. The pipes are all arranged correctly, and the runs appear to be well thought out. The cylinder, however, appears to be over large for the size of the boiler, and I had thought of advising the fixing of a smaller cylinder as a corrective. This will, however, entail rather an expensive and inconvenient upset in the house which I am anxious to avoid. Can you suggest a simpler mode of procedure?

"Architect."

Laying-out a Building Site.

Sir,—I shall be glad of your opinion on the following:—

Some years ago a half street was laid out 20 ft. wide adjoining a vacant field, and on one side large villas were built on sites 300 ft. deep with building line set back about 100 ft. The roadway in question is still private and not taken over. The owner of the vacant field is now laying out same in small sites, with a cul-de-sac road up the middle, the backs of one side facing on to the half street, which has semi-detached houses on the opposite side. Kindly answer the following:—

(1) Can the Council agree to this?

(2) Have the adjoining owners any redress, seeing that a new building line in advance of the existing houses is fixed?

(3) If so, is it against the owner of the field or otherwise?

(4) What powers have a local authority to bring forward a building line?

(5) Can you state any similar legal cases bearing on the point, or suggest a book of references on points in by-laws?

J. Landell Nicholson.

Liability for Accident.

Sir,—I shall be pleased if you can help or advise me *re* the following, or refer me to any similar case that may have been fought out in a court of law:

A plumber is employed on day work by a firm of builders, who have insured him against accidents. He is requested by a friend to do some work in his spare time for another man (a householder) and does the work required in his own time. A bill is presented by the plumber to his friend, who recommends him to call with the bill at the residence of the householder. When he presented himself he was requested to inspect a flat roof on which it was proposed to lay zinc, also to inspect a low-pitched slate roof through which the rain was percolating.

A ladder belonging to the householder was raised, the plumber ascended, and the householder stood on the bottom rung. Whilst inspecting the roof the ladder slipped and the plumber grabbed at the gutter, which came off, and he fell about 20 ft., fracturing his leg. The householder denies liabilities. Naturally, as the plumber was working in his own time his employers cannot accept responsibility. Would you advise taking proceedings against the householder or is it advisable to let the case drop?

Architect's Assistant.

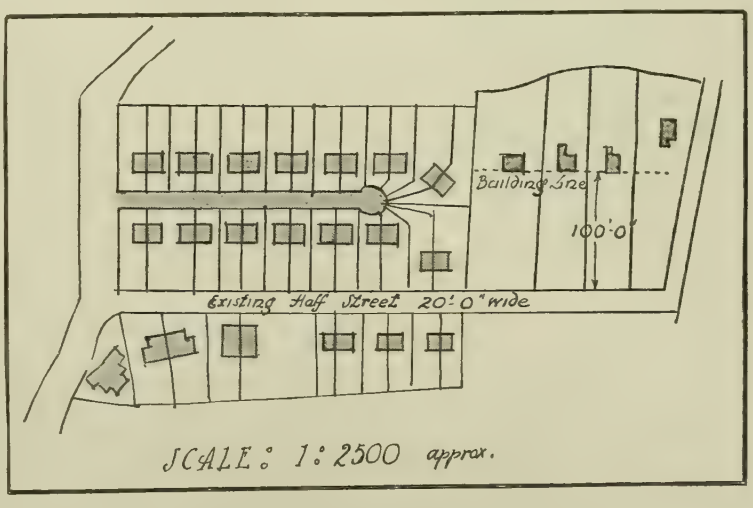
This is a particular case involving many points, and the inquirer would, on the facts as stated, do well in the first instance to consult a solicitor, who would then advise him after fuller particulars how to frame an action, which, the circumstances undoubtedly suggest, should go forward.

Amongst the points are:—What was the position of the plumber? Was he a "workman"? Had he any contract of service at the time of the accident? And, if so, with whom? Could the action be brought under the Workmen's Compensation Act? Should the action be one for "negligence" on the grounds that there was a duty cast on the householder to use care?

The plumber was permitted by his regular employer voluntarily to undertake work for this householder, and in the advancement of the plumber's own interests; in which case the employer for whom he had undertaken the work was responsible for any injury which might result from his (the employer's) lack of care during the course of the work or from the defective condition of the building.

See Heaven *v.* Pender (11 Q.B.D. 503), where Brett, M.R., defined "negligence" thus:—"Actionable negligence consists in the neglect of the use of ordinary care or skill towards a person to whom the defendant owes the duty of observing ordinary care or skill, by which neglect the plaintiff, without contributory negligence on his part, has suffered injury to his person or property."

"A.Z."



(See inquiry by J. Landell Nicholson.)

WESTMINSTER ABBEY RE-EXAMINED—III

By W. R. LETHABY.

HENRY VII's CHAPEL: SCULPTURE AND GLASS.

"*King Henry the Seventh for the burial of himself and his children adjoined thereto, in the east-end a chapel of admirable artificial elegancy; for a man would say that all the curious and exquisite work that can be devised is there compacted; wherein is to be seen, his own most stately magnifical monument, all of solid and massie copper.*"—(HOWEL'S "*Londonopolis*," 1657.)

"*In* 1803 *they first began their innovating career and professional blows were dealt against the devoted walls.*"—(JOHN CARTER, 1812.)

SCULPTURE AND SCULPTORS.—The King provided by his will that 10,000 Masses should be said for the "weal of his soul," in honour of the Trinity, the Five Wounds of Christ and the Five Joys of the Virgin; the nine orders of Angels, the Patriarchs, the twelve Apostles, and All Saints. This indicates what was in the mind of the founder The sculptured saints, of which nearly a hundred exist, have been most fully described and identified by Micklethwaite, in *Archaeologia*, XLVII. They were to have had their names painted on labels carved for the purpose on their supports and similar to the labels under the external images. Since this time I have had the opportunity of examining some of them from a scaffolding. The central figure at the east end is Christ, who holds a book open *outwards* in the left hand, while the right is raised. His foot is on the globe of the earth. This would seem to be Christ of the Second Coming, and it would give a key to the whole assemblage of Saints if they are accessors of the final Judgment.

To the right of Christ (south) is the Virgin, and to the left is an Angel. This pair has been interpreted as the Annunciation. The angel carried a *sceptre* in the right hand, and this suggests that the meaning may have been the recognition as Queen of Heaven which follows on the Doom. Only the head of the sceptre now remains; the Angel's left hand grasps the end of a long marvellously undercut scroll, the inscription on which would have made the meaning clear.

Beyond again are St. Peter and St. Paul, the former with book and great key, and the latter with book and sword. The rest of the apostles follow. Most of their emblems are described by Micklethwaite; he calls that of Jude a boat, but it is rather the hull of a ship with a raised forecastle and interesting as a model of a mediæval ship (Fig. 1 b). The large hat worn by St. James has the plaiting of the straw indicated. Still further on, and now on the lateral walls, we find St. Anne on the north and Mary Magdalen with an aged woman on the south (St. Elizabeth?). St. Anne is teaching the Virgin to read, but the child's figure is an "emblem" only. Her intent reading face is very true and pretty, also her action in turning over the leaves of the book; it is a delicate and beautiful work.

Saints of the Church fill up the rest of the north and south walls, except in the western bays, where there are ten figures who appear to be ancient philosophers. These last are somewhat unusual, but they occur in some late stained glass in the Cambridge Library. (See also Didron's "Iconography," Vol. II.) It may be noticed that the royal saints of England —Oswald, Edmund, &c.—find a natural place in the assembly.

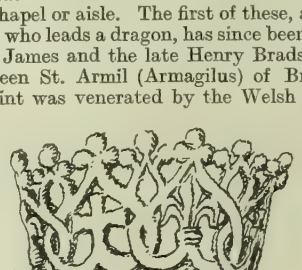
The scheme at the east end may be suggested thus:—

1 2 3 4 5						1 2 3 4 5
APOSTLES	PETER	ANGEL	CHRIST	VIRGIN	PAUL	APOSTLES

Several careful drawings were made of the images by Mr. S. Weatherley "when they were taken down to be cast"; this must have been about 1870, and a set of these casts exists at the Victoria and Albert Museum. The whole series should be photographed to a large scale, for the details which are minutely rendered are full of beauty and invention. There is fresh observation, realism and humour in these remarkable works of art which furnish a valuable image of the Tudor mind (*see* Prior and Gardner's "English Sculpture"). Fig. 1 B, is a sketch of one of the crowns which is very like that of the Virgin in the Eton wall painting. The figures are all in niches above a linked band of angels.

These sculptured angels are not fully distinguished into the nine orders, but there are warrior angels (St. Michael, &c.) and others clothed in feathers (Seraphin) as well as those in ordinary angelic vesture. They are occupied in no less an office than holding up the King's badges: Rose, Fleur-de-lys, and Portcullis.

Amongst a few figures which Micklethwaite left unidentified are two at the east end of the north chapel or aisle. The first of these, an aged warrior who leads a dragon, has since been shown by Dr. James and the late Henry Bradshaw to have been St. Armil (Armagilus) of Brittany. This saint was venerated by the Welsh and by



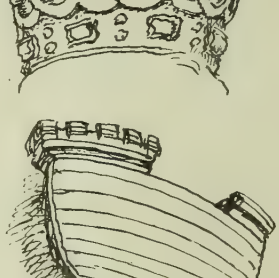


FIG. 1, A and B.

Henry VII. Micklethwaite later suggested that St. Ermine's (now an hotel) carries on the name of this saint.

Next to the image of St. Armil in the same north chapel, which I suppose may have been planned as a chantry for Prince Henry, later Henry VIII, is the figure of a king beardless and with a book. Of this image Mr. Micklethwaite said: "This has been called Henry VI, but we have reason for putting him elsewhere"—that is, in an empty niche in the eastern chapel. The support under this empty niche has the letters H.R. on it, and it is not improbable that the figure once in it was Henry VI.

Several images, however, are repeated in the chapel, and there happens to be two of each of the companion figures of this king. I would suggest that if this chapel was intended for the heir of Henry VII then it would have been specially appropriate to have his name saint here, just as St. Margaret was put in the south aisle where Margaret, the King's mother, was to be buried (*See* the just published account of the "miracles" of King H. VI. I may remark here that in the transcript of accounts of Henry VII at the British Museum there are entries for writing and painting a book; can it be the MS. of the Miracles?) It might explain why this image has no emblem if it could be none other than Henry VI.

The statues and the rest of the work in a suitable degree was, or was to have been, coloured and gilded. In the King's will it was provided that "the walls, doors, windows, arches and vaults, and images, within and without, be painted, garnished and adorned with our arms, badges, cognisants and other convenient painting in as goodly and rich a manner as such a work requireth, and to a King's work appertaineth."

Gay and glittering in bright colour and gilding the long rank of figures ranged along the main walls, and appearing company after company in the several chapels, would have had an extraordinary appeal to the mind by its hypnotising iteration. Such were the thoughts of employers and craftsmen at the end of the period of workmanship and on the eve of a time when imaginative thought and act were to be washed away in a flood of talk about "architecture" by professional "art" middlemen.

Sculptors.—An important authority for the works of Henry VII at a time just before the new chapel at Westminster was begun is the Egerton MS. 2358, at the British Museum recording payments of Thomas Warley, Clerk of the King's works to Henry VII. It is concerned with certain works at St. Paul's connected with the marriage of Prince Arthur with the Tower, Westminster Palace, Greenwich and Eltham. It is in Latin, ill-written and abbreviated, so that I can make little of the details. Only minor masons seem to be named Walter Martyn, John Carter and others, but none are given the title of King's mason.

The most arresting entry is for the wages of "Sculptors" for sculpturing the Dragon, Lion and Leopards for the Cipher [?] in the Great Hall at the Tower. They were John Moore, Richard Codeman, Robert Bellamy, Nicholas Delphyn, and John Hudde. Robert Duke was employed painting and gilding the same. John Hudde also sculptured two Lions and a Great Rose with an imperial crown above it in Westminster Hall over the North Door. John Hudde and most of the other sculptors thus named were doubtless the authors of the great array of images at the King's Chapel—more than a "gross" of statues was a big order which required many artists.

Stalls and Pavement.—Of the woodwork of the Chapel Neale writes: "Neither the stalls nor seats are all of the same period as may be readily distinguished from the workmanship those which are co-eval with the completion of this edifice extend to the third arch on each side; the others were constructed on the revival of the Order of the Bath by George the First . . . . At the last installation two of the canopies were displaced from their original positions near the west end and affixed against the great piers eastward over new stalls, where they yet remain, but the stalls themselves have now been removed. It would seem, too, from the style of workmanship and other circumstances that all the canopies which surmount the stalls added in the reign of George the First originally formed the back front of those which are known to be coeval with the Chapel" (Micklethwaite says that the addition was made in 1725). The two canopies just mentioned were later taken down from the piers and are preserved in the triforium; the spaces from which they are supposed to have come may be seen at the west end of the ancient stalls. The backs of the canopies most easily seen are several against the south aisle, which have plain backs. Closer observation of others partly hidden and of many against the north aisle show that originally all were complete at the back as in front. In the north aisle also a pierced brattishing over the level lower part is preserved and thus the complete original form may be understood. A plan of the XVIth century in the Thorpe Collection at the Soane Museum which shows the original arrangement of the stalls, published by Burges in Scott's *Gleanings*, was reproduced last month. Burges, however, raised some difficulties in his comment, which must be noticed. "Thorpe's plan is not only valuable as showing us the positions of the altars, but exhibit the position of the stalls prior to their being altered in the reign of George I. It is generally asserted that a new bay of stalls was then added on either side; by a comparison, however, of Thorpe's plan with the actual building we shall find that the number of the stalls remains the same, the only addition being two rows of canopies which, however, were supplied by cutting off the hinder part of the original ones." This is not so clear as Burges usually was. The fact is that Thorpe's plan shows the stalls much narrower than they are, and moreover as carried

t up to the west end where the two "return ls" are on this plan. The stalls were lently only roughly sketched; that the ıber agrees, or nearly agrees, with the ent number must be accidental.
he important return stalls just mentioned e doubtless on occasion for royal use. There e quite charming kneeling figures of kings in ed oak on the fronts. That on the north only survives. From the king's beast lying ind him I suppose this one was intended for ry VI. The king saint is represented on screen at Whimple with an antelope gorged

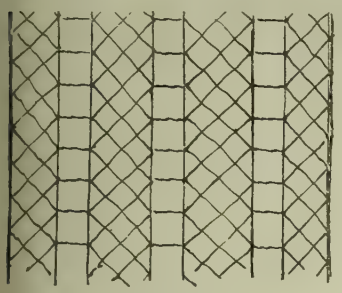
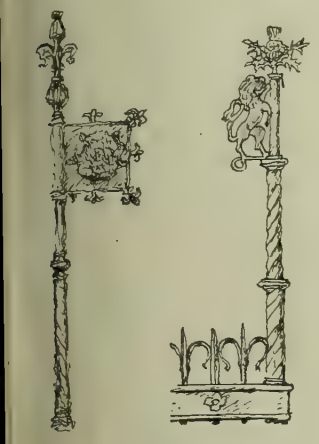


Fig. 2.

h a crown at his feet. Remember that two s on either hand beyond the east end of stalls had high stone screens curved on plan the bow windows of the aisles.
he original pavement of the Chapel remains he aisles, the eastern chapel, and in the tomb ntry. It is of small slabs of grey marble, laid alternating strips diagonally and square. s is the most general type of mediæval pave- t at least in London (Fig. 2). Notice on the t wall below the window three large painted secration crosses. The original wooden roof ve the vault has disappeared; doubtless it very much like that of King's College Chapel, ıbridge. The leaden down pipes of the rior appear to be original
spoke before of the vanes of the exterior. prevailing love for vanes was evident also ıin. The bronze boy-angels at the ends of founder's tomb carried banners; and the le standards of the tomb of the Lady garet, Queen Elizabeth, and Mary Queen of s, all had vanes, some memory of which is erved in the prints and drawings.
g. 3. A. is from a sketch by Carter from the s once on the "grate" which surrounded garet's tomb. The railing without the vanes



A B

Fig. 3.

ecently been given back to the Chapel. It the work of Cornelius Symondson. B. is a small sketch in the Powell collection of anes once on the tomb of Mary Queen of . This railing has also been brought back ıe Abbey; it was probably by the same who made the beautiful "grate" of Eliza- s tomb which is shown in Neale's plate 57. was surmounted by fleurs de lys and roses, ıe frieze were the letters E.R., mixed with lions and falcons; there had been standards at the angles and in the middle; the whole had been gilt. Patrick the blacksmith received £95 for the work." (Fig. 4)—It is marvellous that the learned and powerful of a century ago could decree the destruction of the Roses of Elizabeth's tomb. The vanes of the exterior (on the *turrets*, not the pinnacles) were very similar to those of Margaret's tomb. Carter observed two standards remaining and one of the vanes is shown on the old sketch which he engraved.

Glazing.—A few fragments of painted glass which remain here and there are sufficient to show what the original scheme was like, even if it is next to impossible to imagine its beauty when complete.

This glazing was in part, as we shall see, destroyed in the Cromwellian period, and again it was subject to injury and loss in the eighteenth century. Of this later time John Carter wrote: "The whole of the basement part of this chapel is in a damaged state. The windows are broken, their lower divisions stopped up and their mullions hacked. Viewing the windows of the upper story I noticed that their mullions were kept from falling by boards. . . . Wish for an instant to see the place as at first, unsullied by dust and cobwebs; see the whole in perfect repair; the stopped up broken windows shining resplendent with their full assemblage of painted glass; its aisles and chapels unencumbered by intrusive modern objects; a monument of royal mortality. Our sight becomes distracted, our comprehension loses itself in this labyrinth; our senses forsake the clue of reason, and we sink



Fig. 4.

entranced into a state of unutterable delight. . . ."

Six of the windows on the south and one on the north side in the upper tier have been banded. Several of the eastern stalls are modern and are tolerable imitations. The first small chapel on the north side has its screen destroyed in part. The centre chapel, in which one statue is gone, has no determinations to give a situation for an altar. The fifth chapel: one of the statues is gone, and the screen nearly destroyed. . . . Some small portions of the painted arms and devices in the windows are yet visible; and in particular in the high east window a good figure. It is rather surprising as these paintings continue to be a general mark for stone-throwers, that a particle of them is in being. . . . The collection of statues represents saints and a small one on the stall on the left of the entrance is pointed out as the portrait of Henry himself" (*Gentleman's Magazine*, 1799).

The story of the destruction of the glazing under the Commonwealth may be gathered from the XIVth Report of the Historial MSS. Commission (Appendix, Part II, Welbeck MSS., 1894).

Among payments for "cleansing out pictures" at the Abbey in 1644–5, the following items appear:—1644, April 19—Receipt for 6s. by Thomas Gastaway from Sir Robert Harley for taking down the high altar of Henry the Seventh's Chapel. Sep. 30—. . . taking down the pictures in Queen Elizabeth's Chapel and carrying them to Sir Robert Harley's House.

1645, June 9.—Receipt by John Rutland from Sir Robert Harley of £10 towards glazing Henry the Seventh's Chapel with white glass.

July 15, £10. Aug. 8.—Receipt by John Rutland of £15 from Sir Robt. Harley towards glazing work done in Henry the Seventh's Chapel. (The account includes 498 ft. of glass in the west window, and 360 ft. of glass in the three east windows.) Sept. 11.—Do. for glazing work in do.

This sad record to some extent confirms *Mercurius Rusticus* (1685): "Sir Robert Harlow breaking into Henry VII's Chapel, pulled down the Altar Stone which stood before the goodly Monument of that King; it was a curious Touchstone, a Rarity not to be matched; there it stood for many Years, yet it did not escape the frenzy of this Man's ignorant zeal, for he broke it all to Shivers."

This is the purging celebrated in the pamphlet "God's Ark over-topping the World's Waves" (1646): "For the gaudy guilded Crucifixes . . . and Pictures placed and painted thereabout where the sinful Singing was used . . . now a thick throng of pious people . . . what a rich and rare alteration." (Dean Robinson's paper *W. Abb. in the XVIIth Cent.*). From the fragments of old glass still in the windows and from the glazing of King's College Chapel, Cambridge, which is known to have followed the Westminster scheme, we are able to understand the original arrangement at Henry VII's Chapel. The Westminster windows were undertaken about 1510, and the Cambridge windows about 1516. Of the latter we are told: "In this year an agreement was made between the executors of Henry VII and the provost of the College regarding the windows which were to be glazed with images, stories, arms, badges and other devices. In a contract for completing the Cambridge glazing, dated 1526, it was agreed that the windows are to be set up with good, clean, sure and perfect glass and orient colours, and *imagery of the Story of the Old and New Law after the form, manner and curiosity and cleanness in every part of the King's New Chapel at Westminster.* From a second contract of the same year we learn that Barnard Flower had originally contracted for the Cambridge windows, and had been several years engaged on the work. Since he alone was at first employed on so large an undertaking it seems likely that he was the popular man of his day, and possibly had been the painter of the West



Fig. 5.

minster windows." (*Archæol. Jour.*, Vol. XII.) According to Dr. M. R. James Barnard Flower, the King's glazier died in 1525 or 1526, having by that time completed four windows at Cambridge.

In his will Henry VII directed that the Westminster windows should be glazed with "stories, images, arms, badges and cognisants."

Now the King's College windows contain *stories* (subjects) from the Old and New Testaments, arranged as types and anti-types, *images* of prophets, &c., called "Messengers," and *arms, badges*, &c., in the tracery. The windows both at Westminster and King's College are of five lights in three and two tiers. At the latter the Gospel series occupies the lower row, and the Old Law the upper row, except for the central light in each case which contains a "Messenger."

The ancient glazing of the tracery at Westminster, and one figure which still exists now in the upper eastern light, correspond entirely with the King's College scheme. This remaining figure at Westminster is obviously a "messenger" like those at King's College. About sixty years ago it was pointed out that when this figure was examined through a glass it was seen to be "the prophet Jeremiah under a canopy holding a scroll and altogether 'a match' for the Messengers in the Chapel at Cambridge. This is a curious instance of a reflex light being thrown upon glass once a standard in the country, but now lost." (*Archæol. Jour.* XII.) In 1911 I was able to see this light from a ladder and to make a rough sketch of the head (Fig. 5). The figure or rather three-quarter figure, rises from a panel or predella of white glass with yellow stain, in which is a little figure of an angel under an arch holding a scroll inscribed *Jeremias pph.* The prophet is in a ruby robe and is set under a white canopy on an emerald ground. On the scroll is written *Patre*[*m*] *laudate nomen domin*[*i*].

We may now say that the upper windows at Westminster contained the Gospel story with parallels from the Old Testament, together with messengers of bigger scale in each window, except that the east window would have had the Crucifixion only. At Fairford again the scheme is very similar, and the fine Crucifixion window now in St. Margaret's Church close to the Abbey repeats the same type of composition. Of this window, indeed, there is a story that it was made at Dort in Holland and sent to Henry VII as a present for his chapel (*see* Westlake's *Stained Glass*, where the story is doubted). The exact evidence, however, is against such a theory, and the window appears to have been made for the chapel of New Place, Essex, as rebuilt by Henry VIII, and to be the work of the successors of Barnard Flower. (In regard to foreign influence on glass work at this time see the excellent recently issued *English Industries of the Middle Ages*, L. E. Salzman: a book full of freshly gathered facts on English craftsmanship.) There cannot be a doubt that Barnard Flower was the glazier of Henry VII's chapel. In the Egerton MS., and the other accounts mentioned above, he appears working for the King long before the chapel was ready for glazing. There can be no doubt that the clerestory windows of the chapel contained stories from the Old and New Testaments and a series of "messengers" leading up to a Crucifixion filling the east window directly above the Majesty in sculpture. Glass and sculpture represented the whole teaching of the Church. All had meaning: it was an encyclopædia.

At King's College Chapel, according to Dr. James, the two north-western windows are those usually attributed to Barnard Flower: "they contain the best and most delicate drawing in the chapel."

In Westlake's work on stained glass it is shown by comparing the little figure in the predella with one of the bottom panels in the earliest window supposed to be by Barnard Flower in King's College Chapel that both are by the same artist. (A similar treatment is found at Fairford.)

At King's College the badges in the tracery include the Lancaster Rose, the Hawthorn Tree, Portcullis, Fleur-de-lys, York Rose, and Initials H.R. and H.E.

At Westminster the original glazing of the quite small openings in the traceried heads of the clerestory windows yet remains in large part. In the four central piercings of each window are the four *quarters* of the Royal coat of arms, while the still smaller piercings round about are filled with bright coloured glass unpainted; small quatrefoil forms have a disc of ruby at the centre of four pieces of smoky blue—very simple and very effective.

The great west window, which is no less than fifteen lights wide, had tiers of figures under



FIG. 7.

canopies on red and blue grounds, and in the tracery, angels, heraldic badges and initials. The badges, portcullises, roses, fleur-de-lys, prince's feathers were on ruby and blue grounds; the initials are H.R. and H.E. for Henry and Elizabeth. The large lower windows in the five radiating chapels must all have had badges in coloured panels set in diamond glazing, such as are now found in the eastern window. The badges themselves are authenticated by sketches in the Powell collection at the British Museum, with the note: "Taken before the recent repairs." In Fig. 6 I give

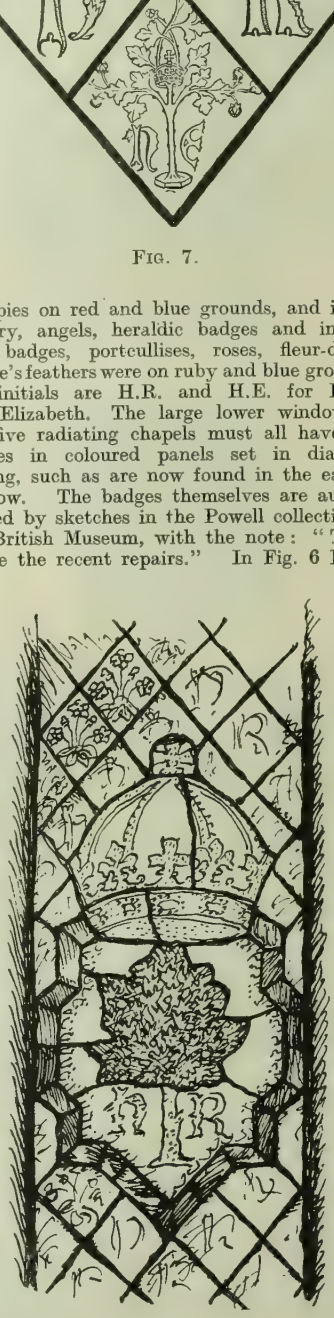


FIG. 6.

a rough restoration of these badge-panels in relation to the diamond glazing. It will be seen how easily the pretty form was obtained from the conditions.

The tiny little tracery piercings along t top lights are set with morsels of blue and ru glass, as described before. Badges are now on to be found in the central chapel; but, as t windows of the other radiating chapels ha the red and blue along the upper lights, wh they are otherwise the barest in the wh building, it may not be doubted that th also had these extremely effective badg A few similar badges are now in Jericho parlo

Keepe (1683), after speaking of "the fi wrought wainscot" of the stalls, adds: "n are the windows, where with this chapel further embellished to be neglected, eve light being composed of diapered and we painted glass, each pane containing either [t form of] a red rose, the badge or cognizance the house of Lancaster, or a text H, t initial letter of this King's name, each crown with a royal diadem."

Hatton (1708) wrote: "The windows in th N. and S. aisles are painted with the Flower lis, Rose, Portcullis crowned, and anoth [window] at the W. end of each aisle."

Neale says: "At the present time but fe panes are thus ornamented, much of the gla having been broken or ruined while the chap was in a state of dilapidation. What remai has been distributed in the different windows Formerly, he continues, several of the pan had daisy-plants and others an initial H su mounted by a crown with a branch goi through it.

Painted quarries are now only to be foun forming a row at the top of the plain diamon glazing in the aisle windows; these have th crowned letters H. and R. alternately. Fig. is from some quarries in the South Kensingt Museum, which look as if they must have bee "collected" from Henry VII's Chapel when was being "restored." In the present glazin of the lower east window there are also son fragments of the old quarries; one is a near complete daisy plant design (*see* Fig. 6), second is part of a thorn tree and crow device (Fig. 7). Another is a crown whi looks as if it might be part of the por cullis quarry (Fig. 7). Doubtless, Keepe w literally true and every pane had its devic Compare the lower windows at King's Colle Chapel. These badges, devices and initials a delightful elements for repetition. The glazi was as fresh and interesting as the other par of the chapel and worthy of the brazen chant in its midst. Altogether, as William Mor said, the chapel was "the most romantic wo of the late Middle Ages."

THE ROYAL INSTITUT OF BRITISH ARCHITECT

PROPOSALS AGREED BETWEEN THE COUNC OF THE R.I.B.A. AND THE COUNCIL OF T SOCIETY OF ARCHITECTS FOR THE AMALGAMATI OF THE TWO BODIES.—The following membe of the Allied Societies' Conference, who we unable to append their names to the letter se out before Easter to members of the R.I.B. and signed by the Members of the Council a by members of the Allied Societies' Conferer have informed the Secretary of the Roy Institute that they desire to support the Cou cil's proposals:—J. Leighton Fouracre, Pre dent, Devon and Exeter Architectural Societ G. D. Oliver, Chairman Cumberland Bran Northern Architectural Association; D. Galloway, President Dundee Institute Architects; W. S. Purchon, Past Chairm Central Branch, S.W.I.A.; C. F. Ward, Cha man Eastern Branch, South Wales Institute Architects and Vice-President of the S.W.I. Frank S. Swash, Vice-Chairman Eastern Bran South Wales Institute of Architects; G. Vince Evans, Chairman Northern Branch, Sou Wales Institute of Architects; Mr. T. Alw Lloyd, Chairman Central Branch, S.W.I.A.

R.I.B.A. INTERNATIONAL CONGRESS ON A CHITECTURAL EDUCATION.—The Duke of Co naught has consented to become Patr of the International Congress on Arc tectural Education to be held in Lond from July 28 to August 1 next.

LONDON TRAFFIC.—II.

By MAJOR HARRY BARNES.

have seen that the Bill gives power Section 6 to attach conditions to of licences plying in the City of n and the Metropolitan Police District, ave noted what they are.

t one which enables the Licensing rity to refuse a licence to ply on an roved " route (that is, a route on which icensing Authority has defined as being n which a regular service may be run) e the bus is not suitably constructed or ed, would seem to carry with it certain ary implications. The Licensing rity must either lay down general rules verning the construction and equipment nibuses, or else specify them more par-ly. It would be unfair and lead to ry administration to leave bus con-rs in the dark on a point so vital, and t them to the expense of constructing a hat was afterwards turned down be-of reasons which might have been met constructor had been previously in-l. It is no doubt necessary to take pre-ns for public safety, but vigilance will e to be exercised to prevent these regula-stereotyping bus construction and pre-g improvements in it, and also in design. rue there is to be the right of appeal on oint, but that does not meet the case I aised.

further powers to be granted to the er make this point of still further im-ce. Let us see what they are. Let us e a bus constructor has got his bus , but with the condition that it must regular service; what follows? Within ned period, at the discretion of the er, he must deposit with the Licensing ity a schedule showing the " approved " on which he proposes to run his omni-hen he proposes to start and end each ne times of running and the number of ne means to run. On this being done, edule comes into force; but see what . The Licensing Authority must send of the schedule to every person running lar service on that route, and such may, within some defined period, fixed y the Minister, appeal to him saying: here. The Licensing Authority has more buses on the route we are on. We've been looking at the e, and we think that, considering the of buses these people are going to run, ght to give a better service, either all g or at particular times; or we think se people are going to run more buses re needed to give the service they " The Minister then, after hearing bus service and the new one, may, if s fit, amend the schedule.

is a curious provision, and, taken with the one already dealt with, seems to make the way of the new bus as difficult as possible. Mrs. Beeton the enterprising would-be cook, " First our hare "; the London Traffic Bill the enterprising would-be bus pro-" First get on to the road." The lf is to pass a test, and then the e " that the bus is to undertake is to test as well. In the first case the to sit in judgment on the bus is bly the Licensing Authority. In the ase the persons to sit in judgment on ervice " are his rivals on the route. e that in both cases an appeal to the is allowed; it is questionable if the should not go to a more judicial in fact, it would probably be decided chairman of the Advisory Committee other official of the Ministry of Trans-

hole of Clause 6 seems devised to make blishment of a bus service in the of London competing with that of .O.C. as difficult as possible. It is devised to prevent " surprise " opera-tions. The way it must work out is that the whole plan of operations of any concern that proposed seemingly to compete with the L.G.O.C. must be disclosed to that body down to the last gaiter button. Such a concern would have to have reasonable assurance that the type of bus it proposed to use was " suitable," that it would be allowed to ply on " approved " routes, and that the conditions of " service " were not so " onerous " as to make them impossible of performance. Its scheme would be submitted to the searching criticism of its rivals, and it is not easy to believe that under these conditions the establishment of any considerable competitive system to that of the L.G.O.C. in the streets of London is possible. That may perhaps be said to be a merit and not a defect to the London Traffic Bill. To carry the largest amount of traffic in the smallest number of omnibuses may be said to be not only in the interest of the L.G.O.C. but also of the travelling public. That contention, perhaps, need not be resisted, but to let it pass still leaves it possible to point out, and with truth if not with force, that the effect of the London Traffic Bill is, while leaving the appearance of competition in bus traffic in London, will make it in effect a monopoly of the L.G.O.C. I am one of those who believe that when a service has reached the point of only being economically possible under monopoly conditions, it should pass into public ownership. That does not necessarily imply public management, and it may be that the wisest course to follow would be to effect a combination of London traffice services under public ownership and private management. That will be a question for the Advisory Committee to consider, but it is well at the outset that the jargon of the London Traffic Bill should not obscure its effect, which is to make competition in bus traffic facilities practically impossible in London.

How true this is will be seen on passing to clause 7 of the Bill, where the Minister actually takes power to limit the number of omnibuses plying in certain London streets. Look at them. If you have a narrow street or a street with very dense traffic on it, or if there are alternative facilities for carrying passengers (*i.e.*, trams) on it or near it, or if bus accommodation on it is " excessive " (however that may be determined), then the Minister may declare it a restricted street. Having so declared it, he may then go on to say, " Buses may not ply here at all, or only at certain hours, or only for a certain number of journeys." Having said that, he may go on to select the favoured bus proprietors who may have enjoyed these restricted privileges, if any, sharing them out for more than one, and finally he may give the Licensing Authority power to enforce these regulations. Before he goes so far he must give notice to persons affected of his intentions, and must refer it to his Advisory Committee for their advice and report, but the final decision rests with him.

There can be little doubt that this " restrictive " action, together with that of defining " approved " routes, will be taken at once after the passing of the Bill, and there can be as little doubt that the result of both must be to transfer the L.G.O.C. from the position of being the practical monopolists to that of being the actual monopolists of bus traffic in the principal London streets. To make this comment is not to be taken as passing censure on the result of the Bill. It is a perfectly natural one. First come is first served. The L.G.O.C. have gradually built up a huge service greatly to the benefit of the travelling community of London, and presumably, and quite legitimately, somewhat to its own. It is possibly not within the realm of practical traffic politics to allow a riot of bus competition in central London, and if there has to be choice in this matter there can be no question where the choice must lie.

When all that is said and done, however, the fact remains that the London Traffic Bill will confer a new status on the L.G.O.C., and must make them the chartered licensees of London. The really practical attitude to take towards the Bill is not to resist an inestimable movement towards traffic control because it does not move quite in the direction that is desired, but to make it plain that the results of the Bill are clearly seen, and to insert provisions in it that are not yet to be found there to ensure that the privileges granted by licences issued under such conditions do not become assets of the company that at a later date may be required to be purchased back at enhanced values by the very authority that has created them. As a matter of fact, Clauses 6 and 9 want to be treated exactly as if they had appeared in a London and General Omnibus Company's Bill, and given exactly the same consideration and even-handed treatment, no less and no more.

Apart from the duties of the Advisory Committee in connection with the second schedule of the Bill, duties so considerable that they can result in no action until further Parliamentary powers are taken. The last important clause of the Bill is No. 10, which gives power to the Minister to make regulations for the purpose of relieving congestion and facilitating traffic in the London traffic area. The subject matter of these regulations are set out in the third schedule, and are of the most comprehensive kind.

They deal with the originating of traffic and determine the conditions under which goods may be collected, delivered, or otherwise handled; the limits of weight that may be carried; the routes that may be taken; the places where vehicles may stand, where they may turn, when, where and how they may cross each other.

Stopping or moving, turning or continuing, loaded or unloaded, whole or broken down, attended or unattended, from their goings-out to their comings-in, vehicles will be regulated and controlled by a ubiquitous, omniscent and omnipotent Minister. Not only vehicles, but animals—horses, cattle, sheep, and other animals—the harmless sandwich-men, those persons who wait for vehicles or to see Miss José Collins or anyone else in whom their heart delighteth—all are to be regulated by him. Well, Well. No doubt good sense will prevail, and the regulations will be wise and sensible, not irritating and aggravating, but leading to the comfort and convenience of all. So may it be.

Government's Housing Scheme.

The meeting of members of the House of Commons, which Mr. Wheatley arranged recently in order that they might discuss with representatives of the building industry who signed the recent report any points they might desire to raise in connection with the housing scheme, has been postponed until May 12.

Messrs. Barkers' New Premises.

Atthe invitation of Messrs. John Barker & Co., Ltd., a visit recently of architectural students (55 in all) to the new store now being erected in Kensington High-street, was arranged. Mr. H. L. Cabuche, architect to the Company, introduced the students to Sir Sydney Skinner (chairman), Sir John Anderson (Messrs. P. & W. Anderson, contractors), and Mr. Steinberg (Considere Constructions Co.). Sir Sydney Skinner explained his views on the lay-out of the new store and the various methods by which it would be connected through subways to the different branches and to the dock and administrative quarters. The original intention was to absorb No. 1 Palace Green, but it was felt necessary to retain this building as it was a specimen of the late Philip Webb's work. Sir Reginald Blomfield was asked to design the exterior and to collaborate with Mr. Cabuche, who was responsible for the planning, construction and the interior of the premises.

TOWN-PLANNING CONFERENCE AND EXHIBITION

The decision of the Town Planning Institute to hold this year's annual conference at Wembley was a good one. And the exhibition which has been arranged in the Palace of Arts will help to arouse popular interest in town planning and the larger and really more important question of regional planning.

One has, however, two regrets: Firstly, that the Exhibition in the Palace of Arts is only accessible on payment of another sixpence and, secondly, that an attempt to visit it entails unnecessary and irritating delays owing to the regulation compelling visitors to deposit hats, sticks and overcoats in an entirely inadequate cloakroom.

We noticed, even on the first day of the Conference, that many intending visitors abandoned the attempt. This is the more to be regretted because the exhibition itself is well arranged, and certainly the best we have yet seen of its kind.

The question of the papers which form the business of the Conference is a difficult one; it may be said that the subjects should have been selected with more regard to the outside and popular world who are not town planners, architects, Town Clerks, Borough Engineers, or otherwise qualified as "delegates," but it may be objected by those who know that even had a "popular" programme been possible it would have failed to attract the ordinary visitor, and would not have had the same interest for the official delegates.

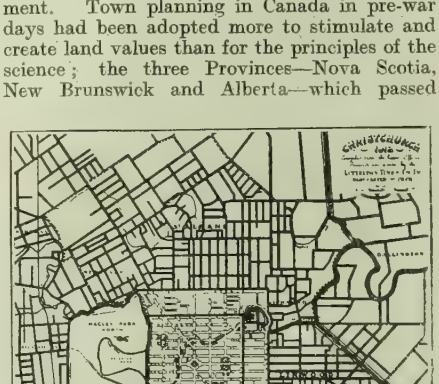
This is probably an accurate view, but if we admit this is so it certainly demonstrates the fact that the chief need at present (and for years to come) is, not so much to preach to those who are already converted, as to devise some means of interesting the ordinary citizen and proving to him that town planning is as much a matter of vital concern to him as is housing.

We wish, for instance, that representatives of the big firms from the adjoining Palace of Industry could have been invited to attend the Conference, and take part in the discussions.

The proceedings opened with the inauguration of the exhibition by the Right Hon. John Wheatley, M.P., Minister of Health, who in the course of a brief speech referred to the importance of Regional and Town Planning in securing better conditions for the people of this country and the Empire generally.

At the afternoon session the chair was takenby the Rt. Hon. Sir Joseph Cook, P.C., G.C.M.G., who said he thought it was particularly fitting that this conference should be held at their Empire Exhibition, for Town Planning was a democratic idea. The town planner was a missionary of sunlight and fresh air, and one whose object was to improve the conditions under which the peoples of the Empire lived; therefore he thought they were real missionaries of Empire. He ventured to suggest that their aim should be not the creation of terraces of identical appearance, but to preserve the individuality of the home.

The first paper, by Mr. Thos. Adams (who was unable to be present), on "Town Planning in Canada," was read by Mr. Thompson, who said Mr. Adams attached great importance to rural town-planning as opposed to urban development. Town planning in Canada in pre-war days had been adopted more to stimulate and create land values than for the principles of the science; the three Provinces—Nova Scotia, New Brunswick and Alberta—which passed

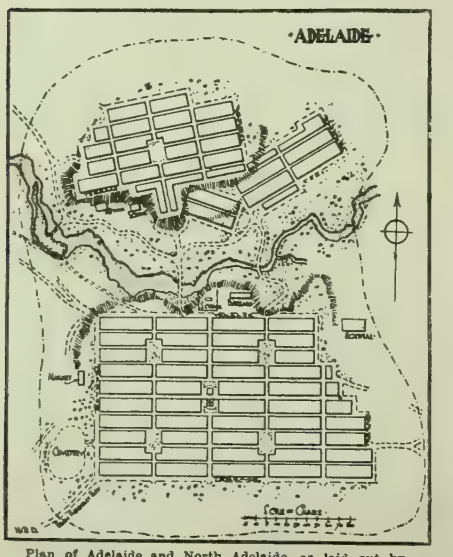


Plan of Christchurch, New Zealand.

town planning Acts prior to 1914, adopted the English Act of 1909 almost as it stood and, as subsequent experience had shown, without sufficient consideration of local needs and conditions. It was probably accurate to say that in the immediate post-war period town-planning had been prosecuted with most vigour in Canada than anywhere else. Special opportunities, such as the establishment of new industries in Newfoundland, had been properly used, and town-planning experts called in to plan the new towns which had thus come into being. Similarly the explosion, which in 1917 had destroyed a large portion of the city of Halifax, had provided an opportunity for replanning the city, which had been used with excellent results. In Canada to-day town planning was almost entirely in the hands of the provincial governments and local authorities, and although this had certain advantages, it was a misfortune that the withdrawal of the Federal Government from active participation in town planning had terminated the activities of the Commission of Conservation; since the war attention in Canada, as in other parts of the Empire, had been concentrated on housing and site planning, and there was a tendency to switch over from the gridiron type of planning to that following natural features and contours.

An important result of this, which had been emphasised in a recent lay-out, was that no such scheme could be successful without some form of architectural control over the buildings to be erected.

Mr. Lanchester then read an abstract from his paper, "Town Planning in India," and said the enormous difference in the character of different towns in India was not realised in this country.



Plan of Adelaide and North Adelaide, as laid out by Col. Light, 1837. (Both town and suburb surrounded by park lands.)

Plan of Adelaide, 1837.



Dunedin, N.Z., laid out with "town belt" of public land surrounding the town

Plan of Dunedin, New Zealand, 186

What they had to consider could perhaps illustrated by recording the fact that there w no fewer than sixty languages (as apart fr dialects) in India, and almost as many ra differences and styles of architecture. Perh the most marked difference was that betw the cities and towns of the interior and the s ports, which were "Colonialised," and had m European characteristics than the other tow Town planning in India was not easy, chi because there were so few people who wis to put up good buildings. One of the c difficulties encountered was due to the syst of irrigation, common in the low-lying distr of tanks connected by canals. These having many cases fallen into a decayed state w filled in, but no provision was made for deal with the water which collected as a result of heavy rains, often with serious results. One the problems of the town planner was the storation or diversion of these systems irrigation.

Town-planning work in India started fro different basis from our own. In England it regarded as primarily the organisation of n developments, whereas in the East it star from health measures dealing with insanit and over-crowded areas. Before the initia of schemes a good deal had been done in clea plague-ridden districts and opening new str while plague camps were a recognised sani measure, but apart from these, rehousing not received adequate consideration, with result that new slums were constantly grow up in lieu of the old. Thus it became obv that a more comprehensive programme demanded and this naturally led to one dea with the town as a whole.

The earlier clearance schemes were of m too ruthless a nature, unduly destructive of property and of the character of the to roads being cut straight through conge areas, without regard to existing sites street alignment. This was in large mea due to the fact that the operations were in hands of civil or military officials wit special training in this type of work. M over, extensions were laid out from " designs " on the same rectangular lines reg less of site and levels so that they were needlessly extravagant. When these de of system began to be appreciated, ex advice was sought and steps were taken to se less haphazard procedure.

Mr. W. R. Davidge, in a paper on "T Planning in Australia and New Zealand," that the chief thing to bear in mind was difference in the climatic conditions; wh in England we wished to get all the sun possible, in Australia and New Zealand problem was rather to provide shade and air. A serious aspect of the problem, fro point of view of the development of countries, was the fact that nearly half population was an urban one; this pro was being solved, he thought, by the settlement scheme. Probably no other co in the world had been so thoroughly and ently town-planned as Australia. Ade with its encircling belt of park lands, and Sy were examples of this pioneer work. In l out towns what usually happened was th in Melbourne, the main roads were ma chain (66 ft.) or 1½ chains (99 ft.) wide Melbourne the back streets were laid down



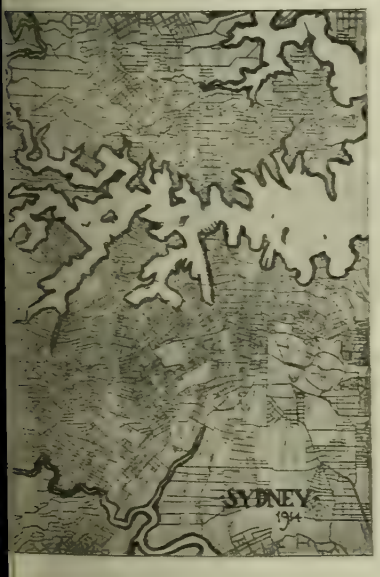
Plan of Melbourne, 1855.

th of 33 ft., but now these had become, ny cases, important streets and this width o longer adequate.

thought the genesis of the grid iron type n was due to the influence of the surveyors ruled the land in more senses than one." st these were laid down on lines governed me natural features, such as rivers, &c., ter the north and south lines were followed. wished to congratulate the town of Sydney ving the most excellent service of rapid transport, which was more efficient than and transport could hope to be.

the big cities in Australia were faced with ame difficulty of a multiplicity of local rities, and were trying to solve this in ame way as was being done at home by rences which he hoped would lead to the on of joint Town-Planning committees ifferent regions.

th regard to New Zealand all the large towns ally had belts for park lands, but unfor- ely some of these had been sold or built This, he thought, demonstrated the not only for creating such belts, but for ving them. In New Zealand it was cally impossible to have a curved street, se the compass bearings of all streets o be given before they were approved. ew Zealand, the banks of all rivers and ns were preserved and could not be built for a width of 1 chain on each side; was also a special department set up by lovernment to preserve natural amenities.



Plan of Sydney, 1914.

Discussion.

Sir Joseph Cook, who opened the discussion, said he did not think Mr. Davidge had missed one of their mistakes or weak points.

Mr. Taylor (of Sydney) moved the vote of thanks to readers of papers, and said that town-planning started in Australia about 10 years ago, and was inspired by the work done in England. Mr. Taylor described the development which had taken place in Australia and concluded with a brief reference to traffic congestion in London.

Mr. Miriams (of Bombay) seconded the vote of thanks and referred to the special difficulties and vastness of the town-planning problem in India. He expressed the view that the problem could only be satisfactorily solved by town-planning, even the smallest villages, and subsequently controlling any extensions that occurred.

After some further discussion, the proceedings terminated with a cordial vote of thanks to Sir Joseph Cook, who briefly responded.

EXHIBITION NOTES

THE ARTIST-CRAFTSMAN GROUP.

We welcome such exhibitions as this, which are rather sale rooms for a very human sort of merchandise, a direction for craftsmanship away from its more detached and artificial atmosphere to one taking its place in the community on the general level of life, and deserving of support because it tends to improve it. But though allowing for the natural impulse to state a good case for themselves—which is really not needed—the statement of this group is perhaps open to the criticism that it does not assist the claims advanced through it which are better substantiated by the work itself. It seems difficult, however, for any movement of the kind to avoid a challenge to other directions of work, and the habit of contrasting their work to the detriment of other points of view is rather beside the mark. The catalogue informs us that "they follow the tradition of the rank-and-file mediæval craftsman, and prefer to make simple and comparatively inexpensive pieces for the home than elaborate demonstrations of technical skill for the collector's cabinet or the museum"—but the work of these aforesaid mediæval craftsmen is what largely fills our museums, and it is not technical skill or elaborate production that is to be gainsaid, if bestowed for a worthy purpose.

Coming to the work shown by this group, it is seen to be of considerable merit, in many cases very sound in direction and full of vitality—though an exhibit of metal work appeared to us rather trivial. The Oxshott hand-made pottery of Denise and Henry Wren is good in colour, has that agreeable quality of surface that we associate with mediæval pottery, and is full of variety and atmosphere. If a criticism is to be made, it lies in the too easily extended variation of shape without the searching for ultimate form which grips us by its inevitable character. The failure of hand-made pottery is not so much in craftsmanship at the present time as in significance of design, and a more humble study of ancient examples would correct this. Craftsmanship is not enough; we must reveal also what cannot be taught. The facilities of the former are comparatively easy to reach, but there is also required the searching through treatment for that kind of beauty which in the best is intuitive and transcends method. These remarks no doubt apply to all art expression; but with these new handcraft industries, with a fine future, we believe, before them, a high standard of form and treatment rather than exuberance is their chief requirement. Because we are reaching a better craftsmanship, we must not put the first last or forget that a deepened beauty will react on craftsmanship to further its resources. In this respect there is so much to be learned from the best ancient examples that we should like to see this new handcraft work of such excellent promise founding itself more evidently on traditional example, "writing over the old the spiritual expression of the new."

The exhibits of the hand-weaving industries, which are amongst the best of the crafts shown, should be seen by all who desire beautiful fabrics. The Distaff Cottage Industry, the weavings and embroideries of Miss Clary Hahr, Kensington, and those of May Holding, Sutton, near Pulborough, are on the whole excellent in colour and texture; while a certain distinction rests over the materials with which mass production cannot compete. These beautiful materials, so adaptable for dress or furnishing, can be obtained at prices which are in no way exceptional, and we noticed as of charming quality some coloured linen materials on Miss Hahr's stand at 4s. a yard.

These beautiful handcraft materials effect a most valuable influence on ordinary manufacture, which, quick to adopt any attractive quality to sell the goods, is seen to receive an impulse from such, and the workers in these industries are doing a public service in the influence their work bestows over ordinary mass production—though we fear the manufacturer is more ready to take advantage of such example than to acknowledge its indebtedness.

Hand-wrought jewellery of considerable charm in design and craftsmanship is shown by Miss Dowie Nossiter: stones are well harmonised with their settings and the proportions rightly felt, while there is seen the influence of traditional example preserving the work from any "new art" tendency such as is seen to haunt some modern work of the kind. The advantage to the buyer of jewellery of this more personal craftsmanship is so great that it is difficult to understand that anyone having the choice between it and the ordinary commercial work could hesitate for a moment, and the prices at which the work is sold are extremely moderate. Miss N. Casella's coloured table-glass has merit in that the design, though not of much originality, shows good taste, and the patterns are well distributed. We think, however, that there is too much yielding to the easier, but less intrinsically good results of opaque colour. There is a loss of the glass quality in this, and it misses the charm of translucency. The craftsmanship for this is no doubt more difficult, and the loss in firing considerable, but the glass which does not retain its clearness under the colour has suffered a loss both to the colour and the glass, and it should be the aim of the craftsman to overcome this if the finest results are to be secured. Space precludes from mentioning other examples of lacquer printing, etc., but the little exhibition is well worth a visit as a part of a movement which is distributing its activities in the country, much to the advantage of our industries—because it develops that humanising influence over work, and tends to become a leaven to more commercial production. The exhibition, which is held at Committee Room "D," Central Hall, Westminster, will remain open until May 10.

Manchester Society of Architects.

The annual general meeting of the Manchester Society of Architects was held on April 30 in the Society's rooms. The retiring President, Mr. Francis Jones, F.R.I.B.A., cordially welcomed his successor in office, Mr. Arthur J. Hope, F.R.I.B.A., one of the architects for the recent work at the Manchester Royal Exchange. The result of the election of officers for the Session 1924-5 was announced as follows:—

Council.—Fellows: Messrs. W. S. Beaumont, A. C. Dickie, A. W. Hennings, P. Howard, Francis Jones, Paul Ogden, J. H. Sellers, Isaac Taylor, Dr. P. S. Worthington. Associates: Messrs. H. W. Cruickshank, G. B. Howcroft and W. C. Young.

Hon. Secretary.—Mr. John Swarbrick.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

The New Housing Bill.

Mr. Wheatley informed Sir L. Lyle that he was not at present able to state when the second reading of the proposed Housing Bill would be taken; in accordance with the usual practice a White Paper would be circulated before the Financial Resolution was discussed. He would introduce the Bill with all possible speed.

The Subsidy.

Mr. T. Thomson asked the Minister of Health whether in order to carry out their housing programme, the Government were considering schemes which would impose on local authorities an additional burden of 10d. in the £ on their rates; and, if so, if he would say whether they had had regard to the fact that in those areas where houses were most needed rates were already high, and consequently an addition of 10d. in the £ would effectually deter the erection of more houses; and if they would reconsider this part of their scheme.

Mr. Wheatley said that the question of the housing subsidy was being discussed with representatives of the local authorities, and he would suggest that the Hon. Member should reserve his point until he was in a position to lay the Government's proposals before the House.

Lieut.-Col. Horlick asked the Minister whether he was aware that Sir Theodore Chambers, chairman of the rents tribunal, recently stated in his opinion that the Government housing subsidy was at present being given unnecessarily to some 70 per cent. of the occupants of Council houses; whether he had obtained the advice of this committee in framing his new housing policy; and whether he had considered the suggestions made by the chairman of the rents tribunal that a subsidy should be given based on the number of children in a family.

Mr. Wheatley said he had seen a report of the remarks made by Sir Theodore Chambers to which the hon. member referred, and although he was unable to adopt the particular suggestion made by him as to the basis of subsidy he was considering generally the views he expressed.

The Building Trade Dispute.

Sir Kingsley Wood asked the Minister of Labour whether he could state the nature of the present dispute in the building trade, and whether he was taking any steps to safeguard the Government housing operations.

Mr. Shaw said that following negotiations between the employers' and workers' organisations the latter were taking a ballot of their members. In the circumstances he did not think that it was desirable for him to make any statement on the matter at this moment.

The 1919 Act.

Mr. Greenwood, Parliamentary Secretary to the Ministry of Health, informed Sir G. McCrae that on April 1 173,620 houses were included in tenders approved under the Housing, Town-Planning, &c., Act, 1919. Of these, 169,526 had been completed and 3,760 were under construction. The number of houses completed with the aid of the grant under the Housing (Additional Powers) Act, 1919, was 39,184.

Foreign Materials.

Mr. T. Thomson asked the Minister whether it was the considered policy of the Government that no foreign manufactured goods should be used on houses built under Government subsidy, as advocated by the committee of building materials, manufacturers, and suppliers presented to Parliament.

Mr. Wheatley said that he had noted the opinion of the Building Materials and Suppliers' Committee to which the hon. member referred. The report of the Committee was under consideration by the Government and he was not in a position to make a statement at the present.

Price of Bricks.

Mr. Hardie asked the Minister of Health if he would state what had been the increase in the price of bricks for house building since the present Government took office.

Mr. Wheatley said he would refer the hon. Member to the monthly reports of the Committee appointed to survey the prices of building materials.

Mr. D. G. Somerville: Is the right hon. gentleman aware that there has been a fresh advance in the price of bricks this week?

Mr. M. Jones: Is he aware that the Powell Duffryn Company, one of the richest and one of the greatest producers of bricks, sent up their price of bricks by 5s. per 1,000 six weeks ago?

Mr. Wheatley: I can only say that all the information available on the matter has been published in the reports.

Magnolite.

Sir H. Brittain asked the Minister of Health whether his attention had been drawn to a new building material known as magnolite, the invention of Signor Paulo Marpillero, by means of which it was claimed that eight-roomed houses could be erected in a week at an approximate cost of £350 per house; and whether, in view of the housing shortage, he would have immediate investigation made as to the possibilities of this Italian invention.

Mr. Wheatley said his attention has been drawn to the material named by the hon. Member. Samples had been examined and as a result he was advised that this material did not promise to be suitable for erecting dwelling-houses in this country.

Concrete-Block Houses.

Mr. Hardie asked the Minister of Health whether he could now make any statement upon the investigations made regarding concrete-block houses in Clarkston, Glasgow.

Mr. Adamson, who replied, said the concrete-block houses in question had been examined on behalf of the Scottish Board of Health, and a favourable report had been received of their construction.

Empty Houses.

Sir L. Lyle asked the Minister if he would, for the information of the House with his housing proposals, give statistics of the empty houses built with or without the Government subsidy which were now held for sale throughout the country and not for letting; and whether he had considered the possibility of dealing in some way with this practice.

Mr. Wheatley said that as the number of empty houses held for sale was constantly fluctuating he was of opinion that the value of any statistics, if obtained, would not be commensurate with the labour and expense involved by their compilation. The point referred to in the last part of the question was at present under consideration.

Government and Evictions.

In reply to Sir Kingsley Wood, who asked whether it was the intention of the Government to bring forward any further proposals for legislation relating to evictions or rent restrictions, the Prime Minister said that the Government had not, since a majority of the House declined to allow their proposals to go to a Committee, decided to bring in any further proposals for legislation relating to evictions or rent restrictions.

In answer to Captain W. Benn, the Prime Minister said that the Government had come to no decision as to the Distressed Tenants Bill.

Prevention of Evictions.

The Liberal Prevention of Evictions Bill has passed the Report stage and has been read the third time.

Sir Kingsley Wood moved a proviso that in a case where either the tenant or the landlord was an alien, if the Court was of opinion that the hardship in each case was equal, the benefit of the doubt should be given to the Britisher. Liberals and Labour members, however, opposed the amendment, which was rejected by 185 votes to 140.

The Report stage was then concluded and the Bill read the third time.

THE ARCHITECTS' A SURVEYORS' ASSISTAN PROFESSIONAL UNIO

At a well-attended meeting of the A tects' and Surveyors' Assistants' Profes Union, held at Olympia on April 25, M Topham Forrest, F.R.I.B.A., Architect London County Council, speaking upon Modern School and the Future Race," in the Metropolis there were nearly public elementary schools, in which 70 children were being taught. There sixty-one central schools with accommod for over 20,000; sixty-seven secondary s attended by 31,000 boys and girls, and 260 technical schools and evening insti with 200,000 pupils, all of which were tained or aided by the London County Co

The subject divided itself into two p (1) the school of to-day and (2) the t to-morrow.

The first thing the School Board req when it begun its work was the provisi suitable buildings. At that time church were commonly used as schools, it being sidered that any building was suitable fo purpose. To-day in London there were school buildings which outwardly sugg their purpose. Spacious playgrounds, s halls and classrooms, proper light and ven tion, were obvious everywhere

Each senior scholar had 10 sq. ft. of space allotted, and 9 sq. ft. was given to infant. The window glass was equal to fifth of the floor space. Cleanliness was evi everywhere. In secondary schools the space was from 16 to 18 sq. ft. per schola

The schools were designed not only for child but for the teacher. The number children now allowed per teacher did not ceed sixty, but the London County Cou considered that too many, and at a cost five million pounds it had provided for forty scholars in the senior department forty-six in the infant department under master.

The architect must also play his part suiting the schools for the various subj now taught the children. In the second schools the training might be described as human, (2) physical, (3) practical, and social; and in designing such schools the ar tect must bear these in mind. Thus, co-ordination between the various departm the London County Council might well ch to have established a unified and efficient sys of local education.

In rural districts little progress had made, but the first great Act of 1923 steadily bearing fruit.

It is well to remember that the Lo County Council gave £75,000 each year tow the work of the London College, and acti maintained a school of the University, nam the London Day Training College, at a co £8,000 per annum, and gave grants in to about the sum of £14,000 in London, Ox and Cambridge.

At the new housing schemes of Belling and Roehampton, elementary schools had designed on the pavilion type, somewhat the lines of sanatoria. The design had made so that the buildings, by becon affected by new ideas, might be readily alt in size or even demolished at a minimum The extensive playgrounds were worth not

Not long ago gymnasia and extensive pla grounds, etc., would have been consid waste of money, but to-day they regarded t as essentials. The architect, with the tea and the doctor, studied the best method living, health, ventilation, and sanitation that the child's environment should be heal sunny, and cheerful. Medical inspec rooms were another feature of the mo schools.

Something more than learning must be gi the scholars. They must have moral quali which were essential to self-control; they m learn to keep their tempers; and it was these directions that games had their valu

THE BUILDING TRADE

LAND VALUATION AND RATING

a very serious hindrance to any pros- the solution of the housing difficulties addition to numerous Bills dealing with estriction a hint should have been given Budget statement that land valuation e revived as soon as possible, and that te Bill should also have been introduced we understand, proposes that the rate- lue of property shall be its annual value hat is the higher, and that unoccupied y shall be rated on some new basis. ve not at present the terms of this Bill us, but whatever may be the ultimate ls both as to land valuation and rating, be self-evident that what is required case of a depressed industry is a cer- and not continued threats of increased s.

fact is clearly recognised in connection ther schemes for taxation or proposals ference or protection, as the cry is at aised that the cost of certain articles raised to the consumer; but in connec- th housing the fact never appears to be l that at a time when houses are in l, yet the cost is prohibitive, every sug- of taxing land or increasing the of the rates must hinder production o render the product more costly. The es of such schemes at such a time almost appear to think that houses can t in the air, whereas past experience wn that when land taxation is put into both the proposed houses and the revenue to be derived from land taxa- appear into thin air or are Will-o'-the- Confidence and certainty are the two s which are most essential in relation housing of the population, and there n one continuous attack on both these s of late years.

the cost of building which is the serious which has to be considered at the time. The demand for houses would case have tended to put up the price es even if the cost of construction had d as it was; but the increased cost truction, coupled with the increased , has made the price of houses so pro- that some form of State aid has been ecessary in the case of working-class s, and in the case of higher-class a large part of the population cannot ger afford proper housing accommoda- t is not the price of the land that the difficulty, but the cost of labour lding materials; for the land is the terial of the industry, and although e only bears a small proportion to the he building as a whole, any taxation land can only increase the cost of

lis, therefore, a suitable time to taxing the land and increasing the of the rates on property owners? A on one hand and taxation on the other a contradiction in terms. What has imed at is cheapening the cost of but the very mention of such schemes bove must enhance their price, as it onfidence and prevents any enterprise art of private builders who have not the Lumsden case.

as regards rating, so long as Rent on is in force it is obvious that no ory principle can be arrived at in for in Roberts *v.* Poplar Assessment ee (*The Builder*, April 14, 1923) it by the House of Lords, reversing the Appeal, that the restrictions imposed by the Rent Acts were not to be o consideration in the assessment of for rating purposes.

y there seems a prospect of the class dwellings having to be solely at national charges by the munici- palities, and private enterprise has been driven from this field; but it can hardly be seriously contemplated that the housing of the whole population should be nationalised. It is, however, quite certain that a larger proportion of the population is every day finding it more difficult to afford housing accommodation, and if private enterprise is further to be stifled and increased burdens of rates are to be put upon such sections of the population as at present are housed, the problem will become even more serious and increased State aid will be demanded.

As it is, landlords are restricted in the rents they can obtain and at the same time are paying rates for those who are being housed at less than economic rents and supporting unemployment, and a halt must soon be called. After certain historic wars there is a text which seems to bear a different application in these days—" and the land had rest forty years "—that is a text which we can commend to the notice of the Government at the present time, for it is not yet a year since the necessity of registration under the Finance Act, 1909-10, was abolished.

INSTITUTE OF BRITISH DECORATORS

Wall Paper Design.

At a recent meeting of this Institute at the Painters' Hall, Mr. Henry G. Dowling lectured on this subject. In the course of his remarks he said that one of the wallpapers they were exhibiting, dated 1769, was among the earliest to be produced in this country, and like another recently printed, was from an original Chinese painting. It was evident they were soon to witness a reaction on the part of the public in favour of patterned walls. Immediately after the war there had been a demand for relief from drabness, and this relief had been found in extreme design and riotous colour. Nothing in those days had seemed too extravagant in colour arrangement or too wild in motif; freakish and bizarre effects had been the vogue. This phase went out completely, and was followed by a demand for simplicity in colour and design. The average home owner would not live between bare walls; he found added warmth and comfort when those walls were covered with a carefully selected textured or patterned wall paper. Wall paper manufacturers had met the demand for plain effects by producing all manner of pleasing textures, so that there was to-day a choice of papers to satisfy even the most insistent advocate of the plain wall. At the same time narrow borders had become the vogue, but these had now become more pronounced; they were more definite in colour and bolder in design.

The lecturer told the story of the introduction of wall papers into Europe from China early in the seventeenth century, though the Chinese, he said, never used them as wall papers, but rather as paintings on paper. Wall paper as wall paper was really a European development of the vogue created by the importation of the Chinese paintings. The abolition by Mr. Gladstone in 1861 of the paper duty had increased the output and popularity of wall papers, and William Morris had devoted much attention to their design, and had proved by good patterns, right in character and selection of colour, that wall paper designing was worthy of the attention of the best artists. Some of Morris's designs were among those exhibited in the hall, and though the colours were neither few in number nor low in tone, yet they were combined with such skilful judgment that the harmony was perfect. Many of Morris's wall papers were so reticent in colour that they functioned readily enough as backgrounds to decorative accessories. All possessed permanent beauty. In designing he ever kept before him the limitations of the medium in which he sought to express himself, as well as the purpose or use. Such patterned wall paper was again coming in—old designs were being revived and new designs prepared to meet the appreciative reawakening for design and colour. Even the Chinese hand-painted and landscape papers were reappearing—evidence surely that the present generation was inclining to the view that given good line and colour, wall papers were good decorations in themselves. Nevertheless, however high their intrinsic merits, wall papers should be considered in relation to the objects in proximity to them; the function of the room in which they were used should be considered, its method of lighting, its architectural features and general immediate surroundings. Some rooms were required to give the feeling of rest and quietness, others of gaiety and motion.

Of methods of treating, these could be as varied as the ingenuity of the decorator could devise. If a plain or textured paper was to be used, this might call for a border, and this could be treated in a variety of ways. The border could be used to make each wall one large panel, or each wall into a series of carefully proportioned panels. Or, again, the border might be placed below the picture rail only, or with a second border the same distance above the skirting board. It was in this province that they could do with paper what could not be done so well with plain paint; the too lofty room might be apparently lowered; the low ceiling raised; the narrow room made to appear wider, and the room that was too wide narrowed. In all panelling work it was imperative that the decorator be acquainted with the intended disposition of the furniture. The greatest scope was given to the enterprising decorator by the papers which allowed of motifs being cut out from them to build up decorative schemes, such as the apartment would allow and his fancy dictate.

Speaking of colours the lecturer said that yellow was particularly useful for lightening dark rooms—colours composed of a considerable amount of yellow were all luminous and light giving. Blue was retiring and soothing in its influence. In some shades it was cold, but in all it gave spaciousness. Reds of the vermilion order were exciting. They had a tendency to make walls appear nearer, and thus apparently to dwarf the size. All reds had a quality of warmth. Orange was expressive of heat, and if too large a proportion of red entered into its composition it became irritating. Green was restful. Purple was regal, but the most retiring of all the rich colours. Certain colours were associated with certain periods, and if a period decorative scheme was in question should be followed. Even among the best decorators there was divergence of opinion regarding colour and colour-combination, strong colour being a delight to some and a nausea to others. But in every case there was no necessity for white and drab schemes.

BUILDING OPERATIVES

The building operatives have rejected, as a result of the ballot, recently taken, the employers' offer of ½d. an hour increase. The figures are as follows:—

(1) In favour of the employers' offer..	13,462
Against	104,001
(2) In favour of further negotiations..	91,735
Against	34,719
(3) In favour of a strike if negotiations prove abortive	94,114
Against	32,483

NATIONAL FEDERATION OF HOUSE BUILDERS' ANNUAL MEETING

THE annual meeting of the National Federation of House Builders was held at the British Empire Exhibition on Thursday, May 1, Mr. H. R. Selley (Streatham), the President, in the chair. The morning session was occupied by the formal business of the Federation, at which Mr. Selley was elected President for the ensuing year, Messrs. G. F. Darbyshire (Manchester) and A. J. Belton (Sheffield) Vice-Presidents, and Mr. G. H. Brown (Manchester) Treasurer. After some discussion a resolution was adopted that the Federation should approach the National Federation of Building Trades' Employers with a view to arriving at an agreed standard rate of pay for day work labour, reserving intact the well-established customs of the house building trade to establish systems of payment by result. In the discussion it was pointed out that the position of the Federation as a national organisation could only be maintained by its taking its place as a recognised negotiating body and making its influence felt in the consideration of the Government's proposals.

The Committee's Report on the work of the past year was as follows :—

"Your Committee has again to report a year of progress in the work of organising the house-building trade. Progress is necessarily slow owing to the continued impossibility of building houses for sale to the investing public. The maintained cost of building and the threatened extension of control of rents have combined to postpone any great activity on the part of our members and operations have still been confined to building for sale to the occupying owner.

"Since the last annual meeting the Federation has appointed an Assistant Secretary, who devotes his whole time to the work of the Federation and the London Association, and this has resulted in increasing our membership in London to double the number of members. We have also in hand the formation of affiliated associations in many parts of the country where we have no representation, and associations have been formed or are in process of formation in several important centres.

"The Federation has taken an active share in the work connected with the Housing Act, 1923, which was passed in August last, and which revived the principle of a subsidy to private enterprise. The Act was very largely based on the lines we had advocated, and it offers an opportunity such as the private builder has not had since the war of building for sale to the owner-occupier. It is gratifying to record that from the passing of the Act to March 12 last certificates for the grant of subsidies to private builders were issued for 70,000 houses, during this period the Government grant to local authorities for municipal schemes was authorised for 39,381 houses. We have carried on an unceasing agitation for an efficient grant to be made by all local authorities, and wherever we have been well organised we have secured very favourable terms for our members. In other districts where we are not strongly represented the local authority has not given grants on favourable terms and little progress has been made.

"The new Government is pledged to provide houses and is prepared to adopt some drastic scheme to encourage the building of working-class houses. A committee of builders and trades union representatives has drawn up a very strong report, which, if adopted by Parliament, will give a preference in both materials and labour to approved building schemes, and as there will be a considerable shortage of both commodities it is very probable that only approved schemes will receive assistance in the supply of labour and materials. While your committee is strongly opposed to all forms of control, facts must be recognised, and proposals will be laid before the members at the annual meeting to meet the position by urging the Government to confine the local authorities' own schemes to the smaller type of houses and to grant subsidies freely to those who can buy their own house. The Federation will spare no effort to ensure that all housing schemes for our members, whether subsidised or no, shall receive a fair share of the available labour and materials.

"Your Committee after very careful consideration has decided to recommend the members at the annual general meeting to agree to join with the other organised bodies of employers in adopting a definite scale of wages and conditions of labour. As a great National Federation we have hitherto carried on without any recognised rules as to wages, but a large number of our members are of opinion that we must make a stand against the growing demands of the operatives, both official and unofficial, for higher rates of pay. Your Committee feels the difficulty of the situation, and in all negotiations will carefully safeguard the rights of our members to maintain the old established custom of the trade to pay their workmen in certain cases by some system of payment by result. An important resolution bearing on this matter will be submitted to the members at the annual meeting.

"Your Committee have again to refer to the financial position of the Federation, and to urge every member to pay both subscriptions and levies promptly. The financial calls on our members are extremely moderate, and the liability of the Federation to carry on its work in the interests of every house builder entitles it to the best financial support of every one concerned."

On opening the afternoon session, Mr. H. R. Selley dealt with the recently issued report of the National House Building Committee on which he had sat as a representative of the Federation. The report was an honest endeavour to formulate a programme which would provide houses, and the Federation had taken a share in the work of the Committee, because it represented the builder who had the experience in housing the people. It was said that the house builder could not build the houses that are required; and unless some encouragement was given to him that was true. The encouragement should be given by helping the man who was prepared to buy his own house—the man who would pay £800 for his house and solve his own problem—that was the man who should receive recognition and assistance in the new housing scheme. It was impossible to carry out a great national housing scheme unless there was a sufficiency of materials, and the experience of all builders at the moment was that there was a great shortage of materials of all kinds. There was a famine in bricks in London and the south, and he understood that all the brickworks were working full time and producing the maximum quantity. The House Building Committee had the assurance of the manufacturers that they could produce enough materials for an extensive housing programme, but he thought there ought to be something more definite than an assurance before the Government launched its huge schemes. The proposal for a guaranteed programme for a long term of years was the proposal of the operatives' representatives on the committee, who made that a condition before they agreed to the extension of the apprenticeship system to provide the extra labour; they also had tried to secure a full week's pay in all cases, and he was glad that Mr. Wheatley had shown a firm front on that point, for no builder could estimate what a job was going to cost if he had to pay for "wet" time. Mr. Selley proposed the following resolution :—

"That the Federation is prepared to loyally carry out any housing policy adopted by Parliament which is calculated to encourage house building and which does not prejudice the ultimate restoration of housing by private enterprise."

Mr. C. H. Oldham (Manchester), Past President, in seconding the resolution, said that they were prepared to help the Government to the fullest extent of their powers. The Federation had made representations to all Mr. Wheatley's predecessors for the past seven years, and remembered Mr. Hayes Fisher expressing then Government's intention to build 300,000 houses during the first year after the war. He also remembered telling Mr. Hayes Fisher that as the maximum number of houses ever erected in one year, when labour and materials and money were plentiful and cheap, was about 100,000, it was ridiculous to say they were going to build three times that quantity when materials was scarce and dear, the trade denuded of many of its best men, and materials were doubled in price. The only way to a solution was to restore confidence in housing, and when confidence was restored, the house builder would build the houses. The money existed for housing and would become available when it was a business proposition.

The resolution was carried.

Mr. A. J. Belton (Sheffield), Vice-President, proposed: "That the State assistance for housing be extended in the following directions: (*a*) To assist local authorities in the erection of working-class cottages of the smaller type to be let to tenants; (*b*) To assist private builders by making it a commercial proposition for them to submit schemes where numbers of houses could be built to be let at a rental; (*c*) To assist thrifty working people to purchase their own houses by means of the subsidy and loan on the lines of the Housing, &c., Act, 1923." He suggested that a scheme could be devised to take advantage which gave a larger subsidy for the smaller house, for it was the man who had little capital—the thrifty working man—who deserved the greatest assistance.

Mr. J. W. Comben (Wembley), in seconding the resolution, gave figures showing that from a national point of view the subsidy was very much more economical than public ownership. He said he had instances of houses which, with interest and sinking fund, would cost the public about £4,000 each, and he compared that with the subsidy of £100 which was the final and definite figure of cost to the public for such houses.

In supporting the resolution, Mr. W. Boar (Manchester) said there were many builders who had been forced out of business who had capital and experience to build houses when it was made into an economic proposition. The builders had been accustomed to erect large numbers of houses for letting purposes, and if they could go to the Government with a suggestion which would enable them to see a business proposition, it would open the door to a large amount of building of the cottage type. Mr. E. R. Jones (Liverpool) also supporting, suggested that if the cottages were relieved of local rates, and money was advanced by the Government at a low rate of interest, cottages could be built to let on a business basis.

Mr. G. F. Darbyshire (Manchester), Vice-President, proposed, and the resolution was adopted, "That the Federation draws attention to the failure of the local authorities on their own housing schemes to provide accommodation for the working classes who require small houses at low rentals, and protests against the erection of larger type semi-detached houses as part of municipal building schemes, as such houses can only be let to tenants who in many instances are able to buy their own house through the assistance of the subsidy to private enterprise. This Federation is of the opinion that if the local authorities' schemes are confined to cottages not exceeding 800 super ft. floor area, built in terraces at 16 or 20 to the acre, the maximum number of houses will be erected and the minimum loss incurred."

In the course of his remarks, Mr. Darbyshire said he had seen reports in the Press that the Government Housing Programme would probably confine the subsidy to houses which were to let to tenants, and he said if that were done there would be no assistance for the capable working man and no opportunity for the house builder. The resolution was seconded by Mr. George Sadler (Nottingham).

Mr. G. A. Perks (Long Eaton) proposed, and G. H. Brown (Manchester) seconded, the owing resolution, which was carried:—
he Federation wishes to draw the Govern-nt's attention to the present serious shortage building materials, especially bricks, tiles slates, and recommends the Government make certain that an adequate supply of erials will be available before encouraging l authorities to embark on extensive building emes as the alternative will be a period of easing prices which must prejudice all rts to relieve the house famine."
Mr. Perks drew attention to the effect of shortage in increased prices and quoted eral substantial increases which he said taken place recently solely owing to the rtage of supply.
A resolution was also passed registering the phatic opinion of the Federation that on any tutory committee formed in connection with sing the Federation should be adequately resented.
t was decided that the half-yearly meeting September should be held in Leamington.

KILLED LABOUR FOR HOUSING

Writing recently in *The Times* on this subject . Cecil B. Levita (Chairman of the Housing mmittee of the L.C.C.), said:—
"The report prepared by the National House ilding Committee on April 10 and presented Parliament, which is understood to contain outline on which the Government's housing posals are being based, presents many tures of importance to local authorities. however, these are still under the considera-n of the local authorities, I do not propose e to deal with questions which must be settled ween local authorities and the central vernment; but as housing up till now has n limited by the shortage of labour, evidently proposals of the Committee in this con-tion to supply the necessary labour for the eme are of paramount importance.
"It is understood that the main reason for proposed fifteen years' programme is that:—
. the organised workers view with appre-sion the prospect of increasing the skilled *sonnel* of the industry and feel that they st have the completest assurances possible t such an increase will be satisfactorily orbed, and that future demands for their vices will be maintained at an adequate el. . . .'
A scheme for securing further skilled labour apprenticeship is adumbrated in the report. With the best good will in the world it is icult to see how it is possible by means of scheme to secure sufficient augmentation of led labour to carry through the programme cified in the report. The apprenticeship eme applies to six of the building trades—nely, bricklayers, carpenters, slaters, plas-rs, masons, and plumbers—of which trades 000 operatives would, on the basis adopted the report, be required for the production of 000 houses in the first year. Assuming that e is an annual wastage of one-thirtieth, due uch causes as death, retirement through old ill-health, change of employment, emigra-. &c., and that the number of apprentices be maintained at the full one-third of the ber of journeymen as suggested in the eme, and that these will become skilled crafts-n at the end of their course of training, the l number of skilled craftsmen at the begin-g of the first, fifth, ninth, and thirteenth rs, and the relative output, as compared with programme, would be as follows:—

Year.	Craftsmen.	Output. Houses.	Programme. Houses.
st. 1925	54,000	90,000	90,000
th, 1929	63,000	105,000	135,000
h, 1933	73,000	122,000	210,000
8th, 1937 ..	85,000	143,000	225,000

The output year by year would depend ly upon the varying efficiency of the appren-tices in the different trades, but the report makes no attempt to deal with this question. On what I consider would be a reasonable basis of efficiency, the equivalent output of houses in the first ten years would be 1,114,000, as compared with the report programme of 1,500,000, or a deficiency of 386,000. It would seem as though the upper limit of production suggested in the report—namely, 225,000 houses in one year—could not be achieved under the proposed apprenticeship scheme until about the twenty-fifth year.
"Apart, however, from the arithmetical results of the scheme, it is interesting to note that the satisfactory conduct of the whole matter will depend upon harmonious working, and that certain new factors are introduced which are in the nature of an experiment in the region of labour conditions. For example, the local transfer of apprentices from one employer to another is a matter suggested for a local consultative committee of employers and employed. Theoretically this seems feasible, but in practice presents formidable difficulties, possibly surmountable with good will on all sides. Further, there is the greatly increased ratio of apprentices to craftsmen—one in three taking the place of previous maxima of one in five or one in seven. There are consequent problems in regard to the training of this additional number of apprentices, and it may be assumed that not all the workmen are competent and willing to train apprentices. The need, therefore, for some definite form of technical training arises, of which no mention is made in the report.
"This is the more important inasmuch as housing work is limited in its range and cannot provide a completely satisfactory field of training. It is clearly of importance in the national interest that any scheme of training should aim at providing satisfactory skilled workers for the future. Problems confronting such workers may arise, from time to time, through changes in contracts, changes in the methods and uses of building materials, or for other reasons.
"There would thus appear to be two outstanding points regarding which definition is required (1) whether the proposals as outlined in the report can produce the number of houses, and (2) whether satisfactory groups of skilled workers will be produced in sufficient numbers to enable this work to be done and to fit ultimately into the national economy.
"Whatever merits an extension of the apprenticeship system on the lines proposed by the National House Building Committee may possess, the urgent necessity for houses is so imperative that a National Housing Policy ought not to be made dependent upon a single method of securing the necessary labour nor should it be unavoidably delayed while young apprentices are being trained.
"If the nation is asked to subsidise housing in the manner outlined, it should not be too much to ask the Labour organization to assist by making further special arrangements applicable only to work on subsidised houses, such as removal of restrictions to the employment of skilful labourers, a longer working week, and the admission of payment by results accompanied by a guarantee of a minimum wage per hour. This last point in itself would go far to diminish the shortage of labour.
"A national housing policy ought not to be made dependent on a single method, doubtful in its success, of securing the necessary labour, nor should it be delayed until sufficient young apprentices have been trained."

A Wren Church.

St. Mary Somerset Tower, the remnants of an old Wren church in Upper Thames-street, has been converted into a rest-room. It was officially opened recently by the Lady Mayoress, who was supported by Sir William Pryke, Alderman of the Ward of Queenhithe. Father Sankey, Rector of St. Andrews-by-the-Wardrobe, said St. Mary Somerset Tower would be open every weekday, except Saturday, from twelve until three o'clock.

BOOK REVIEW

The Workmen's Compensation Acts, 1906 to 1923, with Notes, Orders and Regulations. By W. Addington Willis, Barrister-at-Law. 22nd edition. (Butterworth & Co., London. 1924. 15s. net.)

"Willis's Workmen's Compensation Acts" is one of those volumes of which usually it is only necessary for the reviewer to record the issue of another edition, and to note that it has as usual been brought thoroughly up to date, but this edition of what may be termed a standard work calls for special notice, as the Workmen's Compensation Act of last year has so altered the law that all previous editions will be out of date and the present edition will be an essential addition to every library.

In our summary of this Act of 1923 in our issue of December 28 last we regretted that the precedent set in the Bill introduced last year by the Labour Party had not been followed, and that the whole subject had not been dealt with in one consolidating measure, as this would have simplified the subject, and we imagine the author would agree with us, for it must have proved a difficult task for him to incorporate the new matter with the old so as to render the subject as clear as he has, but even with all his ability it is impossible not to see how much the matter would have been simplified had the legislature at once consolidated the statutes.

In his preface he admits it has been a difficult task, but on the whole he has thought the practitioner would prefer to have the new provisions in close proximity to the sections they affect, rather than to have an annotation of the two statutes separately, and we think he has decided rightly, as, with the marginal line drawn where any new matter is dealt with, and any repealed matter being printed in italics, he has certainly done his best to present a very complicated subject clearly. We would especially call attention to the references given n the preface to the pages where the new matter is to be found, as this also is an assistance.

The "rustic justice" originally aimed at in Workmen's Compensation legislation was never attained in the first instance, but it is now left far behind, as, to calculate compensation, mathematical skill of a high order has to be possessed, and in this connection we may draw attention to the table which the author has compiled at page 274, which shows the practical working of the provisions as to "earnings" and "compensation," and is also of assistance in calculating the compensation payable in cases of partial incapacity under section 4, subsection (3) (b), as will be seen at page 277. This subsection appears so complicated in the Act that the reader is staggered by it, but when he studies the formula supplied by the author and finds the result can be attained by multiplying the difference between the average pre-accident earnings by the maximum weekly payment plus the additions, as shown by the table on page 274, and dividing the sum by the average pre-accident earnings, the reader of this volume feels like the man who escaped from prison by the simple expedient of opening an unfastened door.

This volume contains all the well-known features of the many former editions, and all the new information which is essential for those who have to deal in any way with Workmen's Compensation, and it is only necessary for us to draw attention to the fact that it is now available, and forms a valuable guide to the new and complicated legislation.

Books Received.

Structural Engineering. By Joseph Husband and William Harby. (London: Longmans, Green & Co.). Price 16s. net.

Muhammadan Architecture in Egypt and Palestine. By Martin S. Briggs. (Oxford: The Clarendon Press).

BUILDERS' CLERKS' BENEVOLENT INSTITUTION.

On April 29 the Builders' Clerks' Benevolent Institution held its 44th annual dinner at the Holborn Restaurant. Among those present were Messrs. Roland B. Chessum, E. J. Brown, E. S. Rider, F. W. Loatby, F. G. Minter, A. B. H. Colls, A. W. Hall, F.R.I.B.A., H. W. Wills, F.R.I.B.A., W. Doddington, Godfrey Sykes, hon. sec., G. Brittain, J.P., J. B. London, E. Coles, M.S.A., F. A. Humphrey, A.R.I.B.A., H. T. Holloway, P.L.M.B.A., F. Shingleton, M.V.O., G. S. Roberts, F. M. May, J. M. Theobald, F. Higgs, F. Thorne, J.P., J. S. Crosbie, F.R.I.B.A., P. C. Culver, R. D. Bartlett.

Mr. A. B. Falkner, proposing "The Builders' Clerks' Benevolent Institution," said it had carried on for 50 years. Up to the end of last year £220,665 had been paid in permanent pensions. It was not a benefit institution, but a benevolent institution, and he made an urgent appeal that it should be supported.

Mr. P. C. Culver, proposing the "Architects and Surveyors," said he hoped they would continue, as in the past, to show their interest in the Builders' Clerks' Benevolent Institution.

Mr. H. W. Wills, responding, said architects had a perfect form of insurance, that was by the employment of good builders. If they employed first-rate builders they would be certain to finish their jobs with credit, not only to themselves, but also their clients. One of their difficulties was that a man made up his mind in a spirit of romance and perhaps spent more money than was prudent.

Mr. E. J. Brown, proposing the "Builders and Builders' Merchants," said the builder and builders' merchant had passed through a serious time, but in the course of a few weeks they would know what was going to be done to rehabilitate the industry to the satisfaction of the country at large. At the present time the burden was something more than the individual builder should be called upon to bear. Mr. Brown then mentioned the high regard with which Mr. H. T. Holloway was held in the building industry, and coupled his name with the toast.

Mr. H. T. Holloway, responding, said he was not without hope that the threatened strike would be prevented, but they were convinced they had reached the limit of their generosity; although they hoped the leaders would see reason and not plunge the country into disaster. It was not altogether a question of wages, but concerned the sanctity of agreements. They did not wish to grind down the workers, and were prepared to pay them all the industry would stand. But the cost of building was high, and must be brought down. It was up to the workers to stimulate output and production, and thereby bring down the cost of living. It was no advantage having a higher rate of wage if an enhanced price had to be paid for goods. Stability was the best way of solving the difficulties.

Mr. F. Thorne, proposing the President, made an appeal that the Institution should be kept up to its usual standard and continue progressing.

Mr. A. B. Falkner then briefly responded.

Change of Address.

The London offices of the British Reinforced Concrete Engineering Co., Ltd., have removed to King's Buildings, Smith-square, Westminster, S.W.1. The Constructional Department telephone numbers have been altered from Victoria 7866 and 3218 to Victoria 6530 (two lines). The Roads Department telephone number remains the same—Victoria 7833.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam.(Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 775).

CONTRACTS, COMPETITIONS, &c.

some contracts still open, but not included in this List, see previous issues. Those with an asterisk dvertised in this number. Certain conditions beyond those given in the following information nposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any r; that a fair wages clause shall be observed; that no allowance will be made for tenders; and deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

e date given at the commencement of each paragraph is the latest date when the tender, or the names se willing to submit tenders, may be sent in; the name and address at the end is the person from whom ce where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

AY 8.—**Dukinfield.**—HOUSES.—Erection and com- n of ten pairs of parlour type houses on land e in Birch-lane, Dukinfield, for the Housing ittee of the Borough of Dukinfield. Mr. Joseph n, Architect, of Messrs. Lindley & Gibson, Market- e, Ashton-under-Lyne. Deposit £2 2s.

Y 10.—**Blackhall.**—MINERS' HOMES.—Erection of ed Miners' Homes at Blackhall Colliery Mr. Hamilton, Blackhal Colliery.

Y 10.—**Briton Ferry (Glam).**—HOUSES, &C.—For ng at the Brynhyfryd-road (North) site, Briton for the Neath Borough Council, 20 houses. for paving, kerbing, channelling, and stoneware sewers, works in connection with same. Mr. H. rke, Borough Engineer, Gwyn Hall, Neath (Glam). it £3 3s.

Y 10.—**Egham.**—ALTERATIONS.—For the erec- of a billiard room, bar and various structural tions to premises at 159, High-street, for the ng Committee of Egham and District Consti- al Club. Mr. G. W. Booth, 155, High-street, n.

Y 10.—**Glamorgan.**—VARIOUS.—For all works at ty Hall, Cardiff, and for individual works at e Stations as follows:—(1) Clydach; (2) Neath ty); (3) Maesteg; (4) Pontardawe; (5 and 7) g Hill; (6) Ystalyfera; (8 and 9) Pontycymmer; Pontlottyn; (11 and 13) Hengoed; and (12) Well.

Y 10.—**Neath.**—HOUSES.—For the erection of uses (parlour type); also for paving, kerbing channelling and stoneware pipe sewers in con- n with housing scheme, for the T.C. Mr. H. Clarke, Borough Engineer, Gwyn Hall, Neath. sit £3 3s.

Y 10.—**Newport, Salop.**—SCHOOL.—Erection of ondary School to accommodate 120 girls, at New- for the Salop County Council Higher Education rtment. Mr. W. H. Pendlebury, M.A., Secretary igher Education, County Buildings, Shrewsbury. sit £2 2s.

Y 10.—**Pengam (Mon).**—ELECTRICAL TRANS- ER STATION.—For erecting, for the Bedwellty .. an electrical transformer station. Mr. D. H. . Surveyor, Council Fire Station Offices, Aber- ed (Mon).

Y 12.—**Bandon.**—INSTITUTE.—For the rebuilding e Allin Institute, Bandon. Messrs. W. H. Hill n, architects, 28, South Mall, Cork.

Y 12.—**Edinburgh.**—HOUSE.—For erection of to be erected at the W. M. Ramsay Technical l for Education Authority. Mr. J. Stewart, . Executive Officer, Education Offices, Edinburgh.

Y 12.—**Exeter.**—WAREHOUSE.—Erection of rein- l concrete warehouse for Rowe Bros. Messrs. . Chalice & Son, Architects, 7, Bedford-circus, r.

' 12.—**Finchley.**—PAINTING.—For painting and works at schools, for the U.D.C. Mr. P. T. on, surveyor, Church End, Finchley, N. De- £1 1s.

' 12.—**Fowey.**—HOUSE.—Erection of a residence owey, Cornwall. Mr. Alfred J. Cornelius, archi- Truro.

Y 12.—**Llanelly.**—PAINTING.—For painting, for D.C., 36 houses at Talyclyn, Llangennech, and 14 at Felinfoel. Mr. J. H. Blake, Clerk, Castle ngs, Llanelly.

12.—**Mansfield.**—HOUSES.—Erection and tion of 74 houses (3 blocks of six houses, 2 blocks r houses, and 24 pairs, all type A. 3), for the the Borough of Mansfield. Mr. Warrick Thomp- ssoc.M.Inst.C.E., Borough Engineer and Sur- Market-street, Mansfield. Deposit £2 2s.

12—**Middlesbrough.**—OFFICES.—Erection of Harbour Master's Offices at the Dock Point, sbrough, for the Tees Conservancy Commission. mes Forbes, 19, Grange-road West, Middles- .

12.—**Port Talbot.**—PAINTING.—For the painting various schools within the Borough. Mr. Moses s, Port Talbot.

12.—**St. Blazey.**—SCHOOL.—For the erection of nday school, for the Leekseed Wesleyan Chapel. . Andrew & Randell, MM.S.A., New Inn ers, St. Austell.

12.—**Swansea.**—NURSES' HOME.—For erection rses' Home for Swansea General and Eye Hos- Secretary, Hospital, Swansea. Deposit £5 5s.

12.—**Wellingborough.**—CONVENIENCES.—For tion of underground conveniences and shelter ket-street, for the U.D.C. Mr. R. S. Henshaw, or. Wellingborough.

13.—**Crawley.**—HOUSES.—Erection of houses, in two blocks of four each, in Ifield- rawley, for the Horsham R.D.C. Mr. W. R. rd, Surveyor to the Council, 42, Albion-terrace, m. Deposit, £1 1s.

13.—**Kirkcaldy.**—ADDITIONS.—For additions he Public School, for the Fife E.A. Mr. G. ds, Master of Works, Education Offices, Kirk- Deposit £1 1s.

15.—**London, N.18.**—PAINTING.—Internal , &c., of the Nurses' Home, North Middlesex l. Silver-street, Edmonton, for the Guardians Edmonton Union. Guardians' Architect, Mr. Mummery, 34, Bloomsbury-square, W.C.1.

MAY 13.—**Manchester.**—PAINTING.—For painting interior of Moss-side Branch Library. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

MAY 14.—**Lancaster.**—PAINTING.—For the external painting of (1) Ashton Wing, (2) Rodgett Infirmary, (3) Diggens Memorial Home, (4) Farm Colony, and (5) Farmhouse and buildings and Ashton-road cottages, at Royal Albert Institution. Medical Superintendent.

MAY 13.—**London, S.E.**—FIRE ESCAPE STAIRCASES.—Erection of fire escape staircases at the Lambeth Hospital at Kennington, for the Guardians of the Parish of Lambeth. Mr. James L. Goldspink, Clerk to the Guardians, Board Room and Offices, Brook-street, Kennington-road, S.E.11, any day (except Saturday), between the hours of ten and five. Deposit £2.

MAY 13.—**Maesteg.**—MASONIC BUILDINGS.—For new Masonic buildings, Castle-street, Maesteg. Mr. E. J. E. Moore, architect, "Haresfield," Salisbury-road, Maesteg. Deposit £1 1s.

MAY 13.—**Manchester.**—ALTERATIONS.—For alterations for public washhouse at the new Islington Baths, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

MAY 14.—**Kendal.**—HOUSES.—Erection of eight houses at Lound-road, for the T.C. Mr. F. W. Oxberry, Borough Surveyor, Town Hall, Kendal.

MAY 14.—**Llantwit Major.**—WALLS, &C.—Erection of boundary walls, entrance gates and the making of footpaths, drives, &c., at the proposed new cemetery in Boverton-road, for the Parish Council. Mr. C. H. Kempthorne, Architect, 59, Queen-street, Cardiff.

MAY 14.—**London, E.C.1.**—CONVERSION.—Converting existing stables into a garage at the Administrative Offices, 53, Clerkenwell-road, E.C.1, for the Guardians of the Holborn Union. Mr. Chas. J. Cross, Clerk to the Guardians, Administrative Offices, 53, Clerkenwell-road, E.C.1. Deposit £1 1s.

MAY 14.—**Penllwyn (near Aberystwyth).**—MANSE.—For erecting a manse at Penllwyn, for the Trustees of the Methodist Chapel. Mr. J. Lewis-Evans, architect, 21, Great Darkgate-street, Aberystwyth.

MAY 14.—**Wood Green.**—PAINTING.—For external painting of Town Hall, for the U.D.C. Mr. C. H. Croxford, Surveyor, Town Hall, Wood Green, N.

★MAY 15.—**Dover.**—HOUSES.—Erection of houses on each of the following sites:—(1) Buckland Estate (10 houses, type B), (2) Astor-avenue (20 houses, type B), (3) Dodd's-lane (four houses, type B, and 11 houses, type A), for the Corporation of the Borough of Dover. Mr. A. T. Miller, Architect, 16, Castle-street, Dover. Deposit £1 1s.

MAY 15.—**Fulham.**—FLOORING, &C.—For (*a*) Maple flooring; (*b*) seven steam hot-closets; (*c*) mastic asphalte paths. Mr. E. J. Mott, Clerk, Guardians' Offices, 129, Fulham Palace-road, W. 6.

MAY 15.—**Kingston-upon-Thames, Surrey.**—ADDITIONS TO HOSPITAL.—Erection of buildings to provide additional accommodation for nurses at (*a*) Brookwood Mental Hospital, (*b*) Netherne Mental Hospital, for the Lunatic Asylums Visiting Committee of the Surrey County Council. Mr. J. F. Hodgson, M.S.A., architect, 161, High-street, Guildford.

MAY 15.—**London, S.W.2.**—REMOVAL AND RECONSTRUCTION.—Removal of the existing public overground iron urinal, situate at Webber-street, New Cut, and the re-erection of same on a refuge in the centre of the roadway of the said street and the provision of new salt glazed stoneware stalls, &c. Borough Engineer's Office, Town Hall, Brixton Hill, S.W.2.

MAY 15.—**Mevagissey.**—REPAIRS.—For renovation of Wesleyan Church. Rev. C. Sherdley, Mevagissey.

★MAY 15.—**Mill Hill and Hounslow.**—WAR DEPARTMENT CONTRACTS: WORKS AND REPAIRS.—Artificers' Works Contracts from May 28th, 1924, for the undermentioned Stations and Divisions in the Woolwich Royal Engineer District. Separate tenders will be accepted for each contract. Contract 6, Mill Hill area: Contract 7, Hounslow area. Commanding Royal Engineers, Royal Engineer's Office, New-road, Woolwich, S.E.18.

MAY 15.—**Salford.**—HOUSES.—For the erection of 38 houses and flats on the Littleton-road Housing Estate, for the T.C. Mr. Charles Swain, architect, 12, Exchange-street, Manchester.

MAY 15.—**Southend-on-Sea.**—CAR SHED.—Supply and erection of an extension to the existing car shed on the west boundary of the London-road Depot, for the Corporation of Southend-on-Sea. Mr. Robert H. Dyer, Borough Engineer, Municipal Buildings, Clarence-road, Southend-on-Sea. Deposit £2 2s.

MAY 16.—**Ilford, Essex.**—MEMORIAL HALL.—Erecting a circular memorial hall, about 30 ft. average diameter, faced with Portland stone and red bricks and roofed with reinforced concrete dome, in Hatch-lane, Ilford, for the Chairman and Members of the Ilford War Memorial Fund. Messrs. C. J. Dawson, Son, & Allardyce, architects, Clock House Chambers, Barking. Deposit £5.

MAY 16.—**Wadsley.**—PAINTING.—For outside painting at Wadsley Mental Hospital, for West Riding Mental Hospitals Board. Mr. W. E. Burton, Architect, Board Offices, Wakefield.

MAY 17.—**Near Aberystwyth.**—HOUSE.—For erecting near Torgwlyd, Aberystwyth, a house for Mr. L. R. Lewis. Mr. J. Lewis-Evans, architect, 21, Great Dorkgate-street, Aberystwyth.

★MAY 17.—**Chester.**—FARM BUILDINGS AND DRAINAGE.—Erection and completion of new farm buildings and also main drainage at the Reaseheath of Agriculture, near Nantwich, for the County Council of Chester. Mr. H. Beswick, F.R.I.B.A., County Architect, Chester. Deposit £2 2s.

MAY 17.—**Doncaster.**—HOUSES.—For the erection of 50 houses on the Warmsworth-road site, for the T.C. Mr. R. E. Ford, Housing Surveyor, 3 Priory-place, Doncaster. Deposit £2 2s.

MAY 17.—**Leyburn.**—ADDITIONS.—Erection of a washhouse and bathroom at Brough Hill (Bainbridge). Mr. T. F. King, Kingston Cottage, West Witton, Leyburn.

MAY 17.—**London, E.C.1.**—CLEANING AND PAINTING.—Brushing down the brickwork and painting the exterior wood and ironwork of the Town Hall, for the Finsbury Borough Council. Borough Surveyor's Office, between the hours of 10 and 4 (Saturdays excepted), Finsbury Town Hall, Rosebery-avenue, E.C.1.

MAY 17.—**Nantwich.**—FARM BUILDINGS.—Erection of farm buildings and also main drainage at the Reaseheath School of Agriculture, for the Cheshire C.C. Mr. H. Beswick, County Architect, Chester. Deposit £2 2s.

MAY 19.—**Barnet.**—CONVENIENCES.—Erection of conveniences at Old Court House Recreation Ground, for the U.D.C. Surveyor, Council Offices, Wood-street, Barnet.

★MAY 19.—**Bristol.**—COOKING APPLIANCES.—Supply and fixing of cooking appliances in the new kitchen at Stapleton Institution, Bristol, for the City and County Council of Bristol. Mr. Thos. S. Lamb, Clerk to the Guardians, St. Peter's Hospital, Bristol.

MAY 19.—**Bury.**—FIRE STATION, &C.—For the erection of a fire station and a mortuary and appurtenant works in Stanley-street, for the T.C. Mr. J. Ainsworth Settle, Borough Engineer, Bury. Deposit £2.

MAY 19.—**Camberwell.**—PAINTING.—For external painting of approximately 200 houses at the Council's Assisted Housing Estates, for the Camberwell B.C. Mr. William Bell, Borough Engineer, Camberwell, S.E.5.

MAY 19.—**Leeds.**—PAINTING.—For painting work at Miners' Institute, for Yorkshire Coal Miners' Association. Messrs. Garside & Pennington, Architects, Pontefract.

MAY 19.—**Liskeard.**—ALTERATIONS, &C.—For repairs and adaptations to the farm buildings at East Trehunist Farm, Quethiock, near Liskeard, for the Cornwall C.C. County Land Agent, County Hall, Truro. Deposit £1 1s.

MAY 19.—**Neston.**—HOUSES.—For the erection of 24 houses, 16 at Parkgate and 8 at Neston, for the U.D.C. Mr. Arthur Tillotson, Town Hall, Neston, near Birkenhead. Deposit £1 1s.

MAY 19.—**Various Places.**—GAS MAINS.—Supplying and fixing of gas mains, services, fittings, &c., in schools and other buildings provided or maintained by the Council, based upon the Council's Schedule of prices for each work for the London County Council. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £1 1s.

MAY 19.—**Wakefield.**—PAINTING.—For the outside painting of main buildings (female side) at the West Riding Mental Hospital, Wakefield. Mr. W. E. H. Burton, Architect, West Riding Mental Hospitals Board Office, Wakefield.

MAY 19.—**Wakefield.**—SANITARY ANNEXE.—Erection of a sanitary annexe at the West Riding Mental Hospital, Wakefield. Mr. W. E. H. Burton, Architect, West Riding Mental Hospitals Board Offices, Wakefield. Deposit £1.

MAY 19.—**Walsall.**—CENTRE.—For the erection of handicraft and domestic science centre, Bloxwich, for the T.C. Borough Engineer, Walsall. Deposit £1.

MAY 19.—**West Ham.**—PAINTING.—For painting, cleaning, &c., of public buildings. Borough Engineer, Town Hall, West Ham.

MAY 20.—**Dundalk.**—FENCING.—Supply and erection of fencing and gates to ex-Servicemen's houses in Dundalk Urban District, for the Commissioners of Public Works. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin.

MAY 20.—**Featherstone, Yorkshire.**—HOUSES.—Erection of 50 houses at Streethouse, near Pontefract, for the Featherstone U.D.C. Mr. Samuel Chesney, A.R.I.B.A., Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

MAY 20.—**Leavening.**—HOUSE.—Erection of a teacher's house, for East Riding of Yorkshire C.C. County Architect, County Hall, Beverley. Deposit £1 1s.

★MAY 20.—**London, S.E. 11.**—PAINTING AND REPAIRS.—External painting and repairs at the Lambeth Hospital, at Kennington, for the Guardians of the Parish of Lambeth. Mr. James L. Goldspink, Clerk to the Guardians, Guardians' Board Room and Offices, Brook-street, Kennington-road, S.E.11. Deposit £2.

MAY 20.—**Retford, Notts.**—ALTERATIONS AND EXTENSIONS.—Alterations and extensions to Rampton State Institution, Retford, Notts, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

MAY 20.—**Stockport.**—BUSINESS PREMISES.—Business premises, Stockport, for the Stockport Industrial and Equitable Co-operative Society. Mr. S. Taylor, Secretary. Deposit £5.

MAY 21.—**Ashford.**—SHED, &C.—Erection of engine shed and stores, for R.D.C. Mr. J. T. Pullen, Surveyor, Willesborough.

★MAY 21.—**Gravesend.**—BUILDING.—Construction of a Child Welfare Centre on land in Windmill-street at the rear of 4, Woodville-terrace, for the Town Council of the Borough of Gravesend. Messrs. Bridgland & Clay, Parrock-street, Gravesend.

MAY 21.—**Leigh Cross.**—COTTAGES.—For the rebuilding of two cottages at Leigh Cross and Matridge, on the Culver Estate, for Mr. E. C. A. Byrom. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter.

★May 21.—**London, S.E.**—Cleaning and Painting Works.—Cleaning and painting works and repairs at Southwark Casual Ward, Great Guildford-street, S.E., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

★May 21.—**London, S.W.6.**—Cleaning, Painting, Repairs and Tiling.—Cleaning, painting, repairs and tiling to walls of kitchen at the Western Fever Hospital, Seagrave-road, Fulham, S.W.6, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

★May 21.—**London, N.W. 3.**—Painting and Repairing Works.—Painting and repairing works at the North-Western Fever Hospital, Lawn-road, Hampstead, N.W. 3, for the Metropolitan Asylums Board. Office of Board, Embankment, E.C. 2. Deposit £1.

May 21.—**London, S.W.**—Painting, Decoration and Repairs.—Painting, decoration and repairs, at the Chapel in the Fulham-road Workhouse, 367, Fulham-road, S.W., for the Guardians of the City of Westminster Union. Clerk to the Guardians, Guardians' Offices, Prince's-row, Buckingham Palace-road, S.W.

★May 21.—**London, S.W.9.**—Cleaning, Painting and Repairs.—Cleaning and painting and repairs at the South-Western Fever Hospital, Landor-road, Stockwell, S.W.9, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

★May 21.—**Lowestoft.**—Cleaning, Painting and Repairs.—Cleaning, painting and repairs at St. Luke's Hospital, Lowestoft, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

May 21.—**Newcastle, Staffs.**—Telephone Exchange.—Erection of a Telephone Exchange at Newcastle, Staffs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

★May 21.—**Wembley.**—Mortuary Extension.—Extension of the mortuary adjoining St. John's Church, Wembley, for the Wembley U.D.C. Mr. Cecil R. W. Chapman, Engineer and Surveyor, Council Offices, Wembley, Middlesex.

May 22.—**Bridgend.**—Additions.—For additions to Administrative Block and erection of pavilion at Isolation Hospital, for the Committee. Messrs. P. J. Thomas & Son, architects, Bridgend. Deposit £2 2s.

May 22.—**Westhampnett.**—Houses.—For the erection of 21 houses at Hunston, Drayton, Singleton, and Maudlin, for the R.D.C. Mr. W. D. Rasell, Clerk, Council Offices, Pallant House, Chichester.

May 22.—**Wimbledon.**—Employment Exchange.—Erection of an Employment Exchange at Wimbledon, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1 Deposit £1 1s. (payable to the Secretary).

May 23.—**Blaydon, near Newcastle-on-Tyne.**—Alterations.—Alterations to the Post Office and Telephone Exchange, Blaydon, near Newcastle-on-Tyne, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

May 24.—**Carmarthenshire.**—Painting.—For painting, colouring, &c., at schools, for the Carmarthenshire E.C. Mr. W. Vincent Morgan, County Architect, County Offices, Carmarthen.

May 24.—**Darwen, Lancs.**—Post Office.—Erection of a new Post Office at Darwen, Lancs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

May 24.—**Kingston-upon-Thames.**—Houses.—Erection of 10 pairs of parlour-type houses and 12 pairs of non-parlour type houses, for the Corporation of the Borough of Kingston-upon-Thames on their housing estate. Borough Surveyor, Town Clerk's Office, Municipal Offices, Kingston-upon-Thames. Deposit £1 1s. (Builders will be at liberty to tender for the whole or a less number of both or either type of such houses, as they may desire.)

★May 24.—**Middlesbrough.**—Houses.—Alternative tenders for the erection of a total of 84 additional houses on the housing estate at Marton-grove, Grove Hill, for the Housing Committee of the County Borough of Middlesbrough. Mr. S. E. Burgess, M.Inst.C.E., Borough Engineer, Architect and Surveyor, Municipal Buildings, Middlesbrough.

May 24.—**Newton (Pem).**—Chapel.—Erection of a new Baptist Chapel at Newton, Hayscastle, Pembrokeshire. Rev. E. Williams, "Bryn Siriol," Wolfscastle, Pem.

May 24.—**Oldbury.**—Houses.—For erection of 16 non-parlour type and 4 parlour type houses, for U.D.C. Mr. J. Selvey-Clinton, acting Surveyor, Oldbury.

May 24.—**Salford.**—Alterations.—For alterations and new offices at Broughton High School for Girls, for the T.C. Secretary for Education, Education Offices, Chapel-street, Salford.

★May 26.—**Congleton.**—Houses.—Erection of 40 non-parlour type houses on the West-end site, for the Borough Council of Congleton. Borough Surveyor, Borough Surveyor's Office, Congleton. Deposit £2 2s.

May 26.—**Dublin.**—Houses.—For building a further section of the Marino Housing Scheme, for T.C. City Treasurer, Dublin. Deposit £2.

May 26.—**Ellesmere Port.**—Houses.—For the erection of (*a*) 208 houses, in blocks of four; and (*b*) 52 semi-detached houses, at Ellesmere Port, for the U.D.C. Mr. Thos. W. Francis, Clerk, Council Offices, Ellesmere Port. Deposit £1 1s.

★May 26.—**Purley.**—Offices.—For the erection of Council Offices on land situate in Banstead-road, for Coulsdon and Purley U.D.C. Mr. E. C. Pinks, Surveyor, Parliament Mansions, S.W. Deposit £10 10s.

★May 26.—**Swindon.**—Houses.—Erection of 50 houses in Limes-avenue, Hurst, for the Corporation of the Borough of Swindon. Mr. H. J. Hamp), Borough Surveyor 34, Regent-circus, Swindon.

May 27.—**Chorley.**—Alterations.—For small alterations at Isolation Hospital, for the Chorley Joint Hospital Board. Messrs. Buckley & Catterall, architshot, tecrley.

★May 27.—**Teddington.**—High Voltage Building.—Erection of a high voltage building at the National Physical Laboratory, Teddington, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

★May 27.—**Uxbridge.**—Houses, Roads and Sewers.—Erection of 15 pairs and seven blocks of houses, and for roads and sewers, &c., forming the Northern Section of the Hillingdon-road scheme, Uxbridge, Middlesex, for the Uxbridge Urban District Council. Mr. William L. Eves, F.R.I.B.A., F.S.I., 54, High-street, Uxbridge. Deposit £2 2s.

May 28.—**Durham.**—Painting.—For painting at Durham Girls' County School, for the C.C. Mr. A. J. Dawson, Director of Education, Shire Hall, Durham.

★May 28.—**Redditch.**—Alterations and Additions.—Alterations and additions to the Post Office, Redditch, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

★May 28.—**Twickenham.**—Alterations and Additions.—Execution of works of structural alterations and additions at Murray Park Hall, Whitton, Twickenham, for the U.D.C. Mr. Fred W. Pearce, F.S.I., Surveyor to the Council, Town Hall, Twickenham. Deposit £2 2s.

★May 29.—**Stoke - on - Trent.**—Telephone Exchange.—Erection of a Telephone Exchange at Stoke-on-Trent, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

May 30.—**Thurles.**—Building.—For buildings in connection with electricity supply, for the U.D.C. Messrs. J. P. Tierney & Co., 44, Kildare-street, Dublin. Charge £2 2s.

May 31.—**Eastleigh.**—Bridge.—For the widening in ferro-concrete of a brick-built bridge and erection of retaining walls, for the U.D.C. Mr. W. W. Gandy, Surveyor, Council Offices, Eastleigh.

June 2.—**London, E.C.2.**—Re-decoration.—Re-decoration of the Hoxton Public Library, Pitfield-street, N. 1, for the Shoreditch B.C. Mr. T. L. Hustler, Borough Surveyor, Town Hall, Old-street, E.C. 2.

June 6.—**Lough Derg, Co. Donegal.**—Foundations.—Constructing the foundations (to be built partly in the Lake) of the proposed new church designed by the late Professor W. A. Scott, at St. Patrick's Purgatory. Thomas J. Cullen, F.R.I.A.I., architect, 25, Suffolk-street, Dublin.

★June 13.—**London, N.W.1.**—Building.—Construction of an overground public convenience in Salisbury-street, by Church-street, Lisson-grove, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

★June 14.—**Evesham.**—Houses.—For the erection of 26 houses on the King's-road, Bengeworth, site, for the T.C. Mr. J. Abbott, Borough Surveyor, Town Hall, Evesham. Deposit £2 2s.

★June 16.—**London, N.W.1.**—Alterations.—Certain structural alterations at the Public Baths, Marylebone-road, in connection with the installation of filtration plant for First Class Swimming Baths, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

No Date.—**Bradford.**—Painting.—For the painting and cleaning work at four relief stations and the Central Offices, for the Board of Guardians. Mr. Fred Holland, Engineer, 22, Manor-row, Bradford. Deposit £2 2s.

No Date.—**Lapford.**—House.—Erection of residence at Lapford, for Mr. W. Drake. Mr. J. A. Lucas, architect, Guildhall Chambers, Exeter.

No Date.—**Mountain Ash.**—Houses.—Erection of six or more houses on Aberdare-road. Messrs. Morgan & Elford, architects, 3, Oxford-street, Mountain Ash.

No Date.—**Whitstable.**—Hospital.—Erection of cottage hospital. Messrs. Wilson & Long, 22, Buckingham-street, Strand, W.C. Deposit £5 5s. (Kent builders only.)

FURNITURE, MATERIALS, etc.

May 10.—**Norton.**—Materials.—For stone required for the various highways of the R.D.C. Mr. J. E. Moulding, Clerk, Council Offices, The Edge, Sheffield.

May 12.—**Carshalton.**—Road Materials.—Supply of 400 tons of 2½ in. and 250 tons of 1½ in. tarred slag macadam and 250 tons of 1½ in. "Quenast," "Guernsey" or "Cornish" Elvan granite to the U.D.C. Mr. W. Willis Gale, Surveyor, District Council Offices, Carshalton.

May 12.—**Southampton.**—Kerbing.—For the supply of 5,000 ft. run of 6 in. by 10 in. granite concrete edge kerb, for the T.C. Mr. R. R. Linthorne, Town Clerk, Southampton.

May 12.—**Swindon.**—Stores.—Supply of stores to the G.W.Rly. Co. Stores Superintendent, Swindon.

May 12.—**Wakefield.**—Shelving.—Supply and erection of steel shelving at the Registry of Deeds, Kirkgate, Wakefield. West Riding Architect, County Hall, Wakefield.

May 12.—**Worsbro'.**—Materials.—Supply of road materials to U.D.C. Mr. T. Shield, Worsbro' Bridge.

May 13.—**Richmond.**—Materials.—Supply of grey lime, Buxton lime, sewage precipitants, and filter press cloth to the Richmond Main Drainage Board. Mr. William Fairley, Engineer, West Hall-road, Kew Gardens, Surrey.

May 14.—**Dewsbury.**—Materials.—Supply of slag, granite, kerb and flags to the T.C. Mr. H. Dearden, Borough Engineer, Town Hall, Dewsbury.

May 14.—**North Darley.**—Materials.—For supply of granite, basalt, limestone, and refine(No. 1), to the U.D.C. Mr. E. F. Low, Surv Darley Dale, near Matlock.

May 14.—**Stevenage.**—Materials.—For suppl road materials to the U.D.C. Mr. Reg. A. Ga Surveyor, Council Offices, Stevenage.

May 15.—**Belper.**—Roller, &c.—Supply of 1 compound steam roller, sleeping van, water cart, spraying machine, to the R.D.C. Mr. R. C. Co Surveyor, Duffield, near Derby.

May 15.—**Bootle.**—Materials.—Supply of s and materials for nine months to T.C. Bor Engineer, Town Hall, Bootle.

May 15.—**Plymouth.**—Granite Setts.—Suppl 1,000 tons of granite setts to the T.C. Mr. J. Wi ley, Borough Engineer, Plymouth.

May 15.—**Preston.**—Materials.—Supply of tons of 6 in. by 3 in. granite sett stones. Bor Surveyor, Town Hall, Preston.

May 16.—**London.**—Tin Sheets.—Supply of sheets to the India Store Department. Branch Belvedere-road, S.E.

May 19.—**Beckenham.**—Materials.—Supply of tons of tarred slag, and 560 tons of tarred lime to the U.D.C. Mr. John A. Angell, Surveyor, Bec ham. Deposit £2.

May 24.—**Leeds.**—Materials.—For supply various materials to the Gas Department. Engineer, Leeds.

ENGINEERING, IRON AND STE

May 10.—**Poulton-le-Fylde.**—Bridge.—Construc of a bridge over the London, Midland, and Sco Railway in the township of Poulton-le-Fylde, for Lancashire C.C. County Surveyor and Bridgema County Offices, Preston.

May 12.—**Dewsbury.**—Reinforcing Bars.—Su of mild steel reinforcing bars (approximately 35 tons use in the construction of a ferro-concrete tank, for T.C. Mr. H. Dearden, Borough Engineer, Town H Dewsbury. Deposit £2 2s.

May 12.—**Dewsbury.**—Tank.—Construction o ferro-concrete tank (500,000 gallons capacity), other appurtenant works, for the T.C. Mr. H. Dear Borough Engineer, Town Hall, Dewsbury. Dep £2 2s.

May 12.—**Maryport.**—Training Bank, &c.—construction of training bank for extension of groyne, for the Harbour Commissioners. Mr. D Rutherford, engineer, 140, Princes-street, Edinbur

May 12.—**South Crosland.**—Bridge.—Widening Bentley Bridge, which carries the Lockwo Meltham main road over Folly Dyke, South C for the West Riding C.C. West Riding Su County Hall, Wakefield. Deposit £1.

May 12.—**Truro.**—River Covering.—For the struction of reinforced concrete river covering on west side of Lemon Bridge, and the erection ther of public conveniences, for the T.C. Mr. F. A. Ban City Surveyor, Municipal Buildings, Truro. posit £1.

May 15.—**Manchester.**—Gantry.—For the const tion of a concrete gantry for supporting a steel n over the Cheshire Lines Railway at Stretford, for T.C. Mr. J. H. Sillitoe, Secretary, Gas Departme Town Hall, Manchester.

May 15.—**Manchester.**—Pipes.—Supply of 36 welded steel pipes and specials to the T.C. Mr. Sillitoe, Secretary, Gas Department, Town H Manchester.

May 16.—**London.**—Conduits, &c.—Supply of s conduits and fittings for electric wiring to H.M. C missioners of Works, Controller of Supplies, H Office of Works, &c., King Charles-street, S.W.1.

May 17.—**Durban.**—Tramways Track.—Supply 5 miles of single tram tracks to T.C. Messrs. Web Steel & Co., 36, Leadenhall-street, E.C. Deposit £2

May 23.—**Liverpool.**—Tramway Material.—Sup of tramway material, consisting of rails, fishplates, to the Tramways Committee. City Engineer, Munic Buildings, Liverpool.

May 27.—**Burton-on-Trent.**—Electric Light stallation.—For installation of electric light at in tution and children's home, for the Board of Guardi Mr. H. S. Askew, Clerk, Burton-on-Trent.

May 30.—**London.**—Steelwork.—Supply to South Indian Railway Co. of structural steelw (Machine Shop). Company's Offices, 91, Petty Fra Westminster, S.W.1. Charge £1.

June 2.—**Dublin.**—Steelwork.—Supply of st work for Bridges Nos. 643 and 645, Cavan Branch the Midland Great Western Railway of Ireland Chief Engineer, Broadstone Terminus, Dublin. ment 8s.

July 1.—**Chili.**—Harbour Works.—For the v of improvement of the Harbour of Constitucion, C Chilian Legation, 22, Grosvenor-square, W.1.

ROAD, SANITARY, AND WATE WORKS.

May 10.—**Ebbw Vale.**—Roads.—For spraying al 45,000 super yds. of road with "Liquaphalt," for U.D.C. Mr. P. I. Davies, Surveyor, Council Offi Ebbw Vale.

May 12.—**Bucklow.**—Sewers.—Construction of yds. of 9 in. stoneware pipe sewers, &c., for R. Mr. R. C. Cordon, Surveyor, 25, Station Buildi Altrincham.

May 12.—**Kirkcaldy.**—Roads.—For reforming roadways in tar macadam, and incidental works, at Infectious Diseases Hospital. Mr. George B. D Civil Engineer, Central Chambers, Kirkcaldy. Dep £1.

May 12.—**Manchester.**—Roads.—For drain paving, &c., parts of Campbell-road, Rusholme, various passages in Didsbury and Blackley. Pa Department, Town Hall, Manchester. Deposit £1

May 12.—**Mitcham.**—Roads.—For the making of Garden-avenue, for the U.D.C. Surveyor, Broad House, London-road, Lower Mitcham.

Y 12.—**Ripon.**—WATER MAIN.—Laying 4 in. ron water main for T.C. Mr. A. Barlow, City eer, Ripon. Deposit £5.
Y 12.—**Rothwell.**—ROADS.—For kerbing and lting 18,000 super yds. of road, for the U.D.C. Southwart, Surveyor, Rothwell. Deposit £1 1s.
Y 12.—**York.**—ROADS.—Making-up four back s, for T.C. Mr. F. W. Spurr, City Engineer, hall, York. Deposit £1 1s.
Y 13.—**Barnsley.**—SANITARY.—Conversion of s in Worsbro' Common area, for T.C. Borough eer, Barnsley.
Y 13.—**Cranbrook.**—SEWER.—For the construc- f about 1,159 lineal yards of 6 in. sewer with man- for the R.D.C. Mr. J. H. Bailey, Sanitary Sur- , Penryn, Cranbrook.
Y 13.—**Kidderminster.**—BORE.—For the sinking bore, varying from 20 to 10 in. diameter, at ey, near Kidderminster, for the R.D.C. Messrs. an, Barratt & Deeley, 13, Church-street, Stour- e. Deposit £2 2s.
Y 13.—**Kilmarnock.**—WATER MAINS, &c.—(*a*) ng of 800 yds. of 6 in. and 4 in. water piping; ie supplying and laying of 980 yds. of fire clay s of various diameters; (*c*) the excavation and ming of 4,650 yds. of roadway; and (*d*) erection 3 yds. of stob and wire fencing in connection with rection of 54 houses, for the T.C. Mr. William ar, Burgh Surveyor, Market Bridge, Kilmarnock.
Y 13.—**Leeds.**—ROADS.—For paving and con- g various roads, for T.C. Contract divided into schedules. Highways Engineer, 1, Swinegate, s. Deposit £1 1s. each section.
Y 13.—**Leeds.**—ROADS.—For making-up part of ley-lane and back of Ecclesburn-grove, for T.C. ways Department, Leeds.
Y 13.—**Queensbury.**—ASPHALTING.—For the tar alting to playgrounds at Queensbury Catherine Council School, for the West Riding E.C. cation Department, County Hall, Wakefield.
AY 13.—**Yeadon.**—WATER WORKS.—Laying cast- pipe line from Carr Bottom Reservoir, Burley, to a Reservoir, Hawksworth, for the Waterworks Co. H. A. Johnson, Engineer, 14, The Exchange, Brad- . Deposit £2 2s.
AY14.—**Denny.**—WATERWORKS.—Part duplication ain pipe from Broadside Reservoir to Denny, for T.C. Messrs. Crouch & Hogg, Civil Engineers, 17, edoch-street, Glasgow. Deposit £2 2s.
AY 14.—**Scunthorpe and Frodingham.**—SEWERAGE RKS.—For the construction of 112 lin. yds. of n. and 1,470 lin. yds. of 9 in. diameter earthenware sewers and other works, for the U.D.C. Mr. W. rar, Surveyor, Council Offices, Scunthorpe. De- it £2.
AY 14.—**St. Colomb.**—ROADS.—For reconstructing niles of road, for the R.D.C. Mr. T. T. Strongman, eyor, St. Colomb-road, Fraddon.
AY 14.—**Thrapston.**—ROADS.—(1) Widening of n road, rough pitching and steam rolling; (2) ing of 8,900 yds. of 9 in. by 4 in. concrete kerb in ious parishes; (3) building of concrete wall, for R.D.C. Mr. Arthur C. Bradbury, surveyor, dge-street, Thrapston.
AY 14.—**Witton Gilbert.**—CEMETERY.—For the struction of a cemetery at Sacriston, for the Parish ncil. Mr. E. Graham, Union Offices, Chester-le- eet. Deposit £1 1s.
AY 15.—**Beddington.**—ROADS.—For the construc- n of roads (preliminary works) and sewers in connec- n with the Housing Scheme on Miller's Orchard, idington Corner, for the U.D.C. Mr. S. F. R. ter, Surveyor, Council Offices, Wallington. Deposit 2s.
AY 15.—**Bingley.**—ASPHALTING, &C.—For the owing works: Bingley Training College—(1) halting playing ground; (2) building of accumu- or house. Education Department, County Hall, kefield.
AY 15.—**Chippenham.**—ROADS.—For preparing ndations and surfacing an area of 7,680 sq. yds. of ss 1 road within the Borough with 3 in. "Two-coat" halte macadam. Mr. A. E. Adams, High-street, ppenham. Deposit £3 3s.
AY 15.—**Lambeth.**—SANITARY.—For removal of rground iron urinal at Webber-street and re-erection same. Borough Engineer, Town Hall, Lambeth, .
AY 15.—**Preston.**—ROADS.—For surfacing 5,000 . super of carriageway with 4 in. of tarred macadam. T.C. Borough Engineer, Town Hall, Preston.
AY 15.—**Selkirk.**—WATER SUPPLY.—For supplying l laying 960 yds. of 10 in. diameter cast-iron pipes, l enlargement of brick collecting well, for T.C. ssrs. Warren & Stuart, 94, Hope-street, Glasgow. posit £2 2s.
AY 15.—**Upper Norwood.**—SEWERS AND ROADS. Works required to be done and materials supplied and d in the formation and laying out of sewers and lders' roads for the development of a portion of the omfield Hall Housing Estate, Central Hill, Upper rwood, for the Lambeth B.C. Mr. Osmond Cattlin, soc.M.Inst.E.C. (Chartered Civil Engineer), Borough gineer, Town Hall, Brixton Hill, S.W. 2. Deposit 2s.
AY 16.—**Antrim.**—ROADS.—For reconstruction of miles of roads in Co. Antrim, for the C.C. Mr. A. ller, Secretary, Antrim C.C., Belfast.
AY 16.—**Perry Barr.**—ROADS.—For reconstructing l coating with tar macadam of various roads, for U.D.C. Mr. Ernest Bailey, Surveyor, Council use, Green-lane, Hamstead, near Birmingham.
AY 16.—**Portadown.**—EXCAVATION.—For excava- n of earthwork at Portadown Junction, for the eat Northern Railway (Ireland) Co. Mr. J. T. phens, Secretary, Amiens-street Station, Dublin. posit £2 2s.
AY 16.—**Preston.**—ROADS.—For making-up Dart- eet, Clyde-street, Mersey-street, back roads between rt-street and Clyde-street, Clyde-street and Mersey- eet, and back road Mersey-street, for the T.C. rough Surveyor, Town Hall, Preston.

MAY 16.—**Saffron Walden.**—ROADS.—For resurfacing with tar macadam a portion of High-street and Little Walden-road, for the T.C. Mr. A. H. Forbes, Borough Surveyor, Saffron Walden.
MAY 17.—**Oswestry.**—SEWAGE WORKS.—For the construction of percolating filters, storm water tanks, and other works at the Sewage Disposal Works, for the T.C. Mr. G. W. Lacey, Guildhall, Oswestry. Deposit £2 2s.
MAY 19.—**Chelmsford.**—ROADS.—(*a*) Reconstruction of New-road, Great Baddow; (*b*) kerbing, drainage, and incidental works at Beehive-lane, Great Baddow, for the R.D.C. Mr. L. A. Cozens, Surveyor, Waterloo-lane, Chelmsford.
MAY 19.—**Uttoxeter.**—WATER SUPPLY.—Construction of about 8 miles of 7 in. water main, together with turbine pumping station, service reservoir, and other incidental works, for the U.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £7 7s.
MAY 20.—**Acton.**—ROADS.—For making-up (*a*) Fairlawn-avenue, Fairlawn-grove and Ravenscroft-road; and (*b*) Ramillies-road, for the B.C. Borough Surveyor, Acton, W.
MAY 20.—**Tendring.**—SEWERS.—For the laying of about 2,500 yds. of 6 in. and 9 in. sewers, &c., for the R.D.C. Mr. F. G. Vincent Brown, Dovercourt. Deposit £2 2s.
MAY 21.—**Hammersmith.**—ROADS.—For the making-up of Section 2, Bloemfontein-road, for the B.C. Mr. R. Hampton Clucas, Borough Engineer, Town Hall, Hammersmith. Deposit £3 3s.
✱MAY 21.—**London, S.W.9.**—ROAD REPAIRS.—Repairs to roads at the South-Western Fever Hospital, Landor-road, Stockwell, S.W.9., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.
MAY 22.—**Caithness.**—ROADS.—For resurfacing about 8½ miles of highway, for C.C. Mr. J. Young, Clerk, Thurso. Deposit £1 1s.
MAY 24.—**Belper.**—SEWAGE WORKS.—For laying 2,700 yds. of 9 in. and 6 in. sewers, construction of sewage tanks, &c., for the R.D.C. Messrs. Sands & Walker, Milton Chambers, Nottingham. Deposit £2 2s.
MAY 24.—**Paddington.**—ROADS.—For asphalte macadam works in Craven-terrace, Porchester-gardens, St. Mary's-terrace, and square (part of), and Howley-place, for the B.C. Borough Engineer, Town Hall, Paddington, W.2.
MAY 26.—**Glasgow.**—ROADS.—For the construction of Section A–B, Glasgow to Baillieston, Contract No. 1, of a new road from Glasgow to Edinburgh, for the T.C. Office of Public Works, City Chambers, Glasgow. Deposit £3 3s.
MAY 28.—**Gildersome.**—ROADS.—Main 3,960 yds. of granite paving, for U.D.C. Mr. W. Wilby, Surveyor, Gildersome, Leeds.
MAY 30.—**Newton Abbot.**—ROADS.—For resurfacing portion of Market-square, for the U.D.C. Mr. C. D. White, Surveyor, Town Hall, Newton Abbot.
MAY 31.—**Kingston-on-Thames.**—SEWER.—Construction of a foul water sewer and a surface water sewer in Cambridge-road, for T.C. Borough Surveyor, Kingston. Deposit £1 1s.
JUNE 5.—**Newton Abbot.**—ROADS.—For laying mastic rock asphalte in various streets, for the U.D.C. Mr. C. D. White, Surveyor, Town Hall, Newton Abbot. Deposit £2 2s.
NO DATE.—**Hunstanton.**—BOWLING GREEN.—For construction of bowling green. Mr. S. Wilson-Rosslyn, Victoria-avenue, Hunstanton.

Competitions.

(*See Competition News, page* 748.)

Auction Sales, Tenders, etc.

MAY 12.—**Reigate.**—Messrs. Watkin & Watkin will sell, subject to nominal reserve, Reigate, well-known sand pit, adjoining railway, suitable for contractor's yard. Auctioneers, Reigate.
✱MAY 14.—**London, E.8.**—Messrs. Charles R. Davis & Co. will sell, under a deed of arrangement, *re* W. J. Holbrook, R. E. Holbrook, and J. R. Holbrook (trading as J. Holbrook & Co.), by order of the Trustee, Dalston, E.8, the woodworking machinery and stock-in-trade of a builder, decorator and saw mill proprietor, comprising a 20 h.p. National gas engine, machinery, builders' ironmongery, electrical goods, plant, &c. Auctioneers, 285, Borough High-street, S.E.1.
✱MAY 20.—**Hayes, Middlesex.**—Mr. F. H. Clark will sell, at the National Filling Factory, Hayes, Middlesex, (one minute from G.W.Rly. Station), portable buildings, timber and builders' material, to be sold on the site, absolutely without reserve. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.
✱MAY 20.—**London, S.W.**—Messrs. Veryard & Yates, F.A.I., will sell, without reserve, at 1.30, timber, fittings, and building materials from demolition of Air-Craft buildings, Regent's Park, at 255, Clapham-road. Auctioneers, 365, Norwood-road, S.E.27.
MAY 20.—**Watford.**—Messrs. Humbert & Flint will sell, at 6 o'clock, 146 building plots on the Cassiobury Estate. Auctioneers, Watford, Herts, and 11, Serle-street, W.C.2.
MAY 22.—**Hertfordshire.**—Messrs. Knight, Frank & Rutley will sell by direction of Mr. Lionel Frank, as a whole or in lots, in the Hanover-square Estate Room (unless previously sold privately), the freehold residential property, The Grange, Cheshunt, Hertfordshire. Auctioneers, 20, Hanover-square, W. 1.
MAY 27.—**Near Gerrard's Cross (Bucks).**—**Messrs. Knight, Frank & Rutley will sell, by direction of Commander J. A. L. Hay, R.N., freehold agricultural and sporting property, known as Pickeridge Farm, about 171 acres; also about 18 acres of building sites. Auctioneers, 20, Hanover-square, W. 1.**
✱MAY 27 AND THREE FOLLOWING DAYS.—**Dorset.**—Messrs. Riggall & Riggall will sell, in the Southern Command, Blandford Camp, near Blandford, Dorset, 430 buildings of timber and brick and slate, of which 60 have been dismantled, iron water piping, permanent way, rails, &c. Auctioneers, Old Market-place, Grimsby.
✱JUNE 18.—**London, E.C.**—Messrs. Hubert & Flint will sell, by order of the Receiver for the Note Holders, *re* National Diamond Factories (B.O.), Ltd., the magnificent freehold factory premises known as The National Diamond Factories (B.O.), Ltd., Lewes-road, Brighton, a block of three newly-erected buildings, steam heated, and lifts to every floor, the whole of the diamond working equipment, possession on completion, for sale in one or two lots, at the London Auction Mart, 155, Queen Victoria-street, E.C.4 (unless meanwhile sold privately). Auctioneers, 11, Serle-street, Lincoln's Inn, W.C.2.

Public Appointments.

✱MAY 7.—**London, W.1.**—Clerk of Works required in connection with the extension of the Nurses' Home at St. Marylebone Hospital, Rackham-street, Notting Hill, W., by the Guardians of the Parish of St. Marylebone. Messrs. Constantine & Vernon, Architects, 32, Mortimer-street, W.1.
MAY 10.—**Liverpool.**—District Building Surveyor for the City Building Surveyor's Department required by the Health Committee of the Corporation of Liverpool. Town Clerk, Municipal Buildings, Dale-street, Liverpool, endorsed "District Building Surveyor."
MAY 12.—**Chichester.**—CLERK OF WORKS.—Clerk of Works required in connection with the erection by contract of 38 houses. Town Clerk, Chichester, endorsed "Clerk of Works."
MAY 14.—**Doncaster.**—Architectural Assistant required in the Estates and Race Surveyor's Department by the Borough Council of Doncaster. Mr. R. E. Ford, Assoc.M.Inst.C.E., Estates Surveyor, 3, Priory-place, Doncaster.
MAY 14.—**India.**—Stonemason (Works Assistant) for new Delhi, required by the Government of India. Two years' agreement, extensible by either one or two years, at the option of Government. The Secretary to the High Commissioner for India, 42, Grosvenor-gardens, S.W.1.
MAY 14.—**Preston.** (1) Quantity Surveyor, (2) Assistant for Private Street Works, and (3) Quantity Surveyor and Draughtsman, required by the C.B. Mr. Alfred Howarth, Town Clerk, Town Hall, Preston.
✱MAY 15.—**Hitchin (Herts).**—CLERK OF WORKS.—Competent Clerk of Works for a housing scheme of 102 cottages and tenements, for the Hitchin U.D.C. Arthur F. Blood, Architect, Town Hall, Hitchin.
✱MAY 26.—**Wolverhampton.**—Qualified Engineering Assistant, with experience in housing and town-planning, required by the Corporation of Wolverhampton, in the office of the Borough Engineer. Mr. George Green, Borough Engineer, Town Hall, Wolverhampton

New Tube to Morden.

The Underground Company recently placed two important contracts with Messrs. Charles Brand & Son and the Foundation Company, Ltd., for the driving of tunnels on the extension of the City and South London Railway from Clapham Common to Morden. Work is to begin forthwith, and the new line will be completed about August, 1925.

Messrs. Charles Brand will undertake the section between Clapham Common and the north end of Tooting Broadway Station, while the Foundation Company will be responsible for the section of the line to Dorset-road, Morden. The contracts amount together to about £600,000; to this figure must be added the cost of the stations, rolling-stock, escalators, and passimeters, which, it is estimated, will probably bring the total cost of constructing and equipping the Morden extension to £3,500,000.

Tidying Up.

The Scenery Preservation Committee, which was formed, with the Marquess Curzon as Chairman, at a Mansion House Conference on April 25, recently held a meeting at Keston, Kent. Major P. A. Slessor, Hon. Secretary of the Committee, outlined certain measures that are to be tried at Keston to stop the spoliation of the Common and other places of beauty.

It is the intention that Boy Scouts shouldpatrol the Common and hand out notices asking picnic parties not to leave litter. Local residents are asked to form a corps of Common rangers, each taking at certain times care of a strip of the Common. Also cigarette manufacturers are to be asked to issue a series of cigarette cards calling attention to the nuisance, and it is proposed to broadcast a talk on the subject from the various stations on the evening previous to Bank Holidays. The cinema, it is hoped, will prove a suitable channel for propaganda.

PROPOSED NEW BUILDINGS & OTHER WORKS *

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ACCRINGTON.—Queen's-road railway bridge has been the subject of negotiations between the borough and county surveyors.

AINSWORTH.—The Crown Brewery Co. propose to remodel the White Horse Hotel, and a new Council office is to be erected.

BALSHAGRAY.—The Balshagray Building Co. are to erect 260 houses overlooking Victoria Park. The plans have been approved of by the Glasgow Corporation.

BASINGSTOKE.—The Committee has passed plans for a steel-framed garage, with 15 lock-up shops in London-street, for Messrs. W. W. Webber, Ltd.

BATH.—Plans approved: Houses, All Saints'-road and Cleveland-walk; pavilion, Junction-road; bungalow, Marlborough-lane; houses, Wellsway; rebuilding, 7 and 8, Abbeygate-street; house, Van Dieman's-lane.

BILSTON.—The U.D.C. has authorised the storm tanks in connection with Lunt sewage extension to be lined with reinforced concrete. Plans passed: House, Prouds-lane, for Mr. W. A. Shore; house, Greenway-road, for Mr. C. G. Yeomans.

BIRKENHEAD.—St. Mark's Church have received permission to erect a reredos with side panels of oak to extend westwards the sacrarium of the side chapel, and to refloor the sacrarium with a parquetry block and white mosaic floor in oak and walnut. ——The T.C. has allocated £3,000 for renewal of water mains. Plans passed: Pair semi-detached houses, Bebington-road; converting houses, Nos. 81 and 83, Grove-road, into houses and shops; nine houses, Tollemache-road; seven houses and shops, Borough-road. The M.H. has given consent to the borrowing of £120,000 for the erection of 200 houses, and the Estates Committee proposes contracting with Mr. Sharples for building the houses.

BIRTLEY.—St. Joseph's R.C. School is to be enlarged.

BLACKBURN.—The T.C. decided to raise by loan £21,377 for erection of houses in Intack housing site, and to apply for power to borrow £1,000 for alteration and adaptation of Horncliffe, Dukes Brow, for use as a department of the Grammar School; and £19,162 for erection of 50 houses on the Brownhill housing site. The congregation of St. Peter's Church, Byrom-street, have decided to erect a side chapel in oak as a war memorial. The chapel, enclosed by screens, will contain an altar and reredos, the latter with four panels. The estimated cost is about £555.

BLACKPOOL.—It is proposed to erect a new church, vicarage and verger's house for the parish of St. Stephen's on the Cliffs. The Corporation have agreed to support the Chamber of Trade in its representations to secure an improvement in the present railway goods sidings. Plans and estimates have been prepared for the proposed widening of the main road from the Borough boundary to the Clifton Arms Hotel, at Marton, estimated to cost £44,638.

BLAYDON.—The U.D.C. has arranged to purchase land for a housing scheme.

BOLTON.—The Libraries Committee is considering the provision of a new branch library at Tonge Moor. The Baths Committee has rejected a site suggested for a public bath in the Chorley Old-road district. The Borough Engineer has been asked to prepare plans for the widening and improvement of Lewer Bridge. A new depot for the Lighting Department is to be erected. The Housing Committee has purchased the Moorfield Estate of 19 acres for a housing scheme, and 5½ acres are to be offered to the E.C. as a site for a school. Plans passed: Two houses, Greenmount-lane, for Mr. A. S. Woods; three houses, Thompson-road, for the Bolton Modern Building Co.; 12 houses Alexander-road, for Leigh Bros., Ltd.; bungalow, St. Helens-road, for Mrs. Hibbert; 12 houses, Normanby-street, for Mr. J. S. Hughes; four houses, Bromwich-street, for Mr. J. E. Paiton; two houses, Bradford-road, for Mr. T. Blakely; nine houses, Wilmot-street, for Mr. E. Taylor; extension to power station, for Lancashire Electric Power Co.; 16 houses, Olive-street, for Leigh Bros., Ltd.; two houses. Within's-lane, for Mr. T. Caldwell; two bungalows, Regent-road, for Mr. W. Beddyhough; warehouse, High Bank-street, for Mr. R. Haslam. Plans have been passed in respect of levels and sewers, Green-lane, for the Earl of Bradford, and for streets and levels in Normanby-street and Hague-street, for the Bridgwater Estates, Ltd. Plans passed: Mr. T. Blackley, Lever Edge-lane, four houses; Mr. J. Archer, Withins-lane, one house; Mr. P. Moorhouse, Chorley Old-road, one house; Mr. C. J. Warwick, Chorley Old-road, one house; the Bolton Modern Building Co., Bradford-road, two houses; Mr. A. B. Allanson, Church-road, one house; Messrs. E. & S. Street, St. Michael's-avenue, two houses; Mr. Albert Bardsley, Higher Swan-lane, seven houses.——For the proposed new church at St. Bede's, Hulton, the building fund amounts to £2,520.

BRADFORD.—The proposal to build a new girls' secondary school at Bolling Hall (a project held up by the war), at a cost estimated at from £40,000 to £60,000, has been approved by the Education Committee.

BRAMHALL.—The Parochial Council of the Parish Church are proposing an extension to the church by the erection of vestries.

BRECONSHIRE.—The County Main Roads Committee is to consider widening Glais Bridge at an estimated cost of £2,000.

BROTTON.—The U.D.C. have approved plans for the erection of a workmen's institute at Boosbeck.

BURNLEY.—The T.C. have been recommended to reopen negotiations with Lord O'Hagan for the acquisition of 167 acres with certain buildings thereon, at Townley. The land is required for school sites, parks, and playing field purposes. A scheme for the beaching of the sides of Cant Clough reservoir, near Burnley, is estimated to cost £8,800. The Main Roads and Bridges Committee of the Lancashire C.C. report that they have under consideration a scheme submitted by the Corporation for the construction of a by-pass road round the centre of Burnley from the Burnley and Colne main road to the Bacup and Manchester main road. The scheme, which was put forward as an unemployment relief work, involved the construction of a new road from Todmorden to Union Bar to the intersection of Glenview-road and the Manchester-road. The Committee state they had agreed to defray the cost, estimated at £40,000, of constructing the portion of the road within the administrative county, and a condition that the usual grant of 50 per cent. is received from the M.T.

BURY.—The T.C. decided to make application to the M.H. for sanction to borrow the sum of £15,100 in respect of the first portion of the scheme for the drainage of the Mosses.

CARMARTHENSHIRE.—The Llandilo R.D.C. has been notified that the M.T. will make a grant of £1,181 towards the cost of the proposed Brechfa-road improvement, estimated to cost £2,365. The C.E.A is seeking to compulsorily acquire land at Llandebie for erection of a school, &c.

CASTLEFORD.—The U.D.C. has passed plans for a house in Smawthorne-lane for the trustees of St. Michael's Church and a bakery in Perseverance-street, for Mr. Birkby. The Surveyor has been asked to prepare plans for the lay-out of the Carlton-street site.

CHELMSFORD.—The Corporation Gas Committee is considering the purchase of land for the erection of cottages for employees. The T.C. is to submit to the M.H. a plan showing the proposed 250 houses on the Boarded Barns Estate. Plans passed: House in Broomfield-road, for Dr. Martin Henry; store in Friars-place, for Mr. G. Ryder; pair of houses in St. Fabian's-drive, for Messrs. G. J. Hawkes & Sons; bungalow in Galleywood-road, for Mr. G. W. Smith; three houses in Bouverie-road, for Mr. H. Love; four pairs of houses in New-road (Tudor-avenue), off Coval-lane, for Messrs. Davis & Gibbons; five pairs of houses in New-road (Tudor-avenue), off Coval-lane, for Messrs. Davis & Gibbons; five pairs of houses in New-road (Tudor-avenue), off Coval-lane, for Messrs. Davis & Gibbons; house, Galleywood-road, and amended plan of drainage for house and bungalow, for Mr. H. W. Iles; pair of houses in Tower-avenue, for Mr. E. R. Rushen; 12 shops and dwellings in Broomfield-road, for Mr. F. J. French; office buildings in Waterloo-lane, for Messrs. Luckin & Sheldrake.

CHESTER.—The City Council propose to acquire 16, Whitefriars, and to equip the building as a maternity hospital. The Watch Committee recommend that they be authorised to enter into a contract with Brown & Co. (Chester), Ltd., to purchase a house in the Curzon Park estate at an approximate price of £1,500, plus the price of the land. The Council approved of the recommendation of the Housing Committee that application be made to the M.H. and the Unemployed Grants Committee for sanction to borrow £10,284 for the construction of the roads and sewers on the western portion of the Curzon Park Estate.

CHESTERFIELD.—The T.C. has agreed to a sewage scheme in respect of 581 houses. Plans approved: Two houses in Derby-road, for Mr. H. Cooper; house, Hasland-road, for Mr. E. Sadler; house, Hasland-road, for Mr. Scott Holland; three houses, Baythorpe-road, for Mr. Percy; two houses, Spitol, for Mrs. E. Howell; house, garage, loose-box and cowhouse, in Walton-road, for Mr. B. Unwin; house, Somersall-lane, for Mr. R. Swale; technical college, Infirmary-road, for the Derbyshire C.C.; swimming baths, Storforth-lane, for the Hasland and Birdholme Miners' Welfare Committee: house, Newbold-road (Highfield Hall Estate), for Mr. H. S. Hearnshaw; house, Holland-road, Old Whittington, for Mr. F. W. Morris; house, Tapton View-road, for Mr. George Cave; house, Newbold-road, for Mr. F. Blair; two bungalows, Hawthorne-street, for Mr. George Webber. The Borough Surveyor has submitted draft lay-out of 50 houses in Highfield-lane, and Mr. W. M. Ashmore, the Borough Architect, is to prepare the house plans. The tender of Mr. H. B. Blythe, of Sheffield, £7,505, is recommended for the erection of 19 houses on the Baythorpe Estate. The M.H. has sanctioned a loan of £11,960 for the erection of 31 houses on the St. Augustine's-road site. The Watch Committee has accepted the tender of Messrs. Thornhill Bros., of Lincoln, £17,357, for the erection of a new fire brigade station.

CHINLEY.—The Chapel-en-le-Frith and Chinley water supply is to be augmented by tapping springs on the hills about Chinley, constructing a reservoir, and conveying the water in a 4 in. main a distance of 2 miles, connecting with the existing main. The estimated cost of the scheme is about £5,000.

CHORLEY.—Chorley T.C. has approved plans of two houses in Quarry-road for Messrs. F. W. Lee & Co., and two houses in Preston-road, for Mrs. Molyneaux. The T.C. is to extend the main sewage works. Plans passed for new infants' school in connection with St. Peter's Church.——The T.C. are applying to the M.H. for sanction to borrowing £1,120 for the purchase of a portion of the Highfield estate for building pu
It is proposed to erect 20 houses. In connecti
the proposed Highfield School, the T.C. is cons
the selection of an architect from the following
cants:—Mr. G. H. Willoughby, and Messrs
& Holt, Manchester, Blackpool and Liverpool;
Biram & Fletcher, St. Helens; Messrs. John T.
& Sons, Walkden, near Manchester; and Mr.
Howard, Manchester.

CLITHEROE.—Extensive alterations are being
to the Whalley Arms Hotel, sanctioned by the
magistrates.

COLNE.—The B.E. has been instructed to
tenders for the proposed extensions of the filte
at Laneshaw reservoir, together with the ne
mains and fittings, estimated to cost £6,000. T
are making application for sanction to a loan of
for new mains. It is proposed to increase the
modation of the Maternity Centre at Bank H
an estimated cost of £900. The construction o
sewer in Keighley-road, Laneshaw Bridge, is
consideration.——A site has been purchased in
lane for the erection of a public convenience est
to cost £2,500. It is proposed to widen Churc
at the "King's Head," estimated to cost £450.
plete the extension of North Valley-road scheme
out street improvements in Clayton-street an
Ivy-street, to cost £360 and £450 respectifve
Plans were approved for five houses, to be ere
Castle-road, for Mr. W. Hodgson; four hou
Skipton Old-road, for Mr. George Jackson;
Keighley-road, Laneshaw Bridge, for Mr. H. O.

DARLINGTON.—Plans passed by the T.C.:
houses, Milbank-road, for H.D. Pritchett; two
The Mead; house and shop, Westlands-road; a
houses, Pierremont-road, for J. E. Chilton;
Vane-terrace, for R. J. Proud.

DEWSBURY.—Plans passed: Warehouse,
waite-road, for Mr. A. G. Spurn; new boiler h
Spinkwell Mills, for Messrs. M. Oldroyd & Co.
electricity sub-station, Old Bank-road, for the
bury Corporation; two houses, Saville-road,
Town, for Mr. A. C. Goldsborough; new
Ravens Ing Mills, for Messrs. H. Hamer & Son
——The T.C. are making application for sanct
borrow £2,436 for the purpose of constru
footpaths, &c.

DONCASTER.—A Ministry of Health inquiry ha
held into the application of the Corporation,
the Housing of the Working Classes Acts,
Order sanctioning a scheme for the improvem
three areas, namely, Church-lane, Portland-plac
the Rookery.

DUDLEY.—The following plans have been
mitted to the T.C.: Mr. H. P. Case, house, Hales
road, Netherton, Dudley; Mr. George Pad
building, near Bumblehole Bridge, Wind
Netherton, Dudley; Mr. Frank Bate, house, D
Wood-road, Dudley Wood, Netherton, Dudley
D. Jakeman, house, Scott's Green, Dudley;
Watson, house, Birmingham-road, Dudley; Mr.
Smith, house, Dudley Wood-road, Netherton, D

DUKINFIELD.—It is proposed to convert the
library in Town-lane to the open access system,
ated to cost £800.

DUNDEE.—Plans as follows have been pass
the Works Committee: Byron-street, warehou
Francis Stevenson & Sons, Ltd.; Fairfield,
power-house for William M'Lean & Sons; Par
bungalow for the Misses Findlay; Blackness-a
semi-detached villa for Nelson T. Stewart; Yo
shore, warehouse, &c., for Peebles Brothers,
Camperdown-street, Broughty Ferry, offices
E.C.; Harrow-street, bungalow for Mrs. Gar
Forfar-road, pavilion, for Dundee Education Auth
Tullideph-road, cottage, for Charles Brand.

EASINGTON.—Plans passed by R.D.C.: Ext
of the Church Hall, at Horden; 10 aged
homes, at Blackhall Colliery; new premises, at H
for Sherburn Hill Co-operative Society.

EASTBOURNE.—Plans passed by the R.D.C.:
and shop, Pevensey Bay, for Mr. H. Boniface (M
Bassett-Smith, architect); baths, water closet
wash-house, at Quirk's Nautical College, Pe
Bay, for Mr. C. J. Quirk (Mr. C. E. Ireland, arch
bungalow, Pevensey Bay, for the Rev. A. E. S
(Mr. F. C. Benz, architect).——Memorial Cha
Stone Cross, for Mrs. M. H. Owen.

EASTLEIGH.—Plans have been approved
U.D.C. for the erection of 10 houses, for the Han
Farmers' Co-operative Bacon Factory, Ltd.
their new premises; also for a pair of semi-de
houses.——The M.H. has sanctioned the erec
50 more houses under the subsidy scheme.

ELLESMERE PORT AND WHITBY.—The surv
to prepare a report as to the widening and in
ment of Pickering's Bridge and Meadow-lane.

FARSLEY.—Plans passed: Conversion of "As
New-street, into two flats, for Mr. F. W. Grant.

GATESHEAD.—At a meeting of the electora
vened to consider the new bridge scheme, est
to cost £588,000, it was decided to go forwa
the scheme conditionally upon a grant of 50 p
being forthcoming from the Government.

GLASGOW.—The Tramways Committee is cons
various tramway extensions.

HASLINGDEN.—The T.C. have accepted the de
Mr. L. F. Roslyn, R.B.S., of South Kensingt
the Borough War Memorial. The total cost, in
a concrete base to be put in by the Corporation,
about £1,100. The memorial will be on the Manc
road side of the pleasure gardens and rec
grounds.

HEMSWORTH.—The U.D.C. has approved p
306 houses to be erected by the South Kirkby, F
stone & Hemsworth Collieries, Ltd.

HERTFORDSHIRE.—The C.C. has decided t
eight police cottages at a cost of £5,198. A h
to be built for the Ware Sanatorium Medical
intendent, at a cost of about £2,500. The Hi
Committee is considering the reconstruction
bridges. The Nursery & Market Gardens D
ment Society, Ltd., has arranged to extend the

* See also our List of Contracts, Competitions, etc.

accommodation, at a cost of £4,000. The E.C. uthorised the County Surveyor to prepare plans elementary school at Hitchin, and a school at esdon. London-road school, Knebworth, is to larged at a cost of about £4,800. A school at rn is to be erected at a cost of £4,395, by Mr. Porter, of Ware, whose tender has been accepted e E.C. The E.C. has asked the architect of n Garden City Co. to prepare plans for enlarging landside school. The County Surveyor is to re plans for a teacher's house at Little Heath.

RTON.—The U.N.C. have approved plans for the on of six additional aged miners' cottages, on adjoining the existing houses.

HLEY.—Plans passed: House, Chester-road, for . Broome; bungalow, "The Larches," for Mr. ylor; two cottages, Holman-street, for Mr. R. ; two bungalows, Claughton-street, for Messrs. H. Cox; three houses, Aggborough, for Mr. C. C. n; house, Aggborough, for Mr. H. J. Edwards; . Aggborough, for Mr. E. Rogers; house, Aggh. for Messrs. House Builders, Ltd.; recon- ion of stables into two houses at "The Larches," r. F. W. Talbot; house, Stourport-road, for . Harriss; house, Aggborough, for Mr. H. Evans.

GHTON-LE-SPRING.—The R.D.C. have given approval to 18 houses to be built at Shiney-row he Lambton & Hetton Collieries, Ltd. The on & Hetton Collieries, Ltd., have agreed to ase the Fence Houses housing site for £3,250.

Y LAKE.—The vicar of Holy Trinity has received ssion to erect a screen and gates of carved oak the chancel and to instal a new organ in the h, estimated to cost £3,000.

LL.—Plans passed: A. Dunn & Co., six houses, -av., Ryde-st; R. Fisher, two houses, Aberdeen- ; Dowell & Greensides, six houses, Southcoates- e; R. Ashton, six houses, Southcoates-lane; I. Loveridge, nine houses, Beverley High-road; . Clarke, house, Aberdeen-street; J. B. Fenwick, uses, Beverley High-road; C. H. Smith, 10 houses, hcoates-lane.

ORD.—A revised scheme has been prepared by .D.C. for a central library at a cost of £16,360.

KESTON.—The T.C. has passed plans: House, sway, for Mr. Thomas Hallam; house, Corpora- road, for Mr. Thos. Wall; house, Andrew-avenue, Ir. J. O. F. Gibson.

SWICK.—The Cumberland C.C. proposes to erect w bridge at Gretna Bridge, at an estimated cost ,000.

OTTINGLEY.—The U.D.C. is purchasing land for using scheme.

UTSFORD.—The Board of Management propose crease the staff accommodation at the District Memorial Hospital.

SSWADE.—The District Committee of the Mid- an C.C. has appointed a sub-committee to report the extension of the burgh boundaries. It is osed to improve the dangerous corner on the battle-road at Newbattle Stables; also to effect a widening scheme within the burgh.

EADGATE.—The Consett Iron Co. is carrying out rtant housing schemes in this district, and the ilizate and Lanchester Rural Councils are arranging ewerage.

ELS.—The B.E. has approved of a site on the gates Housing Estate for the purpose of erection Council School. Application for sanction to w £1,200 is being made with which to purchase the The Highways and Tramways Department of Corporation are inviting tenders for several paving ects., including a large area of granited rock lte paving in Chapeltown-road and Wortley-lane.

RCS.—The Holland C.C. propose to spend £130,000 ain and urban roads.

ERPOOL.—The L.M.S.R. Co. have offered to the Orrell Park overhead bridge. The offer been accepted by the Corporation, who have the railway company to expedite the recon- tion. It is proposed to erect a public library site at the corner of Rose-lane and Allinton-road, anction is being sought by the E.C. to the appro- ion of the Springwood site for the erection of an entary school. Messrs. Roberts, James & Co. e-veloping a site lying between Comptons-lane, ve-avenue and Green-lane, about 20 acres in t. for the erection of houses, and also the con- n in Woolton-road and the old Chedwell Polo d for residential purposes.

AY.—The Denbighshire C.C. will build a new l at the garden village of Llay, at a total estimated of £18,000.

NDON.—The City of London Corporation have d to widen Gracechurch-street to 50 ft. and ard-street to 35 ft., at indicated parts, provided ondon County Council will bear half the expense. The Metropolitan Asylums Board is to spend 0 on roofing and repairs at the ambulance us.

NDON (WANDSWORTH).—Plans passed by B.C.: . J. Sherwood, shop, Ramsden-road, Balham; r. R. H. Miller & Son, Ltd., three shops, 187, am High-road; Mr. S. Boothman, house, Ulla- -road, Streatham; Messrs. H. & T. Danks arton), Ltd., boiler-house, engineers' shops, &c., mises of the Columbia Gramophone Co., Ltd., n Valley, Springfield; Messrs. G. P. & H. Barnes, Abbotsleigh-road, Streatham; Messrs. Smith, y & Garrard, re-drainage, 11, Albion-road, am North; Mr. W. R. Andrews, house and r. Mount Ephraim-lane, Streatham; Mr. H. , re-building of the "Crown and Sceptre" public- , Streatham-hill; Messrs. Bleach & Dorey, Ltd., , Chartfield-avenue, Putney; W. H. Ricketts & garage, 47, Montana-road, Tooting; Messrs. ge, Saville & Hooper, 30 houses, Sutherland- , Southfield; Messrs. William Willett, Ltd., in four private roads, Dover House Estate, y; Messrs. W. L. Cook & Co., Ltd., shop, 46, am-road, Tooting; Messrs. Chapple & Fulford, uses, Donnybrook-road, four in Broadview-road, 17 in Greyhound-lane, and five in Aberfoyle-road, Streatham; Mr. W. F. Gillett, eight houses, Rosedene-avenue, Streatham; by Messrs. R. Bilham & Son, six houses, Thornton-road. The B.C. has prepared plans for the foundation of additions to the Town Hall.

LONGRIDGE.—The members of the Congregational Church have raised funds for repairs and redecorations to the buildings, estimated to cost £400.

LYTHAM ST. ANNES.—The Council have decided to ask Messrs. T. H. Mawson & Sons, landscape architects, Lancaster, to prepare a scheme for laying out the Ashton Marine Park. Plans have been passed for the erection of 26 houses, and the Council have under consideration the erection of 72 houses and 20 dwellings. It is proposed to erect a church on a site in the St. Leonards district.

MALDON.—The R.D.C. is applying for sanction to grant subsidies for another 20 houses.

MANCHESTER.—Over £10,000 is to be spent by the Buildings and Improvements Committee on the scheme to remove the dangerous corner in Gorton-lane. To facilitate the tram traffic along Potter-lane and near Ashbury Station the Pineapple Hotel is to be rebuilt and the road will be widened considerably.

MELLOR.—The M.H. has sanctioned a scheme for bringing water from Kinder Scout, estimated to cost £15,300.

MERTON AND MORDEN.—The U.D.C. is seeking a loan of £3,150 for erection of a pavilion on the recreation ground.

MILTON REGIS.—At the Council meeting, Messrs. Edward Lloyd, Ltd., submitted plans and specifications for 142 houses proposed to be erected at Kemsley. This new village will be known as Kemsley Village.

MUSSELBURGH.—A start has just been made upon the widening of the new stone bridge. Messrs. John Angus & Sons, of Edinburgh, are the contractors. The present tramway track on the bridge is to be doubled. The estimated cost of the scheme is £20,000.

NEATH.—The B.C. has acquired a housing site at Brynhyfryd, Briton Ferry, which will be utilised, and is in negotiation for acquisition of a site at Westbourne-road, Penrhiwtyn, which will cost £1,000 to lay out preparatory to building thereon.

NELSON.—The County Higher Education Sub-committee are to erect a secondary school on the Hole House Estate, and the County Architect has been instructed to prepare plans. It is proposed to purchase the estate, containing about 11 acres, at £120 per acre, for the school and provision of playing fields. The E.C. are considering the erection of a new Central school.

NEWBIGGIN.—The T.C. has received the sanction of the M.H. to proceed at once with the erection of 56 houses.

NEW BRIGHTON.—Powers are to be sought in a Wallasey Corporation Bill to be promoted next session for the extension of the promenade. Meanwhile £300 is to be expended in making boreholes on the foreshore in order to ascertain the nature of the underlying strata.

NEWCASTLE.—The Housing Committee proposes the erection of 142 houses on the Walker Estate. A contract is recommended with Mr. William Milne for alterations at Pendower Hall in connection with the provision of an open-air school at £5,498. A contract is recommended with Messrs. E. R. Davison & Son, for the erection of 70 houses on the Pendower Estate, at £34,390.

NEWTOWNSTEWART.—The Northern Ministry of Home Affairs has approved of the proposal of the Commissioner in charge of the Strabane local administration to borrow £1,500 for improving the Newtownstewart water supply.

NORTHAMPTON.—Plans passed by T.C.: House, Christchurch-road, for H. J. Peach; four houses, Alton-street, for J. G. Pullen & Sons; house, Wycliffe-road, for W. H. Loveday; 2 houses, Pleydell-road, for W. H. Loveday; 2 houses, Delapre-crescent Estate, for Sale & Co.; house, Queen's Park-parade, for F. A. Facer; house, Woodland-avenue, for P. Dewis; house, Birchfield-road E., for —. Billingham; house, Christchurch-road and Sandringham-road, for A. J. Bennett; house, Garrick-road, for A. Elson; house, King Edward-road, for W. C. Throssell; 6 houses, Bective-road, for A. L. & W. C. Throssell; 6 houses, Cedar-road, for Sale & Co.; H. W. Chown; house, Cedar-road, for Sale & Co.; 2 houses, Birchfield-road E., for C. H. Rainbow.

NORTHFLEET.—The U.D.C. is considering the erection of a new Council Chamber. The Council is also considering a proposed public landing stage. Plans passed for bungalow in London-road, for Mr. W. Gould.

OLDHAM.—Plans passed by T.C.: Fifty-four houses, Keble-avenue, for Mr. T. C. Lees; four houses, Ronald-street, for Messrs. Gartside & Parry; three houses, Langham-road, for Mr. M. Nield; underground lavatories, Market-place, for Cleansing Committee; new church and institute, Honeywell-lane, for Trustees United Methodist Free Church; extension to meter testing station, Ascroft-street, for the T.C.; two-story warehouse in High-street, for Mr. J. Bailey; bungalow in Meadow-lane, for Mr. W. Makin; four houses in Lacrosse-avenue, for Messrs. A. Redfern & Son; higher standard central school, Ward-street, for the E.C.

OSWESTRY.—The Park Hall Estate, comprising 500 acres, has been sold by the War Office to the Park Hall Syndicate, who propose to develop the site for residential purposes.

PENARTH.—The U.D.C. is to forward plans for houses it proposes to erect to the M.H. for sanction. The houses will be built, 11 in Cawnpore-street, 30 in Andrew-road, and three in Agnes-street. The Council has passed plans for six houses for Messrs. James & Co.

PETERBOROUGH.—The T.C. has asked the town clerk and city engineer to inspect certain sites for housing schemes. Plans passed: house, Grange-road, for Mr. G. S. Baxter; house, Fairfield-road, for Mr. Claxton; four houses, Stone-lane, for Mr. T. Langsley; house, Padholme-road, for Mr. Emerton; bungalow, Park-road, for Mr. B. Crowson; pavilion at the cricket field, Crawthorne-road, for the Nene Tennis Club; the city engineer is to prepare a design for the redecoration of the Council Chamber.

PILLING.—The Parish Council have made application to the Fylde Water Board for a scheme to be prepared for providing a water supply for their district with an estimate of cost.

PONTYPOOL.—The U.D.C. is applying for £500 for provision of public sanitary convenience.

PRESTATYN.—Plans have been submitted to the Church Council for the proposed extensions to the Parish Church, which includes a new side chapel, vestries for clergy and choir, organ chamber, setting back of the chancel, and additional seating accommodation, estimated to cost £2,000.

PRESTON.—The members of the Leyland-lane Primitive Methodist Church are proposing to erect a new Sunday School, estimated to cost £1,500. The Lancs C.C. are recommended to apply to the M.H. for sanction to borrow £105,000 for unemployment relief works on roads, viz., £40,000 on a new road at Todmorden; £40,733 for widening the Preston and Blackpool main road; and £25,000 for reconstruction of the Skew Bridge on the Preston, Chorley and Bolton main road.

RAWMARSH.—A new church is being erected in Kilnhurst-road, Sandhill. Messrs. G. Saul & Son, Rotherham, are the contractors; architect, Mr. W. H. Wood, Newcastle.

REDCAR.—The North Riding E.C. propose construction of a new school at Aske-road, Redcar, for 200 children.

RHYL.—Inquiry of the M H. has been held as to the Council's application to borrow £10,700 for the purpose of improving the town's water supply.

ROCHDALE.—Plans of six houses to be built in Ashfield-road were passed. Extensions are proposed to the premises of Messrs. Iveson Bros., in Nelson-street; Mr. J. Townsend, architect, of Rochdale.

RIPON.—The T.C. is applying for sanction to loan of £3,500 for acquiring and developing Mallorie Park Building Estate.

ROTHERHAM.—The M.H. has held a public inquiry into an application by the R.D.C. for sanction to borrow £10,399 for works of sewerage and sewage disposal at Brampton Bierlow.

RUNCORN.—It is proposed to install the open access system at all the public libraries. Sanction has been obtained for the laying of water mains to the 64 new houses in course of construction at Western Point by the Castner Kellner Alkali Co., estimated to cost £160.

SADDLEWORTH.—The D.C. are proposing to erect 16 houses at Uppermill and four at Delph.

SALFORD.—Plans passed: Construction of: Workshop, 15, Upper Camp-street, Broughton; belfry turret, St. Joseph's Church, Ellesmere-street, Salford; homes for old people, Stott-lane, Pendleton; works and caretaker's residence, Bridgewater-street, Salford. Conversion of: Dwelling-house into four flats, "Heath Mount," Vine-street, Broughton.

SILLOUTH.—The U.D.C. has passed plans for two bungalows for Mr. Chambers at Greenway.

TAF FECHAN.—The Water Supply Board has authorised the engineers to proceed with the detailed drawings for a new pipe line, estimated to involve an expenditure of £95,000.

TIDESWELL.—The ratepayers have now decided on a public cemetery, which is to be laid out at a cost of £600.

TOTTINGTON.—The E.C. are urging the County Committee to carry out their decision to acquire a site for the erection of an elementary school in the district.

TURTON.—The scheme for the new road commencing at Marsden Barn and joining Longworth-road, estimated to cost £8,185, has been provisionally approved.

WALLASEY.—Plans passed by T.C.: Seventeen houses in Willoughby-road, for Mr. J. P. Jones; conversion of 42, Radnor-drive into two flats, for Mrs. A. Hebson; house, Claremount-road, for Mr. J. A. Lindley; seven garages in Hamilton-road, for Messrs. Harrocks Bros.; house, Bernard-avenue, for Mr. A. Stumbles; six houses and garage, Willoughby-road, for Mr. J. Henshaw; cold storage chamber, at 26, Liscard Village, for Mr. R. Eastwood; gallery at Claremount-road Wesleyan Methodist Church, for the Trustees; two houses and garage, Oldfield-road, for Mr. H. W. Jones; four houses, Carlton-road, for Messrs. Campion & Stoddart; six houses, Dawlish-road, for Mr. B. C. Shaw; conversion of 36, Seaview-road into a house and shop, for Mr. F. Foster; pavilion, Y.M.C.A. Grounds, Manor-road, for Mr. T. G. Annison; extension, 22, Alverstone-road, for Mr. H. Stein; conversion of shop and offices, Nos. 100 and 102 Rowson-street, into two lock-up shops, for Mr. E. M. Barton; four houses, Dawlish-road, for Mr. J. Johnson; two houses, Bartley Memorial Cottages, Mariners' Home, for the Mercantile Marine Service Association; eight houses, Willoughby-road and Station-road, for Mr. G. Peers; house, corner of Marlowe-road and Monmouth-road, for Mr. W. J. Burton.

WARRINGTON.—Plans passed: Two houses, in Manchester-road, for Messrs. Bramhall Bros.; depot and service station, Knutsford-road, for the Anglo-American Oil Co., Ltd.; sub-station, Winwick-road for the Warrington Electricity Committee; pair semi-detached houses, Lovely-lane, for Messrs. Lee & Healey; pavilion in playing-field, for the Warrington Grammar School; addition to depot, Crossfield-street, for Shell Mex, Ltd.; an estate plan, submitted by Messrs. Firth & Co., Ltd., showing an amended lay-out, is under consideration. The B.S. has been asked to prepare an estate plan or lay-out of land adjoining the Reynolds-street site.

WHITWORTH.—The Lancs E.C. at Preston have decided to erect a new school in this district.

WIGTON.—The R.D.C. has passed plans of a bungalow at Mealsgate, for Mr. W. Penn.

FIRES.

LEEDS.—Over half of Osmandthorpe Hall, an old building of the Tudor period, near Leeds, has been completely destroyed by fire.

PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.
Flettons, at King's Cross	2 13 3
Do. grooved for plaster	2 15 3
Do. Bullnose	3 8 3
Best Stourbridge Fire brick:—	
2½ in.	8 11 0
3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0
Headers	21 10 0
Quoins, Bullnose and 4½in. Flats	28 10 0
D'ble Str'tch'rs	30 10 0
D'ble Headers	27 10 0
One Side and two Ends	31 10 0
Two Sides and one End	32 10 0
Splays and Squints	30 0 0

Best Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
½ in. „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	7 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 51/- alongside at Vauxhall in 80-ton lots.	3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ „ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5¾
1½ in. to 2 in. ditto, ditto „	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6in. rubbed two sides ditto „	6 0½
4in. sawn two sides slabs (random sizes) „	2 10
3in. ditto. ditto „	2 5
2in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£24 10
4 × 9	32 0	3 × 11	30 0
4 × 8	26 0	2 × 11	30 0
4 × 7	26 0	3 × 9	26 0
3 × 8	25 10	2½ × 9	27 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	24 0	3 × 4	24 10

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£37 10
1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/-	1¼	33/6
⅞	24/-	1½	37/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/-

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	21/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 8
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
⅜ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 5 0
Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ „ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	5/16 in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Angles and Gutters.	Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3½d.
4 in.	1/4	1/1¾	3¾d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.
O.G. GUTTERS.			
3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. „	1/9¾	1/4	2/0½
3 in. „	2/1½	1/8	2/5¾
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5¾	3 3¾
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3¾	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 0 0	..	15 0 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0
Hoop iron, basis price	16 10 0	..	17 10
„ Galvanised	31 0 0	..	32 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16 0
„ „ „ 24 g.	16 0 0	..	17 0
„ „ „ 26 g.	18 0 0	..	19 0
„ „ „			
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	22 0 0	..	23 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	24 0 0	..	25 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/- to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	41
Pipe in coils	41
Soil Pipe	44 10
Compo pipe	47 10

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 1 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills per ton	27	0 0	.. —
Do., ex country, carriage forward per ton	28	0 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULE

½ in.	¾ in.	1 in.
39/5	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin „ „	0 2 4	.. —
Copper nails „	0 2 3	.. —
Copper wire „	0 2 4	.. —
TIN—English Ingots „	0 2 6	.. —
SOLDER—Plumbers' „	0 1 2	.. —
Tinmen's „	0 1 4	.. —
Blowpipe „	0 1 6	.. —

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes per gallon	0 3
„ „ „ in barrels „	0 3
„ „ „ in drums „	0 4
Boiled „ „ in barrels „	0 4
„ „ „ in drums „	0 4
Turpentine in barrels „	0 6
„ in drums (10 gall.) „	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	56 10

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt lots per ton delivered 79 15

Red Lead, Dry (packages extra) per ton	54 10
Best Linseed Oil Putty per cwt.	0 16
Filocol per cwt.	0 15
Size, XD Quality /kn.	0 3

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

...S CURRENT OF MATERIALS (*contd.*)

GLASS.

...SH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
...ourths....	3½d.	32 oz. fourths	8½d.
...hirds	4½d.	32 „ thirds	10½d.
...ourths ..	5½d.	Obscured Sheet. 15 oz.	4d.
...hirds	6½d.	„ 21 „	5½d.
...ourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
...hirds	8d.	En'lled 15oz. 5½d., 21oz.	7½d.

...rice according to size and substance for squares ...m stock.

...SH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
...ed plate	4½d.
...gh rolled	5½d.
...gh rolled	5½d.
...ured Rolled, Oxford Rolled, Baltic, Oceanic, ...Arctic, Stippolyte, and small and large ...Flemish white	6½d.
Ditto, tinted	9d.
...ed Sheet	6d.
...ite Rolled Cathedral	5½d.
...ed do.	7½d.

...Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
...rnish	Outside	0 14 0
...tto	ditto	0 16 0
...pal	ditto	0 18 0
...pal	ditto	1 0 0
...pal Carriage	ditto	1 4 0
...itto	ditto	1 12 0
...Varnish	Inside	0 18 0
...ale Paper	ditto	0 18 0
...pal Cabinet	ditto	1 2 6
...pal Flatting	ditto	1 0 6
...rying Oak	ditto	0 18 0
...ard Drying Oak	ditto	0 19 0
...pal Varnish	ditto	1 0 0
...ditto	ditto	1 2 0
...ditto	ditto	1 12 0
...pan Gold Size		0 10 0
...ack Japan		0 10 6
...d Mahogany Stain (water)		0 12 0
...ick Black		0 7 6
...Black		0 14 6
...g (patent)		1 5 0
...and Brush Polish		0 17 0
...Dryers in Terebine		0 9 0
...Black Enamel		0 7 0

PATENTS.

APPLICATIONS PUBLISHED.*

...273.—H. Cliff and C. Cliff: Boxes, cases,

...287.—P. C. Cousins: Adaptable box.

...304.—W. H. Watson and J. H. Wood: ...ies used in box-making.

...316.—H. Jennings: Paving-blocks and ...eads.

...317.—P. J. C. Verheyden: Paint-scrapers.

...324.—H. W. Umney: Door spring.

...342.—A. C. Manifold: Shuttering boards ...pparatus for the erection of cement ...gs.

...368.—C. Esperstedt: Waste fittings and ...or lavatory basins.

...373.—A. L. Riker: Ventilators.

...19.—T. H. R. Hall: Spokeshaves.

...36.—F. J. J. Gibbons: Stays for ...s and doors.

...65.—A. Melville and D. MacDougall: ...g-machines for concrete reinforcing rods ...ces.

...84.—G. C. Jenks: Door fastenings.

...20.—F. G. Lynde and E. L. Lynde: ...s, coffer-dams, and platforms.

...25.—W. J. Davis: Portable tables.

...28.—H. F. Webb: Tables and desks.

...52.—F. Werth: Shuttering arrange- ...for casting concrete buildings *in situ*.

...57.—R. Foulsham: Means for securing ...ening lids of packing-cases and similar ...cles.

...69.—H. C. Gore: Nail-puller and case ...

...79.—G. O. Case and Novocretes, Ltd. ...blocks.

...92.—Steelgrip Fittings, Ltd., and W. H. ...James: Means for connecting the post ...e-bars of beds and furniture.

...97.—J. Temperley: Manufacture of tar ...m.

...hese applications are now in the stage in ...pposition to the grant of Patents upon them ...made.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND

Coatbridge.—LAUNDRY.—Plans have been passed for a washhouse and laundry at Woodside House, for Mrs. M. S. Spencer, at an estimated cost of £550.

Rosyth.—INSTITUTE.—The Dunfermline Dean of Guild Court has granted permission to the Carnegie Dunfermline trustees to erect an institute at Rosyth, conditionally.

Turriff.—COTTAGES.—The Corporation Plans and Buildings Committee has passed plans of double cottages proposed to be erected by Mr. Joseph Rae.

Milngavie.—VARIOUS.—The Dean of Guild Court has passed the following plans: Mr. Hugh R. Buchanan, Underfall, cottage for the gardener; Mr. Duncan M'Pherson, Onslow-drive, Dennistoun, four-apartment bungalow, Strathblane-road; Mr. A. R. W. Allen, studio adjoining his house, Balfleurs-road.——The T.C., two houses, Craigdhu-road.

Motherwell. — COTTAGES. — The Dean of Guild Court has passed plans for ten cottages and one villa.

Hawick.—HOUSES.—Plans have been passed for four houses at Twirless-road, for the Hawick Working Men's Building and Investment Co., Ltd. Plans have been passed for twelve Council houses at Mansfield, Hawick.

Clarkston.—SCHOOL.—The Lanarkshire E.C. has adopted plans for a new school to be erected, at an estimated cost of £14,000. The plans will be forwarded to the Scottish Education Department for approval.

COMPETITIONS, CONTRACTS, &c.

MAY 10. — **Dumbarton.** — ALTERATION. — Alteration and restoration of Glencairn House, High-street, for Gas Committee. Tenders must be for complete job. Particulars from Burgh Engineer, Municipal Buildings.

MAY 13. — **Kirkcaldy.** — ADDITIONS. — Additions to Saline Public School, for the Fyfe Education Authority. Schedules from Mr. G. Sandilands, Master of Works, Education Offices, Kirkcaldy. Deposit, £1 1s.

NEW CHURCH, GIGHA

The new parish church of the islands of Gigha and Cara was opened and dedicated by the Rev. Mr. Davidson, of Campbeltown, recently. A war memorial window and tablet were also unveiled. These windows are from the Stephen Adam Studios. Two tablets were also unveiled, one to a former minister, the other to a donor to the church. The new church is an example of the work of Messrs. Jeffrey, Waddell & Young, architects. Kenmore Parish Church, Perthshire, has also been renovated by this firm.

Rebuilding Berwick Station.

The directors of the London & North-Eastern Railway, it is stated, have decided upon the entire reconstruction of Berwick passenger station, built 77 years ago, and have placed a contract for the work with Messrs. Hugh Symington & Sons, public works contractors, 190, West George-street, Glasgow, the total expenditure being estimated at between £45,000 and £50,000.

Society of Antiquaries.

At the anniversary meeting of the Society recently, the customary elections of officers and Council for the ensuing year were held and resulted as follows: President, The Rt. Hon. the Earl of Crawford and Balcarres, K.T.; Treasurer, William Minet, M.A.; Director, C. R. Peers, M.A.; Secretary, Ralph Griffin. Members of Council: J. N. Bankes, Lt.-Col. H. F. Bidder, D.S.O., J. P. Bushe-Fox, F. William Cock, M.D., J. E. Couchman, Major Victor Farquharson, M. S. Giuseppi, Robert Holland-Martin, C.B., John Humphreys, Rev. Professor Claude Jenkins, M.A., P. M. Johnston, W. A. Littledale, M.A., Lt.-Col. H. W. Morrieson, Professor J. L. Myres, O.B.E., M.A., D.Sc., R. Garraway Rice, J.P., W. Barclay Squire, M.A., M. F. Tweedie.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Mason...	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick- layers' Labourers.	Plas- terers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1 6	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Kirkwall	1/4½	1/4½	1/8½	1/4	1/4½	1/4	1/3	1 0	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 7c8

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

Deal wrot moulded and rebated	per foot cube	14	

		1"	1¼"
Plain deal jamb linings framed	per ft. sup	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

		s.
Housings for steps and risers	each	
Deal balusters, 1 in. × 1¼ in.	per ft. run.	
Mahogany handrail; average 3 in. × 3 in.	" "	
Add if ramped	" "	1
Add if wreathed	" "	2

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.
Rolled steel joists	per cwt.	17
Plain compound girders	"	20
Do. stanchions	"	23
In roof work	"	23

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

		s.
Milled lead and laying in flashings and gutters	per cwt.	60
Do. Do. in flats	"	58
Extra labour and solder in coated cesspools	each	6
Welt joint	per ft. run.	0
Soldered seam	" "	1
Copper nailing	" "	0

		½"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7
Do. service	"	1/10	2/5	2/10	4/3	
Do. soil	"					
Bends in lead pipe	each					3/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/-	
Stop cocks and joints	"	15/4	17/2	25/8	64/-	

PLASTERER.

		s.
Render, float and set in lime and hair	per yard sup.	
Do. Do. Sirapite	" "	
Do. Do. Keen's	" "	
Add sawn lathing	" "	
Add metal lathing	" "	
Portland cement screed	" "	
Do. plain face	" "	
Mouldings in plaster	per 1 girth	
One-and-a-half granolithic pavings	per yard sup.	

GLAZIER.

		s.
21 oz. sheet plain	per foot sup.	
26 oz. Do.	" "	
Obscured sheet	" "	
⅛ in. rolled plate	" "	
¼ in. rough rolled or cast plate	" "	
¼ in. wired cast plate	" "	

PAINTER.

		s.
Preparing and distempering, 2 coats	per yard sup.	
Knotting and priming	" "	
Plain painting 1 coat	" "	
Do. 2 coats	" "	
Do. 3 coats	" "	
Do. 4 coats	" "	
Graining	" "	
Varnishing twice	" "	
Sizing	" "	
Flatting	" "	
Enamel	" "	
Wax polishing	per foot sup.	
French polishing	"	
Preparing for and hanging paper	per piece 2/- to	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of information given on this page is copyright.

EW BUILDINGS IN LONDON

-street.—BUILDING.—A new building is ng erected at Gough-street and Wilson- or the *Daily Sketch*. The sub-contrac- Messrs. E. Wood & Co., Ltd., steelwork; & Co., Ltd., lifts; Hughes & Lancaster, mps; The Argus Engineering Co., Ltd., , &c.; Mills & Co., sprinklers; Luxfer Syndicate Co., Ltd., steel windows; & Nesbit, Ltd., heating and ventilating; ught Co., steel shutters. Messrs. Hol- Hannen & Cubitts, Gray's Inn-road, re the builders. The work is estimated about £250,000. The architect for the Mr. A. Rangeley, of 4, Cathedral-gates, ster.

ebone-road. — RECONSTRUCTION. — The , 119, Marylebone-road, are being ucted to form offices for the North-West ent Building Society. The architect work is Mr. Leslie Head, A.R.I.B.A., of ker-street, W.1; the sub-contractors lectric lighting, Messrs. Alexr. Hawkins Southwark, S.E.; pavement lights, J. A. King & Co., 181, Queen Victoria- E.C.; the windows, Messrs. Crittall & 6, High Holborn, W.C. The general tors are Messrs. John Marsland & Sons, 56, South Molton-street, W.1.

gdon-road. — WAREHOUSE. — A ware- onsisting of a basement and three floors, being erected at 14 and 16, Farringdon- It is constructed in flettons with red ricks, patent fireproof floors, and asphalte The architects are Messrs. Petch & d, of Buckingham Palace-road, S.W. -contracts are :—Fireproof floors, Messrs. t Fireproof Floor Co., Ltd.; steelwork, ward Construction Co., Ltd.; asphalte, ndon Asphalte Co., Ltd. Messrs. F. G. Ltd., of 1A, Brackley-road, Chiswick, e the building contractors.

TRADE NEWS

Majesty's Consul General at Rotterdam W. P. Thurstan) reports that a local lesirous of being placed in communica- h United Kingdom manufacturers of nt and bitumen roofing, with a view to g these materials into Holland. Appli- from United Kingdom manufacturers ame and address of the inquirers should essed to the Department of Overseas 5, Old Queen-street, London, S.W. 1.

Empire Municipal Directory.

ve received a copy of the new edition, blished, of the "Empire Municipal and Year Book" for 1924–5, which ne official year of Local Authorities, to March 31. It is claimed that it es a complete encyclopædia on all of Municipal work, and is the only on which contains complete and corrected lists of all the corporations, rban and rural district councils in Great nd Ireland and our overseas dominions chief officials.

pecial articles constitute a review of n the past year and a record of present on the following subjects, viz.: Roads d-making; public street lighting; lities and motors; motor vehicles for l services; water purification and ; public swimming baths and water on; sewerage and sewage disposal; icials and sanitation; statutes passed rtmental orders issued during 1923; legal decisions affecting local govern- orted during 1923; public cleansing te utilisation; housing and town labour aiding plant and appliances; reation grounds, their equipment and s; a complete list of municipal en- public health and scientific societies Britain, together with a diary, three page.

TENDERS.

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.
‡ Denotes *recommended for acceptance*.
§ Denotes *accepted subject to modifications*.

BATH.—For demolition work on site for electricity station extensions, for the T.C. :—

*J. Long & Sons £797

BATH.—For laying water main in Englishcombe-lane, for the T.C. :—

*Stephen Ambrose, Ltd..... £446 4 2

BATLEY.—For the construction and completion of a new reservoir on the Moors above Holmfirth. Estimated cost is estimated to be about £500,000 :—

*R. Lehane & Co., Ltd., Darley Dale, Derbyshire.

BERWICK.—Reconstruction of passenger station, for London & North Eastern Railway Co. :—

*H. Symington & Sons, Glasgow.

BEXHILL.—For a boundary wall at the swimming-bath, for the Council Parades Committee :—

E. Goodwin & Sons	£249 0 0
*F. Banks	249 14 6
William Parker	255 0 0
S. Carey	270 0 0

BEXHILL.—For the supply of road materials to the T.C. :—

*Penlee Quarries, Ltd., Bristol—1,000 tons of granite at 22s. 5d. per ton.
*Chittenden & Simmons, Ltd., Maidstone—300 tons of limestone at 19s. per ton.
*Hudsons, Ltd., Brighton—300 tons of limestone at 19s. per ton.

BEXHILL.—For painting outside of Town Hall, for the T.C. :—

*E. Goodwin & Sons £105 15 0

BOGNOR.—For erection of 24 houses in blocks on Sheepwash-lane Housing site, for the U.D.C. Mr. J. Draper, Engineer and Surveyor, Council Offices, High-street :—

Thompson & Sons, Grimsby..... £11,688

CHESTERFIELD.—For the erection of fire station, for the T.C. :—

*Thornhill Bros., Lincoln £17,307

CHESTERFIELD.—For the erection of 19 houses on the Boythorpe Estate, for the T.C. :—

*H. B. Blythe, Sheffield..... £7,505

DORCHESTER.—For the erection of 24 houses on the Victoria Park Housing site, for the T.C. :—

*Dorchester Building Guild..per house £582

DUNMOW.—For sewage works at Felsted, for the R.D.C. :—

*Barry £1,044

DURHAM.—For making up streets at Ushaw Moor, for the R.D.C. :—

*Fordyce Bros., Middlesbrough..... £9,407

DURHAM.—For the erection of 16 houses at Beerpark, for the R.D.C. :—

*A. Elcoat..... £6,300

EDINBURGH.—For the erection of 160 houses at Lochend, for the T.C. :—

*John Hardie & Sons, Bo'ness.

FOLKESTONE.—For erection of 20 cottages, Dymchurch-road, and from 30 to 40 on Tanner's-hill. Mr. J. L. Seaton Dahl, Radnor Chambers, Folkestone :—

Tanner's-hill—

Blay & Co., Dartford	£28,576
Woolnough, Eastbourne	22,989
Atkins, Bromley and Folkestone	22,711
Browning, Canterbury	22,698
Denne, Walmer	22,650
O. Marx, Folkestone	22,500
Parsons & Son, Folkestone	22,366
Barwick, Dover	21,950
Lewis & Son, Dover	21,844
*Godden & Son, Ashford	21,520
Bailey & Dixon, Hythe	20,754

Pennypot—

Bailey & Dixon, Hythe	£12,116 10
Woolnough, Eastbourne	11,680 0
Blay, Dartford	11,400 0
Browning, Canterbury	11,100 0
Denne, Walmer	10,970 0
O. Marx, Folkestone	10,520 0
Parsons & Son, Folkestone	10,240 0
Lewis, Dover	9,990 0
Atkins, Bromley and Folkestone	9,800 0
Godden & Son, Ashford	9,148 0
*Barwick, Dover	8,575 0

GLASGOW.—For asphalte paving at Hill-street Slaughter House, for the T.C. :—

*Whitehall Asphalte & Engineering Co.	£296 9 6

GLASGOW.—For concrete terracing for bandstand at Alexandra Park, for the T.C. :—

*H. Macpherson & Co. £632 17 7

GLASGOW.—For supply of bookcases for Springburn Library, for the T.C. :—

*John Robertson..... £137 14

GRIMSBY.—For the heating installation at Town Hall, for the T.C. :—

*King & Co., Hull..... £464 3 6

GRIMSBY.—For construction of detritus pits pump house, &c., for the T.C. :—

Hewins & Goodhand, Grimsby £11,366 10

GUILDFORD.—For making-up Alexandra-terrace, for the T.C. :—

Soundy & Avery (Ealing)	£902 10 8
Swinford, Powell & Morrison (Woking)	858 8 11
J. Douglas (Southampton)	612 0 0
*A. Streeter & Co. (Godalming)	593 14 8

GUILDFORD.—For underpinning two piers and providing concrete retaining wall at Depot-yard, for the T.C. :—

*W. Stevens & Sons £1,250

HASTINGS.—For erection of 100 houses for the Corporation :—

*Sims, Sons & Cooke, Nottingham.. £47,670

HIGHLEY.—For making-up private street works in the Sutton Common Area, for the T.C. :—

*G. Law £6,364 16 6

HIGHLEY.—For making-up of private street works in Somerleyton-avenue, for the T.C. :—

*The Warwickshire Bridge & Engineering Co., Ltd. £1,031 8

HOLMFIRTH.—For the rock asphalters' work in connection with the erection of a new yarn scouring and drying room at Ford Mill, for Messrs. Patons & Baldwins, Ltd. (Wood and Burts Branch). Messrs. Kirk, Sons, & Ridgway, architects, Dewsbury :—

*Tunstall's Rock Asphalte Co., Ltd., Leeds.

LEEDS.—For alterations to shop premises in Lands-lane and Queens-arcade. Mr. C. Castelow, architect, Park-row :—

*Wm. Irwin & Co., Ltd., Leeds.

LEICESTER.—For erection of a factory, Frisby-road, for Messrs. Jervis & Hayes. Mr. H. Bland, surveyor, 221, Fosse-road North :—

Potter	£1,789 10
Bambury & Sowden	1,740 0
Elliott	1,699 0
Robinson	1,681 0
Copeland	1,656 13
Bradford	1,577 0

LONDON.—For reconstruction of sewer in Aldersgate-street and St. Martins-le-Grand, for the City Corporation :—

Howard Farrow	£24,725 5 2
C. V. Buchan & Co., Ltd.	23,017 0 0
D. R. Paterson, Ltd.	22,765 3 10
*Daniel T. Jackson	16,041 0 0

LONDON.—For reconstruction of sewer in Well-street, for the City Corporation :—

*D. R. Paterson £3.450 11 10

LONDON.—For new roofing at Ladywell Baths for Lewisham B.C. :—

	Zinc.	Asphalte
*Mr. F. G. Rose, Catford	£153 0	*£151 0
G. J. Howick, Catford	168 15	—
S. T. Stevens & Son, Catford	183 0	163 0
A. T. Peyton, Lewisham	195 0	205 0
Burke, Collins & Co., Ltd., Lee	209 0	214 10

MAIDSTONE.—For alterations and additions to Trinity House Nurses' Home, for the Kent County Ophthalmic Hospital. Messrs. Ruck & Smith, F.R.I.B.A., architects, Maidstone. Quantities by Mr. W. H. Smith, 18, High-street, Maidstone :—

G. Pearce & Sons, Maidstone	£8,560
G. E. Wallis & Sons, Ltd., Maidstone	8,339
W. T. Burrows & Son, Maidstone	8,269
Elmore & Son, Maidstone	8,187
Cox Bros., Maidstone	7,777
*R. Corben & Son, Maidstone	7,375

METROPOLITAN ASYLUMS BOARD.—The following tenders have been received for various works :—

High Wood Hospital for Children—Erection of medical superintendent's house.

*W. Simms, Stepney	£2,615 0 0
Clements (Grays), Ltd., Grays	3,040 0 0
W. S. Sharpin, Bow	3,154 0 0
R. J. Truscott, Forest Gate	3,250 0 0
Earlsfield Construction Co., Ltd., S.W. 1	5,405 0 0

Western Ambulance Station—Roofing in yard.

*C. H. Boyd & Son, Ltd., 57, Craven-terrace, W.	743 0 0
G. Pauling, Ltd., Wimbledon	850 0 0
Gibbons Bros., Ltd., Westminster	920 0 0
Earlsfield Construction Co., Ltd., Victoria-street, S.W.	1,219 0 0
Monk Bridge Construction Co., Ltd., York	1,257 10 0
W. S. Sharpin, Bow	1,273 0 0

Goldie Leigh Homes—Repairs to roads.

*A. C. W. Hobman & Co., Ltd., South Bermondsey	960 13 2
H. Woodham & Sons, Ltd., Catford	977 0 0
J. Wainwright & Co., Ltd., Marylebone-road, N.W.	1,010 0 0
W. H. Wheeler & Co., Ltd., New Kent-road, S.E.	1,421 16 4
Edwin Greenfield, Enfield	1,450 14 0
D. C. Bowyer, Belvedere, Kent	1,498 0 0

Tooting Bec Mental Hospital extension—Supply and delivery of prepared joinery.

Perry & Co. (Bow), Ltd., Victoria-street, S.W.	2,091 0 0
*R. J. Truscott, Forest Gate	2,187 0 0
Frazer's Joinery Co., Ltd., Norwich	2,325 1 3
Cutlan's Steam Joinery Works, Upper Holloway, N.	2,396 12 10
Chessums, Ltd., Tottenham	2,420 2 6
Guild Housing, Ltd., Acton	2,522 0 0
W. Simms, Stepney	2,623 14 10

J. Harrison & Co., Denmark-road, S.E.	2,676	0	0
Hibberd Bros., Ltd., Vauxhall-walk, S.E.	2,777	1	0
E. Archer & Sons, Ltd., North-ampton	2,804	0	0
H. Arnold & Son, Ltd., Don-caster	2,985	0	0
J. Greenwood, Ltd., London Bridge	3,053	13	6
S. Elliott & Sons (Reading), Ltd.	3,321	8	0

Brook Hospital—Cleaning, painting and repairs.

*D. C. Bowyer, Belvedere	339	0	0
M. Greenwood & Son, Ltd., Manchester-square, W.	347	14	6
W. Bickerton, Catford	374	5	0
Barnes & Co., Lewisham	379	0	0
W. Simms, Stepney	392	12	0
Douglass, Halse & Co., Ltd., Woolwich	410	0	0
J. Hocking & Co., Charlton	433	0	0
E. Proctor & Sons, Plumstead	470	0	0

Brook Ambulance Station—Cleaning and painting.

*D. C. Bowyer, Belvedere	134	15	4
W. Simms, Stepney	158	0	0
M. Greenwood & Son, Ltd., Manchester-square, W.	169	11	0
Douglass, Halse & Co., Ltd., Woolwich	180	0	0
Barnes & Co., Lewisham	189	0	0
J. Hocking & Co., Charlton	197	0	0
W. Bickerton, Catford	230	0	0
E. Proctor & Sons, Plumstead	306	0	0

The Downs Hospital for Children—Additional Staff Accommodation.

*C. H. Boyd & Son, Ltd., Lancaster Gate, W.	593	0	0
W. Bickerton, Catford	625	10	0
Earlsfield Construction Co., Ltd., Victoria-street, S.W.	681	0	0

S. Anne's Home—External cleaning, painting and repairs.

*C. J. Crouch & Son, Herne Bay	299	8	4
Tasker & Booth, Ltd., New North-road, N.	337	15	0
J. Hocking & Co., Charlton	377	0	0
C. H. Boyd & Son, Ltd., Lancaster Gate, W.	393	0	0
H. A. Thomas & Son, E. Dulwich grove, S.E.	393	0	0
C. W. Welby, Herne Bay	597	0	0

Western Hospital—Tar-paving and road repairs.

*J. Wainwright & Co., Ltd., Marylebone-road, N.W.	511	5	0
A. C. W. Hobman & Co., Ltd., S. Bermondsey	594	3	2
W. & J. Glossop, Halifax	644	12	0
Black Rock Quarries, Ltd., Bristol	1,036	0	0
W. H. Wheeler & Co., Ltd., New Kent-road, S.E.	1,307	19	0
Earlsfield Construction Co., Victoria-street, S.W.	1,924	0	0

NORTHAMPTON.—For erection of houses on Harborough-road site, for T.C. :—

	Houses. No.	Types.	Amounts of Tender.
*Lack, Revitt & Robinson	8	A3	£3,443
*W. Higgins, Ltd.	20	A3	32,144
	44	B3	
Total	72		Total £35,587

NUNEATON.—For erection of 34 houses on the Attleborough Housing Estate, for the Corporation. Mr. R. C. Moon, Borough Engineer and Surveyor, Municipal Offices, Queen's-road :—

G. E. & W. Wincott, Church-street, Nuneaton	£16,970 8 2
G. Cooper & Sons, Midland-road, Nuneaton	16,219 1 11
*E. O. C. Howells, Raglan-street, Coventry	15,859 7 2

PENDOVER.—For the adoption of an open-air school by converting Pendover Hall, for the Newcastle Education authorities :—

‡Wm. Milne £5,498

POULTON-LE-FYLDE.—For erection of 12 houses in pairs, Big Field Housing site, for the U.D.C. Mr. E. Prescott, Surveyor, Council Offices :—

*Atherton Bros., Blackpool £5,708 4

SALFORD.—For decorations to Block B at Ladywell Sanatorium, for T.C. :—

*J. C. Mellor £368

SHIRLEY.—For making-up road at Shirley Sch
Wickham-road, for the Bermondsey B.G. Mr. H
Reeve, clerk, 283, Tooley-street, S.E.1 :—

West Kent Asphalte & Engineering Co., Bromley, Kent	£7,245
H. Streeter, Croydon	5,987
J. Mowlem & Co., Westminster	4,912
A. C. W. Hobman & Co., Ltd., S. Bermondsey	4,148
L. Terry & Co., Ltd., Wrotham, Kent	3,937
*F. G. Sheppard, Peckham	3,800



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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

CXXVI.—No. 4241. MAY 16, 1924.

THE DANGERS OF FASHION IN ARCHITECTURE

T is a conceit peculiar probably to human kind to wish to be *de rigueur*. Our women, it has been said, would be more miserable with good dinners and last year's frocks than with no dinner at all and the latest creation of the modiste. Nor can the sterner half of humanity 'd to scoff too openly at this gentle but universal failing 'oman. Most of us in the middle way of life remember time when as students on an income provided by "the ernor" we endeavoured to blossom like flowers—our ing coats and waistcoats were immaculate, our Gibus were the newest shape, and our socks the latest and last g in style.

Some of us, from misfortune or secret egotism, have photos urselves in our Beau Brummel days, and view with horror dreadful collars, the awful broadcloth coats, the weird terribly shaped toppers and other things which we con- red perfect, but which now are revealed to us as merely 'ulous. And if we observe those of our young friends who t the fashions of the day, we may be inclined to k that while they are strictly correct in every detail at time, they will look in years to come on those high ted dress coats, those long-pointed waistcoats and the r delights with the same horror with which we regard one time figures of pride and joy.

This sense of fashion or vogue runs in a peculiar way ugh all human corporate life. Our literature, our art, food and drink, our patent medicines, even our vices ere we have any, of course) are all the time influenced it and changes come and go as with the aconite and a donna of our childish memory when homeopathy the ruling passion of prudent mothers. This con- tly raging fever for stylishness as set by the fashionable , and its absorption into the unrealised habits of the people, ot very perceptible or very dangerous in the main where things affected are things which pass, but, unfortunately ffects what is to remain as well as what is to go. Our nes wear out, our books are repulped and made useful, our ties and follies change, but what we build is as permanent as human thing can be permanent, and since it is affected as ugly as any other human activity by the god of fashion dangers are proportionately greater. Twenty years ago or two extremely able and correctly tasteful architects uced some delightful quaintnesses of style in domestic itecture, and while these masters of their craft used their with restraint and effect they were unfortunately so ssful in delighting the public's optical palate that these ntnesses of form became a vogue. This vogue spread or less into every small office in the country until we smothered with the most appalling aberrations of con- tive fancy that seemed possible to produce. Speculative lers then endeavoured to copy it, and at length it died vanished, passing like an evil dream except for those nal legitimate quaintnesses and tasteful sweetnesses that the founders themselves had made. We called it *l'art nouveau*; it might have been named the *le fevre diabolique*. This particular example is cited because it was the most pernicious of those in memory, but it must not be thought that we are free to-day from similar dangers. We can see the reflection of it if we look back, as sufficiently profuse examples exist. Unfortunately, fashions always run to extremes. They are adapted by extremely fashionable people who do not possess the restraining sense of taste which characterises legitimate "smartness," and so we see in the Gothic work of the fashionable architect of seventy years ago, the monotony of the suburban architecture of thirty years ago, and some of the buildings erected to-day, the effects of this malevolent and insidious disease.

The peculiarly receptive sense of our eager generation, as ready as a sponge to absorb ideas, is painfully susceptible to this malignant illness, and it behoves us to inquire in what direction infection lies. It is fairly easy to point out the danger and, probably, just as difficult to avoid it. At the moment design is healthy. There is more cultivated aspiration, more well-informed thought at our command than before. But the very eagerness in aspiration unless the scholarship at our command is fully called upon will lead to greater mistakes in taste unless a careful restraint is exercised. At the moment we are in a highly critical state so far as Renaissance is concerned. There is no doubt that with the peculiar importance of light in the greater part of England the Renaissance style is the most suitable one in which to develop, and, therefore, the general trend of design is, probably, sound, but in detail we are rapidly approaching a point at which, unless we are on our guard, we shall find ourselves producing work which is structurally good but is æsthetically revolting. Several examples come to mind, though since they are all by living architects, some of whom are well known, it would be invidious to take exception to any one; but there is a bad mixture of good Renaissance proportion and horrible detail to be seen in nearly every large town, in which we see a grotesque *melange* of Renaissance and *neo grec* with discs like archery targets, medallions fantastically huge and coarse, guttæ like exaggerated bakers' weights limned without a thought of their significance or the basis of their form. These details are getting common and they pass now because they are the vogue and especially as on the drawing they look fashionable, but in ten years' time they will, we can hardly doubt, create a dislike to discriminating taste and educated thought.

To suggest that classic design should be merely a slavish reproduction of archaic detail would be as foolishly restrictive as the other is obnoxiously distasteful. The development of all good design comes from the power of enlarging or developing or even refining the excellences of all that tradition and time have shown to be excellent, but the initiative which brings this about must be highly discriminating and truly wise, else we shall have a result which can only be crude and unsatisfactory.

NOTES.

The R.I.B.A. and Registration.

THE following circular letter has, we are informed, been sent to all members of the R.I.B.A. by the President, Mr. J. A. Gotch. Our own views on the subject were expressed in our leading article last week.

"DEAR SIR,—You have probably seen a circular issued by the 'Defence League' in which the Council are asked to put the following question to the Right Hon. Edward Shortt, K.C. :—

"'If the amalgamation takes place, do you see any possible chance of Architects obtaining Registration?'

"At my instructions this question has been put to Mr. Shortt, and I think his answer should be sufficient to convince any doubtful minds of the necessity for the amalgamation with the Society of Architects which the Council are proposing.

"Mr. Shortt's answer is as follows :—

"'I am asked whether, in my opinion, if the amalgamation takes place there is any possible chance of Architects obtaining Registration. I am of opinion that there is more than a possible chance; there is a reasonable probability, with a reasonably good case on public as well as professional grounds. My opinion, of course, assumes that the proposed amalgamation will be carried out, without which the difficulties would be very much greater.'"

The Swedish Exhibition of Architecture.

IT was with feelings of pleasurable interest that we inspected the Exhibition of Swedish Architecture at the R.I.B.A. on Monday, illustrated by a number of good drawings, photographs, and exceptionally good models which strike a happy mean as to size and detail. We doubt if there has ever been seen at the Institute so good an exhibition of its kind. After the crowded architectural room at the R.A. we can fully appreciate the generous lines of such an exhibition as this, which at once seems to justify Mr. Arthur Keen's happy extension to the Institute's capacity. Our northern confrêres have shown here no mean ability in handling a variety of subjects, from churches and public buildings to hospitals and factories. Some of the buildings for purely industrial uses promise to be quite fascinatingly picturesque. Without going into detailed notice of the work here, it is sufficient to note that we find dignity of handling, refinement of detail, and the value of reserve conspicuously brought into play, and the work as a whole suggests far more of the pleasure of the architect in his work than does an average British exhibition of the present time.

Waterloo Bridge.

IF one had been asked point out a structure w appeared to have a loo long endurance one m naturally have singled out Wate Bridge. We were told long since b construction specialist that a vousso one of the arches was on the verg sliding through, so that the subsid of the pier has been going on slowly surely for some time. The scour of river must have great force, but the no reason to doubt that a pier can be in now of sufficient strength to withst all possible strain and in the wide bridge the new piers will have l additions to their bulk. It is ama that the foundations were constructe they were, but we shall all watch much anxiety for the signs of sugge improvements on Waterloo Bridge that it has to come down, and not fo that we have been promised a re structed bridge and not a new design.

St. Paul's Bridge.

MR. PAUL WATERHOUSE put clearly and concisel a letter to *The Times* strong points in the a tion against the St. Paul's Bridge. maintains that the City must not be as a passage-way, and that the Surrey of the river has a vital need of a pr planning scheme: here are two th



Swedish Architecture Exhibition.

Stockholm Town Hall. MR. R. OSTBERG, Architect.

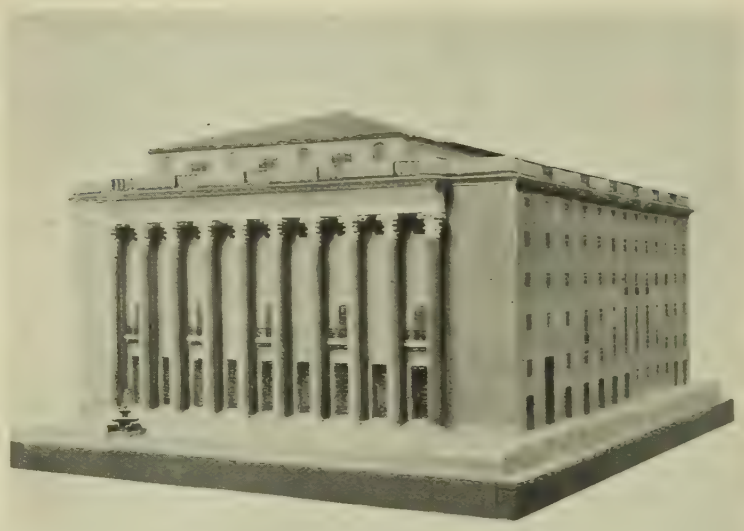
come into direct conflict with the Paul's Bridge. He fears that South- and the whole urban area from beth to London Bridge is being left to its chance and repeats what we have ften said, that London is far too able for piecemeal jobbings when it for general control. The closing of erloo Bridge emphasises surely more gly than ever the need for a Charing s road bridge.

rchi- ctural ication.

We have read with great interest the paper which Prof. Beresford Pite read to the Edinburgh Archi- ral Association on the subject of tectural education. It is a paper h every student of architecture d do well to read and digest. Ob- sly our methods of to-day are not ether an improvement on Victorian s, and we are in danger of super- ity and of working in water-tight partments. Such comments as the wing cannot be disregarded when re studying the prospects of archi- ural education. "The atmosphere forcing pit too often pervades an oition of school designs. Intensive vation, whether of vegetables, live- k, or of architectural students, pro- s phenomenal specimens of doubtful mercial value, and needs the constant teration of the builder's and work- 's intellectual and practical outlook. study of practical design in schools ents greater difficulty than that of retical or so-called applied construc- The tendencies of the office are sted daily to the idiosyncrasy of ent, and by the terror of the estimate. e persistent thorns in the flesh of the ous practitioner do not afflict the ol. The instructor is happy in free- from such anxieties, and he stimu- the uninstructed to flap their wings paradise of art where such malicious ts do not trouble. Unless the teacher elf has been hard bitten by the rsities of practice, and is caustic as as sympathetic in disposition, his is doomed to much disillusionment e later processes of life on earth."

fter ner.

The report of the annual dinner of the R.I.B.A. as conveyed in *The Times* may give a misleading impression at section of the public which is suf- tly interested in architecture to it at all. The President (Mr. J. otch) struck the right note in his h—architecture, he said, was neces- and visible; it was essential the public should have know- of its principles. Lord Midle- who followed him later, ap- tly took refuge in that lifebuoy e layman, who feels that he may be of his depth, in abusing the Albert orial, with which he coupled the ng Cross Bridge and the Temple Bar ffin." We are no champions of these



Swedish Architecture Exhibition.

Accepted Design for Concert Hall.

Mr. Ivar Tengbom (President of the Society of Swedish Architects) Architect.

erections. At the same time we would remind Lord Midleton that the architectural significance of a great city does not depend on its isolated monuments, but on the general character of its houses, shops and public buildings. No one now is likely to plead for more Albert Memorials, and the "Griffin" has been finally immortalised—and left—in "Alice in Wonderland." What, however, the public does need is enlightened instruction in the mass of building surrounding it and to learn that architecture is not concerned with the monumental alone. Lord Curzon did the cause of art real service when, at the Architecture Club, he inveighed so pungently at the small house and villa. We wish the innovation he then introduced had been taken further.

Sale of the Swaythling Collection of Silversmith's Work.

It is not often possible to closely study fine examples of silver work, and the opportunity afforded last week by the view and sale of the Swaythling collection at Christie's was an exceptional one. The greater part of the collection has been exhibited for some years at South Kensington, and we should imagine that its disposal will be regretted by all who care for such things. Some 130 remarkable specimens dating from 1494 to 1780 were offered for sale, and realised the extraordinary total of about £93,000. The earliest piece, an Irish chalice and paten, dated 1494, was acquired for the Irish National Collection. Far higher prices, however, were given for the following rare examples:—A Tudor cup, 3¾ in. high, £7,500; the Rodney cup, fifteenth century, £7,600; a tankard and cover, 1556, £6,000; an Elizabethan ewer and cover, 1565, £6,000; a French silver-gilt rosewater ewer and dish, 1580, £2,800. An exceedingly rare set of three steeple-cups, dated 1611, realised £4,700, and a standing cup, formed of an ostrich egg with cover, dated 1623, £5,700. Paul Lamaire was represented by twenty-eight pieces, dating from 1712 to 1750, and covering practically the whole period of this fine craftsman's work, which were sold for very high prices, averaging about £8 per ounce.

Individual Effort.

When so much personal effort is being made to ameliorate the lot of our fellow creatures it might appear unnecessary and invidious to single out examples for special reference, but we think our readers will agree that there occur sometimes special instances in which one feels impelled to make a passing comment. One such, we feel, is the sustained effort by Mr. C. F. A. Voysey to aid the work of the Artists' General Benevolent Fund—a total of £350 above last year. Out of the fine total of £4,864, announced on the 7th inst., Mr. Voysey headed the list with £700, and, in reply to the congratulations of a friend, said he had written 1,658 letters in pursuance of his object. We are sure that the Hon. Secretary, Mr. Guy Dawber, and others who have worked hard in this matter, will be the first to agree that some words of recognition are not misplaced.

A Swedish Compliment.

The compliment paid to the architectural profession in this country by the presentation of a diploma from the Swedish architects on Monday to Sir Aston Webb will be generally appreciated, especially at a moment when so much sympathy is being felt for him in his recent accident. Besides being a likeable people, the Swedes have now shown us by the exhibition at the galleries of the Royal Institute of British Architects, that the art of architecture is likely to make some real progress in their hands.

GENERAL NEWS

Professional Announcements.

Mr. Wilfrid Travers, O.B.E., F.R.I.B.A., has removed his offices from 1, Featherstone-buildings, W.C.1., to 36, Furnival-street, Holborn, E.C.4.

Mr. Henry J. Chetwood has transferred his office to 88, Gower-street, London, W.C.1.

Mr. Bankart has removed to 35, Bloomsbury-square, London, W.C. 1.

R.I.B.A. Meeting.

The General Meeting of the R.I.B.A. which was to have taken place on June 23 has been cancelled.

Architect's Estate.

Mr. Thomas Henry W. Walker, of Kelvin-grove, Liverpool, retired architect, left (net personalty, £6,702), £10,823.

Board of Architectural Education.

The Council of the R.I.B.A. has decided that candidates for the special examination shall be allowed to take the examination in two parts if they so desire, as in the case of the final examination.

Architectural Association.

The annual ball, in aid of the Architects' Benevolent Fund, will take place to-night. It will be in the form of an Anglo-Swedish Night in connection with the exhibition of Modern Swedish Architecture now being held at the R.I.B.A. Fancy dress will be worn.

Rivenhall Parish Church.

We understand that the Rector of Rivenhall Parish Church, in the Diocese of Chelmsford, has recently instructed Mr. F. Sidney Webber, Lic.R.I.B.A., to report on the structural condition of the building. The architect's investigations revealed the fact that the remains of the large Roman Palace in the meadow adjacent to the churchyard were probably freely used in the walls of the nave and chancel. The church contains some twelfth-century French glass.

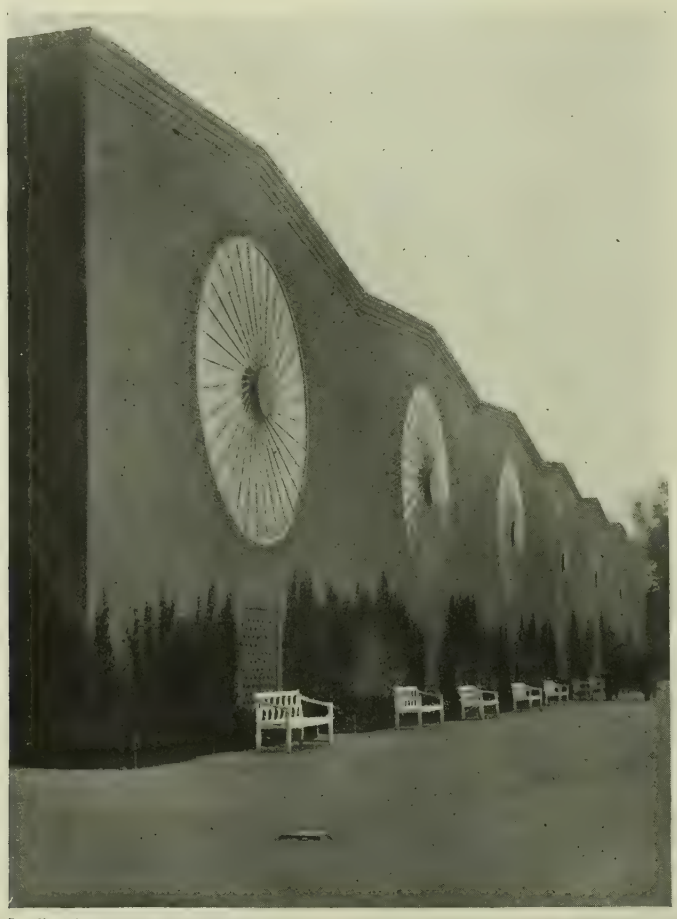
Government Housing.

We understand that the provisional basis of discussion, in the negotiations now taking place, has been that the Government shall contribute a subsidy of £9 a house for a period of 40 years, and that the municipality shall contribute a subsidy of £4 10s. Under the Act of last year the amount of the State subsidy was £6 a year for 20 years.

Mr. Wheatley presided recently over a conference between members of all political parties and representatives of the National Committee of the Building Industry and the Building Materials' Manufacturers and Suppliers' Committee, when the reports issued by the committees were discussed. Mr. William Nicholls replied to questions concerning the building trade report, and Mr. H. J. C. Johnston dealt with matters affecting the supply of building materials. It was sought to discover information as to the ability of the materials industries to provide the required additional supplies without serious increases in price being involved.

The Rent Restriction Bill.

On the ground that "the Tories had consistently refused to treat the Bill on its merits," Standing Committee "A" of the House of Commons, on the motion of Mr. Mardy Jones (who is in charge of it), decided on Wednesday not to proceed further with Mr. Ben Gardner's Rent Restriction Bill, and to report the Bill without amendment to the House of Commons.



Swedish Architecture Exhibition.

The Industrial Hall, Gothenburg Exhibition, 1923.

[Designed by a panel of Swedish Architects].

Obituary.

After a short illness, Brevet-Colonel C Loche Wilson, T.D., died recently at his re dence, "Garn Hill," St. Andrew's, Di Powis. Colonel Wilson, who was fifty years age, was a son of the late Mr. John H. Wils shipowner. In civil life he was an archite being a partner in the firm of Teather & Wils Cardiff. He began his career as a pupil and as tant to the late Colonel Bruce Vaughan, who one time carried on business at Dumfries-pla Cardiff. In 1900 he entered into partners with Mr. Teather. In addition to being a Fell of the Royal Institute of British Architec Colonel Wilson was a past president of the So Wales Institute of Architects; and some ye ago acted as Hon. Secretary of the Institu Two years ago he was appointed inspec of dilapidations of the Representative Body the Church in Wales to the diocese of Llandaf

R.I.B.A. Elections.

We understand from the *Journal* of t R.I.B.A. that the following nominations ha been made by members of the Defence Le in accordance with By-law 32:—

President.—Cross, A. W. S.

Vice-Presidents.—Flockton, C. B.; Per S.; Searles-Wood, H. D.

Members of Council.—Chetwood, H. Clarke, Max; Collard, A. O.; Curtis, W. Fraser, P. M.; Gill, C. L.; Gunton, J.; Hu E. A.; Hunt, W. G.; Joseph, D.; Moo A. W.; Scott, W. G.; Scott-Moncrieff, W. W Solomon, Digby L.; Swan, J. A.; Trave Wilfrid I.; Wills, H. W.

Associate Members of Council.—Ashfo W. H. (Birmingham); Culliford, L. A.; Heav F. H. (Glamorgan); Scott, J. D.; Welford, A Woodward, F.

Members of the Practice Standing Co mittees.—Lovegrove, G. H.; Niven, D. B.

[The Council's list of candidates is giv on *p.* 788.]

COMPETITION NEW

The Harrogate Infirmary.

The committee of Harrogate Infirmary inv designs for the extension of this Infirma Mr. Sydney D. Kitson, F.R.I.B.A., has b appointed assessor. Premiums of 150, 100, 50 guineas will be awarded respectively. Ap cations, together with cheque for two guine should be made to Mr. Geo. Ballantyne, Sec tary, The Infirmary, Harrogate, by May Sending-in day September 30.

Other Competitions.

Other competitions still open include following (the dates given are, first the sendi in date, and second the issue of *The Builde* which full particulars were given):—Indust Designs (June; Dec. 21, 1923). Ross-Sm Memorial (Sept. 30; Feb. 21). Glasgow Pu Hall (July 4; May 2.)

Books Received.

Channel Islands (Part I). By Edw Foord. (London: The Homeland Associat Ltd.). Price, 1s. net.

Lunch-Time Rambles in London. (7) William Martin; (8) W. G. Morris; Prescott Row. (London: The Homel Association, Ltd.). Price, 6d. net each.

Land-Value Policy. By James Dun White. (London: The United Committee the Taxation of Land Values). Price, 2s. net

The Empire Municipal Directory and Y Book, 1924-1925. (London: Municipal En neering). Price, 10s. 6d. net.

The Houses of the Workers. By Sayle. (London: T. Fisher Unwin, Lt Price, 12s. 6d. net.

Survey of London: St. Helen, Bishopsg (Part I). Edited by Sir James Bird and Ph Norman. (London: B. T. Batsford, Lt Price, £2 2s. net.

XHIBITION OF SWEDISH ARCHITECTURE

)n Monday Mr. E. Stanley Hall, F.R.I.B.A. esident of the Architectural Association), upied the chair at the opening ceremony of Exhibition of Swedish Architecture arranged the Architectural Association in the galleries the Royal Institute of British Architects at nduit-street, by permission of the R.I.B.A. ongst those present were :—The President of Royal Institute of British Architects (Mr. J. Gotch), Mr. Alister G. Macdonald, Consul Eriksson, Sir Gregory Foster, Sir Edward and ly Boyle, Lord Bury, Sir William and Lady nson-Hicks, Sir Newton and Lady Moore, Charles and Lady Walston, the Hon. Mrs. zroy Stanhope, Sir Lawrence and Lady aver, Dr. and Mrs. Hagberg Wright, Sir ment and Lady Kinloch-Cooke, the Right n. Sir Maurice de Bunsen, Admiral Mark Kerr, Henry and Lady Penson, Mr. Arthur H. vis, Prof. A. E. Richardson, Mr. Raymond ude, Mr. Alfred Praga, Mrs. de Beaufort, Mr. l Mrs. C. Harmsworth, Mr. Herbert Baker, s Cecil, Mr. W. B. Simpson, Mr. and Mrs. gglesworth, Mr. and Mrs. Wester, Mr. and s. Charles Sims, Mr. and Mrs. Hugh Spender, . and Mrs. Siosteen, Miss Weinberg, Miss H. C. ork, Mr. Hamilton Lamplugh, Mrs. Clogg, . and Mrs. C. A. Lowenadler.

In opening the proceedings the Chairman pressed the pleasure of the Architectural sociation in having been successful in arrang- the Exhibition, and thanked Mr. Ahlberg his kind help. All through the ages, he d, the fire and energy of the North had had a ivifying influence on the South, and they d only to look at the Exhibition to feel that edish architects had that fire and forceful thusiasm in their work which British archi- ts were so anxious to foster.

His Excellency the Swedish Minister, who clared the Exhibition open, said it was the ention on that occasion to present to Sir ton Webb a diploma conferring upon him mbership of the Royal Academy of Sweden, t as Sir Aston Webb was unfortunately unable be present owing to his recent accident, he nded the diploma to Mr. Maurice Webb. ntinuing, he said there was much in common ween the two nations, and the more one died what they were doing in the field of art more one realised how akin they were in pressing what was in their minds. Their ional aspirations, their views, and their out- k on life corresponded to a very large extent. architecture the British always understood t paper plans were not sufficient, and that y were not the final end; they were looking practical purposes, and with that sound lism they coupled a sense of tradition. That l made British architecture cultivated and the same time rational. In conclusion, he pressed the gratitude Swedish architects felt the Architectural Association for taking the iative in forming the Exhibition, and to the .B.A. for permitting it to be held in its leries. Mr. Maurice Webb expressed Sir on Webb's thanks for the honour conferred n him, and the proceedings were terminated a vote of thanks, moved by Mr. Gotch, to s Excellency the Swedish Minister for opening Exhibition, and for his sympathetic and erning speech.

Some of the exhibits are illustrated in this ue.

A lecture and discussion at the A.A. on edish architecture on Monday are reported on 786. The Exhibition closes on June 6.

Bethnal Green Museum.

The Bethnal Green branch of the Victoria l Albert Museum is now open on Monday l Thursday evenings until 9 p.m. A guide- urer is now available to conduct parties nd the galleries of the Museum on Monday nings (7–8 p.m.), and Thursday afternoons 4 p.m.).



Swedish Architecture Exhibition.

Bank Building, Stockholm: Detail of Carving.

Mr. Ivar Tengbom, Architect.

CARDIFF CASTLE.*

Cardiff Castle, the residence of the Most Hon. the Marquis of Bute, K.T., is still a dwelling as well as a relic of antiquity, and contains examples of the work of all periods from Roman days to our own time. The illustrated account prepared by Mr. Grant faithfully portrays the many interesting steps by which the Castle has grown from a primitive camp to a magnificently decorated mansion. A great deal of Roman work has been brought to light by the researches undertaken in recent years by successive owners of the Castle. Photographs and plans in the book show how freely the Romans could adapt themselves to local conditions and the use of local material. At Cardiff Castle squared stonework in courses of unequal depth replaces the flint and tile lacing courses familiar to us in Roman remains nearer London. One practice which held good throughout Roman fortifications east and west was observed at Cardiff. The bastions to the curtain wall were built independently of it in order that the unequal settlement of these heavy masses might not occasion fractures at the point of junction. In this instance a considerable lapse of time may have occurred between the building of the wall and the bastions. The Norman Conquest was made the occasion for additional building and a great earthmound or bank was superimposed upon that with which the Romans had lined the interior of their walls. To exhibit the best of the Roman work a passage has been formed in the heart of the earth-bank, and where restoration has been necessary the added work has been distinguished from the ancient by a change of material and by the introduction of a course of red Radyr stone between the new and the old. Within the wall a Norman keep was erected upon a mound 40 ft. high, and several towers and dwelling-places were added from time to time at different points within the boundary wall; the Octagon tower being one of the most important. The external appearance of this tower was materially affected by a spire of timber and lead added about 1875, from the designs of William Burgess, A.R.A. This original genius of the romantic school also created much of the distinctive interior decoration, which combines (in a spirited attempt to revive mediæval art) profound archæological knowledge and great skill in colour composition. The subjects of the decorations are drawn from mediæval legend and sometimes betray a whimsical humour as in the instance of "matrimony" represented by two hounds in leash pulling in opposite directions; and "Life after Marriage" is illustrated by a cat up a tree with a dog at the foot barking at her.

The ever-popular subject of subterranean passages is not forgotten and several extracts are quoted from publications recording the discovery of such passages in the neighbourhood of the Castle. A great deal of interesting historical matter and many plans, views, and photographs are included in the book.

* "Cardiff Castle: Its History and Architecture," by John P. Grant, A.R.I.B.A. (Cardiff: William Lewis (Printers), Ltd.) 1923. Price 2s. 6d. net.

CORRESPONDENCE

Registration and the Proposed Amalgamation.

SIR,—Since my return from India a few weeks ago, I find that the proposals of the present Council of the R.I.B.A. with regard to Registration are very similar to those which I advocated as early as 1911.

As I believe that the possibility of obtaining Registration under the Institute scheme is not so remote as formerly, I feel my position on the Defence League is therefore inconsistent, and have accordingly sent in my resignation to that body and withdrawn my name from the voting list.

GEORGE HUBBARD.

SIR,—In the President's letter to the electorate of May 9 last, the opinion of Mr. Edward Shortt, K.C., is quoted to the effect that, if the proposed amalgamation with the Society of Architects should take place, there would be "a reasonable probability with a reasonably good case on public as well as professional grounds" of obtaining Registration. I submit that this opinion should be taken *cum grano salis*. For Mr. Shortt was asked to assume two hypotheses—

(*a*) That the Society of Architects would oppose Registration if administered by the R.I.B.A.;

(*b*) That the R.I.B.A. would not consent to Registration if administered by an independent body, such as a joint Board.

I contend that neither of these two hypotheses is founded on fact, and that had Mr. Shortt been asked for an opinion as to the possibility of obtaining Registration if the two bodies interested in it suggested it independently of each other, his opinion would have been the same as that quoted by the President. If this assumption be correct, the whole of the arguments advanced by the supporters of Unification fall to the ground. And, further, if we believe that the Society of Architects would approve a scheme of Registration that was not based upon antecedent Unification, shall we not be correct in saying that, practically, the Council of the R.I.B.A. is allowing itself to be coerced by the Society for an ulterior object which is other than that of Registration?

ALFRED W. S. CROSS.

SIR,—A few months ago you were good enough to publish a letter from me about Registration, before the present R.I.B.A. Council's proposals were known. Now that these have been published, and an election upon them is taking place, will you allow me to say that in my opinion they are eminently wise, generous and just, and that they indicate that those who drafted them may be trusted to produce a Registration Bill which would be acceptable both to the architectural profession and to the public whom its members serve?

It is to be hoped, therefore, that the Council's nominees may be elected overwhelmingly.

G. A. T. MIDDLETON.

SIR,—Mr. Travers points out, in your issue of May 2, that the proposals of the Council would hand over the control of the Institute to the "unexamined" men.

Accepting "examined" and "unexamined" to mean one who has, or has not, passed the Associate examination, this is obviously the case: but can one limit examination to one particular examination; and if so, should not one inquire whether all those who have passed that examination at any time are equal in merit?

Before admitting Licentiates, the Institute set up a special examining body and satisfied itself by special examination that men were qualified before they were accepted as Licentiates. Is it then quite fair to describe Licentiates either as "unexamined" or "unqualified"?

Admittedly, the standard of the Associate examination has varied considerably, and only those who passed within certain limits of time can reasonably claim any real distinction which that examination may give. It is manifestly absurd to rule out all men who have not passed a particular examination from any claim to distinction: to do so would deny distinction to some of our greatest architects. Obviously, then, it is not the passing of the Associate examination—or any other examination—which denotes distinction in the profession or gives a claim to control. Other things being equal, age and experience should be recognised, as a better criterion than examination, in considering the control of a professional society.

One thousand and forty-one, or 44 per cent. of the Associate class, have been admitted to the ranks since 1918; does Mr. Travers wish that the control of the Institute should be placed in the hands of the youngest and least experienced section of the profession? Old men are of course learning their lesson that youth is very much at the helm, but even youth itself will hardly claim that it is either entitled or able to govern the profession.

It would appear to me much more dangerous to trust to much-examined youth, just starting out into the competitive world, to settle questions of policy than to trust the judgment of older but less-examined men who have passed the test of many years' practice.

It is quite certain that *esprit de corps* will do more to help us than quibbles about distinction; it is absolutely necessary to impress the public with the fact that all our members are qualified men, and it is essential that members of all classes recognise their common membership of the Institute and act as men interested in a great profession—not in a section of a professional institute.

I do not think Mr. Travers, or anyone else, could elaborate a policy which would have the effect of obtaining the unanimous support or opposition of either "examined" or "unexamined" men.

The greatest power of ultimate control (if every man votes) on any question must rest with the Associates, because they will always be the largest class; this cannot be helped, one can only hope that examinations will give youth wisdom.

J. E. YERBURY.

SIR,—As a student of the R.I.B.A. I should like to say how interesting I found the figures quoted by Mr. Travers in his letter published in your May 2 issue. I do not think I should be far wrong if I said that almost all the students of the Institute regard Fellowship as the topmost pinnacle of their ambitions, and this was certainly so in my case.

Before reading Mr. Travers' letter I was, of course, aware of the fact that Fellows were elected either directly or from the Licentiate Class without examination, but I was under the impression that this distinction was reserved by the Council for exceptionally brilliant men of note, and the fact that there were at the moment nearly 500 Fellows of the Institute who had not been examined amazed me.

In the case of Associateship, this diploma can only be obtained by passing the Institute examinations, so that the inferior diploma is to all intents and purposes the sounder qualification, which is surely a wrong state of affairs.

The result is surely then to lower the status of Fellow and incline to make what is regarded as the highest distinction in the Institute represent nothing at all. Associates realising this will refrain from applying for Fellowships, and in course of time this distinction will be held practically entirely by the unqualified.

By amalgamation with the Society of Architects the Council cannot even reserve the right to elect their unqualified Fellows, but are required to take from the Society, on trust, several hundred of their more or less unqualified Fellows, thus swelling the numbers of unqualified Fellows in the Institute to such an enormous extent that they actually outnumber those w have qualified by over 200.

If this amalgamation should take place, t as far as I can see, the only ray of hope to student desiring to become qualified lies Associateship, which will be fortunately untouched by the inroads of the Socie members, and this he will doubtless make ultimate goal.

M. H. POWEL

[*** In the letter referred to, Mr. Tra states that the new Fellows from the Society Architects will number 200. We believe we correct in stating that at least 40 of these already Fellows of the Institute. He also st that the Members of the Society of Archit who will be joining the Institute will be 1, About 57 of these are already Associates.—E

King's College, Cambridge, Competition.

SIR,—The letter of apology which Messrs. T & Rees have signed and with which Mr. Gor H. G. Holt has asked to be permitted to associ himself is completely satisfactory to us.

We accept the unreserved withdrawal of t charges and now consider the matter to finally closed.

HERBERT J. ROWSE
LIONEL B. BUDDEN

SIR,—Although I had associated myself w Messrs. Tait and Rees in sending the letter wh you published in your last number, I did under the reasonable impression that it was, itself, evidence enough of our desire to m adequate apology.

I did not expect to find the long added amble. What this preamble does is to spr the mistaken idea that our open letter of November was throughout a string of un comments.

Whilst it is now established that in one resp —and one only—the statement then ma namely, that Messrs. Budden and Rowse arri at a particular result "by violating a condit thought to be desirable," was inaccurate conveyed an unfair meaning, the critic obtaining in the rest of our November letter not, and in fact could not be, assailed, and such was never withdrawn.

GORDON H. G. HOL

Westminster Abbey, North Transept.

SIR,—The statement in my letter of April that Professor Lethaby objected to the rest tion of the North Transept because "it was in accordance with the original design," altho it did not express truly his views on restora generally, was quite relevant in respect Westminster. There it happens that "continuity" advocated is broken by construction of modern work based on the records in place of what Professor Leth considered to be the original design (in the —Wren's rendering of it; and in the gable— actual mediæval stonework). Against t these alterations in design he vigorously te ted and accepted the design of the arc as he states, only on the principle of " tinuity" of Wren's work.

Those who have read my paper will, I th agree that there is a considerable amount evidence to support the views of the resto and I hope soon to have the opportunity bringing forward further facts in the endea to show that the noble front as it stands to- is indeed as far as possible an authentic re of the ancient work.

S. HURST SEAGE

Ypres.

The Strand.

SIR,—Mr. Slater is in error when he st that the Charing Cross Hotel is on the of the Duke of Buckingham's House. It Hungerford House which was replaced Hungerford Market. The name still surv in Hungerford Bridge. In Wilkinson's "L dona Illustrata" a view of the old marke given and a plan.

London. ANDREW OLIVE

UNITY AND REGISTRATION

:,—There are certain facts which should
orne in mind by the members of the Royal
tute who wish to make intelligent use
eir votes at the forthcoming Council elec-
. As Mr. Travers writes in your issue
ay 2, it is simply inconceivable that the
l Societies will agree to any arrangement
h will not give their members equal
rs with the Society of Architects. Having
in view, therefore, the result of the
cil's scheme for amalgamation with the
ty is that the present Fellows and Asso-
s, numbering about 3,300, will have to
on the traditions of the Institute in the
of about 5,400 unqualified newcomers,
full voting powers, who are to be intro-
l into the Institute. Will any Associate
s zeal for registration commit the astonish-
folly of supporting these proposals by
g for the Council's house list?
n the same page as Mr. Travers' letter
ars a letter from Mr. Yerbury, speaking
the Licentiate class, to the last part of
graph 3 of which I earnestly crave the
ntion of the members of the Royal Insti-
I gather, moreover, from this letter that
e is to be a referendum to Licentiates.
us appears that the Council have granted
he Licentiates something they refuse to
the corporate members.
here are certain statements in the Council's
lar which cannot be allowed to pass.
o. by the way, is paying for all this elec-
propaganda?) Mr. Shortt, K.C., says
after amalgamation the whole profession
ld speak with one voice; he cannot, there-
be aware that there are large numbers
nattached architects in the country, and
there is considerable apathy and even
osition towards registration among many
he leading men of the profession. More-
, both the question and the opinion are
that it is an insult to the intelligence of
members to hold this out as an induce-
t.
very Associate should strenuously protest
nst the lapsing of the Council from the
ertaking given for many years past that
affix "L.R.I.B.A." would not be
ntenanced.
ssociates will have a lively recollection
although pressed for many years past,
section of the Institute of which the
ent Council is the mouthpiece have con-
ed the right of Associates to have equal
ng powers with the Fellows. They have
however, promised the Licentiates this
ilege over the heads of the Associates! By
porting the Council's scheme, therefore,
ociates will be electing as members 5,000
ualified men who will have greater voting
ers than they themselves now possess.
he Council are not content with this, but
want to increase the representation of
Allied Societies. This is already too strong,
ng that they are a burden of expense to
Institute. (I believe the actual cost of the
d Societies to the Institute is over £400
annum.) The figures for the last year
r that out of a total of about 4,000 mem-
of the Allied Societies only about 1,000
qualified architects. It would seem, there-
that the Allied Societies are sufficiently
served with no less than nine representa-
on the Council of the Institute.
owhere do the Council give the slightest
rance that registration will be obtained
his generation, or even in this century,
propose a scheme which, while it brings
no nearer registration, will certainly
k the Institute as at present constituted.
Royal Institute does now stand for some-
g. It has a Royal Charter and a member-
of over 3,300 educated and qualified men
posing the flower of the profession. All
is being put in jeopardy by a band of
tics who are prepared to barter their trust
the bubble Registration.
embers of the Royal Institute should resent the action of the present Council in refusing to obtain the feeling of the Institute members by means of a referendum. This refusal is based on the foolish quibble that they are inhibited from this course by our charter. (This is a case of the devil misquoting Scripture.) Members of the Institute are forced thereby into voting against some of the best men in the profession. Thus the morbid and sinister political campaign which is now rife is accentuated by the Council's action, while a referendum would have been absolutely final and would have brought peace in our time among all parties in the Institute.

Associates should not lose sight of the fact that the splendid array of names on the Council's house list represents men who will not suffer the crushing effects this dilution will have on those commencing a career. Associates should ponder whether the vicarious sacrifice made by these elect gentlemen may not be a little beyond their victims' powers of endurance.

The Council, of course, have had no mandate to open negotiations with the Society. The position is that there is a Registration Bill before the Institute, consideration of which the general body decided to postpone in order to obtain the Allied Societies' views.

I should have liked the Council to have told members how the conferring of diplomas on 5,000 unqualified men will help "the improvement and elevation of the professional status and the advancement of the Art" (of Architecture).

PERCIVAL M. FRASER.

London.

[Mr. Fraser's letter reached us too late for our last issue, and we have had an opportunity of considering the points raised by him. Taking them in order, we believe we are correct in saying that:—

The fact is that the Allied Societies' Conference, by a unanimous vote, backed up by numerous meetings in the provinces, has agreed to this arrangement which is thought to be inconceivable.

By assuming that the societies will not agree to the scheme, but will insist on another which has not even been suggested, and by substituting this imaginary scheme for the Council's actual scheme, Mr. Fraser's figures are arrived at. There is nothing of the sort in the Council's scheme, and it could not come to pass unless it was put forward in a new charter and voted for by members. Even at that the figures are wrong. In the United Kingdom (which would be the only country affected by the Register) the number of members of Allied Societies unattached to the R.I.B.A. is far less than 2,000.

The Council took the opinion of the Licentiates by post-card because they have no votes either at general meetings or in the election. The voting members have the power of expressing their verdict first at the election and afterwards at two special general meetings.

Mr. Shortt was given these precise facts in writing—the numbers in the R.I.B.A., the numbers in the Allied Societies, and the numbers in the Society of Architects, and an estimate of the number of unattached architects. (See Mr. Shortt's second opinion, *p.* 780, in reply to the exact question selected by the Defence League.)

The Council do not "lapse from an undertaking." They simply give the Associates and members generally an opportunity of voting as to whether they want to make this change or not. The Council could not impose such a change. If it is made, it is made by the express vote of the general body at two general meetings.

This right of the Associates has been conceded by every Council that has been in office since the war. It was agreed to by the general body in 1923, and it is included in the Council's actual scheme in so many words.

The Licentiates get nothing "over the heads of the Associates." They will not be electing 5,000 men as members with greater voting powers than themselves. They will be voting for the admission of about 1,200 men with the same voting powers as themselves, and promoting 1,300 more to the same voting powers.

When the Allied Societies were first given representation they had nine seats on the Council, though there were only nine societies with a few hundred members. There are now 55 Allied Societies and branches with over 4,500 members, yet the Council only propose to increase their representation from 9 seats to 15, and all these representatives must be Fellows of the R.I.B.A.

A careful analysis of the membership of the Allied Societies was made only last year, and it showed that the non-architect members of the Allied Societies (honorary members, surveyors, and craftsmen, &c.) were about 1 in 100. Practically the whole membership consists of *bona-fide* members of the profession.

The Council cannot give assurances as to what Parliament will do. They can only give their opinion, backed by the opinion of the legal advisers of the R.I.B.A., and by the opinion of an eminent Parliamentary authority.

Mr. Fraser may regard registration as a "bubble." The profession as a whole does not. And the profession's opinion was shared not long ago by several well-known architects who now appear to be in opposition, at a time when the prospects of registration were not so good as they are now.

A postal vote has no power to settle anything, even if members voted 3,000 to 1. The proposals can only be adopted at a special general meeting, and they will be laid before a general meeting if the election shows that the Council retains the confidence of members generally.

The Council were not instructed to obtain only the Allied Societies' views, but "that the Bill be not considered until other professional societies and interests affected have been consulted and a general consensus of opinion obtained in favour of the Bill." These are the actual words.—ED.]

The R.I.B.A. Election.

SIR,—Fifty years of close acquaintance with the R.I.B.A., a recollection of every president, except one, may entitle me to express the hope that in the forthcoming important election of the council, and of the committees, the voters will take some pains to ascertain whether or not those for whom their votes are recorded are men who, by reasonable attendance at the council and committee meetings are likely really to work for the best interests of the general body, and for an increase even in the good estimation in which the R.I.B.A. is now held by the public.

The report of the council for this year contains the number of attendances of each member on the various committees (it would have been useful if it had also contained the number of attendances of members of council) and a persual of the figures will show what I mean.

The mere credential of a name, however eminent, is not likely to further the interests of the Institute unless the owner of it has made up his mind to attend to the work he has undertaken to perform.

I am not a candidate this year for the council nor for any of the committees, but I may repeat what I have been saying and writing of late, that there appears to be an inclination to be "patronised" by officialdom; that dilettantism is creeping into a body which should be essentially an artistic and a practical one; that 20 boards and committees—the number this year—rather supports my point of view, and leads me to hope that the new council and committees will be composed of men who will minimise those "embellishments," and get on with the useful work of the Institute in a practical manner.

WM. WOODWARD.

London.



MR. E. STANLEY HALL (President) occupied the chair at a general meeting of the Architectural Association on Monday last.

Two nominations for membership were announced, and Messrs. P. Rodeck and C. F. Cornelius were unanimously elected members.

House List.

The PRESIDENT then announced the result of the elections for the House List for the session 1924-5 as follows:—

PRESIDENT.—Mr. H. S. Goodhart Rendel.

VICE-PRESIDENTS.—Messrs. J. Alan Slater and L. S. Sullivan.

HON. TREASURER.—Mr. Gilbert H. Jenkins.

HON. EDITOR, *Architectural Association Journal*.—Mr. Manning Robertson.

HON. LIBRARIAN.—Mr. A. H. Moberly.

HON. SECRETARY.—Mr. M. T. Waterhouse.

PAST PRESIDENT.—Mr. E. Stanley Hall.

ORDINARY MEMBERS OF COUNCIL.—Messrs. W. H. Ansell, E. J. T. Lutyens, P. D. Hepworth, C. L. Gill, O. P. Milne, Philip Tilden, S. C. Ramsey, T. W. Newman, C. H. James, H. I. Merriman.

SWEDISH ARCHITECTURE.

MR. HAKON AHLBERG then lectured on "Modern Swedish Architecture," and illustrated his remarks with a number of lantern slides of past and modern architectural works in Sweden.

After expressing the thanks of the Swedish visitors for the kindness they had received at the hands of their English confreres during their stay in this country, he said Swedish architects had always admired the capacity of English architects to make their creations live and their attachment to national traditions. But at the same time they had admired the English in their refusal to be bound by the shackles of academic red tape—it was those qualities which had kept English architecture on safe and sound lines through all the changes of style and fashion. Modern Swedish architects strove after the same things, and by immersing themselves in their own traditions they endeavoured to lay sound foundations for their creations.

In considering the modern Swedish art of building, the ancient times and the Middle Ages were of hardly any real importance. It was, in fact, not until the beginning of the sixteenth century, when the country secured political security, that Swedish architecture became fully and consciously national. The seventeenth century, the era of Sweden's political greatness, was of more importance; it was in that century that the exterior architecture of palaces, mansions, and the houses of well-to-do citizens gained their typically old Swedish character, which was simple and dignified. The chief contribution of the eighteenth century was a refinement of that type of design and the development of interior architecture. The nineteenth century contributed scarcely anything of real value to the history of Swedish architecture. It was an unhappy time; it was the time of the expansion of towns and suburbs, and unfortunately had given many of those developments their stamp of stereotyped dulness and uncultured grandness.

With the last decade of the nineteenth century indications of a renaissance appeared. The man who was generally recognised as the pioneer of the modern school of Swedish architects was I. G. Clason, whose productions had been prolific, whose achievements in an official position had been considerable, and whose activities as a teacher had had a great influence. Clason had not striven to be an artist in the same way as the majority of architects who had faith in their own activities. He was first a builder, and had laid down laws for a sound architecture, suited to the times, and at the same time traditional. He had reached a high standard, and in his official activities he had imbued his laws with life. From the seed which Clason had scattered as a teacher there had sprung up vigorous plants which bore witness to its excellence, although he had not escaped the sower's bitter lot of seeing some strange and startling growths appear. He had waged a stubborn and successful fight against the use of inferior material and false construction, to which recourse had been had with fatal results during the period immediately preceding his activities; he had taken up arms for well-thought-out, logical, and solid construction; he had studied every detail, and carried out his work in a way almost unknown to his contemporaries; through the reliability and authority of his personality and the thoroughness of his work, he had earned from the architects of Sweden a confidence which, because of careless and shoddy work, they had nearly lost.

An interesting contrast to Clason, and representative of another stage of development, was Ragnar Ostberg, who belonged to a younger generation which was reaping where Clason had sown. The tendency to fixity of style in Clason was in Ostberg converted into a robust and sometimes revolutionary love for creating and recreating.

Between Clason and Ostberg were a number of good architects of distinctly individual type, and perhaps the most robust representative of that school was Carl Westman, whose work was characterised by austere sobriety and manly control.

In Ostberg's Stockholm Town Hall would be recognised many of the elements from old Swedish buildings. In that building there was a trace of realism which manifested itself in showing forth the materials naked and unadorned, and at the same time there was a trace of romanticism; but it was by no means an imitation—it was as original as possible both in its great lines and in its details, and most certainly it was a clever work. Stockholm was beautifully situated, and almost surrounded by water. The front of the Town Hall rose directly from the water, like the buildings at Venice, for Stockholm was a queen of the water as well as Venice. The front facing the water was of red hand-made bricks, reminding one of mediæval work. The spires and sculptures on the roof were gilded. In the banquet hall the walls were covered with mosaic, mostly gold. The pavement was of light green and black marble, polished to reflect the rich colours of the walls. A banquet in that hall, only lighted with candles on the tables, was indeed a magnificent sight. There were many startling effects in the building, although it looked simple in plan.

The recent history of Swedish architecture could be summarised as follows: First a technical renaissance which expressed itself in the condemnation of inferior materials and false construction; then a stylistic renaissance which rejected academic and hackneyed conventionalism, and aimed at individual and national forms suited to the particular purpose in view. That period had certainly made one of the happiest and one of the most valuable contributions to the history of Swedish architecture during the past century. Naturally they occasionally met with exaggerations, but a trend towards classical ideals, towards a stricter and more law-abiding style, could now be discerned. That change did not, of course, appear as connected or intentional; the new trend was, at first, hardly discernible, and was introduced by men of very moderate tendencies.

From the technical point of view the contributions of the most recent years were perhaps not of the same importance as those of the first years of this century, but the pure and strict form which had followed on the ideal of the younger school suited the modern technique extremely well. Modern Swedish architecture did not aim at being a direct expression of construction such as was sought after at the beginning of this century—especially in Germany; it rather sought after a cultivated form in the solution of the whole architectural problem, and not principally in construction, which must be a subservient factor. The cultivation of the formerly despised branches of architecture, such as interior decoration and handicrafts, was one of the most important contributions of the younger generation of Swedish architects, and the quality of modern Swedish handicrafts might in no small degree be ascribed to the influence of architects.

In conclusion, he extended a cordial invitation to English architects to visit Sweden to see what architects were doing in that country.

A hearty vote of thanks to the lecturer was proposed by MR. GOODHART RENDEL and seconded by SIR LAWRENCE WEAVER, both of whom complimented him on the excellent manner in which he delivered a difficult lecture in a foreign language.

MR. IVAR TENGBOM said they in Sweden were very glad to receive the invitation of the A.A. to hold an exhibition of Swedish architecture in London, as they deeply respected the works of English architects. Architecture could not be expressed at all except through the actual building, and he hoped they would find sincere work behind the drawings in the exhibition.

The vote of thanks was carried with acclamation.

YORK ARCHITECTURAL SOCIETY

THE annual meeting of the York and East Yorkshire Architectural Society was held at York recently. The chair was taken by Mr. Stephen Wilkinson, F.R.I.B.A., the President. Amongst those present were Messrs. J. M. Dossor (Hull), T. Snowden (Hull), S. G. Highmoor, E. A. Pollard, J. S. Syme, S. R. Kirby, C. W. C. Needham, S. Needham, S. Low, T. H. Cliffe, J. P. Wilde, D. Robinson, W. O. Noble and J. E. Reid.

Mr. Stephen Wilkinson was re-elected President, and Messrs. J. M. Dossor and Alan H. Munby (London) Vice-Presidents. The following members were elected to serve on the Council:—Messrs. George Benson (Easingwold), A. B. Burleigh, C. H. Channon (Malton), G. H. Harbon (Hull), R. Jackson, S. R. Kirby, Llewellyn Kitchen (Hull), G. Leckenvy, H. Monkman, C. W. C. Needham, S. Needham, A. Pollard (Scarborough), T. Snowden (Hull), J. Stewart Syme, W. S. Walker (Hull), T. W. Whipp (Scarborough), and F. T. Penty. Mr. J. E. Reid was re-elected Hon. Secretary, and Mr. E. A. Pollard Hon. Treasurer. Messrs. S. G. Highmoor and A. Cowman consented to act as Hon. Auditors. At the meeting several excellent suggestions were adopted, and it was resolved to pay visits to buildings of interest in the county, and to give a series of lectures by architects on popular subjects. It was also resolved to adopt a presidential badge, and several sketches were laid before the meeting.

Messrs. Arvid Fuhre, Hugo Jahnke, Conny Nyguist & Karl Samuelson, Architects.

Swedish Architecture Exhibition.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The Proposed Amalgamation.

The following resolution has been passed unanimously by the Councils of the following allied societies :—

Ulster Society of Architects.
Liverpool Architectural Society.
Nottingham and Derby Architectural Society.
Northamptonshire Association of Architects.
Glasgow Institute of Architects.
Manchester Society of Architects.
Berks, Bucks, and Oxon Architectural Association.
South Wales Institute of Architects.

"That the Council of the . . . note with regret the attitude of certain members of the R.I.B.A. who seek once again to place obstacles in the way of a union between the two principal architectural bodies in the country.

"The Council of the . . . assure the Council of the R.I.B.A. of their whole-hearted support in the effort that is being made to obtain unity in the profession."

The following resolution has been passed unanimously by the Councils of the following Allied societies :—

The Northern Architectural Association.
The Gloucestershire Architectural Association.

"The Council of the . . . assure the Council of the R.I.B.A. of their whole-hearted support in any effort that is being made to obtain unity in the profession, and await with interest any scheme to further this object."

The following members of the Allied Societies' Conference, who were unable to append their names to the letter sent out before Easter to members of the R.I.B.A., and signed by the members of the Council and by members of the Allied Societies' Conference, have informed the Secretary of the Royal Institute that they desire to support the Council's proposals :—

J. Leighton Fouracre, President, Devon and Exeter Architectural Society.

G. D. Oliver, Chairman, Cumberland Branch, Northern Architectural Association.

D. W. Galloway, President, Dundee Institute of Architects.

W. S. Purchon, Past-Chairman, Central Branch, South Wales Institute of Architects.

C. F. Ward, Chairman, Eastern Branch, South Wales Institute of Architects ; also Vice-President of the South Wales Institute of Architects.

Frank S. Swash, Vice-Chairman, Eastern Branch, South Wales Institute of Architects.

Mr. T. Alwyn Lloyd, Chairman, Central Branch, South Wales Institute of Architects.

G. Vincent Evans, Chairman, Northern Branch, South Wales Institute of Architects.

Letters sympathising with the registration policy of the Institute have also been received from Messrs. Oscar Wilson, hon. sec. of the Singapore Society of Architects ; S. M. Eveleigh, president of the Architectural Institute of British Columbia ; G. A. Roberts, of Sydney ; Storey and Van Egmond, of Regina, Canada ; and from William P. Bannister, of the State Department of Education, the University of the State of New York.

Up to May 9 replies had been received from 716 Licentiates who were asked to express their opinion on the Council's proposals—of these, 19 were not in favour, and 697 were in favour.

Election Circular.

The following letter has been sent to the electors of the R.I.B.A. :—

"DEAR SIR,—Last year, by an overwhelming majority, a really representative Council was elected to try and come to some satisfactory solution of the unfortunate impasse which had been reached upon the question of registration, and our relations with the Society of Architects. We believe that the proposals now submitted by this Council will, if carried, be of the greatest value to the profession in the future, and ensure an end to the unfortunate disputes of recent years. We, therefore, ask you to give your votes at the Council Election to the Candidates who are named on the opposite page, all of whom have been nominated by the present Council, and support their proposals in full."

This letter is signed by six Past-Presidents, 66 Presidents and Past-Presidents of Allied Societies, about 180 Fellows, and nearly 300 Associates.

The following list of candidates is appended to the letter :—

PRESIDENT : Gotch, John Alfred.

VICE-PRESIDENTS :

Barnes, Major Harry.	Dawber, Edward Guy.
Buckland, Herbert Tudor.	Lutyens, Sir Edwin Landseer, R.A.

HON. SECRETARY : Keen, Arthur.

ORDINARY MEMBERS OF COUNCIL :

Adshead, S. D.	Keppie, J.
Ashley, H. V.	Lanchester, H. V.
Burnet, Sir J. J.	Monson, E. C. P.
Cave, Walter	Rees, T. T.
Corlette, H. C.	Sadgrove, E. J.
Fletcher, Sir Banister F.	Scott, G. Gilbert.
	Thomas, Sir A. Brumwell.
Fletcher, H. M.	
Green, W. Curtis	Thomas, Percy E.
Jones, F.	Verity, F. T.

ASSOCIATE MEMBERS OF COUNCIL :

Bagenal, Hope	Budden, L. B.
Bradshaw, H. C.	Slater, J. Alan.
Bucknell, L. H.	Waterhouse, M. T.

[The list of candidates nominated by the Defence League is given on p. 782.]

The R.I.B.A. and the Defence League.

At the suggestion of the Council of the R.I.B.A., on March 17 Mr. J. A. Gotch (President) wrote to Mr. A. W. S. Cross asking whether a meeting between representatives of the R.I.B.A. Council and the Defence League might not be desirable with a view to avoiding the differences which occurred at the last two Council elections. A meeting was held on March 27, when the representatives of the Defence League suggested that a referendum should be taken, and on April 2 Mr. Gotch wrote, stating that the Council intended to put its proposals before the electorate, which was the only form of referendum available under the constitution of the Institute. The Defence League objected to this course, and expressed a preference for a referendum, in reply to which the R.I.B.A.'s Council informed the Defence League that it could not see its way to alter its previous decision to place the whole matter before the general body at the forthcoming election.

Architects and National Housing.

MR. WHEATLEY, Minister of Health, recently received a deputation from the Royal Institute of British Architects and Allied Societies on the question of national housing. The deputation was introduced by Mr. J. Alfred Gotch, the president of the Institute, and views of the architectural profession were expressed by :—Major Harry Barnes (Vice-President, R.I.B.A.), Mr. H. V. Lanchester, Professor S. D. Adshead, Mr. G. C. Lawrence (President of the Wessex Society of Architects), Lt.-Col. G. T. Reavell (Northern Architectural Association), Mr. T. Alwyn Lloyd (South Wales Institute of Architects), Major H. C. Corlette (Federal Council of Australian Institutes of Architects), Professor Patrick Abercrombie, Mr. Paul Waterhouse.

The deputation desired expressly to emphasise the importance of architects and the Institute being represented in any statutory or other Committee which might be set up in connection with the carrying out of a Government scheme. They also desired to lay stress on the importance of trained architectural advice being sought in the carrying out of housing schemes from the points of view of securing economy, efficiency, and grace of design.

Dealing with the Report of the Building Committee, the speakers endorsed the recommendation that a long-term programme of house building should be undertaken. They had grave doubt whether in the long run a advantage would be gained from any syst of dilution which did not aim at produc trained craftsmen. They felt that it was the greatest importance that an appro standard of housing would be maintained extended.

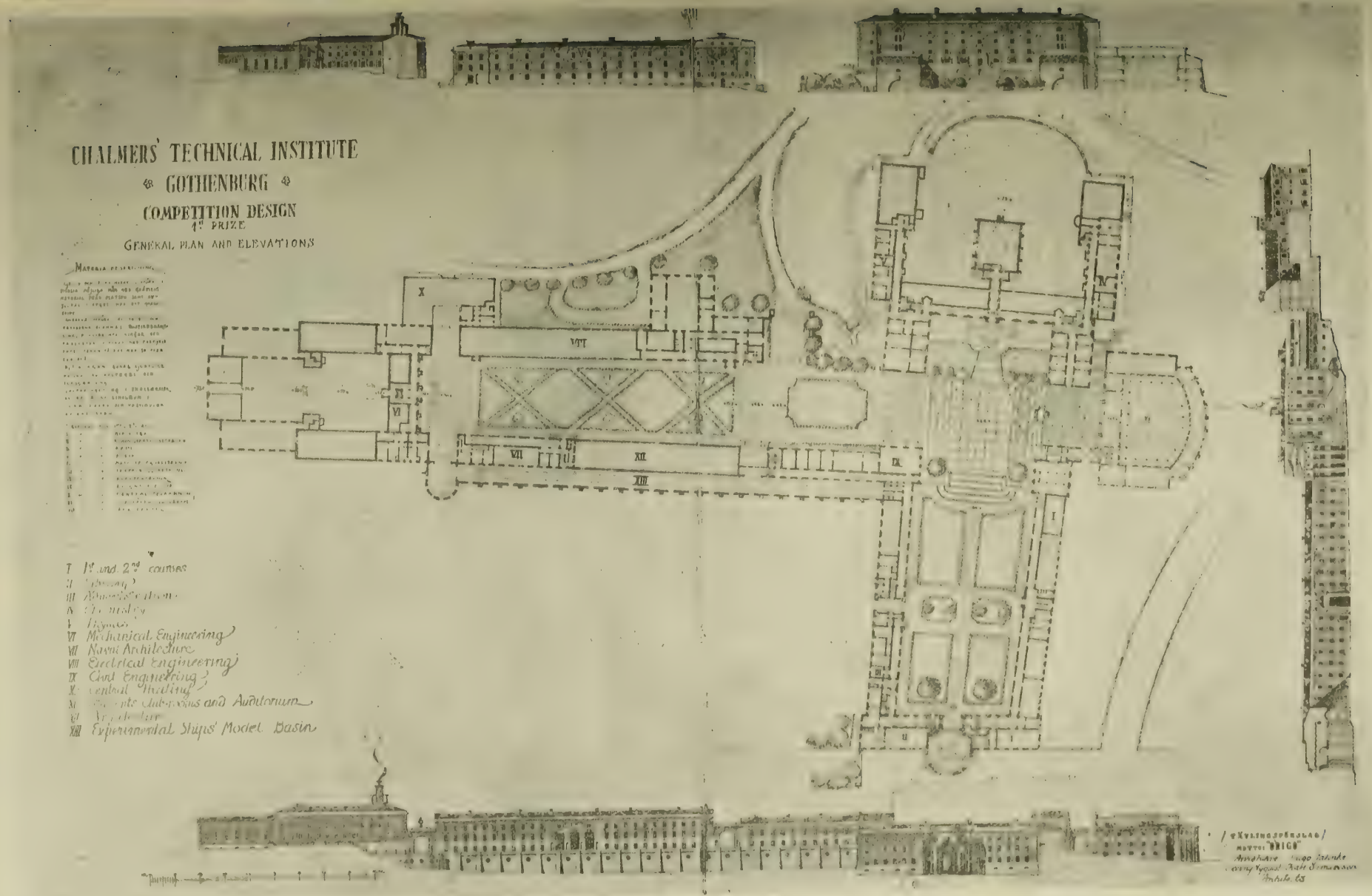
The Minister (Mr. Wheatley), in re thanked the deputation for putting before the views of a body of such importance assisting at arriving at a proper solution the difficulties of the problem which he had hand. He assured the deputation that he no intention of departing from the system competitive tenders or from the principle free trade in the supply of materials. pointed out that the control of actual build would largely be in the hands of local auth ties, but he recognised fully the desirability bringing trained skill to bear on the proble He had not yet arrived at a final decision the functions and composition of the Co mittee which had been mentioned, but he noted the wish of the Institute for represen tion on it, and would not fail to consider it

The following were invited to take part the deputation :—

Council.—Mr. J. Alfred Gotch (Preside R.I.B.A.), Mr. Paul Waterhouse (Past-Pre dent, R.I.B.A.), Mr. John W. Simpson (Pa President, R.I.B.A.), Mr. Herbert T. Bu land (Vice-President, R.I.B.A.), Mr. E. G Dawber (Vice-President, R.I.B.A.), Mr. Curtis Green (Vice-President, R.I.B.A.), Robert Atkinson, Sir John J. Burnet, Edwin Cooper, Major H. C. Corlette, Banister Fletcher, Mr. Henry M. Fletch Mr. Gilbert Fraser, Mr. John Keppie, Edwin Lutyens, Mr. Thomas R. Milbur Mr. G. Gilbert Scott, Mr. Walter Tapp Sir A. Brumwell Thomas, Mr. Percy Thomas, Mr. Maurice E. Webb, Mr. Chalton Bradshaw, Mr. W. G. Newton, Michael Waterhouse, Mr. J. Hubert Wor ington, Mr. Eric Morley, Mr. E. Stanley H

Housing Committee.—Mr. Henry V. Ashl Major Harry Barnes, Mr. Walter Cave, G. C. Lawrence, Mr. Horace Cubitt, Mr. Leonard Elkington, Mr. W. G. Hunt, Herbert A. Welch, Mr. George H. Gray, Aston Webb, Mr. Wm. Harvey, Mr. Fran Jones, Mr. T. Alwyn Lloyd, Mr. James Lo head, Mr. C. B. Willcocks, Professor S. Adshead, Mr. W. R. Davidge, Mr. F. Elgood, Mr. H. V. Lanchester, Mr. Raymo Unwin.

Representative of Allied Societies.—M Edward P. Warren (Berks, Bucks and O Architectural Association), Mr. Rupert Sav (Birmingham Architectural Association). J. Leighton Fouracre (Devon and Exe Architectural Society), Sir William Por (Hampshire and Isle of Wight Association Architects), Mr. W. Alban Jones (Leeds West Yorkshire Architectural Society), Mr. Stockdale Harrison (Leicester and Leicest shire Society of Architects), Mr. E. B. Ki (Liverpool Architectural Society). Mr. A. Hope (Manchester Society of Architects). S. F. Harris (Northamptonshire Associat of Architects), Mr. E. H. Heazell (Nottingh and Derby Architectural Society), Mr. E. Boardman (Norfolk and Norwich Associat of Architects), Mr. W. T. Jones (North Architectural Association), Mr. T. P. Marw (Incorporation of Architects in Scotland). R. G. Wilson (Aberdeen Society of Architect Mr. D. W. Galloway (Dundee Institute Architects), Mr. C. G. Soutar (Dundee In tute of Architects), Mr. J. Inch Morri (Edinburgh Architectural Association). G. A. Paterson (Glasgow Institute of Ar tects), Mr. Alexander Grant (Inverness Ar tectural Association), Mr. H. L. Pater (Sheffield, South Yorkshire and District Soci of Architects and Surveyors), Mr. Percy Thomas (South Wales Institute of Architect Mr. W. S. Skinner (Bristol Society of Ar tects), Mr. G. P. Milnes (Gloucestersh Architectural Association), Mr. Stephen V kinson (York and East Yorkshire Archit tural Society), Mr. R. M. Young (Uls Society of Architects).



Swedish Architecture Exhibition.

MESSRS. ARVID FUHRE, HUGO JAHNKE, CONNY NYGUIST AND KARL SAMUELSON, Architects.

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ILLUSTRATIONS

Morgan Grenfell Bank.

Messrs. Morgan, Grenfell & Co. are acquiring two buildings of different design, and the scheme illustrated shows how it is proposed to re-front the elevation in Portland stone and unify the design. The entrance doors, as well as the window bars, will be in bronze. A new banking hall will be designed for the ground floor, which will be lowered to give extra height. This will necessitate considerable alteration in planning to the floors above. The work is to be carried out by Messrs. Trollope & Colls, Ltd.

Messrs. Mewès & Davis, FF.R.I.B.A., are the architects. Our illustration is from the Royal Academy Exhibition.

New Offices for P. & O.

This detail drawing shows the elevation of these premises in St. Mary Axe, E.C. The area wall and plinth are in granite and the whole of the upper part of the building in Portland stone. The roof is covered with green slates in graduated courses, the dormers, hips and curbs to roof being in cast lead.

The general contractors for the work are Messrs. Trollope & Colls, Ltd., of Coleman-street, and the following is a list of the sub-contractors:—Henry Hope & Sons, cast lead work; James Gray, Ltd., heating; W. Richardson & Co., windows; Electrical Installations, Ltd., electric light; Burke & Co., and Belman, Ivey & Carter, marble work; Brookes, Ltd., granite work; Faldo & Co., asphalte; G. Jackson & Co., plaster decoration; Birmingham Guild, Ltd., bronze entrance door; H. W. Cullum & Co., hollow block floors; Waygood-Otis, Ltd., lifts; plumbing and sanitary work, Matthew Hall & Co. The stone enrichments were modelled and carved by Mr. P. G. Bentham, of Stamford Bridge Studio.

The whole of the work has been designed and carried out under the supervision of Mr. Stanley Hamp (Collcutt & Hamp), 126, Wigmore-street, W.1. The original drawing is by Mr. R. S. Dixon, and is exhibited at this year's Royal Academy.

Vigo House.

This building forms the Vigo-street end of a block of buildings which will eventually have a frontage on Regent-street from Vigo-street to Heddon-street, the design used in the façade of the present building being carried on and used for the whole block. It was found that with the new floor heights the resultant elevational "grid" lent itself more definitely to treatment in a modern than in a conventional manner. A strong horizontal lintel marks the second-floor level, above which a vertical treatment is obtained by the use of simple stone piers carrying a projecting cornice at the fifth-floor level, and emerging through this till they reach the eaves level at the sixth floor. A circular corner in which tall columns take the place of piers, and support, above the cornice level, a battered drum and dome, forms the important motive at the junction of Vigo and Regent streets. This feature will also be repeated on the Heddon-street corner, thus affording massive terminals to each end of the completed facade as viewed from Regent-street. The stonework throughout is worked to simple mouldings with incised enrichments. Rich bronze balustrades at the first-floor level, bronze entrance doors and shop-front detail, and specially designed metal windows throughout are provided to give a contrast to the simplicity of the stonework. High polished green Swedish granite, capped with a 2-ft. wide band of polished black Belgian marble, forms an effective base to the structure above, which is in Portland stone throughout.

Sir John Burnet, A.R.A., and Partners are the architects, and our illustration is from the Royal Academy Exhibition.

The sculpture work was executed by Mr. Reid Dick, A.R.A.; and the modelling and stone carving by Mr. George Alexander. The general contractors are: First operation, Messrs. Trollope & Colls; second operation, Messrs. P. & W. Anderson. The sub-contractors are: Messrs. R. A. Skelton & Co., steelwork; Messrs. Diespeker & Co., patent floors; Messrs. Fenning & Co., granite and marble; Messrs. Crittall Manufacturing Co., steel windows; Messrs. Crittall Freeman Bronze, Ltd., shop fronts, lift grilles, &c.; Messrs. Carter & Co., terrazzo and mosaic floors; Messrs. Young, Austen & Young, heating; Messrs. Tyler & Freeman, electric lighting; Messrs. Shanks & Co., sanitary fittings; Messrs. Waygood-Otis, lifts.

Proposed Business Premises in the City.

The basement, ground floor, entresol and first floor of this building are to be occupied by a bank, with staff luncheon rooms in the roof. The four upper floors will be available for private offices. The lower part of the facade is to be faced with Swedish marble, and the upper part with thin red facing bricks, and the roof covered with Roman type tiles.

Mr. Oliver Hill is the architect. Our illustration is from the exhibit at the Royal Academy Exhibition.

Coulsdon and Purley U.D.C. Town-Planning Scheme: Bradmore Green.

This illustration is from the Town Planning Institute Exhibition in the Palace of Arts, at the British Empire Exhibition, and shows how a proposed shopping centre ar a village green should look when develope private enterprise in accordance with the t planning scheme which is being prepare Messrs. Allen & Potter, 11, Arundel-st W.C.2.



Swedish Architecture Exhibition.

Palace of Justice, Stockholm. Mr. Carl Westman, Architect.

THE ROYAL SANITA INSTITUTE

The thirty-fifth Congress of the Royal San Institute will be held at Liverpool, from 14 to 19. Already 500 delegates from authorities, representing foreign and Col governments, Government departments, co councils, boroughs, urban and rural cou port sanitary authorities, &c., have appointed. The Marquess of Salisbury President of the Congress, will deliver his ad at the inaugural meeting in the St. Geo Hall, on July 14, at 8.30 p.m. The gress is divided into Sections of Sanitary Sci Engineering and Architecture, Maternity Child Welfare, Personal and Domestic Hyg Industrial Hygiene; and Conferences of r sentatives of sanitary authorities, port san authorities, medical officers of health, engi and surveyors to sanitary authorities, veteri inspectors, sanitary inspectors, and h visitors. Among the subjects to be disc are housing, regional surveys, arterial r town planning, water supply, lighting of tories, ship sanitation, &c. The Health E bition will be on a larger scale than u Visits have been arranged to works and ins tions illustrative of the sanitary administra of Liverpool and district, to Widnes, Port light, Chester, and the Isle of Man.

MEETINGS

Friday, *May* 16.

Architectural Association.—Annual Ball. the R.I.B.A. Galleries, 9, Conduit-street, 9 p.m. to 5 a.m.

Monday, *May* 19.

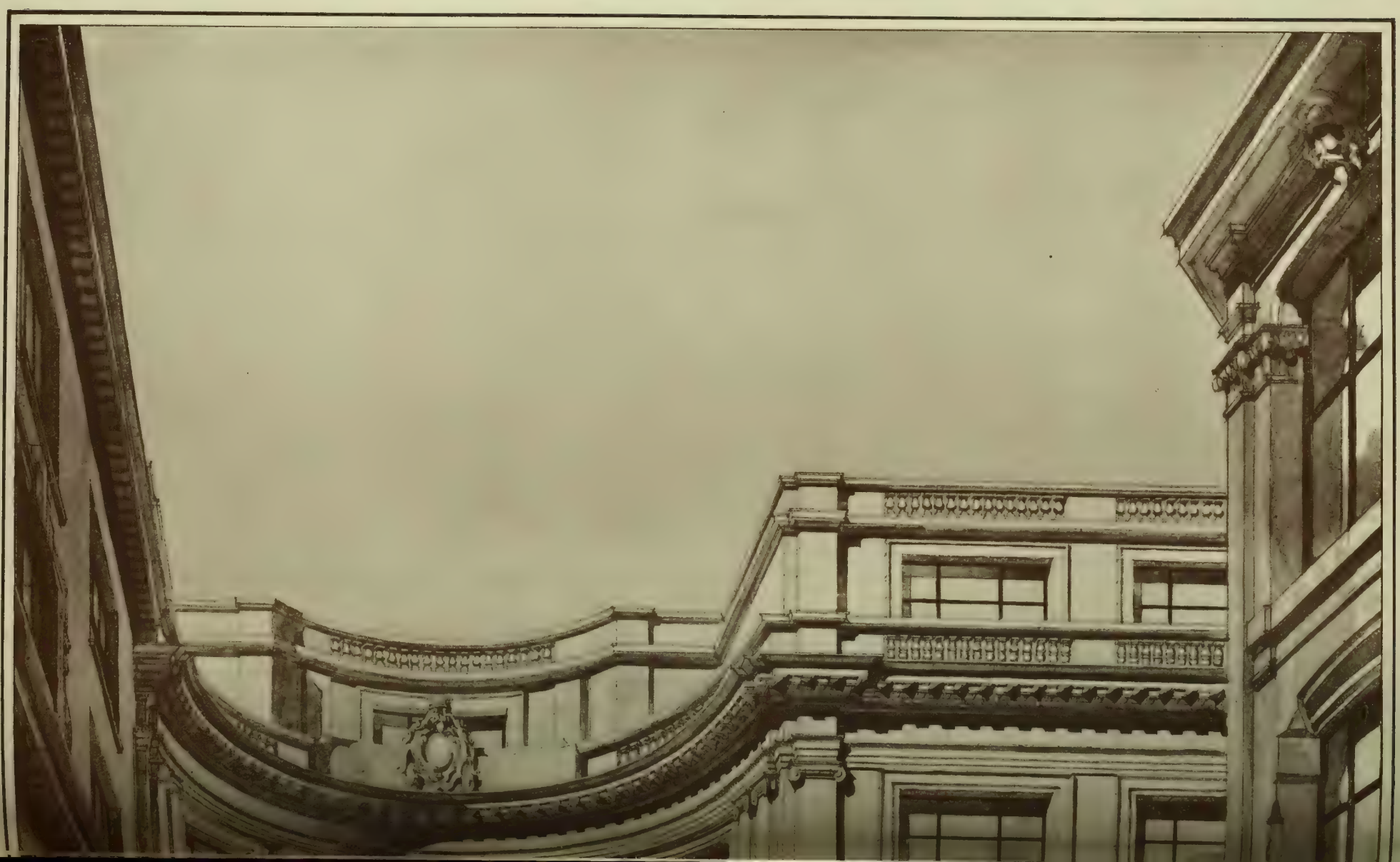
Royal Institute of British Architects.—M Perks on "The Scheme for a Thames Emb ment after the Great Fire of London." Conduit-street, W. 1. 8 p.m.

Thursday, *May* 22.

London Society.—Rev. A. G. B. West on "Spirit of London." At 18, John-st Adelphi, W.C. 2. 5.30 p.m.



R.A. Exhibition, 1924.





R.A. EXHIBITION.

REFRONTING OF ELEVATION, MORGAN GRENFELL BANK, GREAT WINCHESTER STREET, E.C.

MESSRS. MEWÈS & DAVIS, F.R.I.B.A., ARCHITECTS.



R.A. EXHIBITION.

NEW OFFICES FOR P. & C

MESSRS. COLL



. ST. MARY AXE, E.C.
RCHITECTS.



R.A. Exhibition, 1924.

Castle Drogo, Devon. Sir Edwin Lutyens, R.A., Architect.



R.A. Exhibition, 1924.

Proposed Business Premises. Mr. Oliver Hill, Architect.

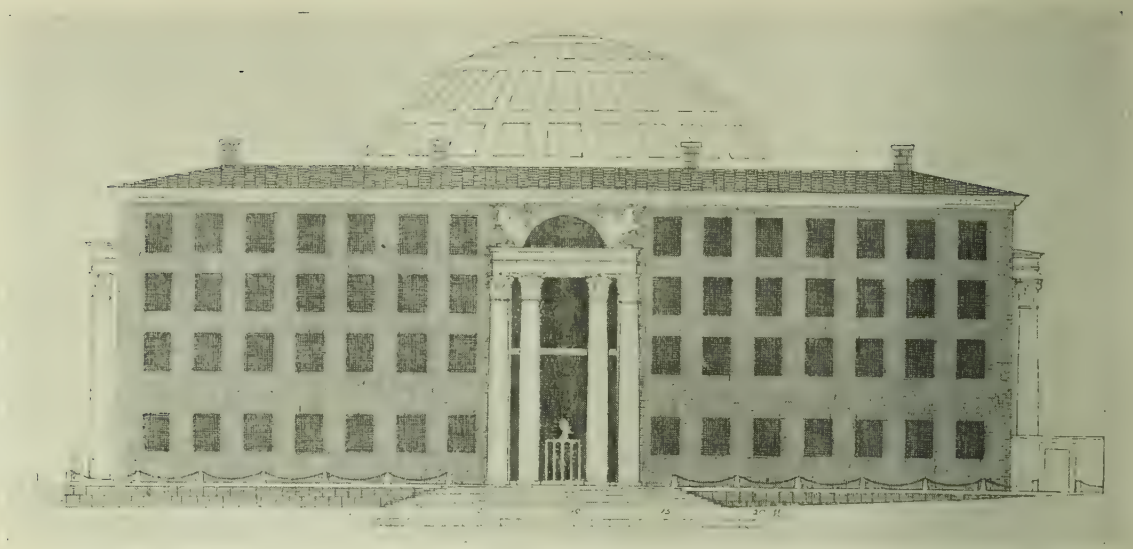
Photo: F. R. Yerbury.

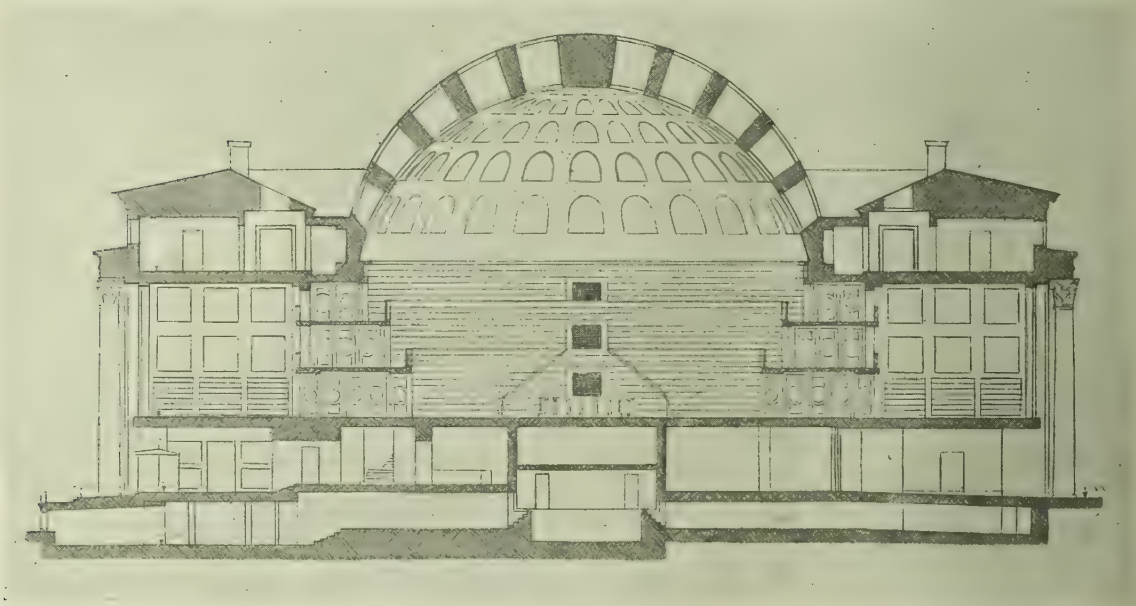
Swedish Architecture Exhibition.

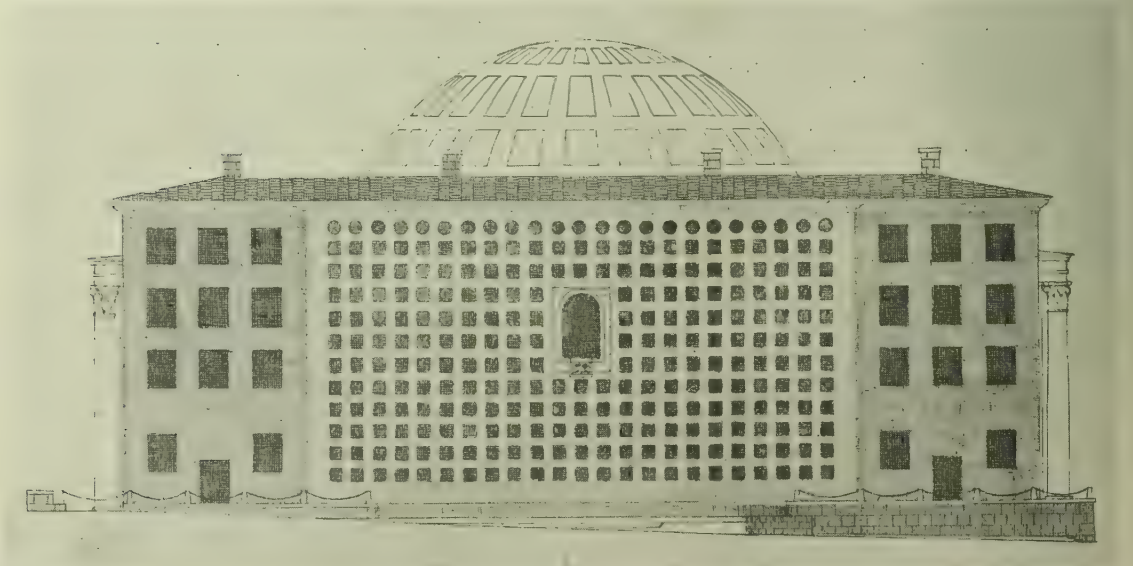
From the Town-Planning Exhibit at Wembley.

Coulsdon and Purley U.D.C. Town-Planning Scheme: Bradmore Green.

MESSRS. ALLEN & POTTER, Architects. (*See p.* 790.)

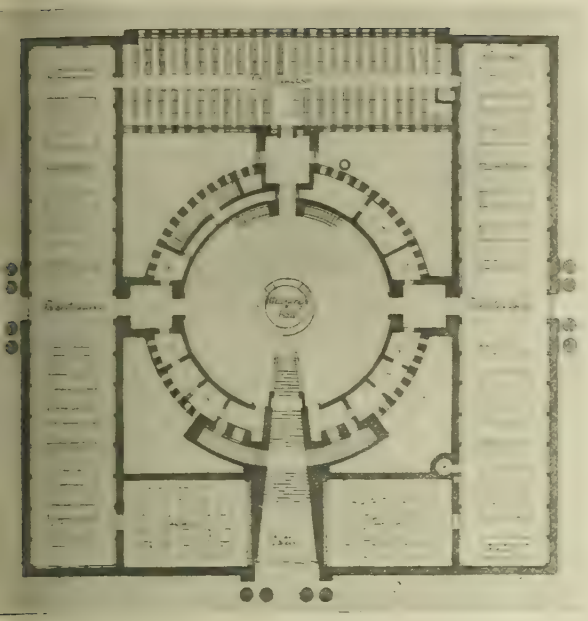


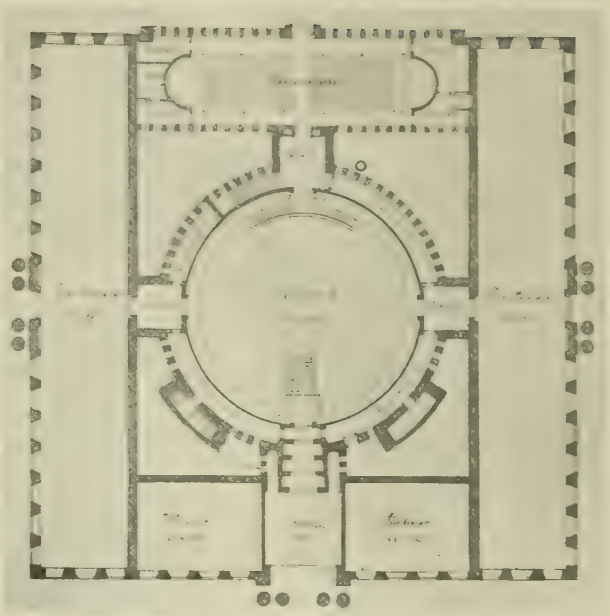


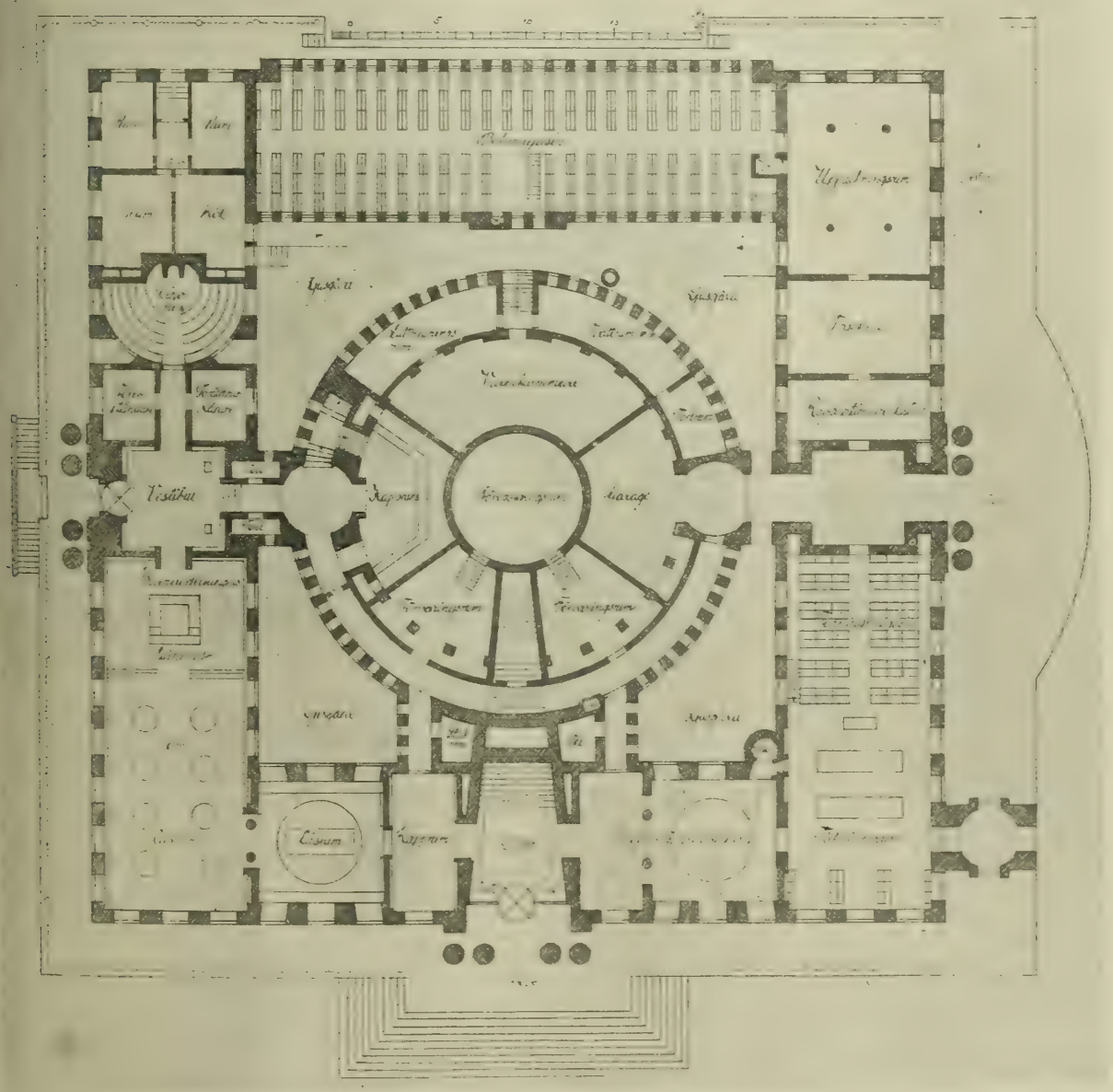


Swedish Architecture Exhibition.

Town Library, Stockholm. Mr. Gunnar Asplund, Architect.







Swedish Architecture Exhibition.

Town Library, Stockholm. Mr. Gunnar Asplund, Architect.

SOUTH WALES INSTITUTE OF ARCHITECTS

Mr. C. F. Ward, F.R.I.B.A., Chairman of the Eastern branch, South Wales Institute of Architects, and vice-president of the South Wales Institute of Architects) presided at the third annual dinner of the Eastern branch at Newport recently. There were also present Mr. Percy Thomas, O.B.E., F.R.I.B.A. (president, S.W.I.A.), Mr. Ivor Jones, F.R.I.B.A. (hon. secretary, S.W.I.A.); Mr. C. E. Tebbs, A.R.I.B.A., Mr. W. S. Purchon, M.A., F.R.I.B.A., and Mr. R. H. Winder, M.A., F.R.I.B.A.; Mr. A. Lovelock (president, Building Trades Employers' Association); Mr. Horace Jones, M.S.A. (hon. secretary, Newport branch, S.W.I.A.), and Mr. J. H. Daniels (assistant secretary).

The President, proposing the toast of the guest of the evening, Mr. C. E. Tebbs, said they all regretted he had felt compelled to resign. He was appointed secretary on the formation of the branch in 1915, but before then he was a member of the Doric Club in 1910-11, a club which had done much for architecture in Newport. Students of the present day hardly seemed to appreciate the importance which the meetings of the Institute had in the life of the young architect, but he assured them that they were most valuable. On behalf of the members he had pleasure in presenting Mr. Tebbs with a silver cigarette casket.

Mr. Tebbs, responding, expressed his appreciation of the gift. He congratulated the Institute on the progress that had been made towards registration, and urged students to continue their studies until they had obtained the diploma of the R.I.B.A. That would prevent them becoming architectural hewers of wood and drawers of water.

Proposing the "Royal Institute of British Architects and Allied Societies," Mr. Frank Swash, Newport, said that the main object of the Institute was the education of their own members and of the general public. As an Institute they were on the eve of big things, the result of which would be the upraising of the profession. As an Institute they had 5,483 members, but there were 24 allied societies, which made their membership much greater. They also had organisations and branches throughout the Colonies and Dominions. There was a scheme on foot for the amalgamation of the R.I.B.A. and the Society of Architects, and this would be for the benefit of the profession as a whole.

Mr. Percy Thomas, responding, said they had suffered much in Wales from want of opportunities for their students. More good would come to Newport from one properly trained architect than from 99 grants from the Board of Education. As regarded the unity of the profession, the R.I.B.A. did not, at present, represent the whole of the profession. The object of unification was the promotion of a Registration Bill in Parliament, but whether they were able to do this or no, the unification of the profession was a worthy end in itself and would be of immense advantage.

Mr. R. Fisher proposed the visitors and the Building Trades Employers' Federation.

Mr. A. Lovelock responded, and congratulated the branch upon the unity of their association, and the enthusiasm they had displayed. He then proposed the health of the chairman.

Mr. Ward, responding, thanked the members for the support they had given him, and appealed for even greater enthusiasm and service in the future. They were making great progress both as an institute and for the improvement of the profession.

Mr. W. J. T. Collins, replying for the visitors, said that among the things that made for the good of Newport was that they should have in their midst buildings of which they could be proud. He hoped that the members of the profession would hold fast to their ideals, and do their utmost to bring back to Newport and Monmouthshire the glories of the architecture of the past. The last word in architecture had not yet been said, and it was for them to educate the public to understand the new lines of beauty in the buildings they designed. For this education was necessary, and he hoped this would be recognised by the public generally, so that the Newport which they loved would be made a town worth living in and one of which they could be proud.

ARCHITECTS' BENEVOLENT SOCIETY

On May 13 the Architects' Benevolent Society held their seventy-fourth annual general meeting at the rooms of the Royal Institute of British Architects. In the absence of the President Mr. W. Hilton Nash was in the chair.

After the minutes had been read the Hon. Secretary read the annual report, from which we take the following extracts:—

The sum of £1,477 18s. 6d. has been actually expended during the year under review. In addition, £407 has been paid out in pensions to the Society's pensioners. Subscriptions have maintained a high level, a total of £1,106 0s. 6d. having been received. The Society's scheme of Professional Insurance, by which architects may insure their lives through the Society and thereby donate the commission, or half of it, to the Benevolent Fund, has been progressing steadily during the year. In February, 1923, a circular letter was sent to all members of the Royal Institute of British Architects, the Society of Architects and the Architectural Association, to Presidents of Allied Societies, Directors of Architectural Schools, and to the whole of the architectural press; and it was followed in May by a circular from the Society's Assurance Company which was sent out with the annual report, and later as an inset in the R.I.B.A. *Journal*. The results were encouraging. Up to date, thirty insurances have been effected and a total of £10,136 has been insured. £51 16s. has been received by the Society in commission, and £41 16s. has been returned to the insured. In addition, the sum of £39 12s. has been paid to the Society by the Assurance Company as a sliding scale commission on the total for the first year.

In place of Sir William Emerson, who resigned his position as a trustee of the Society, the Council has the pleasure to nominate Mr. Paul Waterhouse, M.A.Oxon, F.S.A., P.P.R.I.B.A.

The Council regret to report that the Society has lost by death many supporters during the year, including Sir Ambrose Poynter, Bart., the Rev. W. F. Yates Rooker, Mr. Walter Burrows, Mr. Arthur Clyne, Mr. William Cooper, Mr. Ernest Flint, Mr. Arthur Harrison, Mr. E. Haslehurst, Mr. R. H. Kerr, Mr. George Lethbridge, Sir James Lemon, Mr. Sidney Muggeridge, Mr. A. E. Murray, Mr. George H. Paine, Mr. Marshall Robinson, Mr. A. E. Sawday, Mr. T. F. Tickner, Mr. W. Henry Ward, and Mr. W. E. Willink.

The Council have the pleasure to acknowledge their great indebtedness to the Royal Institute of British Architects for the use of office accommodation, and to Mr. MacAlister and the staff of the Institute for courteous help on all occasions.

Mr. Hilton Nash then moved the adoption of the report, and said he considered they should get more help from the architects, many of whom, although in good positions, did not subscribe. The election of Council for the year of office 1924–25 was as follows:—President: Mr. J. A. Gotch. Vice-president: Mr. Thomas Dinwiddy.

Ordinary Members: Mr. William Grellier, Mr. Osborn C. Hills, Mr. George Hubbard, Mr. L. S. Sullivan, Mr. A. Saxon Snell, Mr. H. L. Anderson, Mr. Albert E. Kingwell, Mr. W. Campbell Jones, Mr. C. H. Brodie, Mr. Digby L. Solomon, Mr. W. Henry White, Mr. Maurice E. Webb, Mr. R. Dircks, Mr. E. J. Partridge (representing the Society of Architects), Mr. E. Stanley Hall (representing the Architectural Association), Mr. Henry Lovegrove (representing the London Society).

Votes of thanks were then passed to Mr. W. Hilton Nash for his services as hon. treasurer, Sir Charles Nicholson for his services as hon. secretary; and to the retiring hon. auditors, Mr. C. H. Brodie and Mr. Henry Lovegrove.

AUCTIONEERS' AND ESTATE AGENTS' INSTITUTE

The Registration Bill and the Housing Question.

At the annual meeting of the Auctioneers' and Estate Agents' Institute—the President (Colonel G. E. Kent, J.P., of Portsmouth) in the chair—the Council reported that the position as to the Registration Bill was one which called for patience. Although the Bill was introduced into Parliament early in the year, it failed to reach the stage of Second Reading, being crowded out by measures deemed to be of more general public importance. The nature and extent of the opposition to the Bill had, however, been disclosed, and discussions and conferences with all the opposing bodies had been in progress and were continuing. While the Council was prepared to make reasonable concessions so long as they did not interfere with the fundamental principles upon which the Bill was based, a firm stand would be made when those principles were involved. It appeared that some considerable time might be taken up in these negotiations, and that the Bill might ultimately require a certain amount of redrafting before it was in a condition to be re-introduced into Parliament. The Council regarded this matter as being of such vital importance that the final revised draft of the Bill would be submitted to the members of the Institute, through the branches, for approval before the measure was re-introduced into Parliament. The progress must necessarily be slow, but the contents of the Bill were so vital to the profession that the Council felt fully justified in proceeding slowly and cautiously in order that no false step might be made. The report of the Council was adopted.

Speaking at the annual dinner, Sir William Joynson-Hicks (late Minister of Health) said he desired to make a serious appeal to that great Institute and its Council in regard to a question he had very much at heart—the housing question. He thought there was no body of men who had such knowledge of the housing question and its difficulties as they had. Every day and every week many of them were dealing with houses from one point of view or another. The housing question was one of the questions that had to be solved, and it seemed almost insoluble. He was not going to touch upon the housing question from a political point of view, though he was not sure from what the Solicitor-General had said of his affection for the Guilds of the Middle Ages with the idea of enlisting the bricklayer in a vocation, that it would not be well for the Solicitor-General to transfer himself to the office he (Sir William) had held of Minister of Health, and induce the bricklayer to lay even a moderate amount of bricks per day, which would go very far towards solving some of the difficulties of the housing problem. The difficulty was almost insoluble because they were up against the fact that they must have houses built, and they could not get houses built while the restrictions were on, and they could not take the restrictions off until the houses were built. That was really a kind of vicious circle in which, unfortunately, politicians from time to time revolved. It was just as important to one party as to the other to solve this great difficulty.

Mr. Charles Osenton (Leatherhead) has been elected President of the Institute for the ensuing year in succession to Colonel Kent.

WN - PLANNING CONFERENCE AND EXHIBITION

O the second day of the Conference the
al at the first session was taken by Alder-
n Thos. Turnbull, D.L., J.P. (Chairman,
nchester District Town-Planning Com-
tee), who, in introducing Professor Aber-
mbie, gave a brief address on town-plan-
g principles and an account of the work
ich was being carried out in the Manches-
district.

Professor Abercrombie, in the course of his
ss on "Planning Industrial Regions," said
at for the purpose of general considera-
n the subject could be divided into two
s of "region." First, that in which the
ering of industry had been clearly de-
ated and where a series of industrial
munities were showing signs of coalescing
o a single urban mass; second, that in
ich industry had hitherto been absent, or,
any rate, only an appendage here and
re but where, from sudden cause, an in-
tial expansion was imminent. These two
ic areas could be briefly defined as the
ising Industrial Region and the Potential
ustrial Region.

It seemed to him that the solution of the
blem of the factory areas was a twofold
e—1) the regulation of the factory areas
emselves so that they should not be a nuis-
ce to neighbours, with special reference to
ok abatement; (2) the second solution
sisted in the provision of permanent open
ace, and thus preventing the towns from
ous coalescence. This open space need not,
doubt, be used for recreation purposes, and
uld be selected as far as possible to use
nd that was unsuitable for building, or
ich would be specially suitable for allot-
nt. Also it might be pointed out that the
crease of publicly owned golf courses pro-
cedsome return on the purchase price and
uldise up odd-shaped or elongated stretches
land.

Professor Abercrombie said it was remark-
ble that in the three Midland industrial areas
e largest towns—Manchester, Birmingham,
d Leeds—were not in the centre of the in-
strial region, but appeared to act as a
me, beyond which stretched the residential,
d, finally, rural surroundings.

After a brief reference to Sheffield and the
gional problem of London, Professor Aber-
mbie considered the case of new industrial
eas. These, he said, naturally gave much
re scope for regional planning. The con-
uctive plan was less likely to be regarded
an interference, and, indeed, was seen to
a plain necessity. Transport planning pro-
ded an easy step to prove the necessity for
gional zoning at the same time. This par-
ularly applied to districts such as the Don-
ster or East Kent regions. In both cases
e preservation of natural amenities during
dustrial or at any rate colliery development
as the prime factor in the scheme, and
s importance equal to the efficient industrial
anning itself. It was extraordinarily satis-
ctory to note the broad way in which the
dustrialists who were developing Kent's re-
urces realised and were aiming at this.

Continuing, Professor Abercrombie referred
the progress being made in Dee-side and
erse regions, and in his concluding re-
arks said it must be clearly stated that
gional planning was, for industrial purposes
any rate, something more definite than the
ere extension and combination of town-
anning schemes under the Town-Planning
cts, and should deal with the co-ordination
industry, railway planning, and the de-
lopment of industrial "parks," dock de-
gning, and reclamations among other things.
would seem that for certain purposes a per-
anent pooling of rates would be essential,
pecially in view of the concentration of in-
strial zones, for regional purposes, in the
eas of certain local authorities, and their
exclusion from those of others. They might indeed go further and state that if the full benefits of a progressive Industrial Regional Plan were to be realised action by Chambers of Commerce would be as important as action by local authorities.

Regional Planning.

Mr. Pepler (Chief Town-Planning Inspector, Ministry of Health) in his paper on "Regional Town Planning," briefly surveyed the initial stages in town planning and the gradual emergence of regional planning as a logical development of the principle established by the Act of 1909. Continuing, he said that an important feature of town-planning schemes must be the provision or preservation of adequate open spaces. These could only be retained if transport facilities were so planned as to prevent their development. There were thus two problems to be considered in town planning: (1) the provision of relief roads and arterial thoroughfares to take the traffic; and (2) the preservation of the "wedges" of open space or the park belts. If the main traffic routes were taken through the wedges, there was little doubt that in course of time these would become built-up areas. He thought the solution in this case was for the main traffic route to be taken—not through the centre of the open space, but close to the built-up area which adjoined.

With regard to regional planning, of late years much progress had been made; there were now 26 joint town-planning committees, of which the largest was the Manchester and District J.T.P. Committee, which included 73 local authorities, and dealt with an area of nearly 1,000 square miles. It was significant that many authorities had come into the scheme knowing that it was going to cost them something, which, he thought, was conclusive evidence that they considered town planning was a practical proposition. After making a brief reference to various regional schemes, Mr. Pepler said he would like to draw attention to the fact that the Joint Town-Planning Committee for East Kent, which included the whole of the local authorities in this area, had taken timely steps to preserve the amenities of this district. East Kent would, in the near future, become an industrial region, as the coal and iron deposits were to be developed. It was, therefore, a matter for congratulation that the authorities had unanimously agreed to ask Professor Abercrombie to prepare a report for a joint scheme for this area.

He thought that they were only at the beginning of things as regards regional planning, and the value of these joint committees, which were coming into existence all over the country, lay in the fact that not only did it result in joint action but also in joint thinking, directed to making the best possible use of the powers with which Parliament had endowed the local authorities in this country.

Ald. T. Turnbull (Chairman, Manchester and District Joint T.P. Committee), in opening the discussion said that he considered there was no work which local authorities were doing which was so important as town planning. They, in Manchester, were fully determined to carry on the work they had begun until their aim was achieved. He hoped that the result of these joint town-planning committees would make England the best kingdom in the world in respect of the conditions under which their people worked and lived.

Mr. Greenwood (Parliamentary Secretary, Ministry of Health), who took part in the discussion, said he came there as a member of a Government which had to live by co-operation, which was, perhaps, a good thing. He felt that there was no sphere of their work in which this spirit of co-operation was more required than in that of regional planning. If problems were to be effectively dealt with, it was necessary to look beyond the single local authority. He could assure the delegates to this important conference that the Ministry of Health would do everything possible to facilitate this co-operation between local authorities. He thought they could claim that the Ministry had, in the past, been foremost in pressing what he would call "the regional point of view." What was required, above all, was foresight—they must be able to look ahead for ten, twenty or fifty years, and see what the needs of the country would be. If England was to preserve and improve conditions and the standard of living, it was essential that they should conserve and develop their industrial and natural resources to the fullest possible extent.

In the discussion which followed, the questions of the possible decrease in rateable values consequent on development beyond municipal boundaries, the problem of smoke abatement, the conservation of objects of historical interest or natural beauty, and the representation of industrial interests on town-planning committees were debated.

Town Planning for Large Cities.

The afternoon session, under the presidency of Ald. T. O. Williams (Lord Mayor of Birmingham), was opened with a paper by Mr. Wiltshire (Town Clerk of Birmingham), on "Town Planning for Large Cities." Mr. Wiltshire, in his opening remarks, dealt mainly with the progress of town planning as it affected the development of industrial centres, and pointed out that Birmingham could claim to be the first to take advantage of the provisions of the Act of 1909, as their first scheme was approved in 1913. This was no doubt due to the influence of the late Mr. George Cadbury in the development of the Bournville Estate and the development scheme of the Harborne Tenants Estate, which was largely due to the action of Mr. John Nettlefold. Details with regard to these two schemes were given by Mr. Wiltshire, who then described the more recent developments in town planning undertaken by the City of Birmingham, and the formation of the Midlands Joint Town-Planning Advisory Council, which included some fifty-two local authorities and had to deal with an area having a radius of some twenty-five miles around the city of Birmingham.

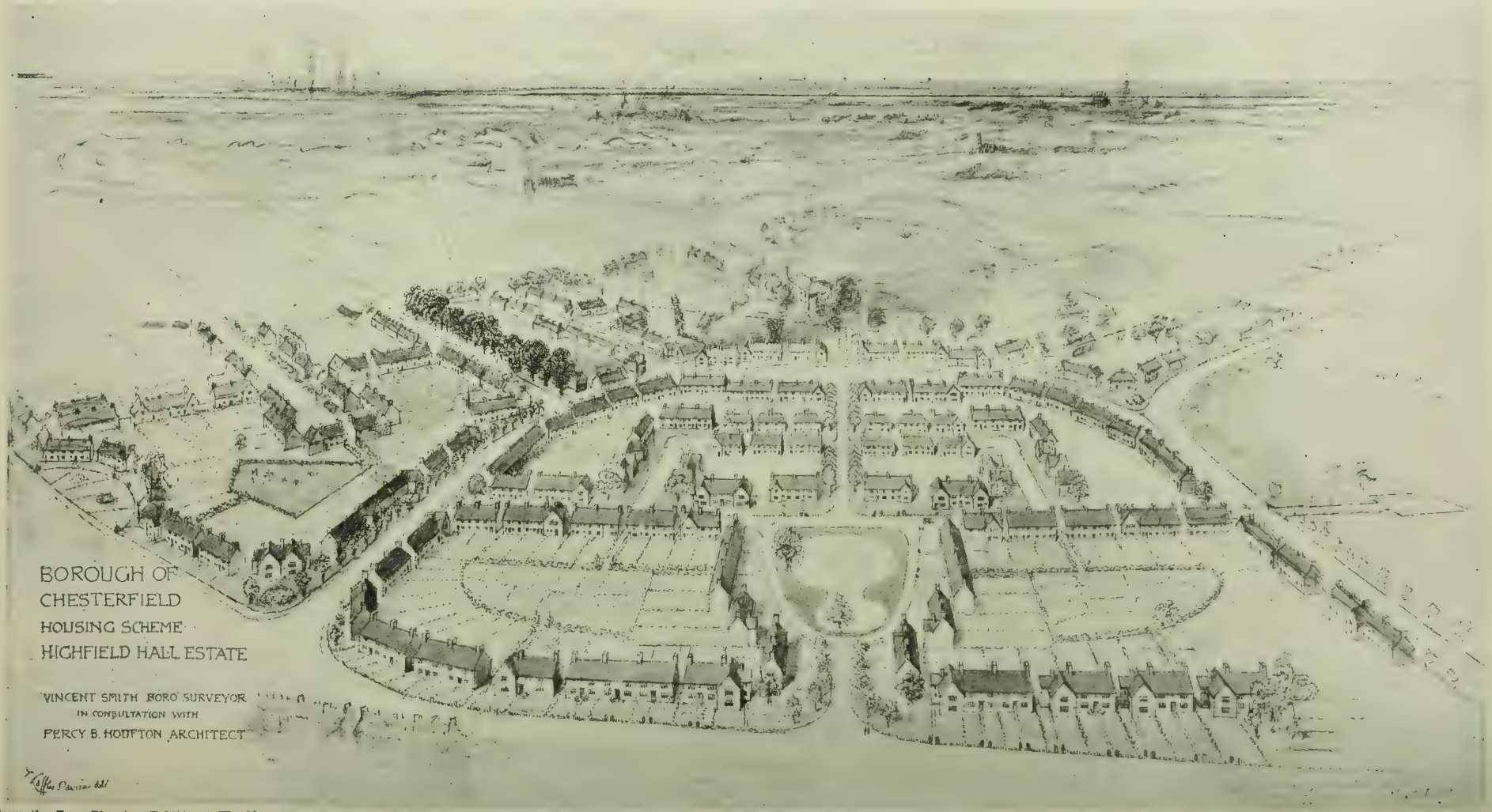
Mr. Wiltshire next dealt with the special problems in relation to (1) built-up or central areas, and (2) wholly or partially developed areas, and described the procedure adopted in such cases, more especially with reference to questions such as laying out of arterial and other roads, open spaces, zoning and density, and the acquisition of land, &c., concluding his remarks with a brief reference to Town-Planning Acts abroad.

Mr. C. J. F. Atkinson, LL.B. (Town Clerk, Otley), read a paper on "Town-Planning Schemes for Small Towns," and in the course of his remarks said that he thought there was a possibility, with regard to the smaller towns and villages in industrial areas, that unless they made better use of their opportunities than their predecessors they would be absorbed by the large towns.

He wished to make a plea for the early application of town planning to all such small towns and villages. It was better to do this than to wait until they reached the congested condition of the large cities, which, he thought, were, in many cases, past praying for. But, at the same time, small towns must not discourage the development of industry and healthy growth.

He would like to emphasise the need for strict control in the matter of advertising, which should not be allowed to disfigure their towns, as was often the case, and there should also be some measure of control over the architectural appearance for all buildings erected. In fact, he considered that this question should be brought to the attention of the Ministry and of Parliament, so that adequate powers could be given them to deal with it.

In too many cases in their smaller towns and villages the only place which was well laid out was the cemetery, and he would conclude by



From the Town-Planning Exhibit at Wembley.

Chesterfield (Highfield Hall Estate) Housing Scheme.

MR. VINCENT SMITH, Borough Surveyor, in consultation with MR. PERCY B. HOUFTON, Architect.

The Highfield Hall Estate, including park and hall grounds, comprising 104 acres, was purchased by the Chesterfield Corporation for development under the 1919 Assisted Housing Scheme. Since the curtailment of the Government scheme, let off in tenements, but will eventually be used as a public building. The park, of 23 acres, is being converted into a public recreation ground. The estate is now being developed by the Corporation, partly under the 1923 Act,

ng whether it was not time that something done to improve conditions for the living.
veral members took part in the subsequent ussion on these two papers. Mr. Swann irman, Housing and Town-Planning Com- tee, L.C.C.) said he thought one reason why were somewhat backward in town planning that public opinion was slow to form he South of England. In Greater London e was an area of about 9,000 acres of eveloped land, of which about 3,000 was able for development under a town-planning me. What was required was a comprehen- plan for the development of London as a le, which should also give them power to with built-up areas.
here was, in this connection, the problem of slums and overcrowded areas. What was to one with them and where was the necessary vision for those displaced by any scheme for areas to be made?
e considered the question of the reduction he density of population was almost entirely of finance; they had the difficulty of the boundary authorities who would not be , even if they were willing, to provide the ssary houses out of their own resources.
e thought the question of finance was one the Ministry to deal with, and felt the istry ought to take the lead in this matter, was one which they could not deal with out he rates.
here was also, he felt, a strong case for ing the cost of betterment on the owners.
eplying to questions raised during the ussion, Mr. Wiltshire said he regretted he omitted to mention that in Birmingham r city engineer was a member of the Art isory Committee; he thought it was most rable and necessary that the engineer and eyor should, in all cases, be a member of committees, as he was able to assist in the tical realisation of the schemes put forward.
With regard to cost of roads, the principle of eased contributions by large towns to assist heme had been adopted in the Birmingham— lverhampton arterial road.
With regard to the preservation of open ces, he thought much could be done by king use of narrow strips of land adjoining eams and brooks which could be linked up as to give a continuous chain of park-land.

Distribution.

The chair at this meeting was to have been en by Sir Aston Webb, but in his unavoid- e absence, Mr. Pepler (Chief Town-Plan- g Inspector, Ministry of Health) presided, in his opening remarks referred to the ere regret which they would all feel at reason for Sir Aston Webb's absence, their sincere hopes for his speedy recovery n the effects of his accident.
Dr. Raymond Unwin (Chief Architect of the istry of Health) then read an abstract of paper on "Distribution," which was illus- ed by lantern views. Dr. Unwin prefaced remarks by a definition of Distribution as ag the study of the general distribution of population and of industrial development, the distribution of different parts of any n or urban district. This aspect of town nning, he thought, required special study he present time; for it was the most essen- and difficult part of any scheme, and was, reover, the part in connection with which it most urgent to provide for further pro- ss.
On the one hand the realisation was being ed upon them that if they were to secure per development of urban areas, the con- of distribution as regarded population, in- try, open spaces, and, indeed, of all the erent parts of the town, must be carried ch further than had hitherto been at- pted. On the other hand, they had already n faced with the difficulty of carrying out n a moderate degree of distribution regula- without injustice to landowners, or in- ing heavy liabilities for compensation to se whose property might be depreciated in ual or prospective value. He thought the e had come when this difficulty must be faced frankly and removed effectively. It was becoming more and more evident that unless some adequate method of dealing with distribution could be found a great deal of what they called town planning, city improvements, and the solution of traffic problems would not be real remedies but merely palliatives.

Continuing, Dr. Unwin said that it should be realised that the difficulty did not arise because town planning was a costly enterprise, or that it was economically disadvantageous to the community that the various parts which went to make up the city should be allocated to those districts which were most adapted, by their location and circumstances, for each of the several functions which had to be provided for. On the contrary, all the evidence went to prove that there was a great advantage to the community in town planning and proper distribution, which was reflected in the value of the land to which these principles of development were applied. The difficulty, he thought, was due to the fact that many of the expectations of increment which had grown up under the system of private ownership of different pieces of land would be disappointed, while others would be exceeded if an orderly method of distribution, based on skilled foresight, was introduced.

Dr. Unwin then examined this question in some detail, and remarked that, with regard to values, owners of valuable residential land, commanding high prices because of its pleasant situation, might have that value greatly reduced if a neighbouring owner found that an immediate personal profit could be made by selling his site for a factory. An owner who had erected an expensive factory for manufacturing high-class confectionery might have his value practically destroyed by the erection in the immediate neighbourhood of a gasworks. The situation which had to be met was, he thought, that they had on the one hand the necessity for the adoption on a large scale of regulations as to the distribution of user with regard to land which would distribute in a new manner the increased values which attached to land for development purposes, and on the other a general demand for compensation in cases where such distribution regulations seemed to interfere with the owner's expectation in regard to the maintenance or improvement of value which might accrue, apart from such regulation.

The problem was one which depended a good deal on an attitude of mind which had grown up in the community, and which could only be changed slowly. This was one of the main reasons why legislation adopted successfully in one county could not be transferred, without modification, to another. Public improvements which were essential to the well-being of urban communities could not, at present, be effected because of the unwillingness to provide funds to compensate those injuriously affected unless these funds could, in one way or another, be obtained from those owners who were equally directly benefited by the improvements.

Turning to the consideration of the different methods by which the cost of distribution and town planning could be met, Dr. Unwin said that there were, broadly speaking, four ways of doing this: (1) By the public ownership of land; (2) the principle of special assessment, as adopted in America; and (3) the method known as excess condemnation, or (4) the taxation of land values. Each of these methods had its advantages and its weak points. With regard to the public ownership of land, it was obvious that if all land was held in one ownership the injuries and benefits would cancel out, and there would be a margin of increased value due to the improvements. The truth of this statement depended, however, on certain suppositions, which were not generally accepted. From the purely technical point of view of the town planner, there was no doubt the most satisfactory solution would be national ownership, but the difficulties of such a solution made it necessary to examine other methods.

The method of "special assessment," which was widely adopted in the United States, consisted, broadly, in raising a fund to compensate those whose land was taken or injuriously affected by assessing upon the land adjoining an improvement a special contribution or rate based upon an approximate estimate of the degree of benefit derived.

This method had been very successfully adopted by the town of Kansas, and it was found that the estate owners who had to pay this special rate had still benefited because of the increased value of their land due to the improvements.

The method known as "excess condemnation" was also widely practised in America, either as an alternative or in addition to special assessment. It had been adopted in London in the case of Kingsway, and consisted of purchasing compulsorily more land than was required for the improvement to be carried out, with the object of securing to the public the increased value consequent on the improvement. This method was, in practice, only applicable to certain kinds of improvements of limited area, and could not, therefore, be regarded as a complete solution of the problems arising from the redistribution of values which result from town planning.

The method of taxation of land values was unsatisfactory from the town planner's point of view because it would result in the creation of a common fund having no direct relation with the questions of distribution, etc., which would be just as difficult to get at as the rates.

With regard to the question of higher buildings, Dr. Unwin showed by two comparative plans of London and New York, that the "density area" was not reduced by the construction of high buildings in the central area of a city, because this necessitated wider and more numerous streets to deal with the increased traffic. He did not think there was any serious danger of such a development in London.

In conclusion, Dr. Unwin said that it must not be thought that because he had devoted considerable time and thought to the question of "distribution" that he had modified his views on the general principle of town planning. His aim remained the same, to secure for each citizen an adequate space in which to live or work and develop his faculties so that the race as a whole might become healthier and happier.

To do this the pernicious system of the growth of towns by mere inflation or accretion must be arrested. Open spaces must be secured and deliberately organised and planned; self-contained units must be planned to provide for the increase of industry and population, by the development of self-contained suburbs, satellite towns or garden cities, each defined by adequate open space, each planned in an orderly manner and all brought into proper relation to each other and the parent city from which they derived their impetus and to which they would continue to look for much of their prosperity and culture.

City Design.

Professor Adshead (Professor of Town Planning and Civic Design, London University) then read an abstract of his paper on "City Design," and, in the course of his address, said he thought the time had passed for writing about "tree-lined avenues," etc., and that what was now required was to consider the methods by which these could be obtained. He agreed with Dr. Unwin that the only means of arriving at a satisfactory result would be by a proper distribution of land values. With regard to the important matter of regional planning he considered that if regional plans were to be worth anything they must upset the actual land values. Unless this could be done the subsequent town plans would not be satisfactory.

Town planning was, in itself, only a stepping-stone to city design. He did not think the widening of streets in their big cities was a practical proposition, and for this reason he

thought there was no real danger of higher buildings in such a city as London; in fact, he thought enlightened opinion was tending more and more against such a proposal. Speaking as an architect to a meeting composed mainly of those who were not architects, he would say that he did not think architects as a whole looked at these questions as broadly as did town planners: they did not give sufficient study to town planning and sociology. At the present time he felt they were passing through a transitional period consequent on the passing of the big landowners, who (with all their faults) had larger views and planned on big lines. He considered the future held much promise and that the solution of the problem of distribution would be as favourable to fine architecture as to good town planning.

The discussion on these two papers was opened by MR. LANCASHIRE (City Engineer, Leeds), who said he thought American methods, however successful in the United States, would not, in most cases, be applicable in an old country such as our own, and hoped for a solution for the problem of distribution on traditional lines. Continuing, Mr. Lancashire gave some particulars with regard to the difficulties of architectural control of new buildings in Leeds, and said he thought this was essentially a question of to-day.

ALDERMAN ROGERSON (Worsley) referred to the difficulty of providing open spaces on built-up land between a large city and its smaller neighbours, and suggested that in such cases some sharing of the cost was the only solution, even when the area in question was outside the municipal boundary of the large city. With regard to housing, he thought the fault of the Addison scheme was that insufficient discretion was given to local authorities.

SIR THEODORE CHAMBERS spoke on the question of values, and said the difficulty was that any modification of values consequent on distribution and town planning meant that the ratio of supply and demand was completely modified in the area affected. There would be endless arbitration in any attempt to settle the questions of betterment and loss, though he agreed that, as a rule, most town-planning schemes increased the ultimate, though not always the immediate, value of land; this problem was just as difficult in a small town as in a large city.

In their larger cities the demand was, at present, concentrated too much on the central area; what was required was to bring the owners and commercial men to see that they would gain by going farther out. This idea, he thought, was gradually gaining ground, because the tendency in any questions with regard to rates of wages was to consider these in connection with the "cost of living," which included all that made life expensive to those who had to work in congested areas—rates, transport, and loss of time had all to be considered in their relation to wages and costs. With regard to the solution of this problem by means of satellite towns, he thought the chief difficulties were the cost of construction to the small local authorities and the loss on the rateable value to the larger towns by the emigration outside their municipal area. The problem was, how could the larger towns, if they had to bear a considerable amount of the cost of construction, also share the benefit which would arise from the increase in rateable value due to the development of such satellite towns?

COUNCILLOR BOWRON (Rochford) discussed the question of the control in the erection of temporary buildings which were not in accordance with by-laws, and said he thought the solution of this and many other problems was to be found in the American's definition of liberty: "Let every man do as he likes, and, if he won't, make him!"

COUNCILLOR BERKELEY (Kidderminster) referred to the special difficulties of small industrial towns where recurring periods of industrial activity and depression resulted in bad housing and planning. He also mentioned that industrial populations did not always appreciate good conditions unless accompanied by transport facilities.

MR. REGINALD BRUCE (Chief Surveyor, Manchester District Joint Town Planning Committee) mentioned that in the area round Manchester they had, in effect, a series of satellite towns, but (owing to the high value of the intermediate land) it was a matter of great difficulty to provide adequate open spaces at a reasonable cost.

COUNCILLOR HILES (Cardiff) said he thought one of the chief needs of the present time was to convert the non-technical members of municipal bodies and to emphasise the necessity of taking long views. In Cardiff they had one of the finest examples of town planning in the country, but when this was undertaken there was a great deal of opposition on the part of the public. He thought they should not be afraid of what the man in the street said to-day, but make their schemes for the future.

DR. UNWIN, in his reply, paid a tribute to the work of Mr. Pepler at the Ministry of Health, and said that he entirely agreed with Mr. Lancashire as to the need of solving their problems on traditional lines. With regard to the difficulty of providing the necessary open spaces between towns where the value of the land was considerable, he suggested this might be met by acquiring more land than was actually required for the improvement, and selling the surrounding property, when the increased value would probably considerably decrease the ultimate cost of the improvement. He entirely agreed with Sir Theodore Chambers in his remarks on the subject of values, and suggested that if the parent city acquired the satellite towns there might be advantages as well as liabilities.

PROFESSOR ADSHEAD, in his reply, stressed the need of obtaining public support for regional planning, and also referred to the urgent need for architectural control of buildings on arterial roads where these approached towns and cities.

The chair at the afternoon session was taken by Sir Henry Maybury, K.C.M.G., C.B. (Director of Roads, Ministry of Transport), when papers were read by Mr. J. A. Brodie, P.P.C.E. (City Engineer, Liverpool), on "Planning Main Roads," and by Mr. T. Alwyn Lloyd, F.R.I.B.A., on the "Planning of Estate Roads," which terminated the business meetings of the Conference.

THE DINNER.

MR. NEVILLE CHAMBERLAIN was the guest of honour at the tenth anniversary dinner of the Town-Planning Institute at the Savoy Hotel on May 7. MR. W. T. LANCASHIRE, the senior Vice-President, was in the chair. Amongst a distinguished gathering of members and guests were Mrs. Chamberlain, the Dean of Windsor and the Hon. Mrs. Baillie, Mr. and Mrs. J. A. Brodie, the High Commissioner for Australia and Lady Cook, Mr. Carby Hall (Chairman, North of England Division) and Mrs. Hall, Mr. E. Howard (President, International Garden Cities and Town-Planning Federation), Sir Henry Maybury, Sir Richard Redmayne (President, Institute of Professional Civil Servants) and Lady Redmayne, Sir Arthur and Lady Robinson, the Lord Mayor and Lady Mayoress of Birmingham (Alderman and Mrs. T. O. Williams), the Town Clerk of Birmingham and Mrs. F. H. C. Wiltshire, Professor and Mrs. Abercrombie, Professor and Mrs. Adshead, Mr. and Mrs. E. G. Allen, Mr. R. Bruce, Mr. and Mrs. W. R. Davidge, Mr. M. J. Dawson, Mr. F. M. Elgood, Mr. P. M. Heath (Town Clerk of Manchester), Lieut.-Colonel H. Carte de Lafontaine, Mr. and Mrs. H. V. Lanchester, Mr. T. Alwyn Lloyd, Mr. and Mrs. R. A. Reay-Nadin, Sir Richard Paget, Mr. Barry Parker, Mr. and Mrs. G. L. Pepler, Mr. and Mrs. H. E. Stilgoe, Mr. and Mrs. F. L. Thompson, Alderman Thomas Turnbull, Dr. Raymond Unwin, and Mr. A. R. Potter (Secretary).

After the loyal toasts had been honoured, the Chairman, proposing the toast of Mr. Chamberlain, said they were a young institution, and their early days were somewhat troubled; like all reformers and enthusiasts, they were subjected to ridicule. They were designated cranks and visionaries, but their reputation sanity was now established.

Mr. Chamberlain responding, said it was in t month of May, 1913, that the first town-planni scheme under the 1909 Act opened its campaig and as chairman he saw the first scheme carri through by the Corporation of Birmingham.

When one reflected on the way in which t country had grown up, and looked at the co glomeration of their great cities, and what mig have been if town planning had existed 2 years ago, one asked the question: Why h they not thought of it before? Some peo went so far as to assert that town-planni came too late to save the country, but he d not consider this the case. Gross as had be the mistakes of the past, they were not whol irretrievable at the moment. A great part the problem concerned the replanning of t areas that had already been built up. Region town planning had now become recognised one of the higher branches of the art, and had made such remarkable progress that would not be unreasonable to say that they cou already measure the time in which the whc country would be covered and come under co trol of one kind or another.

The next great step in town planning wou be additional legislation which would give local authorities power to replan existi cities, and which would deal with importa features, namely, the control of the main li of communication, and the location, or zonin which meant the future method of using sit within the area. It would be necessary proceed with the utmost caution and wisdo It sometimes occurred to him whether it wou not be wise to try experiments by means private Acts, passed by progressive bodies wh had technical resources. Possibly an expe ment of that kind, preceding general Acts, mig be the best method. It was the greate mistake to suppose because a city had been existence for hundreds of years it was, therefo in a state of stable equilibrium.

In the great problem of housing, which w agitating the country, the question of t future of the slums was one which continual pressed upon them, and was more insistent th any other, because of its effect upon the conten ment, happiness, and health of the peop He had given a good deal of attention to t subject, and in his opinion the whole questi of the future of the slums was inseparable fro the idea of town planning. In the past they h had to proceed, when dealing with small are without any general idea of where they we going. The question of slum improveme was not merely one of substituting good buil ings for bad, but it was actually a question the redistribution of part of the population.

They could not make a disturbance in t existing distribution without raising a wh lot of problems to which, in the absence of plan, there was no answer. They had to ma up their minds where the people were to li where the factories and commercial and pub buildings should be. Then the whole proble raised of the sweeping away of the slum wo receive an answer. One of the great functi the Town-Planning Institute was performi was the education of public opinion. Nothi was more important. There was no section public opinion which was more in need education than those who were concerned w the local authorities. It was a subject wh appealed highly to the imagination, but it w one which required faith and knowledge appreciate its full responsibilities.

THE DEAN OF WINDSOR, proposing "H Majesty's Ministers," said Cabinet Minist came and went, but he thought that Engla was managed very largely by herself rather th by her Ministers. Ministers should be ve sympathetic with the work that had gone on improving the country. Irrespective of politi he believed the present Government maintain a universal standard of desire for the welfare the country—the finest praise they could gi to any Government.

In the absence of the Minister of Transpc

H. Gosling), Sir Henry Mayury responded. Government departments, represented by Civil Servants, were, he said, in sympathy the work of local authorities. The great s of town planning and arterial roads were much allied.

r Richard Redmayne (Chief Inspector of s), proposing "The Town Planning Insti- " said their colliery villages were an re to the Kingdom, and more in need anything else of the reforming in- ces of the town planner. The appalling itions had led to an appeal to the town ner, and in this way perhaps they per- ed a useful function. He only wished that forefathers 200 years ago, at the commence- of the era of great industrialism, had had benefit of the Town-Planning Institute. would not then have witnessed such a rable thing as the five towns of North ordshire; and Wigan and Swansea.

r. William Carby Hall, responding, said were celebrating that night their tenth anni- ry, and there might be many of them who happy memories of their inaugural dinner the toast of the evening was given by the t Hon. John Burns, who was the President e Local Government Board and responsible he passing of the first Town-Planning Act. onclusion, as Chairman of the Northern ch, he suggested that a branch should be ed to enable members who lived far from quarters, to meet together with greater ty and therefore further the interests of the itute, in which were to be found the bonds ood fellowship and sincerity which enabled to do work for the benefit of their fellow-

THE EXHIBITION.

he exhibition at the British Empire Ex- tion, organised by the Institute and timed coincide with the Annual Conference of body is excellent in many respects, and illustrates the rapid growth of town ning in this country and in the various s of the Empire. In the foreword to the logue of the exhibition the purpose of n planning is defined as being the most ductive use of all land in the interests of community as a whole, and it is pointed that to achieve this it is clear that the rest of the community must be repre- ed by a responsible body, which respon- lity by Acts of Parliament has been placed he shoulders of local authorities, under the ervision of the Ministry of Health, who now guide the development of their terri- s and allocate to each part the function which it is best suited, and at the same make provision for inter-communication hat the whole may represent a balanced efficient organism. It is also pointed out the main object of town planning (and regional planning might well have been ded) is not the carrying out of expensive ks by local authorities, but the orderly ning of all development so that whatever ey is subsequently spent, either public or ate, shall be put to its most productive and not wasted on mutually destructive or fective objects as has so often been the in the past.

he exhibition is divided into nine sections: Civic Survey; (2) "Zoning"; (3) Town- ning Schemes; (4) City Development s; (5) Regional Town Planning; (6) len Cities; (6a) Garden Suburbs and sing Schemes; (7) Open Spaces; (8) ds, from which it will be seen that the bition is so planned as to give the general ic a sort of general survey or bird's-eye of the whole subject of the orderly plan- of national resources, whether human, strial, or historical, or, as is usually the , a compound of all three.

pace does not permit any detailed refer- to exhibits, and, moreover, these could be made easily intelligible in most cases out reproductions in colour of the maps, rams, and plans which go to make up It is certainly the most comprehensive bition of this vast subject which has yet arranged, although, in point of size, the necessary limitations of space have had their effect. This is not altogether a misfortune as it has resulted in a judicious selection being made of exhibits which are of considerable interest not only to the technical expert but to the ordinary man in the street, who (with the help of the explanatory notes which are given in the catalogue) should be able to form a very good idea of the methods by which the problems of our urban and industrial life are being solved.

THE NATIONAL HOUSING PROGRAMME.

An important conference of Trade Union and Co-operative Associations took place at the British Empire Exhibition last Saturday on the subject of the minimum standards of design and the lay-out of land in the housing schemes of local authorities.

This meeting was organised by the National Housing and Town-Planning Council, and was attended by a large number of delegates from all parts of the country, together with representatives of the Council, the Town-Planning Institute, and various local authorities.

The proceedings were opened by a brief address by the chairman, Mr. A. G. Cameron (Secretary, Amalgamated Society of Woodworkers), who said the object of their meeting was to discuss the following resolution. If approved by this conference, this resolution would be addressed to the Minister of Health. Mr. Cameron, after a reference to the work of the National Housing and Town-Planning Association and the need for propaganda work, said that it was a remarkable fact that those who were worst housed in the community were also those who took the least interest in the question of better housing. He attributed this lack of interest to the depressing and deadening effect of the conditions under which these people now lived. What was essential in building was that there should be quality as well as quantity; there was nothing which impressed the mind so much as fine architecture, and he thought that when they visited a fine, well-planned city, it compelled respect for the inhabitants of that city. Therefore, he was convinced that good housing would result in an improvement in the character of those who lived in such conditions.

In the discussion on the resolution which followed it became clear that the resolution would be unanimously carried on condition that it represented the irreducible minimum as applied to the new programme now under consideration by the Minister. Tributes were paid by many delegates to the zeal and ability of the architects who had designed and supervised schemes in various parts of the country, and the view expressed that if more discretion in the details of houses and accommodation was allowed to local authorities their architects would be able to give them what they wanted. Delegates from Northern districts, which were well represented, were insistent for rooms of greater height than 8 ft., especially on the ground floor. The view that private enterprise "cannot and will not build houses except for sale" was generally endorsed, and the necessity (in future schemes) for providing not only a bath, but a bathroom, and a properly constructed and ventilated larder were strongly urged. There was also expressed the view that in all future housing schemes the minimum accommodation should be three bedrooms, all of which should be of reasonable size, and that the floor area might well be increased to 1,000 square feet.

On the question of finance, it was generally held that an increased contribution was necessary or, if this were not possible, that the financial basis of the new scheme should be national and not local. The suggestion was made by Mr. Lanchester for a sliding scale subsidy with the maximum amount for 1,000 ft. floor surface with reduction for each house of less area. The view was also expressed that a large proportion of the high cost of building was due to the abnormally high rate of interest charged on loans, and reference was made to the difficulty of obtaining sites in urban areas.

The proceedings terminated by a unanimous vote for the following resolution as a minimum for any new housing programme:

1. The houses should be broad, rather than deep, in order to secure that all the rooms shall have ample light. This will involve the giving of increased frontages, but the additional cost can be met by economy in road construction under modern town-planning conditions.

2. Back extensions are better avoided, and all the rooms should be brought under the main roof. In the old type of workman's cottage the room most used is generally the most gloomy. The kitchen-living room is the workroom of the wife, and should be the sunniest and most pleasant room in the house.

3. Three bedrooms should be provided in all the new houses. There are hundreds of thousands of two-bedroom cottages in existence, and the members of the Committee therefore took the view that the cottages now to be built should be of the three-bedroom type.

4. The houses should, as a rule, be provided with parlours; the working people of this country know what they want in this respect, and the great majority desire the parlour cottage. Wherever possible this desire should be met, whilst securing at the same time that the kitchen-living room shall be of ample size and the sunniest and most cheerful room in the house.

5. Each house should have a bath, with provision for hot water supply, either in a separate bathroom or in the scullery.

6. Ample window space should be given, and the windows should be carried as near to the ceiling as possible.

7. Where the by-laws do not already demand it, an impervious layer of concrete, or other approved impervious material, should be laid under all floors to prevent damp rising, and the proper damp-proof course should be provided for all walls.

8. The level of the ground floor of the house should be above the level of the ground immediately surrounding it. The members of the Committee suggested that in the case of all housing schemes for which subsidies are granted the Government should insist that the necessary safeguards described in 7 and 8 be adopted where the by-laws or methods in operation do not already require them.

9. The assistance of women with close knowledge of household economy should be sought in regard to detail of interior construction.

The Lay-out of Urban Housing Schemes.

(*a*) That the number of houses per acre in urban housing schemes should not exceed twelve.

(*b*) That attention should be given to the planning of arterial roads, so that future expenditure on road-widening may be avoided.

(*c*) That on condition that the preparation of a town-planning scheme is entered upon within a reasonable period local authorities should be permitted to relax, for the purposes of these housing schemes, their by-laws and customary provisions relative to the width and construction of streets in residential areas.

(*d*) That building lines should be fixed to secure the proper set-back of cottages.

Rural Planning.

1. That there should be in every case a proper lay-out scheme submitted.

2. That where a scheme is large enough to justify it, an open space should be provided.

3. That the provision of land for cottages should, as a rule, be not less than one-eighth of an acre per cottage.

4. That even where only a few cottages are built care should be taken in their grouping, and especially in the set-back from the main roads, which should be ample in view of possible future requirements.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in typescript?—Ed.

Cost of Building.

Sir,—Could you please give me a comparison of the cost of building work at August, 1914, April, 1921, and April, 1924.

The percentage of rise or fall based on the prices ruling at present would meet my requirements.

"Furness."

[We would refer our correspondent to the comparison of pre-war and present-day prices published in the first issue of *The Builder* in each month.—Ed.]

Glasgow Building Materials.

[Reply to J. J. H.]

Sir,—(*a*) For external walling, cube sand stone is generally employed for public buildings of an important nature, but ashlar with dressings is also largely used for less important jobs. Domestic houses before the war generally had rubble stone exterior walls in the suburbs of Glasgow, but now a common brick and roughcast is more usual on account of economy.

(*b*) Internal walls in brick or concrete blocks.

(*c*) Facing bricks are sometimes employed, chiefly of the "Bothwell Park" variety. Imported sand-faced bricks are not likely to stand well the moist climate, besides losing much of their value when used with local slate roofs.

(*d*) Prices rule much as in London.

Terra-Cotta Building Blocks.

Sir,—The difficulty of obtaining bricks in the Home Counties has given me the inclination to make use of one of the good makes of hollow terra-cotta building blocks now on the market.

If any of your readers have had experience of the use of this material can they tell me:—

(*a*) Are these blocks suitable for weight-bearing walls?

(*b*) Does the average country builder "set his stall out" to make the best use of this material?

(*c*) Is there any difficulty in cutting for bond, or have special blocks to be made to suit the sizes of an existing plan?

(*d*) Is this form of construction an economy, or how does it compare with ordinary brick building?

"Conservative."

"Domestic Hot-water Supply."

[Reply to Architect.]

Sir,—*Re* the above in last week's *Builder*, I have recently had a similar case, and found a cure through altering the space at back of the boiler by inserting a fireclay tile between the back of the boiler and brick face at back, reducing the space from 4½ in. to 2½ in.; the heating was raised so that three or four hot baths could be taken immediately following each other. Your querist does not give all details. My case had 25 gallon tank in bathroom, three radiators for heating rooms, 14 in. flow and return 1oot boiler in a pre-war 45 in. range. I find it a common thing for builders to give too much space behind the boiler, so the fire roars to waste and the heat does not properly affect the boiler.

"Experto."

Sir,—If "Architect" is correct in assuming that the trouble is due to an over-large cylinder he can easily save himself the trouble and expense of changing the cylinder for a smaller one.

All that is needed is to disconnect the return pipe, plug the connection, and re-connect the return pipe higher up in the side of the cylinder. This in effect reduces the hot-water capacity of the cylinder, the bulk of the water below the new return connection not entering into circulation. This is a comparatively simple operation.

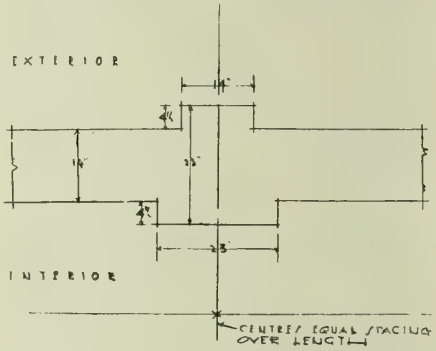
"Plumbing."

Gables to Pantiled Roof.

Referring to our correspondent's query in our issue of the 25th ult., Messrs. John Williams & Co. inform us it is not possible to obtain right and left-hand pantiles unless they are made specially to order. They state, however, they have on the market a special improved pattern pantile which can be fixed to avoid the one-sided appearance of which our correspondent complains.

Cavity Between Brick and Concrete.

Sir,—I recently executed designs for a building. The main hall, which is to be used for dancing, concerts, &c., is 96 ft. long by 57 ft. wide, and is divided into eight equal sized bays. The main walls to this are 14 in. thick, increasing to 23 in. thick where the roof trusses are carried (see sketch attached). All main walls have footings stepping out in the usual manner to twice their thickness, and with 12 in. thick reinforced concrete in foundations. The height of these main walls from bottom of footings to eaves is 27 ft. It is now proposed to substitute concrete for brickwork, except that a 4½ in. brick "shell" is to be introduced in order to



give the appearance of solid brick from the exterior.

Can you inform me, please, if you consider it practicable and whether it would be the more satisfactory to build solid or to introduce, say, a 2 in. cavity between the brick and the concrete, the two materials being tied in the usual manner with metal ties or through blocks? It is the intention of the people concerned to have reinforced concrete foundations only.

If you are not in a position to answer these queries, I shall be glad of information as to the business designation of firm or individual capable of supplying the necessary information.

F. W. Holloway.

Stains on Cement.

[Reply to A. Watson.]

Sir,—The stains referred to by your correspondent should be treated according to their cause and nature. If they are the result of dripping and running down the surface in certain places, as at the sides of an undrained flat or the ends of an unthroated projection, the cause should first be removed and the dripping water diverted. If the cement surface is thoroughly sound and the stain thus only superficial it can then be rubbed off with a hard stone, and the surface will quickly weather to a uniform tone. The stains may, however, be due to the imperfect mixture of the compo. in the first instance, giving some areas more than their correct share of sand, and so leading to porous patches which hold the damp. If this is the case, such areas will need cutting out and replacing with the correct mixture, and it is difficult to see how a patchy appearance can be avoided without colouring or painting.

"A.B.C."

Adhesion of Tiles.

[Reply to J. W. Watson.]

Sir,—It would seem probable that Mr. Wat- is correct in attributing the trouble to the de of the reinforcement joists. It is always better practice to have the latter comple bedded in the floor concrete, both top bottom. If any of the loose tiles have l taken up and found to have much of the orig mortar-bed adhering thereto this would con the matter, showing that the displacement due to the non-adhesion of the bedding to solid floor. If, on the contrary, the tiles th selves are coming away clean from the l leaving the latter perfect, the fault is proba in the tiles not having a sufficiently "keye under surface.

The adhesion of mortar to a surface depe to a large extent on the drawing into the la of liquid grout, which, on setting, becomes th oughly incorporated therewith. This proc if allowed to excess, of course defeats its o object by drawing away all the water from wet mortar and arresting a chemical acti hence the wetting of bricks before laying a the drenching of walls before plastering; l in the case of an iron surface it cannot oc at all and the mortar merely lays on the after it has set and will almost inevita crumble when constantly jarred by traf It is probable that this is the case in this instan

The remedy would be probably again to scr over the entire surface after clearing away old mortar. The new screeding would need be of an extra thickness (2 ins. or over), a the tiles relaid thereon. The bed would th have a certain strength of its own that sho stand ordinary traffic. If very heavy tra is to be anticipated a layer of wire netti bedded in the mortar would greatly assist.

"A. B."

EXHIBITION NOTES

OLD WATER COLOURS.

The water colour drawings now at Mess Agnew's Gallery form the annual exhibiti on behalf of the Artists' General Benevole Institution. The artists are Turner, Cox a de Wint. Of special interest as to t Turner drawings is that they are arranged groups as far as possible chronologica from before 1810 to 1843. It is interest to note the care and precision and genc air of accuracy in "Salisbury Cathedral La Chapel" (1797) with its agreeable tones yellow and brown. Here is a drawing object of which appears to be to empha the architectural quality of the subj which it does to a considerable degree. H different it is to the long array of myst landscapes which Turner afterwards indul in, painted mainly in reds and blues, a which left definite forms and substance of reckoning. The Cox drawings are in main disappointing, and when he essa architecture, as in his "Whitehall" (79), result was quite hopeless. In direct br treatment with good colour de Wint ov shadows his fellow exhibitor; there several of his most admirable drawings h These three artists, Turner, Cox and de W were born and died within a short time of e other, but the tradition of beautiful wat colour art which they each in their own v carried on has not been forgotten, and Wint has more specially seemed to h inspired some of the best work of to-d Three are 138 exhibits in this collection Messrs. Agnew's.

The Society of Architects.

The Scholarship for the Study of Mod Architecture Abroad, which was instituted the Society of Architects last year, but winner of which was unable to proceed, will awarded this year for what is, therefore, virtu the first time. Candidates must make appli tion before May 27. Entries for the Vict Scholarship are invited by the Society at same time.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

Building Trade Workers.

Replying to Mr. Black, who asked whether, view of the urgent need for houses, he would ss the various building trade-unions to permit employed ex-service men and other unemyed men to be employed in the various trades the risk of the building employers, Mr. Shaw nister of Labour) said that the subject of the mentation of the number of building trade rkers was under consideration in connection h the report recently prepared by the ployers' and workers' organisations. In s connection, the Minister of Health and would take into consideration any practicable thod of absorbing men at present unemployed. Dr. Macnamara: Will the right hon. gentlen consult with his colleague as to the desirlity of reviving the proposal to train fit exvice men? Mr. Shaw: I will consider with right hon. friend any practical proposal increasing the workers in the building trade, agreement with the employers' and workers' ganisations.

Wood, Concrete, or Brick?

Mr. Lumley asked the Minister whether he d inspected types of working-class houses ilt of wood and concrete; if so, how many ferent types had he inspected, and of how ny he approved.

Mr. Wheatley said that for the purposes the 1919 housing scheme, large numbers of cial methods of construction in wood or ncrete were examined and approved. Houses re erected in accordance with about fifty such thods.

Mr. Becker: Is the right hon. gentleman's partment in favour of building wooden houses the American plan, if they be cheaper than ck houses? Mr. D. G. Somerville: Is the ht hon. gentleman aware that none of these er forms of construction are anything like satisfactory as brick? Mr. Wheatley: think there are many criticisms, and some ople even criticise brick!

Mr. Greenwood informed Mr. T. Thomson at the Minister of Health had some correndence with reference to an offer in general ms to build concrete houses on an American nciple at £250 each. He had informed the nufacturers concerned that he would concur i any proposals which local authorities might bmit for erecting a small number of houses l the method proposed, subject, of course, to scheme submitted conforming with the neral requirements of the Ministry, and to houses being erected and completed at a sonable cost.

Replying to supplementary questions, Mr. eenwood said that in the two housing schemes at had been adopted concrete houses had been lt, and were continuing to be built. He d said nothing which would lead hon. members believe that the Ministry already regarded s method as a satisfactory one. The whole rpose of erecting a small number of houses s to enable them to get experience as to the visability of this method.

House Building Costs.

Mr. Greenwood (Parliamentary Secretary to Ministry of Health) informed Sir K. Wood at there had been no material advances in costs of building since January. The total reases in the cost of construction warranted such general advances as there had been uld not exceed £5 10s. a house.

Price of Sheet Lead.

In reply to Mr. R. Morrison, Mr. Wheatley d he was aware that the price of sheet lead d risen approximately from £36 a ton in ril, 1923, to £48 a ton in March last. It had, wever, quite recently been reduced in price about £4 per ton. He was advised that increase in cost of sheet lead had been due to a corresponding increase in the cost of the raw material which, in turn, was governed by conditions of world-wide demand.

Working-Class Houses.

Mr. Wheatley informed Mr. E. D. Simon that it was not possible to state the total number of working-class houses completed by all agencies in 1921, 1922 and 1923, as figures were not available showing the number of houses erected by private enterprise without State assistance over the whole period. The numbers of houses erected with State assistance were: 1921, 86,669; 1922, 88,999; and 1923, 19,185. During the year ended September 30, 1923, it was estimated that over 39,000 houses of not more than £26 rateable value in the provinces and £35 in the Metropolitan Police District were completed.

Red Facing Bricks.

Mr. Wheatley informed Mr. D. G. Somerville that red facing bricks were not in general use for cottage building, and the Committee on Building Prices had not, therefore, obtained records of the price of this class of brick.

Prices and Wages.

Mr. Wheatley informed Mr. E. D. Simon that the average increase in the present prices of the materials used in building workmen's houses over the prices ruling at the end of 1913 was estimated to be about 85 per cent.

Direct Purchases of Material.

Mr. Wheatley informed Mr. Laverack that as at present proposed it was not the intention of the Government to make direct purchases of material in connection with the new housing scheme.

Unemployed Brick-Workers.

Mr. Shaw informed Mr. White that the number of insured contributors under the Unemployment Insurance Acts who were registered as unemployed in the brick, pipe, tile and fire-clay goods industry in Great Britain on March 24, was 4,134, as compared with 4,876 on February 25, 1924.

Land Valuation Office.

Mr. W. Graham, Financial Secretary to the Treasury, informed Sir L. Lyle that the cost of the Land Valuation Office for the years 1920–21 to 1923–24 was as follows:—1920–21, £541,964; 1921–22, £503,075; 1922–23, £388,515; 1923–24 (approx.), £359,000.

Mr. D. G. Somerville: Is it not a fact that, in spite of the enormous sums spent on the valuations, only one-tenth of the valuations of the country were ever made? Sir L. Lyle: In view of this brilliant example of how not to do things, will the Government immediately drop any idea of continuing this Department? The Speaker: Those are matters for debate.

Replying to a further question from Sir L. Lyle, Mr. Graham said that the net receipt from all Land Value Duties from their inception to March 31, 1924, amounted to £6,151,008.

Distressed Tenants Bill.

Mr. Clynes informed Captain W. Benn that the Government could not see their way to give facilities for the Distressed Tenants Bill. The Government made proposals for the protection of unemployed tenants which a majority of the House refused to accept.

Cost of Government Housing Scheme.

Mr. Greenwood informed Sir K. Wood that the Minister of Health was not yet in a position to say what extra cost, if any, would be incurred under the proposed housing scheme in this financial year. The hon. member must know quite well that negotiations were now proceeding with the local authorities, and that the Bill had to be produced and passed through this House before any estimate could be made.

Mr. J. F. Hope: Are we to understand from the reply that the Bill would be passed first and the estimate of the cost arrived at afterwards?

Mr. Greenwood: We cannot tell until the Bill has been introduced and passed through all its stages what the actual cost will be.

Stone Work on National Buildings.

Sir John Brunner asked the First Commissioner of Works whether, in view of the large amount of money which was annually expended on repairing the stone work of national buildings, he was carrying out any research work to find a suitable preservative material.

Mr. Jowett said the department of Scientific and Industrial Research had appointed a committee, with a research staff, to investigate the whole problem of stone decay and the possibility of its prevention.

Industrial Training.

Miss M. Bondfield (Parliamentary Secretary to the Ministry of Labour), informed Lt.-Col. Horlick that during the years 1919 to 1922 (inclusive) 2,054 disabled ex-service men completed training under the Industrial Training Schemes as bricklayers or plasterers. None were trained as slaters. The approximate cost was £450,000, of which about £350,000 represented allowances to the men. Out of a total number of 2,635 men who had received training as bricklayers or plasterers under the scheme, 142 were registered as unemployed at the end of March, 1924. Apart from the above figures, over 600 men were trained in the trades mentioned under the Interrupted Apprenticeship Scheme.

White Lead Convention.

Mr. R. J. Davies (Under Secretary to the Home Office), informed Sir P. Lloyd-Greame that the Government had introduced the Lead Paint Bill with the express purpose of giving effect to the provisions of the draft Convention and if Parliament accepted the Bill and passed it without any amendments inconsistent with the Convention, it was proposed to ratify the Convention.

NOTTINGHAM EXCHANGE.

The President (Mr. E. H. Heazell), Vice-President (Mr. W. R. Gleave), and Hon. Secretary (Mr. H. H. Goodall), of the Nottingham and Derby Architectural Society, wrote recently to the *Nottingham Guardian* as follows:—

"The local Architects' Society has been reproved by some persons for venturing to put forward their view that the best building on the Exchange site would most likely be obtained by means of an open architectural competition.

"We trust you will allow us to state our reasons for this opinion. If it seems rather late, our excuse is that we only held our full meeting, since the scheme was made public, two days ago.

"(1) The outstanding importance of the site demands that concentration of thought and consideration of the problem from various points of view that a competition brings about. Incidentally the promoters have to make up their minds, with skilled help, what is essential and what optional.

"(2) The keeping of such a gigantic building scheme like this within the narrow limits of a Corporation department (even with competent architectural assistance) is a departure from the example set by municipal bodies like the L.C.C., Birmingham, Cardiff, Glasgow, Leeds, and Newcastle, to name only a few. Great commercial concerns like the Mersey Dock and Harbour Board and the Port of London promoted competitions, as did the University of Wales in another sphere.

"(3) It is only half a truth to say that a competition takes the decision out of the hands of the promoters. We maintain that an assessor is a real help in securing what the promoters require. Few City Councillors are equipped to form a judgment as to the merits of such a scheme.

"(4) It is not presumptuous of a local body of architects to criticise the action of the Corporation and to express their views thereon. As citizens we only ask that a recognised method of obtaining the very best shall be adopted."

THE BUILDING TRADE

THE HOUSING PROBLEM

PROPOSALS OF THE LONDON MASTER BUILDERS' ASSOCIATION.

WE have received from the London Master Builders' Association the following scheme for the relief of the housing shortage :—

Preliminary.

Recognising that the Bills passed by successive Governments have more or less failed to relieve the serious position due to the shortage of houses, and that the building industry should accept the responsibility which devolves upon it, the London Master Builders' Association have given earnest consideration to the subject, and now desire to submit the following proposals, believing that, if adopted, they would meet very largely the expressed intentions of H.M. Government to provide annually the largest possible number of houses.

It will be at once understood, in view of H.M. Government having appointed a special Committee of Employers and Operatives to report on the availability and supply of essential building labour and materials for their scheme, that this phase has not been under consideration, and it would be left to this Committee to determine entirely the question of construction, as well as the supplies of materials at fair costs. For the purposes of the scheme it becomes, however, necessary to assume that the Government would be able definitely to arrange a programme, extending over a period of years, and this, it is suggested, should be a minimum of 500,000 houses and the time 10 years.

In their Housing Bill it would be anticipated that the Government would take special powers to deal with the question of securing sufficient land for the purposes of the scheme, and that suitable houses would be erected, including the expenses of land, roads, sewers, water supplies, and artificial lighting, &c., at an inclusive cost of £650 each.

It would also be anticipated that the Government would take the necessary authority to give a Government guarantee for the payment of interest on the loan for the building of these houses raised by the various Regional Associations of Building Trade Employers throughout the United Kingdom, or as otherwise arranged. It is suggested under this scheme that, for the purpose of securing the loan required at the lowest possible rate of interest, the Government should consider making it free of any taxation (*i.e.*, death duties, income tax, and super tax) present or future.

In order to set off any loss to the participants of this scheme in purchasing houses under its provisions, H.M. Government would be asked to grant a subsidy to all purchasers of £100 for each house. Every encouragement should be given to members of the working classes, of known good character, to acquire their houses, which, it will be observed, less the subsidy, would cost £550 each.

All purchasers would be required to pay something down—in cash, if possible—as a guarantee of their *bona fide*. It is suggested that difficulty might be experienced in this matter, and that £10 or £20 might prove too great a sum for intending buyers to pay, and provision has been made in our scheme accordingly. However, it has to be remembered that in pre-war days builders of speculative properties did not find serious difficulty in obtaining a minimum of £20. As well, it might be possible to arrange through the various employers of the country a "tontine" system in connection with the factory or shop, so that subscribers could make weekly subscriptions, and when an amount of £50 had been subscribed by the members take a ballot and the successful member (having, of course, to continue his payments until the £50 had been paid in) would have the advantage of getting his house first. In view of the great success which was achieved by the sale of National War Savings Certificates on somewhat similar lines, there is every indication that this would also be successful.

Having arranged for payment of £50, either as in our formal proposals or as in the foregoing paragraph, the purchaser would then take up a mortgage on the house for £500, which would require to be repaid in 50 years (or whatever the finally agreed term might be) as to principal and interest.

Annexed will be found schedules* dealing with the repayment of principal and interest at varying percentages, and at varying terms; but for the illustration of the working of the scheme the basis of 50 years has been taken with an interest on loan of 2½ per cent. For the redemption of the loan in the period £10 per annum would require to be repaid by the purchaser, and if the interest were paid off year by year on the outstanding balances the amount required for interest would be reduced by 5s. each year. Thus the payments would begin at the rate of 8s. 8d. per week, and gradually diminish until the completion of the repayment at the end of 50 years.

As an alternative to the scheme of repayment it may prove of advantage *to* "spread over" the total amount of interest payable for the full duration of the loan, so that the repayments of principal and interest would remain the same right through the life of the mortgage instead of gradually diminishing as in the former. Purchasers would, of course, have to maintain their property, and be responsible for the execution of repairs.

It is fully realised that in a scheme of this nature—particularly owing to the long duration of the loan—difficulty would arise as to what would be the position of a purchaser who died, wanted to move to another part of the United Kingdom, failed to keep up his instalments, maintain his property, &c. This could be met by the Government establishing under their scheme a municipal register of properties. The existing legal methods of conveyance are considered to be too costly a proceeding for a scheme of these dimensions. The property acquired would be entered in the register, and a short form of certificate (passed under the seal of the municipality) might be issued to purchasers setting out that they are the registered owners of a certain property upon which a loan has been granted, quoting the amount of the loan, or balance remaining of loan, at time of purchase or repurchase. In the event of a purchaser desiring to transfer his interest it should be considered sufficient legal transfer for his signature to appear in the municipal register as having no further beneficial interest in the house in question, by his surrendering his certificate of ownership, and by the issue of the new certificate.

A person desiring to sell—owing to death, removal or other causes—would know, or could ascertain from the municipal authority, the balance of mortgage remaining unpaid, and he would be able to sell the house to a buyer who would take over the payment of the remaining amount on the mortgage. Assuming a man had repaid £200 off his mortgage and sold the house for £250 subject to the uncompleted amount being paid off by the new purchaser, he would be entitled to apply this £250 to his own purposes.

Special provisions would, of course, have to be made in the Government scheme for defaulting purchasers, or for those who failed to keep the property in reasonable repair. These powers, it is suggested, should be vested in the municipal authority, who should have power to eject the original purchasers and to resell their properties. Any gain or loss entailed to pass to the municipal authority.

* These schedules have been received, but are not given here owing to lack of space.—ED.

It is suggested that it should be the duty of the municipal authority to superintend the erection of the houses within their area, certify completion, and issue certificates for payment of Government subsidy, &c.

Formal Proposals.

	NOTES.
(*a*) A definite number of houses to be built—say, 500,000.	(*a*) and (*b*). A definite project such as this would tend to stabilise the industry and arrangements could be made to cope with the project by both employers and employees.
(*b*) In a definite number of years—say, 10.	
(*c*) A definite subsidy to be given—say, £100.	(*c*) The subsidy would cost the State only £5,000,000 per year for 10 years, or in all £50,000,000.
(*d*) To definite parties—say, those earning £10 per week and under.	(*d*) The object here is to ensure that the subsidy goes to the right people.
(*e*) A definite maximum sum to be fixed for cost of house to which subsidy would apply—say, £650. Cost to include land, also all fees and other charges.	(*e*) Some limit must be laid down in order to prevent undue profit or a monopoly being secured for material of any kind.
(*f*) A Government guarantee to be given for a loan free from all taxes and charges, present or future, redeemable in, say, 50 years. If this were done the loan could be raised at a low rate. Figures are given showing the weekly payments with interest at 2½, 3 and 3½ per cent., redeemable each in 30, 40 and 50 years.	(*f*) A loan redeemable in, say, 50 years and at a low rate of interest is essential in order to make the scheme economically sound. This would cost the State nothing; it would mean merely using the credit of the State for the advantage of the working classes, which is only proper, and for this purpose it is reasonable that the State should be asked to forego income tax and charges of all kinds on the loan. There are many ways this loan could be raised in order to ensure that people with small amounts could utilise it.

It is also suggested that everyone applying for a subsidy should be asked to contribute at least £50 in either weekly or monthly instalments. The contributions to be at the rate of not less than 2s. 6d. per week. This would mean that it would take over 7 years to contribute the £50, but it may be assumed that there are many thousands who could contribute the £50 in a shorter time. With a house costing £650 there would be thus £500 to loan as follows :—

Cost of House		£650
Less Contribution from purchaser	£50	
Subsidy	100	
		150
Amount of Loan..		£500

If this were loaned at 2½ per cent. per annum redeemable in 50 years, it would work out as follows :—

	Per annum
Redemption of loan	£10
Interest for 1st year at 2½ per cent. per annum	12 1
	£22 1

As £10 would be paid off each year, the interest would be reduced by 5s. each year for 50 years when the last instalment would be paid off

Ts would mean a decreasing payment each
yr, which is a better proposition than an
a uity. Thus the payment would begin at
8 8d. per week, gradually reducing itself until
tl 50th year, when it would entirely cease.
I: per cent. per annum had to be paid for
l loan, the weekly payment would be increased
approximately 1s. per week for the 1st year.
ocal authorities to be asked to carry out the
owing duties :—

) To authenticate each applicant in their
area as proper for the subsidy and suitable
ther ways.

) To supervise the erection of and to certify
he local builder that the houses in their
were completed according to the contract,
n automatically the subsidy and final
ment of the loan would be due.

) To be responsible for the collection of the
kly or monthly payments immediately the
ses are occupied, as well as the 2s. 6d.
kly or other contribution towards the £50.

) If any deficiency or liability should occur
local authority to be responsible for such;
, however, to have full power to resell the
se and arrange such terms with the old
er as they think best.

OTE.—The local authorities under this
eme, not having any responsibility other
an above, it seems reasonable that they
ould be asked to undertake these duties,
ecially as they would have the machinery at
d for dealing with them through their sur-
ors and rate collectors.

THE GENERAL ELECTRIC CO. AT WEMBLEY

HE General Electric Co., Ltd., of Magnet
ise, Kingsway, W.C. 2, recently invited a
mber of guests to visit their exhibit at
mbley. The stand, which occupies a central
sition in the Electrical Engineering Section
the Palace of Engineering, illustrates the
ility of the company to carry out everything
trical. With the assistance of the Fraser &
lmers' engineering works, which the G.E.C.
ntrols, heavy mining and other general
ineering plant is shown. The stand is con-
ucted as a two-floor building, the bottom
or showing industrial applications of elec-
ity, an electric kitchen, electric railway
paratus, a hand telephone exchange, and an
ctric shop. External to this building is
,000 kw. G.E.C. Fraser & Chalmers' turbo-
lternator with the rotor being slowly turned,
50 kw. rotary converter, transformers, and
power switchboard—the whole representing
h G.E.C.'s activities in electric power station
substation work. An exhibit which attracts
h attention is that of the Fraser & Chalmers'
conveying gear, in operation. On the upper
or of the stand is a room in which is shown
long plan the G.E.C. works at Witton, at
ammersmith, and at Erith.

Mr. Hugo Hirst (the chairman of the com-
ay), speaking of the exhibition at a luncheon
n connection with the visit, said the idea of
h great gathering together and display of the
ources of the Empire was a high conception,
ugh he thought the Government had not
orded the support to the manufacturers
ch it might have done. Too much respon-
ility had been thrown on the manufacturers
the matter of guarantees. He himself had,
the first, supported the suggestion of a
plete all-British electrical exhibit. He
not expect any return for the display from
mmercial point of view. For the average
sor an engineering exhibition was something
cold. The thought, care and organisation
ch was behind the apparatus displayed could
be brought home to the layman. They had
told there was a slump in engineering.
did not believe it to be a slump; it was the
come of extraordinary conditions, and the
ling-up process all over the world must be
c. The electrical trade was a basic trade for
l industries, and by its success alone could
r industries be brought back to success.
He was convinced that before long the "cheap unit" (of electricity) would become a plank in the political platform of one or other of the political parties.

THE DEVELOPMENT OF PORTLAND CEMENT

THE developments that have taken place in connection with the manufacture of Portland cement during the last quarter of a century have been very remarkable, and it is not too much to say that without these developments a good deal of the constructional work of to-day would have been impossible. Engineers would have hesitated to undertake such constructions as large-span concrete bridges, concrete roads, or concrete piling with the average cement that was on the market some twenty-five years ago, and the efforts that cement manufacturers have made to improve their product have been rewarded with a large extension of its uses.

During the period mentioned, the rotary kiln has almost superseded the stationary brick kilns in which cement was burnt, and this change alone has had a great influence upon the cost of manufacture and the quality of Portland cement. In the old brick kilns, coke was the fuel principally used, but at the present day coke is neither so abundant nor so cheap, and it would probably be impossible to fulfil the present-day demands for cement if kilns using coke were as prevalent as they were at the beginning of the present century. The rotary kiln not only enabled coal to replace coke as the fuel for burning, but small coal, which is usually much lower in price than the average run of a coal mine, can be used, and this has had an important effect upon the cost price of the cement.

The advent of the rotary kiln also revolutionised the quality of Portland cement, because with this kiln it is possible to eliminate all underburnt material, which material has a deleterious effect upon the quality of the cement. With the old brick kilns it was impossible to prevent underburnt material issuing from the kiln with the properly burnt product, and complete elimination of the underburnt portion was not practical. With the rotary kiln, moreover, the amount of labour required per ton of cement is greatly reduced, especially with the large kilns, which now run up to 250 ft. in length and 10 ft. in diameter.

Another direction in which progress has taken place is in connection with the grinding of the cement. In the earlier days of the industry, mills of the edge runner type were commonly used in conjunction with sieves and air separators, but the tube mill with metallic grinding bodies has now almost entirely replaced these, and in consequence it is possible to obtain a very finely ground product without prohibitive cost. Another feature of modern cement manufacture is the general economy of labour arising from the adoption of mechanical appliances for digging raw materials and for conveying materials throughout the factory. Such mechanical appliances, while reducing the labour cost, tend to swell the repairs cost, and naturally add considerably to the capital cost of a cement factory.

To the cement consumer, development in the cement industry is particularly noticeable in the quality of the cement. Towards the end of the last century, if a cement had a tensile strength when neat of 350 lb. per square inch at seven days, it would satisfy most specifications, while the requirements for soundness or stability were satisfied if the cement did not expand when immersed in cold water. The rotary kiln product, however, with its freedom from underburnt material, enabled the standard of quality to be raised considerably, and in consequence the first British standard specification adopted a minimum seven days' neat test of 400 lb. per square inch, and embodied the Le Chatelier boiling-water test for soundness. Subsequent editions of the standard specification raised the seven days' neat test to 450 lb. per square inch, at which it now remains, while the sand test (3 sand to 1 cement) has a minimum of 200 lb. per square inch at the same period.

It is, however, common knowledge among cement users that the present British standard specification does not represent the quality of the cement on the market, and it is not at all uncommon for cement tests to show double the strength required by the specification. This is a disparity that will no doubt be rectified before long by a new edition of the standard specification. It is doubted, however, whether modern cements are being used as economically as their high quality would justify and as, indeed, their increased cost of production and high selling price demand. If concrete to fulfil a certain purpose was strong enough fifteen or twenty years ago, when gauged at 6 to 1, then with modern cement the same strength could be obtained with a gauging of 8 to 1, or even weaker. In this connection it should be added that, if impermeability is a necessity, then the gauging must be based upon this factor and not upon strength. Again, the permissible stress to which concrete may be submitted in compression, according to the rules generally adopted by engineers, has been for many years 600 lb. per square inch, but during the period this rule has applied the strength of the cement on the market has increased by a large percentage, so that a similar increase in the permissible stress would be warranted, and this would lead to a reduction in the dimensions of concrete members and an economy in the cost of work. If cement users could fully appreciate the superiority of modern Portland cement to its predecessor of twenty, or even ten years ago, there would no doubt be considerable economies effected in concrete constructional work.

THE EVICTION BILL

THE Rent Bill known as the "Prevention of Evictions Bill," which was adapted by the Government from Mr. Simons's Bill, has been read a third time in the House of Commons. We referred to Mr. Simons's Bill in our issue of April 11, and the Government Bill on April 25.

On the Report Stage this Bill, which consists of one clause, stood: "Paragraphs (iv) and (v) of subsection (1) of section 4 of the Rent and Mortgage Interest Restrictions Act, 1923, are hereby repealed as respects pending, as well as future, proceedings, and the following paragraph shall be substituted therefor: 'Where the dwelling house is reasonably required by the landlord for occupation as a residence for himself and the Court is satisfied, having regard to all the circumstances of the case, including any alternative accommodation available for the landlord or the tenant, that greater hardship would be caused by refusing to grant an order or judgment for possession than by granting it.'"

This paragraph has been amended by inserting after the word "landlord" the words "not being a landlord who has become the owner after May 5, 1924."

It is still difficult to see why this Bill was introduced at all, as it does not represent in any way the intentions of the Government in the Bill they introduced to deal with the Scotch Evictions, which was defeated, and it only introduces fresh confusion in the law.

The repealed paragraphs referred to cases where "the existence of alternative accommodation shall not be a condition of an order or judgment on any of the grounds specified in paragraph (*d*)," and both paragraphs included the husband or wife of the landlord who required the house for themselves or for sons and daughters over 18 years of age.

Paragraph (iv) applied where the landlord became landlord before June 30, 1922, and under that paragraph the house had only

" reasonably " to be required; but paragraph (v) applied where the landlord became landlord after that date, and in that event the court had to be " satisfied that greater hardship would be caused by refusing to grant an order or judgment than by granting it."

Both these paragraphs have been repealed, and the new paragraph omits any reference to the husband or wife of the landlord, and does not apply where the house is required for occupation by sons or daughters, and, further, it re-introduces the question of alternative accommodation in a portion of the Act which relates only to cases in which alternative accommodation is not to be a condition of an order for possession, and it is hard to see that it adds anything practical to the general condition laid down in paragraph (*d*).

The Bill thus only adds conatus in the law, and appears to serve no possible useful object. It is, however, very significant that in the debate on the Report Stage several members in their speeches appeared to assume that the landlord requiring possession of his house had " to find " alternative accommodation for the statutory tenant, but we may point out that this is going further than the law requires, which is only to prove that alternative accommodation is " available." The number of Rent Restriction Bills introduced this year is very bad for housing, and renders the owning of house property almost impossible. Mr. Gardner's Bill is still being considered in Committee.

BUILDING OPERATIVES' WAGES

MR. F. ROBINSON writes:—

SIR,—In May 2 of *The Builder* you allow a statement to appear that building operatives earn £4 2s. per week. This, as you and Lord Wolmer must surely know, is not correct. Practically *all* trades earn 1s. 8d. per hour and work 44 hours per week = £3 13s. 4d. Out of this they are compelled to leave 1s. 2d. for insurance—leaving £3 12s. 2d.; Christmas, Easter, Whitsun and August holiday, they are shut out and, of course, lose their money. They have to stand the whole time during the eight hours every day, and old men over sixty-five have still to keep at work. If not feeling well, a man dare not stay at home for a day or so, otherwise wife and children have to suffer. No holiday at all during the year is allowed, except a man loses all his pay. Surely, neither Lord Wolmer nor any other humane capitalist would wish his workers to have a *less* share in this world's goods. Please put a correct statement of building operatives' wages in your next issue, if possible.

"Celotex" Film.

Messrs. Bivert & Firth recently showed a film demonstrating the processes in the manufacture of "Celotex." The film showed how the mountains of waste are baled, something like chaff, and are carried along endless conveyors to the Celotex manufacturing plant. Resultant pulp is then fed into the board machine, where the fibres are woven and interlaced into a board having great tensile strength, and valuable insulating, sound-deadening, and shock-absorbing properties, in addition to extreme lightness, weighing only 60 lb. per 100 sq. ft. Celotex can be used in connection with concrete, forming a direct bond with it, and preventing condensation and extreme expansion and contraction, for interior or exterior finish, for cold storage and refrigeration, for portable buildings, piggeries, dog kennels, fowl houses, &c., and also for box making.

Fortune Theatre.

With reference to the new " Fortune Theatre," illustrated in a recent issue, we are informed by the Trussed Concrete Steel Co., Ltd., of 22, Cranley-gardens, South Kensington, S.W.7, that they were responsible for the reinforced concrete designing of this building.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/51	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 807.

CONTRACTS, COMPETITIONS, &c.

For some contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

MAY 19.—**Barnet.**—CONVENIENCES.—Erection of conveniences at Old Court House Recreation Ground, for the U.D.C. Surveyor, Council Offices, Wood-street, Barnet.

MAY 19.—**Bridlington.**—WORKSHOP, &C.—Erection of workshop, bathroom, &c., at Institution of Board of Guardians. Mr. J. R. Earnshaw, architect, Bridlington.

MAY 19.—**Bristol.**—COOKING APPLIANCES.—Supply and fixing of cooking appliances in the new kitchen at Stapleton Institution, Bristol, for the City and County Council of Bristol. Mr. Thos. S. Lamb, Clerk to the Guardians, St. Peter's Hospital, Bristol.

MAY 19.—**Bury.**—FIRE STATION, &C.—For the erection of a fire station and a mortuary and appurtenant works in Stanley-street, for the T.C. Mr. J. Ainsworth Settle, Borough Engineer, Bury. Deposit £2.

MAY 19.—**Camberwell.**—PAINTING.—For external painting of approximately 200 houses at the Council's Assisted Housing Estates, for the Camberwell B.C. Mr. William Bell, Borough Engineer, Camberwell, S.E.5.

MAY 19.—**Greenock.**—HOUSES.—For the erection of 29 tenements (174 houses) at Sinclair-street, for T.C. Office of Public Works, Greenock. Deposit £1.

MAY 19.—**Heckmondwike.**—ALTERATIONS.—For alterations to Power Station, for U.D.C. Office of Electricity Dept. Deposit £1.

MAY 19.—**Hemsworth.**—BUNGALOW.—For the erection of a bungalow, Barnsley-road, Hemsworth. Mr. P. A. Hinchcliffe, 14, Regent-street, Barnsley.

MAY 19.—**Huddersfield.**—BUNGALOW.—Erection of bungalow in Mountjoy-road. Messrs. Lunn & Kaye, architects, Milnsbury.

MAY 19.—**Leeds.**—PAINTING.—For painting work at Miners' Institute, for Yorkshire Coal Miners' Association. Messrs. Garside & Pennington, architects, Pontefract.

MAY 19.—**Liskeard.**—ALTERATIONS, &C.—For repairs and adaptations to the farm buildings at East Trehunist Farm, Quethiock, near Liskeard, for the Cornwall C.C. County Land Agent, County Hall, Truro. Deposit £1 1s.

MAY 19.—**Lymington.**—HOUSES.—Erection of 36 houses and construction of roads and sewers, for T.C. Mr. J. Bevis, architect, Lymington.

MAY 19.—**Morpeth.**—SHOP PREMISES.—Erection of shop premises Bridge-street, Morpeth, for J. Smail & Son. Mr. C. F. Murphy, architect, Lloyd's Bank Chambers, Morpeth. Deposit £2 2s.

MAY 19.—**Neston.**—HOUSES.—For the erection of 24 houses, 16 at Parkgate and 8 at Neston, for the U.D.C. Mr. Arthur Tillotson, Town Hall, Neston, near Birkenhead. Deposit £1 1s.

MAY 19.—**Northampton.**—REPAIRS.—For renovations and repairs to houses on the following estates:—Abington, Bective, Semilong, and Chalk-lane, for T.C. Mr. A. Fidler, Borough Engineer, Guildhall, Northampton. Deposit £1.

MAY 19.—**St. Austell.**—EXTENSIONS.—For extensions and additions to St. Austell Cottage Hospital. Messrs. Andrews & Randell, architects, New Inn Chambers, St. Austell.

MAY 19.—**Staincross.**—ALTERATIONS.—For alterations to the Miners' Inn, Wentworth-road, Staincross. Messrs. Crawshaw & Wilkinson, architects, 13, Regent-street, Barnsley.

MAY 19.—**Strandmillis.**—HALL.—For the erection of hall, for the committee of Fisherwick Presbyterian Church. Mr. A. Ferguson, architect, Scottish Provident Buidings, Belfast. Deposit £2 2s.

MAY 19.—**Various Places.**—GAS MAINS.—Supplying and fixing of gas mains, services, fittings, &c., in schools and other buildings provided or maintained by the Council, based upon the Council's Schedule of prices for each work for the London County Council. Architect to the Council, The County Hall (Room No. 3), Westminster Bridge, S.E.1. Deposit £1 1s.

MAY 19.—**Wakefield.**—PAINTING.—For the outside painting of main buildings (female side) at the West Riding Mental Hospital, Wakefield. Mr. W. E. H. Burton, Architect, West Riding Mental Hospitals Board Office, Wakefield.

MAY 19.—**Wakefield.**—SANITARY ANNEXE.—Erection of a sanitary annexe at the West Riding Mental Hospital, Wakefield. Mr. W. E. H. Burton, Architect, West Riding Mental Hospitals Board Offices, Wakefield. Deposit £1.

MAY 19.—**Walsall.**—CENTRE.—For the erection of handicraft and domestic science centre, Bloxwich, for the T.C. Borough Engineer, Walsall. Deposit £1.

MAY 19.—**West Ham.**—PAINTING.—For painting, cleaning, &c., of public buildings. Borough Engineer, Town Hall, West Ham.

MAY 20.—**Dundalk.**—FENCING.—Supply and erection of fencing and gates to ex-Servicemen's houses in Dundalk Urban District, for the Commissioners of Public Works. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin.

MAY 20.—**Featherstone, Yorkshire.**—HOUSES.—Erection of 50 houses at Streethouse, near Pontefract, for the Featherstone U.D.C. Mr. Samuel Chesney, A.R.I.B.A., Council Offices, Featherstone, near Pontefract. Deposit £2 2s.

MAY 20.—**Leavening.**—HOUSE.—Erection of a teacher's house, for East Riding of Yorkshire C.C. County Architect, County Hall, Beverley. Deposit £1 1s.

MAY 20.—**Leeds.**—PAINTING.—For painting Leeds and Monk Bridges, for T.C. Mr. W. T. Lancashire, City Engineer, Leeds.

MAY 20.—**Leeds.**—REINSTATEMENT.—For reinstatement of rooms at Shadwell Boys' School, after fire. Education Offices, Calverley-street, Leeds.

MAY 20.—**Littleborough.**—HOUSES.—Erection of 16 houses, for U.D.C. Surveyor, Littleborough, Lancashire. Deposit £1 1s.

*MAY 20.—**London, S.E.**—CLEANING, PAINTING SANITARY FITTINGS AND FLOORING.—Internal cleaning and painting works, provision of new partitions across wards, new sanitary fittings, and tile and maple flooring, &c., at the Hospital, East Dulwich-grove, S.E., for the Guardians of the Southwark Union. Messrs. A. Saxon Snell & Phillips, 9, Bentinck-street, Manchester-square, W.1, on May 16, 17, 19 and 20, betwee the hours of 10 a.m. and 4 p.m. (1 p.m. on the 17th). Deposit £5.

MAY 20.—**London, S.E. 11.**—PAINTING AND REPAIRS.—External painting and repairs at the Lambeth Hospital, at Kennington, for the Guardians of the Parish of Lambeth. Mr. James L. Goldspink, Clerk to the Guardians, Guardians' Board Room and Offices, Brook-street, Kennington-road, S.E.11. Deposit £2.

MAY 20.—**Rainhill.**—ALTERATIONS.—For alterations to Wards 15 and the Annexe building at County Mental Hospital for Lancashire Asylums Board. Engineer at Hospital. Deposit £1 1s.

MAY 20.—**Retford, Notts.**—ALTERATIONS AND EXTENSIONS.—Alterations and extensions to Rampton State Institution, Retford, Notts, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

MAY 20.—**Skelmanthorpe.**—HOUSES.—For the erection of two houses in Commercial-road. Mr. P. M. Brown, architect, Holmfirth.

MAY 20.—**Stockport.**—BUSINESS PREMISES.—Business premises, Stockport, for the Stockport Industrial and Equitable Co-operative Society. Mr. S. Taylor, Secretary. Deposit £5.

MAY 20.—**West Buckland.**—POINTING.—For repointing the tower of West Buckland Church. Rev. F. G. Harris, West Buckland Rectory, near Barnstaple.

MAY 20.—**Wetherby.**—HOUSES.—For the erection of 20 houses for R.D.C. Mr. H. Smith, Clerk, Council Offices, Wetherby.

MAY 21.—**Ashford.**—SHED, &C.—Erection of engine shed and stores, for R.D.C. Mr. J. T. Pullen, Surveyor, Willesborough.

MAY 21.—**Chester.**—PAINTING.—For painting ventilating shaft, &c., in various parishes, for R.D.C. Mr. B. M. Trew, surveyor, St. Martin's House, Chester.

MAY 21.—**Gravesend.**—BUILDING.—Construction of a Child Welfare Centre on land in Windmill-street at the rear of 4, Woodville-terrace, for the Town Council of the Borough of Gravesend. Messrs. Bridgland & Clay, Parrock-street, Gravesend.

MAY 21.—**Leigh Cross.**—COTTAGES.—For the rebuilding of two cottages at Leigh Cross and Matridge, on the Culver Estate, for Mr. E. C. A. Byrom. Messrs. E. H. Harbottle & Sons, architects, County Chambers, Exeter.

MAY 21.—**London, S.E.**—CLEANING AND PAINTING WORKS.—Cleaning and painting works and repairs at Southwark Casual Ward, Great Guildford-street, S.E., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

MAY 21.—**London, S.W.6.**—CLEANING, PAINTING, REPAIRS AND TILING.—Cleaning, painting, repairs and tiling to walls of kitchen at the Western Fever Hospital, Seagrave-road, Fulham, S.W.6, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

MAY 21.—**London, N.W.3.**—PAINTING AND REPAIRING WORKS.—Painting and repairing works at the North-Western Fever Hospital, Lawn-road, Hampstead, N.W.3, for the Metropolitan Asylums Board. Office of Board, Embankment, E.C.2. Deposit £1.

MAY 21.—**London, S.W.**—PAINTING, DECORATION AND REPAIRS.—Painting, decoration and repairs, at the Chapel in the Fulham-road Workhouse, 367, Fulham-road, S.W., for the Guardians of the City of Westminster Union. Clerk to the Guardians, Guardians' Offices, Prince's-row, Buckingham Palace-road, S.W.

MAY 21.—**London, S.W.9.**—CLEANING, PAINTING AND REPAIRS.—Cleaning and painting and repairs at the South-Western Fever Hospital, Landor-road, Stockwell, S.W.9, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

MAY 21.—**Longbenton.**—HOUSES.—For the erection of 40 houses, for the U.D.C. Mr. W. Bean, Council Offices, Longbenton.

MAY 21.—**Lowestoft.**—CLEANING, PAINTING AND REPAIRS.—Cleaning, painting and repairs at St. Luke's Hospital, Lowestoft, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

MAY 21.—**Newcastle, Staffs.**—TELEPHONE EXCHANGE.—Erection of a Telephone Exchange at Newcastle, Staffs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

MAY 21.—**Skelmanthorpe.**—SHED.—Erection of shed, for Messrs. Field & Bottrell. Ltd. Messrs. Stocks, Sikes & Hickson, architects, 4, St. Peter-street, Huddersfield.

MAY 21.—**South Molton.**—BRIDGE.—Erection of new bridge at Neshaw, for the R.D.C. Mr. W. S. Gardner, Chittelhampton.

MAY 21.—**Wembley.**—MORTUARY EXTENSION.—Extension of the mortuary adjoining St. John's Church, Wembley, for the Wembley U.D.C. Mr. Cecil R. W. Chapman, Engineer and Surveyor, Council Offices, Wembley, Middlesex.

MAY 22.—**Bermondsey.**—PAINTING.—For redecoration of Ladywell Institution, for the Board of Guardians. Mr. W. H. Reeve, Clerk, 283, Tooley-street, S.E. Deposit £5.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Plas-terers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 806

May 22.—**Bridgend.**—Additions.—For additions to Administrative Block and erection of pavilion at Isolation Hospital, for the Committee. Messrs. P. J. Thomas & Son, architects, Bridgend. Deposit £2 2s.

May 22.—**Greenwich.**—Pointing.—For repointing various blocks and repairing chimney stacks at the Institution of the Board of Guardians. Mr. A. Roberts, architect, 92, London-street, Greenwich. Deposit £1 1s.

May 22.—**Ironbridge.**—Staircases.—Erection of two fire escape staircases at the Infirmary of Madeley Board of Guardians. Mr. A. H. Thorn Pudsey, Clerk, Ironbridge.

May 22.—**Leeds.**—Alterations.—Structural alterations to 40, Park-lane, for T.C. Mr. W. T. Lancashire, City Engineer, Leeds.

May 22.—**West Bromwich.**—Painting.—For painting offices, for the Board of Guardians. Mr. A. H. Ward, Clerk, West Bromwich.

May 22.—**Westhampnett.**—Houses.—For the erection of 21 houses at Hunston, Drayton, Singleton, and Maudlin, for the R.D.C. Mr. W. D. Rasell, Clerk, Council Offices, Pallant House, Chichester.

May 22.—**Wimbledon.**—Employment Exchange.—Erection of an Employment Exchange at Wimbledon, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1 Deposit £1 1s. (payable to the Secretary).

May 22.—**Yarm.**—Painting.—For redecoration of interior of Yarm Grammar School. Mr. T. Lodge, Clerk to the Governors, Yarm.

May 23.—**Blaydon, near Newcastle-on-Tyne.**—Alterations.—Alterations to the Post Office and Telephone Exchange, Blaydon, near Newcastle-on-Tyne, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

May 23.— **Clomes.**—Engine Shed.—For the erection of a reinforced concrete engine shed for Great Northern Railway (Ireland) Co. Mr. J. R. Stephens, Secretary, Amiens-street Station, Dublin. Deposit £2 2s.

✱May 23.—**Croydon.**—Cottages.—Erection of 12 cottages at Beddington Sewage Farm, Beddington-lane, near Croydon, for the County Borough Council of Croydon. Borough Engineer, Town Hall, Croydon. Deposit £2 2s.

May 23.—**Dublin.**—Painting.—For painting and glazing works required by the Commissioners of Public Works in Dublin district for one year. Mr. J. J. Healey, Secretary, Office of Public Works, Dublin. Deposit £1.

May 23.—**Millport.**—Reservoir.—For construction of reservoir embankment and other works, for the T.C. Mr. John Cowan, 204, St. Vincent-street, Glasgow. Deposit £3 3s.

May 23.—**Rochdale.**—Play Shed, &c.—For (1) Erection of play shed and latrine at Brownhill Open-air School, and (2) additions to latrines at Brimrod School, for T.C. Borough Surveyor, Rochdale.

May 23.—**Winsford.**—Alterations.—For alterations to organ gallery of the Wesleyan Church. Mr. A. Priest, architect, Godstall Chambers, Chester.

May 24.—**Carmarthenshire.**—Painting.—For painting, colouring, &c., at schools, for the Carmarthenshire E.C. Mr. W. Vincent Morgan, County Architect, County Offices, Carmarthen.

May 24.—**Darwen, Lancs.**—Post Office.—Erection of a new Post Office at Darwen, Lancs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

May 24.—**Ebbw Vale.**—Pound, &c.—(*a*) Erecting a pound at the Council Yard, Ebbw Vale; (*b*) erecting a boundary wall at the Council Yard, Ebbw Vale; (*c*) taking up and relaying street pavement. Mr. P. I. Davies, Surveyor, Ebbw Vale. Deposit £1.

May 24.—**Glasgow.**—Painting.—For painting at various schools, for the Education Authority. Education Offices, 129, Bath-street, Glasgow. Deposit 10s. 6d.

May 24.—**Kingston-upon-Thames.**—Houses.—Erection of 10 pairs of parlour-type houses and 12 pairs of non-parlour type houses, for the Corporation of the Borough of Kingston-upon-Thames on their housing estate. Borough Surveyor, Town Clerk's Office, Municipal Offices, Kingston-upon-Thames. Deposit £1 1s. (Builders will be at liberty to tender for the whole or a less number of both or either type of such houses, as they may desire.)

May 24.—**Middlesbrough.**—Houses.—Alternative tenders for the erection of a total of 84 additional houses on the housing estate at Marton-grove, Grove Hill, for the Housing Committee of the County Borough of Middlesbrough. Mr. S. E. Burgess, M.Inst.C.E., Borough Engineer, Architect and Surveyor, Municipal Buildings, Middlesbrough.

May 24.—**Newton (Pem).**—Chapel.—Erection of a new Baptist Chapel at Newton, Hayscastle, Pembrokeshire. Rev. E. Williams, "Bryn Siriol," Wolfscastle, Pem.

May 24.—**Oldbury.**—Houses.—For erection of 16 non-parlour type and 4 parlour type houses, for U.D.C. Mr. J. Selvey-Clinton, Acting Surveyor, Oldbury.

May 24.—**Rochford.**—Painting.—For decorative work in three wards of the institution of the Board of Guardians. Clerk, 40, Clarence-street, Southend-on-Sea.

May 24.—**Salford.**—Alterations.—For alterations and new offices at Broughton High School for Girls, for the T.C. Secretary for Education, Education Offices, Chapel-street, Salford.

May 24.—**Tredegar (Mon).**—Bungalow.—For erection of a bungalow near the Council Filter House Nantybwch, Tredegar, for the U.D.C. Mr. William L. Roach, Surveyor, Bedwellty House, Tredegar. Deposit £1 1s.

May 26.—**Congleton.**—Houses.—Erection of 40 non-parlour type houses on the West-end site, for the Borough Council of Congleton. Borough Surveyor, Borough Surveyor's Office, Congleton. Deposit £2 2s.

May 26.—**Dublin.**—Houses.—For building a further section of the Marino Housing Scheme, for T.C. City Treasurer, Dublin. Deposit £2.

May 26.—**Ellesmere Port.**—Houses.—For the erection of (*a*) 208 houses, in blocks of four; and (*b*) 52 semi-detached houses, at Ellesmere Port, for the U.D.C. Mr. Thos. W. Francis, Clerk, Council Offices, Ellesmere Port. Deposit £1 1s.

May 26.—**Glasgow.**—Various.—For various works in connection with alteration to Kelvinside substation, for the T.C. Electrical Engineer, 75, Waterloo-street, Glasgow.

May 26.—**Hartlepool.**—Painting.—For painting at Henry Smith School, for Durham C.C. Director of Education, Shire Hall, Durham.

May 26.—**Leeds.**—Shops, &c.—For erection of shops and warehouse, George-street, for T.C. Mr. W. T. Lancashire, City Engineer, Leeds.

May 26.—**Purley.**—Offices.—For the erection of Council Offices on land situate in Banstead-road, for Coulsdon and Purley U.D.C. Mr. E. C. Pinks, surveyor, Parliament Mansions, S.W. Deposit £10 10s.

✱May 26.—**St. Marylebone, W.**—Tenements.—Erection of two blocks of tenements (flats) at the Fisherton-street housing site, for the Metropolitan Borough Council of St. Marylebone. Mr. James Wilson, Town Clerk, Town Hall, Marylebone-road, N.W.1. Deposit £5 5s.

May 26.—**Swindon.**—Houses.—Erection of 50 houses in Limes-avenue, Hurst, for the Corporation of the Borough of Swindon. Mr. H. J. Hamp) Borough Surveyor 34, Regent-circus, Swindon.

May 26.—**Widnes.**—Houses.—For the erection of 20 houses on the Kingsway site for the T.C. Borough Surveyor, Town Hall, Widnes. Deposit £2 2s.

May 26.—**Winchester.**—Painting.—For decorative work at Royal Hampshire County Hospital. Mr. H. Maslin, Secretary, Winchester.

May 27.—**Chorley.**—Alterations.—For small alterations at Isolation Hospital, for the Chorley Joint Hospital Board. Messrs. Buckley & Catterall, architects, Chorley.

✱May 27.—**Great Yarmouth.**—Houses.—Erection and completion of 48 houses (non-parlour type) in blocks of 8; 24 to be on the Southtown Common Estate, and 24 on the North Denes Estate for the Great Yarmouth T.C. Borough Engineer, Town Hall, Great Yarmouth. Deposit £2 2s.

May 27.—**Leeds.**—Shelter, &c.—For shelter at North-street Recreation Ground, lavatories, &c., at Bramley Fall Wood, and shelter and conveniences at Crossgates Recreation Ground, for T.C. Mr. W. T. Lancashire, City Engineer, Leeds.

May 27.—**Teddington.**—High Voltage Building.—Erection of a high voltage building at the National Physical Laboratory, Teddington, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

May 27.—**Uxbridge.**—Houses, Roads and Sewers.—Erection of 15 pairs and seven blocks of houses, and for roads and sewers, &c., forming the Northern Section of the Hillingdon-road scheme, Uxbridge, Middlesex, for the Uxbridge Urban District Council. Mr. William L. Eves, F.R.I.B.A., F.S.I., 54, High-street, Uxbridge. Deposit £2 2s.

May 27.—**Wincanton.**—Houses.—For the erection of 12 houses for R.D.C. Messrs. Petter & Warren, Yeovil.

May 28.—**Durham.**—Painting.—For painting at Durham Girls' County School, for the C.C. Mr. A. J. Dawson, Director of Education, Shire Hall, Durham.

May 28.—**Keighley.**—Iron Building.—Erection of a corrugated iron building having steel framing, for T.C. Tramways Manager, Keighley.

May 28.—**Kyle-of-Lochalsh.**—Houses.—For erection of houses, for south-western district of Rossshire. Messrs. A. Ross & Sons, architects, Inverness.

May 28.—**Redditch.**—Alterations and Additions.—Alterations and additions to the Post Office, Redditch, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

May 28.—**Twickenham.**—Alterations and Additions.—Execution of works of structural alterations and additions at Murray Park Hall, Whitton, Twickenham, for the U.D.C. Mr. Fred W. Pearce, F.S.I., Surveyor to the Council, Town Hall, Twickenham. Deposit £2 2s.

✱May 29.—**Hertfordshire.**—Enlargement of County School.—Enlargement of the County Council School at Knebworth, for the Hertfordshire E.C. Lt.-Col., A. Ernest Prescott, M.Inst.C.E., County Surveyor, County Surveyor's Office, Hatfield. Deposit £1 1s.

May 29.—**Leeds.**—Alterations.—For alterations at Killingbeck Hall, for T.C. Mr. W. T. Lancashire, City Engineer, Leeds.

✱May 29.—**London, S.E.1.**—Plumbing and Heating Work.—(*a*) Providing and installing two calorifiers, steam mains, hot-water mains, and connections thereto; (*b*) forming new heater chamber, and alterations to existing heater chamber, for the Guardians of the Southwark Union. The Clerk, Southwark Union Board of Guardians, Union Offices, 50–51, Ufford-street, Blackfriars-road, S.E.1.

May 29.—**Stoke-on-Trent.**—Telephone Exchange.—Erection of a Telephone Exchange at Stoke-on-Trent, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

May 29.—**Wadsley.**—Pointing.—For pointing work at West Riding Mental Hospital, Wadsley. Mr. W. E. H. Burton, Architect, West Riding Mental Hospital, Board Offices, Sheffield.

May 30.—**Bacton.**—Repairs, &c.—For repairs and adaptations to cottages and farm premises at Bacton Estate, for Norfolk Small Holdings Committee. County Land Agent, Norwich. Deposit £1 1s.

May 30.—**Bury St. Edmunds.**—Houses.—For the erection of 24 houses for the T.C. Mr. R. H. Beaumont, Borough Surveyor, Bury St. Edmunds. Deposit £2 2s.

May 30.—**Clayton.**—Painting.—For painting the Wesleyan School. Mr. A. Ward, Secretary, Highfield Villas, Clayton.

May 30.—**Thurles.**—Building.—For buildings in connection with electricity supply, for the U.D.C. Messrs. J. P. Tierney & Co., 44, Kildare-street, Dublin. Charge £2 2s.

May 31.—**Eastleigh.**—Bridge.—For the widening in ferro-concrete of a brick-built bridge and erection of retaining walls, for the U.D.C. Mr. W. W. Gandy, Surveyor, Council Offices, Eastleigh.

May 31.—**Lewisham.**—Bricklaying.—For building graves and vaults, &c., at Ladywell and Hither Green Cemetery, for one or three years, for B.C. Mr. J. W. Shuter, Town Clerk.

May 31.—**Neath.**—Additions.—For alterations and additions to the laundry block and entrance hall at Glamorgan Farm School, for the C.C. Mr. T. Mansel Franklin, Clerk, Glamorgan County Hall, Cardiff.

June 2.—**Arundel.**—Convenience.—For the erection of a sanitary convenience, for the T.C. Borough Surveyor, Arundel.

June 2.—**Carlisle.**—Conversion.—For the conversion of outbuildings adjoining Coledale Hall into farmhouse, for the T.C. Mr. H. C. Marks, City Engineer, Carlisle.

June 2.—**London, E.C.2.**—Re-decoration.—Re-decoration of the Hoxton Public Library, Pitfield-street, N. 1, for the Shoreditch B.C. Mr. T. L. Hustler, Borough Surveyor, Town Hall, Old-street, E.C. 2.

June 3.—**Hoylake.**—Houses.—Erection of six pairs of semi-detached houses, for U.D.C. Surveyor, Town Hall, Hoylake. Deposit £2 2s.

✱June 3.—**London, S.W.18.**—Motor Garage Extension.—Extension of motor garage at St. James' Hospital, Ouseley-road, Balham, S.W.12, for the Guardians of the Wandsworth Union. Mr. F. J. Curtis, Clerk, Union Offices, St. John's Hill, Wandsworth, S.W.18.

✱June 3.—**Sheffield.**—Buildings, Works and Plant.—Buildings, works and plant required in connection with the erection and equipment of a new electricity generating station at Blackburn Meadows, Sheffield, for the Electricity Supply Committee of the City of Sheffield. Mr. S. E. Fedden, M.Inst.C.E., General Manager and Engineer, Commercial-street, Sheffield. Deposit £3 in respect of each specification up to three will be refunded on receipt of a *bona-fide* tender.

✱June 5.—**Hampton.**—Houses.—For the erection and completion of 31 houses on the Priory-road site for the U.D.C. Mr. Sidney H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex. Deposit £2 2s.

✱June 5.—**West Norwood.**—Alterations, &c.—For (*a*) structural alterations and redecorations at the Hannen House Welfare Centre, Hannen-road; and (*b*) construction of a convenience and lavatory at the Rommany-road depot, Rommany-road, for the Metropolitan Borough of Lambeth. Mr. Osmond Cattlin, A.M.I.C.E., Borough Engineer, Town Hall, Brixton Hill. S.W.2.

June 6.—**Lough Derg, Co. Donegal.**—Foundations.—Constructing the foundations (to be built partly in the Lake) of the proposed new church designed by the late Professor W. A. Scott, at St. Patrick's Purgatory. Mr. Thomas J. Cullen, F.R.I.A.I., architect, 25, Suffolk-street, Dublin.

June 13.—**London, N.W.1.**—Building.—Construction of an overground public convenience in Salisbury-street, by Church-street, Lisson-grove, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

June 14.—**Evesham.**—Houses.—For the erection of 26 houses on the King's-road, Bengeworth, site, for the T.C. Mr. J. Abbott, Borough Surveyor, Town Hall, Evesham. Deposit £2 2s.

June 16.—**London, N.W.1.**—Alterations.—Certain structural alterations at the Public Baths, Marylebone-road, in connection with the installation of filtration plant for First Class Swimming Baths, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

June 20.—**Montrose.**—School.—Erection of elementary school for Forfarshire Education Authority. Mr. Hugh Gavin, architect, 194, High-street, Montrose. Deposit £1 1s.

No Date.—**Ardrossan.**—Premises.—For the erection of new premises, for the Ardrossan Co-operative Society. Mr. H. Thompson, architect, 60, Hamilton-street, Saltcoats.

No Date.—**Ashton-under-Lyne.**—Home.—For the erection of a nursing home. Mr. S. Thomas, 9, South Parade, Manchester. Deposit £5 5s.

No Date.—**Bamwell.**—Schools.—For the erection of elementary schools at Bamwell, for Somerset C.C. County Architect, Lloyds Bank Chambers, Weston-super-Mare.

✱No Date.—**Ilfracombe.**—Shop Premises.—Erection of new premises at 21, High-street, Ilfracombe. Messrs. Timothy White Co., Ltd., Construction Department, 30, Chandos-street, Portsmouth.

No Date.—**Lazonby.**—Warehouse.—For the erection of warehouse, for the Lazonby and District Co-operative Society. Mr. L. Strong, manager, Lazonby.

No Date.—**Llanelly.**—Drill Hall.—For the erection of a drill hall, for the Carmarthenshire Territorial Association. Messrs. W. Griffiths & Son, architects, Llanelly. Deposit £2 2s.

No Date.—**Llanelly.**—House.—For the rebuilding of Tenyfai residence. Messrs. W. Griffiths & Son, architects, Llanelly.

No Date.—**Plymouth.**—Alterations.—For alterations to Morice Town School, for the T.C. Mr. C. Cheverton, 64a, Chapel-street, Devonport.

No Date.—**Prestonpans.**—Police Station, &c.—For the erection of police station and three houses for the East Lothian C.C. Messrs. Dick, Peddie & Walter Todd, architects, 8, Albyn, Edinburgh.

DATE.—**South Wales.**—Rebuilding after fire
rfai residence, Llanelly, South Wales. Messrs.
ffiths & Son, architects, Llanelly. Deposit

DATE.—**Wakefield.**—LABORATORY.—For demoli-
existing laboratory and erection of new one for
Riding of Yorkshire Rivers Board. Messrs.
& Holdsworth, architects, Wakefield.

RNITURE, MATERIALS, etc.

19.—**Beckenham.**—MATERIALS.—Supply of 800
tarred slag, and 560 tons of tarred limestone
.D.C. Mr. John A. Angell, Surveyor, Becken-
Deposit £2.

20.—**Edinburgh.**—MATERIALS.—Supply of
sand, and free stone to the T.C. Tramways
r, Edinburgh.

20.—**Salford.**—LIME.—For 2,000 tons of lime
wage Disposal Works. Borough Engineer,

21.—**Hull.**—MATERIALS.—Supply of rainwater
anges, grates, boilers, coppers, chimney-pots,
c., required in the erection of 200 houses. Mr.
Bricknell, City Engineer, Hull.

22.—**Manchester.**—FURNITURE.—For furniture
ings at the Cheetham Central Girls' School, for
ducation Offices, Deansgate, Manchester.
£1 1s.

24.—**Leeds.**—MATERIALS.—For supply of
materials to the Gas Department. Gas
r, Leeds.

26.—**Dublin.**—MATERIALS.—Supply of mate-
r six months to Dublin United Tramway Co.
Manager, 39, Upper Sackville-street, Dublin.
2s. 6d.

27.—**Bideford.**—ROAD MATERIALS.—Supply of
macadam chippings, &c., to U.D.C. Mr.
Seldon, Town Clerk, Bideford.

30.—**London.**—PAINT.—Supply of paint, white
c., for India Store Dept. Branch No. 12,
ere-road, S.E.

2.—**South Africa.**—VARNISHES, &C.—Supply to
African Railways of varnishes and free flowing
s. Department of Overseas Trade, 35, Old
street, S.W. Reference 13615/E.D./C.C./2.

DATE.—**Cowes, I.W.**—MATERIALS.— For building
ls for erection of four blocks of flats. Mr. H.
builder, Cowes, I.W.

INEERING, IRON AND STEEL.

19.—**Darlington.**—PIPES.—Supply of 600 9 in.
t pipes, for Durham County Water Board. Mr.
inson, engineer, Bishop Auckland.

21.—**Aberdeen.**—CIRCULATING WATER SYSTEM.
work in connection with extension of circulating
system at Ferry Hill Power Station. Mr. J. A.
City Electrical Engineer, Aberdeen. Deposit

21.—**Llanybyther. (Carm).**—BRIDGE WIDEN-
For reconstruction and widening of Nantyffin
between Brechfa and Abergorlech, for the
ything R.D.C. Mr. D. S. Rees, surveyor,
ything (Carmarthenshire).

22.—**London.**—PIPES.—Supply to the India
Department of 7 in. and 5 in. diameter cast-iron
Branch No. 12, Belvedere-road, S.E.

23.—**Liverpool.**—TRAMWAY MATERIAL.—Supply
way material, consisting of rails, fishplates, &c.,
Tramways Committee. City Engineer, Municipal
gs, Liverpool.

24.—**Berks.**—HEATING (HOT WATER).—In-
a system of heating by hot water, at the
ry and Board Room, at Easthampstead. Mr.
ilson, Clerk to the Guardians, Bracknell, Berks.

24.—**Torquay.**—RESERVOIR.—Construction of
oncrete reservoir of 1,500,000 galls. capacity,
. Mr. S. C. Chapman, Waterworks Engineer,
y. Deposit £2 2s.

27.—**Burton-on-Trent.**—ELECTRIC LIGHT IN-
TION.—For installation of electric light at insti-
nd children's home, for the Board of Guardians.
S. Askew, Clerk, Burton-on-Trent.

30.—**London.**—STEELWORK.—**Supply to the**
Indian Railway Co. of structural steelwork
e Shop). Company's Offices, 91, Petty France,
ister, S.W.1. Charge £1.

2.—**Dublin.**—STEELWORK.—Supply of steel-
Bridges Nos. 643 and 645, Cavan Branch, for
land Great Western Railway of Ireland Co.
gineer, Broadstone Terminus, Dublin. Pay-

25.—**London.**—BRIDGES.—Supply of girder
to East Indian Railway Co. Secretary, 73,
lliam-street, E.C. Charge £1 1s.

1.—**Chili.**—HARBOUR WORKS.—**For the work**
vement of the Harbour of Constitucion, Chili.
Legation, 22, Grosvenor-square, W.1.

D, SANITARY, AND WATER WORKS.

9.—**Chelmsford.**—ROADS.—(*a*) Reconstruction
road, Great Baddow; (*b*) kerbing, drainage,
idental works at Beehive-lane, Great Baddow,
.D.C. Mr. L. A. Cozens, Surveyor, Waterloo-
elmsford.

9.—**Nottingham.**—WATERWORKS.—For exten-
the filter house, precipitation tanks, &c., at
r works, Eastwood, City Engineer, Guildhall,
am. Deposit £2.

19.—**Steyning.**—ROADS.—Making-up of Mill-
George's-place and part of Charlton-street.
C. Mr. S. Slaughter, surveyor, Steyning.

9.—**Thornaby-on-Tees.**—ROADS.—For making-
oria-road, St. Paul's-road and Oxford-road,
Borough Engineer, Thornaby-on-Tees.

19.—**Uttoxeter.**—WATER SUPPLY.—Construc-
about 8 miles of 7 in. water main, together
bine pumping station, service reservoir, and
idental works, for the U.D.C. Messrs.
& Raikes, 63, Temple-row, Birmingham. De-
7s.

MAY 20.—**Acton.**—ROADS.—For making-up (*a*) Fairlawn-avenue, Fairlawn-grove and Ravenscroft-road; and (*b*) Ramillies-road, for the B.C. Borough Surveyor, Acton, W.

MAY 20.—**Guildford.**—ROADS.—For construction of 2,500 super yds. of reinforced concrete road, for the T.C. Mr. W. G. Cross, Borough Engineer, Guildford. Deposit £2 2s.

MAY 20.—**Kirkburton.**—ROADS.—For improvements of about 1¼ mile of main road, for U.D.C. Messrs. Abbey & Hanson, 11, Cloth Hall-street, Huddersfield. Deposit £2 2s.

MAY 20.—**Salford.**—ROADS.—For paving of four streets with rock asphalt and seven streets with stone setts. Borough Engineer, Salford.

MAY 20.—**Southend-on-Sea.**—SEWERS.—For sewering of Elmsleigh-drive, Fleming-crescent, Leigh-gardens and Park-road, for T.C. Mr. R. H. Dyer, Borough Engineer, Southend. Deposit £2 for each road.

MAY 20.—**Tendring.**—SEWERS.—For the laying of about 2,500 yds. of 6 in. and 9 in. sewers, &c., for the R.D.C. Mr. F. G. Vincent Brown, Dovercourt. Deposit £2 2s.

MAY 21.—**Hammersmith.**—ROADS.—For the making-up of Section 2, Bloemfontein-road, for the B.C. Mr. R. Hampton Clucas, Borough Engineer, Town Hall, Hammersmith. Deposit £3 3s.

✱MAY 21.—**Leicester.**—NURSES' HOME.—Erection of a nurses' home at the North Evington Infirmary, Leicester, for the Leicester B.G. Mr. Herbert Mansfield, Clerk to the Guardians, 3, Pocklington's Walk, Leicester. Deposit £2 2s.

MAY 21.—**London, S.W.9.**—ROAD REPAIRS.—Repairs to roads at the South-Western Fever Hospital, Landor-road, Stockwell, S.W.9., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

MAY 21.—**Wortley.**—SEWAGE WORKS.—Supply of cast-iron pipes and other iron works, and erection of revolving sprinkler at sewage disposal works, for R.D.C. Mr. F. Thurlby, surveyor, Grenoside, Sheffield. Deposit £1 1s.

MAY 22.—**Caithness.**—ROADS.—For resurfacing about 8½ miles of highway, for C.C. Mr. J. Young, Clerk, Thurso. Deposit £1 1s.

MAY 22.—**Ramsbottom.**—ROADS.—For paving 1,380 sq. yds. of granite paving, for the U.D.C. Mr. T. H. Bell, Surveyor, Council Offices, Ramsbottom.

MAY 22.—**Rotherham.**—SEWERS.—Construction of 422 yds. of 9 in. sewer, &c., for R.D.C. Mr. C. O. Raurstron, Surveyor, Council Offices, Rotherham. Deposit £1s. 1s.

MAY 23.—**Porthcawl.**—WATER WORKS.—For constructing, for the U.D.C., several small filter beds and laying and jointing about 170 yds. of 6 in. diameter water main at Cwm-Fadog stream, Llangynwyd. Mr. T. L. Oliver, Surveyor, Council Offices, Porthcawl (Glam). Deposit £3 3s.

MAY 24.—**Alderley Edge.**—SEWER.—For rebuilding of a sewer manhole 23 ft. deep, for U.D.C. Mr. H. Sheldon, Surveyor, Alderley Edge.

MAY 24.—**Bacup.**—ROADS.—For resurfacing main carriage drives, Stubbylee Park, for T.C. Mr. W. H. Newton, Borough Engineer, Bacup.

MAY 24.—**Belper.**—SEWAGE WORKS.—For laying 2,700 yds. of 9 in. and 6 in. sewers, construction of sewage tanks, &c., for the R.D.C. Messrs. Sands & Walker, Milton Chambers, Nottingham. Deposit £2 2s.

MAY 24.—**Paddington.**—ROADS.—For asphalte macadam works in Craven-terrace, Porchester-gardens, St. Mary's-terrace, and square (part of), and Howley-place, for the B.C. Borough Engineer, Town Hall, Paddington, W.2.

MAY 26.—**Glasgow.**—ROADS.—For the construction of Section A–B, Glasgow to Baillieston, Contract No. 1, of a new road from Glasgow to Edinburgh, for the T.C. Office of Public Works, City Chambers, Glasgow. Deposit £3 3s.

MAY 26.—**Ilford.**—ROADS.—For making up Balfour-road, for U.D.C. Surveyor, Town Hall, Ilford. Deposit £2 2s.

MAY 26.—**Little Lever.**—SEWAGE WORKS.—For improvements and alterations at the sewage disposal works, for the U.D.C. Surveyor, Council Offices, Little Lever. Deposit £2 2s.

MAY 27.—**Uxbridge.**—ROADS.—Tar painting 20,000 yds. of roads, for U.D.C. Mr. H. M. Blackwell, Clerk, Uxbridge.

MAY 28.—**Gildersome.**—ROADS.—Main 3,960 yds. of granite paving, for U.D.C. Mr. W. Wilby, urveyor, Gildersome, Leeds.

MAY 29.—**Bedford.**—SEWERAGE WORKS.—For construction of concrete tube and stoneware pipe sewers, &c., for T.C. Mr. N. Greenshields, Borough Engineer, Bedford. Deposit £3.

MAY 30.—**Newton Abbot.**—ROADS.—For resurfacing portion of Market-square, for the U.D.C. Mr. C. D. White, Surveyor, Town Hall, Newton Abbot.

MAY 31.—**Kingston-on-Thames.**—SEWER.—Construction of a foul water sewer and a surface water sewer in Cambridge-road, for T.C. Borough Surveyor, Kingston. Deposit £1 1s.

JUNE 2.—**Meltham.**—SEWER.—For construction of sewer, &c., for the U.D.C. Messrs. Abbey & Hanson, engineers, 11, Cloth Hall-street, Huddersfield. Deposit £1.

JUNE 5.—**Greenford.**—WATER MAIN.—For laying 48 in. cast-iron main from Greenford to Cricklewood, and laying 27 in. cast-iron pipes near Hanger-lane for the Metropolitan Water Board. Chief Engineer, Offices, Clerkenwell, E.C. Deposit £20.

JUNE 5.—**Newton Abbot.**—ROADS.—For laying mastic rock asphalte in various streets, for the U.D.C. Mr. C. D. White, Surveyor, Town Hall, Newton Abbot. Deposit £2 2s.

JUNE 6.—**Tyrone.**—ROADS.—For re-surfacing various sections of roads, for the Tyrone C.C. County Surveyors of A. Division at Dungannon, and of the B. Division at Omagh.

NO DATE.—**Bredbury and Romiley.**—PAVING.—For sett pavings, for U.D.C. Surveyor, Council Offices, Bredbury.

Competitions.

(*See Competition News, page* 782.)

Auction Sales, Tenders, etc.

MAY 20.—**Hayes, Middlesex.**—Mr. F. H. Clark will sell, at the National Filling Factory, Hayes, Middlesex, (one minute from G.W.Rly. Station), portable buildings, timber and builders' material, to be sold on the site, absolutely without reserve. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

✱MAY 20.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, at 255, Clapham-road, S.W., a large stock of nearly-new timber, fittings and building materials. Auctioneers, 365, Norwood-road, S.E.27.

MAY 20.—**Watford.**—Messrs. Humbert & Flint will sell, at 6 o'clock, 146 building plots on the Cassiobury Estate. Auctioneers, Watford, Herts, and 11, Serle-street, W.C.2.

MAY 22.—**Hertfordshire.**—Messrs. Knight, Frank & Rutley will sell by direction of Mr. Lionel Frank, as a whole or in lots, in the Hanover-square Estate Room (unless previously sold privately), the freehold residential property, The Grange, Chesham, Hertfordshire. Auctioneers, 20, Hanover-square, W.1.

✱MAY 23.—**Bournemouth.**—Messrs. Hankinson & Son will sell (Bournemouth District Builders' Guild in liquidation), by order of the Liquidator, Mr C. R. Blissett, C.A., at builders' yard, Spring-road, Bournemouth, builders' plant and machinery, &c. Auctioneers, Waterloo Chambers, Fir Vale-road, Bournemouth.

✱MAY 22 AND 23.—**Northants.**—Messrs. James Styles & Whitlock have been instructed by Messrs. Demolition & Excavation (Greenham), Ltd., to sell, at Ashby St. Legers, Northants, six miles from Rugby, demolition sale of the well-known mansion known as Ashby-Saint-Legers Lodge, including the whole of the fabric. Auctioneers' Office, Albert-street, Rugby.

✱MAY 27.—**London, S.E.**—Messrs. Veryard & Yates will sell, without reserve, final clearance sale at 126, Norwood-road, S.E., building materials. Auctioneers, 365, Norwood-road, S.E.27.

MAY 27.—**Near Gerrard's Cross (Bucks).—Messrs. Knight, Frank & Rutley will sell, by direction of Commander J. A. L. Hay, R.N., freehold agricultural and sporting property, known as Pickeridge Farm, about 171 acres; also about 18 acres of building sites. Auctioneers, 20, Hanover-square, W.1.**

MAY 27 AND THREE FOLLOWING DAYS.—**Dorset.**—Messrs. Riggall & Riggall will sell, in the Southern Command, Blandford Camp, near Blandford, Dorset, 430 buildings of timber and brick and slate, of which 60 have been dismantled, iron water piping, permanent way, rails, &c. Auctioneers, Old Market-place, Grimsby.

✱MAY 28.—**Berkshire.**—Messrs. J. T. Skelding & Co. will sell, at Sunninghill, Ascot, Berks., *re* Guest & Goodall, Ltd., by order of Mr. G. B. Manley, F.S.S.A.A. (the Receiver for the Debenture Holders, appointed by the High Court of Justice, Chancery Division), builders' and contractors' stock, plant and machinery, including the complete modern woodworking machinery, lorries, freehold builders' yard and premises. Auctioneers, 48, Gresham-street, Guildhall, London, E.C.2.

✱MAY 28.—**Chichester.**—Messrs. Stride & Son will sell (unless previously disposed of by private treaty) at The Dolphin Hotel, Chichester, Summersdale Estate, one mile north of the City of Chichester, close to Lavant and Goodwood, 45 freehold building sites, varying in sizes from one acre to a quarter of an acre. Auctioneers, East-street, Chichester.

✱MAY 29.—**Merton.**—Messrs. Veryard & Yates will sell, without reserve, to clear site for C. & S.L. Railwa extension, at High-street, Colliers' Wood, Merton, on Mr. A. T. Harris's ground, building materials. Auctioneers, 365, Norwood-road, S.E.27.

Public Appointments.

MAY 26.—**Wolverhampton.**—Qualified Engineering Assistant, with experience in housing and town planning, required by the Corporation of Wolverhampton, in the office of the Borough Engineer. Mr. George Green, Borough Engineer, Town Hall, Wolverhampton.

✱MAY 31.—**Wigan.**—Architectural Assistant and Town-Planning Assistant required in the Borough Engineer's Department, by the C.B. Mr. R. B. Donald, M.Inst.C.E., Borough Engineer, Wigan.

✱JUNE 2.—**Greenwich, S.E.10.**—Appointment of an officer in connection with the Council's Housing Estate (Grade "C") in the Town Clerk's Department, by the Council of the Metropolitan Borough of Greenwich. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10.

✱JUNE 2.—**Hove.**—Superintendent of Roads, &c., required by the T.C. The Borough Surveyor, Town Hall, Hove.

✱JUNE 4.—**Portsmouth.**—Clerk of Works required in connection with the erection of 100 houses on the Portsdown Hill Housing site, by the County Borough Council of Portsmouth. Mr. F. J. Sparks, Town Clerk. The Town Hall, Portsmouth.

✱NO DATE.—**Ceylon.**—Civil Engineer required by the Government of Ceylon for three years' service, as District Engineer, in the Public Works Department, Crown Agents for the Colonies, 4, Millbank, Westminster, S.W.1, quoting M/12749.

✱NO DATE.—**London.**—Architectural Draughtsmen required for temporary employment in Government Departments. Joint Substitution Board (Treasury and Ministry of Labour), Montague House, Whitehall, S.W.1.

✱NO DATE.—**Nigeria.**—Foreman of Works required by the Government of Nigeria for the Railway Department, for one tour of 12–18 months with possible extension. Crown Agents for the Colonies, 4, Millbank, S.W.1.

✱NO DATE.—**Nuneaton.**—Clerk of Works required at once by the B.C. Mr. R. C. Moon, A.M.I.C.E., Borough Engineer, Council Offices, Nuneaton.

PROPOSED NEW BUILDINGS & OTHER WORKS *

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABERDEEN.—Plans passed by T.C.: Bungalow, Queen's-road, for Mr. Charles Sangster, per Mr. George Watt, architect; house, Queen's-road, for Mr. Robert Sinclair, per Mr. John Milne, architect; Reconstruction of building, Chronicle-court, for the T.C.

ACCRINGTON.—The Ministry of Health has given formal sanction for the borrowing by the Accrington Corporation of £49,834 for the erection of 103 additional houses on the Laneside Estate. The Council are recommended to seal the contract with the C.W.S. for their erection on terms arranged.

ALDERLEY EDGE.—The U.D.C. has decided to borrow £5,000 for the purpose of erecting eight additional houses.

ALTRINCHAM.—The D.C. have made application to the M.H. for sanction for a loan of £13,700 for the erection of 28 houses on the Oldfield Brow Estate. The United Services Club are proposing the erection of Club premises on a site in Moss-lane. The parishioners of St. Albans, Broadheath, are proposing erecting a church house.

AMMANFORD.—The U.D.C. has received from Mr. G. H. Davies, the engineer, estimates of the cost of the proposed town sewerage scheme. The sum of £33,418 is given as the cost of the domestic scheme to which must be added £2,730 for easements, &c., to link up with the proposed joint sewer to be constructed by the Ammanford, Pontadawe, Llandilo and Cwmamman Councils.

ARMTHORPE.—The village lay-out plan includes sites for a school, station, village green, hotel, institute, shopping centre, and playing fields; also for 1,000 houses with a sewerage scheme.

ASHTON-IN-MAKERFIELD.—Plans approved by the D.C.:—Proposed control station adjoining Parkside Mills, in Bridge-street, for the Lancashire Electric Power Co.——The M.H. has approved a scheme for the erection of a new central school.

AYLESBURY.—The T.C. has decided to build new offices for the town clerk, borough accountant and staff, to complete the town hall improvement scheme. ——Plans passed by T.C.: Houses and shop, Penn-road, for J. E. Brinley.

BALLYMENA.—The Ministry of Home Affairs has approved of the application of the Council for liberty to secure a loan of £30,000 to build a new town hall.

BASINGSTOKE.—Plans passed by T.C.: Shop and office, Church-street, for Mr. J. F. Powell.

BELFAST.—Plans passed by T.C.: Villa in Reliance-avenue, for Mr. R. Jamison: architect, Mr. Robert Lynn; 22 villas in Onslow-gardens, for Messrs. H. & J. Warden, Ltd.; villa in Chlorina-gardens, for Mr. W. H. Coates: architects, Messrs. Hobart & Heron; villas, with motor houses, in Ravenhill Park, for Mr. J. Henderson: architects, Messrs. Hobart & Heron; ten villas, Irwin-avenue, for Mr. J. H. Barton: architect, Mr. R. Barton; six houses, Richview-street, for Mr. H. McLaurin: architect, Mr. W. C. Maxwell; shop, house and motor garage, Lisburn-road, for Mr. C. H. Cochrane: architects, Messrs. Taggart & Silk; six villas, Clonlee-drive, for Mr. B. McIlroy: architects, Messrs. Taggart & Silk; villa, Myrtlefield Park, for Miss Helen Ewing; 18 villas, Bloomfield-road, for Mr. Joseph McMaster: architect, Mr. H. Gault; three villas, Martinez-avenue, for Mr. Samuel Nelson: architect, Mr. R. Lynn; two villas, Osborne Park, for Mr. W. Bailey: architect, Mr. J. St. J. Phillips; alterations to premises in Fountain-street, for the Governors of the Belfast Library: architects, Messrs. Young & Mackenzie; six villas, Sans Souci Park, for Mr. N. B. Kilpatrick: architect, Mr. T. R. Eagar; conversion of stables and stores into house, Earlswood-road, for Mr. W. H. Jackson: architects, Messrs. E. & J. Byrne; villa, Green-road, for Mr. J. P. Ross; villa, College Park, for Mr. S. McCune: architect, Mr. James Scott; two shops, Cregagh-avenue, for Mr. J. A. McCormick: architect, Mr. L. H. Hodgins; villa, Sydenham-avenue, for Mr. J. A. Lemon: architect, Mr. C. A. Aickin; villa, Newforge-lane, for Mr. C. K. Edwards: architect, Mr. Kendrick Edwards; shop and house, Woodstock-road, for Mr. J. McKeene: architect, Mr. E. W. Warne; two villas, Ballygomartin-road, for Mr. D. Lindsay: two houses, Glen-road, for Mr. C. McRandal; shop, store and house, Kimberley-street, for Mr. J. Wylie: architect, Mr. J. C. Stevenson; stores, Corporation-street, for Mr. W. W. Kennedy: architect, Mr. John MacGeagh.

BELPER.—Plans passed by U.D.C.: House, Overlane, for Mr. M. Walker; house, Spencer-road, for Mr. F. M. Stevenson; bungalow, rear of Market-place, for Mr. Jabez Milward; two houses, Sunny Bank, for Mrs. W. Spendlove and Mr. M. Storer; cottage, Swinney-lane, for Mr. L. Gregory; two houses, Nottingham-road, for Mr. E. Sanders; house, Spencer-road, for Mr. A. Sims; flat and shop, Bridge-street, for Mr. G. H. Strutt.

BEXHILL.—The Borough Surveyor has prepared plans for a pavilion to be erected at an estimated cost of £565 in the Polegrove Grounds.——The Corporation propose the erection of a mortuary, at a cost of £800, but is not unduly pressing the scheme if the M.H. thinks labour will be diverted from housing.

BILLINGHAM.—The U.D.C. have approved a plan for the extension of the works of the North Tees Power Station, for the Newcastle Electric Supply Co., Ltd.

BINGLEY.—Plans passed: Bungalow, Lee-lane, Cottingley, for Mr. W. Broadbent; bungalow, Beech-street, Bingley, for Mr. S. Thompson; house, Firth-lane, Wilsden, for Mr. S. Cheesman; reconstruction of shops, Adelaide-street, for Messrs. Royston Bros.; three bungalows, Bradford-road, Bingley, for Mr. A. House; semi-detached bungalow, Primrose-hill, for Messrs. H. & A. G. Nutter; bungalow, Fernbank-drive, for Mr. H. Crowther; semi-detached villas, Bramham-road, for Messrs. J. H. Beaver, B. Broadbent, and F. Atkinson; bungalow, Low Springs, for J. Jackson; conversion of outbuildings, Low Springs, into cottage, for Mr. H. Booth; two houses, Dowley Gap, for the Bingley U.D.C.

BIRKENHEAD.—A site has now been decided upon for the erection of the War Memorial designed by Professor L. B. Budden, of the Liverpool School of Architecture. It is proposed to remove the John Laird statue in front of the Town Hall, and to erect in its place the War Memorial.

BLACKBURN.—Plans passed by T.C.: Sub-station, Whalley New-road, by the Electricity Department; two houses, Revidge-road, by Mr. H. C. Mercer; bungalow, Lammack-road, by Mr. Oswald Tate; two houses, Fecitt-brow, by Messrs. J. Townson & J. Brindle; sub-station, Lancaster-place, by the Electricity Department.

BLACKPOOL.—The Building Plans Committee approved plans for 160 houses. The T.C. approved a recommendation of the Parks and Cemetery Committee in favour of the establishment of a crematorium.

BLYTH.—The T.C. has purchased the foreshore and links, at a cost of £2,500, from the trustees of the late Lord Ridley, and propose to develop the town as a pleasure resort.——The following plans have been passed: Four cottages, Plessey-road. Mr. J. Dawson; Boiler-house, Madison-street, for J. Marshall.——The T.C. have adopted a report of their Housing Committee recommending the erection of an additional 50 houses.

BOLTON.—Plans passed by T.C.: A. S. Woods, two houses, Greenmount-lane; The Bolton Modern Building Co., three houses, Thompson-road; Leigh Bros., Ltd., 12 houses, Alexander-road; Lizzie Hibbert, bungalow, St. Helens-road; John S. Hughes, 12 houses, Normanby-street; J. Edgar Paiton, four houses, Bromwich-street; Thomas Blakely, two houses, Bradford-road; Ellis Taylor, nine houses, Wilmot-street; Bridgewater Estates, Ltd., streets and levels, Normanby-street and Haynes-street; Lancashire Electric Power Co., extension to Power Station, Lostock-lane Colliery; Price Bros., bakery and stable, back Weston-street; Leigh Bros., Ltd., 16 houses, Olive-street; Thos. Caldwell, two houses, Withins-lane; John Archer, bungalow, Withins-lane; H. Caldwell, bungalow, Regent-road; W. A. Agar, store room, Oakenbottom-road; Earl of Bradford, levels and sewers, Green-lane; R. H. Ainsworth, new 6-yard streets, back Wilmot-street; William Reddyhough, two bungalows, Regent-road; Robert Haslam, warehouse, off High Bank-street.——Building operations in connection with St. Edmund's Schools have started. The new schools are to cost £13,000. Fifteen houses will be demolished in the proposed scheme of widening the new Bury-road to Blackburn-road. It has been decided that the road should be constructed to a width of 70 ft., except as regards Winchester Way, which is to remain 60 ft. as originally proposed, the carriage-way throughout the entire length to be 50 ft.

BOURNEMOUTH.—Plans passed by T.C.: Conversion into shop, 70, Charminster-road, Messrs. Barrow; shops and flats, Old Christchurch-road, Mr. C. G. Knight; semi-bungalow, Wayside-road, Miss G. Salmon; conversion into flats, "Benellen Towers," Branksome Wood-road, Miss E. Carruthers; house and garage, Dingle-road, Mrs. W. Pearson; bungalow, Sutton-road, Mr. C. Newton; house, Comley-road, Mr. W. D. Lee; house and garage, 13, Pinecliff-avenue, Mr. E. R. Saunders; house, Alyth-road, Commander Crathorne; house, Harewood-avenue, Messrs. Midgley & Hardy, Ltd.; house, Stokewood-road, Mr. A. Barnes; house, Glenmoor-road, Mr. A. Barnes; house, corner St. Luke's and Stokewood-roads, Mr. A. Barnes; house, Irving-road, Mr. A. Webb; semi-bungalow, Lascelles-road, Mr. A. J. Fowler; house, De Lisle-road, Mr. W. R. Harrison; conversion of stables into bungalow, "Dunedin," Beaufort-road, Mr. G. King; house and garage, Dingle-road, Mrs. J. H. Freeman; house, Pine-road East, Messrs. C. A. Barnes & Co.; house, Belle Vue-road, Mr. G. B. Barnes; house, St. Ledger's-road, Mr. W. J. T. Stacey; house, Victoria Park-road, Miss Jones; three houses, St. Luke's-road, Mr. C. K. Habgood; house, Midland-road, Mr. J. Hodinott; house, corner of Bushey and Mortimer-roads, Mr. C. Williams; two bungalows, Lascelles road, Messrs. Midgeley & Hardy, Ltd.; house, 58, Coronation-avenue, Mr. H. J. Hawkins; house, Boscombe Overcliffe-drive, Mr. C. D. Keigwin; house, Boscombe Overcliffe-drive, Mr. Bates; two flats, Beaufort-road, Miss Haskell; house, De Lisle-road, Mr. F. House; conversion into shop, Capstone-road, Mr. H. Ridout; three houses, St. Ledger's-road, Mr. E. W. Welstead; conversion into two flats, Denmark-road, Mrs. N. E. Bevington; house, Dunkeld-road, Mr. T. O. Bartlett; house, "Moss Close," Manor-road, Mr. W. E. McArdle; conversion into shop, Malvern-road, Mr. B. G. Clarke; house, Westfield-road, Mr. E. T. Wood; house, Bethia-road, Mr. G. Dolman; two houses, St. Luke's-road, Mr. A. Barnes; house, Stokewood-road, Mr. A. Barnes; house, St. Luke's-road, Mr. A. Barnes; two houses, King George-avenue, Mr. H. Dean; house, Gervi[illegible] East, Mr. A. Holloway: house, corner Beechwoo[illegible] Browning-avenues, Mr. F. H. Butler; house, D[illegible] road, Mr. G. Peters; house and garage, Bro[illegible] avenue, Mr. R. J. M. Nabney; house, Inve[illegible] road, Mr. T. O. Barrett; four houses, Castl[illegible] avenue and Shelton-road, Mr. T. O. Barrett; houses, Herberton-road, Mr. A. Rendall; Seafield-road, Mr. A. H. Jackson; two houses, R[illegible] road, Mr. E. C. Langdon; two houses, Heyte[illegible] road, Mr. A. Green; three houses, Carbery-a[illegible] Mr. H. Solomon; house, Bloomfield-avenue, [illegible] Masters; house, Lonsdale-road, Mr. N. Stokes [illegible] houses, Grove-road, Mrs. Rosenberg; house garage, Grove-road, Mrs. C. Fane; bungalow, Str[illegible] road, Mr. Weigh; twelve houses, Norton-road, [illegible] C. A. Barnes & Co.; bungalow, Lascelles-roa[illegible] J. E. Hardy; house, Iddesleigh-road, Mr. Lambert; house, Lascelles-road, Messrs. Midg[illegible] Hardy, Ltd.; house, St. Leger's-road, Mr. Miller; house and garage, St. Leger's-road, Mr. Miller; two houses and garages, St. Luke's and [illegible] Court-roads, Mr. F. Holly; house and garage, of Victoria-park and Edgehill-roads, Mr. A. J. [illegible] house, Highfield-road, Mr. Hawkins; house, Edward-avenue, Mr. F. Drake; house, corner Bu[illegible] and Watcombe-roads, Mr. A. Williams; two h[illegible] Gervis-road East, Mrs. Rosenberg.

BOWLAND.—Improvement of the highway [illegible] foot of Sawley Brow is being considered by the [illegible]

BRADFORD.—The tramway track in Otley-r[illegible] to be reconstructed.

BRIDLINGTON.—Plans passed by T.C.: M[illegible] Whitaker, house, Bempton-lane, for Mr. F. Hurls[illegible] Mr. C. L. Waite, two houses, Priory Estate, fo[illegible] C. R. Leach; Mr. F. Lawrence, house, St. Ja[illegible] road, for Mr. J. W. Davis; Mr. J. R. Earn[illegible] two houses, St. James's-road, for Mr. F. Spink [illegible] C. L. Waite, house, Priory Estate, for Mr. J. T. K[illegible] Mr. C. L. Waite, two houses, Priory Estate, for Mr. [illegible] Shaw.

BRIGHOUSE.—The T.C. have received sanctio[illegible] borrow £900 for the purpose of constructing a de[illegible] chamber at the Cooper Bridge sewage works.

BRIGHTON.—The T.C. proposes the reconstru[illegible] of a slum area, comprising 67 dwellings in Lave[illegible] street, Upper Bedford-street, and Essex-street. [illegible] cost is estimated at £48,623.——It is securing [illegible] for electricity sub-station at the Rookery, Pr[illegible] Park; and at the old waterworks, Lewes-road.

BURNLEY.—The M.T. have sanctioned grant[illegible] £3,500 and £1,936 in respect of schemes for the wide[illegible] of Church-street, near the Cannons, and Todmor[illegible] road, at Copy Clough, respectively. The Corpora[illegible] have recommended to utilise for playing fields the l[illegible] recently acquired on the Palace House site from [illegible] Housing and Town Planning Committee. The [illegible] mated cost of the scheme is £250.

BURTON-ON-TRENT.—The T.C. has decided to [illegible] 45 houses in Derby-road and Eton-road, and [illegible] houses in Wellington-road. Twelve houses are [illegible] erected by Mr. J. Lomas, of Home Farm, at the [illegible] of Woods-lane. The Ashby-road sewer is to [illegible] extended at a cost of £300. A loan of £28,7[illegible] been sanctioned for the widening of Burton Bridg[illegible]

BUXTON.—Plans passed by T.C.:—Mr. J. W. S[illegible] conversion of "Waterdell House," Burlington-[illegible] into three flats; Mr. R. M. Lorimer, house, Green-[illegible] Mr. J. Boon, 10 houses in Dale-road field; Mrs. [illegible] alterations to shop, Scarsdale-place.

CARLTON.—It was reported that the L.M. & [illegible] Co. had agreed to pay £500 towards the cost of "[illegible] versions" for their property. The Surveyor [illegible] directed to submit a report as to the estimated c[illegible] sewering the properties in Hill View-road.—[illegible] approved: House in Emmanuel-avenue, for Mr. [illegible] James; house in Marshall-Hill-drive, for Mr. [illegible] band; house in Sandford-road, for Mr. E. J. Wal[illegible] two houses in Kent-road, for Mr. Eley; bungalo[illegible] Simkin-avenue, for Mrs. Osbourne; bungalo[illegible] Northcliffe-avenue, for Mr. R. Walker; sewers o[illegible] Carlton Vale Estate, for that Estate Committee.

CHELMSFORD.—Plans passed by T.C.: House, Bi[illegible] field-road, for Dr. Martin Henry; pair of ho[illegible] St. Fabian's-drive, for Messrs. G. J. Hawkes & [illegible] bungalow, Galleywood-road, for Mr. G. W. Sr[illegible] three houses, Bouverie-road, for Mr. H. Love; [illegible] pairs of houses, new road (Tudor-avenue), off [illegible] lane, for Messrs. Davis & Gibbons; five pairs of h[illegible] new road (Tudor-avenue), off Coval-lane, for M[illegible] Davis & Gibbons; five pairs of house, new [illegible] (Tudor-avenue), off Coval-lane, for Messrs. Da[illegible] Gibbons; house, Galleywood-road, for Mr. H. W[illegible] pair of houses, Tower-avenue, for Mr. E. R. Ru[illegible] twelve shops and dwellings, Broomfield-road, fo[illegible] F. J. French; offices, buildings, Waterloo-lan[illegible] Messrs. Luckin & Sheldrake; new road, off [illegible] lane (Tudor-avenue), for Messrs. Davis & Gibb[illegible]

CHELTENHAM.—Plans passed by T.C.: Mrs. [illegible] house, Whaddon-lane; A. Miles, two houses and [illegible] St. Anne's-road.

CHESTER.—The C.C propose reconstruction [illegible] Mollington Canal Bridge, which crosses the Ches[illegible] Parkside, West Kirby-road. It is proposed to [illegible] new farm buildings and main drainage at the [illegible] heath School of Agriculture, near Nantwich.

CLEVELEYS.—Funds are being raised by the [illegible] ioners of the Parish Church for the erection [illegible] posed War Memorial School, estimated to cost [illegible]

COLWYN BAY.—Application is being made [illegible] U.D.C. for sanction of the M.H. to borrow £4,[illegible] proposed works in connection with the water su[illegible] a new reservoir is intended.

CROMPTON.—The U.D.C. have instructed th[illegible] veyor to proceed with the completion of the [illegible] road widening scheme, and to construct a new d[illegible] Cowlishaw Farm.——A new central school is [illegible] erected by the Lancs C.C.

CUNDY CROSS.—The Barnsley Main Collier[illegible] Ltd., has prepared a lay-out scheme for 100 [illegible] at Cundy Cross for submission to the M.H.

* See also our List of Contracts, Competitions, etc.

DARTFORD.—The U.D.C. has decided to erect more houses in Mead-crescent. Plans passed: tached villa, Wayville-road, for Mr. W. McConnachie; ee pairs of houses, Havelock-road, for Mr. F. P. eeseman; pump and well house, Temple Hill, for ssrs. Burroughs, Wellcome & Co.; house, Wayville-d, for Mr. G. W. Vale.—The Kent C.C. is to carry a surface water drainage scheme in Dartford, at ost of £10,000.

DIDSBURY.—In connection with the developments he Shirley Institute, plans have been passed for the ction of a humidification plant in a special house, that the effect of humidification in cotton mills can investigated. The architects are Messrs. Dixon, l & Co.—A new synagogue is proposed to be erected a site in Lansdowne-road, West Didsbury, esti-ted to cost £12,000.

DONCASTER.—The Estates Surveyor has been in-ucted to prepare an amended plan for the proposed atory accommodation near the Markets.——The wn Clerk has been instructed to approach the & N.E.R Co., regarding the excessive amount of ffic passing over the Nine Arch Bridge, and to ask railway company to consider the necessity of lening and improving the bridge.——Plans have been sed for the erection of thirty-one houses in various rts of Doncaster.

DORCHESTER.—The Buildings Committee recom-nds the passing of the following plans: Semi-ached houses, Victoria-park, for Mr. H. Turner.—— e T.C. has invited tenders for the erection of 24 uses on the Victoria Park site.

DUBLIN.—Plans passed by T.C.: Offices, 69, North-ll, the Lep Transport and Depositing Co., Ltd.; uilding, "Marine House," Malahide-road, Mrs. guire; bungalow, Castle-avenue, Mr. P. Brophy; use and garage, Iona-crescent, Mr. T. J. Boyd; ortuary, St. Peter's Church, Phibsborough; Re-ilding, 34, Thomas-street, Messrs. Frawley & Co.; nagogue, Donore-avenue, South Circular-road.

DURHAM.—Plans approved by the City Council: use in The Avenue, for Mr. A. Hickley; house in llgarth-street, for Mrs. J. A. Smith; house at law-gardens, for Mr. L. Ferguson; war memorial apel at Observatory Fields, for Dean and Chapter; -out of streets at Pelaw-gardens, for Mrs. Kipling. The City Council reportedthat the architect had sub-tted a new lay-out for a portion of the land at llgarth-street, end of the Whinney Hill site. This -out is to be forwarded to the M.H. for approval. —Plans have been submitted to the B.E. the conversion of hospital buildings at Elisabethville school purposes, at an estimated cost of £1,078.—— e C.C. recommends the erection, at a cost of £2,500, Messrs. T. Hilton & Sons, Bishop Auckland, of a use for the medical superintendent, at Holywood all, Walsingham.——It is proposed to purchase the cken Hall Estate and adapt the existing buildings an institution for mentally defectives.——Applica-n is being made to the M.H. for sanction to a loan £90,000 for bridge reconstruction.

EMLEY.—The U.D.C. propose to erect eight houses Emley. Mr. H. S. Wilkinson, of Middlestown, is the chitect instructed to prepare plans.

ETON.—Plans passed by R.D.C.: Denham, bunga-w, for Adams (Denham), Ltd.; Gerrards Cross, use, Packhorse-road, for Mrs. V. Arden; Farnham yal, cottage, for Mr. C. M. Woodbridge; Wraysbury, ngalow, Sunnymeade Estate, for Mr. E. F. Illsley; ngley Marish, three houses, Bath-road, for Mr. W. H. Ayres; Horton, bungalow, for Mr. C. E. isters; Langley Marish, house, Middle Green-road, r Mr. F. J. Harvey; Wraysbury, house, Sunny-eade Estate, for Mr. A. A. Baines; Taplow, house, rney Reach Estate, for Mr. C. A. Notley; Stoke ges, house, Gray's Park Estate, for Mrs. M. A. rton; Wraysbury, bungalow, Coppice-road, for . C. O. Purnell; Taplow, bungalow, Marsh-lane, r Mr. A. Johns; Iver, bungalow, Bangors-road, for . A. J. Pearson; Denham, bungalow, Tilehouse-ne, for Major A. Stodart-Walker; Iver, bungalow, er-heath, for Mr. R. O. Wheeler; bungalow, Thorney-ne, for Miss E. Hobbs; Wraysbury, bungalow, ookside-avenue, for Mr. T. P. Pearse; Wraysbury, ngalow, Sunnymeade Estate, for Mr. J. V. Hibbert.

GAINSBOROUGH.—The M.H. has sanctioned the eme of the U.D.C. for another 50 houses.

GARTH.—The M.H. have approved the scheme of the w waterworks, estimated to cost £5,142.

GLAMORGAN.—The Gower R.D.C. has applied for ction to borrow £5,000 to carry out road improve-nts at Llanbleddian.——The Council also proposes to pend £1,100 on extensions at Penmaen Workhouse. —The Merthyr Tydvil T.C. is to negotiate for loan of 0,000 to be expended on the erection of twenty-ht houses at Aberfau and fifty houses at Ponts-llog.——The Penarth U.D.C. has received sanction proceed with Cogan Hill road improvement scheme, imated cost of £5,000.——The Council proposes to pend £520 in converting the Catherine Jenkins' me.——The fund for erecting students' union build-gs in connection with the Cardiff University College ar Memorial, now amounts to £4,500, and the com-ttee hopes soon to put the work in hand.

GLOSSOP.—The T.C. has decided to apply to the H. for sanction to borrow £4,370 for the completion l furnishing of the new municipal buildings.

HAMPSHIRE.—The E.C. has decided to erect a new ool at Drayton, at an estimated cost of £7,770, and rchase land at Fleet for a new secondary school.

HARTLEPOOL.—Plans of additional terraces which it proposed to erect around the bathing pool at Hartle-ol have been before the Hartlepool Port and Harbour mmissioners. The terraces, remarked the Engineer, re in the nature of a Roman amphitheatre. The mmissioners approved the erection of the terraces condition that their rights were not infringed.

HARWICH.—Loans are being negotiated as follows the T.C.: £1,160 for lining model yacht and padd-g ponds; £5,919 for new road; £1,000 for joining and new promenades and construction of bathing ol; and £2,000 for new groyne. Plans passed: use in Fronks-road, Dovercourt, for Mr. Cowdell. A scheme for bulk electricity has been approved, to cost £27,578, and tenders for the work have been invited.

HASLINGDEN.—The B.G. are proposing to build a Maternity Home at Moorlands.

HASTINGS.—Plans passed: Three pairs semi-detached houses, Berlin-road (D. B. Sceats, architect), for Maidwell & Ammerton; house, Fairlight-road (H. W. Coussens, architect), for G. P. Tyler.

HEYWOOD.—The Corporation are proposing to erect a covered market on a site in Hind Hill-street, estimated to cost £8,000.

HOLYWELL.—Application has been made by the D.C. to the M.H. for sanction to borrow £1,175, the estimated cost of a water scheme for the village of Nerquis, near Mold.

HORBURY.—Plans passed: Two houses, Wakefield-road, for Mr. T. W. Clarke; offices, &c., continuation of Charles-street, for Millfield Woollens, Ltd.; two houses, Windyridge-street, for Messrs. H. & E. Goldthorpe; bungalow, Regent-street, for Mr. Angus Woodcock.——The M.H. has sanctioned the borrowing of £4,000 for houses.

ILFORD.—Plans passed by U.D.C.: R. Stroud, 12 houses, 1–23, Beddington-road; Cottee & Parker, six houses, 54–64, Wards-road East; H. H. Poole, house and garage, 1, Granton-road; A. Smith, house, 26, Kilmartin-road; A. Smith, 10 houses, 37–39, Woodstock-gardens, and 161–175, Breamore-road; T. F. Ingram, club premises, Bennetts Castle-lane; E. Meredith, shop and house, Green-lane; D. T. Shepherd & Co., two houses, 30–32, Bute-road; P. E. Brand, Ltd., two houses, 1–2, Kingsville-gardens, Eastern-avenue; F. J. Faunch, lock-up shop, 37, Goodmayes-road; H. H. Poole, Friends' Meeting Hall, Ashgrove-road; G. Reeves, eight houses, 54–68, Natal-road; W. H. Knox, three houses, 11–15, Parkway, and three houses, 7, 9, 10, Westrow-gardens; W .H. Knox, eight houses, 2–8 and 1–7, Levitt-gardens.

KEIGHLEY.—The T.C. has received the sanction of the M.H. to the borrowing of £16,315 and £1,000 for the erection of houses and construction of streets, in respect of 80 houses. The Housing Committee recommend the Council (subject to the approval of the M.H.), to proceed with the erection of an additional 50 houses on the Broomhill Estate. An early start is to be made with the reconstruction of the roadways along the old tramway route.

KING'S LYNN.—At a cost of £27,000 a new bridge is to be thrown over the River Ouse at King's Lynn to replace the present dilapidated Free Bridge.

KIRKBY-IN-ASHFIELD.—Plans were passed by the U.D.C. for the erection by the Butterley Company of 100 workmen's houses.

KIRKBURTON.—Plans passed by U.D.C.: House, Cinder Hill, for Mr. F. Lee.

KNEBWORTH.—It is proposed by the Hertfordshire C.C. to enlarge the London-road C.C. School by the addition of four class-rooms, and to provide a system of central heating at an estimated cost of £4,820.

KNOTTINGLEY.—Plans passed: House at Womersley-road, for Mr. J. Hargrave; and conversion of house into shop, at Weeland-road, for Mr. F. C. Metcalfe.

LAMPETER.—The T.C. has passed plans for a cottage for Mr. D. W. James, 4, Greenfield-terrace; and a house for Mr. J. Davies, New-street.

LANCASHIRE.—The C.C. report that the Central Committee of the Miners' Welfare Fund has allocated a sum of £4,000 towards the cost of extensions to the Leigh Technical School for the provision of a laboratory for Mining Science and for additional equipment.

LETCHWORTH.—A large public abattoir is to be built in the vicinity of Green-lane.

LEYLAND.—The Grammar School is to be improved, at a cost of £615.

LITTLE HULTON.—A school is to be built.

LIVERPOOL.—The managers of the Lyric Theatre, Everton, have received permission for the reconstruction of their building as a cinema, and plans have been approved. The scheme is estimated to cost £15,000. The Mercantile Marine Service Association are formulating a scheme for further cottage homes to be erected in the grounds of the Homes for Aged Mariners at Egremont, whilst the old Manor House in the same grounds will shortly become available for conversion into hospital accommodation for the merchant seamen and widows of mariners.

LLANELLY.—The B.C. proposes to convert Felinfoel House into a Maternity Home at an estimated cost of £5,440.——Plans passed by T.C.:—Hon. Secretary, Y.M.C.A., shop, Stepney-street; Mr. J. H. Evans, two houses, New-road-avenue; Messrs. Benj. Howell & Son, five houses, Clifton-terrace; Mr. G. Rees and Mr. D. B. Thomas, two houses, New-road-avenue.

LONDON (HACKNEY).—Plans passed: W. H. T. Kelland & Sons, factory and office premises, Belfast-road; Bethell & Swanell, storage premises at Empire Past Co.'s premises, Rendlesham-road; A. E. Martin, workhop premises, Kingsland-road; J. C. Gray, storage premises, 4 and 6, Broad-way, London Fields.

LONDON (LEWISHAM).—Plans passed by B.C.: C. Cutler & Sons, two houses, Fairfield-road; R. J. Aitchison, five houses, Elsinore-road and two houses, Woolstone-road; A. Scales, ten houses, Coniston-road; Middleton (Builders), Ltd., nine houses, Ravensbourne Park-crescent, Casslee-road; E. Douglas Selway, 11 shops and flats, Randlesdown-road; H. R. Watt, drainage system of 16 houses, Bellingham; G. J. Harding, five houses, Hither Green-avenue; G. Potton & Sons, five houses, Perry-hill and Houston-road; Holland & Hannen & Cubitts, Ltd., 500 houses, Downham Estate; W. Martin, house, Northwood-road; W. F. Ball, eight houses, Manor Park.

LOW MOOR (BRADFORD).—Plans have been prepared and submitted to the E.C. for the proposed alterations to Old Hill Top Council school, estimated to cost about £2,500.

LYTHAM ST. ANNES.—The site in Lytham Hall Park, in exchange for the site off Clifton-drive North, has been decided upon by the Council for the first public cemetery. The estate is 34 acres in extent, and Messrs. Mawsons, the landscape architects of Lancaster, are submitting plans for the best method of laying out the lands, when sanction of the M.H. will be sought.

MANCHESTER.—Plans passed by T.C.: Additions to works, Chatham-street, Clayton; house, High Bank, Gorton; additions to works, Clayton-lane, Clayton; lodge to mill, Lower Vickers-street, Newton Heath; four houses, Crumpsall-lane and Rectory-road, Crumpsall; three houses, Gilmour-terrace and Milton-street, Blackley; shop and house, and seven houses, Alms Hill-road, Cheetham; shops and hall, Birch-Hall-road and Thoresway-road, Rusholme; conversion of house into shop and house, 70, Rumford-street, Chorlton-upon-Medlock; house, Clifton-street, Burnage; dairy, Carrill-grove East, Levenshulme; 37 houses, Veronica-road and Melrose-avenue, Didsbury; four houses, Kingsway-avenue, Rusholme; two houses, Parsonage-road and Alan-road, Withington; two houses, Macefin-avenue, West Didsbury; 22 houses, Manley-road, Abbotsford-road, and Egerton-road, Chorlton-cum-Hardy; four houses, Ellesmere-road South, Chorlton-cum-Hardy; two houses, Wilbraham-road, Chorlton-cum-Hardy; four houses, Cromwell-avenue, Whalley Range; two houses, Westfield-road, Chorlton-cum-Hardy; conversion of house into shop and house, 78, Vine-street, Openshaw; house, Park-road, Crumpsall; intermediate dye shed for T.C. plant to works, Waterloo-street, Crumpsall; house, Victoria-avenue, Blackley; recreation hall, Hardicker-street, Stockport-road, Levenshulme; store and showrooms, Hesketh-avenue, Didsbury; house, Pine-road, Didsbury; house, Woodlands-road, Wilbraham-road, Withington; six houses, Macefin-avenue and Broxton-road, West Didsbury; two houses, Rye Bank-road, Chorlton-cum-Hardy; two houses, Brantingham-road and Withington-road, Withington.

MANSFIELD.—Plans passed by T.C.: H. Baggaley, two houses, Bottle-lane; J. H. Wightman, two houses, Cavendish-street and Laurel-avenue; J. W. Ward, bungalow, Clifton-grove; The Miners' Welfare Committee, dressing-room to Convalescent Home, Berry Hill; George Meads, conversion of two houses into house and shop, Newgate-lane; Mansfield & Sutton, Co-operative Society, Store-place, Littleworth; C. H. Cooke, house, Newark Old-road; H. James, two houses, Sandhurst-avenue; W. Heathcote, house, Sutton-road; Croft Mill Twist Co., two houses, Sandhurst-avenue; H. Baggaley, four houses, Bottle-lane; Mansfield Brewery Co., rebuilding of Eight Bells Inn, Church-street; J. Johnson, house, Southwell-road, Rainworth.——The Miners' Welfare Fund has allocated £9,700 for the erection and equipment of a mining centre.

MANSFIELD WOODHOUSE.—Managers of Church school have prepared a comprehensive scheme of improvements to cost about £1,000. The scheme has been approved by the B.E.

MARKET HARBOROUGH.—The U.D.C. has passed plans: Groom's quarters, Nether Green, for Lord Stalbridge; house, Burnmill-road, for Mr. J. Hufford; house, Clarke-street, for Mr. T. E. Starmore; house, Granville-street, for Mr. H. Reedman; house, Lubenham Hill, for Mr. S. A. Lee. The Surveyor is to prepare the plans and estimates in connection with the proposed extension of the sewage disposal works, by means of which an additional 24 acres of grass land on the Council's sewage farm will become available for filtration purposes.

MERTHYR TYDVIL.—Application is sought for a loan of £11,000 for the construction of Pontyclun ferro-concrete bridge.

MIDDLETON.—Plans have been approved for the erection of a new recreation hall for the 3rd Middleton Boy Scouts Troop at Middleton Junction. It is proposed to purchase a site by the parishioners of the Parish Church for the erection of a parochial hall.

MONMOUTHSHIRE.—The County E.C. has received intimation from the Abertillery U.D.C. that it proposes to erect a new elementary school at Crumlin.

NARBERTH.—The R.D.C. proposes to build a bridge across the river at Felinfach, Bletherston.

NEWPORT (MON).—The Electricity Committee recommends the T.C. to make plant and building extensions at the electricity works, involving an expenditure of £32,633. The T.C. Improvements Committee recommends the widening of Station Approach. The T.C. has approved plans for the erection of a new gospel hall in Rockfield-street, for the Free Gospel Mission.—The E.C. is to provide a handicraft and domestic centre at Durham-road school at a cost of £3,200, and a similar centre at Spring Gardens school at a cost of £3,000.—Conversion at St. Woolo's School for domestic centre, £400; conversion of hut into temporary school, at Somerton Park, £645.

NORTHAMPTON.—Plans passed by T.C.: House Christchurch-road, for Mr. H. J. Peach; four houses' Alton-street, for Messrs. J. G. Pullen & Sons; house, Wycliffe-road, for Mr. W. H. Loveday; two houses, Pleydell-road, Delapre-crescent Estate, for Messrs. Sale & Co.; house, Queen's Park-parade, for Mr. F. A. Facer; house, Woodland-avenue, for Mr. P. Dewis; house, Birchfield-road East, for Mr. Billingham; house, Christchurch-road, for Mr. A. J. Bennett; house, Garrick-road, for Mr. A. Elson; house, King Edward-road, for Mr. W. C. Throssell; six houses, Bective-road, for Messrs. A. L. & H. W. Chown; house, Cedar-road, for Messrs. Sale & Co.; two houses, Birchfield-road East, for Mr. C. H. Rainbow.——The T.C. have decided to apply for a faculty for acquiring parts of All Saints' Churchyard in the centre of the town, for the purpose of effecting street improvements. The cost is estimated at £9,900. It is proposed to remodel the thoroughfares around the church and widen the "bottle neck" of Mercer's-row.

OLDHAM.—A public convenience at the Mortar-street Market is to be demolished, as the site is required for a public wash-house.——In connection with the new school at Heron-street, the E.C. has authorised the use of Huncoat plastic bricks for the outer walls.——Plans for a new generating station has been prepared by Mr. Robert Blackmore, for the E.C., estimated to cost £566,475. Before deciding upon the scheme an alternative site is to be considered by

the T.C. The full scheme is estimated to cost anything up to £1,500,000.

OSSETT.—The T.C. propose the purchase of Croft House Estate for educational and child welfare purposes.

PAIGNTON.—Negotiations are in progress for a site for the erection of a new and larger church in the St. Michael's district.

PEMBROKESHIRE.—Plans passed by the Milford U.D.C. are as follows (in each case the building proposed is a house): For Mr. Mayler, Mr. Hawkins, Mrs. Monsell, Mr. Payne, all of Shakespeare-avenue; and for Mr. J. Wilson, Mr. Walters, Mr. Gibbs, Mr. W. H. Lewis, all of Pill-lane; and for Mr. C. Williams, North Cottage, Fisguard. The Council has applied to borrow £10,000 for housing purposes.—The Tenby T.C. has been notified by Mr. W. H. Phillips that he intends to build houses at St. John's Croft.

PENMAENMAWR.—The Joint Committee representing Penmaenmawr and Llanfairfechan have approved the scheme for a new road round the Penmaenmawr headland at Penyclip.

PLYMOUTH.—Plans passed by T.C.: A. Beer, lock-up shop, Furneaux-road, Swilly; Trustees of Mutley Wesleyan Methodist Church, additions, Mutley Wesleyan Methodist Church; W. Dummett, four lock-up garages, Hampton-street; J. Mumford, four houses, Connaught-avenue; W. A. Heath, four houses, West Down-road, Swilly; A. N. Coles & Son, Ltd., new streets and 38 houses.—The provision is contemplated by the Corporation of a hospital. Estimated expenditure being between £30,000 and £50,000.

PONTEFRACT.—Plans passed by T.C.: Two bungalows in Halfpenny-lane, for Mr. T. Hopkinson; new liquorice factory at Monkhill, for Messrs. W. R. Wilkinson & Co; bungalow, in Colonel's Walk, for Mrs. King; and house in Halfpenny-lane, for Mr. S. Slater.

PORTSMOUTH.—The T.C. has asked the Markets Committee to consider the provision of a public abattoir. The Southern Railway is being asked to remove the goods department from Town Station and Fratton Station, to improve Town Station and provide a new station at Copnor. A storm water drainage scheme for Southsea has been prepared, to cost £35,000.—Plans passed: Five houses, Kembolton-road, for Messrs. Coffin & Mouncher; five houses, Hartley-road, for Messrs. E. C. & G. Dye; six houses, Kembolton-road, for Messrs. Coffin & Mouncher; house, Knowlesley-road, for Mr. B. Rea; house, Hewitt-road, for Mr. J. A. Matthews; five houses, Haslemere-road, for Mr. N. E. Pitt; two houses, Hewitt-road, for Mr. C. M. Searley; house, Hartley-road, for Mr. W. Thorpe; two houses, Knowsley-road, for Mr. W. J. Carter; new streets, East Court Estate, for Mr. D. Gammons; house, Kerby-road, for Mr. C. W. Dye; bungalow, St. Matthews-road, for Mr. H. W. Hunt; warehouse, London-road, for Messrs. Cross & Cross. The Borough Surveyor has prepared a design for a pavilion on the miniature golf course, and tenders are to be invited for erection. A scheme has been prepared for the lay-out of Southsea Common, at a cost of £20,477.

PRESTON.—Funds are being raised by Gutteridge Memorial United Methodist Church, Deepdale-road, towards the erection of a proposed new church.

PWLLHELI.—Plans passed by T.C.: Plan of a new chapel by Board of Guardians; bungalow, for Mr. J. Roberts, at Caeau Gwynion Isaf; new schoolroom, for the Tarsis Chapel.

RADCLIFFE.—The E.C. are to revive proposals for the erection of new council schools, and provision for advanced elementary day school scholars.

RAMSBOTTOM.—The Bury and District Joint Hospital Board propose to effect certain structural alterations at the Aitken Sanatorium, Holcombe, Ramsbottom.

ROCHDALE.—The Parks Committee of the T.C. are proposing the erection of a tennis pavilion on the Springfield Estate. Sanction of the M.H. is being sought for a loan of £20,000 for sanitary conversions.

ROYTON.—The Committee of the Mutual Technical School are proposing to erect new premises at a cost of £1,000. The M.H. have sanctioned the application of the Royton Co-operative Society for a site on the housing estate, where they propose to erect a store.

ST. AUSTELL.—The M.T. has consented to provide a grant of 50 per cent. on the total cost of re-making and re-surfacing Moorland-road, Par, which is estimated to involve an expenditure of £6,170.

ST. DOGMELLS.—The R.D.C. proposes the erection of bridges at Portsaithgarreg, Meline and Felinissaf.

SALFORD.—The Committee of the Greengate Dispensary are proposing extensions and repairs to their building, estimated to cost £3,000.

SEACOMBE.—The Wallasey Corporation are proposing the clearance of the Mersey-street area, demolishing the houses, and the erection of sanitary dwellings.

SHIREBROOK.—Messrs. Tennants Bros. have had a licence granted for the erection of a new hotel. The estimated cost is £8,000.

SOUTH CROSSLAND.—The U.D.C. has passed plans for a house in Church-lane, for Mr. C. Hickson.

SOUTHPORT.—The Health Committee of the T.C. have decided to proceed at once with the erection of an isolation hospital at Scarisbrook, estimated to cost £75,000.——The T.C. has decided to paint the marine bridge and foreshore structures, at an estimated cost of £535.

STOCKTON.—Plans passed by the T.C.: Bungalow, in Barnard-avenue, Oxbridge, for Mr. H. Page; pair of semi-detached bungalows, in Bishopton-road, for Mr. T. Wintersgill.

STRETFORD.—The scheme for a new road into Trafford Park, with a bridge over the Bridgewater Canal, has been approved. Application is to be made by the D.C. to the M.H. for sanction to borrow £10,700 for repaving the carriageway of Stretford-road on a concrete foundation to plans prepared by the District Surveyor.

SUTTON COLDFIELD.—Plans passed by T.C.: Bungalow, Beech Hill-road, for Mrs. Price; house, Beech Hill-road, for Mrs. Hawker; house, Belwell-lane, for Mr. W. Harrison; house, College-road, Maney, for Mr. V. D. Marsh; house, Clarence-road, for Mr. E. Taylor; cow houses, "Falcon Lodge," for Warwickshire County Council; bungalow, Gate-lane, for Mr. Twigg; bungalow, Gate-lane, for Mr. Millward; conversion of mineral waterworks, Holland-road, for Mr. O. D. Murphy; house, Hollyfield-road, for Mr. A. J. Orchiston; house, Jockey-road, for Mr. G. R. C. Middleson; bungalow, Jockey-road, for Mr. A. D. Gurthie; house, Mulroy-road, for Mr. C. Keeling; house, Maney Hill-road, for Mr. J. H. Powell; bungalow, Penns-lane, for Mr. S. A. Stewart; house, Penns-lane, for Mr. A. Baldock; shops and flats, Parade, for the Hill Hook Estate Co.; pair of houses, Station-road, for Mr. A. P. Johnson; bungaolw, Stonehouse-road, for Mr. P. Hodgkinson; house, Stonehouse-road, for Mr. S. Spollen; music studio, South Parade, for the Misses C. and A. Watson; house, Whitehouse Common-road, for Mr. R. B. Evans; house, Whitehouse Common-road, for Mr. W. C. Poole; house, Whitehouse Common-road, for Mr. Gurthie; house, Whitehouse Common-road, for Mr. G. S. Evans; house, Walmley-road, for Mr. W. P. Harris; house, Walmley-road, for Mr. R. Harris; bakehouse, Walsall-road, for Mr. H. Hartshorne: house, While-road, for Mr. E. G. Geffreys; house, While-road, for Mr. S. Rollason.

SWANSEA.—The Libraries Committee is considering the provision of branch libraries. The Borough Architect has prepared plans for enlarging and modernising Cwm Council School. The Housing Committee decided to proceed with the erection of 22 houses to complete the Llanerch scheme.

THETFORD.—The T.C. proposes to adopt a part of the Ancient House as a museum.

THIRSK.—The magistrates have approved plans submitted by Mr. E. V. B. Cooper, for the proposed new cinema to be erected at the junction of Thirsk Market-place and Castlegate.

TORQUAY.—It has been decided to build a parish hall at St. Marychurch. Plans have been prepared for a hall, which is estimated to cost about £4,000. The Corporation has sanctioned an expenditure of £1,000 upon the provision of a house for its resident engineer at the Newton Abbot electrical generating station. ——The T.C. has made a contract with Messrs. Hugh Mills & Son for the erection of an electricity sub-station at Kingskerswell. A concrete buttress for sea defence is to be constructed at a cost of £2,800. Part of the stream at Upton Valley is to be covered in at a cost of £643. A new school is proposed at West Hill. Mains are to be relaid at Newton Abbot, at a cost of £1,325. Plans are being prepared for cottages on the watershed for Waterworks employees. Plans passed: Lay-out plan, Castle-road, for Mrs. Green; four houses, Hartop-road, for Messrs. Ketch, Jeffery, Taylor & Anning; house, Mallock-road, for Mr. Bassett; house, Mallock-road, for Mr. J. Wilson; two houses, Hartop-road, for Messrs. Slade & Williams; nurses' quarters, at Whitecliff Hospital, for the Devon C.C.; six houses, Beddenhill-road, for Mr. Wiltshire; two houses, Hampton Estate, for Messrs. A. Harris & Son; six houses in Daison-crescent, for Messrs. Crane, Pope, Coupe, Cumming, Hannaford and Wright; house, Barton, for Dr. H. T. Doble; house, Oxlea-road, for Mrs. Dauberry; house, St. George's-road, for Mr. R. Bickford; provisional lay-out of estate, Ellacombe, for the Ellacombe Building Co.; sewer extension, for the Cockington Manor Estate. Subsidy certificates have been granted to the following: Mr. D. Masters, house, in Westhill-avenue; Mr. J. Slade, house, in Hartop-road; Mrs. M. Williams, house, in Hartop-road; Miss R. J. Bassett, house, in new road off Mallock-road, Chelston; Miss A. R. Jarlson, house, in new road off Mallock-road, Chelston; Mr. J. H. Oram, two houses, fronting Newton-road; Mrs. W. J. Lawrence, bungalow, Starpitten-lane. In connection with the Island site, the Town-Planning Committee has passed the following plans: Mr. W. Hole, house, adjoining Jack's-lane, Barton; Mr. E. Hawkins, house, adjoining Coombe-lane, Barton.

TYNEMOUTH.—The Health Committee has decided to proceed with an instalment of a scheme, at a cost of £30,000, of a more comprehensive one to cost £50,000, to provide infectious hospital accommodation at Moor Park.——The M.H. has sanctioned the erection of 55 houses at Balkwell.

WAKEFIELD.—Plans passed by C.C.: House, Horbury-road, for Miss E. Copley; house, Horbury-road, for Mr. C. H. Papworth; house, Horbury-road, for Mr. W. Fletcher; bungalow, Carr-lane, for Mr. W. R. Mallowes; two houses, Bromley-mount, for Mr. H. Rogers; house, Horbury-road, for Mr. E. Moncaster; two houses, Thorne's-road, for Mr. C. G. Grace; two houses and shop, Agbrigg-road, for Mr. P. Crawford; two houses, Belgrave-mount, for Mr. R. Wilby.——Plans passed by R.D.C.: Bungalow, Sandy-lane, Middlestown, for Mr. G. Littlewood; four houses, Blacker-lane, Shitlington, for the Stockton Coal Co., Ltd.; shop and stores, Flockton-road, Overton, for the Middlestown Co-operative Society, Ltd.; bungalow, Sandy-lane, Shitlington, for Mr. G. Littlewood.——The R.D.C. have been notified by the M.H., granting sanction for the erection of 26 houses at Walton by the New Sharlston Collieries, Ltd.; amended plans were requested by the Ministry in respect of an additional 24 houses. Highway developments are to be carried out at Sharlston, subject to W.R.C.C. making a grant towards the cost.

WALTHAMSTOW.—Plans passed by U.D.C.: House, Worcester-road, J. Bowden; two houses, Gordon-avenue, H. H. Iles.

WANDSWORTH.—The Council has consented to the erection of buildings upon a site at the junction of Mitcham-lane and Babingdon-road, Streatham, submitted with the application of Messrs. Redfern & Seddon, on behalf of Whitbread & Co., Ltd.——Plans have been submitted to the L.C.C. for seven houses in King's-avenue, Clapham.

WARDLE.—Plans passed for the erection of two houses in Wardle-road, for B. F. Evans, and house at Wuerdle, for C. Rhodes.

WEYMOUTH.—Plans approved: Villa, Cranford avenue, S. A. Jackson, for Greenaway; villa, Prestroad, Crickmay & Sons, for A. Roberts; two houses Wyke-road, S. Jackson & Sons, for S. H. Jackson.

WHITEFIELD.—Sanction has been received for t borrowing by the Council of £1,112 for alterations the offices.

WIGAN.—Funds are being raised by St. Luke Orrell, for the building of a new church, estimated cost £6,000. A resolution approving the laying of 10 in. gas main from Darlington-street to Belle Gree lane, at a cost of £1,200, has been passed by the T.C.

WIGTON.—The U.D.C. has received sanction from t M.H. to borrow a further £5,000 for its sewage schen

WILLESDEN.—The Health Committee recommen that accommodation should be provided for 32 be at Kingsbury, and that the existing nursing acco modation at the Municipal Hospital should be increas concurrently with any such extensions.

WOLVERHAMPTON.—Plans passed by T.C.: Bough, house, Jeffcock-road; J. H. Evans, hous Richmond-road; J. Patten, two houses, Richmon road; H. Powis, bungalow, Upper Villiers-street; R. Sambrooke Carver, house, Claremont-road; Wolve hampton Wanderers Football Club, Ltd., Grandstan &c., Molineux Grounds; H. E. Sproson, verand Owen-road; The Midland Metal Spinning Co., packin and despatch room, St. Mark-street; J. Cross & Son office, Willenhall-road; H. Hore, office and store roo Hordern-road; A. Cooksley, bungalow, Claremont road; Shell-Mex, Ltd., stores, Horseley Fields.

WOODPLUMPTON.—The Committee of the Bowlin Club are proposing extensions to the club premises.

WORTHING.—Plans passed by T.C.: Conversion o 9, Montague-place into shop and three flats, J. B Allchorn, for G. Boys; house, St. Thomas'-road, fo A. J. Fryer; house, Athelstan-road, for F. R. Sandell house, Homefield-road, J. E. Lund, for W. F. Hannay house near Lincet-Barn, J. E. Lund, for G. S. Gilbert house, Broadwater-road, Smith, Bartlett & Co., for T Dickenson; offices, Broadwater-street, W. T. R. Hyde for Paine, Manwaring & Lephard, Ltd.; two flats South-street, F. C. Benz, for Mrs. Hookey; house Grove-road, Bostel Bros., for J. F. Brunton; house Boundary-road, A. M. Butler, for H. P. Trounce house, S. Hyde & Son, for J. R. Bentley; house, Chaucer-road, for F. Harrild; four shops and six flats, G. H. Treacher, for M. S. Crane; house, J. E. Lund, for F. H. Butler; house, H. Osborne, for F. Stevens.

WREXHAM.—As a war memorial, a number of houses are to be erected for the Royal Welsh Fusiliers pensioners. The proprietors of the Gresford Colliery propose the erection of 100 houses in the vicinity of the colliery for the accommodation of a portion of their employees. The D.C. are building houses at Stansty, Coedpoeth, and Penycae, and the T.C. are building 56 more houses on their site at Acton Park.——Plans passed by T.C.:—Pritchard & Williams, two houses, Acton-road; Walter Roberts, two bungalows, Norman-road.

FIRES.

AGBRIGG.—Damage estimated at over £40,000 was caused by a fire recently at the malt kilns of Edward Sutcliffe, at Agbrigg, Wakefield.

CARDIFF.—A fire occurred at Cardiff recently at the Cambrian Printing Works of Messrs. William Lewis & Co. and the warehouses of a flour company. The combined damage is estimated at £150,000.

ELLAND.—Damage estimated at £15,000 has been caused by fire at Long Lea Mills, owned by Messrs. J. B. Battye & Co., Ltd.

The Use of Professional Affixes.

In the Chancery Division recently the Institution of Civil Engineers brought a motion against two defendants for an injunction restraining them and each of them from using, or allowing to be used, after or in connection with their name, or in connection with any profession or business carried on by them, and from printing or writing on any document issued and published by them or either of them the words "Associate Member of the Institution of Civil Engineers" or any letters or words or designation to the same effect.

Mr. Rolt, K.C., and Sir Hugh Fraser appeared for the plaintiffs; and Mr. E. C. Morey for the defendants.

Mr. Rolt said the subject of the plaintiffs' complaint was that the defendants had employed after the name of one of them the description "A.M.Inst.C.E." in the printed headings of letter paper. That was not justified, and he understood that the defendants were willing to treat the hearing of the mot on as the trial of the action, and to submit to a perpetual injunction in terms of the notice of motion and pay the costs.—Mr. Morey said that that was so.

Mr. Justice Tomlin said there would be an order accordingly.

Mr. Morey said that he was instructed to say that the description had been inserted in the headings of a few letters by inadvertence.

Obituary.

The death took place recently of Mr. W. Not of Albrighton, near Wolverhampton, at the age of sixty-nine. For many years he carried on business as a builder and contractor.

PRICES CURRENT OF MATERIALS *

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.
Kettons, at King's Cross	2 13 3
Do. grooved for plaster	2 15 3
Do. Bullnose	3 8 3
Best Stourbridge Fire brick:—	
2½ in.	8 11 0
GLAZED BRICKS—	
Best White Ivory, and Salt Glazed Stretchers	22 0 0
Headers	21 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0
Best Str'tch'rs	30 10 0
D'ble Headers	27 10 0
One Side and two Ends	31 10 0
Two Sides and one End	32 10 0
Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.
3 in. per yd. super	2 1
4 in. "	2 6
	s. d.
Thames Ballast	10 6 per yard.
Pit Sand	14 9 " "
Thames Sand	15 6 " "
Best Washed Sand	15 6 " "
3 in. Shingle for Ferro-Concrete	14 0 " "
4 in. "	15 0 " "
3 in. Broken Brick	10 6 " "
Clean Breeze	7 6 " "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

	£ s. d.
Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6	
51/- alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above	0 10 0
Superior Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Firapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube — s. 2, d. 9½

Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube — 2, 11½

PORTLAND STONE—

Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube — 4, 4

Do. do. delivered on road wagons at above stations, per ft. cube — 4, 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

PORTON-WOOD STONE.

Delivered at any Goods Station, London.

	s. d.
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Own two sides "	27/-
Own three or four sides "	32/-

PURE STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
Rough sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
Rough rubbed two sides, ditto "	5 9
Rough sawn two sides slabs (random sizes) "	2 1½
Under 2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
Under 2 in. to 2 in. ditto, ditto "	1 3

PORTLAND YORK—

Delivered at any Goods Station London.

	s. d.
Supplied random blocks Per Ft. Cube	5 6
Rough sawn two sides landing to sizes (under 30 ft. super.) Per Ft. Super	5 4½
Rough rubbed two sides ditto "	6 0½
Rough sawn two sides slabs (random sizes) "	2 10
Do. ditto. ditto "	2 5
Rough self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded " "	7 9
Steps " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
11 × 11	£34 0	3 × 6	£24 10
9 × 9	32 0	3 × 11	30 0
8 × 8	26 0	2 × 11	30 0
7 × 7	26 0	3 × 9	26 0
8 × 8	25 10	2½ × 9	27 0
7 × 7	25 10	3 × 4½	25 0
7 × 7	24 0	3 × 4	24 10

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£37 10
1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
¾	24/-	1½	37/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/-

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	21/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

	s. d.
Per bundle	0 2 8

	£ s. d.
Dry Wainscot Oak, per ft. super, as inch	0 2 0 to 0 2 6
½ in. do.	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 14 0 to 0 16 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work "	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2⅞ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	"	15 10 0
Staffordshire "Marked Bars"	17 0 0	"	18 0 0
Mild Steel Bars	12 10 0	"	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	"	14 0 0
Hoop iron, basis price	16 10 0	"	17 10 0
" Galvanised	31 0 0	"	32 0 0
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 0 0	"	16 0 0
" " " 24 g.	16 0 0	"	17 0 0
" " " 26 g.	18 0 0	"	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	"	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	"	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	"	26 10 0
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	"	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	"	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	"	24 10 0
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	"	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	"	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	"	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	"	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	41 0 0
Pipe in coils	41 10 0
Soil Pipe	44 10 0
Compo pipe	47 10 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

	£ s. d.	
Old lead, ex London area, at Mills per ton	27 0 0	—
Do., ex country, carriage forward per ton	28 0 0	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per doz.
8 lbs. S. traps	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	—
Thin " "	0 2 4	—
Copper nails "	0 2 3	—
Copper wire "	0 2 4	—
TIN—English Ingots "	0 2 6	—
SOLDER—Plumbers' "	0 1 2	—
Tinmen's "	0 1 4	—
Blowpipe "	0 1 6	—

PAINTS, &c.

	£ s. d.
Raw Linseed Oil, in pipes per gallon	0 3 7
" " " in barrels "	0 3 9
" " " in drums "	0 4 0
Boiled " in barrels "	0 4 0
" " in drums "	0 4 3
Turpentine in barrels "	0 6 4
" in drums (10 gall.) "	0 6 7
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 0 0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots

	£ s. d.
per ton delivered	78 5 0
Red Lead, Dry (packages extra) per ton	52 0 0
Best Linseed Oil Putty per cwt.	0 16 0
Filocol per cwt.	0 15 6
Size, XD Quality fkn.	0 3 6

[Concluded on next page.]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths....	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds .....10½d.	
21 „ fourths ..	5½d.	Obscured Sheet. 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths ..	6d.	Fluted 15oz. 6½d., 21oz. 9½d.	
26 „ thirds	8d.	En'lled 15oz. 5½d., 21oz. 7½d.	

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 10 0
Best Black Japan		0 10 6
Oak and Mahogany Stain (water)		0 12 0
Brunswick Black		0 7 6
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine		0 9 0
Oxirass Black Enamel		0 7 0

HOUSING IN LONDON

THIS "Municipal Pamphlet"* falls into two sections. It deals with the inadequate standard of housing in the past, and with Labour's proposals to set housing on its feet in the future. With its aims and ideals generally we are in complete agreement; it is when we are told that house rents should be permanently subsidised by the taxpayer that we disagree. Mr. Morrison falls into error in company with Major Barnes in failing to realise that the duty of maintaining its employees in reasonable conditions of life is a burden that must ultimately be met by industry itself and by nobody else. We would like Mr. Morrison to prove the fairness or the desirability of calling upon the tax-payer to subsidise those industries that are parasitical to the extent of being unable to pay wages that can support their own people, and at the same time to tax the efficient industries (which can and do meet this first charge) in order to support the bad ones as well as themselves. Owing to abnormal conditions some form of temporary assistance is indispensable, but Labour will go seriously wrong if it confuses an unfortunate temporary necessity with a condition that could answer permanently. While private enterprise may have failed to provide adequate housing in the past, this is no sound argument for saying that it is incapable of ever doing so. May it not be that it was not properly directed owing to the absence of a public conscience? If this were so it may be better to aim at kindling the public conscience rather than to attempt to destroy private enterprise when we have only uncharted seas (evidently full of rocks) on which to embark as an alternative. It is hardly in dispute that no other agency can produce houses as cheaply as private enterprise, and this applies to houses of good standard as well as to poor houses. Labour cannot shut its eyes to this truth.

* "A Housing Policy for London." By Herbert Morrison, M.P., L.C.C. (The London Labour Party, 58, Theobald's-road, W.C.1.) Price 1d.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted.* † Denotes *provisionally accepted.*

‡ Denotes *recommended for acceptance.*

§ Denotes *accepted subject to modifications.*

ASHTON-UNDER-LYNE.—For sewering and part construction of Heys-road, Keal and Grafton-streets, and the Avenue, for the Corporation. Mr. J. Rowbottom, Borough Surveyor, Town Hall:—

*A. Hobson & Sons, Hurst.

AUDENSHAW.—For relaying Droylsden-road, for the U.D.C.:—

*W. H. Worthington, Ltd., Manchester ..... (about) £5,000

BIRKENHEAD.—For carrying out alterations and additions to 63, Hamilton-square, for the T.C.:—

*W. E. Hughes, Birkenhead £9,555

BIRKENHEAD.—For provision of paths, water supply, &c., for Lloyd-Corkhill Recreation Pavilion at Thingwall Sanatorium, for T.C.:—

*W. E. Hughes £159 10

BIRKENHEAD.—For additional storage accommodation at Thingwall Sanatorium, for T.C.:—

*W. E. Hughes £139 10

BOURNEMOUTH.—For construction of (*a*) footbridge at Boscombe Chine, and (*b*) footbridge at Alum Chine, for T.C.:—

*M. Loder ..... (*a*) £1,570 9 1
(*b*) 1,534 12 1

BRIDGEND.—For construction of road at Llangynwyd, in connection with the housing scheme of the D.C.:—

*John Thomas, Cwmfelin..... £253 7

BRIDGWATER.—For erection of a foreman's house. Mr. A. King, Town Clerk:—

C. Bryer, Jun., Friarn-street..... £839 0
A. Geen & Son, Cranleigh-gardens.. 892 0
S. Palmer, Northgate 897 7
T. Stockham & Son, Washington-gardens 978 0

BRIDLINGTON.—For asphalter's work in connection with the erection of the new Westminster Bank:—

*Tunstall's Rock Asphalte Co., Ltd., Leeds.
Main Contractor—
J. T. Wright & Sons, Leeds.

BRIDLINGTON.—For construction of south side sea wall and promenade, for T.C.:—

*J. W. Sawdon £50,300

BROMSGROVE.—For the rebuilding of bridge at Shaw-lane, Stoke Works, for the R.D.C.:—

*Boulton & Davis, Belbroughton £240 18

CAMBRIDGE.—For alterations and additions to provide new laundry and kitchen at the Institution, 81A, Mill-road. Quantities by Mr. Sidney French, architect, Llandaff Chambers, Cambridge:—

Crown & Cox £6,393
Arthur Negus & Sons 6,365
John Brignell 5,760
*Kidman & Sons 5,734
(All of Cambridge.)

CARLISLE.—For the erection of a footbridge over the River Caldew at Denton Holme:—

*Pratchitt Bros.

CARLISLE.—For the construction of concrete piers and abutments for the footbridge over the River Caldew, at Denton Holme:—

*J. & R. Bell.

CHELMSFORD.—For supply of steel pipes for sewer along river, for T.C.:—

*T. W. Ward, Ltd. £202 13 4

CONISBOROUGH.—For erection of 400 houses for the Denaby & Cadeby Collieries, Ltd., and the Conisborough Housing Association. Mr. H. Thirlwall, architect, Surveyor to the U.D.C.:—

*A. Bull & Co., Doncaster.

CRAWCROOK.—For erection of 955 yards of fencing on main road, for Durham C.C.:—

*Armstrong Addison & Co., Sunderland £346 5 9

CROXLEY GREEN.—For rebuilding the northern part wall of Loudwater Bridge, for the Hertfordshire C.C.:—

Worley, Son & Lindsay £1,712 0 0
Payne Bros 673 17 0
Clifford & Gough 650 0 0
*A. E. Farr 454 8 10

CROYDON.—For the erection of steel chimney at electricity works, for the T.C.:—

Clayton & Shuttleworth £561

CROYDON.—For trench for circulating water piping, for the T.C.:—

D. Waller £1,090

CROYDON.—For substation building at Wickham-road, for the T.C.:—

G. Waller £187

DONCASTER.—For erection of shelter and conveniences in Waterdale, for the Corporation:—

*Thomson & Dixon, Doncaster..... £1,479

DURHAM.—The County Engineer submits the following revised and correct tenders accepted under the County Bridges Reconstruction Scheme by C.C.:—

Axwell Park—John Lant, Newcastle-on-Tyne £51,425 8
Lambton—Sir Robt. McAlpine & Sons, Newcastle-on-Tyne 43,836 14
Croxdale and Browney—Sir Robt. McAlpine & Sons, Newcastle-on-Tyne 60,849 4
Haughton-le-Skerne—G. Doughill & Sons, Darlington 17,879 14
Gaunless—Dixon & Metcalfe, Shildon.. 24,699 11
St. Helen's, Auckland—T. Hilton & Sons, Bishop Auckland 3,433 12
Whitton—G. Dougill & Sons, Darlington 5,307 16
Langley—Sir Robt. McAlpine & Sons, Newcastle-on-Tyne 7,387 12
Whitehill Gate—H. T. Newbiggin, Ltd., Newcastle-on-Tyne 5,112 8
Ryhope Dene—Sir Robt. McAlpine & Sons, Newcastle-on-Tyne..... 4,098 10

DURHAM.—For internal painting, &c., at 43, Elvet, for Durham C.C.:—

M. Adamson £262 5 0
E. Hodgson & Co. 206 10 0
E. E. Hinchley & Son 191 12 6
*P. L. Smith, Durham 179 18 6

EASTBOURNE.—For 2 in. of bituminous carpet Opperton-road, Willingdon-road and High-street, for the T.C.:—

*Constable, Hart & Co., at 10s. per yard super.

EMMAVILLE.—For pulling down house, erecting new gable, wall, &c., for Durham C.C.:—

*Laidler Sisterson £320 10

EVENWOOD.—For alterations and repairs to building on Kay's Hall Farm, for Durham C.C.:—

*J. W. Atkinson..... £485

GLOSSOP.—For decorating the Whitfield branch library:—

*J. Dearnaley.

GODSTONE.—For the erection of 16 houses at Lingfield, 12 at Limpsfield, and six at Dormansland, for the R.D.C.:—

*James Bodle—Lingfield houses £8,190
*Williams & Cornwall—Limpsfield .. 5,720
*Williams & Cornwall—Dormansland 2,850

HAYWARDS HEATH.—For erection of 46 houses at New England-road, and also for the preliminary construction of two roads and the laying of surface water sewers, for the U.D.C. Mr. G. Plummer, surveyor, South-road, Haywards Heath:—

The Ringmer Building Works, The Broyle, Ringmer, Sussex—
£6,995 for 12 houses only.
R. Stone, Haywards Heath—
£25,232
Kirk & Randall, London—
£25,231 and £963 for roads.
*A. & S. Wheater, Leicester-square, London—
£23,760 and £1,550 for roads.
R. Cook & Sons, Crawley, Sussex—
£28,505

HERTFORDSHIRE.—For the erection of police cottages for the Hertfordshire C.C.:—

*Hitchin & Co., Ware, 6 cottages.. £4,037 0
*E. Markwell, Bishop Stortford, 2 cottages..... 1,161 8

ILFORD.—For the erection of office accommodation at the Electricity Works, for U.D.C.:—

*Taylor & Co., Ilford £1,348

LANCHESTER.—For construction of 1,300 lin. yds. of 6 in. pipe sewer at Medomsley Edge, for the R.D.C. Mr. G. W. Westgarth, surveyor:—

Sewer—
*John Roxby Surtees, Shotley Bridge .. £415
Sewage Disposal Works—
*James Deans & Sons, Pelton Fell..... 377

LEADGATE.—For rebuilding school. Mr. J. Eltringham, architect, Derwent-street, Blackhill:—

*W. Ayton & Son, Blackhill.

LONDON.—For alterations and redecorations to the District Medical Officers' Quarters at the Mile End Hospital, Bancroft-road, E., for the Guardians of the Hamlet of Mile End Old Town. Mr. Edmund Harrison, architect, 23, Berkeley-road, Crouch End, N. 8:—

*J. Slade & Son, Bow £897

LONDON.—For new sanitary fittings and improvements to sanitary turrets at St. Luke's Hospital, Chelsea, for the Chelsea Board of Guardians. Mr. Edmund J. Harrison, architect, 23, Berkeley-road, Crouch End, N. 8:—

W. H. Gascoigne & Co., Parliament-street, S.W. £1,320 0
H. Parkinson & Co., Camberwell-road, S.E..... 1,199 0
Holland & Sons, Ltd., Grosvenor-square 1,190 0
Hammond & Barr, Beauchamp-place, S.W. 1,175 0
Lown & Co., Holloway 1,170 0
White & Johnson, Chelsea 1,150 0
R. J. Truscott, Forest Gate..... 1,137 0
H. A. Thomas & Son, East Dulwich-grove 1,100 0
*Guild Housing, Ltd., Acton Vale .. 1,074 10

(*Continued on p.* 816.)

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
rging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
d if in clay	" "	1	0
d for every additional depth of 6 ft.	" "	0	6
nking and strutting to trenches	per foot super	0	5
)o. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
tland cement concrete in foundation 1 to 6	per yard cube	35	0
d if in underpinning in short lengths	" "	7	6
d if in floors 6 in. thick	" "	3	6
d if in beams	" "	4	0
d if aggregate 1 : 2: 4	" "	10	0
d for hoisting not exceeding 10 ft. beyond the first 10 ft.	"	3	3

BRICKLAYER.

		£	s.	d.
luced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
d if in stocks	"	7	10	0
d if in Staffordshire blues	"	22	0	0
d if in Portland cement and sand		2	0	0

FACINGS.

		s.	d.
tra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
st flat struck or weathered joint	"	0	0	3

ARCHES.

		s.	d.
tra only to the price of ordinary brickwork :—			
r external in half brick rings	" "	0	0	10
d in stocks	" "	0	1	9
bbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
mp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
ting ordinary register grates and stoves	each	1	0	0
ting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
lf-inch horizontal damp course	per yard sup.	4	3
ree-quarter-inch vertical damp course	" "	9	0
nch on flats in two thicknesses	" "	6	6
gle fillet	per foot run	0	3
rting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
rk stone templates fixed	per foot cube	12	6
-k stone sills fixed	" "	21	6
h stone and all labour fixed	" "	10	6
tland stone fixed	"	19	6

SLATER.

		s.	d.
lsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
)o. 20 in. × 10 in. Do. Do.	"	80	9
)o. 24 in. × 12 in. Do. Do.		90	0

CARPENTER AND JOINER.

		s.	d.
framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
l rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
t centering for concrete floor, including struts or hangers	"	50	0
)o. to beams	per ft. sup.	1	0
tres for arches	"	1	6
ter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
l-edges shot	per sq.		49/-	58/-	67/-
». tongued and grooved	"		54/-	65/-	72/-
». matchings	"	45/-	55/-		
ilded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
-and-a-half moulded sashes or casements	per foot super	1	10
» Do. Do. Do.	" "	2	1
l for fitting and fixing	" "	0	4
l-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
)-panel square framed	per ft. sup.	2/1	2/4	2/6
r-panel Do.	"	2/5	2/8	2/11
)-panel moulded both sides	"	2/8	2/11	3/2
r-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/0
Deal shelves and bearers	"	1/5	1/7	1/10
Add if cross tongued	"	2d.	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	" "	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19/-
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt	60	0
Do. Do. in flats	"	58	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	"	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7	
Do. service	"	1/10	2/5	2/10	4/3		
Do. soil	"						7/6
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1½
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	9
26 oz. Do.	" "	1	1
Obscured sheet	" "	1	3
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	11
¼ in. wired cast plate	" "	1	5

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A ntage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the

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TENDERS

(*Continued from* p. 814.)

LONDON.—For taking up, repairing and relaying the wood-block paved roadway at the Mile End Hospital, Bancroft-road, E., for the Guardians of the Hamlet of Mile End Old Town. Mr. Edmund J. Harrison, architect, 23, Berkeley-road, Crouch End, N. 8 :—

Wm. Griffiths, Hamilton House, Bishopsgate	£222

LONDON.—For internal painting and repairs to the Relief Station and Dispensary, Liverpool-road, N., for the Guardians of St. Mary, Islington. Mr. Edmund J. Harrison, architect, 23, Berkeley-road, Crouch End, N. 8 :—

H. C. Morgan, Holloway, N.	£765 10 0
Ricketts & Son, Southgate-road, N.	533 6 0
Bennett, Thorpedale-road, N.	524 11 0
Guild Housing, Ltd., Acton Vale	511 0 0
Yeomans & Richardson, Hornsey-road, N.	508 12 4
W. Bolt, Eden-grove, N.	462 0 0
J. Cammegh, Holland-road, W.	459 10 0
W. Ball, Drayton Park, N.	437 15 6
S. Shaw, Thornhill-road, N.	433 0 0
F. Cousins, Holloway, N.	409 11 0
*A. C. Mackinlay, Holloway	350 10 0

LONDON.—For redecorations to the Dispensary, also for new ambulance entrance, at St. Luke's Hospital, Chelsea, for the Chelsea Board of Guardians. Mr. Edmund J. Harrison, architect, 23, Berkeley-road, Crouch End, N. 8 :—

O. Craske, Sydney-street	£942 0 0
H. Parkinson & Co., Camberwell road	917 19 0
White & Johnson, Chelsea	908 0 0
Greenwood	895 18 7
C. & K. Harding	893 16 0
Lole & Co., Trafalgar-square	880 17 4
A. H. Inns, Ltd., Devonshire-square	845 0 0
J. Cammegh, Holland-road	809 10 0
*H. Thomas & Co., East Dulwich-grove	734 13 0

LONDON.—For the extension of boundary wall to Messrs. Pickerdite & Co.'s, Ltd., glass factory, Bounds Green-rd., New Southgate, N. Mr. Edmund J. Harrison, architect, 23, Berkeley-road, Crouch End, N. 8 :—

Rowley Bros., Tottenham	£659
W. S. Wibberley, Crampton-street, S.E.	630
Albert Monk, Lower Edmonton	447
*Mattock Bros., Wood Green	375

LONDON.—The following tenders for various works have been dealt with by the Greenwich B.C. :—

For the erection and completion of six semi-detached houses, each containing two maisonettes, at the corner of Coombedale and Westerdale-roads, Greenwich :—

R. Mansell	£10,179
H. Kent	8,420
Thomas & Edge	7,991
William Bailey	7,733
G. B. Farrar & Co.	7,526
Harding & Marks	6,955
*William F. Blay, Ltd., Dartford	6,776
Norfolk Decorators, Ltd.	5,869

For repairing and redecorating the undermentioned converted houses: 27, Kidbrooke Park-road; 16, Vanbrugh-park; 83, 87 & 89, Beaconsfield-road; 125, 151, 184 & 188, Victoria-road; 17, St. John's-park; and "East Mascalls," Charlton-road :—

H. M. Sinden	£795 0 0
Harding & Marks	734 5 0
E. Dyke	672 10 0
J. J. Forrest	664 10 0
J. A. Olley	653 14 6
Edwards Construction Co., Ltd.	559 14 6
R. Coppin & Breeze, Ltd.	504 18 0
H. J. Edwards	448 15 0
A. G. Shorter	429 0 0
*W. Bickerton, 1, Lower Winchester-road, Catford, S.E. 6	390 1 0

For the completion of the 50 houses on the No. 3 Section of the Council's Housing Site at Charlton :—

R. Merton Hughes	£24,981
Thomas & Edge	24,900
*Walter Jones & Sons, Ltd., 64, Victoria-street, Westminster	24,254

For the carrying out of certain redecorative works at properties of the Council :—

W. Hayter & Son	£172 12 0
E. Dyke	163 7 0
E. W. Mansfield	144 7 0
J. Hocking & Co.	133 0 0
*J. J. Forrest, 14, Swallowfield-road, Charlton	120 3 6

LONDON.—For hot-water installation at Cannon-street and Paddington Fire Stations, for the L.C.C. :—

Cannon Street—

*The Wembley Heating Co., Ltd. Wembley-hill	£207 0
Palowkar & Son	227 0
T. Laurie Price & Co., Ltd.	251 7
Beaven & Sons, Ltd.	267 0
W. Simmons & Co.	269 19
The Sycamore Works	275 0
Wilson & Smith, Ltd.	308 5

Paddington Station—

*Bilbie, Hobson & Co., 106, Queen Victoria-street, E.C.4	£108 9 6
Buckleys (London), Ltd.	113 10 0
Brightside Foundry and Engineering, Co., Ltd.	115 0 0

LONDON.—Tenders accepted by the Education Committee of the L.C.C. :—

Holden-street (Battersea, S.)—Removal of stepping, and formation of a doorway to offices—

*J. & C. Bowyer, Ltd.	£99 10 0

Victoria, The (Hammersmith, N.)—Provision of additional urinal accommodation—

*C. H. Boyd, Ltd.	123 0 0

Thomas-street (Limehouse)—Improvements to sanitary accommodation—

*W. J. Dixon & Son	669 0 0

Medburn, The (St. Pancras, S.E.)—Repairs to party wall—

*J. Marsland & Sons, Ltd.	142 0 0

Shoreditch Technical Institute (Shoreditch)—Reinstatement of premises—

*J. & C. Bowyer, Ltd.	566 0 0

Bousfield, The (Kensington, S.)—Alterations to partitions and removal of stepping—

*G. M. Hammer & Co., Ltd.	224 0 0

Allfarthing-lane (Wandsworth, C.)—Establishment of a new central school—

*James Carmichael (Contractors), Ltd.	330 0 0

Sawley-road (Hammersmith, N.)—Adaptation of two iron buildings as centres—

*J. & C. Bowyer, Ltd.	339 0 0

Battersea Park-road (Battersea, N.)—Provision of head teachers' rooms—

*W. Hammond	110 0 0

Glenister-road (M.D.) (Greenwich)—Provision of a kitchen—

*W. J. Dixon & Son	120 0 0

Pakeman-street (Islington, E.)—Overhaul and repair of drains—

*Gibbard & Sons, Ltd.	131 0 0

Middle-row (Kensington, N.)—Provision of playshed—

*B. Colley & Sons, Ltd.	131 0 0

Cleaning and/or Painting of Schools.

Wandsworth Technical Institute (Domestic Economy Centre) (Wandsworth, C.)—

*C. Horton & Co.	58 0 0

Battersea Day Continuation (Clapham)—

*Roy Gibson	89 4 0

Battersea Day Continuation (Clapham)—

*Triggs & Co.	228 0 0

Barnsbury Central (Islington, S.)—

*Hensun & Co.	305 0 0

Bell-street (St. Marylebone)—

*C. Berger	567 7 0

Beresford-street (Southwark, C.)—

*W. J. Dixon & Son	592 0 0

Berger-road (Hackney, S.)—

*A. G. Barton	521 0 0

Broomsleigh-street (Hampstead)—

*A. & F. Polden	735 0 0

Calvert-road (Greenwich)—

*J. H. Sutch & Sons	380 19 0

The Chaucer (Southwark, C.)—

*E. C. Sames & Co.	817 18 6

Church-street (Kennington)—

*Bridge & Co.	340 0 0

Cromer-street (St. Pancras, S.E.)—

*J. P. Williams, Ltd.	310 0 0

Denmark-hill (Camberwell, N.W.)—

*G. Hill & Son, Ltd.	628 0 0

Dulwich Hamlet (Dulwich)—

*A. Black & Son	456 0 0

East-lane (Rotherhithe)—

*W. J. Dixon & Son	597 0 0

Garratt-lane (Wandsworth, C.)—

*S. N. Soole & Son, Ltd.	655 0 0

Gideon-road (Battersea, S.)—

*S. N. Soole & Son, Ltd.	524 0 0

Gillespie-road (Islington, E.)—

*F. Cousins	435 10 0

Hague-street (Bethnal Green, S.W.)—

*Falkus Bros.	442 10 0

The Hermitage (Whitechapel and St. George's)—

*T. Carr	199 18 10

Hither Green (Lewisham, E.)—

*A. Black & Son	806 0 0

Hughes Fields (Greenwich)—

*J. Hocking & Co.	407 0 0

Hugh Myddelton (JM) (Finsbury)—

*F. Cottrell, Ltd.	382 0 0

King-street (St. Pancras, S.E.)—

*A. & F. Polden	875 0 0

Lomond-grove (Camberwell, N.W.)—

*T. Brown & Son	740 0 0

Merton-road (Putney)—

*Triggs & Co.	645 0 0

Northey-street (Limehouse)—

*W. M. Brand	450 10 0

Rosebery-avenue (Holborn)—

*F. Stevens	478 16 0

St. Andrew's-street (Clapham)—

*J. Garrett & Son	903 0 0

The Shacklewell (Hackney, N.)—

*A. G. Barton	511 0 0

Swan-street (City of London)—

*S. Blow, Ltd.	300 0 0

Weston-street (Southwark, C.)—

*Ward, Saul & Co.	580 0 0

For minor improvements.

High-street, Stoke Newington (Hackney, N.)—Provision of an assistant teachers' room—

*F. Cottrell, Ltd.	349 10 0

Rochelle-street (Bethnal Green, S.W.)—Provision of head teachers' rooms—

*J. & C. Bowyer, Ltd.	194 0 0

Duncombe-road (Islington, N.)—Do.—

*F. Cottrell, Ltd.	£396 0

Gill-street (Limehouse)—Removal of stepping

*J. & C. Bowyer, Ltd.	117 10

Ethelburga-street (Battersea, N.)—Provision teachers' rooms—

*H. S. Lee, Ltd.	133 0

Thornhill-road (Islington, S.)—Do.—

*John C. Mather	361 0

Canal-road (Shoreditch)—Do.—

*J. & C. Bowyer, Ltd.	220 0

Hugh Myddelton (Finsbury)—Removal of stepp

*Townsend & Pearson, Ltd.	137 0

Millbank, The (Abbey, Westminster)—Provis head teachers' and staff rooms—

*W. J. Dixon & Son	270 0

Childeric-road (Deptford)—Provision of head te rooms—

*W. J. Dixon & Son	326 0

Flora-gardens (Hammersmith, S.)—Do.—

*H. A. Murphy & Co.	297 0

Honeywell-road (Battersea, S.)—Removal of metal work centre and incorporation of site i playground—

*J. & C. Bowyer, Ltd.	548 0

Furzedown Training College (Streatham)—Provi tar-paved tennis courts—

*J. Wainwright & Co.	759 0

Ilderton-road (Camberwell, N.)—Provision of teachers' rooms—

*J. & C. Bowyer, Ltd.	267 0

Bloomfield-road (Woolwich, E.)—Do.—

*J. & C. Bowyer, Ltd.	153 0

Sherbrooke-road (Fulham, W.)—Do.—

*R. A. Jewell, Ltd.	259 0

Winstanley-road (Battersea, S.)—Do.—

*J. & C. Bowyer, Ltd.	237 0

Westbourne-road (Islington, W.)—Do.—

*Stevens & Sons	328 0

Charles Dickens, The (Southwark, N.)—Improve to heating apparatus—

*W. G. Cannon & Sons	495 0

Plassy-road (Lewisham, E.)—Do.

*Dallow, Lambert & Co.	474 0 0

Conway-road (Woolwich, E.)—Extension of hot-w heating apparatus—

*Brightside Foundry & Engineering Co., Ltd.	318 10 0

Huntingfield-road (Putney)—Provision of low-press hot-water heating apparatus—

*H. J. Cash & Co., Ltd.	928 0 0

Improvement of gas lighting.

Haselrigge-road (Clapham), Pope-street (Woolwich St. Andrew's-street (Clapham), Woods-road (Peckh South Lambeth-road (Kennington), Sunnyhill (Streatham), Honeywell-road (Battersea, S.), Fa street (Southwark, C.), Keeton's-road (Rotherhi Ilderton-road (Camberwell, N.), Harper-street (S wark, C.), Gloucester-road (Camberwell, N.), street (Rotherhithe), Mina-road (Southwark, S Laxon-street (Bermondsey, W.)—

*South Metropolitan Gas Co.	£2,125 17 6

Capland-street (St. Marylebone), Berkshire-(Hackney, S.), Sigdon-road (Hackney, C.), Batt Park-road (Battersea, N.), Glyn-road (Hackney, Vittoria-place (Islington, S.)—

*Gas Light & Coke Co.	981 18 2

Essex-street (Mile End), Heckford-street (Limeho Malmesbury-road (Bow and Bromley)—

*Commercial Gas Co.	540 0 0

Flora-gardens (Hammersmith, S.)—

*W. Sugg & Co., Ltd.	163 10 0

Royal-hill (Greenwich)—

*South Metropolitan Gas Co.	129 2 10

LONDON.—For painting the Council's nurser Grove-lane, for the Camberwell B.C. :—

*Norfolk Decorators, Ltd., Holborn Viaduct	£226 19 2
George Hill & Son, Ltd., Streatham High-road	254 0 11
G. Taylor & Son, Lambeth	318 17 3
C. W. King, Peckham	361 10 0
R. J. Truscott, Forest Gate	470 0 0

LONDON.—For works of separation at Red street Fire Station, for the L.C.C. :—

*C. P. Roberts, & Co., Ltd., Hackney	£2,35
J. & C. Bowyer, Ltd., Upper Norwood	2,72
William F. Blay, Ltd., Cannon-street, E.C.	2,75
Walter Lawrence & Son, Ltd., Finsbury-square, E.C.	2,85
Griggs & Son, Westminster	2,89
Ashby & Horner, Ltd., Aldgate	2,925

LONDON.—For works at Limehouse Gener Station, including river embankment wall, co island, &c., for Stepney B.C. :—

S. Pearson & Son, 10, Victoria-street, S.W.1	£37,000 to £4
John Cochrane & Son, 39, Victoria-street, S.W.1	37,86
John Mowlem & Co., Ltd., Ebury Bridge-road, W.1	37,01
Sir Wm. Arrol & Co., 59, Palace-street, S.W.1	36,92
Perry & Co. (Bow), Ltd., 56, Victoria-street, S.W.1	35,97
*D. G. Somerville & Co., Ltd., 30, Grosvenor-place, S.W.1	34,48
J. & W. Stewart, 12, Berkeley-street, S.W.1	(Withdra

NDON.—Accepted by Stores Committee of the :—

minous compound and oil—
Dussek Bitumen Co. £7,425

ding materials—
Brimsdown Sand and Ballast Co. £326
Brown, Creed & Randall, Ltd. (cement of Italian manufacture) 12,794
E. R. Burtt & Sons 4,287
Constable, Hart & Co., Ltd. 137
Henry Crane 1,505
Doulton & Co., Ltd. 230
Erith & Co., Ltd. 286
Hall & Co., Ltd. 174
Ham River Grit Co. 2,625
R. Rikof 1,035
H. Sabey & Co. 325
J. H. Sankey & Son, Ltd. 961
Samuel West, Ltd. 1,959
Young & Son, Ltd. (cement of British manufacture 1,378

NDON.—Accepted by Main Drainage Committee C.C. :—

ern outfall.—Supply of cast-iron pipes, &c., for er-water ponds—
Stanton Ironworks, Ltd., Nottingham £116 19 9
Staveley Coal and Iron Co., Ltd., Chesterfield (approximate).. 114 19 6

mersmith pumping station—Installation of electric ht, &c. :—
H. J. Cash & Co., Ltd., Westminster, S.W. £518
W. H. Gaze & Sons, Ltd. 535
Alexander Hawkins & Sons 595
Malcolm & Allan, Ltd. 660
Pinching & Walton, £682 ; alternate offer 662

nal painting works, repairs to cottages, &c. :—
J. Barr, Lambeth, S.E. £189 8 6
Norfolk Decorators, Ltd. 219 14 3
R. Woollaston & Co., Ltd. 241 10 9
Vigor & Co. (Poplar), Ltd. 256 17 1
F. Cousin 261 1 3
W. Palmer & Sons 266 3 1
H. Parkinson & Co. 268 2 0
James Buxton 276 2 5
F. Whittlesea 277 3 8
E. Stevens 279 4 7
R. Coppin & Breeze, Ltd. 291 3 8
H. J. Penfold 296 10 6
Perry Brothers 298 9 11
F. Woollaston 301 4 4
T. E. Joyce 307 16 2
Thomas Carr 318 8 10½
J. S. Daniels & Son 318 11 4
Stevens & Sons 321 3 3
E. H. Edwards 329 10 3
E. D. Winn & Co., Ltd. 345 14 0
W. Mountain 346 12 3
W. T. Ricketts & Sons 349 19 11
P. & W. Anderson, Ltd. 355 14 1
Edward Ireson 371 19 0
Reith Brothers 405 10 11½
S. Parkinson 407 14 8½
S. Clayton 466 1 5½
Belsize & Co. 486 5 4

)NDON.—The following tenders have been pted by the L.C.C. :—

ewood, supply and laying of water supply—
A. Conway, 42, Durham-row, Stepney, E. £145 0 0
Holland & Sons, Ltd. 156 0 0
Watson & Ellwood 162 0 0
R. Harding & Son 171 10 0
F. W. Burrell & Sons 194 3 0
Charles Payne 194 11 3

ous parks and open spaces, supply and erection of climbable iron fencing—
Bayliss, Jones & Bayliss, Ltd., 139-141, Cannon-street, E.C. £650 17 10
T. W. Palmer & Co. 711 10 7
J. Salway & Sons 760 12 6
W. H. Smith & Co. (Whitchurch), Ltd. 800 17 6
Hill & Smith, Ltd. 828 9 10
Stock & Collings 851 9 6
Priest & Mullings, Ltd. 902 2 0

-fields, repairs to buildings—
J. & C. Bowyer, Ltd., Upper Norwood, S.E. £473 0 0
Cole, Loasby & Co., Ltd. 650 0 0
Fred & T. Thorne 675 0 0
Henry Groves & Son 680 0 0
H. Kent 685 0 0
William Mills & Sons (Builders and Contractors), Ltd. 695 0 0
F. Scott Fenn—20 per cent. on cost.

kwell Park, formation of path and drain and covation of bare area—
R. Neal & Sons, Trinity-road, Wandsworth, S.W. £646 0 0
Mears Bros. 760 0 0
Howard Farrow 762 0 0
Henry Woodham & Sons, Ltd... 810 0 0
Geo. Bell & Sons, Ltd. 867 0 0
Hodsons, Ltd. 994 8 6
J. Garrett & Son 1,107 0 0

Millfields, supply and fixing of iron boundary cing—
Bayliss, Jones & Bayliss, Ltd., 139-141, Cannon-street, E.C. £412 4 8
T. W. Palmer & Co. 453 3 6
J. Salway & Sons 480 10 0
Hill & Smith, Ltd. 555 10 7
Stock & Collings 557 8 0
Thomas Blackburn & Sons, Ltd. 592 0 0
James Haigh 653 3 0
Ernest Hole 720 1 0
Jess Bally & Sons 970 0 0

Hainault Forest, repairs to tea-room No. 1—
*T. W. Heard, 60, Queen's-road, Buckhurst-hill £110 0 0
Clements (Grays), Ltd. 160 0 0
W. Radley & Sons 160 10 0
Baker, Hammond & Laver, Ltd. 185 0 0
Charles S. Foster & Sons..... 185 0 0
H. C. Horswill 215 0 0
R. J. Truscott 217 0 0

Streatham Common, regulation and drainage of path—
*R. Neal & Sons, Trinity-road, Wandsworth, S.W. £277 0 0
Hodsons, Ltd. 348 0 0
Howard Farrow 350 0 0
Geo. Bell & Sons, Ltd. 385 0 0
Mears Bros. 400 0 0

Battersea Park, abolition of shrubbery and path, formation of new shrubbery, and digging over old mud shoot—
*Mears Bros. £905 0 0
Geo. Bell & Sons, Ltd. 1,198 0 0
R. Neal & Sons 1,235 0 0
Hodsons, Ltd. 1,305 15 0
Howard Farrow 1,398 0 0

Parliament Hill, renovation of surface of bare areas—
*Hodsons, Ltd. £465 0 0
Mears Bros. 559 0 0
Geo. Bell & Sons, Ltd. 575 0 0
R. Neal & Sons 585 0 0
Howard Farrow 599 0 0

Little Wormwood Scrubs, renovation of surface of bare area—
*Howard Farrow £962 0 0
Mears Bros. 1,050 0 0
Hodsons, Ltd. 1,089 0 0
R. Neal & Sons, ... 1,193 0 0
Geo. Bell & Sons, Ltd. 2,139 0 0

Hackney Downs, renovation of surface of bare areas—
*Mears Bros. £399 0 0
Howard Farrow 423 0 0
R. Neal & Sons 450 0 0
Hodsons, Ltd. 540 0 0
Geo. Bell & Sons, Ltd. 544 0 0

Clissold Park, renovation of surface of bare areas and formation of path and drain—
*Hodsons, Ltd. £866 0 0
Howard Farrow 889 0 0
R. Neal & Sons 922 0 0
Mears Bros. 945 0 0
Geo. Bell & Sons, Ltd. 988 0 0

Millfields (North), renovation of surface of bare area—
*Mears Bros. £299 0 0
Howard Farrow 315 0 0
R. Neal & Sons 346 0 0
Hodsons, Ltd. 439 0 0
Geo. Bell & Sons, Ltd. 470 0 0

Springfield Park and Clapham Common, renovation of surface of bare areas and formation of drains—
*R. Neal & Sons £412 0 0
Mears Bros. 439 0 0
Howard Farrow 453 0 0
Geo. Bell & Sons, Ltd. 537 0 0
Hodsons, Ltd. 538 0 0

Southwark Park, renovation of surface of bare area and diversion of path—
*Mears Bros. £395 0 0
R. Neal & Sons 401 0 0
Geo. Bell & Sons, Ltd. 411 0 0
Howard Farrow 420 0 0

Royal Victoria Gardens, formation of dry playing area—
*Geo. Bell & Sons, Ltd. £296 0 0
Howard Farrow 380 0 0
Mears Bros. 397 0 0
R. Neal & Sons 407 0 0
Hodsons, Ltd. 451 0 0

LONDON.—For the supply of one 3-ton overhead travelling crane, and one 30-cwt. portable workshop crane, for the Central Repair Depot of L.C.C. :—
Samuel Butler & Co., Ltd., Stanningley £1,225 0
The Vaughan Crane Co., Ltd., Manchester 923 0
James Spencer & Co., Ltd., Manchester 820 0
Thomas Broadbent & Sons, Ltd., Huddersfield 790 0
Royce, Ltd., Manchester 1,850 0
Isles, Ltd., Stanningley 1,805 0
J. M. Henderson & Co., Aberdeen 1,595 0
Higginbottom & Mannock, Ltd., West Gorton, Manchester 1,593 0
Joseph Booth & Bros., Ltd., Rodley, Leeds 1,540 0
Middleton Bros., Yorks 1,456 0
Wellman Smith Owen Engineering Corporation, Ltd., W.C.2 .... 1,410 0
Anderson-Grice Co., Ltd., Carnoustie 1,350 0
Chatteris Engineering Co., Ltd., Cambs. 1,348 0
Do. do. (alternative) 1,358 0
Do. do. (alternative) 1,396 0
Babcock & Wilcox, Ltd., E.C.4 .. 1,275 0
Carrick & Ritchie, Ltd., Edinburgh 1,196 0
Alexander Jack & Co., Ltd., Motherwell 1,040 0
S. H. Heywood & Co., Ltd., Reddish 1,023 0
Do. do. (alternative) 1,049 0
Herbert Morris, Ltd., Loughborough 1,015 0
Charles Willetts, Jnr., Ltd., Cradley Heath 1,000 15
John Smith (Keighley), Ltd., Keighley 990 0
J. Hill & Sons, Lye 961 0
Butters Bros. & Co., Glasgow.... 915 0
James Carrick & Sons, Ltd., Edinburgh 836 0
*Holt & Willetts, Cradley Heath.... 765 0

LONDON.—Accepted by Highways Committee of L.C.C. :—

Wood paving blocks :—
*Acme Flooring and Paving Co. (1904), Ltd. £6,176
*J. Clift & Son, Ltd. 519
*Gabriel Wade & English, Ltd. 507

MONMOUTHSHIRE.—For conversion of Larkfield, Chepstow, into a secondary school, for the County E.C. :—
*G. F. Leadbetter..... £2,813

NORTHAMPTON.—For erection (1) concrete block construction houses ; (2) brick construction houses, on the Harborough-road site, Kingsthorpe. Mr. A. Fidler, Borough Engineer, Guildhall, Northampton :—
8 *Brick Houses, A3 type—*
†Lack & Revitt, Northampton £3,443
18 *A3 type, 44 B3 type—*
†W. Higgins, Ltd., Northampton 31,244

PORTSMOUTH.—For the erection of a vicarage at Portsdown, in the Winchester Diocese, Mr. B. D. Cancellor, F.S.Arc. (Diocesan Surveyor), architect and surveyor, Queen Anne Chambers, High-street, Winchester :—
J. Croad, Portsea £2,160 0
H. G. Ross, Winchester and Netley 2,050 0
*John Hunt, Ltd., Gosport..... 2,021 15

PRESTON.—For the erection a garage with accommodation for 12 motor 'buses in Holmrook-road, for the Corporation :—
*J. Taylor, Preston £4,293

ROTHERHAM.—For erection of a new bridge over the river on Sheffield-road to replace the Bow Bridge, for the B.C. :—
‡Geo. Longden & Sons, Sheffield .. £14,234

SHAFTESBURY.—For laying about 1,600 yds. of sewers and drains, for the T.C. Mr. J. Partridge Jenkins, Surveyor and Engineer, Town Hall, Shaftesbury. Quantities by Mr. J. Partridge Jenkins :—
Thos. Pedrette & Co., Mudeford £2,183 0 0
Crawford Bros., Largs 1,910 2 0
Geo. Riley, Luddendenfoot 1,857 18 6
Wort & Way, Salisbury 1,469 10 0
†M. Vine, Bournemouth 1,452 8 0

STAFFORD.—For erection of turbine and boiler-house, for the T.C. :—
Mitchell Conveyor and Transport Co. £15,556

STOCKSBRIDGE.—For erection of 26 houses on Shay Estate, for the U.D.C. Mr. J. N. Singleton, architect and surveyor, Stocksbridge. Quantities by architect :—
A. Bradbury & Son, Sheffield .. £15,874 0 0
G. L. Bradshaw, Sheffield 14,630 0 0
*Battye Bros., Deepcar 14,000 0 0
Mason & Quince, Sheffield 13,604 11 8

SUTTON KEIGHLEY.—For erection of 10 houses, for the Keighley R.D.C. Mr. J. N. Clarkson, Clerk, 40, North-street, Keighley :—
Joiner—
*James Laycock & Sons, Cononley, near Keighley £1,353 15 0
Mason—
*John Barritt, Cross Hills, Keighley 3,078 0 0
Plumber—
*Holmes Parker, Sutton Mill, near Keighley 511 18 8
Plasterer—
*Fred Davy, Cross Hills, Keighley 471 6 6
Slater—
*Arthur Garnett, Sutton Mill, Keighley 309 0 0
Painter—
*Tom Horsfall, Sutton Mill, Keighley 108 8 0
(Accepted subject to approval of the M.H.)

TILBURY.—For the erection of houses for U.D.C. :—
*Triangular Construction Co.—23 .. £10,465
*W. E. Walsham—20 9,300
*Brown Bros.—14 6,510

TORQUAY.—For laying about 3¼ miles of 12 in. and ¾ mile of 7 in. cast-iron pipes for the T.C. Mr. S. C. Chapman, Waterworks Engineer, Town Hall :—
*Shiner & Co., Torquay £4,893 1 3

TRURO.—Taking down and rebuilding the William IV Inn, for Messrs. Walter Hicks & Co., Ltd. Mr. Leonard Winn, architect, Truro :—
*W. E. Bennett, Bodmin.

WALTHAM CROSS.—For rebuilding Small Lea Bridge, Waltham Cross for the Hertfordshire C.C. :—
J. Westwood & Co., Ltd., Millwall £5,440 0 0
W. & C. French, Buckhurst Hill 5,388 17 7
P. R. Paul, Waltham Cross 5,349 3 5
*A. E. Farr, London 4,575 0 0

WELLINGBOROUGH.—For erection of a Cenotaph at Broad Green. Messrs. Talbot, Brown & Fisher, architects, Wellingborough, for the War Memorial Committee :—
Pullen & Sons, Northampton £914 10
Higgins & Son, Wellingborough .. 889 18
Cox & Co., Kettering 820 0
Morris & Sons, Kettering 817 16
*White & Son, Wellingborough 777 0

WESTHAMPNETT.—For the erection of 10 houses, for the R.D.C. :—

*Overington & Rapson £4,400 10

WEST STANLEY.—For (*a*) Strengthening the floor over the Assembly Hall; and (*b*) general repairs at the Alderman Wood Secondary School, for the Durham C.C. :—

*R. Southren, Dipton ..... (*a*) £644 12 6
*R. Southren, Dipton ..... (*b*) £1,088 4 0

WIBSEY.—For erection of a weaving shed, at Slack-road. Messrs. Moore & Crabtree, architects, Queensgate Chambers, Bradford :—

Excavator, Mason, Bricklayer—
*Ephraim Balmforth & Sons, Queensbury.
Steelwork and patent glazing—
*W. H. Heywood & Co., Huddersfield.
Joiner—
*J. Briggs & Son, Queensbury.
Concretor—
*J. C. & A. Sunderland, Bradford.

Slater—
*Geo. Wilkinson, Bradford.
Plumber—
*F. Studwell & Son, Bradford.
Steel windows—
*Mellowes & Co., Sheffield.

WOLVERHAMPTON.—For re-surfacing of Merridale-road and other roads, for the T.C. :—

*Tarmac, Ltd. £7,682

WOLVERHAMPTON.—For the re-surfacing of Wulfruna-street and North-street, for the T.C. :—

*Highways Construction Co. £3,575

WOLVERHAMPTON.—For providing and laying 5,400 yards of 15 in. and 2,950 yards of 12 in. cast-iron water mains, &c., for the T.C. :—

*M. A. Boswell £22,618

WOMBWELL.—For the erection of a pair of houses for Mr. B. Husband, Barnsley-road, Wombwell. Mr. D. H. Roberts, architect :—

Bricklayer—
*A. Taylor & Son £698 0
W. Johnson 715 0
E. Thompson 640 0
Joiners—
*A. Dobson 258 0
A. Harrison 320 10
E. Thompson 272 0
Plumbers—
Saville & Co. 125 0
*Reg. Lythe 117 10
E. Thompson 114 0
(All of Wombwell.)

WOMBWELL.—For erection of auction rooms and sale-rooms, Station-road, Wombwell, for Messrs. F. Diggles & Son, auctioneers and valuers. Mr. D. H. Roberts, architect :—

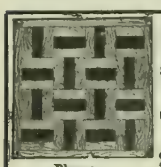
Bricklayer, Mason, &c.—
*Adam Taylor & Sons £639 0
William Johnson 775 0
Ernest Thompson 755 0
F. B. Ward & Sons 680 0
Joiners—
*Arthur Dobson 356 0
Ernest Thompson 355 0
A. Marrison 438 12
F. B. Ward & Sons 450 0
Plumbers—
J. E. Saville & Co. 224 15
*R. Lythe 228 10
Ernest Thompson 248 0
(All of Wombwell.)

WORTHING.—For the erection of boundary fencing to Beach House Park and Denton Gardens, for the T.C. :—

*J. B. Edwards & Co. £2,593

YORK.—For construction of new road, 1,010 yds., Heworth to Hull-road, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York :—

*Wm. Birch & Sons, Ltd., York £24,979


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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

L CXXVI.—No. 4242. MAY 23, 1924.

THE HOUSING QUESTION AGAIN

AFTER many postponements there are indications that we shall shortly see the long-promised housing programme of the Government, and already certain important details have been published. We do not know whether the consideration of the complete scheme will do thing to modify first impressions, but the information which so far been published does little to encourage a feeling of efulness that a solution of the problem has been found. th the difficulties inherent in the subject we are only too ll acquainted, but it cannot be said they have been made ier by the methods adopted by successive Governments, l this new scheme to provide houses does not encourage belief that the present Governments will succeed where ers have failed. We know, of course, that the problem will solved one day, and because houses are urgently needed by community they will once again be provided, but when t time comes we shall probably find that the community e got what they want, as they get other things they want, h little or no help from the State.

The present difficulties are probably due in part to the that house building in the past was carried out too cheaply, l that the small profits which satisfied builders and speculators e always cut too fine. This may not have mattered while ple were willing or were compelled to occupy the dwellings t were provided, and builders lightly faced the risks involved loing work on the lowest margin of profit; but with the stent and proper demand for an improved standard of elling and builders determined to protect themselves against uncertainties always present in building work and greatly eased by the numerous difficulties which resulted from the increased costs were inevitable; and we believe we must pt a permanent increase in the cost of this class of work t altogether from the increase due to higher wages and er materials. The chances of a decline in labour costs he industry can be estimated from the fact that protracted otiations between employers and operatives have just taken rn in favour of a peaceful settlement on the basis of an ease of one penny an hour. Moreover, the Report on the ent Position in the Building Industry, which was recently d, and such details as we have of the Government's inten- in the Bill about to be introduced, do not afford ground belief that the Government and their advisers are under illusions as to the possibility of any substantial reduction e cost of good class houses for the working classes in the future.

o useful purpose can be served in attempting to apportion e for the present position, and all we need say is that most le competent to express an opinion on the matter believe that ad of accepting the position of responsibility for providing es after the war the Government should have attempted tial repeal of the Rent Acts, and encouraged in every way ble those who understood the business of house building, who had provided houses in the past. Rents would have of course, but everything was costing more, and most e were in a position to pay, as we know they did. There e no doubt that more and more houses would have been until the shortage had been made good, and rents would fallen as the supply increased, and the cost in any case have been borne, not by the community as a whole, but ose who were being supplied with what they wanted. Even now may not this, or something like it, be the best way out of our difficulties? Sir Ernest Benn, in a recent letter to the *Times*, argued as a publisher that if the housing market had been as free as the market in books or newspapers, if the Statute Book had not been encumbered with the 390 Acts of Parliament which provide for the housing of the working classes, if the enterprise which has been devoted to the making of books and newspapers had been turned on to houses, we would not now be embarrassed as we are by the housing problem.

Various Governments have now tried their hand at providing houses for the working classes, and we know at what cost and with what inadequate results. Are we likely to do better under the scheme so far foreshadowed by the present Government? We very much doubt it, and we shall be surprised if Parliament will agree to a subsidy of £9 for forty years with a municipal contribution of £4 10s. Even if successful in providing houses, the cost would seem to be prohibitive, and notwithstanding an agreement with the Industry it is doubtful whether the subsidy will stimulate house building sufficiently to produce the houses, which cannot be provided without an increased supply of building labour and the maximum effort by builders and their employees. The fact is there is a shortage of labour in the Industry and builders are well employed at the present time, and without more labour and an increased output we cannot hope to provide the large number of small houses needed, subsidy or no subsidy, unless the work which now keeps the Industry fully occupied is to suffer. Again we doubt whether Parliament, knowing something of the loss to the country as a whole which interference with this work would entail, and the enormous cost of the new housing programme, will agree to proposals which appear to promise such results. Judging from recent debates in Parliament, we should be less surprised to hear that the Government, willing to grant a subsidy of £9 for forty years, with a municipal subsidy of £4 10s., should propose to repeal the Rent Acts and give relief to really necessitous tenants to pay the increased rents which are the result of the better standard of housing and the increased costs of the present day. In our opinion the payment of a subsidy on houses built is the wrong method to adopt, as it creates artificial conditions in the Industry, and in so far as it succeeds it creates other evils of perhaps equal magnitude. The recent Report on the Present Position in the Building Industry is an admirable document in many ways, and as a contribution to the general stabilisation and improvement of the Industry it is welcome, but if the price we pay for an agreement between the Government, builders and operatives in the provision of houses is a greatly increased cost not only of the houses themselves, but in the price of building of all kinds, is the agreement worth while even to the Industry itself? Again, while welcoming the suggestions contained in the Report that the deficiency of labour will be dealt with, are we right in thinking that a lower standard of output appears to be adopted than that of the pre-war period?

Two or three salient facts stand out definitely in this housing question. Can we hope to cope with the housing need with the amount of skilled labour we have at our disposal? Can the country afford such an outlay of capital as is suggested? Can official control of building succeed better to-day than it has done before? Finally, can a purely industrial problem fairly be made a pawn in the great game of politics?

NOTES

The Institute Election. If at this late date there still remain any members of the Institute who have not yet filled in and returned their voting papers, we would remind them that it is but little that each of them is asked to do, but that that little may have a vital effect on the result. The present Council has gone very thoroughly into the attempt to solve a difficult problem, and has produced a scheme which has met with the approval of a very large number of representative architects as the one most likely to produce the best results. If there are any members of the Institute who have not yet recorded their votes they should fill in their forms and send them in at once. An indecisive result could give satisfaction to neither party, and everyone must wish that the verdict of the electorate will leave no doubt as to the opinions of voters. The last day for sending in voting papers is Saturday, May 24.

St. Paul's and the Bridges. Two points of great present importance have come to the front again this week. One is the serious view taken by Mr. Macartney, as Surveyor to St. Paul's, as to the safety of the Cathedral if the St. Paul's Bridge scheme is carried out. The other is a recommendation from the London County Council that a commission be appointed to consider the question of cross-river transport; the commission to be composed of representatives of the City Council and the County Council. The work of this commission is obviously of great and pressing importance, and the authorities responsible for the good government and well-being of London are the proper ones to deal with it. But we should never forget that the City of London is an Imperial City—the central point in a great world-wide Empire—and its future aspect and development are matters of Imperial concern.

St. Paul's Bridge. The strongest possible argument against the St. Paul's Bridge is, says Mr. Caröe, that which Mr. Waterhouse and Sir Ed. Marshall Hall brought forward in the *Times*, viz., the bringing of fresh traffic athwart existing streams of heavy traffic. Of course, this argument would tell against a high-level bridge at Charing Cross if it deposited fresh traffic directly into and athwart the crowded Strand.

Vital Points in Housing. We have tried to focus attention in our leader this week on the salient facts about housing, because amongst the endless amount of discussion about it one is apt to lose sight of the vital points. Many of those who know something of economics maintain t the principle of subsidies is wrong, that we simply cannot afford to those suggested. But if we had all money we need, even then what sho we say of the following from Sir Joynson-Hicks? "The Wheatley sch does not touch the real trouble, whic labour. The unions have declined admit ex-Service men. They decided 1920 to resist dilution with the utm strength of their organisation, and, make matters worse, they started 44-hour week. The only suggestion Minister has to make on the question dilution is to improve the apprentices system, which would mean that in years' time we might get a few thous more bricklayers. The thing is absu The only chance is dilution, and, if nec sary, Government instructional clas to teach bricklaying in defiance of unions. The only way to cure the is to get back to private enterprise, a to tell the building trades quite fran that the subsidies will not be increase

Swedish Architecture in London. The Exhibition of Swedi Architecture at the g leries of the R.I.B.A. is visible proof of the weal of inspired architectural talent which at the disposal of the Swedish natio, an lays a stress upon the tact and visio that have prompted various Swedi authorities to place their building proje in England in the hands of British arc



From the Swedish Architecture Exhibition at the R.I.B.A.

Swedish Church at Christiania. Mr. W. Wahlman, Architect.



CHIBITION, 1924.
"Charlotte Brontë."
. F. Doyle-Jones, A.R.B.S., Sculptor.
(*See p.* 826.)

The Swedish Church at Marylebone, Swedish Chamber of Commerce in ty-square, and the reconstructed ish Legation in Portland-place, are stances of the best and highest type odern design that can be produced s country, and each takes its place ally in a way that no exotic expres- f a foreign style, such as another might have been tempted to e in its place, could have achieved. therefore owe a double debt weden, in that she has contri- in so handsome a fashion to the y of our streets, and that in the she has suppressed the differences character as a foreign power and wledged her position as a welcome in so graceful a way. Nations like duals lose nothing in Rome by as Rome does.

Canny.

Were it possible to detach the consideration of labour questions from party feeling xamine them in the light of what is we should do better. For men may uated by good motives in thinking very falsely, and this, so it appears to us, is the case in regard to ca'-canny, or going slow. There is no doubt that many men think restricted output encourages employment. We shall not get them to understand such thinking is fallacious by accusing their motives and charging them with dishonest intentions, but through making them see that their action does not effect the result they seek. That there is a fallacy contained in such a view we do not doubt, and the men's unions are wrong in supporting such methods. But we must distinguish what is erroneous from what is evil in intention, and until we give more credit to the worker's heart, which is often more furnished than his head, we shall remain in a condition of mutual distrust and suspicion. On both sides, masters and men, we must give more credit to the motives inspiring them.

An Instance of Increased Output.

We may instance the case of a builder whose bricklayers are laying 350 to 400 bricks a day, perhaps less. The builder with a narrow margin of profit, a good deal calculated on the number of bricks he can expect to get laid each day, finds himself, as the result of restricted output on the part of the men, coming out at a loss. So he calls the men together, puts the figures before them, explains the situation, and offers each bricklayer a bonus of 4s. per day, to be divided between him and his labourer. As a result, instead of 350 bricks being laid per day, the amount goes up to more than 600. This continues for a few weeks only, when the unions, we are told, step in and forbid the bricklayers to do it any longer. Now the first and perhaps worst difficulty contained in all this is that the men do not really believe what the builder tells them. That is to say, suspicion and distrust of each other's motives largely decide the issue. But such motives should not govern them in justice to each other, for the evils growing out of such suspicion are many and destructive to the men themselves. For a man undertaking a job at a certain wage, and who is not using his time in the best way, is doing himself no less injury than his employer. A bricklayer working ca'-canny cannot enjoy that self-esteem and satisfaction which gives pleasure to his work. If men are producing less than they ought, the reduced value of their output depresses the industry they are engaged in. By doing our best in any work done we must create more value than by restricting our output, and production is therefore encouraged, so that, as a matter of fact, the effect of ca'-canny is rather to increase unemployment, because it depresses industry, and lowers the self-respect of the worker. We say this not as taking any side at the moment, but to show that suspicion of the motives actuating the men is no less mistaken than their suspicion and distrust of the masters. We must reach a better level of respect for each other, and in so doing we shall find half the difficulties of the present time falling away. Without confidence and initiative, unless we can restore human relationships, all our politics, all our organisation, are of no avail.

Stadium Advertisements.

As the result of protests made we understand that the advertisements on the Stadium will be removed. To undo with our right hand what we do with our left seems an inconsequent occupation, and having built the Stadium with some consideration of architectural dignity and proportion it appeared unaccountable that these should be later blotted out by advertisements. We are therefore very glad to hear that good sense has prevailed and that the disfiguring advertisements are to be taken away.



R.A. Exhibition, 1924.
"Wanderers."
Mr. A. B. Pegram, Sculptor.

GENERAL NEWS

Caversham Bridge Closed.

Caversham Bridge has recently been closed for traffic and is to be demolished to make way for the new £78,000 bridge to be built by the Reading Corporation.

Waterloo Bridge.

In the course of a letter, Major F. William Wynn puts forward the following propositions with reference to a pontoon bridge as a solution to the temporary bridge problem: (1) That there is no engineering difficulty in placing a pontoon bridge near Waterloo Bridge; (2) that such a bridge could carry an important part of the traffic; (3) that the expense would be trifling as compared with that of any other form of temporary bridge.

The A.A. Ball.

The Architectural Association's Annual Dance, held at the Galleries of the Royal Institute of British Architects on Friday last week, was a great success. The dance had been organised in connection with the Exhibition of Modern Swedish Architecture now on view at Conduit-street, and in honour of the architects who had collected and brought over the collection. It was, in fact, as stated on the programme, an "Anglo-Swedish Night." The decorations and many of the dresses had been designed and executed by the staff and students of the A.A. School. The Swedish national colours entered largely into the colour scheme. A fancy dress dance is a thoroughly English institution, but the many visitors from Sweden entered into the spirit of the thing with great enjoyment, and by their enthusiasm greatly helped the success of the show. Among those present were His Excellency Baron Palmstierna, the Swedish Minister, accompanied by Baroness Palmstierna, a large number of the Swedish colony in London, and many Swedish architects who are visiting London for the Exhibition.



R.A. Exhibition, 1924.

Blackpool Memorial: One of the Large Panels (14 ft. 6 in. by 6 ft.).

Mr. Gilbert Ledward, Sculptor.

COMPETITION NEWS

Dunfermline War Memorial.

On the recommendation of Sir John J. Burnet, assessor, the Dunfermline War Memorial Committee recently accepted for the Dunfermline war memorial a design by Messrs. Taylor & Young, architects, Manchester; a cenotaph will be the main feature of the memorial. Premiums in the competition, for which thirty-four designs were forwarded, were awarded to Mr. Robert Brodie, Cathcart, Glasgow; Mr. Joseph Addison, Leeds; and Messrs. Allan & Friskin, Dundee.

Scottish Rugby Union Stand.

The Scottish Rugby Union invite designs for a stand at their new playing field, Murrayfield, Edinburgh. The structure may be of steel and brick work in combination with ferro-concrete, or entirely of ferro-concrete. Premiums of £100, £50, and £20 are offered respectively. Particulars from Mr. H. M. Simson, 134, George-street, Edinburgh. Sending-in day, June 9.

Barrow-upon-Soar and Salford.

The conditions of the Barrow housing and Salford baths competitions are not in accordance with the Regulations.

Branch Library, Gabalfa, Cardiff.

The President of the Royal Institute British Architects has nominated Mr. S. Greenslade as assessor in this competition.

Leeds Maternity Hospital Extensions.

The President of the Royal Institute British Architects has nominated Mr. R. Bu Dick as assessor in this competition.

British Pavilion: International Exhibition of Decorative Art, Paris, 1925.

The President of the Royal Institute British Architects has nominated Mr. H. Goodhart-Rendel as assessor in this competitio

Other Competitions.

Other competitions still open include th following (the dates given are, first the sendin in date, and second the issue of *The Builder* which full particulars were given):—Industri Designs (June; Dec. 21, 1923). Ross-Smi Memorial (Sept. 30; Feb. 21). Glasgow Publ Hall (July 4; May 2.)



From the Swedish Architecture Exhibition at the R.I.B.A.

Church at Masthugget, Gothenburg. Mr. C. Ericson, Architect.

EXHIBITION OF MODERN SWEDISH ARCHITECTURE

By A. E. RICHARDSON.

E Council of the Architectural Association ell as the Council of the Institute have y earned the thanks of the profession and ublic for arranging the present exhibition e new gallery of the R.I.B.A. at No. 9, uit-street.

e exhibition consists of the designs and ls of works by twenty-seven architects, y all of whom have been inspired by n. But some of the works reflect tradi- l tendencies and others aim at being rn with malice aforethought. It is not ble to deal with every work shown, but following selected at random will prove liversity of interest of the exhibits.

ik Lallerstedt, of Stockholm, shows a illustrated by a number of good draw- Here the theme is a version of baroque. ıar Hjorth exhibits the Nobell Institute e and Tenement House, Stockholm; some petitive drawings; a factory at Nybohus, xcellent rendering of an industrial project, hich simplicity of statement is reflected cally; and the charming Iduna-Hall ansen " Restaurant, Stockholm, which is elegant and explicit. This architect also bits drawings of industrial buildings, which onstrate that such schemes are capable of t statement without loss of charm. Some ıe designs show that the tradition of 1800 ill pursued as a basis of expansion; in certain of the drawings have the old- d quality one encounters in past engrav- Such buildings as the Art Gallery and Memorial Hall at the Gothenburg Exhibi- as well as the towers and pavilions, show t can be achieved by observing canons of taste combined with extreme simplicity. example, the model of the Gota Palace, ıenburg, is an object-lesson of scale ob- ed in the large sense.

ıe chief fascination of the exhibition is fine model of the new Town Hall, specially ared for the purpose by the City ıcil of Stockholm. This building, writing ectly, belongs to the later middle stage ıe period of reform. Designs for the work first made in 1901, and in 1902 that by ıar Ostberg was selected. At the time it suggested that accommodation should be ided for the Law Courts in addition to City Hall and offices. This early design, e ingenious, lacked the grace of the one uced two years later—it was almost ally symmetrical. The architect was fight- for freedom of expression, he wished to is building to its unique site, and realising the first that the building needed a tower oncentrated his whole thought upon the ct of an appropriate plan. All the time ave full attention to the subject in hand, in 1907 the site was prepared for building ations; but it was not until 1909 that the adhus " was decided upon in its ultimate , freed from the incumbrance of the Law ts. Two years later, on the present site, revised plan was started.

this time Ragnar Ostberg had resolved mediæval cast for the plan, which, as ted, is a masterpiece of simplicity. The in this case is the key to the subsequent t; it relies for its ultimate force entirely he causes and conditions, but there is an try in the arrangement of the halls and s, one of which is lighted by clerestory ows, which lifts the scheme out of the f ordinary systematised planning methods, ough it shows elementary failings. The model of the building is a complete in- ion of the validity of the plan; apart from ks in the circulation there is not a move in the upraising of the walls from horizontal platform. In the large ed areas the points of support, thanks to modern construction, are reduced to a minimum and this without tricks or engineering feats of questionable character. The granite columns that support the arcades are monolithic and have been calculated to carry the full load of the superstructure without the intervention of steel.

It is the one outstanding feature of the exhibition; all the others are but pale reflections of this remarkable work. Yet the effect has been obtained in the most natural and obvious way. The material is brick, but the bricks to English eyes are of an unusual size, measuring 11 in. by 5 in. by 3¾ in., with a delightful texture. To attain his result the architect had recourse to Venetian models; he may have been influenced by the doctrines of Ruskin and led to certain conclusions by analogies of site, but whatever his methods he has produced a fairylike palace which is both real and convincing and keeps the lamp burning. One feels, on reflection, that this is the type of work the best of the Gothic revivalists in England seventy years since were striving for; but in this case it is neither Gothic nor Classic, it is a work above style and yet pre-eminently stylish. The true secret is that it is a building both functionally and structurally sound, a building schemed to include the latent forces of building and to express its purpose to the spectator by means of perspective and common-sense proportions. One feels as one studies the model that one would like to become a Tom Thumb in order to frequent its courts and colonnades. Professor Ostberg has aimed at the utmost effect of light and shade both internally and externally. That the same theme has possessed him on other occasions is apparent from a study of the domestic work which he shows. For example, the Geber House contains, to a smaller scale, many features which appear in the Town Hall.

The designs by Ivar Tengbom include the Hogoalid Church at Stockholm, a building internally inspired by Eastern examples, but externally showing regard for local character; he also shows a bank at Stockholm and some office buildings.

Without calling attention to individual examples criticism must be directed to some of the plans shown, both for public buildings and works of domestic stamp. Accustomed as we are in England to logical reasoning and simplicity of statement, some of the plans appear to be crude; they show a complexity which is both confusing and unnatural, as though the designers have been aiming at an involved rendering of conditions. This is not so much the case with the Town Hall, but it is apparent that our Swedish friends in some quarters have become obsessed with the mediæval theme for planning, and in their desire to emancipate their minds from classicality they have gone to the other extreme. Bearing in mind the enormous influence this exhibition will have upon contemporary thought in this country, it is only fair to point out obvious faults in some of the works, and in the sphere of planning there is much to be avoided. The Engelbrekt Church at Stockholm is a case in point. The design both horizontally and vertically is too involved, too forced and complex to be taken seriously. The same remarks apply somewhat to the design for the University of Architecture and Engineering. As a whole the exhibition is most stimulating, and the designs and models in the main indicate the high aims and ambitions of our Swedish friends.

Sweden, like Holland, has not suffered by the war. Both countries are imbued with the political significance of building, and the astonishing vigour of the designs as of the sculpture and decoration proves sincerity of purpose. But salvation for the arts in England will not come from Sweden any more than it will come from America or any other country. The signs in Sweden are very much the same as those that are apparent on a much greater scale in this country, the symptoms are practically identical. Where Sweden scores is in the efficiency of her craftsmen, in the sound training offered by her technical schools, and in the ideals of her leading artists to be natural and national. It is this spirit which has resulted in the splendid if temporary buildings of the Gothenburg Exhibition and the permanent monument of the Stadhus. Swedish artists in the past have profited much by contact with England and other countries; the present exhibition, rich as it is in ideas and ripe in associations, will do still more to inspire Englishmen to higher flights, and will throw into stronger relief the progress of the arts.

One fact is clearly demonstrated, and that is the necessity of architecture to commerce, and in fact to every phase of well-being. In England much fine work is being accomplished, but it is obscured by the works unsuited to the conditions given, and by the listless indifference of some workers who do not understand the nature of the buildings or the material which they are working. When it is realised that building is above questions of style and fashion and is entirely dependent on cause for its effect, then and then only will general interest in art revive.

It is consoling to realise that Swedish architecture, as shown in this exhibition, avoids the pretentious character of so-called modern work; it is neither brutally aggressive like the German nor fantastic like some recent Dutch work. There is no place in building for extravaganza or fantasia; building, above all things, must be real and sincere or it falls precipitately into the abyss of the ridiculous. The present revolution of thought which is common throughout the world aims at emancipation from pedantry and a desire to be natural without slavish copyism of the antique. The world's masterpieces are above style or fashion; the truths of the past are comparable with the rungs of a ladder which have been mounted and still remain. The mistake made too often in recent years has been the exploitation of a style because for the moment it is foremost in the mind.

Viewed thus coldly and with keen and logical calculation the present status of building in Sweden can be appraised at its true value.

One would like to see an exhibition of contemporary English work arranged at the galleries in Conduit-street, perhaps to coincide with the Congress on Architectural Education this summer; it would form an interesting foil to the present exhibition. Such an exhibition should be limited to two designs from each exhibitor, and the designs should be subjected to the closest scrutiny. There is much fine work being done in this country, and it would be enlightening to both architects and the public if a small but vital display could be brought into being.

Swedish architecture as shown will serve the useful purpose of stimulating art of a similar nature in this country; the danger to be guarded against is a too blind acceptance of the examples which to insular ideas may appear novel and recent, whereas the contrary is the case. But the Town Hall at Stockholm is a masterpiece.

Blair Atholl War Memorial.

The Duke of Atholl, Lord-Lieutenant of Perthshire, recently unveiled a memorial at Blair Atholl to the men of the parish who fell in the war. The memorial stands about 12 ft. in height, and bears only the figures "1914–1918."

CORRESPONDENCE

Consolidation and Registration of the Architectural Profession.

We have received the following letter from the North Wales Architectural Society:—

SIR,—All Fellows, Associates and Licentiates of the R.I.B.A. will have received the Council's proposals for dealing with the question of registration and consolidation of the profession, and it will be noticed that the scheme is supported by most of the leaders of the profession. We venture to express the hope that all members practising in the North Wales area will support the proposals and record their votes.

For over forty years dissensions within the profession have taken up time which should have been used in other and better directions, with the result that architects have not been able to speak with the united voice of the whole profession and the advancement of the art of architecture has suffered seriously.

The proposals agreed between the Council of the R.I.B.A. and the Council of the Society of Architects for the amalgamation of the two bodies indicate a scheme which is fair and reasonable, having regard to the interests of the various classes of members concerned. It is the only practical scheme which has been evolved during the long controversy. With this problem solved and settled, the R.I.B.A. will be afforded the opportunity of exercising its true function—in the words of the Charter—"The general advancement of civil architecture and for promoting and facilitating the acquirement of the knowledge of the various arts and sciences connected therewith, architecture being an art esteemed and encouraged in all enlightened nations as tending greatly to promote the domestic convenience of citizens and the public improvement and embellishment of towns and cities."

While seeking to protect the interests of the profession, let us not overlook our responsibilities to the public, for man's duties extend far beyond the limit of his own personal interest and advantage. As architects, it is our privilege, as well as our duty, to foster a larger intelligence and culture in the art of architecture for the common weal.

G. A. HUMPHREYS, H. HAROLD HUGHES, H. L. NORTH, RICHARD HALL, E. COLWYN FOULKES.

Registration.

SIR,—I am not likely to be accused of ignorance of the history of, or the difficulties surrounding, this great movement, which simply means a compulsory test of adequate training.

I note with satisfaction that the present Council of the R.I.B.A., the R.I.B.A. Defence League, and the Council of the Society of Architects, are all now pledged to do their utmost to protect the profession by some measure of this kind.

The respective parliamentary advisers of the R.I.B.A. Council and of the Defence League appear to differ in their opinions as to the chances of success for any Bill submitted to the Houses of Parliament, but those of us who have devoted much time and thought for many years to the subject all know that without unity of the profession such a measure has no chance at all.

In their appeal to the corporate members of the R.I.B.A. the Council have pledged themselves, if and when the amalgamation scheme is effected, to do their utmost to obtain a registration Act.

The signatories of the Council's Appeal consist largely of recognised leaders of the profession. Surely it is our plain duty to support them by re-electing the present Council, and thus giving them an opportunity of fulfilling their undertaking.

It is for the R.I.B.A. Associates to say whether the advantages to be derived from the unity of the profession are not to be allowed under the amalgamation scheme to outweigh a modification of their status as graduates.

W. H. SETH-SMITH.

Registration and the Proposed Amalgamation.

SIR,—Mr. M. H. Powell is under a misapprehension as to the method of election to the Fellowship of the R.I.B.A., and he will not mind, I hope, if I state the actual position.

Direct election to the Fellowship from outside the Institute ceased about 1909, and since that date election to the Fellowship has been limited to candidates from the Associate class. Of the 958 Fellows whose names appear in the current Kalendar, 408 were elected from the Associate class, 356 were elected from outside direct before 1909.

There are two exceptions to this rule:—

1. Between the years 1910 and 1920, Licentiates who passed a special examination were allowed to qualify for the Fellowship, and 183 out of more than 2,000 did so. This privilege came to an end in 1920, and none has been elected since.

2. The Charter of 1909 gave the Council power to elect Fellows of special distinction by a unanimous vote. They have used this power with such extreme discretion that in fifteen years only eleven Fellows, or less than 1 per cent. of the total, were so elected.

ARTHUR KEEN,
Hon. Secretary,
Royal Institute of British Architects.

The Council of R.I.B.A. and Counsel's Opinion.

SIR,—Is Mr. Cross quite correct in his assumption (letter to you, May 16) that Mr. Shortt's opinion should be taken "cum grano salis" being founded upon two hypotheses, neither of which is based on fact?

The opinion referred to is the answer to a question put by the Defence League, "*If the amalgamation takes place, do you see any possible chance of architects obtaining registration?*" The answer is an emphatic "Yes." The Defence League does not like this, and Mr. Cross now objects that it must be accepted "cum grano salis" because a previous opinion was based upon two hypotheses which Mr. Cross declares were not founded upon fact.

This does not appear to be very good logic. Of course, outside the Defence League everyone agrees that the hypotheses upon which the first opinion was based are perfectly sound, and Mr. Cross appears to hold the opinion, which is opposed to the expressed opinion of the League, that however put the answer would be the same. Mr. Cross goes so far as to say that if the two Societies had put the question independently the answer would have been the same, *i.e.*, there is not only a chance but a reasonable probability of architects obtaining registration. Can we reconcile this with the often expressed views of the Defence League that we cannot make a "public case?"

Mr. Cross thinks the whole case for unification falls to the ground if, as he believes, registration can be obtained without it. As far as I am concerned, and I think many agree, unification under the R.I.B.A. is more important than registration by Act of Parliament. With or without registration by Act, I think unification is essential to architecture and to the profession, and am content to take a long view.

I do not follow Mr. Cross in his suggestions of ulterior motives on the part of the Society of Architects. As a member of the Unification Committee, I formed the opinion that the Society, having been founded and having lived for a particular object, was willing to put its own federation scheme on one side and accept the views of the majority in favour of unification; it certainly seems to me rather rough on the Society for important members of the profession to suggest "ulterior motives," and it assuredly does not flatter the intelligence of our own Council to say that they are being coerced for such motives.

JOHN E. YERBURY.



R.A. EXHIBITION, 1924.

Lady Caroline Paget.
MR. W. REID DICK, A.R.A. Sculptor.

Architectural Competitions.

SIR,—May I, a more layman, endorse certain remarks by the writer who reviewed the exhibition of competing designs for a cottage hospital at South Moor and Holmside Collieries Co. Durham?

I went with an architect friend to see the designs, and enjoyed the experience, which to me was novel and instructive. I do hope however, that very few of the competitors, the "also rans," saw the sad sight. Yet, perhaps if all had seen it, a means to avoid such waste might sooner be devised by a profession which certainly has brains.

I had never seen anything of this kind before and I will never forget my first impression as I entered the large hall. It made me take a gasp before diving into such a sea of sheets. Rows of forms, back to back, left bare room to walk round; forms with their backs to the walls, window ledges, and temporary rails between windows, gave three rows of sheets on some of the walls. Every available space including a platform with more forms and tables was needed, and the floor was convenient for loose labels, and other papers.

I knew something of the efforts of one competitor, and tried to comprehend the amount of mental energy wasted. I suppose one might estimate the cost of each set of sheets at £2 and I think there were about seventy sets. I asked my friend if some scheme of preliminary competition, asking for plan sketches, and position on site, might not have saved all this waste, reducing the final competition to about a dozen competitors or less.

The profession has no need of a layman's suggestions, but I cannot find words to express that first gasp as I first beheld the scene of human tragedy—of "Ships that pass in the Night."

E. S.

R.I.B.A Council Election.

The last day for receiving voting papers in this election is May 24.

UNITY AND REGISTRATION

Mr. Frank H. Heaven, A.R.I.B.A., writes: The question of "unification" as presented to the members of the R.I.B.A. and Society of Architects, with a recommendation of the councils of both bodies for acceptance is now "amalgamation," and not "unification"—quite different objectives—identical meaning "to reduce to unity or uniformity," whilst amalgamation means "to combine." Why the change of policy? The councils of both bodies appear to think so long as they agree, all will be well; what of the unattached architects? Are they to be part of the "mix," or are all to be "reduced" at a later stage?

A comparison of the number of architects in the country with the memberships of the R.I.B.A. and the S.A. will show that there is a vast majority outside of these bodies. Yet both councils tell us that their united (when amalgamated) will so impress Parliament that it will grant to them "protection" or "registration"—call it which is most palatable; but what will be the attitude of the unattached architects to this proposal. Will they meekly submit to be governed by the R.I.B.A. without representation; and if they, too, be admitted into the Institute on what terms to the present proposals? In my opinion, the ultimate end of the present movement—if it is to remain at "amalgamation"—is to invite defeat from outside, to destroy the labours of forty years of the S.A. (the independent body pledged to registration), and to lose the present acknowledged status of the R.I.B.A., and, further, to encourage disunity and dissension in the ranks of both bodies.

Other societies in the past have desired registration, but have either failed to obtain it after application to Parliament, or have profited by the experience of others and abandoned the attempt. I allude to the Chartered Accountants, the Surveyors' Institution, the Institute of Civil Engineers, and the Worshipful Company of Plumbers. Except for the last, who obtained registration many years ago, no doubt through their very great influence in the House, no society has been successful except those directly connected with the health—the doctors, nurses, veterinary surgeons and dentists.

It is suggested that Mr. Shortt has at a late date to give an expression of opinion in favour of registration, but, in the light of all the facts, is it reasonable to suppose that architects are to be given special consideration? Is it not to "cry for the moon"? Prima facie, registration appears to be the object of the R.I.B.A. and the S.A. But Viewed with an unbiased mind and in the light of past failures, one is inclined to think the kudos (excuse slang) or perhaps the archy is uppermost.

True, the S.A. members lose their individuality but gain *locus standi*, and in so doing admit defeat in the pursuance of an original objective and give colour to probable future continued effort in the same direction as if amalgamated.

Further, if it is so desirable that the S.A. should be incorporated with the R.I.B.A. before registration, surely it is equally desirable and more reasonable that the R.I.B.A. should grant similar terms to all the members of its own allied societies. This is not attempted and a sufficient reason should be forthcoming from the Institute for the neglect of its own *protégé*.

Now, a word to the Associates of the R.I.B.A. At the present moment the Associates are "masters of the house," but after "amalgamation" on the terms now proposed it will not be so, because the Associate class will be a minority within the Institute, and for this reason one is not surprised that Fellows and Licentiates are being urged to support the project, as by so doing they advance their own positions to one of authority within the Institute at the expense of the examined class. Associates should therefore give this careful thought, and act as they think best when voting at the forthcoming elections, which, in their own interests, the interests of the Institute, and eventually the interest of the whole profession, will be against the present proposals for amalgamation.

[*** Taking the points in order in Mr. Heaven's letter, we think everyone knows what is meant by the words he quotes. In reply to his second paragraph, the R.I.B.A., the Society of Architects and the allied societies which are solidly with the R.I.B.A. in this matter, form a "vast majority" of the bona-fide architects of the country. There is no reason to fear opposition from the "unattached architects." They have much to gain and nothing to lose by registration. Their interests must, of course, be protected in any Registration Act, but as we understand the position, there is no question of admitting them into the R.I.B.A., and no need to do so. The movement for the statutory registration of the unregistered professions is stronger now than it has ever been before. Architects have obtained registration in the United States, Dominions, and elsewhere, and their success is a good augury for this country. We are entitled to think that Mr. Shortt's opinion really carries more weight on a Parliamentary question than Mr. Heaven's. As to Mr. Heaven's sixth paragraph, if the scheme goes through the Society of Architects can rightly congratulate themselves on having contributed to the most practical and hopeful Registration scheme that has ever been put forward. The Society can sing "Nunc Dimittis" with a cheerful mind. The admittance of the members of the allied societies into the R.I.B.A. is not necessary. They are almost a unit in support of the R.I.B.A. scheme, and their interests will be fully protected in the Act. They are an integral part already of the R.I.B.A. organisation so far as an appeal to Parliament is concerned, and there is not the slightest necessity for any change in their status. It is the independent status of the Society of Architects that makes the scheme necessary. The last paragraph of our correspondent's letter is not, we believe, in accordance with fact. Under the scheme the "examined" members of the R.I.B.A. will, we believe, continue to be in a majority.—Ed.]



R.A. Exhibition.

Cavalry Memorial. Mr. Adrian Jones, M.V.O., F.R.B.S., Sculptor.

[The setting for this memorial was designed by Sir John Burnet, A.R.A., & Partners.]

SCULPTURE AT THE ROYAL ACADEMY

RIGHTLY or wrongly, the annual exhibition at the Royal Academy is regarded as a reflection of contemporary thought and achievement in sculpture. For this reason it has an importance possessed by no other exhibition.

Viewed from such a standpoint the increased space allotted to sculpture by the addition of Gallery No. VI, and many small groups and busts placed in other galleries, shows that there is in England an increasing interest in the plastic art. This is an inspiring thought. It is something that is of great interest to the public, to artists and to architects, for most architects regard sculpture as the crowning enrichment of building. Sculpture has so much to tell: it can tell its story with such great effect, that all must welcome the fact, if fact it be, that the plastic art is gaining yearly in importance.

Even, however, with this advance in the space available for its display at the Royal Academy, the conditions are far from ideal. Life-size or heroic figures, intended for the open air with architectural surroundings, seem disproportionate or even clumsy when placed in a covered gallery of medium height. In Paris the Salon sculpture has an immense advantage because of its display under practically open-air conditions. Once or twice large groups have been exhibited in the Courtyard at Burlington House. This scheme might be capable of considerable extension, and groups might be placed there more frequently with advantage to all concerned.

What is the impression of "Sculpture in 1924" which the Royal Academy gives? Perhaps lack of imagination is the most salient characteristic. There are some works, to be noted later, which do not call for this comment, but, considered in bulk, the sculpture does not indicate high achievement or striking originality. These qualities are not the fault of lack of recognition by the public, or lack of facilities for display by the Hanging Committee, but of lack of real ability on the part of sculptors. Until sculptors, as a whole, achieve something upon a higher level than that of much of the present work, there can be no enthusiastic interest upon the part of the public. It may not be too much to say that no one is interested in a great part of the array of khaki-clad figures ranged around the central hall. Many of the smaller works in other rooms similarly lack any real distinction. This is not to say that the 1924 Sculpture Exhibition is below the level of former ye —it is probably higher.

On the other hand, there are some m who are travelling upon the difficult ward path that leads to great achieveme Serjeant Jagger is almost the only art who has produced striking and origi figures of soldiers, and his exhibit this y from the Royal Artillery Memorial ma tains the tradition he has created. Th is, perhaps, a danger that this type figure, good as it is, will become a m nerism, and the artist is too good to lost in a "type," however good that ty may be.

Among the younger men who are p ducing fine work must also be mentio Gilbert Ledward, who exhibits a rel from the Blackpool War Memorial. composition, although not perhaps qu so striking as some of his previous wo it yet shows a very high level of achie ment.



Head of a figure from the Bridgwat War Memorial.
MR. JOHN ANGEL, Sculptor.



Bronze Statuette: A Garden Figure.
MR. P. G. BENTHAM, A.R.B.S., Sculptor.
[This statuette was purchased by H.M. the Queen on View Day.]



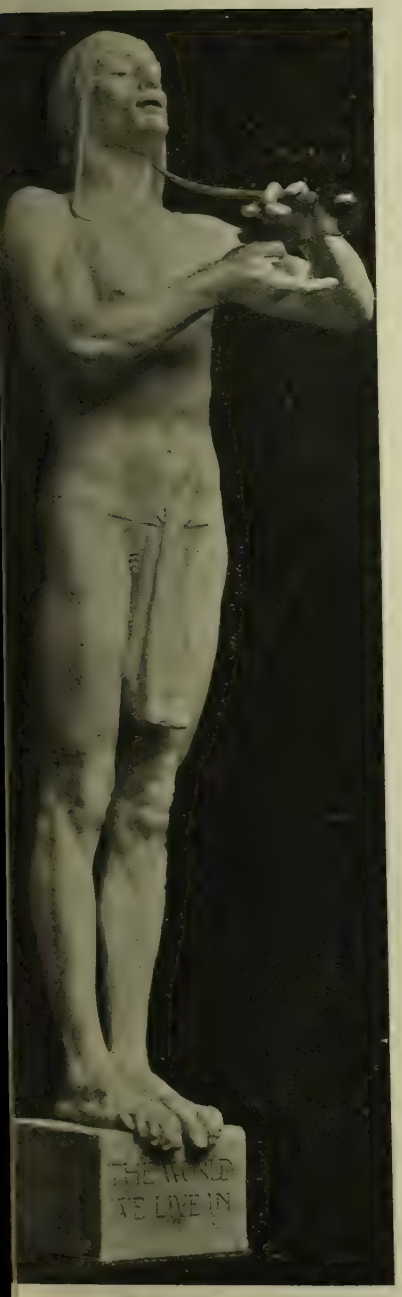
"Peace."
MR. CHARLES WHEELER, Sculptor.



Head.
MR. CHARLES WHEELER, Sculptor.

arles Wheeler has introduced an al- archaic element into his exhibits. At moment the result, although fascina-, has a stiffness which is not quite eflection of modern thought. When stiffness is subordinated as in "The nt Christ"—which has a wonderful ng of religious mysticism—the sculp- shows promise of some most fascina- work.

mongst the coming men must also be ıded R. R. Goulden, who exhibits a roup for a Memorial Garden." This ı work where carefully studied line, ıtiful modelling, and a certain feeling nspiration raise the work to a high l. Gilbert Bayes appears in satirical with "The World We Live In," a e figure touching a bubble. There is rnical head, and a very fine torso, good dling of limbs, vigorous treatment of



"The World We Live In."
Mr. Gilbert Bayes, Sculptor.



"Faun": Study for a Garden Terminal.
Mr. F. Doyle Jones, A.R.B.S., Sculptor.

the various planes and details. One of these days Gilbert Bayes will produce an unmistakable "Group of the Year." Reid Dick maintains his position with some beautiful work which cannot fail to be attractive.

Of the remaining works, special mention must be made of a kneeling figure by Derwent Wood, broadly treated with simple drapery and a fine head. "The Spirit of Sleep," by C. W. Dyson-Smith, is a recumbent nude well modelled and attractive, the position perhaps somewhat difficult as regards display, but nevertheless quite an interesting piece of work.

"A Snarling Panther," by Ethel M. Henderson, is a fine animal with bold, well-modelled surfaces and vigorous handling of detail. "Virtus et Spes," a relief by Ernest Webb, is well composed and handled with a sharply defined low relief which is very attractive. Ernest Webb comes from Nottingham, where a very fine school of sculpture seems to be developing.

Two interesting busts, one in stone and one in bronze, of "An Athlete" and "The Boxer," while unlike in detail, yet are not dissimilar in effect. The former is in stone and by Edgar S. Frith, the latter in bronze, by Alfred F. Hardiman. "The Wanderers," by Bertram Pegram, is a group of two figures well handled in the modelling but failing to portray the subject by any direct appeal.

Mention must also be made of a good nude by David Evans, which as a study is most attractive, but which lacks inspiration. A decorative group of considerable possibilities, by Ferdinand V. Blundstone, is called "The Captive." It shows a number of figures carrying a woman shoulder high upon a barbaric stretcher. The grouping is very decorative, but the woman captive hardly maintains the importance needed by her position as the focal point of the composition. Leonard Merrifield shows a nude study which is sound. John Angel exhibits a fine head from the Bridgwater War Memorial.

Altogether an interesting exhibition, without perhaps any really striking works.

NEW PAINTINGS AT THE NATIONAL GALLERY.

During the next few weeks the public will have the opportunity of seeing at the National Gallery two pictures which have been acquired for the National Gallery of Canada. Sir Antonio Mor is represented by a three-quarter length portrait—considered to be the famous Sir Thomas Gresham, which has been placed in Room XIV, near the famous Rubens called "Chapeau de Poil." In the great Venetian Room, No. VII, hangs a fine male portrait by G. B. Moroni, which will also be a valuable addition to the Ottawa Gallery. In Room XXI there is a brilliant example, "Princess Ragotsky with a Negro Page," of the art of Largillière, who was not hitherto represented at Trafalgar-square. The portrait must have been painted while the Princess and her famous husband were in France, between 1713 and 1717. A group of interesting early Italian and Flemish pictures has been presented to the Gallery by Mr. Henry Wagner, F.S.A. These, it is hoped, will be available for exhibition towards the end of the month, together wi h the fine altarpiece by Francesco Zaganelli (da Cotignola).



"Fear."
Mr. S. W. Ward Willis, R.B.S., Sculptor.

Mr. J. A. Gotch (President) occupied the chair on Monday at 9, Conduit-street, W., at an ordinary meeting of the Institute.

Mr. A. Keen (Hon. Secretary) announced the decease of the following members:—Colonel Cecil Locke Wilson, elected a Fellow in 1906. Colonel Wilson was a Past President of the South Wales Institute of Architects, and represented that body on the R.I.B.A. Council during the session 1911-12. Mr. George Harry Barrowcliff, elected Licentiate 1910. It was agreed that the regrets of the Institute be entered on the minutes and a message of sympathy be conveyed to the relatives.

The Scheme for a Thames Embankment after the Great Fire of London.

Mr. Sydney Perks then gave an address on The Scheme for a Thames Embankment after the Great Fire of London, in the course of which he said:

Wren showed a wide quay on both his plans, the quay being wider and more important on his first plan, which provided for filling in Dowgate Dock. The proposal to make a quay had been referred to as an example of Wren's great genius, but it was a fairly obvious idea; Hooke proposed a quay and also the abolition of all docks, so as to make a wide and uninterrupted thoroughfare from the Fleet to the Tower. Evelyn's second plan also showed a quay 80 ft. wide, and the filling in of Dowgate Dock, so Wren must not get all the credit for proposing a quay, presuming they considered it a good idea. It was well to note that a public quay or embankment as shown on the plans of Evelyn and Hooke formed a thoroughfare by the river with no street immediately at the rear, but Wren's plan and the proposed quay according to the Acts of Parliament showed a quay with a thoroughfare only slightly farther north; they had Thames-street, a direct line east and west, and the quayside, according to the Acts of 1667 and 1670, would not have been wanted as it was only a few yards farther south. Two Acts of Parliament were passed, and they stated a quay 40 ft. wide was to be made; shortly, the generally accepted view of to-day was that a magnificent quay 40 ft. wide was made at public expense, the money being provided by the coal dues; this quay had been compared with the present Thames Embankment, and it had been stated that the Corporation of the City of London, after paying for the quay with public funds, allowed people to build over public property until in about 100 years it practically disappeared, and finally that the Corporation went to Parliament in 1821 and obtained an Act repealing certain sections of the old Acts.

After an interesting survey of the Acts of Parliament involved, the lecturer dealt with a document, which he considered very important, dated December 4, 1671, and entitled "Letters Patents confirming the Design for making an open Wharfe forty feet wide on the North side of the River Thames between London Bridge and the Temple and directing that no Buildings should be erected within that distance from the River." He had reason to believe that this document had never been made public; it was signed "By Writt of Privy Seal—Pigott," and had the great seal. It referred to the Act of 1670, stating "a Key or Public and open Wharfe" had to be formed, and buildings set back 40 feet from the river front, and that "Bounds of each Proprietors Ground . . . should be distinguished by Denter Stones to be placed in the pavement" and that the line of the whole Key or Wharfe should be it ascertained by Direction of the Lord Mayor, etc., referred to cranes, etc., to be allowed within the 40 feet, and that a plan had to be submitted by the 20th Day of June following the passing of the Act. It stated the Corporation had "presented to us a model form or Draught of the said Key . . . so designed and appointed to be made" and the plan was annexed. The letters patents also decided that "our Ground and Soil . . . may be taken out of our said River of Thames . . . to make the said Line between London Bridge and the Temple . . . uniform and regular . . . according to the said Modell fform and Draught . . . annexed," the said soil to become the property of the Corporation except between Paul's Wharf and Baynard's Castle. The whole document was exceedingly interesting, but perhaps the most interesting part was a plan of the frontage of the Thames from London Bridge to the Temple made in 1671; it was over 8 ft. long, the scale was 50 ft. to the inch: it was submitted to Dr. Wren in draft in May, 1671.

It did not agree with the Ogilby and Morgan map, and a comparison was very interesting, for Ogilby and Morgan showed the suggested quay according to the letters patents was not constructed. The river frontage and steps as they existed were clearly shown on the plan, and also the proposed frontage encroaching on the river and new landing steps. He had applied the line to the present Ordnance map, a little adjustment was necessary with regard to the bend of the river, but the plan fitted in very well, and must have been carefully measured: the plan and document were worth careful study, and a typewritten copy of the latter and a facsimile of the plan would be deposited in their library. To make the quay as designed considerable encroachment on to the river must have been made. The contractor for the Fleet Ditch for a length of over 200 ft. was paid over £51,000, so they saw at once the cost of the Thames Embankment scheme would have been colossal; no payment was recorded for purchasing property in connection with the scheme, or for making the quay, but several items of expenditure were recorded for improving the docks and quay adjoining, as provided in the Act of 1670. The entries in the minutes of the City Lands Committee, etc., indicated the improvements contemplated were national rather than merely local; the King was the final authority and not the Corporation; there were frequent references to Dr. Wren, or "Mr. Surveyor general." The City Surveyors were instructed to discuss their ideas for the line of quay with Dr. Wren and satisfy him before submitting the plan to His Majesty. Questions concerning the erection of buildings within 40 ft. of the river were not dealt with by the Corporation; they were delayed in order to ascertain His Majesty's decision. Dr. Wren, His Majesty's Surveyor, prepared the Fleet Ditch scheme. Dr. Wren applied to the King with reference to "an alleged encroachment on the 40 ft. wharf or space" by the Fishmongers' Company. The Court of Aldermen having received a petition for payment for land within the 40 ft. boundary "did not think it convenient to interfere in the matter," but promised to assist the applicant to petition His Majesty; and so on.

The Corporation acted with the greatest care in the matter, for they had seen that in January, 1673, they consulted the Attorney General, in June, 1674, the Lord Mayor Recorder attended a Committee of the H of Lords, and in November, 1681, the Co troller and Recorder again advised "on whole matter," they evidently were not tain if they were liable for the land ta etc., and the Act was not very clear; whatever the opinion was, no one had paid up to June 19, 1678; there was a defi entry on that date, and he could find no e at a later date.

The maps subsequent to that of Ogilby Morgan showed encroachments on the s of 40 ft., but they had also seen that o plans and many views about the same dat slightly later did not show a clear space 40 ft. from the Temple to London Brid but apart from the question of fact, and c sidering the Act of 1670 and the docum referred to above, what an illogical and moral proposal it was.

Let them for a moment consider the sche for a quay. It could not have been wan by the owners of the warehouses, and it co not have been used as a thoroughfare, old maps showed that there were many sta for landing goods, and the quay would h been inconvenient even for local pedestr traffic, being encumbered with cranes, rop etc. Wren's idea was different: the wat front was to be used partly for the Halls City Companies, the character of the wh river front being altered. But under the of 1670, and as stated in the document had submitted, it was clearly intended t buildings facing the river should be of t warehouse class; that being so, it was c viously a bad arrangement to erect wa houses 40 ft. from the river and so increa enormously the labour of loading and unloa ing barges. The proper place for a wa house was flush with the water line.

In conclusion, the lecturer said he did n pretend to have solved the mystery concer ing the quay, but he hoped he had been a to add some information on the subject; a he submitted for their consideration the fa that the quay as defined in the letters pater was never built; also that it was very doub ful if a clear space of 40 ft. was ever form from the water line, for the whole length the river frontage; and lastly that the C poration acted throughout in a fair and pr per spirit, bearing in mind the best interes of the citizens at the end of the seventeen century, just as they always did, and to-day.

Dr. Philip Norman, in proposing a vote thanks to the lecturer, said they owed him debt of gratitude for the work he had don both as a writer and architect, in preservi Old London. What specially interested h in the paper they had just heard was the 8 plan. With regard to the illustrations th had seen he had never been able to get a cle idea as to the accuracy of the streets, or of su details as the 40 ft. quay. He could not he thinking in the maps shown there were op spaces along the river front. A surprisi amount of information had been obtaine and, in his opinion, an honest but not su cessful attempt had been made to make quay.

Mr. Delissa Joseph, in seconding the vote thanks, said the part of the paper which a pealed to him individually was the part whi dealt with the contemporary life of the tim

Mr. W. L. Davidge said the work of t lecturer necessitated going to the City archiv themselves. They must have co-operation b tween the Government and the municip authorities. He considered the public, throu lack of care, lost the public quay which th had had, wholly or in part, for 100 years. showed the necessity of keeping a close wat on those things which they had in the w of improvements. It was absolutely necessa not only to have a fine plan, but a consiste public opinion to keep that plan in workin order.

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ILLUSTRATIONS

Our inset illustrations this week are all exhibits at the Royal Academy Exhibition.

Record Office for the Bank of England.

There exists on the site a one-story building with northern light roof, the walls of which are to be retained, windows cut in them, floors introduced, and the whole structure raised to a height about 65 ft. from pavement level. The interior construction is of steel, with ferro-concrete to floors and staircase. The chimney that shows on the drawing is an existing one, larger than would have been necessary for the present building. Advantage, however, is taken of the fact to use it for the combined purpose of serving not only the heating apparatus and the destructor, but also for ventilation of the basement. The setting back of the upper stories has been done to avoid interference with adjacent lights. Acceptance of this governing factor is indeed the theme on which the design for this frontage is based.

The existing building is faced with London stock bricks, and these will be used throughout for the facing of the higher building. The windows with arched heads are formed on precast permanent centerings of concrete, thus combining the strength of the arch and the convenience of a flat lintel.

Messrs. Holloway Bros. are the contractors for the general building work; Messrs. Matthew Shaw & Co. are supplying the steelwork; Messrs. Stuart's Granolithic Co. the floor and other ferro-concrete work.

Mr. F. W. Troup, F.R.I.B.A., is the architect.

Midland Bank, Darlington.

The premises of the Midland Bank in Prospect-place, Darlington, are being entirely reconstructed. The banking hall, which is large and well lighted, covers an area of about 2,000 square ft., and is about 26 ft. in height. It provides accommodation for a staff of about forty. The usual strong rooms, cloak rooms and lavatories for male and female staff are also included in the accommodation which will be provided. With the exception of certain store rooms and lavatories on an upper floor, the building is of one story, the whole occupied by the bank.

The site is a fine one, at the junction of Prospect-place and Northgate, and the frontage line towards the latter street has been set back, and the salient angle splayed off in order to relieve vehicular traffic at a crowded and congested corner. The exterior will be faced with Portland stone raised above a base of polished dark-grey Aberdeen granite, and the roof will be covered with green Westmorland slates. The whole of the floors and roofs will be fire-resisting, and constructed of concrete reinforced with steel fabric supplied by the British Reinforced Concrete Co.

The general contractor is Mr. Thomas Lumsden, of Grantham-road, Newcastle-on-Tyne, and the following sub-contractors will be employed: Messrs. Scott & Sons, Newcastle, plumber's work; Messrs. Dawber, Townsley & Co., Darlington, slater's work; Messrs. Garden & Co., Aberdeen, granite work; Messrs. Concrete, Ltd., Leeds, artificial stone; Messrs. Thomas Faldo & Co., London, asphalting.

The architects are Messrs. Brierley & Rutherford, of 13, Lendal, York.

Additions to Farrington's Girls' School.

The buildings will consist of three blocks, with low connecting corridors. The first block, or East House, was completed in 1911, from designs by the late Mr. Charles Mileham, in collaboration with Messrs. Gunton & Gunton, who were also appointed honorary consulting architects in connection with the completion of the scheme.

The present additions comprise an assembly hall, with cloak rooms and retiring rooms, and over these, rooms for singing and music practice. Adjoining the hall are class rooms, science, art and mistresses' rooms, &c., arranged round a two-storied hall with galleries, and lighted by a clerestory and glass dome.

The third block, or West House, contains additional dormitories and bedrooms for girls and staff, common room and changing room, library, dining hall, with the necessary kitchens and offices. The buildings are designed to accommodate about 100 girls, with teaching and domestic staffs.

The general contractors are Messrs. G. E. Wallis & Sons, Ltd., of Maidstone, and the sub contractors are as follows: Messrs. Matthew T Shaw & Co., Millwall, E.14, structural steelwork; Messrs. Crittall Manufacturing Co., metal casements and lead lights; Messrs. Stirling & Johnson, roof tiling; Messrs. H. J. Cash & Co., heating and hot-water supply.

The work is now being carried out from the designs and under the superintendence of Messrs. Crickmer & Foxley, architects.

House at Hampstead Garden Suburb.

The unusual shape of the plan of this house was dictated by the fact that the building area was limited to a rectangle of about 50 ft. by 70 ft., and building lines on both the north-west and south-west sides were tied. The position of the drawing-room was dictated by extensive views down a narrow strip of garden leading to the Heath. The house is occupied by three persons having important work and living somewhat independent lives; for this reason there are three sitting-rooms in addition to the dining-room. The bedrooms are all on one floor, and open off a rectangular landing 8 ft. by 20 ft. No difference has been made in those rooms which are occupied by the staff.

The materials used are sand-faced bricks with artificial stone dressings, and a hand-made plain tile roof. The front doorway has a white surround and pilasters of wood, and a metal fanlight. The contractors for the house were Messrs. Guild Housing, Ltd., who also carried out a great many fitments in British Columbia pine, treated with "Dry-tone" process. The only sub-contractors were Messrs. Wontner-Smith, Gray & Co., who did the heating and hot-water work. The following firms supplied materials:—Messrs. Thomas Lawrence, Ltd., facing bricks; Messrs. H. F. Warner, Ltd., tiles; Messrs. Thomas Elsley, Ltd., fanlights; Empire Stone Co., Ltd., artificial stone; Messrs. James Gibbons, Ltd., ironmongery; North British Rubber Co., Ltd., rubber carpeting in the hall.

The house was completed at the end of last year, and cost, with fences and some garden work, a little under £4,000.

Our illustration is from the exhibit in this year's R.A. Exhibition. Messrs. C. Murray Hennell, F.S.I., and C. H. James, A.R.I.B.A., are the architects.

Lower Chapel, Eton.

Mr. Walter Tapper, F.R.I.B.A., is the architect of the Lower Chapel, Eton. The woodwork was carried out by Mr. L. A. Turner, of Lamb's Conduit-street. The tapestry panels, of which there are four, and which depict the life of St. George, are being carried out by Messrs. Morris & Co., of Hanover-square, from cartoons prepared by the Hon. Mrs. Akers-Douglas. Our illustration is from the exhibit at the Royal Academy Exhibition.

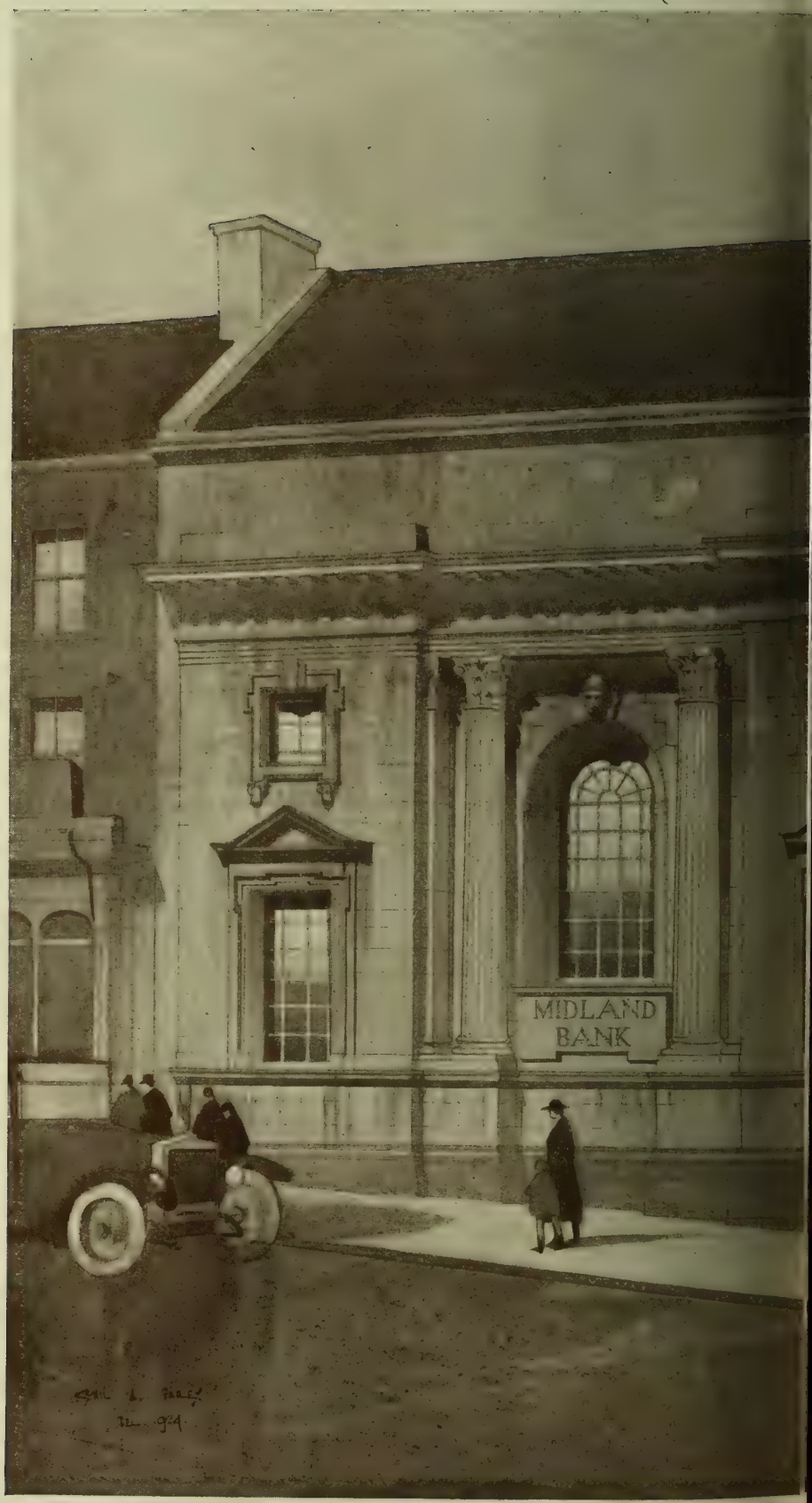


From the Swedish Architecture Exhibition at the R.I.B.A.

Carlander Hospital, Gothenburg. Mr. Arvid Bjerke, Architect.

R.A. Exhibition, 1924.

Messrs. C. Murray Hennell, F.S.I., & C. H. James, A.R.I.B.A., Architects. (See p. 821.)



R.A. Exhibition, 1924.

Messrs. W. H. Brierley, F.S.



RUTHERFORD, Architects.





R.A. Exhibition, 1924.

Record Office for the Bank of England. Mr. F. W. Troup, F.R.I.B.A., Architect.



R.A. EXHIBITION, 1924.

MESSRS. C. M. CRICKME



Foxley, M.A., Architects.



R.A. Exhibition, 1924.

Lower Chapel, Eton.

Mr. Walter Tapper, F.R.I.B.A., Architect.



R.A. EXHIBITION, 1924.

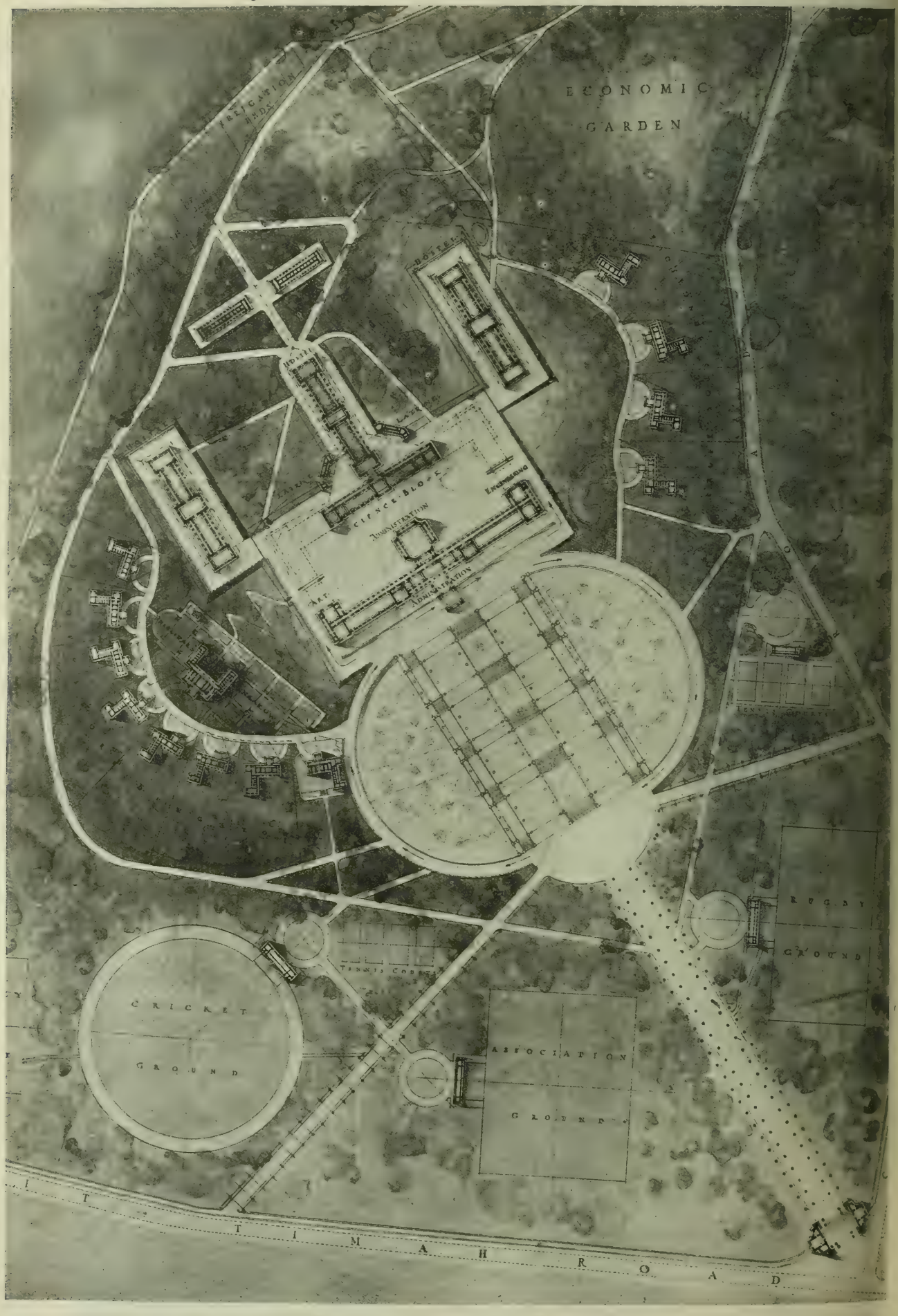
Design for Congregational Church and School, Bellingham. MESSRS. H. F. MURRELL & R. M. PIGOTT, AA.R.I.B.A., Architects.

[This was one of the designs submitted in a recent limited competition for a Congregational Church at the new L.C.C. housing scheme at Bellingham. The accommodation asked for consisted of a church to seat some 500 persons, with the usual vestries, &c., with a Sunday school hall and church parlour adjoining. The materials proposed to be used were Luton stock bricks and stone dressings to windows, red tiles on roofs, and lead coverings to the fleches. This design was submitted by Messrs. H. F. Murrell & R. M. Pigott, AA.R.I.B.A., of 35, Bedford-row, W.C.1.]



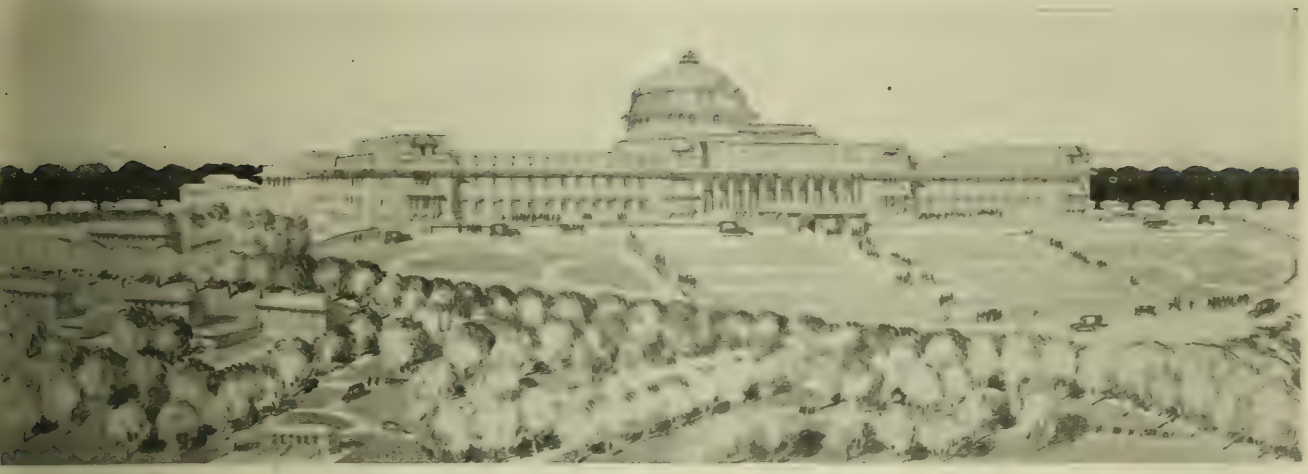
New Gates at King's College, Cambridge. Designed and made by Mr. A. W. Elwood, M.I.S.I.

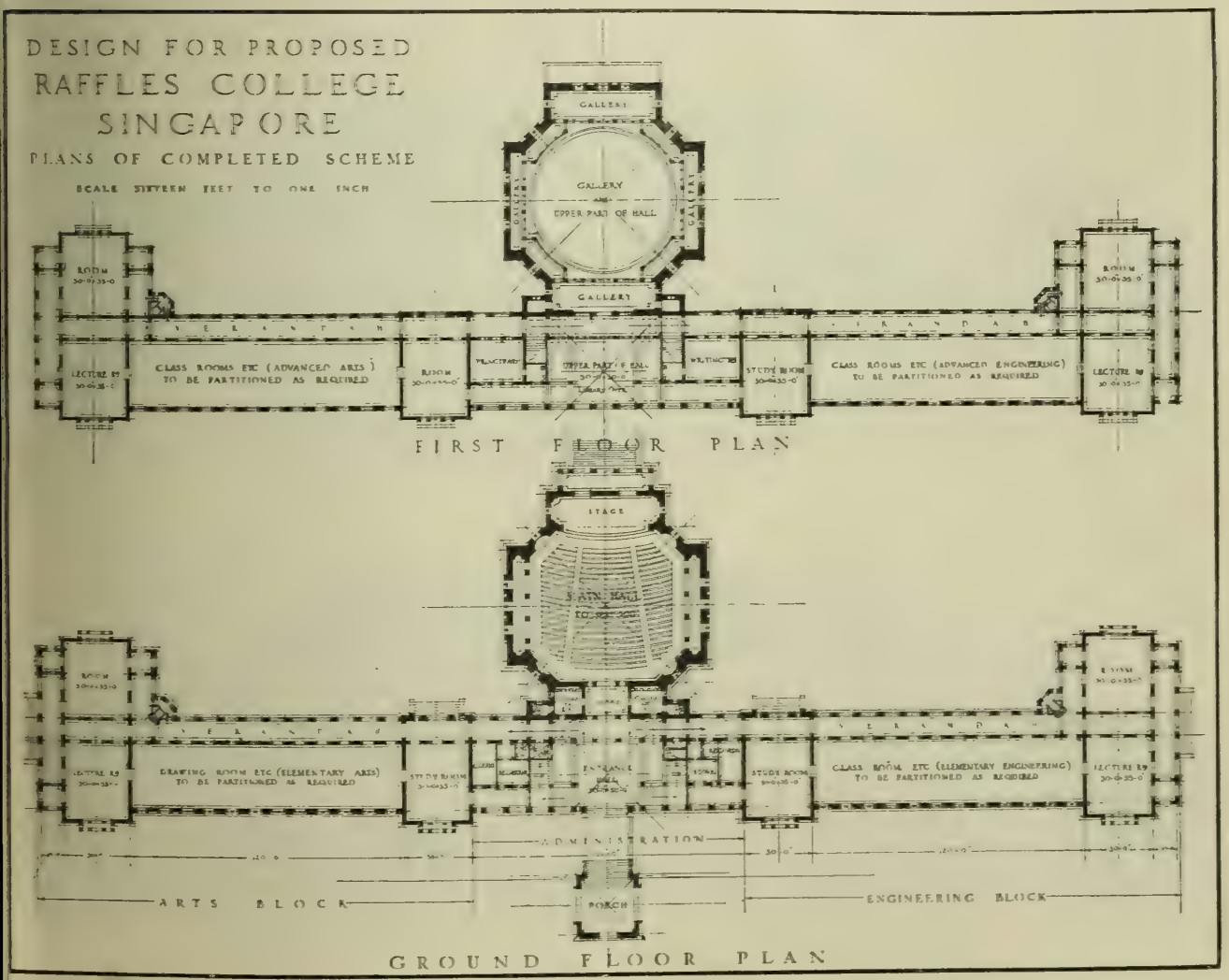
[These wrought-iron gates, closing the back entrance of King's College, Cambridge, are the gift of Sir Charles Walston and Lady Walston, and are from the designs of Mr. A. W. Elwood, of Denmark-road, S.E., who was placed first in competition with thirty others. The gates are influenced by the work of Tijou. In the panel above the centre pair are the arms of the Royal founder, Henry VI, and on the gates below are a crowned Tudor rose on one side and a crowned portcullis on the other.]



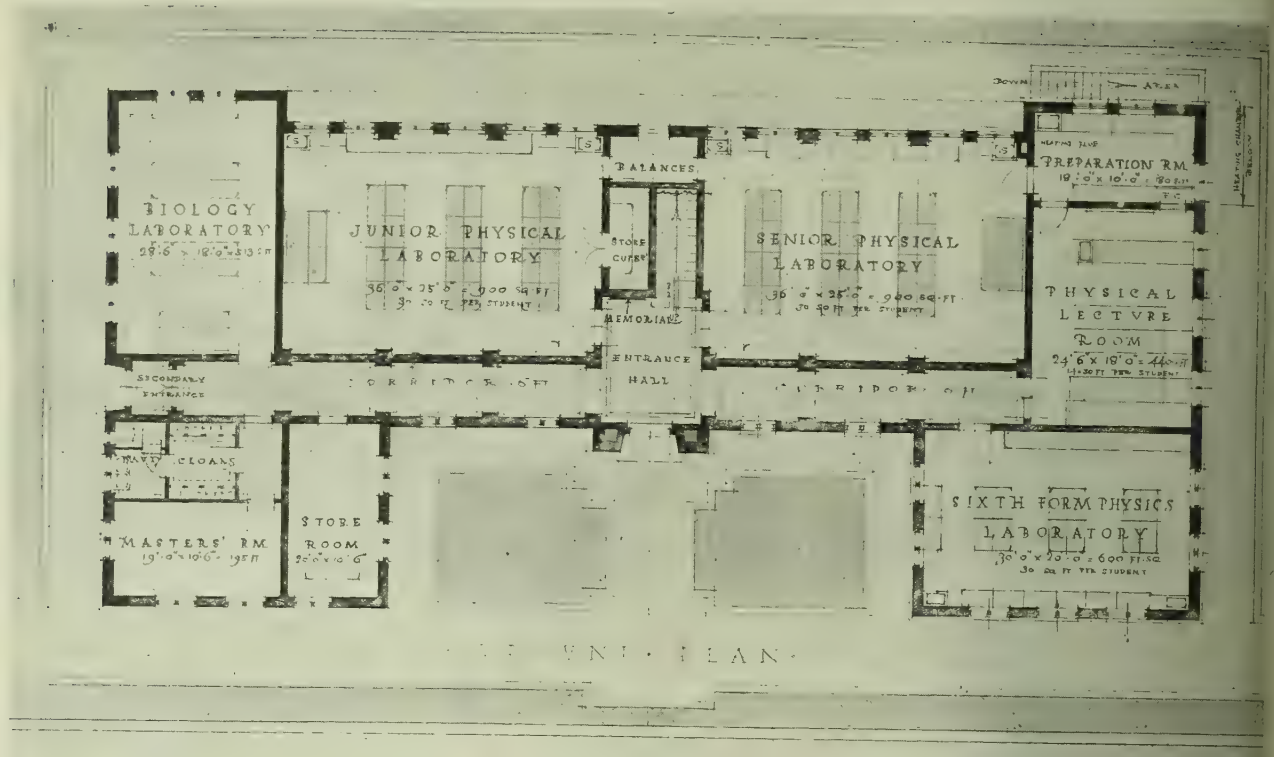
Raffles College, Singapore, Competition. Design submitted by Messrs. S. Woods Hill & E. C. Henriques, AA.R.I.B.A.

[Bracketed equal with the design of Mr. E. Vincent Harris for second and third premiums. The first premiated design, by Mr. Cyril A. Farey and Mr. G. R. Dawbarn, was given in our issue for January 25, 1924.]





Raffles College, Singapore, Competition. Design submitted by Messrs. S. Woods Hill & E. C. Henriques. (*See p.* 834.)







Taunton School Competition.

Design submitted by Messrs. Gordon G. H. Holt & Verner O. Rees.

[This design was commended in the recent competition. The accepted design, by Mr. E. Vincent Harris, F.R.I.B.A., was given in our issue for January 4 last.]

HE ISOLATION BLOCK T THE LONDON FEVER HOSPITAL

HIS building, to which reference was made recent issue of *The Builder*, was erected in 1-15. It comprises two stories, the ground being planned on the lines of the Pasteur pital, Paris, the upper floor containing eight ate wards for paying patients.

he ground floor, of which a plan is given, is ded in the centre by the ward kitchen on north, and the entrance with discharging ns and nurses' dressing room on the south, two groups of six small wards; one group male, the other for female patients.

he partitions between the wards and the idors are of plate glass in teak frames; idea being that each group of six wards ns one ward, and can be supervised from the s windows in the ward kitchen. Each d has two doors, one opening on to the idor, the other on to the open balcony ch extends along the whole of the outer s of the building. While, therefore, the ents are as much within the purview of the se as if they were in one room, each ward o cut off from the adjoining one that it is ible with proper precautions to treat separate distinct diseases in each without fear of ction passing from one ward to another. ach ward is a lavatory basin supplied with and cold water and waste, so that both ors and nurses can wash their hands after nding to the patient before passing to the ward. In each ward are hung overalls the doctors and the nurses, which are put before attending to the patient, and left in ward after the visit is over.

addition to the lavatory basin there is in ward a sink also provided with hot and supplies and waste. The use of which is mpty and fill the portable bath.

he wards are warmed by means of hot water ators served by a steam calorifier in the ment, and ventilation is provided by an ust trunk, one for each ward, opening into orizontal trunk of which there are twelve, to each ward, formed in a space between first floor and a false ceiling to the ground corridor. These trunks are connected two vertical shafts which are carried up ugh the upper ward kitchen into a main t in the roof which is provided with an ust fan. The measured effect of this arrangement is that the air in each ward can be completely renewed between four and five times in the hour. Besides the doors from the wards on to the balconies the ward kitchen is also provided with a door so that in case of need any ward can be entirely served from the outside.

The experience of the Pasteur Hospital proves that with due care diseases such as smallpox, scarlatina, diphtheria, measles, and erysipelas can be treated in adjoining wards without fear of cross-infection.

BOOK REVIEWS

An Itinerary of the English Cathedrals for the Use of Travellers. Compiled by JAMES G. GILCHRIST, A.M., M.D. (University of Iowa, U.S.A.); revised and edited with an Introduction on Cathedral Architecture by the REV. T. PERKINS, M.A., F.R.A.S., Rector of Turnworth, Blandford. With forty-two illustrations, a map, and thirty-six plans. (London: G. Bell & Sons, Ltd., 1923.) New edition, revised and enlarged.

"This little book," the Preface states, "as originally written by Dr. Gilchrist, was intended especially for visitors from the United States; but, as it seemed likely to be equally useful as a companion to the Cathedral Handbooks, it was revised and somewhat amplified by the late Mr. T. Perkins, who was already known as a writer on architecture." The book actually takes its place in the well-known series of Bell's "Cathedral Handbooks" as introduction to the rest, since it deals with the cathedrals of England in general, just as they describe each several one in detail. A map on the last page shows how the different cathedrals can be visited in turn without undue retracing of steps, and fortunate indeed are they who have leisure to make the circuit, for the inspection of many cathedrals is an education in the art of appreciating any particular one. The treatment is concise in the extreme; twenty pages are allotted to an introduction on "Cathedral Architecture," and then each cathedral in turn is dealt with in two or three pages divided between text and illustration, a view and a plan being inserted for each building. Even American tourists would probably find this too brief, for though they like to rush around a country and see the utmost possible for the expense of a certain amount of time and money, they enjoy absorbing a multitude of facts from the guide book in advance in order to prepare themselves to make the most of their opportunities when placed face to face with the monument. But this detailed information is already available in the other volumes of the series, and the "Itinerary" serves its purpose if the intending tourist in looking through its pages can obtain such a general idea of the buildings mentioned as will permit him to make up his mind as to which one he is most anxious to visit. There can be no doubt that the book performs this function to admiration.

The Housing Problem, and the Way Out. With Notes on Unemployment. (The Brotherhood Movement (Incorp.), 37, Norfolk-street, Strand, W.C.) Price 6d.

This pamphlet deals with the housing problem from the standpoint of the duty of the citizen in a Christian country, and it also examines various proposals for absorbing unemployment in useful undertakings, such as the erection of houses from materials now regarded as "waste products." We hope that the author is unduly pessimistic in suggesting (on p. 40) that the distribution of honours, on the lines of the O.B.E., is desirable to stimulate in our citizens a sense of self-sacrifice in helping forward the housing movement. It may be true that it is the hope of reward that sweetens labour, but we doubt that the anticipation of cheap honours would produce the kind of self-sacrifice we all wish to see. The pamphlet includes some type plans designed to secure the Government grant, and these would have been of greater value if they had been accompanied by carefully designed elevations, since these are no less important than the plans and are far more often deplorably bad. The pamphlet contains a mass of useful information concerning the housing shortage and possible remedies, and it emphasises the fact that an awakened public conscience alone can find the way out of an apparently hopeless situation.

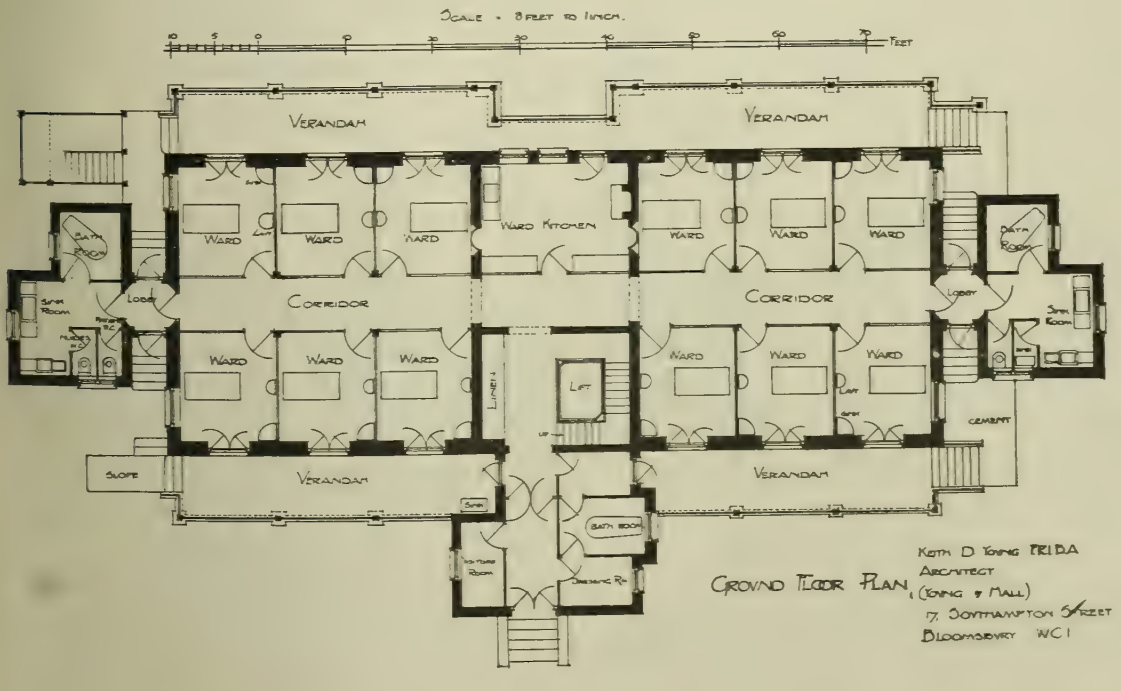
Books Received.

HANDBOOK FOR OXY-ACETYLENE WELDERS. By Leonard M. Fox. (London: Allen-Liversidge, Ltd.). Price 1s. 6d.

THE VILLAS OF PLINY THE YOUNGER. By Helen M. Tanzer. (Oxford: University Press). Price 12s. 6d. net.

PAYNE'S CARRIAGE OF GOODS BY SEA. By Roger S. Bacon. (London: Butterworth & Co.). Price 8s. 6d. net.

LONDON FEVER HOSPITAL ISOLATION BLOCK.



THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

We take the following notes from the minutes of the Council meeting held on May 5 :—

Architectural Scholarship at Oxford and Cambridge Universities.—On the recommendation of the Board of Architectural Education, it was decided to offer to the Universities of Oxford and Cambridge (in alternate years), on behalf of the R.I.B.A., an annual scholarship for the advancement of the study of the art of architecture within these universities in schools recognised by the university authorities and the R.I.B.A. as qualfying for the Degrees of the universities and for exemption from the examinations of the R.I.B.A. respectively.

Special Examination.—It was decided to allow candidates for the special examination to take the examination in two parts, as in the case of the Final examination.

International Competitions.—It was decided to take up the question of International Competitions with a view to the revision of the existing regulations for these competitions.

The R.I.B.A. and the Society of Architects.—It was reported to the Council that, in the poll of Licentiates on the subject of the Council's proposals for the registration and consolidation of the profession, some 98 per cent of the Licentiates who had voted had expressed themselves in entire agreement with the Council's proposals.

The Architects' and Surveyors' Assistants' Professional Union.—The Council unanimously approved the report of the Committee which has recently conferred with the representatives of the Architects' and Surveyors' Assistants' Professional Union, and which recommended that steps be taken to secure the representation of the Architectural Group of the A.S.A.P.U. on the R.I.B.A. Council, that joint inquiries be held on the subjects of the overcrowding of the profession and the establishment of a minimum wage for assistants, and that the Union should be given representation on the Registration Committee.

Reinstatement.—The following were reinstated: As Associates, Messrs. T. H. O. Collings and A. Wickham Jarviss; as Licentiate, Mr. Andrew G. Cole.

The Exhibition of Modern British Architecture (arranged by the R.I.B.A. and the Architecture Club) will be opened by the Earl of Crawford and Balcarres on Monday, May 26, at 3 p.m. in the Short Period Rooms, Palace of Arts, British Empire Exhibition, Wembley.

ARCHITECTS' AND SURVEYORS' ASSISTANTS' PROFESSIONAL UNION

The members of the metropolitan branch of this Union recently inspected the foundations of Messrs. John Barker & Co.'s new premises. The architect, Mr. Carbuche, explained that compensation for damage to adjoining structures was a necessary preliminary precaution to guard against in works of this size and nature: photographs taken at the commencement of the contract showed clearly the defects of neighbouring buildings. The depth of the foundations was approximately 40 ft., the subsoil consisting of clay and ballast, whilst a pressure of 5 ft. head of water was exerted. The retaining walls supporting a building at the rear of the site were peculiarly formed, and, combined with the floor, the outline was very similar to a ship's bottom. A hole was left at the base of the wall for the escape of water, which will subsequently be made good. Taking a section through the wall, there was the shuttering, breeze slab, concrete, and asphalte covering; and there would be 10 in. of concrete over the whole site. Mention was made of the L.C.C. regulations in connection with the staircase, which must be 1 ft. wide for every 1,000 ft. floor space.

SURVEYORS' INSTITUTION

The following candidates have satisfied the Examiners of the Surveyors' Institution :—

FINAL EXAMINATION, 1924.

Addie, A. L. Forrester, Manchester.
Allport, C. H., York.
Anderson, J. H., Gunnersbury.
Arnold, J. S., Canonbury.
Arundel, H. R., Highgate.
Ball, H. F., France.
Barron, J. R., Scunthorpe.
Bean, G. W., Bedford.
*Bedford, H. E. S., Essex.
†Bishop, W. T., Westminster.
Black, C. W., Putney Hill.
Blissett, F. C., Tooting.
Blowen, F. E. V., Newport.
Bowyer, C. P., Slough.
Browne, R. E. J., Wimbledon.
Burgess, S. H., Cheshire.
Bywaters, S. F., Maida Vale.
Caines, H. J., King's Cross.
Campbell, I. W. R., Guildford.
Chadwick, J. B., Derby.
Chamberlain, R. P., Leicester.
Chapman, H. A., Kingston-on-Thames.
Clare, J., Bedford.
Clark, A. E., Croydon.
Clogg, R. W., Hants.
Cook, J. O., Jun., Plumstead.
Cowell, A. E., Dorking.
Crown, R. J., Lee.
Davidson, A. J., Douglas.
Davies, D. P., Rhymney.
Dawney, P. W., Purley.
Daws, W. A., Reading.
Dawson, A. H. B., Sussex.
Denne, S. V., Kent.
Denton, A. S., Sheffield.
Dowling, R. B., Barnet.
Down, E. A., Wilts.
Esbester, E. H., Bristol
Exley-Fisher, T., Yorks.
Faddy, C. E., Wallsend-on-Tyne.
Farbridge, L. C., Kent.
Fowler, C. H., Sussex.
Fowler, T. H., Bath.
Frearson, T. B., Birmingham.
Gardner, G. G., Sussex.
Goldirg, A. C., Bexhill-on-Sea.
Gowing, C. G., Norfolk.
Grundy, F., Tyldesley.
Hagger, G. M. W., Greenwich.
Haines, R. J., Hereford.
Hawkins, W. V., Hammersmith.
Heather, J., Reigate.
Hedley, M. T., Sutton Coldfield.
Heynes, H., Manor Park.
Hogbin, L. M. T., Ramsgate.
Howe, R. N., Muswell Hill.
Humphery, W. O.,
Hunt, R. W. R., Luton.
Hyatt, M. P., Hounslow.
Jackson, R. V., Cambridge.
Jackson, W., Wimbledon.
Jeffries, P. E. R., Ipswich.
Jennings, W. A., Stratford.
Johnston, J. C., Leeds.
Joseland, L., Kidderminster.
Kennaugh, T. H., Douglas.
Kershaw, C., Halifax.
Keyte, J. R., Birmingham.
Knight, P. J. G., Kent.
Knowlton, J. A., Bristol.
Larkam, R. W., Salisbury.
Linington, F. J., Margate.
Llewellyn, E. G., Eastbourne.
McFie, B. J. S., Oxford.
Malkinson, B. W., King's Cross.
Maltby, H. V., Beckenham.
Maples, J. T., Oxton.
Matthews, A. C., Herts.
Matthews, H. J., Birmingham.
Maynard, G. E., East Putney.
Merry, W. H., Leighton Buzzard.
Miller, A. R. R. A., Spring Gardens.
Mills, J. R. M., Norwich.
Mitchell, J. H., East Grinstead.
Moore, C. C., Oakleigh Park.
Moore, J. J. M., Isle of Man.
Newcombe, R. J., Market Harborough.
Norrington, C. F., New Malden.
Palmer, G. B., Regent's Park.
Parrott, D. G., Bromley.
Peacock, R. M., Bedford.
Pepper, W., Yorks.
Pickup, J., Lancs.
Pidgeon, F. A., Sutton.
‡Pipe, A. W., Snaresbrook.
Prall, H. H., Rochester
Priest, B., Norfolk.
Proctor, J., Barry.
Recordon, D. B., Berkhamsted.
Richmond, H. I., Chester.
Ridgway, I., Northants
Rogers, F. I, Droxford.
Rose, R. C., Newbury.
Sadd, A. G., Swansea.
Sanders, S., London.
Sawbridge, D., Wigan.
Seabrook, E. C. London.
Slater, J. A., Lancs.
Stanford, F. E., Dorchester.
Story, J. A., Upminster.
Story, T. H., Upminster.
Stott, C. G., Wandsworth.
Tapping, R. E., Waddon.
Tebbutt, B. H., Rickmansworth.
Thomas, E. H., Aberfan.
Thomas, H. L., Swansea.
Wagstaff, F. A., Southcroydon.
Wakeford, R. P., Wimbledon.
Walmsley, J., Preston
Watney, H. D. A., Old Jewry.
§Weller, E. P., Wantage.
Whipp, J. R., Cheshire
Wilson, G. M. T. Herefordshire.
Wood, N. C., Otley.
Woollaston, T. W. Staffs.
Wright, A., Norwich.
Wrigley, R., Derbyshire.
Yorston, J. H., Manchester.

DIRECT FELLOWSHIP EXAMINATION, 1924.

Bridgewater, A. T., East Ham.
Fread, H. C., Esher.
Jenkins, W. R., London.
Powlett, A. T., West Derby.

SPECIAL EXAMINATION FOR DEGREE HOLDERS

Farid, A., Egypt.
Field, J. D., Surrey.
Fordham, C. M., Hampstead.
Kemsley, R. H., Theydon Bois.

SPECIAL SINGLE EXAMINATION, 1924.

Beak, F. W., London.
Carpenter, E. R., London.
Carpenter, G. L., Gillingham.
Davies, T. H., Enfield.
Dent, R. P., Leeds.
Holdsworth, A. P., Sheffield.
Leigh, P., Wakefield.
Peay, C. H., London
Robson, J. E. B. Dover.
White, E. C., London
Whiteley, F. D., Halifax.
Woollacott, H. S. Wood Green.

* Penfold Gold Medal and Wainwright Prize.
† Crawter Prize.
‡ Galsworthy Prize.
§ Mellersh Prize.

Scottish Examinations, 1924.

INTERMEDIATE (STUDENT).

Teviotdale, G. S., Glasgow.

INTERMEDIATE (NON-STUDENTS).

Boyd, A. M., Glasgow.
Davidson, M. O., Bridge of Weir.
Stewart, N. F., Lanarkshire.

FINAL.

Brown, J. V. R., Falkirk.
Davidson, J. (Jun.), Fifeshire.
Howie, J., Edinburgh.
Johnstone, R. W., Midlothian.
Malcolm, D. G., Glasgow.
Smith, T. R., Glasgow
White, J., Elgin.
Wood, D. McN., Glasgow.

DIRECT FELLOWSHIP.

Proctor, A. L., Forfarshire.

SPECIAL SINGLE.

Hood, J. P., Glasgow.
Inglis, A., Partick.

Irish Examinations.

INTERMEDIATE (NON-STUDENTS).

Flower, C., Dublin.
Ogilby, R., Belfast.

FINAL.

McAuley, B., Belfast.
McConnell, R. M. T. Belfast.
Tudor, C. W., Belfast.

LEEDS AND WEST YORKSHIRE ARCHITECTURAL SOCIETY.

At a general meeting of this Society recently a resolution was passed deciding unanimously to approve the action of the Royal Institute of British Architects in their proposal to incorporate the Society of Architects—thus securing a united Institute for the purpose of obtaining Registration of the profession.

THE ARCHITECTURAL ASSOCIATION AT THAXTED

A Brilliant Church Interior.

THAXTED, in Essex, was chosen for the first mmer visit of the "A. A." on May 10. The ty of about twenty-five members was joined Mr. Ivar Tengbom, President of the Society Swedish Architects, Mr. Carl Bergsten, Vice-sident, and Mr. and Mrs. Arvid Bjerke. xted is not a show place—we say this in gratulation—and the placid sensation pro-ed by the party was proof that the town s not exist to stage-manage turns for tourists, suffers them in quiet dignity. The party an invitation to visit Horham Hall, where owner, Mrs. Humphry, provided tea. The l is typically English, the exterior har-nious and solid, the interior an epitome of l English history for the last 400 years; erent periods, families, and tastes are all ceable, until the final Victorian phase when banqueting hall had its panels stripped to he the Houses of Parliament; the Jacobean usters painted over, frescoes and beams ered in, and Queen Elizabeth's shoe bartered America. Much original work remains, the house as it stands is a notable example the Tudor English home.

Thaxted village owes its general character to its two outstanding features, the Church l the Moot Hall, than to its good fortune in ing missed prosperity, and in standing by ile its old rival in steel and cutlery grew into dern Sheffield. At one time the town had n a centre of the steel industry but, as local od for fuel got used up, its importance lined, until, in 1685, its charter was forfeited, l the Corporation dissolved. During the l era Thaxted stood still, or dwindled still ther, and it was only just before the war t the friendly little train was connected with enham, and the distance from a station uced from seven miles. These facts explain t the unusual size and importance of the urch, and second the welcome absence of the pant villa and the platitude of the successful gh-street. What is left is the natural nucleus a mediæval and Tudor town, the fine church minating its surroundings from a hill and, nd and below it, a spontaneous grouping of , market hall, shop, and dwelling house. st of the town is of brick, with an extensive of plaster, where the Essex craftsmen have clearly enjoyed themselves by a delightful ingenuity in patterned devices. The "snub-gable" of the thatched houses, the painted sign of Mr. Sid Grout, chimney-sweep, and the handicraft shop, gave the party an opportunity to observe the local characteristics of the town. Before leaving the village to visit the church, it is only fair to mention the twelve little houses of the new scheme, which do credit to the town and their designer.

Thaxted Church is a perpendicular building with the peculiarity that the aisles are wider than the nave, a feature now turned into account by the small congregation being provided with ordinary chairs in the body of the church while the aisles are kept clear. English churches have suffered so much from the fixed pew habit, and their proportions so crudely mutilated by tramcar accommodation that this change is welcome. Some of the old glass still exists, but the actual beauty of the lighting is again less due to the presence of old work than to the absence of magenta scenes selected from the Pentateuch, while the modern East window is a noble addition. Certainly Thaxted disproves the theory that to be spiritual a church must be dark. The building glows with light and every possible advantage has been taken of the opportunities this offers. Most of us have seen beautiful old churches but, whether at home or abroad, we have come to accept church fitments, hangings, and details as a stock depository, wandering from the red plush of Calvinism through répoussé lilies on High Church satin frontals to the devout efflorescence of Roman sidechapels; all pious and inept expressions from which escape was undreamt. Decorative art as a relish to life was not suitable for a church. It is, therefore, an achievement that the unconventional beauty of the Thaxted church details should at once appear appropriate and not a jar to our sense of tradition. Put frankly, one would like to make every parish priest and every church council pay a pilgrimage to Thaxted, and then, after they return home, they might begin to understand why many artists avoid public worship.

Mr. Tengbom commented on the colours of the four banners in the chancel, and suggested that if they were seen elsewhere they would appear "too pretty." Situated as they are their delicate pastel contrasts enhance where primary colours might have killed. This deliberate choice in colour, material, and detail; the reticence of the many little shrines—take, for instance, the South chapel of the east end, where a raised tomb forms the altar, and the reredos is a fine blue curtain; the simple use of common things, such as honey jars or coloured glass bottles; the absence of fussy unimportance, compose a whole which humbles the layman where he is so often exasperated. The Gothic impulse is not recaptured by fakes of mediæval details; it is found again in personal contribution, peasant and aristocratic, to the glory of God in the spirit of devotion. Benedicite, omnia opera. N. K. R.

MEETINGS

FRIDAY, *May* 23.

Architecture Club.—Dinner. At Hotel Cecil. 7 p.m.

SATURDAY, *May* 24.

Edinburgh Architectural Association.—Visit to Falkland Palace.

Royal Institute of British Architects.—Visit to Knole Park, Sevenoaks.

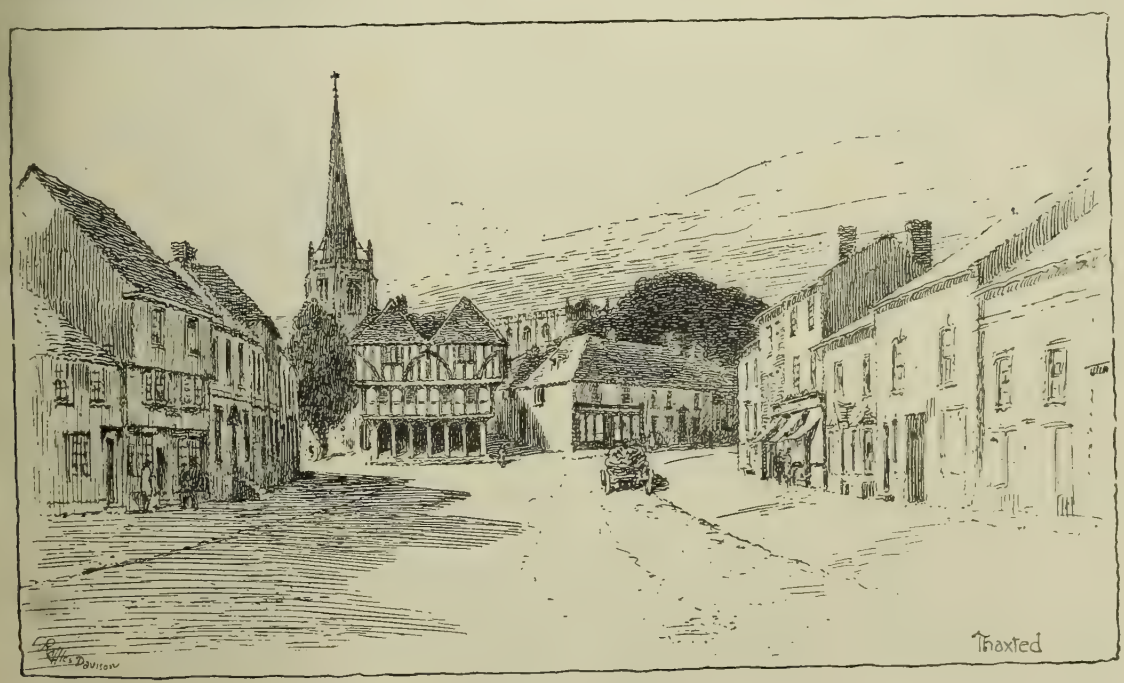
THURSDAY, *May* 29.

Society of Antiquaries.—Mr. C. R. Peers on "Saxon Monastery and the First Norman Church at Whitby." At Burlington House, Piccadilly, W. 1. 8.30 p.m.

A.S.A.P.U. Elections.

The recent election of officers and members of the executive council of the Architects' and Surveyors' Assistants' Professional Union for the year 1924–25 resulted as follows:—

The retiring President, Mr. J. W. Denington, was re-elected President; Vice-President, Mr. James Macaulay; Hon. General Treasurer, Mr. C. G. Wright; Trustees, Messrs. A. W. Sheppard, Chas. Pickford, R. Gordon Strachan; Hon. auditors, Messrs. C. H. Rattenberry and S. Sanders; Chairman executive council, Mr. Chas. McLachlan; Vice-chairman executive council, Mr. J. A. Gould; Members executive council, Messrs. A. Boulton, Don. Cameron, H. G. Clacy, F. R. Jelley, J. O. H. Hughes, A. M. Laurie, E. G. Lynde, G. W. Mitchell, J. V. Hibbert, A. S. Reeves, H. R. Surridge, J. W. Waghorne, and A. W. Yeomans.



A View in Thaxted.

LONDON TRAFFIC BILL

FOLLOWING up his remarks at the recent annual general meeting of the Roads Improvement Association as to the necessity for widening the approach roads to London in advance of building development, the chairman of the Association (Mr. Rees Jeffreys), in concert with Mr. A. E. Cave, of the Motor Legislation Committee, recently prepared a clause which followed closely Section 64 of the Middlesex County Council General Powers Act, 1921, giving the Ministry of Transport powers to prescribe building lines.

The clause was moved by Sir Thos. Inskip at the meeting of the Select Committee on the London Traffic Bill on May 15, and was sympathetically received. There was, however, some doubt as to whether it was in order. By general consent it was therefore agreed that the clause should be withdrawn and moved at the report stage of the Bill in the House when, with the Speaker in the chair, an authoritative opinion as to whether it was in order would be pronounced. The general opinion was that, if in order, the clause should be added to the Bill.

The following letter in support of the clause was sent by the chairman of the Roads Improvement Association to the members of the Select Committee :—

Widening Roads in Advance of Building.

At the recent annual meeting of the Roads Improvement Association the opinion was expressed strongly by representatives of all classes of traffic that the London Traffic Bill should be amended so as to give the Minister power to prescribe a building line for Class 1 and Class 2 roads, *i.e.*, roads which are maintained in part at the cost of the Road Fund.

The main exits from and entrances to London are being blocked by the erection of buildings quite close to the existing carriageways without, in many cases, provision even for a footpath. In the view of experts, no new building should be erected within 75 ft. or even 110 ft. of the centre of any arterial approach road to a great town. Inasmuch as a London approach road in a length of 20 miles may pass through the area of ten local and three county authorities, it is impossible to secure this increased width except through the agency of some central organisation. Until an authority, municipal in character and representative of the whole of Greater London, is established by Parliament, the only possible agency for securing unity is the Ministry of Transport.

On behalf of the Roads Improvement Association, I beg leave to urge you to support a new clause designed to secure that the exits from and entrances to London shall not be further constricted by the unwise erection of buildings too near the centre of the existing carriageway. This new clause follows closely Section 64 of the Middlesex County Council General Powers Act of 1921, and therefore has been approved in principle by Parliament.

The traffic congestion of to-day is due mainly to the fact that in the past the authorities have permitted the erection of buildings too near the centre of the road without providing margins which could be thrown into the roads according to traffic requirements. On the other hand, it is not reasonable to expect the minor authorities, charged only with the administration of a short length of an arterial road, to widen that road at ocal expense to meet the needs of national raffic.

The alternative to a clause such as is suggested, giving the Minister power to prescribe a building line for each particular road according to the circumstances in each case, is for the Committee itself to enact that within the London traffic area no new building on an undeveloped site shall be erected within 75 ft. of the centre of the road on a Class 1 road, or within 50 ft. in the case of a Class 2 road, and to make proper provision in the Bill itself for compensation to any interests who are worsened by this provision.

Nearly ninety per cent. of the large expenditure of urban authorities on widenings is absorbed in purchasing buildings to pull down and compensating the interests concerned for disturbance. Legislation on the lines suggested will save much of this expenditure, and this saving in a very few years will aggregate to many millions of public money.

WESTMINSTER WOMEN'S HOUSING SCHEME

AT a meeting of the Westminster Women's Housing Council, held recently, at 36, Smith-square, Mrs. Reginald McKenna, who presided, said the Council had been formed in January with the object of collecting information about housing and setting to work to improve it, and hoped to be a real help to the City Council. The following resolution was put :—

"This meeting called by the Westminster Women's Housing Council expresses the unanimous opinion that the housing conditions in many parts of Westminster are below a requisite standard, and hereupon requests the Mayor to call immediately a Town's meeting in co-operation with the Westminster Women's Housing Council, the object of which shall be to give the general public information regarding existing slum areas, overcrowding, &c., and to outline a scheme worthy of the best traditions of the City."

In seconding the resolution Canon Barnes said 75 per cent. of the people of Westminster occupied four rooms, or less, and of the resident population half belonged to the artisan class. In the Covent Garden area there was less than one room per head of the whole population, and the large amount of squalor, vice and disease which existed would be eliminated if the housing were satisfactory. Many of the existing houses were in an unsanitary condition, and the tenants dared not leave for fear of being without any sort of shelter; the Medical Officer was unable to close them for the same reason.

Captain Rice (Garden Cities and Town Planning Association) said it was impossible to consider Westminster housing simply as a parochial question; it could only be solved as part of a comprehensive policy of a much wider area. He believed that the only solution of slum areas in London was by a policy of decentralisation of industry, and the co-ordination of housing with it. Westminster had some of the worst conditions, and it was within the power of the City Council to acquire vacant sites for the erection of houses in which the people could be accommodated temporarily while the houses from which they were removed were being reconstructed. The sites might be costly, but it was one way in which the City could help towards the solution of the problem. Another way was by the conversion of large houses into flats, and a third was by serving notices on property owners and seeing that they were enforced under the Housing Acts. It was also necessary to see that the people who went into the reconstructed dwellings were the people who were removed from the old houses. In the dock area of Liverpool the authorities had succeeded in getting back about 90 per cent. of the population who had been displaced from the tumble-down houses. In cases where reconstruction had been carried out, people who had formerly paid a rent of two shillings and sixpence per week, were prepared to pay eight and sixpence, and even more if necessary.

Miss C. Biggs (hon. secretary, Westminster W.H.C.) said that for a block of forty flats erected at Ebury Bridge by the Westminster City Council there had been applications from over one thousand families. These were occupied by Westminster people. She urged that the vacant spaces—of which there were plenty—should be acquired as soon as possible for the erection of clearing houses to accommodate the people who would be de-housed, and in order that reconstruction of the condemned dwellings might go forward without delay.

The resolution was adopted.

STAFF SOCIAL

THE cordiality of the relations existi between Messrs. Trollope & Colls, Ltd., a their employees was evidenced on Saturd evening, May 17, when the firm entertain about 1,000 employees and their friends in t Battersea Town Hall, this being the fifth Unit Social Evening.

Mr. Archie B. H. Colls presided at the conce and was supported by Mrs. Colls and Miss Col Mr. Christopher Trollope, Mr. Clifford Trollop and Mr. Game. Mr. and Mrs. Fabian Trollo and Mr. and Mrs. Macnamara arrived later in t evening and took part in the dancing. T concert was a great success, the artistes bei selected exclusively from employees of the firm

Mr. Colls addressed the company at the end the concert, and said he was delighted to see many employees present. Referring to t absence of Colonel G. H. Trollope, Mr. Colls rea a telegram from him wishing everyone prese a happy time.

Credit is due to Mr. Hurst (Chairman) an Messrs. A. Winlo, J. Clarke, C. N. Davy, A. C Curtis, A. J. Haughton, P. Clark, and F Burlington, who comprised the committe which was mainly responsible for the succes of the evening. Mr. Horswell (Camberwell carried out the secretarial work.

THE METROCLINE

AT the present time when London bridges are causing engineers so much anxiety, it is interesting to note a new invention—the Metrocline—which is now manufactured by Messrs. C. F. Casella & Co., Ltd., 49–50, Parliament-street, S.W.1.

This instrument has been designed to supply a very general demand on the part of engineers, surveyors, and others for an accurate, simple, and at the same time inexpensive, instrument for ascertaining with extreme accuracy deflections under load of bridges, beams, girders, &c. The design of the Metrocline is such that these essentials are complied with and it has throughout been based on an extensive experience of the many factors which govern practical testing operations on large and small engineering works.

The instrument can be used at any height above ground level without the use of expensive stagings. Where more than one instrument is being used at the same time (*i.e.*, in obtaining deflections of a number of girders composing a single span of a bridge upon the passing of a single load) each may be set to record the maximum deflection; so that one operator can effectively look after any number of instruments no matter how far apart they may be.

The design is extremely simple. No attempt has been made to record on a chart the variations of deflection, which are, of course, indicated, as this simply makes for additional complication and expense.

The moving parts of the Metrocline are reduced to a minimum, and thereby possible errors due to friction are altogether eliminated. The whole working of the instrument can be seen by the operator during the whole time of setting up and taking any tests, and being so simple and easily understood it is practically impossible to get a false result.

TRADE NEWS

We understand that a new company is being formed to take over the business of Jennings Ltd., wood-workers, Pennywell-road, Bristol as from the 23rd inst. The business will be continued and the new company will specialise in the manufacture of joinery and various wood work, and large stocks of timber, building materials, plywood, &c., will be held.

Lady Constance Hatch, of 257A, St. James's court, Buckingham-gate, S.W., is compiling a list of models for exhibition purposes, and would be glad to hear from anyone who has a model as to description, &c.

We are informed that Partridge's Models, Ltd. have removed to larger and more suitable premises at 43, Johnson-street, Westminster S.W. 1.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

May we appeal to our correspondents to submit their queries on paper of a size easily folded, and written as legibly as possible, or better still, in typescript?—Ed.

The Albert Hall.

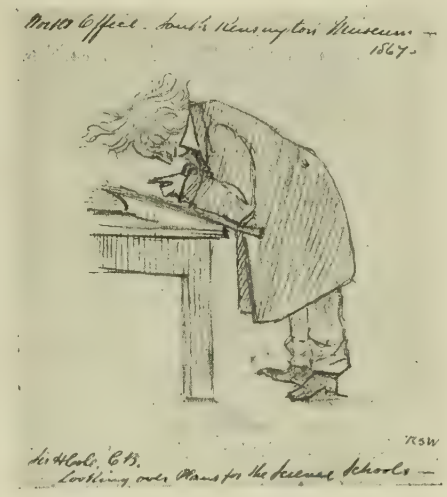
Sir,—I have seen, in *The Builder* of February 22, your reply to a query about the Albert Hall. You do not give the name of the engineer called on to design the roof, and for the moment I have forgotten it, but reference to the files of *The Builder* at the time would clear this up.

The main ribs of the roof had their ribs resting on roller carriages on the wall plate. You do not state that Sir Henry Cole was the chief of the department, with Colonel Scott under him in charge of the works office. You do not mention the name of Reuben Townroe at that time a modeller of terra cotta for the works in progress at the museum), who was the actual designer of the façade for the Albert Hall. A photograph of his original sketch I have in my possession here. After the project of the Albert Hall was mooted, Sir Henry Cole and Colonel Scott went to Italy to study the amphitheatres. On their return they decided on the size—the radii of the ovals, the heights, etc., and the number of bays the façade was to be divided into; and Gilbert Redgrave, Thomas Verity, J. H. Spanton (Gold Medallist, R.A.), and two or three others, with myself, were turned on the preparation of the plans. The hall was built with the proceeds of the sale of all the proposed boxes and principal seats as freeholds—not a joint stock company, in the usually accepted term.

When the plans were approved by a meeting of the seat freeholders, and by Sir Henry Cole and Colonel Scott, the latter invited Redgrave, Verity, and Townroe to submit sketches for the treatment of the bays in elevation; and Townroe's was accepted and carried out to his details. He also modelled most of the terra-cotta ornament, and designed the side porches—the idea of Sir Henry Cole.



Townroe's Sketch for the Albert Hall.



Verity's sketch was classic, with superimposed columns. Redgrave's, I think, was somewhat Georgian in style. After this I went back to work on the science schools and north court plans.

For the Albert Hall, Verity was responsible for much of the interior details, especially the staircases and refreshment rooms, in connection with which he had consultations with Spiers & Pond, and they afterwards invited him to compete against Phéne Spiers and another for the Criterion.

This building was Verity's first big work, and the engraving* I made of the perspective was the first of many wood engravings I drew for Mr. Godwin for *The Builder*.

I enclose a copy of the photo I mention above, and a photo of a sketch I made at the works office, of Sir Henry Cole. He was looking at his idea of the balcony arcade on the top floor of the science schools. He was an autocrat in the department.

R. Stark Wilkinson, A.R.I.B.A.

[The additional information furnished by the above very interesting letter concerning the designing of the Albert Hall, Kensington, is much enhanced by the preliminary sketch for its façade made by Reuben Townroe, whose excellent details for the terra-cotta employed in building South Kensington Museum were well known and continue to be much appreciated. His architectural study is quite new to us. Its conception is marked by proportions and elaborated by columniated features totally unlike the elevation of the executed building, while the familiar domical roof which furnishes the remarkable skyline of the Albert Hall is entirely different from this proposal. Nevertheless, by comparing the structure with the sketch, it is evident that the working drawings of the exterior as carried into execution incorporated the main essentials suggested by Reuben Townroe in his scheme for the fenestration and other openings; also the surrounding balcony and the great figure mural frieze. The projections of his cornices, florid entablatures, and crowning lantern feature were wisely moderated or omitted, but his main idea was retained.

Sir Henry Cole (1808-1882), Secretary of the Science and Art Department 1858 to 1873, founded the S.K. Museum. He was a splendid organiser and an autocrat, but cannot be regarded as an architect. Major-General H. G. D. Scott (1822-1883), of the Royal Engineers, rightly or wrongly always enjoyed the full public credit for having designed the excellent science schools' façade in Exhibition-road as well as the Albert Hall. In working out both buildings he certainly relied upon his staff, and the publication of the accompanying elevation considerably elucidates this fact. The interior contrivance of the Albert Hall by Thomas Verity (as mentioned in our previous note printed in *The Builder* for February 22 last) is also confirmed by the timely communication published herewith with the sketches which Mr. Stark Wilkinson has been good enough to send us.]

* See *The Builder* of July 8th, 1871.

Cost of Building.

Sir,—Would you kindly state what is the approximate cost of building for "works" purposes (1) per sq. yd. of floor area, or (2) by "cubic yard of content"—buildings as roughly shown in elevation below and dimensions given. Outer walls brick, up to 12 ft. high, 9 in., with 14 in. work at channels; above 12 ft. high, 9 in. and 18 in.; C.I. columns and B.S.K.S.B. at channels; roofs slated, boarded underneath, simple bound roof; flooring concrete. District, a country district, as in Midlands.

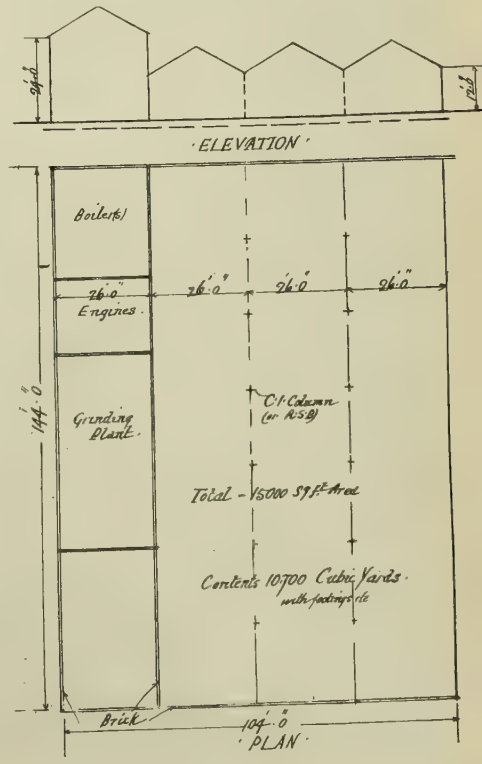
"H. A."

[This class of building presents so comparatively few separate component items of construction that an estimate can most readily be arrived at by the taking off of rough quantities and pricing them out at the rates current in the district.

Estimates by cube and floor area are essentially rough and ready and approximate to the probable cost only where considerable work is involved within a small area, and vary widely in the more open skeleton class of building.

It will be readily seen that for the same cube and floor area the cost could be varied to an enormous degree by difference in the spacing of bays and columns so that it is quite impossible to lay down a hard and fast unit of cost to apply to the cube of this class of building.

The items concerned are mainly brickwork, roof trusses, roof covering, steelwork, windows (probably steel), paving, and a little joinery, and these can be priced out with very little



labour, much of which might be taken on by specialist firms desiring to compete.]

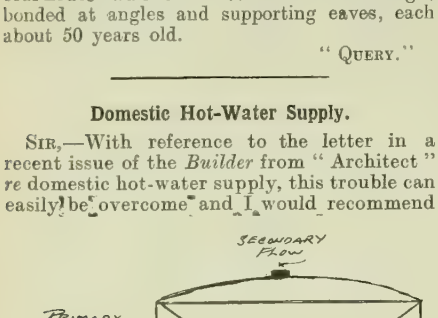
Party Wall.

Sir,—I should like to know the amount of "overhang" that may reasonably be considered safe on a 9-in. party fence wall bonded at each end 18 ft. × 6 ft. high; also a 4½-in. coal-house wall 6 ft. × 5 ft. 6 in. high, bonded at angles and supporting eaves, each about 50 years old.

"Query."

Domestic Hot-Water Supply.

Sir,—With reference to the letter in a recent issue of the *Builder* from "Architect" *re* domestic hot-water supply, this trouble can easily be overcome and I would recommend



your correspondents to have the apparatus emptied down, take off mudhole cover of cylinder, and have the return pipe carried up (as rough sketch enclosed). By doing this he can heat, say, half of the cylinder only.

W. C. Bradbrook.

Lightning Conductor.

Sir,—Can you advise me as to the best construction for the earth connection for a lightning conductor? There appear to be very few works dealing with this subject, and experts seem to differ so widely in principle that it is difficult to decide for the best.

"Novice."

Fixing Grounds.

Sir,—I have heard the opinion expressed that the fixing of wood grounds behind skirtings, frieze rails and other joinery, is redundant. It was pointed out that the joiner in fixing to grounds invariably marks the points where the latter have been plugged to the wall, and nails through at such points only, and that therefore the purpose might be as readily effected if the plugs were left proud and the grounds omitted. I should be most interested to hear the views of practical men among your readers, as such points as these can vitally influence the economical effect of an architect's specification. In these days we cannot afford to spend money uselessly by the vain repetition of stock clauses unless the latter bear a really useful purpose.

"Unconvinced."

Bath Hospital.

The Duke of Connaught recently visited Bath and opened the new Bath Royal United Private Hospital. This is the first portion of a £150,000 scheme for transferring the Bath Hospital from the centre of the city to the outskirts and providing a paying portion as well as a free hospital. The Duke of Connaught also opened the new Children's Orthopædic Hospital, another section of the main scheme. The architect was Mr. A. J. Taylor, and the builders, Messrs. J. Long & Sons, both of Bath.

THAMES BRIDGES: SUGGESTED INQUIRY

The General Purposes Committee of the London County Council recently issued a report, presented to the Council on Tuesday last, with regard to the adequacy of bridges over the Thames. It states:—

"The question of the adequacy of the existing provision in respect of bridges over the Thames within the administrative county of London has been before the Council on many occasions in recent years in connection with various proposals for the reconstruction of existing and the erection of new bridges. For example, powers have been obtained by the Council for the reconstruction of Lambeth bridge, and by the City Corporation for the construction of the proposed St. Paul's bridge. Other proposals have been brought to the notice of the Council from time to time, such as the reconstruction of the existing bridge at Charing Cross for general traffic purposes and the construction of a new bridge over the river from the eastern end of Aldwych, and the Council is now called upon to deal with the emergency created by the condition of Waterloo bridge.

"The number and variety of the foregoing proposals indicate that there is, prima facie, a case for inquiry whether all the proposed bridges are required, and, if not, what new bridges are essential, and also whether the existing bridges are, in condition and capacity, adequate for the traffic they are or may be called upon to bear. It appears to us that the time has arrived when any proposals for constructing or reconstructing bridges should be dealt with in the light of a carefully considered policy covering the whole question of cross-river transit within the administrative county.

"On March 4 the Council passed the following resolution on the motion of Major Barnes, seconded by Mr. Johnson:—

> "That it be referred to the Improvements, Highways and Town-Planning (Special) Committees to consider and report whether steps should be taken to secure that the construction of new bridges and the rebuilding of old bridges within the county of London should or should not have regard to the needs of London traffic as a whole, and to the opportunity offered of improving public amenities.

"We are of opinion that the matter is of such importance that it should be considered in the first instance not only by the Council, but also by the City Corporation, which is the other authority for the provision of road bridges over the river in London. We propose, therefore, that the Council should set up a commission to inquire into the whole subject, and should invite the City Corporation to associate itself with the Council in the matter and appoint one-half of the members of the commission. We will report further later as to the constitution, functions, etc., of the commission, and in the meantime we recommend—

"(*a*) That the City Corporation be invited to join the Council in an inquiry into the existing and future provision of means of road transit across the Thames in London.

"(*b*) That, subject to the City Corporation accepting the invitation referred to in the foregoing resolution (*a*), a commission be appointed to inquire into the whole question of the adequacy, condition, etc., of existing bridges and the necessity (if any) for additional means of transit across the Thames within the administrative county of London, and to formulate a general policy on the subject; and that such commission do consist as to one-half of members appointed by the Council and as to the other half of members appointed by the City Corporation."

Waterloo Bridge.

A report of the Improvements Committee of the London County Council, presented on Tuesday last, states the sudden decision to close Waterloo Bridge was arrived at on the advice of their Chief Engineer. In the report it is stated that:—

"On April 15 the Chief Engineer reported that the settlement of the fourth pier from the Lambeth side continued at an increasing rate and that it was necessary that steps should be taken at once to support the arches on each side of this pier, involving, incidentally, the blocking of the waterways of these arches. Mr. Basil Mott, C.B., and Sir Maurice Fitzmaurice, C.M.G., who are acting in a consultative capacity, supported the view as to the need for this action. Our chairman, as a matter of urgency, gave the necessary authority, and also decided that, subject to the concurrence of the Finance Committee, the Chairman of the Council should be recommended to authorise us to arrange for the work to be undertaken by the contractor for the construction of the temporary bridge. The concurrence was obtained and the Chairman of the Council agreed to the recommendation on April 24. In the meantime immediate steps were taken for putting the work in hand and the Port of London Authority was informed.

"On the same date, April 15, the Council authorised us, with the concurrence of the Finance Committee, to accept a tender on the basis of cost price with a percentage for profit for the construction of the temporary bridge. On the following day the Chief Engineer reported to our Chairman suggesting that this work should be given to Sir William Arrol & Co., Ltd., who within the last few years had carried out other important contracts on the Thames, including the widening of Blackfriars Bridge and the reconstruction of Southwark Bridge. The firm in question were prepared to enter into a contract on the basis of cost price plus a percentage for profit varying according to the total amount of the expenditure. Our chairman approved of the acceptance of the offer, and the Finance Committee concurred on the same date.

"Pending the completion of the contract, the chief engineer was authorised to arrange with the company for a commencement to be made immediately with the work of support to the existing bridge. The arrangements for this work were completed by April 19, and the work was actually commenced on April 23, 1924.

"On May 10, the chief engineer reported that the settlement of the pier had increased again within the previous ten days. He was of opinion that, considering the natural hindrances due to want of head room and the rise and fall of the tide, the contractors had made good progress with the work of supporting the arch on the west side of the pier, but that some weeks must pass before the work could be completed. Having regard to these facts, he considered it advisable, both as a measure of precaution and to expedite progress with the work of making the structure secure, to take steps to close the bridge to all traffic as from midnight, Sunday, May 11, 1924.

"Letters and a petition have been received from ratepayers and tradesmen in occupation of premises on the approaches to the bridge, pointing out the loss of trade resulting from the complete closing of the bridge and asking whether it could not be opened to pedestrian traffic. Much as we regret the inconvenience and hardship caused, we are compelled to come to the conclusion that the complete closing of the bridge is in the best interests of the public both from the point of view of safety and because it may be expected to shorten the period of closing by giving the contractors uninterrupted possession of the roadway between parapets for the purpose of the works. It has, in fact, already become necessary to take up the roadway so as to lessen the load on the pier in question."

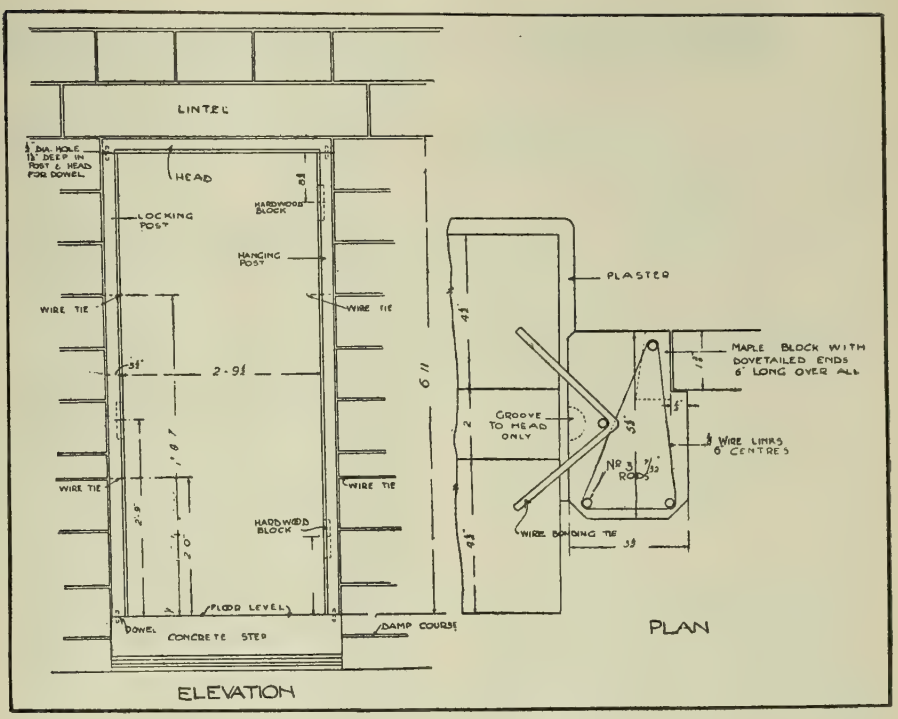
COTTAGE CONSTRUCTION

N view of the claims for alternative hods of construction which are now being ed in many quarters as a solution of the sing problem, Mr. Albert Lakeman's new k* is published at an opportune time. As author says in his preface, "A great deal nsatisfactory cottage construction has been uted in the past owing to misguided efforts reduce the cost to a figure inconsistent h a reasonable expenditure," and the chief pose of this book is to give sound informa- on the use of concrete so that those re- nsible for the conception and execution of form of construction will be helped to duce the best work without incurring un- essary expense.

he book contains 256 pp. and over 200 strations, and is divided into chapters giv- General Principles of Concrete Cottage struction; *In situ* Work; Concrete Block struction; Designs for Cottages and Bun- ows; Design and Construction of Garages; neral Information for the Builder; Alterna- Methods of Construction; and Machinery Concrete Cottage Construction. Thus the ole subject of the construction of small ldings in concrete is thoroughly dealt with, l so far as we can see no detail on which ormation is likely to be required by those h no previous experience of concrete cot- e construction has been omitted.

llustrations of attractive concrete cottages, ngalows, and garages which have been built ring the past few years, such as those at rmanstown, designed by Messrs. Adshead l Ramsey, FF.R.I.B.A., and Professor trick Abercrombie, F.R.I.B.A., in colla- ration, are interspersed throughout the text. l coloured plates are given showing the ious colour effects which may be obtained the simple operation of washing the film cement from the surface of the concrete fore it has finally set, and exposing the gregate.

But perhaps the chief interest lies in the apter in which the author gives his own as, the result of a very large experience this class of work, as to how concrete cot- ges should be designed in order to get the st results from the material from both the



Detail of Concrete Door Frame.

"Concrete Cottages, Bungalows and Garages." Albert Lakeman, M.S.A., M.I.Struct.E., London: ncrete Publications, Ltd., 4, Catherine Street, W.C.2. ce by post: Cloth bound, 5s. 9d.; paper covers, 4s.

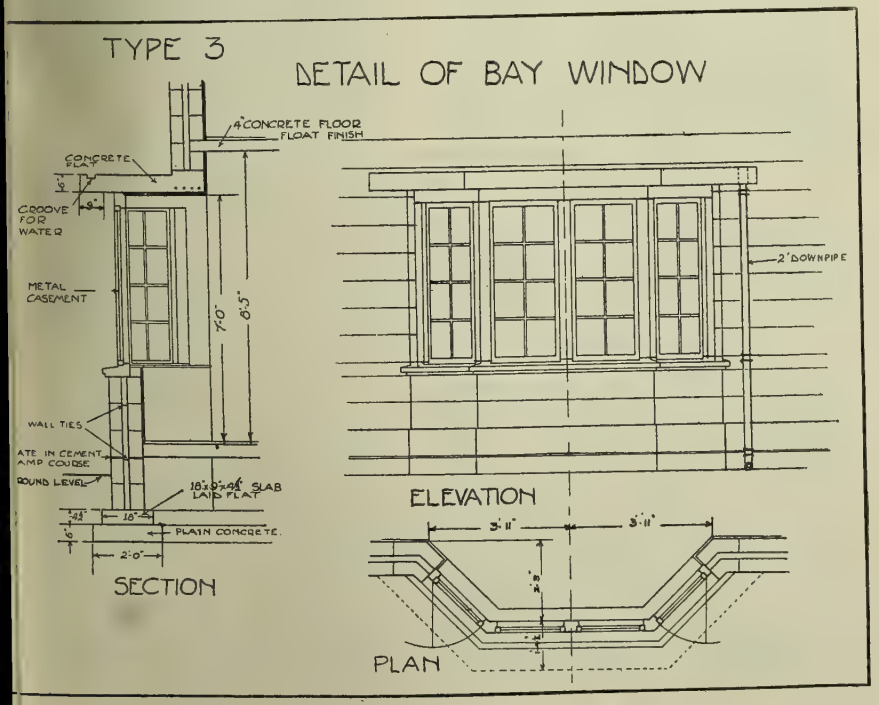
æsthetic and economical points of view, and this section should be of much interest to architects who have had no previous experience with concrete cottage construction. In this chapter there are included seven designs for cottages, bungalows and garages, and each design is thoroughly worked out with plans, sections, elevations, and all the working drawings necessary for the construction of the buildings. In connection with this chapter the author says: "It is not intended to supersede the architect by giving information of this character, but rather to encourage the use of concrete on satisfactory lines," and as such information does not appear to exist in any other form, and there are still many architects who have not carried out this class of work, the information should be decidedly useful.

We give on this page two drawings taken from the book, showing its practical nature. "The door frame," says the author, "is quite easy to make as there are no elaborate mouldings, and the contractor who is able to make the blocks for the main walls and partitions will find it a distinct advantage to manufacture any other concrete units which can be satisfactorily applied. A saving is made as regards the painting of the frame throughout, and an important item in cottage maintenance is eliminated. Wire ties are cast into the side posts with projecting ends which are built into the joints as indicated, while pro vision for fixing the ironmongery of the door is made by the insertion of dovetailed hardwood fixing blocks or other means."

The bay window is simple in character. The roof is formed of a small concrete slab, 6 in. thick, having a raised portion with reinforcing rods at the inner edge to form a lintel for carrying the wall above. The rain water would be drained into a groove around the outer edge and carried away by a 2-in. downpipe, as indicated. The outlet for the pipe would be cast in when the pipe is connected, and no special fastenings are necessary.

These two illustrations will give an idea of the practical nature of the book, and when it is stated that there are more than 60 drawings of this kind it will be realised that the ground is very thoroughly covered.

In his contention that properly designed concrete cottages, built with a regard for the characteristics of the material, are cheaper than brick, the author does not hesitate to give adequate data. Thus a full bill of quantities is given for each of the seven types of buildings, so that any architect or builder can see for himself on what items the saving is effected. Further, the book contains a table giving the comparative estimated cost of a pair of concrete cottages from one of the designs given in the book and a pair of brick cottages of the same size; in this table every item of material and labour required for each method of construction is set out side by side so that they can be readily checked by those interested, and a total of about 10 per cent. saving is shown in favour of concrete, which the author points out would be considerably more in large schemes if mass production methods and good organisation were employed.



THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

The Government's Housing Plans.

Mr. Wheatley, the Minister of Health, in reply to Mr. T. Thomson, said he hoped to be able to introduce the Housing Bill at a very early date. The following was a copy of the letter which he had addressed to the representatives of local authorities whom he met recently, giving the results of the discussions which he had with them:—

"I am directed by the Minister of Health to refer to the Conference on the Government's Housing Proposals at which he received representatives of the local authorities of Great Britain on the 8th and 9th instants. The Minister understands that the representatives of the local authorities wish to have recorded his views on certain resolutions framed by them and submitted to him, and he desires me to make the following comments on the resolutions:—

"Resolutions (*a*) and (*b*) are as follows:—

"'(*a*) That, in carrying out any building programme under the proposed legislation, the local authority should retain full power to fix the number of houses which it will build in any period, subject to the limitation of a maximum number by the Minister of Health, and also full powers at its discretion to suspend building operations for any reason whatever at any time, and that such suspension should not involve the imposition of any burden upon the rates or other penalty.'

"'(*b*) That the autonomy of local authorities with regard to the execution of the proposed new Act should not be less than exists under the Housing, etc., Act, 1923, except in so far as may be specifically agreed by the authorities with the Minister of Health before the proposed Bill is presented to Parliament, and that in the event of any statutory or other committee being appointed in accordance with the proposals contained in the Report of the National House-Building Committee, such committee should not be authorised to interfere with or in any way to affect the powers and duties of local authorities.'

"The Minister concurs generally in these paragraphs, and in particular appreciates fully the importance of leaving unimpaired the autonomy of local authorities under the Housing Act of 1923.

"Resolution (*c*) is as follows:—

"'(*c*) That a local authority should retain power to use building materials purchased in the cheapest market, wherever situate, and to obtain tenders under competitive conditions.'

"Local authorities will retain power to use building material purchased in the cheapest market, wherever situate, and to obtain competitive tenders.

"Resolution (*d*) is as follows:—

"'(*d*) That the dimensions of houses specified in Section 1 (2) of the Housing, etc., Act, 1923, should be retained for the purposes of the new Act, but that the Ministry should have the power on representation from any local authority to reduce that standard.'

"The Minister notes that it is the view of representatives of local authorities that the dimensions of houses specified in the Housing Act, 1923, should be retained for the purposes of the new Act, and he proposes to adopt this course.

"Resolutions (*e*) and (*f*) are as follows:—

"'(*e*) That the fixation of rents should continue generally on the same basis as that laid down for the fixation of rents of houses erected under the provisions of the Housing, Town Planning, etc., Act, 1919, but that if as a result of the limitation of rents under the proposed legislation it should be found necessary to reduce the rents of houses erected under the 1919 and 1923 schemes, the Government should increase the allowances to local authorities so as to prevent such authorities being placed in a worse position than they now occupy.'

"'(*f*) That the Government be asked to pay two-thirds of the loss incurred on approved expenditure, and that in view of the difficulties in rural areas and in small urban districts, the amount of the assistance shall be increased.'

"The questions of fixation of rents and Government contributions were fully discussed at the Conferences, and the following proposals were made by the Minister:—

"(i) The Government will propose a subsidy of £9 a house for forty years for houses to be provided for letting, on the understanding that local authorities will be prepared to provide a further subsidy of £4 10s. a house for forty years.

"(ii) The aim of the present scheme is to secure rents in each locality equivalent to the rents now prevailing there for working-class houses built before the war.

"(iii) Until these rents can be reached, local authorities will charge such rents as will be remunerative after allowance has been made for the total subsidies of £13 10s. a year for forty years mentioned in (i).

"(iv) If in any district the rents to be aimed at, as described in (ii), can be secured for a smaller total subsidy than £13 10s. for forty years, the local authority's contribution shall be reduced accordingly until wiped out.

"These propositions were accepted unanimously by the representatives present at the Conferences, and they promised to recommend them to the bodies by whom they were appointed.

"The further resolution is as follows:—

"'Further resolved—That local authorities shall be free to seek to obtain such amendments to the Housing Bill, when presented to Parliament, as they may deem desirable.'

"The Minister accepted this resolution.

"The Minister undertook to consider further the case of certain local authorities, particularly the agricultural areas, who are in an exceptional position, with a view to securing for them additional assistance, and it was arranged that representatives would be appointed to discuss this matter with him.

"At the end of three years from the passing of legislation, the financial arrangements for houses to be erected after the date under the scheme will be reconsidered by the Minister and the local authorities in the light of the actual experience gained during that period."

Loss under the Addison Scheme.

Mr. Wheatley informed Mr. G. Ward that the annual loss to the Exchequer in respect of houses erected under the provision of the Housing and Town Planning Act, 1919, was estimated at £7,700,000. The annual cost of collection of rents, including cost of management, was approximately £250,000. Local authorities had been authorised by his Department from the outset to accept applications from tenants to buy the houses at market value if this could be done without increasing the annual loss.

Imported Doors.

Mr. Wheatley informed Mr. Sandeman that an understanding had not been arrived at with the building trade with regard to the importation of doors, windows, and framings into this country.

Foreign-made Goods.

Mr. Wheatley informed Mr. Hannon that the Government had no intention of prohibiting the use of foreign-manufactured goods in the building of houses.

L.C.C. and New Scheme.

Mr. E. Simon asked the Minister of Health whether his attention had been drawn to the figures given by the chairman of the London County Council housing committee showing that the number of houses proposed to be built by the committee of the building industry could not possibly be built on the conditions laid down by them; and whether he would ask them to reconsider their report, especially as regarded increasing the output per worker per week.

Mr. Wheatley said his attention had drawn to the figures in question. He ga that they were based on an augmentati the industry by apprentices to the numb one-third of the number of craftsmen em from time to time on housing schemes understood the proposal of the committ be a wider one, and that the increa apprentices would apply to the whole skilled craftsmen in each district, an merely to those engaged on housing wor

Building Trade Dilutees.

Sir W. Davidson asked the Minist Labour what was the reason for the aba ment of the scheme to train 50,000 ex-S men as dilutees in the skilled branches building trade.

Mr. T. Shaw said he understood that, result of the continued depression in the ing industry, it was found impossibl absorb more than a small proportion o applicants for training under the scheme that it was finally abandoned. He wa in a position to say how many trainees employment.

Fine Arts Commission.

Mr. Ormsby-Gore asked the First Co sioner of Works what was the numbe members of the recently appointed commi of fine arts; how many of these were prac artists, architects, or sculptors who had already employed on public works; number of them were members of the Academy or other recognised societie artists; whether he was aware of the spread criticism with which the commi had been met; and whether, in view of criticism, he would discontinue the grant of £2,000 a year to the commission appoint a committee, with power to take dence, to inquire into the question of further expenditure of public money on a

Mr. Graham (Financial Secretary to Treasury), who replied, said that the mission consisted at present of nine mem These included four architects, one pai one sculptor, and one specialist in town ning. Three of the architects had been ployed on public works; five of the *perso* were members of the Royal Academy, and was the present President of the Royal I tute of British Architects. He was not aw of widespread criticism: criticism and di gence of opinion were always active in realms of art. He saw no reason to disconti assistance from public funds, which was much lower rate than £2,000 per annum, to appoint a committee of inquiry. He believ the Commission were already doing very use work in the public interest. The Commiss was created by the late Government, an might possibly be strengthened by the addi of one or two members.

Land Valuation.

In reply to Sir L. Lyle, who asked whe proposed to introduce the necessary legisla recreating the machinery for the taxation land values, the Chancellor of the Exche said he should as soon as possible name a for the introduction of the legislation shadowed in his Budget statement. The would be quite small, and he anticipated it would be met by savings on the gen Vote of the Department.

Government Housing.

During the last fortnight the cost of buil has, it is stated, risen as follows:—

For working class houses containing a li room and three bedrooms but without a pa the cost in January was £386, in February £ in March £416, and in April £425. This m tenders have been received for similar ho to cost over £500, and some nearly £600 e

These figures are taken from an answer g by Mr. Wheatley to Sir Kingsley Wood week, and refer to non-parlour houses. figures for parlour houses during the same months are:—January, £445; February, £ March, £459; April, £440.

THE BUILDING TRADE

LEASEHOLD ENFRANCHISEMENT

E take the following extracts from a orandum issued recently by the Council of Surveyors' Institution :—

mpulsory Leasehold Enfranchisement uld be against the interest of the Community.

ere will be less incentive when building s are granted to insist upon a good lay-out e freeholder's interest is liable to be limited, the control of part or the whole of the build- estate taken out of his hands or those of his essors.

roperties let on lease on a well-managed te are made to revert to the freeholders at same date, a fact which affords opportunity foresight in the management of an estate, for redevelopment if the buildings are worn or have become out of date. It will be reciated that such improvement schemes are dered impossible if individual lessees have rcised a right to enfranchise. So with leases ack-rents, under present conditions it is an m of good estate management that, in rmining the period for which new leases ld be granted, regard should be had to the e of the termination of the leases of adjoining perties belonging to the same owner.

ny system of leasehold enfranchisement ld seriously militate against the opportunities ch are now afforded of securing the recon- ction of a district on a large scale according modern ideas, and also against obtaining, he minimum of cost to the local authorities cerned, those public improvements which growth of any large city is continually de- rding. Some of these improvements are of h a costly character that it is practicable to ire them only by awaiting an opportunity 'n the local authority would be in a position obtain the land needed for these public poses without having to pay compensation disturbance. Experience shows that not equently the knowledge that an improve- nt is likely to be effected permits a certain s of trader to secure an interest in a property he hope of being able to establish a claim for pensation for trade disturbance. These ms. already sufficiently serious, would be reased if a lessee could claim on the basis of interest without limit in point of time. The portunity for creating such enhanced claims ht, in the public interest, to be avoided.

o most surveyors instances will at once ur where desirable improvements have had e deferred for many years, until it has become sible to execute them without involving the hority in question in the payment of large s for compensation for trade disturbance.

o system which would enable a lessee against will of his lessor to secure an interest of this l would be other than of detriment to the lic interest.

nfranchisement would tend to check trade elopment. Industrial, commercial, and ufacturing concerns frequently acquire the hold interest of adjoining property with the ct of extending their premises on the falling f the current lease. A right to enfranchise ld make this impossible, or would, at any , enable the lessee to prevent such develop- t, except at an unreasonable price.

has been claimed that the leasehold system is to bad building and neglect of repairs. evidence available directly controverts this n. Houses erected on freehold land have to pass the inspector of the local authority, has to concern himself with securing com- nce with the local by-laws. Houses erected easehold land have also to pass the surveyor he lessor, whose interest it is to see that they properly and substantially built. The same ark applies with still greater force to the execution of repairs during the period of the lease. It will be generally agreed by those conversant with the subject that the condition of small freehold property is usually worse than that of leasehold property of the same character.

As a corollary of the preceding paragraph, it may be well to state that the view that separate freeholds, as against a system of large estates, tends to the prevention of slum conditions, is not supported by the facts disclosed in dealing with the slum districts, particularly in an aggregation of population such as exists in London. Experience has shown that in most cases in an area which is condemned under the Housing Acts as incapable of being remedied except by a reconstruction scheme, by far the largest proportion of the houses belong to separate owners over whom there has been no control, beyond that exercised by the local authority, either as to the conditions of the individual premises or their relationship to adjoining property. Even in modern days the power of control by the local authority to prevent the overcrowding of buildings on sites has been slight, and in the construction of the buildings themselves the local authority has only in comparatively recent years had any large power of supervision. Although the circumstances of this public control are different to-day, it is still true that the most effective steps for the prevention of the conditions which produce slums are those exercisable by a lessor through the covenants of leases against additions and alterations to property without his consent, covenants regulating occupation and preventing nuisance, and those requiring it to be maintained and delivered up in a proper condition.

Compulsory Leasehold Enfranchisement would be against Private Interests.

The Freeholder.

On entering into a contract for a building lease each party has certain conceptions in his mind. The lessor understands that he will forego for a lengthy period the enjoyment of the probable increase in the annual value of his property, accepting in place thereof a small fixed annual payment during the term and the reversion at the end of the lease to the improvements effected on the land. The lessee, on the other hand, calculates to be able to recoup himself by the rents received or the occupation value to himself, so that when the time comes for the building or improvements to be handed over to the freeholder its cost has been fully met. Alterations in the basis of the bargain necessarily mean alterations in the basis of value. If the right to the freehold at the end of the lease for which the lessor contracted is taken from him the value of his freehold interest is reduced, while that of the leasehold interest is proportionately increased, without consideration being received or given. It should be pointed out that in most cases the present owners of long leasehold terms are not the persons who made the expenditure on the land, but are rather those who have acquired a definite terminable interest at a commensurate price, and to allow them to acquire the freehold without paying the full value of the land with its improvements is to give them, at the expense of the freeholder, a future value for which they have not paid, and also to make the remainder of the term to which they are entitled more valuable.

The right to enfranchise would give lessees power to prevent redevelopment of building estates or blocks of property, except on the acquisition of those rights at, perhaps, unreasonable rates. The Rent Restriction Acts have provided many actual examples of these possibilities, but that legislation is merely temporary, while legislation permitting enfranchisement would be permanent in character.

The Leaseholder.

Compulsory enfranchisement would not necessarily be to the advantage of leaseholders as a body. While some would obtain a pecuniary advantage through enfranchisement, others would suffer by the deterioration of estates which would frequently follow the withdrawal of supervision and control by the freeholder by reason of the enfranchisement of individual properties.

PRICES OF BUILDING MATERIALS

The report for April of the Deputy-Chairman (Mr. A. V. Alexander, M.P.), of the Inter-Departmental Committee appointed to survey the price of building materials, states that further increases in the prices of bricks are reported from two of the centres included in the schedule. "The Committee are also informed that the Stock Brick Manufacturers' Association have increased their schedule of prices for stock bricks by 4s. 6d. per thousand. In view of the general tendency for the price of bricks to increase the Committee have instituted detailed enquiries in the areas concerned. Slight increases in lime are reported from Birmingham, Newcastle, and Dundee. Bristol and Manchester show an advance in the price of roofing tiles, and at Manchester slates also have increased. On the other hand, there has been a reaction in the price of lead, and, after the sharp increase which has been recorded in previous reports, there has been a fall in price ranging from £1 to £3 a ton."

EXPANSION OF BUILDING AND CONSTRUCTION IN INDIA.

(From a Special Correspondent.)

Materials, &c., Being Introduced.—Activity prevails in importing building and engineering requisites and tools. Stocks of steel building sections of all British standard structural sections are held at Calcutta, Rangoon, Jamshedpur, Lucknow, Delhi and Madras. American manufacturers of wrought-steel hardware and carpenters' tools of highest quality have opened a branch at Bombay. English corrugated asbestos cement roof sheeting at Bombay, Calcutta, Karachi, and Madras, &c.

Indian Projects.—On waterworks and drainage extension at Ahmedabad, £455,000. Under the Sanitary Engineer to Bombay Government, Poona, the additional masonry service reservoir at Pandharpur for the water supply is estimated at £5,500.

A new church is to be built at Delhi, to seat 400 people. Plans are being prepared for a church to cost eventually £40,000.

Town Planning.

In view of the importance of members of the Surveyors' Institution being kept informed as to new town-planning schemes affecting property under their management, or as to the several stages reached by schemes already in course of preparation, the Council has arranged with the Ministry of Health that the latter shall every three months supply the Institution with an up-to-date list showing the stage reached by every town-planning scheme throughout the country. These lists, the first of which will be issued with the *Journal* for June next, will be published every three months.

THE TRADES TRAINING SCHOOL AND ITS WORK

THE judging of exhibits of the students' work executed during the 1923–24 session took place at the Trades Training School, 153, Great Titchfield-street, W.1, recently. Mr. W. H. Evans, Master of the Worshipful Company of Carpenters (under whose auspices the School is conducted), presided. The chairman of the School (Mr. Frederick Sutton, J.P.) was present, and the judges, who included representatives of the Associated City Companies which join with the Carpenters' Company in the maintenance of the School, were:—Mr. G. C. Barnes, Mr. J. Harris Browne, Mr. E. Guy Dawber, Mr. W. J. Englefield, Sir George Frampton, R.A., Mr. J. A. Gotch, Mr. F. T. W. Goldsmith, Mr. W. Stewart Greene, Mr. W. Grellier, Sir W. Goscombe John, R.A., Mr. Bertrand Johnson, Mr. E. Snow Lancaster, Mr. Ellis Marsland, Mr. W. J. Minn, Mr. George Parlby, Mr. W. T. Plume, Mr. Percy Preston, Mr. E. S. Rider, Mr. Frank W. Robson, Mr. S. G. Castle Russell, Mr. H. D. Searles-Wood, Mr. H. P. Shepherd, Sir Brumwell Thomas, and Mr. A. R. Upjohn.

In the more structural crafts of brickwork and masonry, in which the work was considered well up to the average, and an evidence of the keen interest of the students, many practical and in some cases difficult problems were set the advanced students to train them in technique. In the crafts of carpentry and joinery the examples were graded to provide progressive instruction for students of different stages of advancement, and were considered by the judges very creditable, many of the students being young apprentices whose work was pronounced much in advance of their age, while the work of the handrailers showed the scientific aspect of the subject in the setting out of the work. The energies of the wheelwrights were adapted to modern needs in the form of motor work, and their exhibits were considered satisfactory.

The utilitarian work of sanitation and wiring was treated conscientiously in its sphere, the work of the plumbers' class being pronounced as above the average and included specimens of unusual excellence; the electricians' shop was especially useful, well fitting the students for good work in after life.

With regard to the more decorative crafts, the plasterers quite maintained the good quality of their workmanship. The painters' class, which caters for both plain and ornamental decoration, comprised some excellent lettering by juniors of 15 years and upwards, and some decorative stippled work, both much commended.

The metal workers' class was of great interest, especially its brass and copper section. The work, both useful and decorative, was thought to show great promise. The smiths' work was also pronounced satisfactory.

The School is careful to give attention to the specifically artistic crafts. The glaziers' class contained many examples—some of which were designed as well as executed by the students—in which a high standard of design was to be noted, including advanced stained and painted glass of pictorial character. The work of the stone carvers and wood carvers included drawings from casts as well as actual casting and sculptured work, in all of which the spirit of the originals is well rendered and a crispness of effect produced. The figure sculptors' art was represented by a class of modellers from the life (under Mr. C. L. Hartwell, A.R.A.); the work was full of vitality and expression.

The prizes and medals awarded by the judges will be distributed at Carpenters' Hall, Throgmorton-avenue, in the early part of next session, after the School re-opens on September 22.

This School, under the Directorship of Sir Banister Fletcher, gives sound practical instruction to actual craftsmen and apprentices, and throughout attention is confined first and foremost to fitness of execution. The students, however, are encouraged to visualise the design of their work as well as to carry it into execution, with the aim that the products may be things of beauty as well as of utility. As much as possible therefore is done to size, but the small scale models necessitated by large structural features, such as roofs, afford all the needed opportunity for training in the actual problems.

RENT RESTRICTION

IN the paper read by Mr. J. Calvert Spensley before the Surveyors' Institution on the "Economic Effects of the Housing Subsidy and Rent Restriction," and the discussion which followed, reported in our columns on March 14 and 21, there seems to have been a consensus of opinion that as regards "working class" dwellings there was likely to be a continuance of Rent Restriction for some time to come. Sir Theodore Chambers expressed the opinion that Major Barnes's conclusion was correct, that private enterprise in building working-class houses would never come into operation again in their own lifetime, and the writer of the paper pointed out that, whatever economists might say as to increase in rents encouraging supply, there was the politician to consider, and no politician would face the withdrawal of protection from the great bulk of the electors before a margin of accommodation was secured. There are two branches of Rent Restriction, however, one relating to working-class dwellings properly so called where the legislation has, in the opinion of many, killed private enterprise for good and all, but there is the other branch, the protection of the higher valued houses, which has killed the enterprise of letting houses on lease, or agreement, but which has not so far killed building enterprise in building them for sale.

Sir Theodore Chambers said he thought it most unhappy that the views of the majority of the Rent Restriction Committee were not accepted and the Act "lifted off" the houses that were brought into it in 1920, and we are in hearty agreement with him. Why should houses of which the standard rent or the rateable value amount to £105 in the metropolitan area, and £78 elsewhere be continued to be protected? That policy is having a most disastrous effect on the very persons it is supposed to protect, except as regards the actual sitting tenants, for it has rendered it impossible for that class to rent their houses, and they are a class who, owing to lack of capital very often can only take a house on lease and cannot buy. Now that the legislature is again attacking the subject of Rent Restriction and is being urged to continue it, it is extremely important that this question of houses of the higher values should receive careful consideration. As regards working-class dwellings the case is entirely different, for as the local authorities supply them they are let to the tenants which require them, but that is not the case in connection with the higher class houses. Here private enterprise has to supply the demand, and private enterprise as represented by the builders and landlords, so long as restriction continues, will not let the houses on lease but will only sell them. Are they to blame for this? The answer to this question will, we think, be found in the letter written by a "Middle-Class Tenant" to the *Times* on March 17. That tenant was occupying a house he had occupied before the war, held, he said, on a lease which provided "that the landlord shall maintain at his sole cost and expense the premises in sound structural and sanitary condition, and in every respect suitable for the occupation of a family." He must at some time have had to renew his agreement for he stated he was paying the permitted increase in rent, but he wrote complaining that the premises had been allowed to fall into disrepair amounting to dilapidation whilst the landlord "ruthlessly exacted his quota of increased rent." He had apparently done nothing whatever to the house himself for he said "paint and wallpapers have not been renewed for 15 years," thus not distinguishing between "repair" and "decoration."

Apparently he had applied to the sanita authority for a certificate, but failed to g it, from which it may be inferred that t sanitary authority was not satisfied that t house "was not in all respects reasonably for human habitation, or otherwise not in reasonable state of repair" according to t Act. Finally he regretted he could not lea the house "in disgust," but admitted that he did so the landlord would be able to re- it "at double or more than double its form rent, the new tenant doing all the repairs, a the landlord smilingly joins the great arm whose spirit of profiteering is now poisoni the whole nation."

Is it possible to state the landlord's ca stronger than this letter does? This may taken as typical of numbers of other case the tenant occupying the house all throu the war, doing nothing whatever to the pr perty, and when in 1920 or at some date ther after being compelled to pay a forty per cen increase in rent expecting everything to done on a pre-war basis, and abusing t landlord who is compelled to keep him as tenant, although on that tenant's own sho ing the property in the open market is wor double the rent he is paying, the tenant doi all repairs.

We cannot too strongly urge upon th legislature now they are again thinking legislating on Rent Restriction that in the in terests of all concerned the higher value houses should be treated on a different bas to the working-class dwellings. Rent Restric tion has killed private enterprise as regard the latter, but the State, or rate-aided munic palities, are coming in and will eventuall provide houses which can be rented by the class. But it cannot be either possible or de sirable that the higher-valued houses shou be provided otherwise than by private ente prise, and the continuance of restriction putting an end to the leasing of such house altogether, and placing that large class persons who have no capital to buy houses in a most difficult position. Unless the relation ship of landlord and tenant is to be put an end to altogether there is urgent necessity to withdraw from control at any rate the highest class of houses only made subject to restric tion by the Act of 1920.

NEW BUILDINGS IN LONDON

Kensington.—BUILDING.—New premises are now being erected at Church-street for the Gas Light and Coke Co. The building is of brick and stone construction. The facing bricks are to be Collier's hand-made red, with Portland stone dressings. The floors are of hollow tile. The sub-contractors are: Steelwork, Messrs. H. Young & Co., Ltd.; heating and ventilating, Messrs. J. Jeffreys & Co., Ltd.; hollow-tile floors, Messrs. Diespeker; drainage system Messrs. Burn Bros. Mr. H. Austen Hall F.R.I.B.A., of 6, New Burlington-street, W. 1 is the architect for the work.

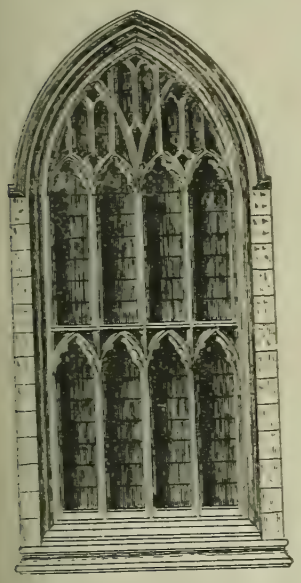
Mortimer-street.—WAREHOUSE.—A building is now in the course of erection at 40, Mortimer street, W.1. The building is to be used fo warehouses and shops. The sub-contractors are Messrs. Lindays, Paddington Ironworks steelwork; Mr. Courtenay, Fulham, stonework The general contractors are Messrs. H. Brown & Son, Albion Wharf, Westbury-road, W.2.

Streatham.—ALTERATIONS. — Alterations are being made to the "Crown and Sceptre," near Streatham-hill. The principal sub-contractors are: Messrs. Samuel Haskins Bros., Ltd., roller shutters; Messrs. Doulton & Co., Carrara-ware front (terra-cotta); Messrs. H. Hope & Sons steel sashes; Messrs. Medway's Safety Lift Co. Ltd., lift; Messrs. A. D. Dawnay & Sons, Ltd. constructional steelwork; Messrs. S. B. Goslin & Son, ornamental ironwork; Messrs. Comyn Ching & Co., heating. The builders are Messrs H. V. Clogg, of 81, Vallance-road, E.1. Messrs F. J. Eedle & Meyers, 8, Railway-approach London Bridge, are the architects for the work

BUILDING THROUGHOUT THE AGES

s his seventh lecture,* entitled "The Romance Building throughout the Ages," delivered ore the Junior Members of the Amalgamated iety of Woodworkers, at Liverpool, Mr. orge W. Thompson dealt with the English thic period. He gave the following particu- s of some of the Cathedrals illustrated :—

Chester (1128–1508).—Tradition said that a uidical temple stood on the site of the present



Perpendicular Window.

uilding. There was a fine perpendicular central ower. The choir screen, roof and reredos were f olive-wood brought from Palestine.

Carlisle (1150–1419).—There was a perfect cacery window at the east end of th s cathedral. Much of the cathedral was destroyed during ivil wars of the seventeenth century. The



Anglo-Saxon Tower.

tained glass of the east window was over 500 ears old.

Bristol (1160–1500).—An original Augustinian nonastery which was dissolved at the Refor-

* Earlier lectures in this series were given in *The Builder* as follows :—1, Feb. 1 ; 2, Feb. 15 ; 3, Feb. 29 ; , March 14 ; 5, April 4 ; 6, May 2.

mation ; Norman chapter house ; Early English lady chapel ; decorated choir ; nave rebuilt in the nineteenth century.

Bangor.—As a monastery this was important, 2,000 monks living there at one time. The original building was destroyed by the English in the thirteenth century. The present building was built in the fourteenth century, and restored by Sir Gilbert Scott in 1866.

St. Asaph.—Although Christianity, owing to the Saxon invasion, nearly perished in the rest of the island, it lived in Wales and Cornwall. St. Asaph was the smallest of our cathedrals, and was restored by Sir Gilbert Scott.

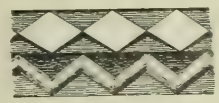
Llandaff.—First erected in the eleventh century, this became a ruin. The present building was restored in the nineteenth century.

St. David's.—Founded by St. David, the patron saint of Wales. The roof was flat and of Irish oak. The rood screen was decorated.

Peterborough (1160–1496).—The original abbey was entirely destroyed by the Danes in the ninth century. The prevailing style was Norman. The west front was one of the finest in Europe. Catherine of Arragon (first wife of Henry VIII) and Mary Queen of Scots were originally buried here.

Southwell.—Served the counties of Notts and Derby and was only little known generally. Norman nave, transepts and towers. The east end had lancet windows of great beauty.

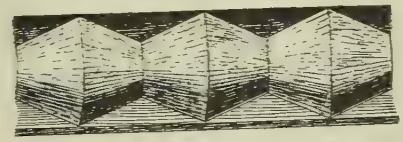
Lincoln (1184–1438).—Chiefly Early English in style. The central tower was 271 ft. high.



Z -Zag.



Billet.



Double Cone.

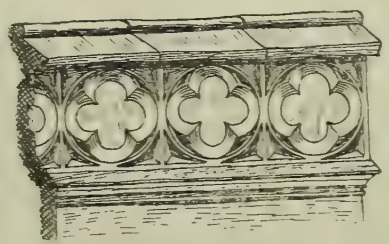
Norman Mouldings.

Early English decagonal chapter house. The lower portions of the two western towers were Norman, whilst the upper parts were perpendicular. The choir was very beautiful.

St. Albans.—Begun in the eleventh century ; became a cathedral in 1875 ; longest nave in England.

Wells (1205–1465).—Often referred to as Bath and Wells. A spring, known as St. Andrew's well, was near by ; it was supposed to be bottomless and to possess healing properties. The nave, transepts and choir were Early English.

Salisbury (1217–1274).—Took less than sixty years to build, and thus had the distinction of being confined to one style, which was Early English. The spire, the loftiest in the country, was 404 ft. in height. The nave had on each side nine groups of clustered pillars from which



Perpendicular Parapet.



Early English.



Perpendicular.

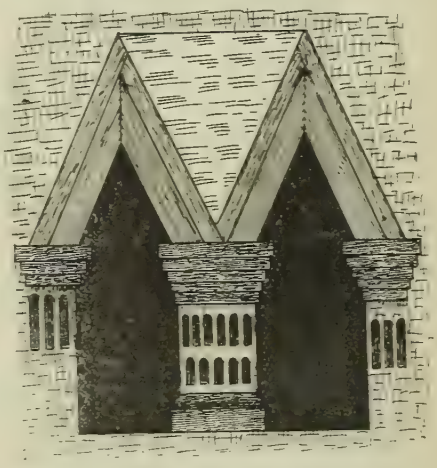


Decorated.

Types of Crochets.

sprang ten pointed arches. Above these were the triforium and the clerestory. The Purbeck marble, being rich in fossils, added greatly to the effect of the masonry. The choir screen was a fine example of wrought-metal work.

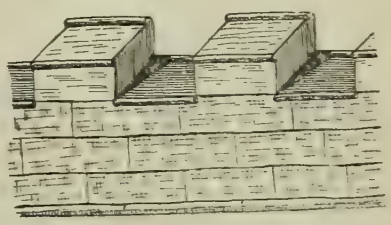
Lichfield (1295-1430).—The central and two western spires were in the Decorated style. Early English west front. The clerestory windows were of spherical triangular form. Marble reredos.



Anglo-Saxon Window.

Worcester (1218–1380).—Originally an important Roman station on the River Severn. Fine perpendicular tower, 196 ft. high. The tower had a pierced parapet with octagonal turrets, carrying small spires at the four corners. Cromwell's soldiers wrought great mischief here.

York (1227–1420).—Among the forty companions of Augustine on his first arrival from Rome was Paulinus, who was afterwards created



Early English Parapet.

first Bishop of York by Augustine. The building was the largest and in many respects the most magnificent of English cathedrals. The east window (75 ft. by 32 ft.) was probably the largest in the British Isles, but the east window of the new Liverpool Cathedral probably exceeded it.

Liverpool.—Diocese formed 1880. Church of St. Peter was used as cathedral until its demolition in 1922. Architecturally the building possessed no merit, and we had reason to be thankful that we had escaped from a period (1704) when architecture was at such an ignoble level. We must remember, however, that it was not a building that constituted a cathedral, but the situation of the "cathedra," or Bishop's chair.



FLYING BUTTRESS.

Ripon.—Early English western and central towers. Organ on rood screen.

Wakefield.—Diocese formed in 1887. Nave perpendicular.

Manchester (1380).—Nothing was known of the early Christian history of Manchester.

St. Germans.—Diocese of Sodor and Man. Present building in ruins.

Truro (1877).—Finest twentieth century church in England. Choir stalls of teak.

St. Paul's (1675–1710).—Built by Sir Christopher Wren after the Great Fire. The dome, which consisted really of three domes, was 365 ft. high. Choir contained carvings by Grinling Gibbons.

Although cathedrals varied in plan, their principal features were: A chapel at the principal entrance; a nave or main body; side aisles, which did not always rise as high as the nave; the choir and, between it and the nave, the transepts, which rendered the plan cruciform in shape. At the end of the choir was the high altar, and beyond that a chapel dedicated to the Virgin Mary. The choir was often terminated by an apse. Along the side of the choir were ranged richly carved seats or stalls in oak or stone. Among these was the Bishop's Seat or Throne. Other minor parts were the muniment room, in which documents were kept, the library, and vestries.

National Radiator Co., Ltd.

We have received from the National Radiator Company a folder which demonstrates in a concisive manner the merits of the "Cookanheat" Ideal Radiator and Boiler.

Builder's Estate.

Mr. Henry John Appleton, of Oak Dell, Page Heath-lane, Bickley, Kent, of 24, Cambridge-street, Hyde Park, W., and of 49, Connaught-street, Hyde Park, W., builder and decorator, left £48,306.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Ever endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1¼
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1¼
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1¼
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0¾
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0¾
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1¼
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0¾
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2¼
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2¾
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2¾
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2¼
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2¾
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	

(For rates of wages in the Building Trade in Scotland, see page 849).

THE SCOTTISH BUILDER

HE ROYAL TECHNICAL COLLEGE, GLASGOW

HE students and staff of the architecture building day and evening classes of this ege recently visited the following buildings ch are in course of construction :—

he first visit was to the Automobile Club tions, Blythswood-square, Glasgow. The rest in this job is in the fact that, without ring the dignified external design, the re side of the square is being converted a separate self-contained houses, of which ras originally composed, to serve the pur-es of a clubhouse. The buildings were red so that only carcase work remained; entire interior is being replanned and fitted o suit its new purpose. Mr. James Miller, .S.A., is the architect of this work and he Accountants' Hall additions, which were t visited. The new work is of steel con-ıction which was exposed to view at the e of the visit. The old buildings had ginally been self-contained houses of correct ssic style, dating from about the middle of nineteenth century, which, although in cess of alteration to serve as offices, still in much original work of interest.

The next building visited was Messrs. cfarlane, Lang & Company's new biscuit ory at Tollcross. The architect, Mr. Ernest Monro, A.R.I.B.A., explained the in and development of the design of the ory, which included descriptions of many the fitments. A great deal of interesting k was seen, including construction in stone, k, timber and steel; also reinforced con-e floors in process of erection.

The last visit was devoted to Paisley, where ious new works, which are being carried from Sir Robert Lorimer's designs, were ted. The new choir of the Abbey Church, ch was begun by the late Dr. MacGregor lmers, was examined: it is an example masonry carried out in Cullaloe sandstone. only the springer stones of the vaulting e completed, the work was at an instructive ge for inspection.

t the close of each visit, Professor Gourlay, head of the architecture and building de-tment in the college, expressed the thanks the students and staff to the architects of buildings visited.

Housing Progress in Scotland.

THE following figures show the progress that been made in State-aided housing schemes in tland to April 30 :—

	Completed.	Under Construction.
9 Act	24,109	2,989
vate Subsidy Schemes	2,324	—
m Clearance Schemes	430	1,267
3 Act	89	2,809
	26,952	7,065

f the total number of houses completed and er construction under the 1923 Act, 1,023 are the local authorities and 1,875 by private erprise.

Berwick Town Planning.

orth Berwick Town Council recently inti-ed to East Lothian County Council that y are considering a town-planning scheme the burgh and surrounding district, and ed the county's co-operation. It was also orted that Edinburgh Corporation had tten, stating that they were to make a ional survey of the city and district, and t a sub-committee had been appointed confer with representatives of the Corpora-n. Lord Polwarth alluded to the importance uch a survey and the necessity of attention ng given to the county's interests. Colonel J. P. Grant, D.S.O., of Biel, mentioned that, as a similar scheme was being prepared for Gullane, he thought both schemes should be co-ordinated.

Big Glasgow Scheme.

Glasgow may shortly, we understand, promote another big extension scheme to embrace within the city boundaries fully 14,000 acres of suburban and county territory, whose total valuation, it is stated, is nearly £400,000.

A draft of the scheme will be considered by one of the Corporation Committees at an early date. It is understood that the intention of the promoters meantime, at least, is to incorporate within Greater Glasgow certain areas which have been provided with public services by the city, or are being developed as a result of the city's enterprise, notably as regards housebuilding, tramways, &c. Thus, it appears, the scheme is likely to comprise parts of the counties of Renfrew and Lanark, as well as Dumbarton. Already a considerable portion of the area mapped out for amalgamation has been provided by Glasgow Corporation with tramway lines and gas and water mains.

Paisley Traffic Control.

The Paisley Town Council at a recent meeting agreed to a motion by Councillor Dr. Bruce that, in view of the fact that the by-laws for the control of street traffic were framed so far back as 1904, before the advent of general motor traffic, the magistrates be asked to revise and reconsider these by-laws, and if so advised to make alterations to meet modern requirements.

Contract Open in Edinburgh.

MAY 26.—**Edinburgh.**—BUILDINGS.—Erection of six blocks of buildings (24 houses) at Saughtonhall-terrace, for the Saughtonhall Housing Association. Plans by Messrs. C. E. Tweedie & Sons, architects, 54, Frederick-street, and schedules by Messrs. R. & A. K. Smith, F.F.S., 44. Queen-street, Edinburgh.

NEW BUILDINGS IN SCOTLAND

Edinburgh.—HOUSES.—The Dean of Guild Court has approved plans for 20 houses at Saughton Hall-drive, and two blocks, each comprising nine houses, at Sheriff Brae, Leith, for the Corporation.

Lethanhill.—SCHOOLS.—The Ayrshire E.C. propose to build new schools at Lethanhill.

Ayr.—VARIOUS.—The Dean of Guild Court has passed the following plans :—Mr. A. W. Waddell, a building in Dalblair-street, to cost £650; Mrs. MacAndrew, plant-houses, at a cost of £320; Mr. J. Martin, conversion of 98, New-road, into two shops, at a cost of £120; Mr. John Smith, a bungalow in Craigie-road, at a cost of £800; and Mr. B. Coyle, a bungalow in Seafield-road, at a cost of £800.

Stirling.—SCHOOL.—The Stirlingshire E.C. has decided to provide additional accommodation at the High School, at an estimated cost of £1,500.

Glasgow.—VARIOUS.—The Dean of Guild Court has passed the following plans: The City Bakeries, Ltd., bakery at 23, Clarendon-street, to cost about £24,034.——The Scottish Co-operative Wholesale Society, Ltd., extension to boot factory at Renfrew-road Shieldhall, at £16,803; and Mr. T. Baird, 11 terrace houses at Doune-gardens, Cathcart, at a cost of about £8,613.

Aberdeen.—HOUSES.—The Corporation Plans Committee passed plans for houses and alterations to existing premises, to the total estimated value of £11,854.

Greenock.—HOUSE.—Plans approved: House in Johnstone-street, for Mr. W. H. Kirkwood; house at Hillend-drive, for Mr. A. Heed; and a hall adjoining St. Stephen's Episcopal Church, St. Lawrence-street.

Perth.—VILLA.—Plans approved: Double villa, Glasgow-road, for G. Sievwright & Son.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½		
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½		
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½		
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/8½	1/1½ to 1/2½		
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—		
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1 1½		
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½		
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/8½	1/2½		
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2		
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½		
Glasgow	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½		
Greenock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Hamilton	1/7½	1/7½	1/7½	1/8	1/5	1/5	1/5½	1/2		
Hawick	1/5½	1/5½	1/5½	1/6	1/8	1/7½	1/6½	1/2½		
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/4	1/3½	10½d to 1/2½		
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	1/2½		
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/5	1 0		
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½		
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 848.

CONTRACTS, COMPETITIONS, &c.

Forsome contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

MAY 24.—**Carmarthenshire.**—PAINTING.—For painting, colouring, &c., at schools, for the Carmarthenshire E.C. Mr. W. Vincent Morgan, County Architect, County Offices, Carmarthen.

MAY 24.—**Darwen, Lancs.**—POST OFFICE.—Erection of a new Post Office at Darwen, Lancs, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary).

MAY 24.—**Ebbw Vale.**—POUND, &C.—(*a*) Erecting a pound at the Council Yard, Ebbw Vale; (*b*) erecting a boundary wall at the Council Yard, Ebbw Vale; (*c*) taking up and relaying street pavement. Mr. P. I. Davies, Surveyor, Ebbw Vale. Deposit £1.

MAY 24.—**Glasgow.**—PAINTING.—For painting at various schools, for the Education Authority. Education Offices, 129, Bath-street, Glasgow. Deposit 10s. 6d.

MAY 24.— **Kingston-upon-Thames.** — HOUSES. — Erection of 10 pairs of parlour-type houses and 12 pairs of non-parlour type houses, for the Corporation of the Borough of Kingston-upon-Thames on their housing estate. Borough Surveyor, Town Clerk's Office, Municipal Offices, Kingston-upon-Thames. Deposit £1 1s. (Builders will be at liberty to tender for the whole or a less number of both or either type of such houses, as they may desire.)

MAY 24.—**Little Haven.**—ALTERATIONS.—For carrying out the alteration of Little Haven Police Station, for the Pembrokeshire C.C. Mr. A. L. Thomas, County Surveyor, County Offices, Haverfordwest.

MAY 24.— **Middlesbrough.** — HOUSES.— Alternative tenders for the erection of a total of 84 additional houses on the housing estate at Marton-grove, Grove Hill, for the Housing Committee of the County Borough of Middlesbrough. Mr. S. E. Burgess, M.Inst.C.E., Borough Engineer, Architect and Surveyor, Municipal Buildings, Middlesbrough.

MAY 24.—**Newton (Pem).**—CHAPEL.—Erection of a new Baptist Chapel at Newton, Hayscastle, Pembrokeshire. Rev. E. Williams, "Bryn Siriol," Wolfscastle, Pem.

MAY 24.—**Oldbury.**—HOUSES.—For erection of 16 non-parlour type and 4 parlour type houses, for U.D.C. Mr. J. Selvey-Clinton, Acting Surveyor, Oldbury.

MAY 24.—**Rochford.**—PAINTING.—For decorative work in three wards of the institution of the Board of Guardians. Clerk, 40, Clarence-street, Southend-on-Sea.

MAY 24.—**Salford.**—ALTERATIONS.—For alterations and new offices at Broughton High School for Girls, for the T.C. Secretary for Education, Education Offices, Chapel-street, Salford.

MAY 24.—**Tredegar (Mon).**—BUNGALOW.—For erection of a bungalow near the Council Filter House, Nantybwch, Tredegar, for the U.D.C. Mr. William L. Roach, Surveyor, Bedwellty House, Tredegar. Deposit £1 1s.

MAY 26.— **Congleton.** — HOUSES.—Erection of 40 non-parlour type houses on the West-end site, for the Borough Council of Congleton. Borough Surveyor, Borough Surveyor's Office, Congleton. Deposit £2 2s.

MAY 26.—**Dorchester.**—PAINTING, &C.—For (1) Painting High Level Reservoir at the Waterworks; (2) painting and re-decorating the Municipal Buildings; (3) additional sanitary accommodation, for the T.C. Mr. H. D. Strange, Borough Surveyor, Dorchester.

MAY 26.—**Dublin.**—HOUSES.—For building a further section of the Marino Housing Scheme, for T.C. City Treasurer, Dublin. Deposit £2.

MAY 26.—**Ellesmere Port.**—HOUSES.—For the erection of (*a*) 208 houses, in blocks of four; and (*b*) 52 semi-detached houses, at Ellesmere Port, for the U.D.C. Mr. Thos. W. Francis, Clerk, Council Offices, Ellesmere Port. Deposit £1 1s.

MAY 26.—**Farnborough.**—CONVENIENCE.—Erection of convenience for the U.D.C. Mr. J. E. Hargreaves, Surveyor, Town Hall, Farnborough.

MAY 26.—**Glamorganshire.**—VARIOUS WORKS.—For works for the County Council, viz.:—(4) Craigcefnparc Council School—Re-levelling playgrounds, building retaining walls, sloping ways, &c. (5) Maesmarchog Council School—New Infants' Department. (6) Pontardawe Secondary School—Levelling and fencing playing field. (7) Rhiwfawr Council School—New playsheds and improvement of playgrounds. (8) Garw Secondary School—Restoration of Manual Room after fire. (9) Blaengarw Council School—Retaining walls. Mr. T. Mansel Franklen, Glamorgan County Hall, Cardiff.

MAY 26.—**Glasgow.**—VARIOUS.—For various works in connection with alteration to Kelvinside substation, for the T.C. Electrical Engineer, 75, Waterloo-street, Glasgow.

MAY 26.—**Hamilton.**—TOWN HALL.—For the erection of a new town hall, for the T.C. Mr. P. M. Kirkpatrick, Town Clerk, Hamilton.

MAY 26.—**Hamilton.**—PAINTING.—For painting various bridges for the District Committee of the Middle Ward of the County of Lanark. Mr. W. A. Chapman, Surveyor, Hamilton.

MAY 26.—**Hartlepool.**—PAINTING.—For painting at Henry Smith School, for Durham C.C. Director of Education, Shire Hall, Durham.

MAY 26.—**Huddersfield.**—BUNGALOW.—For the erection of a bungalow in Central-avenue, Fartown. Messrs. J. H. Hall & Son, architects, Exchange Buildings, Market-street, Huddersfield.

MAY 26.—**Leeds.**—SHOPS, &C.—For erection of shops and warehouse, George-street, for T.C. Mr. W. T. Lancashire, City Engineer, Leeds.

MAY 26.—**Neath.**—ADDITIONS.—For additions and painting work to be carried out at Siloh Church, Melyncrythan, Neath. Messrs. S. Cym Jones and Arnold, architects, Neath.

MAY 26.—**Neath.**—PAINTING.—For painting work at Constitutional Club. Messrs. T. Gibb & E. Smith, architects, Leeds. Deposit, 10s.

MAY 26.—**Pelynt.**—PAINTING.—For renovation of United Methodist Church. Mr. F. Philip, Polean, Pelynt.

MAY 26.—**Purley.** — OFFICES. — For the erection of Council Offices on land situate in Banstead-road, for Coulsdon and Purley U.D.C. Mr. E. C. Pinks, surveyor, Parliament Mansions, S.W. Deposit £10 10s.

MAY 26.—**St. Marylebone, W.**—TENEMENTS.—Erection of two blocks of tenements (flats) at the Fisherton-street housing site, for the Metropolitan Borough Council of St. Marylebone. Mr. James Wilson, Town Clerk, Town Hall, Marylebone-road, N.W.1. Deposit £5 5s.

MAY 26.—**Skipton.**—ADAPTATIONS.— Adaptations and repairs to farm buildings on the Gargrave Estate, near Shipton, for the West Riding E.C. County Land Agent, County Hall, Wakefield. Deposit £1.

MAY 26.—**Stakeford.**—ALTERATIONS.—For alterations and additions at Stakeford Social Club. Mr. C. F. Murphy, architect, Morpeth. Deposit £2 2s.

MAY 26.— **Swindon.** — HOUSES.—Erection of 50 houses in Limes-avenue, Hurst, for the Corporation of the Borough of Swindon. Mr. H. J. Hamp, Borough Surveyor 34, Regent-circus, Swindon.

MAY 26.—**Thrapston.**—PAINTING.—For painting at Infirmary and provision of baths for the Board of Guardians. Master, at Institution.

MAY 26.—**Tonyrefail.**—ALTERATIONS.—For alterations and additions to Gelli Seren and Tylchawen Farms, Tonyrefail. Messrs. Thomas & Morgan & Partners, architects, 23, Gelliwastad-road, Pontypridd.

MAY 26.—**Wales, &c.**—PAINTING.—For cleaning and repainting station buildings, bridges, &c., at the following places:—(19) Pontypridd, (20) Caerphilly; (21) Whitchurch, Tongwynlais, &c.; (22) St. Blazey, Falmouth, &c.; (23) Nantyglo, Aberbeeg, &c.; (24) Blaenavon, Pontypool, &c.; (25) Aberdare, Mountain Ash, &c.; (26) Victoria and Albert Docks, Smithfield, &c.; (27) Gloucester and Churchdown; (28) Hereford, Leominster, &c.; (29) Cirencester, Swindon Town, &c., for G.W.R. Co. Engineer at Cardiff (Queen-street), for Contracts Nos. 19, 20 and 21, at Plymouth (North-road), for Contract No. 22, at Newport (High-street) for Contracts Nos. 23, 24 and 25, at 7, Eastbourne-terrace, Paddington, W.2, for Contract No. 26, and at Gloucester for Contracts Nos. 27, 28 and 29.

MAY 26.—**Widnes.**—HOUSES.—For the erection of 20 houses on the Kingsway site for the T.C. Borough Surveyor, Town Hall, Widnes. Deposit £2 2s.

MAY 26.—**Winchester.**—PAINTING.—For decorative work at Royal Hampshire County Hospital. Mr. H. Maslin, Secretary, Winchester.

MAY 27.—**Ackworth.**—HOUSE.—For the erection of house in Long-lane, Ackworth, near Pontefract, for Dr. J. Cairns. Messrs. Garside & Pennington, architects, Pontefract.

MAY 27.—**Belfast.**—ALTERATIONS.— For alterations and additions at the Workhouse for the B.G. Messrs. McCarthy & Lilburn, Quantity Surveyors, Cottage Provident Buildings, Belfast. Deposit £5 5s.

MAY 27.—**Chorley.**—ALTERATIONS.—For small alterations at Isolation Hospital, for the Chorley Joint Hospital Board. Messrs. Buckley & Catterall, architects, Chorley.

MAY 27.—**Dunfermline.**—FENCING.—For wrought-iron fencing, chestnut pale fencing, and privet hedging, for 20 houses, on Town-hill Site, for the T.C. Burgh Engineer, Dunfermline.

MAY 27.—**Dunfermline.**—FENCING.—For wood fencing and gates and privet hedging, for eight houses on Brucefield site, for the T.C. Burgh Engineer, Dunfermline.

MAY 27.—**Great Yarmouth.**—HOUSES.—Erection and completion of 48 houses (non-parlour type) in blocks of 8; 24 to be on the Southtown Common Estate, and 24 on the North Denes Estate for the Great Yarmouth T.C. Borough Engineer, Town Hall, Great Yarmouth. Deposit £2 2s.

MAY 27.—**Leeds.**—SHELTER, &C.—For shelter at North-street Recreation Ground, lavatories, &c., at Bramley Fall Wood, and shelter and conveniences at Crossgates Recreation Ground, for T.C. Mr. W. T. Lancashire, City Engineer, Leeds.

MAY 27.—**Liverpool.**—CONVENIENCES.—Erection of conveniences at Sefton Park, for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

MAY 27.—**Molesey.**—HOUSES.—Erection of two pairs of houses, for the U.D.C. Mr. G. Condell, Clerk, Molesey.

MAY 27.—**Newport (Mon).**—ADDITIONS.—For erecting at East Usk Power Station, new offices buildings, for the Newport T.C. Borough Engineer, Town Hall, Newport (Mon.).

MAY 27.—**Newport.**—CATTLE PENS.—For construction of cattle pens and other works at East Usk Junction, for G.W.R. Co. Engineer, Paddington Station, London.

MAY 27.— **Teddington.** — HIGH VOLTAGE BUILDING.—Erection of a high voltage building at the National Physical Laboratory, Teddington, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to Secretary).

MAY 27.— **Uxbridge.** — HOUSES, ROADS AND SEWERS.—Erection of 15 pairs and seven blocks of houses, and for roads and sewers, &c., forming the Northern Section of the Hillingdon-road scheme, Uxbridge, Middlesex, for the Uxbridge Urban District Council. Mr. William L. Eves, F.R.I.B.A., F.S.I., High-street, Uxbridge. Deposit £2 2s.

MAY 27.—**Wincanton.**—HOUSES.—For the erection of 12 houses for R.D.C. Messrs. Petter & Warr, Yeovil.

MAY 28.—**Barnet.**—PAINTING.—For the decoration of eighty-one houses in Oakleigh-road North and Russell-lane, Whetstone, N. 20, and, for the decoration of forty houses in Halliwick-road, Muswell Hill, for the U.D.C. Mr. F. P. Kindell, Surveyor, Council Offices, New Southgate.

MAY 28.—**Colwyn Bay.**—ADDITIONS.—For additions to St. Andrew's Church, comprising new chancel, organ chamber and vestry. Messrs. J. M. Porter & Co., architects, Colwyn Bay. Deposit £2 2s.

MAY 28.—**Durham.**—PAINTING.—For painting the Durham Girls' County School, for the C.C. Mr. A. Dawson, Director of Education, Shire Hall, Durham.

MAY 28.—**Farnworth.**—PAVILION.—For the erection of a pavilion at Darley, for the U.D.C. Mr. Stone, Surveyor, Town Hall, Farnworth. Deposit £2 2s.

✱MAY 28.—**Isleworth.**—CLEANING, PAINTING, ALTERATIONS AND REPAIRS.—(1) West Middlesex Hospital, cleansing and painting wards; (2) West Middlesex Hospital (main kitchen), alterations and repairs; (3) Toolands House (Union Offices), cleansing and painting board and other rooms, for the Guardians of the Brentford Union. Mr. F. E. Harmsworth, Clerk, "Toolands House," Twickenham-road, Isleworth.

MAY 28.—**Keighley.**—IRON BUILDING.—Erection of a corrugated iron building having steel framing, for T. Tramways Manager, Keighley.

MAY 28.—**Kyle-of-Lochalsh.**—HOUSES.—For erection of houses, for south-western district of Ross-shire. Messrs. A. Ross & Sons, architects, Inverness.

MAY 28.—**Redditch.**—ALTERATIONS AND ADDITIONS.—Alterations and additions to the Post Office, Redditch, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

✱MAY 28.—**Sevenoaks.** —SCHOOL EXTENSIONS.—Extension of the premises, at the Queen Elizabeth Grammar School, Sevenoaks, for the Governors. Mr. W. H. Robinson, County Education Architect, Room 69, Sessions House, Maidstone. Deposit £2 2s. in form of a cheque.

MAY 28.—**Twickenham.**—ALTERATIONS AND ADDITIONS.—Execution of works of structural alteration and additions at Murray Park Hall, Whitton, Twickenham, for the U.D.C. Mr. Fred W. Pearce, F.S.I., Surveyor to the Council, Town Hall, Twickenham. Deposit £2 2s.

MAY 28.—**Wood Green.**—PAVILION.—For the erection of a pavilion in Albert-road Recreation Ground, for the U.D.C. Surveyor, Town Hall, Wood Green. Deposit £1 1s.

MAY 28.—**Wrexham.**—HOUSES.—For the erection of 56 houses, for the T.C. Messrs. Lockwood, Saxon & Abercrombie, architects, Chester. Deposit £2.

MAY 29.—**Cannock.**—HOUSING.—For the erection of nine pairs of non-parlour type houses at Penkridge, for the R.D.C. Mr. H. M. Whitehead, Director of Housing, Penkridge, Stafford. Deposit £5.

MAY 29. — **Hertfordshire.** — ENLARGEMENT OF COUNTY SCHOOL.— Enlargement of the County Council School at Knebworth, for the Hertfordshire E.C. Lt.-Col. A. Ernest Prescott, M.Inst.C.E., County Surveyor, County Surveyor's Office, Hatfield. Deposit £1 1s.

MAY 29.—**Leeds.**—ALTERATIONS.—For alterations at Killingbeck Hall, for T.C. Mr. W. T. Lancashire, City Engineer, Leeds.

MAY 29. — **London, S.E.1.**—PLUMBING AND HEATING WORK.—(*a*) Providing and installing two calorifiers, steam mains, hot-water mains, and connections thereto; (*b*) forming new heater chamber, and alterations to existing heater chamber, for the Guardians of the Southwark Union. The Clerk, Southwark Union Board of Guardians, Union Offices, 50–51, Uford-street, Blackfriars-road, S.E.1.

MAY 29.—**Slaithwaite.**—ROUGH CASTING.—For the work of rough casting of four houses at Lowe Wood, Lingards, for the U.D.C. Clerk, Town Hall, Slaithwaite.

MAY 29.— **Stoke - on - Trent.** — TELEPHONE EXCHANGE.—Erection of a Telephone Exchange at Stoke-on-Trent, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s.

MAY 29.—**Wadsley.**—POINTING.—For pointing work at West Riding Mental Hospital, Wadsley. Mr. W. H. Burton, Architect, West Riding Mental Hospitals Board Offices, Sheffield.

✱MAY 30.—**Acton.**—SUPPLY OF GARDEN SEATS, PAINTING AND REPAIRS TO IRON RAILINGS.—(*a*) The supply of 24 garden seats and (*b*) painting, repairs and renewals to iron railings at Acton Green Common, for the Acton Borough Council. Borough Surveyor, Borough Surveyor's Office, Acton.

MAY 30.—**Bacton.**—REPAIRS, &C.—For repairs and adaptations to cottages and farm premises at Bacton Estate, for Norfolk Small Holdings Committee. County Land Agent, Norwich. Deposit £1 1s.

MAY 30.—**Bury St. Edmunds.**—HOUSES.—For the erection of 24 houses for the T.C. Mr. R. B. Beaumont, Borough Surveyor, Bury St. Edmunds. Deposit £2 2s.

Y 30.—**Clayton.**—PAINTING.—For painting the eyan School. Mr. A. Ward, Secretary, Highfield , Clayton.

Y 30.—**Glasgow.**—SLATER WORK.—For over- ng roofs, cleaning gutters, and sweeping vents, hools, for the Glasgow Education Authority. ation Offices (Property Department), 129, Bath- t, Glasgow. Deposit 10s. 6d.

Y 30.—**Lyminge.**—HOUSE.—For the erection of lice house at Lyminge, for the Kent C.C. Mr. W. Ruck, County Architect, 86, Week-street, stone. Deposit £1 1s.

AY 30.—**New Romney.**—ALTERATIONS.—Altera- to building at Plumtree House, for the T.C. Town , New Romney.

AY 30.—**Thorne.**—HOUSES.—For the erection of uses and construction of roads and sewers for the .C. Mr. F. Turner, architect, Carlisle-street, e. Deposit £2 2s.

AY 30.—**Thurles.**—BUILDING.—For buildings in ection with electricity supply, for the U.D.C. rs. J. P. Tierney & Co., 44, Kildare-street, Dublin. ge £2 2s.

AY 31.—**Eastleigh.**—BRIDGE.—For the widening erro-concrete of a brick-built bridge and erection etaining walls, for the U.D.C. Mr. W. W. Gandy, veyor, Council Offices, Eastleigh.

AY 31.—**Goole.**—ANNEXE.—Erection of annexe as ing room at Rawcliffe Hall, near Goole, for West ing Mental Deficiency Act Committee. West ing Architect, County Hall, Wakefield.

AY 31.—**Kilrea.**—WAR MEMORIAL.—For erection of memorial. Mr. S. J. M'Fadden, architect, raine. Deposit £1 1s.

AY 31.—**Lewisham.**—BRICKLAYING.—For building ves and vaults, &c., at Ladywell and Hither Green metery, for one or three years, for B.C. Mr. J. W. tter, Town Clerk.

★MAY 31.—**Leyton.**—PAINTING, &C.—Cleansing and nting schools, and for repairing and re-dressing the paving of playgrounds, for the U.D.C. Mr. John Jacques, Lic.R.I.B.A., 61, West Ham-lane, Strat- d, E.15. Deposit £1.

MAY 31.—**Nantymoel (Glam).**—ADDITIONS.—r making alterations to and erecting additions to Town Band Institute. Messrs. P. J. Thomas & Sons, hitects, Bridgend (Glam).

MAY 31.—**Neath.**—ADDITIONS.—For alterations and litions to the laundry block and entrance hall at morgan Farm School, for the C.C. Mr. T. Mansel nklin, Clerk, Glamorgan County Hall, Cardiff.

UNE 1.—**Browney Colliery.**—RENOVATIONS.—For novation of Institute. Mr. W. Grey, 20, Front- eet, Browney Colliery, Durham.

UNE 2.—**Carlisle.**—CONVERSION.—For the conver- n of outbuildings adjoining Coledale Hall into farm- use, for the T.C. Mr. H. C. Marks, City Engineer, rlisle.

JUNE 2.—**Hull.**—HOUSES.—For erection of 200 uses on East Hull Site, for the T.C. City Architect, ll.

JUNE 2.—**London, E.C.2.**—RE-DECORATION.—-decoration of the Hoxton Public Library, Pitfield- eet, N. 1, for the Shoreditch B.C. Mr. T. L. Hustler, rough Surveyor, Town Hall, Old-street, E.C. 2.

JUNE 2.—**Margate.**—PAINTING.—Internal decora- ns in the Engineer's house and workmen's cottages the Corporation's Waterworks Pumping Station at ingham, near Canterbury. Borough Engineer, . Grosvenor-place, Margate.

★JUNE 2.—**Poole.**—HOUSES.—Erection of 48 houses, th drains, fences, &c. (1) five pairs at Granville- ad; (2) twelve pairs at Grove-road; (3) seven irs at Hamworthy-road, for the Poole B.C. Mr. muel J. Newman, Borough Surveyor, Municipal lices, Poole.

JUNE 2.—**St. Helens.**—POWER STATION.—(*a*) The molition of part of the existing engine-house at the rporation's Electricity Power Station at Cropper's ill, and the erection of a new building on the site reof; (*b*) the work and materials required in connec- on with the steel and ironwork for the new building ferred to in (*a*). Mr. A. Bradley, Borough Engineer, . Helens. Deposit £2.

JUNE 2.—**Sedbergh.**—HOUSES.—For new boarding- use for fifty boys, with masters' residence. Messrs. Tight & Sons, surveyors, Lancaster.

JUNE 2.—**Wakefield.**—PAINTING.—For internal and xternal painting at the County Hall, Wakefield, and ternal painting at the West Riding Land Agent's ffices, Cliff-lane, Wakefield. West Riding Architect, unty Hall, Wakefield.

★JUNE 2.—**West Ham, London, E.15.**—PAINTING ND REPAIRS TO SCHOOLS.—Cleansing, painting and pairing various schools during the summer vacation, r the Education Committee of the County Borough West Ham. Mr. John H. Jacques, Lic.R.I.B.A., rchitect to the Committee, 61, West Ham-lane, ratford, E.15. Deposit £1.

JUNE 2.—**Workington.**—PREMISES.—For the erec- on of new gas distribution premises for the T.C. Mr. . B. Williams, Borough Electrical Engineer, Town all, Workington. Deposit £3 3s.

JUNE 3.—**Hoylake.**—HOUSES.—Erection of six pairs semi-detached houses, for U.D.C. Surveyor, Town all, Hoylake. Deposit £2 2s.

JUNE 3.—**London, S.W.18.**—MOTOR GARAGE EX- ENSION.—Extension of motor garage at St. James' ospital, Ouseley-road, Balham, S.W.12, for the uardians of the Wandsworth Union. Mr. F. J. urtis, Clerk, Union Offices, St. John's Hill, Wands- orth, S.W.18.

JUNE 3.—**Marsden.**—HOUSES.—Erection of 36 houses r U.D.C. Mr. H. Greenwood, Clerk, Marsden, near uddersfield. Deposit £1 1s.

JUNE 3.—**Sheffield.**—BUILDINGS, WORKS AND LANT.—Buildings, works and plant required in con- ection with the erection and equipment of a new lectricity generating station at Blackburn Meadows, heffield, for the Electricity Supply Committee of the ity of Sheffield. Mr. S. E. Fedden, M.Inst.C.E., eneral Manager and Engineer, Commercial-street, Sheffield. Deposit £3 in respect of each specification up to three will be refunded on receipt of a *bona-fide* tender.

JUNE 4.—**Portadown.**—COTTAGES.—For erection of twenty cottages, for Government of Northern Ireland. Mr. W. D. Scott, Ministry of Finance, Belfast. Deposit £1.

JUNE 5.—**Hampton.**—HOUSES.—For the erection and completion of 31 houses on the Priory-road site for the U.D.C. Mr. Sidney H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex. Deposit £2 2s.

JUNE 5.—**West Norwood.**—ALTERATIONS, &C.—For (*a*) structural alterations and redecorations at the Hannen House Welfare Centre, Hannen-road; and (*b*) construction of a convenience and lavatory at the Rommany-road depot, Rommany-road, for the Metropolitan Borough of Lambeth. Mr. Osmond Cattlin, A.M.I.C.E., Borough Engineer, Town Hall, Brixton Hill, S.W.2.

JUNE 5.—**Wortley.**—HOUSES.—For the erection of 20 houses at Ecclesfield, for the R.D.C. Mr. F. Thurlby, surveyor, Wortley. Deposit £2 2s.

JUNE 6.—**Long Stratton.**—REPAIRS.—For repairs to cottages and farm buildings at Ford's Farm, Long Stratton, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich. Deposit £1 1s.

JUNE 6.—**Lough Derg, Co. Donegal.**—FOUNDATIONS.—Constructing the foundations (to be built partly in the Lake) of the proposed new church designed by the late Professor W. A. Scott, at St. Patrick's Purgatory. Mr. Thomas J. Cullen, F.R.I.A.I., architect, 25, Suffolk-street, Dublin.

JUNE 6.—**Martham.**—REPAIRS.—For repairs to cottages and farm premises at Thunderhill Farm, Martham, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich. Deposit, £1 1s.

JUNE 6.—**Penybont.**—HOUSES.—(1) Erection of 16 parlour and six non-parlour houses at Pyle; (2) of 16 parlour and six non-parlour houses at Pyle; (3) of 14 parlour type houses at Sarn; (4) of six non-parlour type houses at Sarn, for the R.D.C. Mr. J. Simon Davies, surveyor, 8, Wyndham-street, Bridgend. Deposit £2 2s.

JUNE 6.—**Repps-cum-Bastwick.**—REPAIRS.—For repairs to cottages and farm buildings at Lynford Farm, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich. Deposit £1 1s.

JUNE 7.—**Swaffham.**—CHAPEL.—For erection of a chapel in the Cemetery at Hilborough-road, Swaffham, for the Burial Board. Mr. O. W. Parry, surveyor, Shire Hall, Swaffham.

JUNE 10.—**Foynes.**—STATION BUILDINGS.—For restoration of Foynes Station buildings, for the Great Southern and Western Railway Co. Chief Engineer, Inchicore, Dublin. Deposit £1 1s.

★JUNE 10.—**Walthamstow.**—RENOVATION WORKS.—For works of interior and exterior renovation in painting and distempering, &c., as follows:—Winns-avenue Schools, interior and exterior; Queen's-road Schools, exterior; Blackhorse-road Schools, exterior; Selwyn-avenue (Junior Department only), interior; St. Saviour's Boys' School, interior; Offices, High-street, exterior. Mr. H. Prosser, M.S.A., Education Committee Offices, 263, High-street, Walthamstow, E.17.

★JUNE 11.—**Barnet.**—TIMBER AND ASBESTOS BUILDING.—Provision and erection of a timber-framed asbestos-lined building on brick foundations, intended to be used as an office for the Barnet Rural District Council. Mr. A. J. Wiltshire, Engineer and Surveyor, to the Council, Council Offices, Boreham Wood.

★JUNE 12.—**West Molesey, Surrey.**—BRICK BUILDINGS.—Erection of two brick buildings at West Molesey, Surrey, including the following trades:—Bricklayer, carpenter and joiner, pavior, mason, slater, piasterer, plumber, glazier and painter, sanitary and sundry works. Messrs. Christiani & Neilson, 72–74, Victoria-street, S.W.1. Deposit £1 1s.

★JUNE 14.—**Essex.**—PAVILION.—Erection and completion of a pavilion (brick built) at the Bowling Green, Young's Nursery, for the Corporation of Southend-on-Sea. Mr. R. H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

JUNE 14.—**Evesham.**—HOUSES.—For the erection of 26 houses on the King's-road, Bengeworth, site, for the T.C. Mr. J. Abbott, Borough Surveyor, Town Hall, Evesham. Deposit £2 2s.

JUNE 16.—**London, N.W.1.**—ALTERATIONS.—Certain structural alterations at the Public Baths, Marylebone-road, in connection with the installation of filtration plant for First Class Swimming Baths, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

JUNE 16.—**Manchester.**—GARAGE.—For erection of motor bus garage at Didsbury, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

JUNE 20.—**Montrose.**—SCHOOL.—Erection of elementary school for Forfarshire Education Authority. Mr. Hugh Gavin, architect, 194, High-street, Montrose. Deposit £1 1s.

NO DATE.—**Aylesford.**—HOUSES.—For erection of 25 houses at Preston Hall, Aylesford, Maidstone, Kent, for the Industrial Settlements (Incorporated). Messrs. Collcutt & Hamp, architects, 126, Wigmore-street, W. 1. Deposit £1 1s.

NO DATE.—**Blackwood (Mon).**—PAINTING.—For painting of two semi-detached houses at Blackwood. Secretary, Oakdale Workmen's Club, Blackwood (Mon).

NO DATE.—**Carlisle.**—HOUSE.—Erection of House and alterations to adjoining premises, for Mr. Routledge, Bleatarn, near Carlisle. Mr. T. T. Scott, architect, Carlisle.

NO DATE.—**Carlisle.**—HOUSES.—For the erection of three pairs of cottages at the Cumberland and Westmorland Joint Mental Hospital. Mr. A. J. Ayris, architect, 68, Lowther-street, Carlisle. Deposit £1 1s.

NO DATE.—**Castleford.**—PAINTING.—For painting and decorating the P.M. Church, Bradley-street, Castleford. Mr. W. Holland, 12, Carlton-street, Castleford.

NO DATE.—**Hull.**—BUILDING.—For erection of a new building in Ropery-street, for Messrs. A. Sanderson & Co. Mr. F. R. Waller, architect, 5, Parliament-street, Hull.

NO DATE.—**Leeds.**—HOUSE.—Erection of residence, Headingley (brick and joiner only). Mr. Arthur E. Braithwaite, architect, Victoria-road, Hyde Park, Leeds.

NO DATE.—**Queensbury.**—BAKERY.—Erection of a bakery at Hill-top, Queensbury, for the Queensbury Industrial Society, Ltd. Messrs. Spencer & Sharp, architects, Old Bank Chambers, Great Horton, Bradford.

NO DATE.—**Towyn (Card).**—INSTITUTE.—For erecting an institute, for the Memorial Committee. Messrs. Deakin & Howard Jones, architects, Plas Ynys, Borth, S.O.

NO DATE.—**Withernsea.**—HOUSES, &C.—Erection of block of five houses, block of six houses, bungalow, detached house, also new street. Mr. Charles O. Lockey, architect, Central Chambers, Withernsea.

NO DATE.—**Worksop.**—SHOP, &C.—Erection of shop and assembly hall at Firbeck, for the Worksop Co-operative Society, Ltd. Mr. J. Haslam, architect, Worksop. Deposit £2.

FURNITURE, MATERIALS, etc.

MAY 26.—**Camberwell.**—WOOD BLOCKS.—Supply of 290,000 creosoted deal wood paving blocks, to B.C. Mr. W. Bell, Borough Engineer, Town Hall, Camberwell, S.E.

MAY 26.—**Dublin.**—MATERIALS.—Supply of materials for six months to Dublin United Tramway Co. General Manager, 39, Upper Sackville-street, Dublin. Charge 2s. 6d.

MAY 27.—**Bideford.**—ROAD MATERIALS.—Supply of granite macadam chippings, &c., to U.D.C. Mr. W. B. Seldon, Town Clerk, Bideford.

MAY 27.—**Dublin.**—MATERIALS.—Supply of materials for six months to the Great Northern Railway (Ireland) Co. Mr. J. B. Stevens, secretary, Amiens-street Station, Dublin. Charge 1s. per schedule (47).

MAY 28.—**London.**—MATERIALS.—Supply of (1) metals; (2) materials for steel foundry; (3) wood screws, nails, &c., for Bombay Baroda & Central Indian Co. Secretary, 91, Petty France, S.W. Charges £1 for (1), and 10s. each for (2) and (3).

MAY 29.—**Dublin.**—CEMENT.—For the supply of cement for the T.C. for eight months. City Engineer, Dublin.

MAY 29.—**Newcastle-on-Tyne.**—MATERIALS.—For supply of stores for six months to the Tyne Improvement Commission. Mr. A. Blacklock, Secretary, Offices, Bewick-street, Newcastle-on-Tyne.

MAY 30.—**London.**—PAINT.—Supply of paint, white lead, &c., for India Store Dept. Branch No. 12, Belvedere-road, S.E.

★JUNE 2.—**Charlton.**—FENCING.—Supply and erection of (1) cleft pale oak fencing; and (2) wrought-iron unclimbable fencing, at Maryon Wilson Park, Charlton, for the L.C.C. Chief Officer of the Parks Department (Room 393 F), The County Hall, Westminster Bridge, S.E.1.

JUNE 2.—**Dublin.**—STORES.—For six months' stores for the Midland Great Western Railway of Ireland. Storekeeper, Broadstone Station, Dublin. Tender forms of which there are 46, 6d. each.

JUNE 2.—**Honley.**—MATERIALS.—Supply of 1,300 tons of 4 in.×5 in. granite setts to the U.D.C. Mr. H. N. Royston, surveyor, Honley.

JUNE 2.—**South Africa.**—VARNISHES, &C.—Supply to South African Railways of varnishes and free flowing enamels. Department of Overseas Trade, 35, Old Queen-street, S.W. Reference 13615/E.D./C.C./2.

JUNE 4.—**Dublin.**—MATERIALS.—Supply of stores for six months to the Great Southern and Western Railway (Ireland) Co. Stores Superintendent, Inchicore, Dublin.

★JUNE 4.—**Ireland.**—COTTAGES.—Erection of 20 cottages in Portadown Urban District, County Armagh, for the Ministry of Finance, Government of Northern Ireland. Secretary, Ministry of Finance, 15, Donegall-square West, Belfast, marked "Tender for Cottages, Portadown." Deposit £1.

★JUNE 6.—**Rochford, Essex.**—HOSPITAL BLOCK.—Erection of new hospital block, extension of Nurses' Home, new Board Room, &c., and other alterations and additions at the Poor Law Institution, Rochford, for the Guardians of the Rochford Union. Mr. Norman Evans, Lic.R.I.B.A., 26, County Chambers, Weston-road, Southend-on-Sea. Deposit £1 1s.

★JUNE 13.—**Aylesford.**—HOUSES.—Erection of 25 houses for the Industrial Settlement (Incorporated) at Preston Hall, Aylesford, near Maidstone. Messrs. Collcutt & Hamp, architects, 126, Wigmore-street, London, W.1. Deposit £1 1s.

ENGINEERING, IRON AND STEEL.

MAY 27.—**Burton-on-Trent.**—ELECTRIC LIGHT INSTALLATION.—For installation of electric light at institution and children's home, for the Board of Guardians. Mr. H. S. Askew, Clerk, Burton-on-Trent.

MAY 30.—**London.**—STEELWORK.—Supply to the South Indian Railway Co. of structural steelwork (Machine Shop). Company's Offices, 91, Petty France, Westminster, S.W.1. Charge £1.

JUNE 2.—**Dublin.**—STEELWORK.—Supply of steelwork for Bridges Nos. 643 and 645, Cavan Branch, for the Midland Great Western Railway of Ireland Co. Chief Engineer, Broadstone Terminus, Dublin. Payment 8s.

JUNE 25.—**London.**—BRIDGES.—Supply of girder bridges to East Indian Railway Co. Secretary, 73, King William-street, E.C. Charge £1 1s.

MAY 26.—**Solihull.**—BRIDGES.—Construction of two bridges over the River Cole, for R.D.C. Mr. A. E. Currall, Streetsbrook-road, Solihull.

MAY 27.—**Liverpool.**—FENCING.— For supplying and fixing 2,500 yds. of wrought-iron fencing in various parks, for T.C. Land Steward and Surveyor, Municipal Offices, Liverpool.

MAY 27.—**Machynlleth.**—RAILWAY WIDENING.—For widening the line between Machynlleth and Dovey Junction, for G.W.R. Co. Engineer, Paddington Station.

MAY 27.—**Neath.**—BRIDGE.—For the reconstruction of a bridge over the Neath Canal, for G.W.R. Co. Engineer, Paddington Station.

MAY 27.—**Newport.**—SUBWAY.—For the construction of a subway at High-street Station, the reconstruction of Usk-road bridge, and other works at Newport, for G.W.R. Co. Engineer, Paddington Station.

MAY 27.—**Paddington.**—GIRDERS.—Supply of 184 tons of steel girders, &c., to G.W. Railway Co. Engineer, Paddington Station.

MAY 29.—**Southwark.**—HEATING APPARATUS.—For installation of (1) two calorifiers, steam mains, hot-water mains and connections thereto; and (2) forming new heater chamber and alterations to existing heating chamber, for B.G. Mr. A. P. S. Smith, Clerk, Union Offices, 50–51, Ufford-street, Blackfriars-road, S.E.1. Deposit £2.

MAY 31.—**Cardiff.**—STEEL WORK.—For supplying and erecting about 90 tons of steel work at the bridges carrying the Cardiff and Penarth-road over the rivers Taff and Ely. Mr. E. W. M. Corbett, 3, Castle-street, Cardiff.

JUNE 7.—**Dumfries.**—WATERWORKS.—(1) Extension of filter house and excavations, &c., (2) construction of a reinforced concrete clear water tank on the Hennebique system, (3) provision and erection of mechanical filter, (4) Kelloholm water mains and sewers, for Dumfries C.C. Mr. W. C. Easton, Civil Engineer, 183, West George-street, Glasgow. Deposit £1 1s.

JUNE 7.—**Troon.**—GAS HOLDER.—Supply and erection of a three-lift spiral guided gas-holder of 500,000 cubic feet capacity with steel tank and connections, for the T.C. Mr. J. W. Beveridge, Engineer, Gas Works, Troon.

JULY 1.—**Chili.**—HARBOUR WORKS.—For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.

ROAD, SANITARY, AND WATER WORKS.

MAY 26.—**Bromley.**—SEWER.—For construction of 490 yds. of 9 in. glazed stoneware pipe sewer, for the R.D.C. Mr. L. J. Small, surveyor, Park House, Bromley. Deposit £2 2s.

MAY 26.—**Camberwell.**—ROADS.—For paving works viz., (1) East Dulwich-road; (2) Lordship-lane (Barry-road to Wood-vale), creosoted deal blocks on reinforced concrete foundations; (3) East Dulwich-grove (Lordship-lane to Melbourne-grove), 2 in. mastic asphalte on reinforced concrete foundations. Mr. W. Bell, Borough Engineer, Town Hall, Camberwell.

MAY 26.—**Glasgow.**—ROADS.— For the construction of Section A–B, Glasgow to Baillieston, Contract No. 1, of a new road from Glasgow to Edinburgh, for the T.C. Office of Public Works, City Chambers, Glasgow. Deposit £3 3s.

MAY 26.—**Harpenden.**—ROADS.—For making up small added strip in Ox-lane, for the U.D.C. Mr. J. H. Leverton, surveyor, Harpenden.

MAY 26.—**Ilford.**—ROADS.—For making up Balfour-road, for U.D.C. Surveyor, Town Hall, Ilford. Deposit £2 2s.

MAY 26.—**Little Lever.**—SEWAGE WORKS.—For improvements and alterations at the sewage disposal works, for the U.D.C. Surveyor, Council Offices, Little Lever. Deposit £2 2s.

MAY 26.—**Manchester.**—ROADS.—For making up Bristol-street, Hulme, and passage behind Wilton-avenue, Chorlton-cum-Hardy; passage adjoining 19 and 20, Wellington-avenue, Whalley Range; passage adjoining 16, Totnes-road, and 11, Sidbury-road, Chorlton-cum-Hardy; passages behind 369 to 397, Bradford-road, 62 to 82, Energy-street, Ancoats, and Newton Heath; passages behind 398 to 406, Moston-lane, 2 to 34, Millais-street, and 1 to 33, Leighton-street, &c., Moston; and passage behind 2 to 38, Penn-street, and 1 to 31, Ward-street, and adjoining 18, 20, and 38, Penn-street, and 15, 17, and 31 Ward-street, Moston. Paving, &c., Department, District Surveyor's Office, Town Hall, Manchester. Deposit £1 1s.

MAY 26.—**Melksham.**—ROADS.—(1) Surfacing 7,400 super yards of class 1 road with 3 in. asphalte macadam, and (2) reconstruction of sundry lengths of main road footways for the U.D.C. Mr. R. D. Pearce, Surveyor, Melksham. Deposit £2 2s.

MAY 26.—**Mountain Ash.**—ROADS.—For road works n Darran-road, and providing and laying new paving in Penrhiwceiber-road, for the U.D.C. Mr. W. G. Thomas, Surveyor, Town Hall, Mountain Ash.

MAY 26.—**Plymouth.**—ROADS.—For laying 2 in. asphalt paving on a concrete foundation in North-road, King-street, Phœnix-street, and Victoria-road, for T.C. Mr. J. Wibberley, Borough Surveyor, Municipal Offices, Plymouth.

MAY 26.—**Stoke-on-Trent.**—SANITARY.—For conversion into w.c.'s of 100 privies, for the T.C. Chief Sanitary Inspector, St. Peter's Chambers, Stoke-on-Trent.

MAY 27.—**Kirkburton.**—ROADS.—For the widening, re-surfacing, paving, kerbing, channelling, &c., in connection with the improvement of the main road through Kirkburton, for the U.D.C. Messrs. Abbey & Hanson, Civil Engineers, 11, Cloth Hall-street, Huddersfield. Deposit £2 2s.

MAY 27.—**Lanchester.**—SEWER.—Construction of 385 lin. yds. of 9 in. sewer at Esh Winning, for the R.D.C. Mr. J. R. Lupton, surveyor, Lanchester.

MAY 27.—**Newhaven.**—SEWERS.—For laying stoneware and concrete sewer pipes, for U.D.C. Mr. C. F. Hooper, Surveyor, Council Offices, Newhaven. Deposit £2 2s.

MAY 27.—**Uxbridge.**—ROADS.—Tar painting 20,000 yds. of roads, for U.D.C. Mr. H. M. Blackwell, Clerk, Uxbridge.

MAY 28.—**Baildon.**—ASPHALTING.—For asphalting the playground of the Baildon Tong Park Council School. Mr. E. H. Steel, Divisional Clerk, Penny Bank Chambers, Shipley.

MAY 28.—**Gildersome.**—ROADS.—Main 3,960 yds. of granite paving, for U.D.C. Mr. W. Wilby, Surveyor, Gildersome, Leeds.

MAY 28.—**Glamorgan.**—VARIOUS.—For carrying out the following works for the Glamorgan C.C.:—Improving the Pontypridd to Cardiff main road between Cardiff City boundary and Gwauntreoda Common; widening of the main road Neath–Pontardawe, at Pontardawe; painting various county bridges. County Hall, Cardiff.

MAY 29.—**Bedford.**—SEWERAGE WORKS.—For construction of concrete tube and stoneware pipe sewers, &c., for T.C. Mr. N. Greenshields, Borough Engineer, Bedford. Deposit £3.

MAY 29.—**Brynmawr.**—ROADS.—For additional works at their Housing Scheme, Twyncynghordy, Brynmawr, consisting of porches, rendering, and other works, together with the surfacing of roads, for the U.D.C. Mr. Hy. Waters, Waungoch House, Beaufort. Deposit £1 1s.

MAY 30.— **Carlisle.** — ROADS. — Construction of 17,000 sq. yards of tar macadam for tarred slag carriageway, for the T.C. Mr. H. C. Marks, City Engineer, Carlisle.

MAY 30.—**Newton Abbot.**—ROADS.—For resurfacing portion of Market-square, for the U.D.C. Mr. C. D. White, Surveyor, Town Hall, Newton Abbot.

MAY 30.—**Sale.**—ROADS.—Reconstruction of Cross-street and Washway-road (part of), for the U.D.C. Mr. E. Bleakley, Surveyor, Town Hall, Sale. Deposit £2 2s.

MAY 30.—**Withernsea.**—ROADWAY.—For construction of a new street from Pier-road to Seaside-road, with reinforced concrete roadway, for the U.D.C. The Surveyor, Municipal Buildings.

MAY 31.—**Kingston-on-Thames.**—SEWER.—Construction of a foul water sewer and a surface water sewer in Cambridge-road, for T.C. Borough Surveyor, Kingston. Deposit £1 1s.

MAY 31.—**Mytholmroyd.**— ROADS.—For reconstruction of 3,230 lineal yards of the Todmorden, Halifax and Burnley main road, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1 1s.

MAY 31.—**Stretford.** —ROADS.—For paving in rock asphalte, &c., for the U.D.C. Mr. Ernest Worrall, Surveyor, Stretford Council Offices, Old Trafford. Deposit £2 2s.

JUNE 2.—**Arundel.**—CONVENIENCE.—For the erection of a sanitary convenience, for the T.C. Borough Surveyor, Arundel.

JUNE 2.—**Chester.**—ROADS.—For roads and sewage works on the Curzon Park Estate, for the T.C. Mr. C. Greenwood, City Engineer, Chester. Deposit £1 1s.

JUNE 2.—**Meltham.**—SEWER.—For construction of sewer, &c., for the U.D.C. Messrs. Abbey & Hanson, engineers, 11, Cloth Hall-street, Huddersfield. Deposit £1.

JUNE 2.—**Porthcawl.**—WATER MAINS, &C.—Construction of small filter bed and laying of 170 yds. of water main, for the U.D.C. Mr. T. L. Oliver, surveyor, Porthcawl. Deposit £3 3s.

JUNE 3.—**Ealing.**—ROADS.—For making-up Hilcroft-crescent, Mervyn-road and Raymond-avenue, for the T.C. Mr. W. R. Hicks, Borough Engineer, Ealing. Deposit 10s. 6d. each road.

JUNE 3.—**Finchley.**—ROADS.—For wood paving reinstatement for the U.D.C. Mr. P. T. Harrison, surveyor, 9, The Hawthorns, Regent's Park-road, N. Deposit £1.

JUNE 3.—**Maldens and Coombe.**—ROADS.—For (1) construction of stoneware pipe sewer; (2) laying of 1,350 yards of artificial stone footway; (3) laying 1,580 yards of bituminous surfacing for carriageway, for the U.D.C. Mr. R. H. Jeffes, Surveyor, New Malden. Deposit £2 2s. per contract.

JUNE 4.—**Nantwich.**—WATER WORKS.—For laying 7,550 lineal yds. of 6 in. cast-iron pipes, &c., for the R.D.C. Mr. H. Crabtree, Engineer, 1, Dysehart-buildings, Nantwich. Deposit 10s.

JUNE 5.—**Greenford.**—WATER MAIN.—For laying 48 in. cast-iron main from Greenford to Cricklewood, and laying 27 in. cast-iron pipes near Hanger-lane for the Metropolitan Water Board. Chief Engineer, Offices, Clerkenwell, E.C. Deposit £20.

JUNE 5.—**Newton Abbot.**—ROADS.—For laying mastic rock asphalte in various streets, for the U.D.C. Mr. C. D. White, Surveyor, Town Hall, Newton Abbot. Deposit £2 2s.

JUNE 6.—**Tyrone.**—ROADS.—For re-surfacing various sections of roads, for the Tyrone C.C. County Surveyors of A. Division at Dungannon, and of the B. Division at Omagh.

JUNE 7.—**Ashington.**—SEWERS.—(1) Laying 4,700 yds. of 42, 36, 30, 27, 24 and 21 in. pipe sewers; (2) laying 9,200 yds. of sewers from 9 in. to 36 in. diameter; and (3) laying 6,500 yds. of sewers from 9 in. to 36 in. diameter, for the U.D.C. Messrs. Taylor & Wallin, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5 each contract.

JUNE 9.—**Glamorganshire.**—WATER WORKS.—For construction of (1) two service reservoirs; (2) laying cast-iron pipes in the Garw Valley to service reservoir and laying of pipes in the Ogmore Valley; and (3) laying 5,580 yds. of cast-iron pipes between Tontycymmer and Maesteg, for the Mid-Glamorgan Water Works. Messrs. Thomas & Morgan & Partners, Pontypridd. Deposit £5 5s. each contract.

JUNE 9.—**Wokingham.**—WATER MAIN.—For laying 4,933 yds. of 4 in. water main, &c., at Swallowfield, for the R.D.C. Mr. P. H. Phipps, Clerk, Council Offices, Wokingham. Deposit £1 1s.

JUNE 10.—**Chislehurst.**—ROADS.—Construction of new by-pass road of 490 ft., for the U.D.C. Mr. J. J. Brown, Clerk, Council Offices, Chislehurst. Deposit £2.

JUNE 13.—**London, N.W.1.**—BUILDING.—Construction of an overground public convenience in Salisbury-street, by Church-street, Lisson-grove, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

JUNE 14.—**Birmingham.**—ROADS.—Construction 550 lin. yds. of 50 ft. wide road at Blackheath, Birmingham. Architect, Factory Construction Dep British Thomson-Houston Co., Rugby.

★NO DATE.—**Ruislip, Northwood.**—SEWERAGE Construction of a road and soil and surface water sew and manholes on their housing site at Pinner-ro Northwood, for the Ruislip-Northwood U.D.C. Edmund R. Abbott, Clerk to the Council, Cour Offices, Northwood. Deposit £2 2s.

Competitions.

(See Competition News, page 822.)

Auction Sales, Tenders, etc

MAY 27.—**London, S.E.**—Messrs. Veryard & Ya will sell, without reserve, final clearance sale at 1 Norwood-road, S.E., building materials. Auctionee 365, Norwood-road, S.E.27.

MAY 27.—**Near Gerrard's Cross (Bucks).**—Mess Knight, Frank & Rutley will sell, by direction Commander J. A. L. Hay, R.N., freehold agricultu and sporting property, known as Pickeridge Far about 171 acres; also about 18 acres of building sit Auctioneers, 20, Hanover-square, W. 1.

MAY 27 AND THREE FOLLOWING DAYS.—D set.—Messrs. Riggall & Riggall will sell, in the Sou ern Command, Blandford Camp, near Blandfor Dorset, 430 buildings of timber and brick a slate, of which 60 have been dismantled, iron wat piping, permanent way, rails, &c. Auctioneers, O Market-place, Grimsby.

MAY 28.—**Berkshire.**—Messrs. J. T. Skelding Co. will sell, at Sunninghill, Ascot, Berks., *re* Guest Goodall, Ltd., by order of Mr. G. B. Manle F.S.S.A.A. (the Receiver for the Debenture Holder appointed by the High Court of Justice, Chance Division), builders' and contractors' stock, plant an machinery, including the complete modern woo working machinery, lorries, freehold builders' yar and premises. Auctioneers, 48, Gresham-stree Guildhall, London, E.C.2.

MAY 28.—**Chichester.**—Messrs. Stride & Son wi sell (unless previously disposed of by private treaty at The Dolphin Hotel, Chichester, Summersdale Estate one mile north of the City of Chichester, close t Lavant and Goodwood, 45 freehold building site varying in sizes from one acre to a quarter of an acre Auctioneers, East-street, Chichester.

MAY 28.—**Liverpool.**—FENCING.—For supplying an erecting 600 lineal yards of wrought-iron railing an gates in Mather-avenue, Garston, for the T.C. Ci Engineer, Municipal Buildings, Dale-street, Liverpoo

MAY 29.—**Merton.**—Messrs. Veryard & Yates wi sell, without reserve, to clear site for C. & S.L. Railway extension, at High-street, Colliers' Wood, Merton, on Mr. A. T. Harris's ground, building materials. Auctioneers, 365, Norwood-road, S.E.27.

MAY 31.—**Penarth.**—STEELWORK.—For supplying and erecting between 80 and 90 tons of steelwork at the bridges on the Penarth-Cardiff road over the rivers Taff and Ely. Mr. E. W. M. Corbett, Manager of the Road, 3, Castle-street, Cardiff.

★JUNE 5.—**Great Bookham.**—Mr. C. E. Clark will sell, under cover, at Eastwick Buildings, Lower-road, Great Bookham, new timbers and builder's effects. Auctioneeers, Beddington House, Beddington, near Croydon, and Eastwick Buildings, Great Bookham.

★JUNE 12.—**Middlesex.**—Messrs. Alfred Savill & Sons and Mr. Percival Hodson will sell, at Winchester House, Old Broad-street, freehold building estate (by order of the Trustees), at Winchmore Hill, Middlesex. Auctioneers, 69, South Audley-street, W.1.

Public Appointments.

MAY 26.—**Wolverhampton.**—Qualified Engineering Assistant, with experience in housing and town planning, required by the Corporation of Wolverhampton, in the office of the Borough Engineer. Mr. George Green, Borough Engineer, Town Hall, Wolverhampton.

★MAY 28.—**London, S.W.4.**—The London County Council will require in September next, at the School of Building, Ferndale-road, Brixton, S.W.4:—(1) Teacher of Building Science; (2) teacher in Chemistry and Physics; (3) instructor in Oxy-acetylene Welding and Cutting; (4) instructor in Structural Steelwork; (5) instructor in Plastering The above teachers and instructors will be required part time only. Apply Education Officer (T.1.A), the County Hall, Westminster Bridge, S.E.1 (stamped addressed foolscap envelope necessary).

MAY 31.—**Wigan.**—Architectural Assistant and Town-Planning Assistant required in the Borough Engineer's Department, by the C.B. Mr. R. B. Donald, M.Inst.C.E., Borough Engineer, Wigan.

JUNE 2.—**Greenwich, S.E.10.**—Appointment of an officer in connection with the Council's Housing Estate (Grade "C") in the Town Clerk's Department, by the Council of the Metropolitan Borough of Greenwich. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10.

JUNE 2.—**Hove.**—Superintendent of Roads, &c required by the T.C. The Borough Surveyor, Town Hall, Hove.

★JUNE 2.—**Mitcham.**—Building inspector in the Engineer and Surveyors' Department, at a commencing salary of £200 per annum, required by the Mitcham U.D.C.—Mr. Stephen Chart, Clerk to the Council, Vestry Hall, Mitcham, endorsed "Building Inspector."

★JUNE 3.—**Glamorgan.**—ASSISTANT QUANTITY SURVEYOR.—Temporary assistant quantity surveyor in the Architect's Department (Western Division) required by the Glamorgan County Council. County Architect, Metropolitan Chambers, Neath.

JUNE 4.—**Portsmouth.**—Clerk of Works required in connection with the erection of 100 houses on the Portsdown Hill Housing site, by the County Borough Council of Portsmouth. Mr. F. J. Sparks, Town Clerk. The Town Hall, Portsmouth.

OPOSED NEW BUILDINGS & OTHER WORKS *

these lists care is taken to ensure the accuracy of the information given, but it may occa- happen that, owing to building owners taking the responsibility of commencing work plans are finally approved by the local authorities, "proposed" works at the time of tion have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. ban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; or Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for y of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

YSTWYTH.—Plans passed by T.C.: Bungalow Anchor-road, for Mr. Atherton; four houses n-road, for J. Humphrey & Son; five houses Drill Hall, for the T.C.; five houses near to y Works and Mill-street, for the T.C. The has agreed to demolition of the old skating has agreed that the site be leased to J. Jenkins for erection of three houses. The T.C. has te at Portland-street for erection of three houses D. Williams, and site for three houses adjoining House, and Portland-street to Mr. J. B. Dalton. veyor has been asked to report on proposed of a sale room at Portland-street.

SLEY.—Plans passed by T.C.: H. Ashworth, ouses, Spencer-street; H. Atkinson, house, field-road; Yorkshire Electric Power Co., ion, Grange-lane; D. R. Snowden, business , Market-street; Stott & Quinnell, four Longear-lane and Locke-avenue; W. Wood- ungalow, Smithies-lane; F. W. Rogers, house, ck-road; W. Newman, house, Wombwell- tairfoot.

LEY.—The U.D.C. is seeking permission to e a quantity of land on which to erect a further ses.

DLEY.—Plans passed: House, Bank-hill, for phard.

KPOOL.—A convalescent hospital is to be as a Miners' Welfare Scheme, for the Lancashire shire Miners' District. The estimated cost is

KWELL.—The R.D.C. has decided to erect 40 houses.

WORTH.—The Newstead Colliery Co. is pro- with a lay-out scheme for its first 100 houses, Nottingham E.C. has given notice of its n to provide new school accommodation.

TH.—The T.C. is considering the purchase of or an infectious diseases hospital.

NSTON—A scheme has now been arranged by rthampton C.C., the Ministry of Transport, e Oxford Canal Co., for the rebuilding of the ton Castle Canal Bridge, at a cost of about

NTFORD.—Plans recommended by U.D.C. Com- : Electric transformer house, for the Beldam g & Rubber Co.

GEND.—Plans passed by U.D.C.: Bungalow R. Williams in Park-street, and two houses in road.

RTON.—Plans passed by T.C.: Five houses, sham-gardens, for F. Hibell; two shops and ts, 35, High-street, for R. M. Butler; Depot, eld-road, for Anglo-American Oil Co., Ltd.; es, Dudley-road, for J. T. Segrue; four houses, -terrace, for J. W. Holloway; six houses, e-road, for Newman & Son.

TOL.—The T.C. is to erect four houses on a site ut to Avonmouth Docks.——Revised plans en prepared for the fire station at Avonmouth, imated cost being £2,170.

WLEY.—Plans passed by T.C.: Mr. A. H. , house, Bickley-road; Miss E. J. Harrington, Quernmore-road; Mr. B. F. Dark, house, ale-road; Mr. G. L. Walton, 10 houses, Bromley- s; Mr. C. Tyler, four houses, Burford-road.

MSGROVE.—The U.D.C. are seeking sanction he M.H. to erect another 40 houses.

KIE.—The T.C. have approved plans for a new school, at an estimated cost of £28,000.

TON.—The Council propose to extend their mains to Gresley. Foremark and Fauld, at an ated cost of about £17,000.

VERLEY.—Plans passed by U.D.C.: Building, all-road, for the First Calverley Boy Scouts; t plan, Gain-lane, for Mr. A. Willis.

LISLE.—Plans passed: Bungalow, Kirkandrews- for Mr. J. Jardine (Mr. H. E. Scarborough, ect); new farm buildings, Petteril-road, for . Harrison, Ltd. (Messrs. Higginson & Stock, ects); two houses, Blackwell-road, for Mr. A. ess (Messrs. Higginson & Stock, architects); in English-street, for Messrs. Robinson Bros.; Mr. H. Foxall, architect); two houses, Scotland- for Mrs. Macdonald (Messrs. Craig & Macdonald, ects); two houses, Bedford-road, for Messrs. ord & Morrison (Messrs. Higginson & Stock, ects); bungalow, Belle Vue-road, for Mr. G. r (Mr. H. H. Hodgkinson, architect). The R.D.C. approved a plan for the erection of a house at sick.

MARTHENSHIRE.—The Ammanford U.D.C. is to e land for considerable street improvement d at Tirydail-square.—The Carmarthen T.C. is to tenders for erection of sheep pens at the market. County Main Roads Committee is to repair lly Bridge at an estimated cost of £800. The mittee is to invite tenders for improving Treventy ge.—The Llandilo R.D.C. is to reconstruct Pantteg ge.

SHIRE.—C.C. estimates make allowances for the ing schemes: £536 roadmaking, apportionment t of road fronting Altrincham High School for rl £4,951 Altrincham County High School for Boys, xtensions; £12,529 Calday Grange Grammar School, xtensions, Block No. 1; £5,500 Calday Grange rammar School, extensions, Block No. 2; £4,800 lday Grange Grammar School, extensions, Assembly Hall: £412 Calday Grange Grammar School, asphalting playground; £50,779 for works of improvement and reconstruction during year 1924–25; £1,500 for reconstruction works Dane Bridge, Northwich; £10,770 for the reconstruction of Sutton Weaver Bridge and road works in connection therewith.

CHESTER.—Plans passed by T.C.: Bungalow, St. Mark's-road, for J. Clayton; house, Cavendish-road, for Capt. A. G. Magnall; two houses, Ormond-road, for J. Dreuery; house, for J. Newstead; house, Curzon Park Estate, for Mrs. L. Roberts; house, Curzon Park Estate, for F. W. Massey; house, Curzon Park Estate, for F. N. Smith.

CLEETHORPES.—Plans have been approved for the erection of a new secondary school for girls.

COCKERMOUTH.—The R.D.C. has passed plans for three houses at Brigham for the Cumberland Coal Owners' Association.

COLCHESTER.—Plans passed: Pair of houses, Drury-road, for Mrs. G. E. Potter (Messrs. Appleton & Moss); bungalow, Layer-road, for Mr. F. Stutter (Mr. Duncan W. Clark); bungalow, Layer-road, for Mr. W. G. Lee (Mr. J. H. Johnson); workshop, Old Heath-road, for Mr. Creek (Mr. P. G. Parker); house, Military-road, for Colchester & East Essex Co-op. Society (Messrs. Goodey & Cressall); shop, Mile End, for Mr. L. Holness (Mr. L. Holness); church, Maldon-road, for The New Church Society (Messrs. Gilbert, Brown & Roberts); house, Mile End-road, for Mr. J. Haly (Mr. A. T. Clarke); shop with room over same, Bourne-road, for Mr. W. Palmer (Mr. F. B. Nunn).

COLNE.—Colne and Holme Joint Hospital Committee has decided to erect a house, at a cost of £750.

CROYDON.—The M.H. has sanctioned loans of £10,079 for the erection of block No. 2, Cherry Orchard-road; £30,000 for the extension of Purley tramway depot. Plans as follows for new streets have been approved: Cedars-avenue, submitted by J. Midmer, of Norbury; Keston-road, Harcourt-road, Ramsey-road, Curzon-road, and Kenware-road, submitted by R. B. Manser, of Addiscombe; Briar-road, submitted by Messrs. Tysoe & Harris, of Norbury. Public lavatories are to be constructed at Grangewood, at a cost of £325. Plans approved: Bungalow, Haling Park-road, for Mr. L. O. Linfoot; house, Norbury Hill, for Mr. A. W. Anderson; football grandstand, Whitehall-lane, for Mr. A. Leitch; house, Selwood-road, for Messrs. Paish, Taylor & Cramp; bungalow, Wickham-road, for Mr. H. E. Dovey; 20 houses, Bishop's Park-road, for Mr. S. H. Laver; 16 houses, Buller-road, for Messrs. Scratchley Bros.; house, Albert-road, for Mr. F. E. Powell; 10 houses, Dovercourt-avenue, for Messrs. Crowley Bros.; amended plan for 12 houses, Norbury Court-road, for Mr. J. Minder; four houses, Ingram-road, for Mr. R. W. Carter; house, Addiscombe-road, for Mr. A. W. Dawson; house, Orchard Way, for Mr. W. A. Spencer; six houses, Ross-road, for Mr. C. Banks; bungalow, Addiscombe-road, for Mr. C. E. Head; house, Pollards Hill, for Mr. B. C. E. Bayley; house, Pampisford-road, for Corporation; 42 houses, Briar-road, for Messrs. Tysoe & Harris; house, Central Hill, for Messrs. Pocock Bros.; three houses, Blake-road, for Mr. F. H. Willcocks; two houses, Nutfield-road, for Mr. Willcocks; 10 houses, Gibson's Hill, for Messrs. Young & Macintosh; house, Blake-road, for Messrs. Batley & Sons; two houses, Hampton-road, for Mr. P. Stewart; eight houses, in Barmouth-road, two in Broughton-road, and three in Collier's Wood-road, all for Mr. P. Richardson; two houses, Relief-road, for Mr. G. H. Dales; bungalow, Haling Park-road, for Mr. L. O. Linfoot The T.C. proposes the erection of 12 type A houses to complete the Parchmore-road housing scheme, by direct labour, at an estimated cost of £500 per house. A tender of £31,855 by Messrs. F. & G. Foster is recommended for the erection of 48 houses (62 tenements) at Thornton-road.

DENEHAM.—The U.D.C. has passed plans for the conversion of the Corn Exchange into a cinema, for the Exchange Cinema Co. The plans for a bungalow at Toftwood, for T. H. Browne, have also been approved.

DENHOLME.—Plans passed by U.D.C.: Slaughter-house, Shay Clough Farm, for Mr. H. Balmforth.

DITCHFORD.—Northampton C.C. has intimated the County Surveyor to repair the bridge which carries the Finedon–Irchester road across the river Nene, at an estimated cost of £1,200.

DUNDEE.—Plans and sections of proposed new buildings, &c., have been lodged at the office of the City Engineer: Lammerton-terrace, semi-detached villas, for J. K. Anderson; Strathern-road, cottage and garage, for Harold B. Gilroy.

EAST GRINSTEAD.—Plans passed by R.D.C.: House, Crawley-road, Three Bridges, for Mr. A. G. Petley; bungalow, Crawley-road, Three Bridges, for Mrs. Eagles; cottage and house, Park Wood, Worth, for Mr. A. R. Shibley; two cottages, Old House, West Hoathly, for Mr. W. K. Furse.

EAST HAM.—Plans passed by B.C.: Shop and house, corner of Bedford and Barking-roads, for Gale Bros.; shop and house, corner of Little Ilford-avenue and Church-road, for P. T. C. Carslake; six houses, Burges-road, for A. R. Beale; 15 houses, 81–109, Cotswold-gardens, for F. Hamlett; eight houses, north side of Londsale-avenue, west of Brooks-avenue, for T. B. Goodwin; 15 houses, 34–62, Melford-road, for J. W. Lohden.

EASTRY.—The R.D.C. have passed a plan for a bungalow for Mr. E. Fasham.

ECCLESFIELD (S. YORKS).—A new sports pavilion is to be erected at the Council's Recreation Ground, as a Miners' Welfare Scheme. The total cost is estimated at £555, and the plans have been approved by the Wortley R.D.C.

EDINBURGH.—On a site between Princess-street and Hope-street-lane, it is proposed to erect new banking premises for the Royal Bank of Scotland, together with new business premises for Messrs. Robert Maule & Son, Ltd. Messrs. D. Peddie & W. Todd, of Edinburgh, are the architects.

EDWINSTOWE.—The Bolsover Colliery Company, Ltd., have submitted to the Notts C.C. a lay-out plan of the new village they intend to erect at Edwinstowe. The full scheme provides for the erection of 956 houses. The Committee have accordingly given notice of their intention to provide a new school.

FALMOUTH.—Plans submitted by Mr. Cornelius for a bungalow at Tehidy-terrace approved, subject to drainage alteration.

FEATHERSTONE.—Loscoe-lane is to be repaired and a scheme of widening carried out, the cost to be borne with Normanton U.D.C.

FOLKESTONE.—Plans passed by T.C.:—House, Sandgate-road, Mr. S. Beard, architect, for Mr. J. H. Faulkner.

GLAMORGAN.—The Penarth U.D.C. proposes to pay £5,000 to acquire the pier and to spend £15,000 upon improving it. The reconstruction of the landing-stage will be undertaken first.

GOSPORT.—Plans passed:—Two flats, Privett-road, for T. Taylor; bungalow, Fareham-road, for C. Smith; two houses, Grove-road North, for W. G. Roberts; four houses, Harding-road, for H. Hatfield; house, Village-road, for J. Hunt; conveniences to "Village Home," Alverstoke, for S. & T. N. Blake, Ltd.; sports pavilion (Secondary School), The Avenue, for L. C. Keating.

GRAVESEND.—The T.C. has passed plans: Bungalow, Holly Bush-road, for Messrs. W. T. Dumbrill & Son; house, Portland-road, for Mr. J. Sparks; two houses, King's-drive, for Messrs. R. Hopkins & Sons; house, Whitehall-road, for Mr. F. Bardsley.

HANWELL.—The U.D.C. has authorised the surveyor to prepare plans for flats in Station-road, and houses in Boston-road. Plans recommended: Twenty houses, Drayton Bridge-road, for Messrs. Saunders & Gardner; four houses, Boston-road, for Mr. F. P. Hurst; house, Cowper-road, for Mr. R. J. Ward.

HARROGATE.—The T.C. are making application for sanction to borrow £3,590 for the purposes of substituting 690 yds. of defective water mains in connection with the Roundhill Works.

HAZEL GROVE.—Plans passed by U.D.C.: House, Thorn-road, for W. A. Ross; house, Grange-road, for G. A. Royle; house, Grange-road, for W. Stubbings; house, Pownall-avenue, Ladythorn-crescent, for Mrs. E. A. Livesay; house, Offerton-road, for the Stockport Golf Club; house, Pownall-avenue, Bramhall, for Mr. G. Crossley.

HUCKNALL.—Plans have been approved for the erection of nine houses.

HULL.—The Corporation Committee for the Care of the Mentally Deficient have passed plans for the erection of a new block of buildings at a cost of about £5,600.

ISLE OF ELY.—The Standing Joint Committee has decided to erect one house at Tydd St. Giles, four in Downham-road, Ely, and one at Wilburton, for police purposes.

KEIGHLEY.—Plans passed by T.C.: Six houses, off Halifax-road, for the Trustees of Hebden Wright; new street, Glenlyon-avenue, for Mr. H. M. Brigg and others.——Plans passed by R.D.C.: Four houses, Morton Banks, for Mr. Alfred Robinson; detached houses, Banks-lane, Riddlesden, for Mr. Wagstaffe; six houses, West-bank, Riddlesden, for Mr. H. Anderton.

KIDDERMINSTER.—Plans passed by R.D.C.: Bungalow on the riverside at Dowles, for Mr. T. C. Sylvester; house, Catchem's-end, Wribbenhall, for Mr. Price.

KNARESBOROUGH.—Plans passed for 18 houses, all in the R.D.

LEADGATE.—The parishioners of St. Ives have decided to proceed with the rebuilding of the Redwell Hills Infants' School.

LEAMINGTON.—The B.S. submitted his estimate for laying a river water main from Newbold-street to the west end of Rosefield-street, at a cost of £120, and was instructed to proceed with the work.—Plans passed: Converting stables into cottage flat, rear of 16 and 17, Clarendon-square, for Miss Westray and Mr. Mansell; bakery, Bath Hotel, for Mrs. Dowding; lavatories, &c., refreshment room, new cinema, Spencer-street, for Mrs. Fowler and Mrs. Dowding.

LINDSEY.—The C.C. have been notified by the Chief Engineer of the L. & N.E.R. of the Company's proposal to reconstruct the Saxilby swing bridge over the Fossdyke.

LIVERPOOL.—Plans passed: Sinclair-drive, for Mr. T. Jones, two houses; Woolton-road corner, for Mr. H. Mooney, house; Menlove-avenue, for Messrs. R. Jones & Co., house; Rathmore-avenue, for Mr. W. J. Williams, house; Orchard-lane, for Mr. R. Musgrave, two houses; Moscow-drive, for Mr. A. Crook, two houses; Sandforth-close, for Messrs. W. Tomkinson & Sons, house; Dudlow-lane corner, for Mr. F. Lunn, house; Allerton-road, for Mr. G. E. Williamson, five houses with shops; Townsend-lane, for Mr. A. Adams, house and shop; Haymans-green, for Mr. J. Layton, house; Queen's-drive, Wavertree, for Mr. R. J. Jones, house; Orchard-lane, for Messrs. Roxburgh & Harrison, two houses; Speke-road, Woolton, for Mr. G. Taylor, bungalow; Cromptons-lane, for Messrs. Sealey & Lucas, two houses; Binns-road, for Col. J. J. Shute, 30 dwellings.

LONDON (LEWISHAM).—The Charity Commission has made an order granting a building lease of 3¾ acres of College Farm, part of the Earl of Northampton's charity, for 29 years, at £145 a year, the lessee agreeing to spend not less than £18,700 in building.—The B.C. proposes providing sanitary accommodation at the Foster Memorial Park, at a cost of £690. — Plans passed by B.C. — E. C.

(*Continued on p. 855.*)

* See also our List of Contracts, Competitions, etc.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—E

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hand Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick:—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
Headers	21 10 0	One Side and two Ends	31 10 0
Quoins. Bullnose and 4½ in. Flats	28 10 0	Two Sides and one End	32 10 0
		Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
½ in. Shingle for Ferro-Concrete	14 0	„ „
¾ in. „	15 0	„ „
½ in. Broken Brick „	10 6	„ „
Pan Breeze	7 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.	
HOPTON-WOOD STONE.	
Delivered at any Goods Station, London.	
Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-
YORK STONE, BLUE—*Robin Hood Quality.*	
Delivered at any Goods Station London.	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3
HARD YORK—	
Delivered at any Goods Station London.	
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£24 10
4 × 9	32 0	3 × 11	30 0
4 × 8	26 0	2 × 11	30 0
4 × 7	26 0	3 × 9	26 0
3 × 8	25 10	2½ × 9	27 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	24 0	3 × 4	24 1

WOOD (*Continued*).

PLANED BOARDS.

1 × 11 .... £37 10 | 1 × 9 .... £36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅞	21/-	1¼	33/6
⅞	24/-	1½	37/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/-

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	21/-
1	26/-

BATTENS s. d.

Inches

¾ × 2 ..... 2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 8
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
¾ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
„ Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2¾ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1⅛	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	6 8	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	„	15 10 0
Staffordshire "Marked Bars"	17 0 0	„	18 0 0
Mild Steel Bars	12 10 0	„	13 10 0

METALS (*Continued*).

	£ s. d.		£
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14
Hoop iron, basis price	16 10 0	..	17
„ Galvanised	31 0 0	..	32
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	16
„ „ „ 24 g.	16 0 0	..	17
„ „ „ 26 g.	18 0 0	..	19
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26
Best Soft Steel Sheets, 26 g.	26 0 0	..	27
Cut Nails, 3in. to 6 in.	20 10 0	..	22
(under 3in. usual trade extras.)			

METAL WINDOWS—Standard sizes suitable for plete houses, including all fittings, painting coats, and delivery to job, average price about to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s.
LEAD—Sheet. English, 4 lb. and up	40
Pipe in coils	41
Soil Pipe	44
Compo pipe	47

NOTE—Country delivery, 30s. per ton extra; lots u 3 cwt., 2s. per cwt. extra and over 3cwt. and und cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. ex

Old lead, ex London area, at Mills per ton	26 10 0	..	—
Do., ex country, carriage forward per ton	27 10 0	..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per do

NEW RIVER PATTERN SCREW DOWN STOP COCKS A UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per do

NEW RIVER PATTERN SCREW DOWN MAIN FERRUL

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1½ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per do

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEAN SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per
8 lbs. S. traps	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin „ „	0 2 4	.. —
Copper nails „	0 2 3	.. —
Copper wire „	0 2 4	.. —
TIN—English Ingots „	0 2 6	.. —
SOLDER—Plumbers' „	0 1 2	.. —
Tinmen's „	0 1 4	.. —
Blowpipe „	0 1 6	.. —

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes per gallon	0 3
„ „ „ in barrels „	0 3
„ „ „ in drums „	0 4
Boiled „ „ in barrels „	0 4
„ „ „ in drums „	0 4
Turpentine in barrels „	0 6
„ in drums (10 gall.) „	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	55 0
GENUINE WHITE LEAD PAINT—	
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	78 5
Red Lead, Dry (packages extra) per ton	52 0
Best Linseed Oil Putty per cwt.	0 16
Filocol per cwt.	0 15
Size. XD Quality fkn.	0 3

[Concluded on next page.]

* The information given on this page has been specia compiled for THE BUILDER and is copyright. Our aim this list is to give, as far as possible, the *average* pri of materials, not necessarily the highest or lowest. Qual and quantity obviously affect prices—a fact which sho be remembered by those who make use of this informati

CS CURRENT OF MATERIALS (*contd.*)

GLASS.

SH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
ourths ..	3½d.	32 oz. fourths	8¾d.
hirds	4½d.	32 „ thirds	10½d.
ourths ..	5½d.	Obscured Sheet, 15 oz.	4d.
hirds	6½d.	„ „ 21 „	5¾d.
ourths ..	6d.	Fluted 15oz. 6¾d.,21oz.	9¾d.
hirds	8d.	En'lled 15oz. 5¾d.,21 oz	7¼d.

rice according to size and substance for squares om stock.

SH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
d plate	4¼d.
h rolled	5¾d.
gh rolled	5¾d.
ed Rolled, Oxford Rolled, Baltic, Oceanic, tic, Stippolyte, and small and large	6¼d.
nish white	9d.
Ditto, tinted	6d.
d Sheet	5½d.
te Rolled Cathedral	7¾d.
led do.	
ast Plate is same price as rough rolled.	

VARNISHES, &c.

		Per gallon £ s. d.
rnish	Outside	0 14 0
ito	ditto	0 16 0
pal	ditto	0 18 0
pal	ditto	1 0 0
pal Carriage	ditto	1 4 0
itto	ditto	1 12 0
arnish	Inside	0 18 0
le Paper	ditto	0 18 0
pal Cabinet	ditto	1 2 6
pal Flatting	ditto	1 0 6
rying Oak	ditto	0 18 0
ard Drying Oak	ditto	0 19 0
pal Varnish	ditto	1 0 0
itto	ditto	1 2 0
itto	ditto	1 12 0
pan Gold Size		0 10 0
ack Japan		0 10 6
d Mahogany Stain (water)		0 12 0
ick Black		0 7 6
Black		0 14 6
g (patent)		1 5 0
and Brush Polish		0 17 0
Dryers in Terebine		0 9 0
Black Enamel		0 7 0

POPOSED NEW BUILDINGS

(*Continued from* p. 853.)

stas, five houses, Sydenham Park; E. C. Culpin . Bowers, four houses, Senlac-road; A. Savill two houses, Westbourne-road; W. J. Scudaore houses, Leyland-road; G. Watt, nine houses, ourne Park-crescent; A. E. Bishop, bungalow, Oak-road; Lister & Co., shop and house, ldown-road; F. S. Crane, house, Winn-road.

N.—Plans passed: Two houses, Alexandran for Mr. F. Pryer; house, Lincoln-road, for Hill; two houses, Newark-road, for Mr. A. ix houses, Holland-road, for Mr. T. E. Cuffley; ses, Mansfield-road, for Mr. F. G. Loveday; ngalows, Dunstable-road, for Messrs. E. & A. seven houses, Stratford-road, for Mr. P. R ree houses, Stockingstone-road, for Mr. C. T. two houses, Norman-road, for Mr. J. C. lis; 14 houses, Richmond-hill and Kingston-. Mr. E. C. Prosser; two houses, Biscot-road, M. Willis; four houses, Stratford-road, for Mr. . Wallace.

EL.—The Ouse Drainage Board and the Isle of C. have agreed to erect a new bridge.

N.—The Ely E.C. proposes the purchase of the possible subsequent enlargement of the North district school.

HYR TYDFIL.—The T.C. has decided to erect a ntral library. The estimated cost of extending Town Hall, as proposed by the T.C., is given as 00. Plans are being prepared.

OUTHSHIRE.—The C.E.C. has decided to n £17,000 in erecting a new school at Markham g. The Bedwellty U.D.C. is to spend £520 on version.

Y.—Plans passed: Concert hall, South ad for the Ackroyd-street W.M. Club.

EY MALDEN.—Land has been purchased by the abion Corporation for £300, for the erection of lectricity sub-station.

EWORT (MON).—Negotiations are proceeding for permit T.C. to additionally widen Station oad. The Council is to expend £4,000 in proing new circulating chamber to increase the use ivewater at the East Usk power station.

OTTINGHAM.—The Housing Committee have the tte of the M.E. for the building of 422 new sean the Sherwood Estate.

SSET.—The T.C. has passed the following plans: o bungalows, Springstone-avenue, for Mr. J. H. ver house, Dewsbury-road, for Mr. J. W. Gee; se, Headlands-lane, for Mr. Raymond Milner; ach residence, Headlands-lane, for Mr. Fred rth. Plans passed by T.C.:—Brook & Tidswell, w-steet, off Charch-street; A. Durnley, H. Oldroyd, se and shop, Dewsbury-road.

XFD.—A committee is to report on a scheme of gextension for Messrs. Hartwell, Ltd., in Hythe dgetreet. A committee has been authorised to otte for two housing sites, comprising 20 acres. The T.C. is considering improvements in the Town Hall accommodation. Plans passed: Mr. L. T. Coxhill, house, Hamilton-road; Messrs. Simmons & Watts, six houses, Fairacres-road; Mr. T. E. Knowles, two houses, Hamilton-road; Mrs. E. S. Smith, two houses, Victoria-road. Land in Hollybush-road is proposed for purchase at £1,500 for public improvements. The City Engineer is to submit a scheme for housing persons displaced by the English-row improvement scheme.

PENZANCE.—Plans have been prepared for lavatory accommodation at the Market House. The Borough Surveyor is to invite tenders for improved lavatory accommodation at the Public Buildings.

PLYMOUTH.—A war memorial, designed by Mr. Leonard Winn, architect, is to be erected at Redruth on an open space in front of the Council Chamber, at a cost, including the improvement of the site and the construction of terraces, amounting to about £800. —A site has been secured at Tregoney (Cornwall) for a new rectory, which is to be built during this summer, at a cost of approximately £1,500.

PONTEFRACT.—The B.E. has sanctioned the purchase of land for the erection of a new school, to replace Pontefract King's School.

PRESTWICH.—Plans approved: Bungalow, Scholes-lane, for Mr. J. F. Murdock; bungalow, Scholes-lane, for Mr. Smith; bungalow, Sandy-lane, for Mr. Richardson; house, Lowther-road, for Mr. J. Cooke; house and shop, Bury New-road, for Messrs. Leach & Sons; pair of semi-detached houses, Glebelands-road, for Messrs. Wilson & Berry; bungalow, Russell-street, for Mr. W. H. Eaves; bungalow, Stanhope-avenue, for Miss Ellis; house, Sheeptool-lane, for Mr. G. V. Massey.

SEAHAM HARBOUR.—Plans passed: Six houses, for the Londonderry Collieries, Ltd.

SEDGLEY.—Plans passed: House in Gorge-road, for Mr. J. Charles; house in Sandyfields-road, for Mr. C. L. Snow.

SHEFFIELD.—The Sutton Trustees propose the development of the Wadsley Hall Estate, and the Corporation has decided to widen Wadsley-lane at a cost of £4,000. Plans of 160 houses have already been passed. The City Architect has been instructed to report his proposals for erecting the proposed Hillsborough bath in reinforced concrete instead of brick.

SLOUGH.—The U.D.C. has passed plans of a house in Chalvey-park, for Miss Charlesley; and an oil and spirit depot, Bath-road, for the Anglo-American Oil Co., Ltd.

SOUTHAMPTON.—The T.C. has decided to build a Town Hall at a cost of £300,000.

SOYLAND.—Messrs. Leah & Effron are to erect two blocks of semi-detached houses at Hill Park Estate. Plans have been approved.

TEWKESBURY.—Plans passed by T.C.: house, Gubshill, for Mrs. Preston. The T.C. is to arrange with Cheltenham Council for the extension of water main to Prior's Ground.

TORQUAY.—Plans passed by T.C.:—Torquay Tramways Co., Ltd., six houses, St. Margaret's-avenue.

UXBRIDGE.—The R.D.C. are considering schemes for Harefield drainage (£36,000), and the drainage of Hillingdon and Ickenham (£70,000). Messrs. W. H. Radford & Son, of Nottingham, have prepared the plans in conjunction with the Council's Surveyor.

WATFORD.—Plans passed by T.C.:—Two pairs semi-detached houses, Sandringham-road, for Miss Godman; rebuilding "The Green Man" Hotel, High-street, for the Cannon Brewery; two houses, Durban-road, for Mr. T. Rolfe; house, Hagden-lane, for Mrs. C. Woods; house, Bushey Mill-lane, for Mr. P. A. Leonard; house, St. John's-road, South, for Mrs. Allen; Oddfellows Hall, St. Albans-road, for approval.

WELLINGBOROUGH.—A scheme is being prepared for the enlargement of the Technical Institute.——The E.C. is considering the advisability of erecting a new secondary school.

WEYMOUTH AND MELCOMBE REGIS.—The T.C. has appointed a committee to consider the extension of the Guildhall.

WHITEHAVEN.—The R.D.C. has passed plans for four bungalows at Egremont-road, Hensingham, two for Mr. D. Anderson and two for Messrs. Graham & Wylie; also two houses at Cartgate-road, Hensingham, for Messrs. Kerr and A. Lamb.

WICKEN.—Cambridgeshire C.C. is considering the construction of a bridge at Wicken.

WIMBLEDON.—The Housing Committee proposes the erection of 87 houses on the Lower Downs-road Estate.——A loan of £10,000 is to be sought in connection with the Small Dwellings Acquisition Act.——Messrs. Debenham, Jewson & Chinnocks are laying out a new road on the Mount Ararat Estate.——The Southern Railway Co. is to be asked to reconstruct the line crossing Kingston-road, in order to abolish the level crossing.——Plans approved: House, Southey-road, for Mr. W. Tapp; house, Somerset-road, for Mr. A. J. Styles; semi-bungalow, Arterberry-road, for Mr. H. Cubitt; three houses, Cottenham-park-road, for Mr. J. C. Walker; house, Montana-road, for Messrs. W. H. Whitehead & Co.; three houses, Somerset-road, for Mr. A. J. Styles; house, Faraday-road, for Messrs. A. Starling & Sons.——Houses are to be erected by Mr. Hood on land at Gap-road and Albany-road.

WINCHESTER.—Plans passed by R.D.C.:—House at Compton, Mrs. Norris; house, Burnetts-lane, Fair Oak, Mr. Akhurst; house, Coxford, near Micheldever, Mr. W. Baldwin; bungalow, Dean-lane, Mr. G. E. Dominy; residence, Lovers-lane, Weeke, Mr. J. A. A. Wake; house, Church-lane, King's Worthy, Mr. A. G. Colson; bungalow, Hookpit, King's Worthy, Mr. Dudman.

WISBECH.—The Isle of Ely County architect has been asked to prepare plans for two houses to be erected at Harecroft-road.

WITTERING.—A start has been made upon the construction of an extensive air station for the Air Ministry. The main contract (approx. £80,000) has been placed with Messrs. John Laing & Son, Ltd., of Carlisle and London, who have sublet the plumbers' works to Messrs. A. Higginbottom, Idle, near Bradford. There are several other trades to sublet.

TENDERS

Communications for insertion under this heading should be addressed to "The Editor," and must reach him not later than Tuesday evening.

* Denotes *accepted*. † Denotes *provisionally accepted*.

‡ Denotes *recommended for acceptance*.

§ Denotes *accepted subject to modifications*.

ADEL (NEAR LEEDS).—For the construction of a new sewage scheme, for the Wharfedale R.D.C.:—

*J. E. Waterhouse, Leeds	£3,700

AYR.—For the widening of Tam's Brig, which crosses the railway line on the tramway route between Ayr and Prestwick, for the Ayr T.C.:—

*J. Ballantyne, Irvine	£7,157

BARNSLEY.—For demolition of buildings in Church-street, for the T.C.:—

*C. D. Potter & Son	£150

BOLTON-UPON-DEARNE.—For making-up Cross-street, Goldthorpe, for the U.D.C. Mr. W. H. Adams, Engineer, Council Offices. Quantities by the Engineer:—

Coxhead & Co., Ltd., Middlesbrough	£974 4 11
J. Hadfield & Sons, Sheffield	844 2 5
Jno. Robinson, Croft-on-Tees, Darlington	832 4 0
E. E. Dickinson, Bolton-upon-Dearne	830 12 1
*S. Deeley, Mylrice, Wakefield	777 14 11

BRADFORD.—For reconstruction work at the Conditioning House, for the Corporation:—

*W. Farnish & Sons, Bradford.	

BRADFORD.—For providing additional lairage at the St. James' Market, for the Corporation:—

*S. Wray & Co., Bradford.	

BRANDON.—For the erection of 12 brick houses at Brandon, for the R.D.C.:—

Holden & Son, Thetford	£6,672
Plummer, Bury St. Edmunds	6,467
Olley Bros., Brandon	6,144
Hogg & Sons, Coney Weston	6,118
*A. W. Fisk, Ipswich	5,712

BRIGG.—For erection of 24 and 10 houses on the Clare College Estate, Wrawby-road, for the U.D.C. Mr. A. R. Haynes, architect, Coney Court:—

For 24 Non-parlour Type Houses—

G. H. Wilson, Brigg	£12,879 12
R. M. Phillips, Brigg	10,920 0
F. W. Atkinson & Son, Brigg	10,527 0
J. Robertshaw, North Kelsey	10,440 0
E. F. Harrison, Brigg	10,320 0
W. & R. Clark, Brigg	9,666 0
*H. Ashton, Barton-on-Humber	8,960 0
Horton & Sons, Horncastle	8,825 10

For 10 Parlour Type Houses—

G. H. Wilson, Brigg	£6,949 0
E. F. Harrison, Brigg	4,970 0
J. Robertshaw, North Kelsey	4,953 0
R. M. Phillips, Brigg	4,850 0
Horton & Son, Horncastle	4,734 10
H. Ashton, Barton-on-Humber	4,597 0
F. W. Atkinson & Son, Brigg	4,490 0
*W. & R. Clark, Brigg	4,485 0

(Subject to approval by M.H.)

BRIGHTON.—For the erection of a refreshment stall on the beach, for the T.C.:—

Saunders's	£142 15
Bostel Bros.	135 10
W. H. Lelliott & Son	128 0
T. J. Braybon & Son	128 0
*J. Barnes & Sons	123 0

BRIGHTON.—For the provision of new skylights over the Director's Apartments and the Masonic Rooms, for the T.C.:—

W. & A. Elliott, Ltd.	£415
Bostel Bros., Ltd.	400
*J. Barnes & Sons	385

BRISTOL.—For the erection of a boathouse at Eastville Park:—

*Mr. F. Chown	£795

CARDIFF.—For erecting additional living quarters at the Fire Station, for the Watch Committee:—

*Price & Morgan, Cardiff	£32,928 13 9

CHESHIRE.—Reconstruction of Walton County Bridge, for the C.C.:—

*W. H. Brocklesby, Birkenhead	£2,340

CHESHIRE.—Reconstruction of Hole-road bridge, for the C.C.:—

*W. Spencer, Aintree	£5,086

CHESTER.—For the erection of a lodge and provision of fencing, for the T.C.:—

*W. Browne & Son, Chester	£956 6

CRANBROOK.—For construction of sewer, for the R.D.C.:—

*Stanley & Sons, Marden	£786 0 3

CROYDON.—For erection of 48 houses at Thornton-road, for the Council:—

‡F. & G. Foster & Co., South Norwood	£31,855

CROYDON.—For erection of a tenement block on the Cherry Orchard site, for the Council:—

‡F. & G. Foster & Co., South Norwood	£10,079

(*Continued on page* 857.)

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "		3

BRICKLAYER.

		£	s	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

Deal wrot moulded and rebated	per foot cube	1	

		1"	1¼"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8

Housings for steps and risers	each	
Deal balusters, 1 in. × 1¼ in.	per ft. run.	
Mahogany handrail; average 3 in. × 3 in.	" "	
Add if ramped	" "	1
Add if wreathed	"	2

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

Rolled steel joists	per cwt.	1
Plain compound girders	"	2
Do. stanchions	"	2
In roof work	"	2

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

Milled lead and laying in flashings and gutters	per cwt.	6
Do. Do. in flats	"	5
Extra labour and solder in coated cesspools	each	6
Welt joint	per ft. run.	0
Soldered seam	" "	1
Copper nailing	" "	0

		½"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	1/2	1/11	2/2	3/10	4/7
Do. service	"	1/10	2/5	2/10	4/3	
Do. soil	"					
Bends in lead pipe	each					3/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/-	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/-	
Stop cocks and joints	"	15/4	17/2	25/8	64/-	

PLASTERER.

		s.	
Render, float and set in lime and hair	per yard sup.	2	
Do. Do. Sirapite	" "	2	
Do. Do. Keen's	" "	3	
Add sawn lathing	" "	1	
Add metal lathing	" "	2	
Portland cement screed	" "	1	
Do. plain face	" "	3	
Mouldings in plaster	per 1 girth	0	
One-and-a-half granolithic pavings	per yard sup.	5	

GLAZIER.

21 oz. sheet plain	per foot sup.	0	
26 oz. Do.	" "	1	
Obscured sheet	" "	1	
⅛ in. rolled plate	" "	0	
¼ in. rough rolled or cast plate	" "	0	
¼ in. wired cast plate	" "	1	

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	
Knotting and priming	" "	0	
Plain painting 1 coat	" "	0	
Do. 2 coats	" "	1	
Do. 3 coats	" "	1	
Do. 4 coats	" "	2	
Graining	" "	2	
Varnishing twice	" "	1	
Sizing	" "	0	
Flatting	" "	0	
Enamel	" "	1	
Wax polishing	per foot sup.	0	
French polishing	"	1	
Preparing for and hanging paper	per piece	2/- to	4

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10 % on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

ORKING.—For erection and completion of 50 ages, for the U.D.C. Mr. S. S. Gettings, Surveyor, ncil Offices :—
G. J. Arthur & Sons, Dorking.. £30,790 7 3

OUGLAS.—For the construction of two public eniences, for T.C. :—
F. H. Callow ..... £1,994 and £940

UDLEY.—Erection of 52 houses :—
Chas. Coulson £23,253

UDLEY.—Erection of 12 Type A2 houses :—
Mark, Pound & Sons £4,174 15 3

NFIELD.—For rebuilding the "Enfield Arms" lic-house, for Messrs. Truman, Hanbury, Buxton o., Ltd. Mr. A. E. Sewell, M.S.A., architect, 91, k-lane, E.1. Quantities by Mr. Wm. Gilbert, Broad-street-avenue, E.C.2 :—

Catterall & Sons	£9,329
W. Pringle	9,299
Courtney & Fairbairn	9,196
Snewin Bros.	9,187
Johnson Bros.	9,143
H. V. Clogg	9,094
Knight & Son	8,986
Harper, Ltd.	8,855
*Fairhead & Sons	8,787
Surveyors' estimate	8,750

GRAVESEND.—For the erection of cemetery ndary wall :—
‡Robert Hopkins & Sons..... £369

HANWELL.—For painting and decorating the D.C. Offices :—

E. P. Manley	£181 13 8
J. H. Ward	153 1 7
A. Jamieson & Son	126 2 6
Plaistowe & Son, Ltd.	116 3 2
‡Davis & Co.	114 2 6

HARWORTH.—For the erection of remaining ctions of permanent school at Bircoats, for the ottinghamshire C.C. :—
*Greenwoods (Mansfield), Ltd. £9,350

HOLME CULTRAM.—For work to be done at the ew hospital, for the U.D.C. :—
*T. W. Underwood £209 15

HONITON.—For construction of sewage disposal orks, for the T.C. :—
*M. Vine, Bournemouth £11,890 11

ISLE OF ELY.—For the erection of houses, for .C. employees :—
ne pair of cottages at Tydd St. Giles—
*J. W. Hamment, Tydd St. Giles.. £845 0
wo pairs of cottages at Barton-road, Wisbech—
*H. G. Papworth, March 1,780 0
our cottages at Downham-road, Ely—
*F. Tucker & Sons, Ely..... 1,640 0
ne pair of cottages at Wilburton—
*W. Canham, Somersham..... 849 9

LIVERPOOL.—For alterations and construction of ew engine beds at the following sub-stations, for the .C. :—

*J. Henshaw & Sons—	
Rice-lane	£192 15
Carolina-street, Bootle	244 15
Lavrock-bank	249 10
Smithdown-road	595 0
Oldham-place	183 0

LIVERPOOL.—For the erection of a cottage at ansillen, for the T.C. :—
*H. Lakelin, Shrewsbury £665

LIVERPOOL.—For alterations at substation, Williamson-square, for the T.C. :—
*C. & G. L. Desoer, Ltd. £749

LIVERPOOL.—For taking down and rebuilding ving of 8, Morpeth-street, for the T.C. :—
*Clayton & Dorsman £140

LIVERPOOL.—For demolition of buildings in arker-street, for the T.C. :—
*Thornton & Sons £200

LIVERPOOL.—For erection of twelve tenement wellings on Hornby-street site, for the T.C. :—
*Brown & Backhouse £7,568

LIVERPOOL.—For erection of 54 six-roomed and 8 four-roomed houses at Anfield, for the T.C. :—
*David Roberts, Son & Co. :
At £625 and £475 per house.

LIVERPOOL.—For the erection of six tenement wellings on Great Richmond-street site, for the T.C. :—
*Haugh & Pilling £3,379

LIVERPOOL.—For the erection of a shelter house Stanley-park, for the T.C. :—
*J. Rimmer £166 1

LIVERPOOL.—For painting at two dressing avilions at Wavertree Playgrounds, for the T.C. :—
*Amos & Co..... £154 10

LIVERPOOL.—Erection of shelters at Lower Breck-ad Recreation Grounds, for the T.C. :—
*J. Rimmer..... £125 2 6

LIVERPOOL.—For painting and general repairs to he exterior of Town Hall, for the T.C. :—
*A. R. Jones £310

LIVERPOOL.—For supply and erection of fencing t Allerton Estate, for the T.C. :—
*J. & E. Rimmer £170 15

LIVERPOOL.—For strengthening floors at 6, Atherton-street, for the T.C. :—
*W. Mooney & Son £138 10

LLANON.—For repairs to Morfa and Nebo Bridges, for the Cardiganshire Main Roads Committee. Mr. J. Davies, County Surveyor, Horeb, Llandyssul :—
Tom Powell, Poplar Rhydlewis :—

Morfa Bridge	£225
Nebo Bridge	115

LONDON.—For the erection of a new colour factory at Millwall, E., for Messrs. Burrell & Co., Ltd. Messrs. Hooper, Cushen & Co., architects, 27, Clements-lane, E.C., and Estates Office, Millwall, E. :—
General Building Works—
F. & T. Thorne, London..... £8,735
Constructional Steelwork—
Mattw. T. Shaw & Co., Ltd., Millwall £1,883

LONDON.—For repairs and redecorating 11 houses, Blackheath and Charlton, for the Greenwich B.C. Mr. F. J. Simpson, Town Clerk, Town Hall :—

H. M. Sinden, Sydenham	£795 0 0
Harding & Marks, Brockley	734 5 0
E. Dyke, Greenwich	672 10 0
J. J. Forrest, Charlton	664 10 0
J. A. Olley, Forest Hill	653 14 6
Edwards Construction Co., Ltd., Eltham	559 14 6
R. Coppin & Breeze, Ltd., Lewisham	504 18 0
H. J. Edwards, London	448 15 0
A. G. Shorter, Greenwich	429 0 0
W. Bickerton, Catford	390 1 0

LONDON.—For laying section No. 1 of the main from Kempton to Cricklewood, for the Metropolitan Water Board :—

Thomas Muirhead & Co., Ltd.	£357,580 5 8
Wm. Muirhead, Macdonald, Wilson & Co., Ltd.	320,608 2 9
Sir Lindsay Parkinson & Co., Ltd.	157,364 15 3
John Mowlem & Co., Ltd.	129,574 4 8
David Weston & Co., Ltd.	127,166 6 3
Wm. Press & Son	123,391 7 5
Whittaker Ellis, Ltd.	116,135 12 10
T. J. Moran & Co.	101,502 0 0
Wilson Lovatt & Sons, Ltd.	91,758 14 1
The Foundation Co., Ltd.	83,705 16 5
Sir W. G. Armstrong, Whitworth, & Co., Ltd.	71,235 14 6
*Crawford Bros.	62,144 3 5

LONDON.—For supply and erection of 1,000 yards of wrought iron fencing and gates at Shooter's Hill Reservoir, for the Metropolitan Water Board :—

Delziel Engineering Co.	£1,977 7 6
Sheffield Ornamental Ironwork Co.	1,817 5 0
Star Architectural Iron Works, Ltd.	1,677 17 6
J. Salway & Sons	1,519 2 6
Strange & Co.	1,500 0 0
Stock & Collings	1,346 12 6
Priest & Mullings, Ltd.	1,242 5 0
William Miller & Sons, Ltd.	1,194 1 3
Hill & Smith, Ltd.	1,142 5 0
Bayliss, Jones & Bayliss, Ltd.	1,142 4 9
W. A. Parker & Co.	1,107 17 6
*T. W. Palmer & Co.	968 17 1

LONDON.—For repairs at 75 Colebrook-row, Islington, for the Metropolitan Water Board :—

W. H. T. Kelland & Sons, Ltd.,	£174 0
E. B. Holmes & Co., Ltd.	165 0
Collins & Co.	157 10
*Webb & Sons	144 0

LONDON.—For repairs and decorations to the filter house church, Superintendent's residence, &c., for St. Marylebone T.C. :—

Waring & Gillow, Ltd.	£269 19 6
M. Greenwood & Son, Ltd.	268 3 2
Robert John Adams	253 2 6
Charles Halls & Sons	199 10 6
*James Belton	186 11 0
C. Tavener & Son	243 10 0

LONDON.—For the provision of a light railway, &c. at Wansunt Pumping Station, for the Metropolitan Water Board :—

John Mowlem & Co., Ltd.	£1,154 0 6
Wm. F. Blay, Ltd.	975 6 3
Edward Proctor & Sons	833 13 7
W. Pollock	673 11 8
Caffin & Co., Ltd.	636 11 6
Wm. Moss & Sons, Ltd.	574 9 11
*R. Robinson & Co.	487 16 2

LONDON (WESTMINSTER).—For remedying dampness at City Council dwellings :—
‡Townsends, Ltd. £153 1 6

LONDON (WESTMINSTER).—For the erection of scaffolding at Caxton Hall, preparatory to rebuilding defective stonework, for the City Council :—

Scaffolding (Great Britain), Ltd.	£907
R. M. Pearson	438
Townsends (Builders), Ltd.	387
Sims & Russell	340
‡Stephens & Carter, Ltd.	203

LONDON (WESTMINSTER).—For alterations and decoration at South Audley-street Library, for the City Council :—
‡Burton Bros. £812 5
For Fitments—
‡North of England School Furnishing Co., ... £1,568 2 2

LONDON.—For erection of building for boiler feed apparatus at Lee Bridge Station, for the Metropolitan Water Board :—
*J. E. Johnson & Son £407

MAESTEG.—For work at Masonic Buildings Castle-street. Mr. E. J. E. Moore, A.R.I.B.A., architect, "Haresfield," Salisbury-road, Maesteg :—

J. E. Jones & Co., Pontllanfraith	£4,425 18 9
Bowen & Thomas, Maesteg	3,750 0 0
Watson & Horrocks, Bridgend	3,664 17 0
Owen E. Jones, Maesteg	3,494 15 0
Wm. Morgan & Sons, Maesteg	3,492 17 11
Newman & Co., Maesteg	3,471 17 5
Jenkin Davies, Maesteg	3,445 0 0
*W. T. Lewis, Maesteg	3,435 0 0

MARKET HARBOROUGH.—For erection of boundary wall at the cemetery :—
*F. C. Leeds..... £207 10

MONMOUTH.—For erection of wall on ground leading to the slaughterhouse, for the T.C. :—
*L. O. Parry..... £216 7

MUTFORD.—For additions to Childrens' Home, for the Board of Guardians :—
*D. E. Leighton & Son £175 10

NEW SEAHAM.—For repairs to walls at High Colliery Council School, for the Durham C.C. :—
*J. W. Brown £215 12

NEWCASTLE.—For erection of 142 houses on the Walker Housing Estate :—
‡S. F. Davidson £62,386

NEWQUAY.—Bungalow, Newquay :—
*Colenso, Ltd., Penzance.

NORTHAMPTON.—For conversion of stables into offices at Central Police Station, for T.C. :—
*D. F. Gibson £645

NORTHAMPTONSHIRE.—For widening and improving Irthlingborough bridge, for the C.C. :—
*E. Archer & Sons, Northampton.... £9,465

PAIGNTON.—For the extension of sewer at Holloway Hill :—
*H. T. Drew £547

PELTON.—For repairs at Council School, for the Durham C.C. :—
*J. Burnett & Son, Birtley..... £336 9

PITTINGTON.—For supply of 260 lin. yds. of post and 2-rail cast-iron fencing, for the Durham C.C. :—
*Hill & Smith £182 14

PLYMOUTH.—Painting exterior of "Ordnance," for the T.C. :—
*E. M. Paul £231

PORTSMOUTH.—For the erection of four blocks of flats, Valler-street improvement scheme :—

John Lay & Co.	£8,287 0
Curtis & Hawkins	7,935 0
E. & A. Sprigings	7,600 0
Tanner Bros.	7,430 0
*H. Dalton	7,113 15

PRESTWICH.—For construction of approximately 180 yds. of sewers, Bury Old-road, for the U.D.C. Surveyor, Town Hall, Prestwich :—
*Wilson & Wilkinson, Pendleton.

PRESTWICH.—For extension of sewerage scheme, for U.D.C. :—

W. Snape & Sons, Eccles	£354 18 3
James Berry, Ltd., Heywood	356 12 10
C. Collins & Co., Radcliffe	480 0 0
*Wilson & Wilkinson, Pendleton	265 2 4

PUDSEY.—For erection of 50 houses. The Borough Surveyor, Town Hall :

W. J. Kendall & Co., Pudsey	£21,475
*Harold Hirst, Birkenshaw	20,910

RATHDRUM.—For erection of six cottages, for the R.D.C. Mr. P. W. Sheehan, Clerk :—
Five cottages—
*Matthew Turner, Wicklow.... each £330 0
Cottage—
*William Kavanagh, Arklow..... 329 9

ROMFORD.—For laying about 350 yds. of 6 in. and 9 in. diameter foul sewer in Brentwood-road and Manor-road, for the U.D.C. Mr. F. G. Beaumont, Engineer and Surveyor, 73, South-street, Romford :—
*B. H. Hale, Romford..... £472 13 6

ROYTON.—For setting back of boundary wall of Friends' Meeting House, Heyside, pulling down and rebuilding, for the D.C. :—
*W. Walters, Royton £136

SCUNTHORPE.—For construction of 112 lin. yds. of 12 in. and 1,470 lin. yds. of 9 in. diameter earthenware pipe sewers, for the U.D.C Mr. W. Farrar, Surveyor and Engineer, Council Offices :—
*Carter Helsby Construction Co., Ltd., Sheffield £1,564 18 11

SHAFTESBURY.—For additions to Coombe Lodge, Shaftesbury, for Mr. H. J. Gray, Twickenham. Mr. J. Partridge Jenkins, Architect and Quantity Surveyor, Shaftesbury :—
*Williams Bros., Shaftesbury..... £250

SPENNYMORE.—Supply of 600 2½ in. concrete flags, for the Durham C.C. :—
*Stockton Stone and Concrete Co..... £165

STAITHES (Whitby).—For harbour improvements, comprising new piers and breakwater, for the Harbour Commissioners :—
*Binns & Co., Newcastle £15,000

STRETFORD.—For interior decoration of large hall at Town Hall, for the T.C. :—
Jones & Jackson £315

TORQUAY.—Alterations and additions at 34, Park-road, St. Marychurch, for the Torquay Co-operative Society, Ltd. Messrs. Bridgman & Bridgman, F.A.R.I.B.A., architects, Fleet-street, Torquay. Quantities by Messrs. Harris & Hills, P.A.S.I., Fleet-street, Torquay :—
R. E. Narracott £1,360
E. P. Bovey & Son 995
H. C. Jackman 826

TORQUAY.—Extensions of Bakery at Albert-road, for the Torquay Co-operative Society, Ltd. Messrs. Bridgman & Bridgman, F.A.R.I.B.A., architects, Fleet-street, Torquay. Qaantities by Messrs. Harris & Hills, P.A.S.I., Fleet-street, Torquay :—
A. E. Brock..... £786
T. Guest 730
E. P. Bovey & Son 695
H. C. Jackman 660

TUNSTALL.—For repairs and redecorating at the Relief Offices, Price-street, Burslem, for the Guardians of Stoke and Wolstanton Union. Mr. S. Wood, Clerk, Union Offices, Stoke-on-Trent :—
*Chas. Smith & Son, 4, Windmill-street, Tunstall..... £319

WAKEFIELD.—For repairs to gardener's house at Thornes Park, for T.C. :—
*R. Crowe £300 2 7

WALSALL.—For the erection of two non-parlour-type houses in Haskell-street, for the T.C. :—
*Richards, Smith & Co. £900

WALSALL.—For erection of Rushall sub-station, for the T.C. :—
*Kenwick & Son £147

WATFORD.—Construction of path and river wall on bank of Colne, for the T.C. :—
*G. B. Hersey & Co. £4,705 11 1

WELLINGBOROUGH.—For erection of an underground convenience and shelter in Market-street, for the U.D.C. Mr. R. S. Henshaw, surveyor :—
C. Adams & Co., Wellingborough .. £2,109 10
*G. Henson & Sons, Ltd., Wellingborough 2,100 0

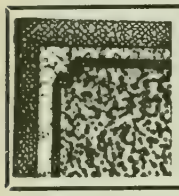
WEYMOUTH AND MELCOMBE REGIS.—For construction of tea room in Alexandra gardens :—
*Jenkins, Hitt & Grant, Ltd..... £997
(Subject to any increase in cost of labour.)

WEYMOUTH AND MELCOMBE REGIS.—For supplying and fixing sliding door, Alexandra Hall stage :—
*Betts & Co. £498

WEYMOUTH AND MELCOMBE REGIS.—For two shelters in connection with the Esplanade improvement :—
*Bird & Cox, Ltd..... £582 12

Westminster Housing.

The Minister of Health (the Right Hon. John Wheatley, M.P.) recently opened the City of Westminster dwellings, Pimlico-road, S.W. He was received by the Mayor (Councillor Edgar Horne) and the chairman and vice-chairman of the Housing Committee, Councillor the Rev. E. St. George Schomberg, and Alderman Sir Robert Walden. The dwellings comprise for flats, containing accommodation for 300 persons and to meet the wish of the Duke of Westminster, the donor of the site, only persons with two or more children living with them are to be accepted as tenants.


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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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THE LITERATURE OF ARCHITECTURE IN RELATION TO THE PUBLIC

ON another page we review an excellent book upon "Modern English Architecture," written by Mr. Charles Marriott. Added interest is attached to this book from the fact that it is written not only by a layman, but by a layman with a fine understanding of architecture as an art, and the underlying factors or causes of which architecture may be said to be an effect.

We have often wondered whether books upon architecture, intended for the public, should be written by architects or laymen and we shared a belief with many that it would be good for architecture and the architect if we had more constructive criticism from the cultured layman. Mr. Marriott has not answered some of our doubts, and submitted some skilful criticism which will command the respect of the architectural profession. It is not our intention to appear disrespectful to the opinions of the architect when we say that the opinions of the layman are more refreshing, partly because they are likely to be more detached, and partly because the final appeal of architecture must be to the public. Architecture cannot exist as an exotic growth divorced from life—and, in point of fact, circumstances combine to keep it always a reflex of life, regardless of what designers may feel—but it is easy to see that professional architectural criticism may take a form which cannot be comprehended by the general public.

There are already a number of small popular books upon architecture written for the public, and although one or two are good in certain directions, there is invariably a difficulty in linking up architectural history with modern building. The emotional and formal aspects of building are frequently overstressed, and we had come to accept this as inevitable since they are the easiest and most popular methods of presenting a fashionable conception of architecture. The whole basis upon which architecture is based (and by this we mean the social, structural and material questions), are either ignored by the authors, or assumed to be beyond the grasp of the general public. It is more desirable, we think, to bring the public into touch with living architecture by dealing, as Mr. Marriott does, with the causes and consequences of building than to convey the impression that fine architecture is either academic formalism or belongs to an age which expressed itself in buildings as an outlet for artistic impulse and dilettante trifling.

For many years it has been urged that there could be no real living architecture until the public could be induced to take an intelligent interest in the subject, and as a generalisation there is no doubt that the contention is sound. In all discussions relating to the public and architecture the simplest course is to lay the blame upon the public, a judgment which is somewhat modified by the statement that lack of architectural knowledge is the real cause. Numerous attempts have been made from time to time to stimulate public interest in architecture, but it has been obvious to many that there are differences of opinion upon the methods by which it is sought to impose our views upon the layman. It is possible to press too much coherent reasoning upon him, and it is possible he might care to be dealt with a little more frankly. He is shrewd enough to appreciate the naïve suggestion that if he took a greater interest in architect's names he would be led to take an interest in architecture (in the same way as many people are led to collect pictures), and he is quite capable of inverting the suggestion and putting it in its proper sequence. To put it crudely: if there were more demand for architecture there would be more demand for architects. This statement we follow with our confirmed belief that a condition such as we indicate would unquestionably benefit both the public and the architect. If we appear to omit the building industry it is because we believe that the buildings we require are built somehow; whereas, we are discussing architecture. If we write in terms of commerce it would be expressed in this form: there is a demand for buildings and there is an output from the building industry, but much of this output escapes the architect. Perhaps the builder is partly responsible; perhaps he is powerless to alter conditions which are a result of the social conditions under which we live. At all events, there is a large ground for the architect to develop, and we have always felt that this ground has been neglected in our architectural literature. It is true that a desire on the part of the public for fine architecture would be reflected in the architecture which we get, but we must recognise this logical distinction, that no amount of propaganda can make much difference to the actual number of buildings to be built, but it can create a desire to obtain the utmost architectural value from every sort and type of building which we actually require.

It is an arbitrary expression to say that architecture grows directly out of life, and much depends upon what we mean. It is a human foible which leads the prospective building owner to believe he will get a cheaper building without an architect, and it is absolute commercialism which leads the manufacturer to erect his factories regardless of architectural grace or the amenities of the neighbourhood. In both instances the real cause may be the same, but they are, unfortunately, direct expressions of our social heritage. We would not submit that it is a desirable thing that architecture should be a direct expression of social life and nothing else; on the contrary, it is the architect's expression of a country's life which gives us the true definition of the architecture of the age. There is surely some significance in the fact that the Street Architecture Medal has been awarded this year for the design of a cinema.

Architecture, of all the arts, is the most sensitive to changes in social life, and, through the architect, exposes in a general way the tendencies of the age. It has been argued that in this form architecture may not be expressive enough, in the sense that it is not bad enough, but this is merely an absurd development of the argument, and does not rest upon an ethical basis. It is no part of an architect's business to reform our institutions, but it is his business to try to yield æsthetic satisfaction by the manner in which he handles his theme. On this subject we find ourselves in complete agreement with Mr. Marriott, who passes his judgment upon modern architecture from this standpoint. Under every heading he arrives at the very natural conclusion that the architect has been successful in his attempts to harmonise architecture with current needs and activities. If architecture is indicative of the social state, and we desire to create a sense of personal responsibility for our architecture, we would not blame the public for its lack of architectural knowledge. We would prefer to encourage the literary profession to foster clearer thinking upon the social problems which obscure the true greatness of architecture.

NOTES

The Premier on Architecture

THE Architecture Club has already done much to justify its existence as a body whose chief aim is to stimulate public interest in architecture, and in enlisting the sympathy and help of the Prime Minister the profession may well feel grateful to the Club. The speech which Mr. Ramsay MacDonald made at the sixth dinner of the Club last week—a report of which appears on p. 866—could have been made by no one who was not greatly interested in architecture, and, as he claimed, things which are beautiful and comforting to the mind. We need not discuss the matters referred to in the Premier's speech, but we suggest that architects might very well consider his questions: "What can the Government do for architecture? How can the Government help architecture? How can the Government help art?" It is a helpful fact that these questions have been asked by the Premier, and we can hopefully expect at least as much sympathy and interest from the Premier of any subsequent Government of whatever party. Mr. MacDonald thinks that the only way just now for the Government to help is as a patron of the arts, which is surely what it always should be; but this implies a knowledge of art, which would enable the Government to be a safer arbiter than it has often proved to be when such a question as the provision of a bridge at St. Paul's has been under discussion.

The Scapa Society.

WE are glad to see this excellent society is getting more publicity for its work. Anything which can increase in the public the knowledge of what it stands for is so desirable that we are glad to call attention to the meeting held recently at the Royal United Service Institution presided over by Lord Lascelles. Lord Newton, in moving the adoption of the thirty-first annual report, referred to the fact that their subscription list did not amount to £100. The Society should have a much larger support than the amount reveals, their work in checking the abuses of public advertisement being so beneficial to the community at large. The Society has now a Bill before Parliament to remove advertising signs from the countryside, and though acknowledging a certain improvement already in this direction, due to the public-spirited action of some advertisers, there is still great abuse as any journey made through the country will show. The great oil companies have been among the worst sinners, and though they have removed their field signs other exceedingly ugly, vulgar and garish methods of publicity are still continued by them. It is very important that in the work of this Society they should concern themselves with the disfigurements of towns as well as the countryside, and this aspect of their work needs emphasising. As the major portion of the community live in towns the amenities of these should be preserved against ruthless advertisement, even more than the country, for the need is even greater. At the same time full justice should be done to the real improvement in the general character of advertisements both in scale and artistry.

The Faculty of Arts.

THE third annual conference of the Faculty of Arts, held on Saturday at the Faculty's rooms, at 10, Upper John-street, bore witness to the increasing power of architecture, not only among the arts but in influencing the public. Professor Adshead's address "The Arts and Environments" incid ally emphasised the engineer's grea weakness. We have nothing but res and admiration for the work of engineer, but while fully realising no branch of science has made gre strides we deplore the attitude tha still too common and which k engineering in a department away f æsthetics. The engineer is prone look down on any attempt to introc the æsthetic element, and yet, unti weds his structural skill with a stri after beauty, engineering works will n occupy the place that is rightly th Such bodies as the Faculty of Arts the Scapa Society, who aim at uni beauty with utility, will, we h ultimately succeed in converting purely utilitarian state of mind to un stand that utility and practical efficie are not everything.

Practical Acoustics.

ONLY quite recently has study of acoustics h lifted from the region myth and prejudice found to yield to scientific analysis. any romantic doubt still exists in mind of the layman who prefers to certain things he does not understanc "indefinable," we have now got the rooms at the R.I.B.A. as evidence of w knowledge can achieve. It is perhaps much to expect that all our public ha concert and committee rooms, can drastically reformed; many have be used for purposes which make padded panel unsuitable, but at least elementary knowledge of the laws gove ing sound would prevent some of muffled effects which are unnecessary inexcusable. As a stimulus to interest comments made recently by Mr. Fil Young in *The Times* on tone in mus



Dunfermline War Memorial Competition. Design placed first: By MESSRS. TAYLOR & YOUNG.



From the Exhibition of Modern Architecture.

Entrance Gates, Keswick Lodge. Messrs. Brierley & Rutherford, Architects.

adcasting should have good results; many of the problems to which he des should be capable of explanation. nay be argued that architecture has ady too many specialised avenues and t in a harassed and understaffed ctice a man has not the time for ther subject. Prolonged research in istical principles is obviously beyond scope, but the ordinary architect may assured that a very little study will ng a rich return in information, and help to dispel the dangerous illusion t the gift of audibility belongs to the k arts.

Business versus Pleasure.

At a time when trade requires every possible assistance a demand for cheaper postage has been sistently made since the Armistice, at first this demand was negatived on ground that the Post Office must never subsidised, but must pay its own way. Post Office is now, according to the ncellor of the Exchequer's Budget tement, making a profit on all its ices taken together, and the country requested that a return to penny tage might at once be made. The ncellor estimates that this could be e at a sacrifice of revenue (that is, of the profits made by the Post ce) of about £5,000,000. This is the re he has just given in his reply to representations made by the Asso- ions of British Chambers of Com- ce, but he added, "He regrets that this account and in view of other ms for the reduction of taxation ch have been found more urgent it not been possible for the Government authorise the reversion to penny age in the current year." A com- cial community, therefore, turns to Budget statement to a scertain what, he view of the Government, are the ore urgent claims," and finds that the ertainment Duty on the cheaper seats been given up at a loss of revenue in ll year of £4,000,000, and that this sum represents nearly half the whole revenue derived from that tax. As the duty on the cheaper seats is a small sum this loss of revenue does not suggest that those who patronise the cheaper seats have been starving themselves in the matter of amusement, and the cinemas do not employ nearly so many people as did the old theatres and halls, as one foreign-made film supplies a number of audiences with amusement. With industry depressed, what is the special urgency of this sacrifice of revenue at the expense of cheaper postage? Probably our readers will be able to give the obvious reply to this question, so we refrain from suggesting it.

Trees in London Streets.

We must be a little careful before endorsing what appears to be a movement towards the reducing of the number of trees in our squares and streets, or even taking them all away. There are cases in which their growth must be restricted to suit the accommodation of the lighting of houses when they grow beyond reasonable limits and form an obstruction. This is quite another thing, however, from the general acceptance of a theory that would challenge their beautiful and gracious presence in our London squares. We are rather sorry to find the London Society, with whose good work we have so much sympathy, emphasising a view to which we feel sure a very general objection will be raised, and which is held only by a very limited circle. That in the furthering of the amenities of London our London squares should be denuded of their trees is a kind of "tidying up" such as that pursued by the itinerant gardener who in tidying the garden, roots up all the plants. We feel sure there would be a very considerable outcry if any such vandalism were attempted in our squares. The argument that open spaces without trees allow more light and sunshine to penetrate houses, is only plausible when it can be shown that trees prevent them from doing so, and in such cases it can surely be left to localities to decide what is injurious to their amenities and what is not, for in the latter case the advantage of trees to the appearance of a street is undeniable. The charm of trees in a public thoroughfare may be instanced in the case of Notting Hill, where the hill is given a very attractive appearance as the result of many years of growth. It would be a great pity when we are just now entering into the charm that trees bestow—when their growth has reached beyond that of the perky sapling, a state which is no more than the promise of future attractiveness—if ruthless hands were laid on them for a theory so abstract and conventional.

Our London Squares.

Even more serious than in the case of our streets—when we think of these cool and shaded oases from the roar of the traffic—is it to regard the consequences of removing the trees and shrubs from our London squares. That such trees, as is alleged, screen the architectural features of the square is easily disposed of by any who will take a glance at them. Lincoln's Inn Fields, Bedford-square, not to mention others—what injury does their architecture suffer by their graceful presence? The effects of architecture are seldom better seen than when relative to nature. This natural drapery and accompaniment reveals architecture to its further advantage, as when good its relationships are so near to nature. In London especially we feel this touch of nature in our midst to be a real compensation for its enormous growth. Moreover, trees harbour song birds, and the pleasure of bird life which can be heard and watched with so much interest would be taken away. Trees also take out of the air what we do not want, and are an addition to the health of a city. Men do not live by architecture alone, nor are its claims the only ones that we are to be denied the pleasure of that touch of nature in our streets and squares which holds so strong a place in our affections.

GENERAL NEWS

Professional Announcement.

Mr. Ernest J. E. Moore, A.R.I.B.A., is commencing practice as an architect, surveyor and civil engineer at "Haresfield," Salisbury-road, Maesteg, Glam.

Change of Address.

Mr. Wilfrid Travers, F.R.I.B.A., has removed his offices to 36, Furnival-street, Holborn, E.C.4.

Architectural Association of Ireland.

We have received from the Architectural Association of Ireland their syllabus of meetings, &c., for the session 1923–24. In spite of the unsettled state of the country, the membership now amounts to one hundred and thirty-three. The committee recorded, with regret, the deaths of two of their members, Mr. Harold Kilmartin and Mr. R. O'Brien Smyth.

Northern Architectural Association.

A series of visits to local works, and excursions to popular country resorts, has been arranged for the summer session by the Northern Architectural Association Club, which has its headquarters at Higham-place, Newcastle. Definite arrangements include: May 30, Lord Roberts' Memorial Workshop, Newcastle; June 9, Club's annual excursion by motor coach to Blanchland.

Old London.

We have received three further contributions to the useful and interesting series of "Lunch-Time Rambles in Old London," *i.e.*, No. 7, "In the Steps of Shakespeare: Along the Bankside," by Dr. William Martin, F.S.A.; No. 8, "Along Cheapside," by Mr. W. G. Morris; No. 9, "The Precincts of the Temple," by Mr. Prescott Row. Each little work is a seriously considered contribution to the study of London, and includes a clear plan as well as one or two other illustrations The price is 6d. net, and the publishers the Homeland Association, Ltd.

Incorporated Church Building Society.

At the monthly meeting of the Incorporated Church Building Society, grants were made towards building the first portion of new churches at Bellingham, St. Dunstan, Kent, £350; and Westcliff, St. Michael and All Angels, Essex, £350. The following grants were paid for works completed at Pixmore, St. Paul, Herts, £200; Cowplain, St. Wilfrid, Hants, £100.

War Memorial Houses.

A considerable amount of money remains after providing for the war memorial to the officers and men of the Royal Welch Fusiliers who fell in the war. The Comrades' Association of the regiment, who have had charge of the administration of the funds, have, therefore, decided to apply it in the following manner. They propose to erect a number of houses on land adjoining the barracks at Wrexham for the accommodation, rent free, of aged Army pensioners who have served in the regiment.

Society of Architects' Scholarships.

The Society of Architects offers a scholarship open without fee to any British subject between the ages of 25 and 40 for the study of modern architecture abroad. The winner will be entitled to £300 to be spent on the cost of travel and on the study of architecture in America, £250 being paid at the beginning of the period and £50 more if the student produces a report that constitutes a "serious contribution" to modern architectural ideas.

Atmospheric Pollution.

The ninth report of the Advisory Committee on Atmospheric Pollution has just been issued, and covers the year ended March 31, 1923. It is shown that there was a distinct improvement in the purity of the air during the year as compared with the average of preceeding years. The highest total deposit was in Rochdale and the lowest in Rothamsted; the greatest amount of tar was deposited in Newcastle Tyne, while the highest deposit of sulp was found in Southwark Park, London.

Kedleston Hall.

Work has been commenced in connection the remodelling of Kedleston Hall, near D for the Most Hon. The Marquess Curz Kedleston, K.G. The architect for the a tions is Mr. A. S. G. Butler, F.R.I.B.A., 6 Queen-street, Westminster, S.W.1.

The contractors are:—Messrs. Walk Slater, Derby, builder's work; Messrs. Be & Sons, Ltd., 115, Victoria-street, Westmi heating, hot water supplies, sanitary w Messrs. Tyler & Freeman, 40, Chancery- W.C.2, electric lighting and power.

Obituary.

We regret to record the death, which place recently, after a brief illness, of Mr. Pomeroy, R.A., the eminent sculptor. Pomeroy entered the R.A. Schools in and won the Gold Medal and Travelling Stu ship for Sculpture in 1885. He executed public monuments in Great Britain and Colonies, notably Robert Burns' cente statue for Paisley, N.B., and for Sydney, South Wales; W. E. Gladstone for Hous Parliament; Duke of Westminster for Ch Cathedral; Archbishop Temple for Canter Cathedral; and the monument to Lord Du and Ava, Belfast. He also decorated important public edifices.

Statues and Memorials.

Westminster City Council has had a l from the Right Hon. F. W. Jowett, M.P., Commissioner of Works, stating that a future his Department will look to the Arts Commission for advice on statues memorials, it will not again be necessar call together the members of the Sites C mittee, which for several years past has adv successive First Commissioners on the diff questions that have arisen in connection the placing of public statues and memorial London. In formally announcing that work of the Committee has come to an end Jowett feels that, as present head of the Dep ment, he ought to put on record his w appreciation of the valuable services rend by the Committee, not merely to his Dep ment, but to the whole cause of good tast the selection and placing of our public memor



Exhibition of Modern Design.
Design by Mr. Frank Brangwyn, R.A., for Posters and Cover of Catalogue

COMPETITION NEW

The Harrogate Infirmary.

The committee of Harrogate Infirmary in designs for the extension of this Infirm Mr. Sydney D. Kitson, F.R.I.B.A., has b appointed assessor. Premiums of 150, 100, 50 guineas will be awarded respectively. Ap cations, together with cheque for two guin should be made to Mr. Geo. Ballantyne, Se tary, The Infirmary, Harrogate, by May Sending-in day September 30.

Bexhill Entertainment Hall.

The Bexhill Corporation invite designs f architects in the district for the erection of entertainment hall. Premiums of £50 and are offered respectively. Sending-in September 1.

Hamilton.

For the War Memorial Committee Designs for war memorial. Sending-in September 30. (See advertisement this we

Other Competitions.

Other competitions still open include following (the dates given are, first the send in date, and second the issue of *The Builde* which full particulars were given):—Indust Designs (June; Dec. 21, 1923). Ross-Sn Memorial (Sept. 30; Feb. 21). Glasgow Pu Hall (July 4; May 2). Football Stand Edinburgh (June 9; May 23).

THE EXHIBITION OF ODERN ARCHITECTURE AT WEMBLEY

w years since the exhibition of modern cture, including Great Britain, the ons and Colonies, which has been d by the Royal Institute of British ets and the Architecture Club in the of Arts at the British Empire Exhibi- Wembley, would have attracted little n from the public. The size of the ture room at the Royal Academy and parative desertion is proof of the apathy so-called cultured. But to-day it is a at the man in the street is making it siness to comprehend mysteries which were the especial province of the prac- . It is an exhilarating sight to see wds lining up in a vast queue outside lace of Art in order to be entertained structed. The truth is that building ng into its own and is being widely ed as a national possession. Two have combined to bring this change Press, if we may say so, and orts of the Architecture Club. It is alised that architecture, to be complete tional, must represent something more display of individual talent; in other it must reveal ideals common to all and through this agency exert its in- on the public mind. In the exhibition we encounter many recent buildings will appear as new to the public, with ervation that for the first time we are to appreciate what is being done in minions and the Colonies. There can doubt of the fact that a great advance n made towards closer collaboration by ts themselves, there is evidence of sympathy and appreciation of results— he good, for the critic was growing a red of the parrot cry that one man's as better than another's. It is this g up of ideas and ideals which is the difference of view-point to-day. Build- its finest aspects reflects the character tion as of a community, and no surer xists of the strength of the Empire and e and ideals now current than the age of photographs of buildings now d to the public eye.

works shown are astonishingly sane and One is compelled to admiration not by ious repetition of the same theme but fact of the diversity of interest, for all ldings, with few exceptions, are in the ue to cause. The point to be remarked growing appreciation of consisteney on t of architects and the refusal to be from sane expression by fantastic ent or over-indulgence of the mellowed tradition.

ps the chief reason for congratulation ay British architects have improved in ter of handling the layout of groups of s and civic centres. There is to-day grasp of possibilities in this regard s the case a few years since. In addi- s evident that civic architecture is now as much attention and care as was bestowed on work of domestic con- . Moreover, there is the modern the work, not ultra-modern in any ut a right and proper view that the s of the moment are vital to the and prosperity of the scientific art. the past hundred years architecture fered from many changes and ill- ed experiments; but viewed in retro- it can be concluded that under such ances as prevailed nothing else was In fact, all the mistakes and experi- trange as it may seem, have each and helped towards a riper idea of what ilding should be. Architects to-day reater regard for humane needs. They king honestly to produce works which llectual, inspiring and purposeful, and they are approaching the truth that s should be chaste and refined and ely cold evidence of scholarship or skill in producing something picturesque. There are, of course, many view-points, but, nevertheless, there are signs of closer fellowship, and it is this spirit which must be encouraged rather than that feeling of antagonism and disparagement which a few years since was only too common. Such is the function of the Council of the Architecture Club and the Council of the Royal Institute of British Architects.

It is impossible after viewing the Exhibition to feel that it is entirely representative of British endeavour in the sphere of building to-day. Many prominent architects have not availed themselves of the opportunity to show their works. Again, some attempt should have been made by those responsible for the Exhibition to group the works in definite space: for example, the civic works might have been separated from those of domestic interest.

There are four hundred and sixty-three exhibits, and space precludes a mention of each. Among the buildings shown, that designed by Mr. E. C. Frere, No. 154, for the General Medical Council, Hallam-street, W., has the merit of combining scholarship with vivacity, as also the detail of the doorway, No. 155, for the Dental Board of the United Kingdom. The Faculty of Arts Building, University of Manchester, by Messrs. Percy S. & J. Hubert Worthington, reveals that English architects can produce work of a scholarly nature that competes with past masterpieces, and owes little to second-hand classic. Messrs. Buckland & Haywood show an interesting treatment of a manufacturing block for Messrs. Cadbury at Bournville: some of the details are a little too interesting, but the purpose of the building is undeniable. Messrs. Harvey & Wicks exhibit Edwards' factory at Birmingham, a frankly modern but pleasant design for a utility building, and also show a convincing country house. Of the modern work, one of the most striking examples is the open-air school at Welwyn Garden City, No. 176, by Mr. L. de Soissons and Mr. A. W. Kenyon, and Dr. Furnivall's house. Mr. de Soissons and his partner have determined to be modern in the truest sense of the word, and do not disdain the qualities of old work. Mr. Robert Atkinson shows St. Catherine's Church, East Acton, W., No. 1, a building of simple charm developed from a logical plan to meet ecclesiastical needs. In such works as the foregoing is to be seen the line of development of British architecture. Mention must be made of Welsford House, Wilts, No. 76, by Messrs. Detmar Blow and Fernand Billery; of Briant House Cholsey, by Mr. Edward Warren, No. 77; of Nether Swell Manor, No. 96, by Mr. Guy Dawber, and of No. 18, Carlton House Terrace, by Messrs. Oswald P. Milne and Paul Phipps. In this design the authors demonstrate that modern taste for interiors can compete with and surpass historical examples. Regarding lay-outs on a large scale mentioned at the beginning of this account, the photograph of a drawing of the Egyptian State Hospital and Medical School, No. 254, by Nicholas and Dixon-Spain is an outstanding example of skilful grouping.

In the sphere of ecclesiastical architecture the exhibits include such works as St. Martin's Church, Epsom, by Sir Charles Nicholson, No. 292; St. Peter's Church, South Croydon, Memorial Chapel, by C. M. Oldrid Scott; St. Paul's Church, Derby-lane, Liverpool, No. 298, by G. Gilbert Scott, R.A., a work of superlative merit; and the delightful Chapel of The Thistle, St. Giles, Edinburgh, No. 304, by Sir Robert Lorimer, A.R.A.

Coming to the work of other Academicians, we have examples by Sir Aston Webb, P.R.A., the refronting of the Carlton Club, by Sir Reginald Blomfield, R.A., and designs for Heathcote, Ilkley, and Papillon Hall, Market Harborough, by Sir Edwin Lutyens, R.A. Sir John Burnett, A.R.A., & Partner show the completion of the British Museum, one of the finest examples of modern classic, and the Institute of Chemistry in Russell-square, Nos. 324 and 325. Mr. Herbert Baker exhibits photographs of his work at Delhi, Nos. 195, 196, and 198, and the interior of Pretoria Cathedral. Among other works that call for study are such as the entrance doorway to the District Bank, Ltd., Lord-street, Southport, by Messrs. Francis Jones and H. A. Dalrymple, and Messrs. Adshead and Ramsey's work at Kennington for the Duchy of Cornwall estate, which is well known to architects and the public by reason of its refinement and simplicity.

There are examples of recent works by Sir John Simpson and Maxwell Ayrton, Messrs. Briggs and Thornley, Hennell and James, Henry M. Fletcher, Arthur Keen, and Philip Tilden, and nearly every architect who has won fame in the lists is represented.

In Gallery LL will be found examples of recent Canadian architecture which in a neighbourly mood shows friendliness towards American methods, and it is apparent that such architects, to name a few, as Messrs. Darling & Pearson, Ross & Macdonald, Nobbs & Hyde, and Brown & Valance have been influenced by contemporary work in the States. On the contrary, the new Parliament Building, Winnipeg, by Mr. Frank W. Simon, owes little to the States, and yet is an example of dignified classic finely treated. It is a pity that the exhibition does not include a comprehensive set of photographs and models of the vast works now nearing completion under Sir Edwin Lutyens at Delhi.

To sum up this inspection of the exhibition, the works shown prove that with the awakened sense for sympathy and collaboration amongst professional men there is no loss of self-respect or neglect of individuality. It is obvious from the designs shown that the tendency is and will continue to be in the direction of slow and sure development. Building in this country is finding its sure platform; it is coming into its proper sphere as a scientific art, in spite of the winds that blow and fashions that change from year to year. British architects want the truth and nothing else will satisfy their instinct. As a nation we have for a long time suffered the arts to become of secondary importance. We have waited, perhaps too frequently, for inspiration to arrive from other countries. This is a danger to be guarded. It is all very well to speak or write of the cosmopolitan spirit, but useful as Esperanto is, it is not an elegant or a national form of speech. Neither must British architects as in the past place too great reliance on scholarly renderings of the antique. Western art is admittedly intellectual, but this is no argument in favour of that cocksuredness that tends to envelop building in a Classic or Gothic shroud. Present day work should incorporate all the qualities of the past, but greater regard should be paid to the traditions of the moment. Rather than revealing copy-book precision, buildings should express realities in a complete and tidy manner. The true builder must never exhibit his knowledge of style, period, or personal regard for a past master. On the contrary, he will be at pains to conceal his knowledge. Neither should he descend to modish tricks or being unduly influenced by passing crazes in other lands. There can be no doubt of the wonderful advance made in planning both for buildings great and small. The weakness is that people still attach too much importance to style and all unknowingly work against their own buildings being stylish in the highest sense of this somewhat invidious term.

We must regard the exhibition, good as it is, as a stepping stone to better things. British artists are doing much by collaboration to remove the stigma our foreign friends attach to art in this country. We have our own salvation to effect, and the fact that architects are striving towards an ideal is one of the signs that the nature of the ideal will in a very few years be apparent both to the profession and the public.

H

CORRESPONDENCE

Amalgamation.

SIR,—I should like to thank Mr. Keen for explaining so satisfactorily what to me seemed such a grossly unfair state of affairs in the Institute.

It seems to me to emphasise the more the necessity of keeping the status of the Institute to the high level which has been obtained after many years of striving, and those who would have amalgamation with the Society are simply reducing this status to what it was twenty years ago.

M. A. POWELL.

Registration.

SIR,—While our more fortunate brethren with practices are keenly debating which class of "attached" architects shall wear the brightest crowns in the promised architectural millennium, it would, I am sure, interest hundreds of your readers (who are "merely assistants," unattached, and often "unhonoured and unsung"), to know how they will fare under the proposed scheme of registration. Any scheme which ignores the assistant would be antagonistic to the spirit of justice and equity.

An application for registration from an assistant should be capable of being "backed" by independent persons who can vouch for the man's training and experience, thus eliminating any chance of "black-balling" by prejudiced employers.

ARCHITECT'S ASSISTANT.

[**We understand that it is the intention of the Council to provide for the position of assistants in the proposed scheme of registration. The Architects' and Surveyors' Assistants' Professional Union will probably be consulted in the matter, and the Council have announced that they propose to suggest the addition of a regular representative of the Union to the R.I.B.A. Council. This certainly ought to meet the points made by "Architect's Assistant."—ED.]

Cost of Allied Societies.

SIR,—With reference to Mr. Percival M. Fraser's letter published in your issue of the 16th, there is one point on which he is misinformed, viz., the cost of the allied societies to the Royal Institute. Whereas Mr. Fraser gives this figure as £400, according to the Council's report for this year it is £874 19s. 1d.

T. LAWRENCE DALE.

[**We believe that Mr. Dale is correct in pointing out Mr. Fraser's error. The rebate to the Allied Societies is made under By-law 81. The increase in this figure in recent years is a welcome indication of the healthy development of the societies and their closer touch with the R.I.B.A.—ED.]

The R.I.B.A. and Education in India.

SIR,—I have the great pleasure in supporting the letters, one by Mr. Chitale and the other by Mr. Khan, regarding "The R.I.B.A. and Education in India," and I quite appreciate the views of the technic they have put in their arguments. I would like to add some more information in order to make it more clear.

It has already been pointed out that two hours' study in the morning school is not sufficient for the architectural education. The scheme which has been suggested by Mr. G. Wittet, the late Consulting Architect to the Government of Bombay Presidency, in the year 1912, and approved by the Government of India, has not yet been carried out on account of the insufficient fund. It would be of great benefit to the country if the school authorities can influence the Government to open the whole time school where students can develop the freedom of thoughts and expression during their training, as are followed in other parts of the world.

The school authorities do not make any arrangements for passing the students into offices, but each individual has to find out the vacancy. Some of them sometimes remain without employment but simply attend the morning school lectures. It is suggested that the students should utilise the rest of their day by entering into offices for their practical experience which is considered as part of the training.

As regards the school excursion, I may point out that only selected candidates, sometimes six out of twenty candidates from the final year of School of Architecture, and six from painting school, are taken once a year by the school authorities to one of the places such as Delhi, Agra, Bijapur and Ahmedabad. All candidates from the final year class do not derive the benefit of studying the best examples of Indian architecture, as mentioned by Mr. Khan in his letter.

Looking at the result of the ex-students of the different schools, they are no doubt doing responsible services as the principal assistants under qualified Western architects all over India.

In conclusion, I may be allowed to say that the question ought to come before the International Congress, and the R.I.B.A. could use its influence on the Government of India by suggesting to them how to carry out the past approved scheme which has been pending for a considerably long period.

London.

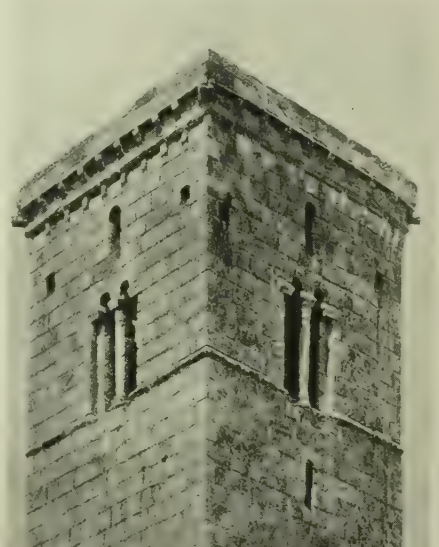
SAMSON A. ELIJAH.

Architectural Competitions.

SIR,—I was particularly interested with the illuminating letter by E. S. in last week's issue of *The Builder*, as I have always marvelled at the willingness of architects to supply costly sets of drawings in competitions for the small chance of obtaining premiums or the work required, and you have done me the favour of publishing my letters protesting against this unreasonable and pernicious custom which has for so long been taken advantage of by those who are not disposed to employ recognised specialists.

Architects are naturally anxious to secure ample and profitable work, and competitions fairly and reasonably conducted have the advantage of bringing out the talent of unknown men. Plans of each floor and front elevation in pencil ought to be sufficient to prove the ability of the architect for the work, which, as it could be done at small cost, would be more willingly supplied, and from these drawings a number should be selected, as suggested by E. S., for the prizes and work. The Council of the R.I.B.A. would render a great service to the profession if they would take this matter up, and put a stop to w become a recognised and approved cus notifying promoters and competitors th pencil sketches should be provided for nary competitions.

FREDK. NESBITT K



St. Rule's Church, St. Andrew's. Detail of top of Tower.

The Fine Arts Commission.

SIR,—A question asked recently in Par in regard to the newly-formed Commis Fine Arts, in reference to the criticisms have been rather freely directed agains some quarters and suggesting reconsidera to its continuance, does not perhaps se sufficiently clearly the doubts which ma as to its effective usefulness. We may that the national health in regard to art does not enable us to dispense with the and there is no doubt that this invali may require special treatment. But recognising any cure as easy through organisation, and the general belief in mac we must be sure that there are amon persons altogether free from the defe servable in public life, and that to place in their better hands will be an in remedy. This confidence in the exemp certain specially endowed persons fro defects in the body politic may be war but there must be a very general support view that they are free from it. It is w come against these considerations the arises. Can we by searching find ou infallible? Will the public who are so un choose the artist, choose the expert? not the case the expert has a way of ch himself. There is a great reaction in the from the claims of mere reputation and success; it is not desirable at this ti accentuate this through over-insister decorated infallibility. These conside complicate the situation and give force doubt growing amongst us as to whether organisation and machinery help us very Can we say that on the evidence the less di choice of the public has proved a worse than that of the more elect? In any case, these doubts have in recent times gro importance, are not such forms of protect variance with the freedom of the arts, them subject to the rather contracted int tations of taste and precedent so mu variance with its catholic and noble spirit

MEETINGS

FRIDAY, *May* 30.

Town Planning Institute.—Mr. L. W. on "Reservation of Lands, Open Spaces At 92, Victoria-street, S.W.1. 6 p.m.

SATURDAY, *May* 31.

Royal Institute of British Architects.—V Fletton Brickyards, Peterborough.

MONDAY, *June* 2.

Royal Institute of British Architects.—Bu Meeting. Election of Council and Sta Committee. At 9, Conduit-street, W.1.

WEDNESDAY, *June* 4.

Royal Archæological Institute.—Mr. P. on "Additional Examples of English Me Alabaster Carvings." At Burlington Piccadilly, W.1. 5 p.m.

The Wren Society.

Mr. H. Duncan Hendry, A.R.I.B.A., Doughty-street, London, W.C.1, has appointed hon. secretary of the Wren S in the place of the late Mr. W. Henry F.S.A., F.R.I.B.A., and all communic should be sent to him at his London addr

The first publication of the Society will this year and will consist of a portfolio of plates from the All Souls' Collection of drawings dealing with St. Paul's Cath These publications will be supplied fr members and will not be obtainable th other channels.



Exterior View.



From the Exhibition of Modern Architecture.

Grand Committee Room.

County Hall, Northallerton.

Messrs. Brierley & Rutherford, Architects.

THE PRIME MINISTER ON ARCHITECTURE

THE RIGHT HON. J. RAMSAY MACDONALD, the Prime Minister, was the principal guest at the sixth dinner of the Architecture Club, held at the Hotel Cecil on Friday last week. The President of the Club, Mr. J. C. Squire, occupied the chair, and amongst those present were His Highness Prince George of Russia, Baron Palmstierna (Swedish Minister), Mr. H. T. Buckland, Mr. H. P. Cart de Lafontaine, Mr. A. B. Colls, Mr. Ewart Culpin, Mr. W. R. Davidge, Mr. A. J. Davis, Mr. E. Guy Dawber, Mr. C. F. W. Dening, Mr. W. Reid Dick, Mr. Rudolf Dircks, Mr. J. H. Elder-Duncan (secretary), Mr. G. Topham Forrest, Mr. W. A. Forsyth, Sir George Frampton, Mr. J. A. Gotch (President of the R.I.B.A.), Mr. H. Austen Hall, Mr. Stanley Hamp, Mr. E. C. Hannen, Mr. Cecil Harmsworth, Mr. E. Vincent Harris, Mr. Lewis Hind, Mr. P. Morley Horder, Mr. Ralph Knott, Mr. H. V. Lanchester, Mr. Gilbert Ledward, Mr. Edward Maufe, Mr. H. P. G. Maule, Mr. A. A. Milne, Mr. H. Greville Montgomery, Sir Frank Newnes, Mr. Paul Phipps, Mr. A. R. Powys, Mr. S. C. Ramsey, Professor A. E. Richardson, Mr. Howard Robertson, Professor W. Rothenstein, Sir Philip Sassoon, Sir John Simpson, Mr. A. Dunbar Smith, Mr. Harold Stabler, Mr. W. Harding Thompson, Mr. Philip Tilden, Sir Charles Walston, Sir Lawrence Weaver, Lord Gerald Wellesley, Sir Owen Williams, Sir Robert Witt, and Professor J. Hubert Worthington.

After the loyal toasts, the CHAIRMAN said he was especially happy in that they had with them that evening some representatives of Sweden, and he urged those who had not yet seen the Exhibition of Swedish Architecture at the Galleries of the R.I.B.A. to pay a visit before it closed.

THE PRIME MINISTER, in proposing the toast of "Architecture," said he supposed he was there for one or two very simple reasons. The first was that he was very much interested in architecture; the second, which was perhaps explanatory of the first, was that long before he dined with the gods at 8.30 in the evening he supped with the muses at midnight, and at those suppers he acquired an interest in the things which were beautiful to the eye and comforting to the mind. He had no intention whatever, although the temptation was perhaps severe, of disturbing the calm enjoyment they had had that evening by talking about controversial topics. At a meeting such as that not long ago a friend of his was bold enough to make the suggestion that all the public buildings in London should be faced with glazed tiles. Another colleague of his was, he believed, foolhardy enough to give his opinion in favour of building a bridge over Piccadilly-circus, and two or three members of Parliament had found they had good taste for the first time in their lives and were bothering him about the proposed new St. Paul's Bridge. If he discussed those controversies at all he would do it in private, and not in public—that evening he would keep to the harmonies. The toast he was proposing was to be responded to by Mr. Gotch, one of those faithful and devoted servants of architecture who had looked into the past as well as contributed something to the present. He did not know whether Mr. Gotch had been so modest as some writers on architecture who refused to claim that architecture was the first of all the arts; but he (the speaker) did claim that position for architecture. They were told that architecture did not begin until a definite and conscious sense was superimposed upon utility. Utility had never in the whole history of humanity been dissociated from a desire to do something that was beautiful as well. The first architect, the forefather of that Club, was the simian gentleman who, paying attentions to a simian lady upon a somewhat warm day, broke off a bough which he selected not merely because it was convenient to protect her head from the searching rays of the sun but because he felt it was the best and most attractive bough on the tree. That was the beginning of architecture—spiritually and historically, that simian was the father of their Chairman; the forerunner of Mr. Gotch; the raw material from which the knights who built Wembley had been fashioned. Not only was architecture the first of all the arts, but it was the most omnipresent of all the arts. If he wanted to buy a good picture he found that a rich American was stepping in front of him, and he could not have it; or it might be that a wealthy person not American would buy it in front of him and transfer it to that harem which he called his private picture gallery. It was a most extraordinary thing that private enterprise in the collection of art seemed to have a predominating idea similar to that of the Mohammedan who discovered a beautiful lady and immediately appropriated her and locked her up. The other arts were purely individualistic. His heart was with the arts which were social. He was sorry to say that even in the choice of his house he had no free will. If he wanted to have a door which welcomed him every time he put his latch-key into it, he had not the liberty to select it. If he wanted a house which beckoned to him every time he turned the corner of the street in which it was situated, it was out of the question. Every decent God-fearing man declined to buy ready-made clothes—was it not, therefore, a much greater sin to live in a ready-made house? For, after all, a house was clothing. But if he could not take advantage of free will in the choice of his pictures, his door, or his house, there was one thing he could do—he could enjoy the streets of the town in which he lived. That was where architecture came in as a great social art. There were some things in London which he had passed for the past thirty years for which he had never a kind word, never a kind thought. And he di like that. That was why he hoped arch would form an association that would some revolutionary methods and give hi pleasure of finding one morning that buildings did not exist! There undoul the Government came in. They had a great responsibility. His great test of ernment responsibility in building was: I feel happy, can I get a cheery smile, feel a spiritual welcome every day I p building on my way to business?" would tell them a secret he (the spe hoped Mr. Baldwin would not object to. before he (the speaker) came into offi was consulted about a certain comm which was set up to look after monur and big buildings and that sort of thing he said, "For goodness sake appoint it I come in." He was perfectly certain Committee was composed of the most w gentlemen who could have been selected he was not at all sure but that he wou good service if he supplemented it wit other: whether he should not appoint a mittee of artists, architects, and men-perhaps women too—of good chaste eye could appreciate a beautiful thing when saw it. He would charge that committe with the power of creating something but from the annual estimates voted by liament he would give them a good sto dynamite and allow them to use their d tion in employing it to clear the way creations that would give people pleasure and would benefit the comm more than happened at the present time the great point was this: What coul Government do for architecture? He wa of those in favour of getting his letters his pencils sharpened, and his doors o by bureaucracy; that was the job of bu cracy. But when it came to matters of tecture and such things bureaucracy wa of place—it was too stiff, it became too s An artist who became a bureaucrat beca cog in a machine. Spontaneity, the heart to welcome anything new, was



Melrose Abbey: Choir from S.W. (*See p.* 867.

erefore he was opposed to bureaucracy. e Architecture Club was composed partly professional architects and partly of the rons of architecture—the lion and the mb—and that evening they were sitting wn in holy harmony together. He would ggest to the Club that it could do no better blic service than by helping him out of difficulty. "How can the Government p architecture; how can the Government p art?" His conclusion was that perhaps only possible way just now was for the vernment to be a patron of the arts, leaving architect free to do his untrammelled t, and even then there would be many a between the cup of idea and the lip of omplishment. But nevertheless, when they ked on those old buildings which delighted m so much it was perfectly clear that the blic had been an essential element in the elopment of art. He would like the public ron to do more than he had done. He uld like to be assured that not a public ilding, however small, would be put up in country without it would be possible for n and women of good taste to take angers to look at it without being ashamed it. He did not want public buildings to more extensive; he did not want them to great, huge, vulgar things; he did not nt them to impress by immensity alone, he nted them to impress by their chastity, by ir spiritual correctness. If architects bore t in mind they might design plain walls or orated walls; the effect would be the same, the citizens would be proud of the spirit their country as embodied in the buildings the country. He asked them to drink to Architecture," the oldest of the arts, the st omnipresent of the arts, the art which its completeness, its wholeness, most com-hended the human spirit because it pro-led the place in which the human spirit uld dwell. And in giving the toast there s no name he could more appropriately sociate with it than the name of Mr. Gotch. one had given more opportunities to the ng architect to get a grip of tradition, and thout tradition architecture was dead.

In responding, Mr. Gotch said he was te sure they would all agree that the Prime nister had a great grasp of architecture, that he had treated the subject in a very cerning manner. They would all agree h the view of their art taken by the Prime nister. In the matter of the connection be-en architecture and the press, he would ad for a dignified treatment of the subject, e from the chatty interview and from any-ng likely to lead to the advertisement either the architect or of the materials he used. treating of architecture it seemed to him principal matter was the building itself, not the personality of the architect, or opinions, or of the materials employed the ing of which might be the purpose of the erview. He would not presume to suggest best means of gaining the ear of the blic, but one of the ways in which it might done was by bringing home to the public human aspect of architecture. And by human aspect he did not mean the ap-rance of the architect as distinguished n his architecture, but rather the forms ch architecture had taken in the past, and took, to comply with human needs and res, or the forms to which it had been ught by the force of strong emotion or found thought. Of the two great styles of itecture familiar to them in the West, hic appealed to the emotions and Classic the intellect. The worshippers in Gothic edrals were not drawn to them by pure on, or by a desire to have their intellec-doubts resolved, but by worship to be paid some great uncomprehended power, by to be expressed, by grief to be assuaged, guilt to be confessed and pardoned upon ns. And so these buildings produced in kind, according to his mood, now un-akable awe, now exultation of spirit, e of mind, or suggestions of mystery ond human knowledge. They followed no t rules of proportion; here they were



St. Rule's Church, St. Andrews.

narrow and lofty, there they were low and broad; here they soared to heights incalculable, there they stretched out into infinite perspective. But emotions could become exhausted. Europe, wanting a fresh stimulus, proved restless, and then came that great awakening which was termed the Renaissance. Knowledge now strove within the people; the mind furnished the heart; the mind kept the emotions in check. No longer was architecture to be subjected to a kind of inspired fancy. Under the guidance of devotees filled with a knowledge of ancient Classic architecture, she submitted herself to strict rules of proportion, to the symmetrical arrangement of her features, to a carefully calculated striving after lofty ideals. Her appeal was indeed to the intellect rather than to the emotions, which found their outlet in more mundane channels. From that very fleeting glimpse of architecture in one of its human aspects, he might pass to a brief glance at one of the directions in which it had complied with human needs. Probably they all knew of some tower built upon a crag or poised upon a ridge. But the romance or desolation of such buildings formed no part of the original conceptions; those buildings, which were the homes of our ancestors, were placed in their positions for the purpose of security, and the same purpose controlled their appearance, which was very little more than a mass of masonry. Their chief concern was to get a home which would offer resistance against determined attack, and for centuries that need dominated the architecture of the house. But as law and order grew the need for protection grew less, until it almost vanished in the time of Elizabeth. So the mansions of Elizabeth's time were full of windows, and they stretched themselves abroad. They cast away defence as of primary importance, and, in the words of Sir Thomas More, their size and arrangement were directed to increased refinement. Sometimes the houses of the time were a tribute to the Queen herself and to the desire to house her adequately on her numerous progresses. Then these mansions of Elizabeth's time fled from their visions; their great gables, their long parapets, their huge chimneys, and their mullioned windows disappeared into thin air, and the picture emerged of a great house with two outlying wings. Its columned portico, its sash windows, its colonnades, produced a vista which struck the beholder with wonder and admiration—and well it might, for that was one of the mansions of Queen Anne's nobles, "for whom the world was made and the fulness thereof." Again, at a respectful distance, set within a rural garden or placed hard on some street as it left a country town, was a red brick house, modest yet substantial. This was a development of architecture consequent upon the definite emergence of the middle classes, an emergence marked by an increase in the number of merchants and maiden ladies of independent means, who all housed themselves in such ways. A whole gallery of similar pictures might be drawn, some with fuller colour, some subtler in detail, but all showing how architecture had always reflected social changes, and how behind its grave and impassive front there was an abiding and vivid human interest.

After the Chairman had said a few words, the toast of "The Club" was proposed by Mr. George Whale and responded to by Mr. R. M. Barrington-Ward.

MELROSE ABBEY

Mr. A. Ling lectured recently on this subject before the Partick Camera Club. In the course of his remarks he said Old Melrose was founded early in the seventh century, during the reign of Oswald, the Anglo-Saxon King of Northumbria, and Aidan was its first bishop. About the year 651, the brethren of old Melrose were joined by Cuthbert. In the year 839 Old Melrose was burned by Kenneth II, King of the Scots, upon his invasion into Saxon territory, and they read that in the year 1050 Old Melrose was a ruin. From about this time it was referred to as only a chapel dedicated to St. Cuthbert.

Of the 1136 structure nothing was said to remain, Edward II having wholly destroyed it during his various inroads to Scotland, and for this and other barbarous acts he was severely punished by King Robert the Bruce at Bannockburn in 1314. Bruce, before he died in 1329, granted a sum equivalent nowadays from £30,000 to £50,000 towards the rebuilding of the Abbey, and the structure they saw to-day was believed to be representative of the Abbey thus built. It was built in beautiful Decorated and Perpendicular Gothic styles; the tracery of many of the windows still formed glorious examples of these periods of architecture.

In the year 1385 King Richard II and some of his generals slept one night in the Abbey and then set it in flames. There were depredations by Eure and Latoun in 1544–5 and they also slept a night in the Abbey and set fire to it. The Abbey never recovered from this last blow. In 1618 a portion was roofed over and some plain rubble arches were erected up against the beautiful Gothic arches of the north aisle to support the new roof, and those unfortunate arches, while no doubt serving their purpose of keeping three bays of the nave intact, had obscured some of the charming carvings and mouldings of the capitals of the arches against which they were built. Melrose Abbey contained many of the finest examples of mediæval sculpture, but the iconoclast, with few exceptions, cast those down, as they were assumed to pertain towards imagery. Some fragments, however, still remained and there were one or two fairly complete examples. For instance, in niches in two of the several pinnacles of the nave they saw a representation of the Virgin and Child and St. Andrew with his cross, and within the west wall of the North Transept were St. Peter and St. Paul, and at the apex of the eastern gable were King David and his wife. Those, however, were all that remained of fully 70 statues. The Abbey contained a wealth of excellent architectural detail and formed a fine example for the student of architecture. To the lay visitor the carvings were really arresting and were much admired by Sir Walter Scott. He wrote regarding the cloisters: "Nor herb nor floweret glistened there but was carved in the cloister arches so fair." There were, of course, other famous carvings such as the "curly green" or "Scotch kail" capital, and the beautiful carved hand clasping the twig of vine, to mention only a few of them.

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ILLUSTRATIONS

Hudson's Bay Company's New Offices.

This illustration, from the exhibit in this year's R.A. Exhibition, shows the central feature to the Hudson's Bay Company's proposed new premises, Nos. 52–68, Bishopsgate, E.C., incorporating an entrance to a private road to St. Helen's-place.

The Trust Royal Charter having been granted to the Company by King Charles II, in 1670, it was decided to adopt a treatment reminiscent of the architecture of that period. The building will be erected in steel framing encased in Portland stone, and surmounted by a high roof covered with Westmorland slates. The elevation shows an order of Doric pilasters and columns, with an enriched entablature, rising from the ground floor to the level of the second floor, on which will be situated the offices of the Hudson's Bay Company. The upper floors will be occupied by tenants. The building will be crowned by a richly-carved cornice and balustrade of the period. A feature is made of the entrance to St. Helen's-place, which will be closed at night by ornamental iron gates bearing the arms of the Leathersellers' Company, who are the freeholders of the property.

Messrs. Mewès & Davis, FF.R.I.B.A., are the architects; and Sir Charles Allom the consultant.

Sloane Telephone Exchange.

This building is an automatic exchange, being erected at the corner of Sedding-street and Sloane-terrace, adjoining the church erected from Mr. Sedding's designs. Our illustration is from the exhibit at the Royal Academy Exhibition.

All the stonework is in Portland, and the brickwork is to be finished with facing bricks supplied by Messrs. Thomas Lawrence & Sons, of Bracknell, Berkshire. The balcony over the entrance is to be in cast-iron with the Royal Coat of Arms as a central feature. The contractors are Messrs. Higgs & Hill, and the steelwork is being done by Messrs. Dorman Long & Co. The architect for the work is Mr. John H. Markham, F.R.I.B.A.

Modern Architecture Exhibition.

A review of the Exhibition of Modern Architecture at the Palace of Arts, British Empire Exhibition, is given on p. 863; and in this issue we give a selection from the exhibits.

Domestic Chapel, St. Wilfrid's Church, Preston.

The interest in this chapel, which was designed by Messrs. Romaine-Walker & Jenkins, architects, depends not only on the carefully executed detail, but to a great extent on the colour scheme. The whole of the panelling is in Italian walnut, the upper carved panels of which are pierced, revealing a background of rich deep blue. The ceiling is treated in the Raphaelesque manner, the richly coloured ornament being hand-painted on a soft yellow ground. The altar is in statuary marble, with panels of convent sienna, bordered with gilt mouldings. The apse is lined with pale sienna, with columns in breccia. The semi-dome over the apse is executed in gilt mosaic interspersed with tesseræ of blue, green and red, the same colours being introduced into the pattern forming the archivolt.

The contractors for the structural alterations were Messrs. R. Park & Sons, of Preston; panelling by Messrs. H. & A. de Wispelaere, of Bruges; marble work by Messrs. H. T. Jenkins & Son, of Torquay; painted ceilings by Mr. F. G. Christmas, of West Brompton; mosaic work by Signor Gaetano Meo; heating by Messrs. John Metcalf, Ltd., of Preston; and electric light fittings by Messrs. C. B. Davis, Cash & Co.

EXHIBITION OF ARCHITECTURE AT WEMBLEY

THE Exhibition of Modern Architecture at the British Empire Exhibition was opened on Monday, and remains open until July 5.

In opening the exhibition the EARL CRAWFORD said it was good that the art the architect should occupy so prominent place in the palace devoted to the arts generally, a position that all artists would read give to the mother of the arts—architecture. There were some 450 examples of the work of no fewer than 300 architects from the United Kingdom, Canada, India, and South Africa. All styles, all ambitions, and objectives were included, and they all showed that as time went on those who occupied commercial or business premises were coming to realise that for distinction, and perhaps also success, the more they enlisted the services of a well-qualified artist the more likely they were to do credit to themselves and to the community in which they lived. He hoped the exhibition would make a successful popular appeal, for it represented the effort, progress, and, he believed, the stability of the art of architecture. There was plenty of scholarship and plenty of originality, too. Personally, he did not look upon originality in architecture as an end or objective in itself. Those who tried to achieve originality merely because they despised the past rarely produced anything worthy of the present. The exhibition showed a considerable amount of achievement which drew its inspiration from overseas. In spite of that, there would be found respect for old traditions as well. On all it was really a British national exhibition. It was essentially British, showing the strength of the British ideal tempered by the wisdom of the past, and drawing a lesson from all that was most fruitful in our own day. That was something they wanted to foster and stimulate architecture. He also referred to the fact that there was a general absence of plans, and that the exhibition, perhaps rightly, relied on photographs for its popular appeal.

In moving a vote of thanks to the Earl of Crawford, MR. J. A. GOTCH, P.R.I.B.A., pointed out that from the point of view of the architect plans were necessary to a proper reading of the building.

The vote of thanks was seconded by SIR LAWRENCE WEAVER, and carried with acclamation.



From the Exhibition of Modern Architecture.

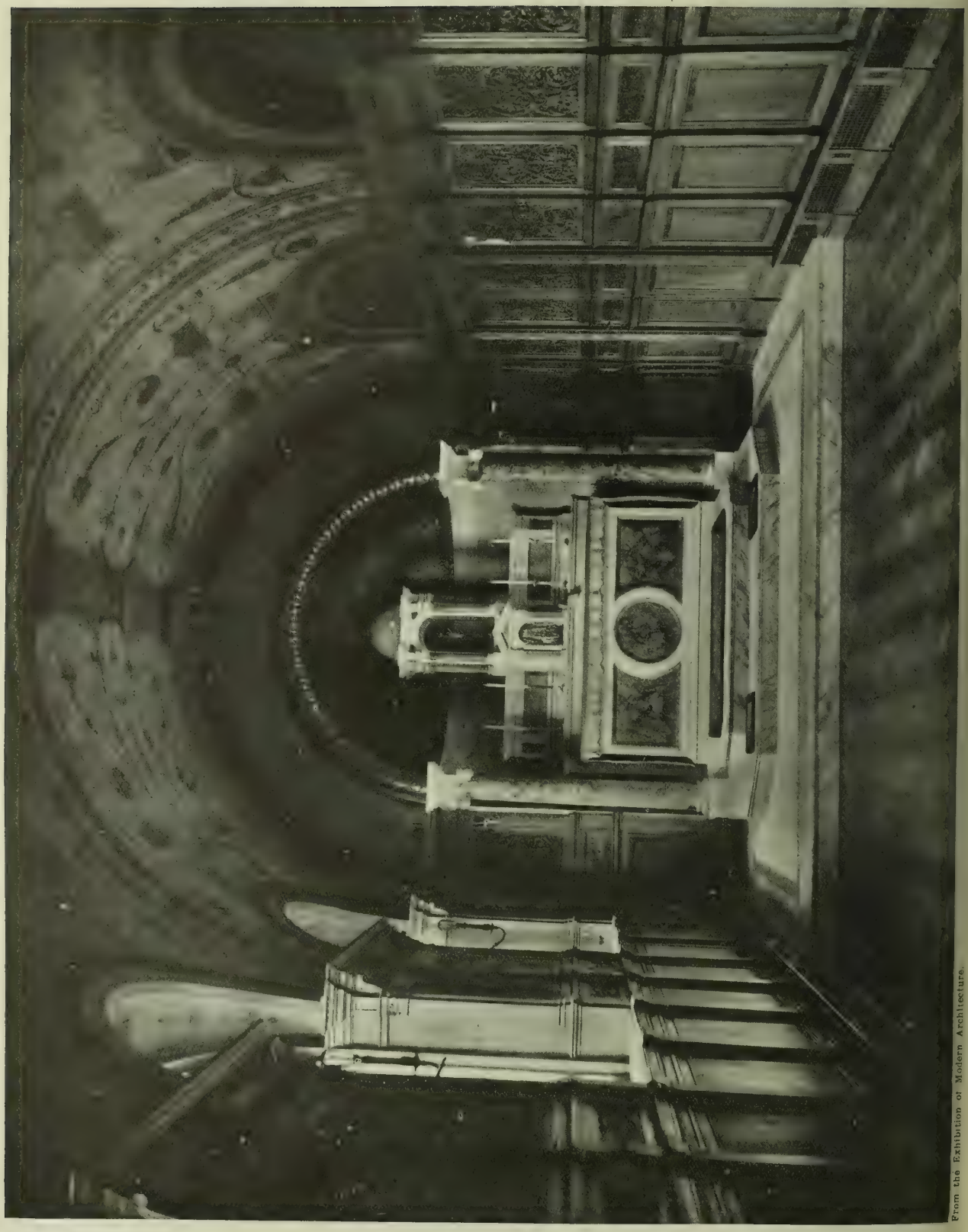
Flint House, Goring. MESSRS. ERNEST NEWTON, R.A., & SONS, Architects.



rom the Exhibition of Modern Architecture.

The Armenian Church of St. Sarkis, Kensington.

MESSRS. MEWÈS & DAVIS, FF.R.I.B.A., Architects.



From the Exhibition of Modern Architecture.

Domestic Chapel St Wilfrid's, Preston. Messrs Pearson, Wo



From the Exhibition of Modern Architecture.

St. Philip's Baptistery, Plaistow, E.

MESSRS. NICHOLAS & DIXON SPAIN, FF.R.I.B.A., Architects.



R.A. EXHIBITION.

NEW OFFICES FOR THE HUDSON'S BAY CO

MESSRS. MEWES



TAIL OF ENTRANCE TO ST. HELEN'S PLACE.
OM, ARCHITECTS.



Detail of Entrance to Sloane Telephone Exchange

JOHN. H. MARKHAM. F.R.I.B.A. Architect.

Scale of feet.

R.A. EXHIBITION.

SLOANE TELEPHONE EXCH



AM., R.I.B.A., Architect.

House at Winchfield, Hampshire. Messrs. Ernest Newton, R.A., & Sons, Architects.

From the Exhibition of Modern Architecture.



North Elevation of New Farm Buildings.



From the Exhibition of Modern Architecture.

South-East View of New Gardeners' Cottages.

New Buildings at Barrington Court, Somerset.

Messrs. Forbes & Tate, FF.R.I.B.A., Architects.



om the Exhibition of Modern Architecture.

Barrington Court, Somerset: Strode Water Court.

MESSRS. FORBES & TATE, FF.R.I.B.A., Architects.

UNITY AND REGISTRATION

Mr. Horace R. Appelbee writes :—

SIR,—Part of your footnote to Mr. Frank Heaven's letter surprises me. You say of the "unattached architects,"

> "They have much to gain and nothing to lose by Registration . . . but, as we understand the position, there is no question of admitting them to the R.I.B.A., and no need to do so."

As one of the "unattached," I should like to know, not merely "the much," but any little thing that I can possibly gain—the loss I see clearly enough. Membership of the Institute (as a Body for the Study and Advancement of Architecture) is of the greatest value. The use of the Library and other facilities at Conduit-street, the meetings to hear the views of the masters of their work, the exchange of views among those who have been in the profession some time, the help and encouragement of the student, are all most desirable features. Registration without these, but with the implication that the qualification for Registration is insufficient for membership, is not merely useless but damning to the "outsider," unless he has already done work of importance. Something of the same sort happened when the Lic. class was created, but then many joined it under the mistaken impression that if they did not, then, in some wonderful way, they would be prevented from earning a living as architects. One of my friends who joined under this misapprehension was so ashamed of the "distinction" that it was ten years before I discovered his name on the roll, he was most careful never to mention it to anyone.

The attitude of the Institute on this Registration question has always been incomprehensible to me. It seems to be based on attempts to compromise between conflicting and established interests and jealousies, instead of being based on elementary principles, and it can do no good until that fact is realised.

The fundamental principle of useful Registration is that *all* (without exception) properly trained and qualified men are on the Roll, and that the Roll does not include any unqualified.

In order to focus the matter, let me take three names (with apologies to their owners) :—

> (1) *Ralph Knott.*—In 1908 he won the competition for the new County Hall. Five years later, when the work had started, he was not on the Institute Roll, either as F., Assoc., Lic., or Stdt. He was, of course, one of the younger men.
>
> (2) *C. F. A. Voysey.*—His name does not appear. For many years he has been a well-known designer of buildings of simple character, and also of furniture and fabrics.
>
> (3) *Baillie Scott.*—Who does not know the character of the work he has done ? His name is absent from the Roll.

Please let us have a plain answer to a plain question. Are these men architects or are they not ? Are their works sufficient to justify the title, or must Mr. Voysey (for example) prove his ability by calculating the weight per foot run or the least radius of gyration of an R.S.J., of which the scantlings are given, before he is accepted ?

What is wrong at the Institute that it shuts its doors to such men as these and opens them to District Surveyors, who may not practise as architects, or to expert witnesses in light and air cases, or to young men who draw symmetrical elevations to unsymmetrical plans, who balance the R.W.P.s and give them beautiful heads and at the same time put the w.c. over the front door and forget the S.P. and its head ?

As the Institute wants to force something on "outsiders," perhaps an "outsider" may retort that it should first put its own house in order and clear up some of the muddle that has accumulated during recent years. Fifty years ago it was a Learned Society for the Study and Advancement of Architecture and (I think) admitted laymen ; anyway for twenty-five years its President was Earl de Grey, who, I suppose, was not a practising architect. It has now shut its door to the layman and it has done more—it has shut it to many architects. At the same time, it pretends that all architects should be bonded together. What better way is there than by Membership ? Is it to register them and tell them that they are not good enough for admission ? I for one doubt it.

Registration and Membership of the Institute ought to be synonymous terms, and to combine this with the facilities for which the Institute was founded nearly 100 years ago seems to me an ideal programme. In addition, there would be, as now, the "Student" section leading up to and terminating with the passing of the "Final," but that is an insufficient test of a "fully qualified Architect" fit to be registered. He needs more of the practical business side. Experience as clerk of works is most useful ; broader views gained by travel abroad are desirable ; a post as chief assistant is not to be despised. The first job on his own account will test him as the "final" never did. So that there would also be an intermediate stage. With these three stages the whole profession from the probationer to the President would be organised and the applicants would be "admitted" on production of suitable proof of qualification at each stage.

The whole constitution of the Institute at the present time rests on something very different. The four corner-stones of its foundation are "Election," "Rejection," "Expulsion," "Resignation." A Norman Shaw in the very zenith of his career cannot demand admission. A Soane Medallist and Ashpitel Prizeman may be blackballed on personal grounds. He does not get in *because* he passed the final and was the best of the bunch. He may be expelled if he takes part in a competition of which the Institute does not approve, or other points which have nothing to do with his professional ability, but which are of trade union character. Other rules absolutely exclude properly capable men from seeking admission because they are not "eligible."

The difficulties of Registration by Act of Parliament, of Membership of the Institute, and even of the definition of Architect are well illustrated by the letter (same issue, page 841) from Mr. Stark Wilkinson relative to the Albert Hall, among them :—

(1) Is the Albert Hall architecture ?

(2) If so, was the designer an architect ?

(3) Who was the designer ?

(4) Would he be eligible for registration as architect ?

(5) Would he be further eligible for membership of the R.I.B.A. as at present constituted ?

(6) Would he be allowed to carry out other similar work if the Bill recently proposed by the Institute and outlined in your columns had become law ?

(Perhaps some of those who have recently been through the Final would like to attempt this very simple little paper, and send you their views.)

It appears to me that the Albert Hall is as much architecture as many buildings in Regent-street or Kingsway, and that if the Institute refuses the use of the description "architect" for the designer, it merely limits the use of a well-known word with no advantage, and it could not stop such work from being carried out from the plans and under the supervision of those who were not registered architects.

The designer was a Royal Engineer, either Fowke or Scott, members of the staff of a Government Department, ably assisted by the architect Verity, who probably modified Townroe's sketch elevation to what we at present see, and the building benefited. This apparently would not have been possible under the last Bill (happily defunct) drafted by the Institute, because the Registered assistant would not have been allowed to work for the unregistered chief. Mr. Wilkinson's letter full of interesting points on the registrat question. A Government Department dealing with the surplus produced by 1851 Exhibition, and acquired Gore House esta Captain Fowke made the first sketch for Albert Hall, and this was submitted with prospectus to induce subscriptions. Gene Scott came in after the death of Fowke, a according to Mr. Wilkinson he submitted pl which were approved by the seat freehold and Sir Henry Cole, head of the Departme and it was after this that the private of competition held between "Redgra Verity and Townroe" for "the treatment the bays" took place. Townroe's sket although selected, was not carried out with considerable modification. The great porch materially part of the design as we see it, w apparently suggested by the non-archit secretary. Then, again, the roof outline. it arise in its present form while Townro elevation was being modified ; that is, did engineer responsible for its construction w to a skyline supplied to him by the archite or did it arise as an improvement suggested the engineer ?

All this suggests that it is very difficult say who was the architect, but there is one t —it is the man who receives the instructio (and also the fees) from the client, and w certifies the amount due to the contracto the others are his assistants, although possib they are better qualified men and the finish product owes much to their work.

But to return, who is it that wants t Parliamentary registration ? There are abo 5,000 members of the Institute and Socie taken together. They are already registere and attach an affix to their names to show Why do they want more ? Is it for themselves Is it that they recognise that the registrati they have already is of very little use ? If is valuable I fail to see why they want mo Do they need protection from the incompete outsider ? Do they feel that the public cann see the difference between the rank and file the members and the incompetent and poor equipped outsider ? Is it the poor outsid asking for protection ? Is he constant hammering at the doors of the Institute an Society, begging for admission ? It would natural to let him in if he is any goo (professionally), and if no good why regist him ?

Is the public being so gulled by the outsid that it is begging for protection ? I have nev heard of it, but if they do feel that way the are the 5,000 already labelled whose services ar I imagine, at their disposal.

Personally, I should like to see all trained an qualified architects members of the Institute a right, as a recognition of their ability, an associated with them those in training and th intermediate class as I have described it. Th affix would then mean something definite an the public would soon recognise its value. Pa liamentary powers would not be necessary. Th result would be a great Institute; the keynote recognition of ability. There would be room i it for a genius who has not passed the exam as well as a District Surveyor who knows all abou the Building Act but who must not practise a an architect. There would be opportunity fo the study and advancement of architecture, an the exchange of views between the Surveyo and the Architect on the subject of thirty-sto buildings on the Devonshire House site shou be instructive and possibly lead to the improv ment of the Building Act.

The petty trade union policy now bein pursued by certain sections could be ignored it is unworthy of a great Institute. It shou not be necessary to explain to a member th he should not advertise like an auctioneer, b that it is permissible to announce in the *Morni Telegraph* that the wife of the eminent architc So-and-So, who built the —— has just pr sented him with twins. There will at times regrettable incidents, of course, as in the case the president who was in such a hurry to ha his official portrait painted that he forgot

his coat on! Perhaps he thought the native was academic dress!

ave tried to put my criticism as lightly as n. The many questions are intended to st a line of thought rather than expect an er; the constructive suggestion is but an ne. Once the principle is admitted the follows. The allied societies might be hes of the Institute (within the Empire, elf-governing dominions). Above all, the er of qualified men would not be rically stronger than membership of the tute.

* Mr. Appelbee deals with a number of sting points. He appears to doubt the of Registration. He may be right, but ather late in the day to start afresh on that ion. The profession as a whole made up ind on the subject years ago. The pro- n is now busy with practical proposals for ng it. If Mr. Appelbee would like to know about the case for Registration, he might it interesting to read Major Barnes' ss on the subject, which he will find in R.I.B.A. *Journal* for July 15, 1922. The rience of the United States and the inions, which have had practical evidence he working of Registration, confirms the ion of those in this country who believe it would be of definite practical value to qualified architect.

. Appelbee's principal quarrel appears to be the R.I.B.A. If it were worth his while to the long history of this question in more l he would realise that the problem is not mple as it may appear at first sight. He unces the Council's proposals as a com- ise. That is precisely one of their main ies. There are extreme views on both sides he question and the Council have tried to the middle course.

it generous to attack the R.I.B.A. for not ing a permanently open door, or to quote names of distinguished architects who are members, as though the R.I.B.A. were guilty arrow views in keeping them out? Without into personalities, it is well known to those are interested in the matter that the B.A. urged these distinguished men to join the very terms that Mr. Appelbee suggests. preferred, as they were quite entitled to do, emain outside. How is the R.I.B.A. to ie for the fact?

r. Appelbee says: "The fundamental ciple of useful Registration is that *all* (with- exception) properly trained and qualified are on the Roll and that the Roll does not de any unqualified." Precisely. That, e understand it, is the very object of the B.A. Bill. No Register will ever be oved by Parliament which does not include ualified architects, whether they are mem- of the R.I.B.A. or of any other Society or

But it does not follow that all on the ster should necessarily be members of the B.A. All solicitors are on the Roll main- d by the Law Society, but all those on the are not members of the Law Society. e people will always be content with their ion on the Register; others will desire the ier advantages of membership of the B.A. and allied societies.

e believe that what the profession wants is to make an end of these interminable tments, with which we have been familiar 0 years, and go right ahead with a practical y on which the great majority of the profes- are at one and from which it is possible to for really useful results within a reasonable d.

general discussion of Mr. Appelbee's points d be interesting and stimulating to those have time to spare for it. It would lead to ly interchange of opposing views on a large er of topics, and it would end with our to bed with nothing done. Destructive ism has been the bane of the profession for years past. There is always an ample y of it and it leads nowhere. We have a e now of getting something of practical done for the benefit of the practising tect. Let us get on with it.—ED.]

BOOK REVIEWS

Modern English Architecture. By CHARLES MARRIOTT. (London: Chapman & Hall.) 21s. net.

A BOOK upon architecture written by Mr. Marriott is an event of some importance to the general public and to architects, and let it be said at once that a layman has written a book which will remain as a serious contribution to the literature of architecture. If we find it difficult to classify, it is because books of this nature are rare. Mr. Marriott possesses a profound knowledge and understanding both of the spirit and letter of architectural style, and submits some excellent criticism to justify the contributions he brings to modern thought on English architecture. The sub-division of modern architecture under the chapter headings, Ecclesiastical, Civic, Commercial, Industrial, Domestic, Housing Schemes, Monuments and Memorials, is an arrangement in the book which works out well. The illustrations, which seem to have no particular reference to the letterpress, are, on the whole, well chosen, and it is doubtful if any impartial architect would quarrel with more than one or two of them. We believe that, in his choice of examples, he has unerringly put his finger on one or two buildings which have affected the whole course of modern architecture.

Mr. Marriott, as we would expect, gives us some fine analogies between literature and architecture, although, as he says, there is nothing in literature which compares with the stubborn facts of building. He compares our mixed language with our mixed architecture, and in the choice of words he tells us that most of us, in fact, are Latin for evasion and concealment, and plain spoken about our everyday affairs. "Our houses, which need no evasion, are in the vernacular, but on our public buildings, which represent questionable institutions, and particularly on our big shops, 'Orders are worn.'"

In his opening chapter: What is Architecture? the author defines his architectural doctrine, which, in short, is this: that he makes no distinction between architecture and building, that the simplest building is capable of architectural treatment, and that, though its relative importance may vary with the kind of building and its purpose, the æsthetic problem is present in every building. Few architects will be found to quarrel with these articles of faith. Throughout the book the author is more than fair to the architect: he is generous. He sees the architect struggling against a social state, undecided on many vital things, yet manifesting itself in certain directions which the author contends are opposed to the principles of fine architecture.

Mr. Marriott's criticism of Ecclesiastical and Commercial architecture and War Memorials, and indeed every form of architecture, is based upon his belief that architecture is to a large extent the expression of the ideas and social needs of the age. While theological discussion goes on, the architect is sitting on the fence; we have no single and generally accepted meaning of the war which is capable of monumental expression in sculpture; and in commercial buildings the architect has to take part in a gigantic game of bluff. On all these points Mr. Marriott argues in a skilful and stimulating manner. He is particularly severe upon the modern shopkeeper, and considers that he has acquired an importance in the modern social scheme out of all proportion to his utility. "Commerce to a much greater extent than formerly depends upon advertisement, instead of upon the quality of the goods." There is much to be said for this point of view, though we fail to see how architects can gradate architecture to a set of commercial morals. If we accept the idea that commerce, so long as it is frankly expressed, is capable of satisfactory architectural results, the fact remains that the architecture would always be out of harmony with commercial morals. "Until we ourselves have decided to reform our institutions," he says, "he (the architect), like the diplomatist, can hardly be blamed for speaking about them in guarded language." It is reasonable to suppose that architecture should be sensitive to changes in the social life of the country, and Mr. Marriott deserves credit for raising a fundamental issue which brings architecture as a living art into touch with life. He does not infer that good architecture will result from a close adherence to the social wants of the people; on the contrary, it is his excuse for the mediocre results. Architecture may be this, that, and the next thing; it may be a structural evolution, or its forms and proportions may imitate those of antiquity without any particular regard to the means by which they were produced. We may, if we choose, consider architecture as an effect of which building is the cause, but there are utilitarian and material purposes which are the causes of which building is an effect. We all have arguments to justify our leanings, and we prefer Mr. Marriott's philosophy—although it is not particularly comforting—because it seems to us it does not require academic proof, and places a direct responsibility upon the people.

The decline of craftsmanship, the rise of the professional artist, the use of machinery, and the detachment of the painter and sculptor, are subjects which the author treats in a very entertaining and suggestive manner. He strikes a new note when he discusses Gothic craftsmen and craftsmanship, and though we have become accustomed to the popular conception of the conscientious and inspired mediæval craftsman, we believe that Mr. Marriott's interpretation of history is just as likely to be correct. The obscurity which surrounds the social conditions of the workers of the Middle Ages has been responsible for many economic and industrial theories to try to recapture the joys of Merrie England. This book will help us to see the problem whole.

The author, in discussing whether form and proportion in the abstract, or form and proportion as proceeding from construction and materials, is the true element in architecture, seems to think it better to accept them both as the effects of different artistic impulses. We have the feeling that we are not yet far enough away from the symbolic and ethical architectural standards formulated by Ruskin, when statements of constructive fact were exposed, and understood in terms of natural materials only. Consequently, in a transitional period of thought, an artistic impulse may be based upon principles or even prejudices. If there is anything in our contention, it may have some bearing on Mr. Marriott's comments upon the treatment of modern forms of construction. The so-called "practical man," he says, derives his false ideas of architecture from the separation of use and beauty. He prefers architectural trimmings to structural beauty: he begins at the ornamental end instead of the constructional end. There is a hint in the book that the history of the Renaissance has some share in the responsibility.

Altogether this is an important book, which can be read with enjoyment by the layman and the architect. We have to resist the temptation to quote many provocative but thoughtful sentences which will be numbered amongst the elegant extracts of the architectural literature of the future. We consider that Mr. Marriott has succeeded in submitting a consistent theory of the art of building, and a rational and interesting summary of the modern position.

Books Received.

ESTIMATING BUILDING COSTS AND APPRAISING BUILDINGS. By Frank E. Barnes. (London: McGraw-Hill Publishing Co., Ltd.) Price 25s.

THE PLEASURES OF ARCHITECTURE. By C. and A. Williams-Ellis. (London: Jonathan Cape, Ltd.) Price 10s. 6d. net.

MERCANTILE PRACTICE. By George Johnson. (London: Effingham Wilson.) Price 10s. net.

THE LAW RELATING TO BUILDING

By W. T. CRESWELL, Lic.R.I.B.A., F.R.San.Inst. (*Barrister-at-Law*).

VIII.—OWNERSHIP AND COPYRIGHT OF PLANS.

Previous articles in this series have discussed the architect and surveyor as an agent, the scope of his authority, his rights and liabilities, remuneration, and his position in granting certificates. In the article dealing with remuneration it was stated that "plans, when paid for, become the property of the employer, and consequently he can make any use of them when he pleases."

The question has arisen as to how far the truth of this is affected by the law of copyright; or if the purchase of an architect's plans includes the purchase of the copyright. The Courts have repeatedly established the rule that, in the absence of any agreement to the contrary, plans become the absolute property of the client for whom they have been made when he has paid for them.

In Moffat *v.* Scott (1863), 8 L.C.J. 310, the Court denied the existence of any general usage that plans remained the property of the architect and not the property of the employer.

In Ebdy *v.* McGowan (1870), "Hudson on Building Contracts," vol. ii, 9, the plaintiff, an architect, declined to give up plans, sued for payment, and pleaded that there was a custom among architects to retain plans if the buildings therein designed were not carried into execution. It was held that such a custom, even if proved, would be unreasonable, and that the defendant need not pay for the plans unless they were delivered to his ownership.

In Gibbon *v.* Pease (1905), 1 K.B. 810, the building owner, on the completion of the work, demanded the plans; the architect refused to hand them over. It was held that a custom pleaded by the defendant, as entitling him to property in the plans after completion of the work, was unreasonable and afforded no answer to the action.

Conversely, if an employer has made any use of a part, or the whole, of plans drawn by an architect, he must pay for the plans, unless he can prove some express condition excluding such liability. Ownership of plans gives the employer the right to build therefrom, but not the right to make copies, tracings, or other duplications, except for his own use, or for private study; unless the architect has sold to him the copyright, or unless the architect is at the time under a contract of service to such employer. What actually becomes the property of the client or employer is, wholly and simply, the sheets of paper and the delineation of plans and designs thereon; unless any agreement modifies this.

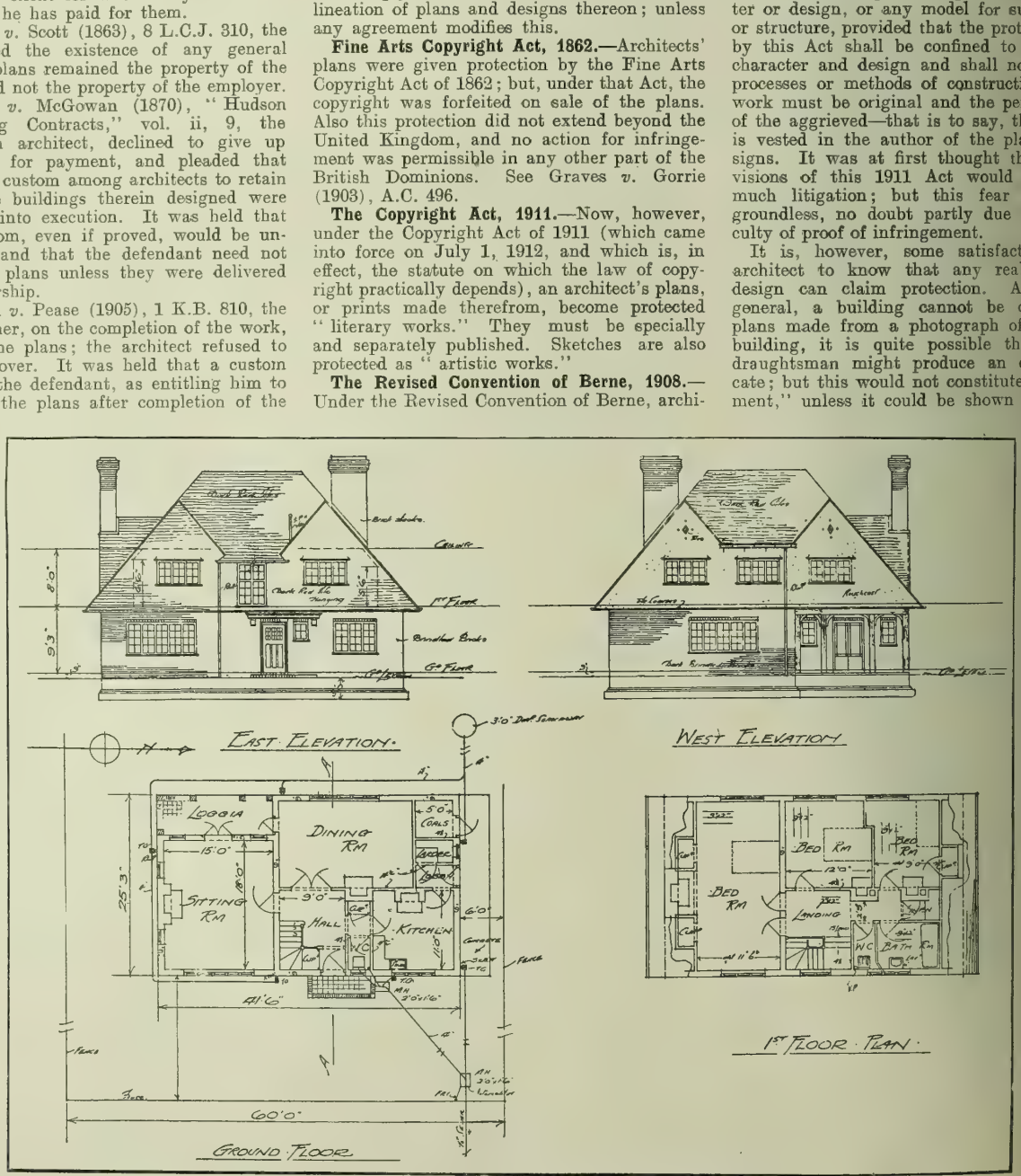
Fine Arts Copyright Act, 1862.—Architects' plans were given protection by the Fine Arts Copyright Act of 1862; but, under that Act, the copyright was forfeited on sale of the plans. Also this protection did not extend beyond the United Kingdom, and no action for infringement was permissible in any other part of the British Dominions. See Graves *v.* Gorrie (1903), A.C. 496.

The Copyright Act, 1911.—Now, however, under the Copyright Act of 1911 (which came into force on July 1, 1912, and which is, in effect, the statute on which the law of copyright practically depends), an architect's plans, or prints made therefrom, become protected "literary works." They must be specially and separately published. Sketches are also protected as "artistic works."

The Revised Convention of Berne, 1908.—Under the Revised Convention of Berne, architects' plans and drawings are inclu amongst the subjects to which all countr parties to the convention, are bound to gr protection. "Publication," as infringem consists in exposing copies of the works sale (one copy so exposed establishes infringement) to the public, or offering s copies gratuitously; also the issue of ph graphs and engravings of such works con tutes "publication"; if architectural dr ings or plans are so "published," an infrin ment exists. Yet, the construction of a bu ing from an architectural design or plan not "publication," neither is the publish of paintings, drawings, engravings, or ph graphs, if taken from the erected buildi within the legal definition.

The onus of proof of infringement lies w the architect. He must first show that work is original and then that it has b definitely copied of intent. The Act of 1 defines an architect's "artistic works" "any building or structure having an arti character or design, in respect of such char ter or design, or any model for such build or structure, provided that the protection gi by this Act shall be confined to the arti character and design and shall not extend processes or methods of construction." S work must be original and the personal eff of the aggrieved—that is to say, the copyri is vested in the author of the plans and signs. It was at first thought that the p visions of this 1911 Act would draw fo much litigation; but this fear has pro groundless, no doubt partly due to the di culty of proof of infringement.

It is, however, some satisfaction for architect to know that any really origin design can claim protection. Although, general, a building cannot be copied fr plans made from a photograph of an erec building, it is quite possible that a cle draughtsman might produce an exact du cate; but this would not constitute "infrin ment," unless it could be shown he had



House at St. Albans. Mr. J. Curtice Ellis, Architect.

[This small detached house is now being built at St. Albans, Herts. Buckinghamshire multi-coloured bricks are used; the roof and front gables are laid with sand-faced tiles; the metal casement and lead lights are supplied by the Crittall Manufacturing Co., Ltd. The ground floors are laid with "Acme" patent wood block flooring; general contractors, Messrs. A. E. Simms, Ltd., of St. Albans. The cost of building, exclusive of fencing and land, is £1,3 Mr. J. Curtice Ellis, of 23, Bucklersbury, E.C is the architect.]

ess to the plans, or had been furnished th measurements taken *in situ*.

If an architect has reserved the copyright in drawings, he retains the exclusive right to nstruct further buildings from those draw-gs. Further, if he has actually parted with e copyright, and his client does not claim ssession of them, he can use them in the rvice of another client, if he varies the main atures of the design, unless he has expressly impliedly agreed not to do so. If the first ent objected when the second structure had arted, his remedy would be an action for Tringement and damages; he could not de-and the demolition of the structure once mmenced.

The period of copyright is during the life-ne of the architect plus fifty years after; d the copyright relative to any individual rtion of a building appears to date from the mpletion of that particular portion.

ELECTRIC LIGHTING IN CHURCHES

On Friday, May 2, Mr. F. H. Taylor, M.I.E.S., M.I.E.E., A.M.I.Mech.E., delivered a lecture "Electric Lighting in Churches," at the nior Institute of Engineers. He said although e switching of transepts, side chapel and stries was local, the switching of the nave, sles, choir and chancel, had to be from the st entrance. It was here also that the main vitch and fuse boards were usually placed. o obtain economy in working and to avoid y large extinction of light, it was necessary r the nave to have its lighting fed from several rcuits. Alternate lighting units were best vitched together; and preferably where each ghting unit consisted of four to five lamps should be possible to light up each fitting by vo or more stages. For the general lighting, ndant fittings of the corona pattern suspended om the roof gave best results, and at the same me offered an opportunity for artistic design. oncealed lighting at or above the capitals the pillars sometimes allowed a fuller ap-reciation of the architecture of the church, id the source of light was quite out of the line vision of the congregation. The extra dis-nce away of the lighting units, however, eant an increase in the number or size of mps required. A system of short lighting rackets attached by bands to the top of llars had very little to commend it, save its neapness, if that were commendation at all. he chancel lighting should be the subject of pecial treatment, and, instead of the usual andard lamps fixed to the floor, lighting units oncealed in the window recesses provided good lumination on the altar. Unless, however, the djacent lighting units in the choir provided certain amount of distributed light on the ancel walls and floor, a rather theatrical fect was apt to be produced, which was aturally undesirable. This could easily be voided. At the time of installing electric light a church, it was often convenient to arrange so for push-button switches to operate lamps signals, for instance, from the west door to ie organ, or from the choir vestry to the organ. similar arrangement could be used to give me signals from the organ to the choir to aid ie organist, who usually had to fulfil the ties of choirmaster. The lamps used were, course, out of sight of the congregation, and itable push buttons were now obtainable hich would stand hard wear and which were tirely noiseless in action.

Government House Building.

Asked in the House of Commons how any houses for the working-classes were now der construction by his department, Mr. wett said there were 70 houses under construc-on, and 85 houses had been completed during e present year. In addition to completing the uses under construction, the further number ntemplated at present to be built is 20, making total of 5,334 houses under the Addison using scheme.

THE SCAPA SOCIETY

On May 23 the Scapa Society held its annual meeting at the rooms of the Royal United Service Institution. Lord Lascelles (President) presided.

In his opening speech Lord Lascelles said in the last year or so the society had acquired an immense increase in public interest, which was due not only to its own good work but to the support of the Press, from the large London papers down to the smallest country weekly. They had received very sympathetic treatment from the motoring - advertising societies—the oil companies and the Dunlop Company—who had behaved in a manner for which they were most grateful. The financial losses of these firms had not been small, for some of them had entered into contracts the abandoning of which had cost them even thousands of pounds, but if competitors in the same line of business agreed to do the same thing their losses by sales could not be great. He thought that they might be right in the view that when all the companies disfigured the country-side by monstrous advertisements their own ends were automatically defeated. The society was in sympathy with any action that could be taken to abolish the thoughtless custom of littering the country-side with waste paper and rubbish.

Another success which they had had this year was the removal of advertisements from the Stadium at Wembley.

Lord Newton, in moving "That the Report and Statement of Accounts of the Society as submitted be received and adopted," congratulated the society upon a most successful year, notably upon the preservation of Whitgift Hospital, the elimination of the advertisements on the Stadium at Wembley, and on the Bill now before Parliament, on which all their efforts ought to be concentrated. Their subscription list did not amount to £100 a year, and no other organisation could point to so much work on such slender resources. By a strange paradox they were in need of what they were always denouncing in other people—publicity. They stood in need of advertisement; he knew of a number of eminent people who had not even heard of the Society. The Bill which was now before the House of Commons was in a better position than on any other occasion. Captain G. E. W. Bowyer was now in charge, and it was due to his skill they had obtained a second reading for it. In the House of Lords it encountered the opposition of Lord Birkenhead, in order, he supposed, to show the ingenuity a first-class brain could display when occasion arose, but this was a case for versatility rather than ingenuity.

The success of the Scapa Society had been due largely to two men, one of whom, Mr. Richardson Evans, was not present. Their gratitude was also due to their secretary, Mr. Chubb, one of the most indefatigable workers he had ever met.

Sir Albert Gray (Chairman of the Society), in seconding the resolution, said, like other societies, at times they had their moments of depression; there seemed so little done, so much to do. Their present report, however, was extremely satisfactory. Lord Newton had referred to the services of Mr. Evans. He (Sir Albert) had been associated with him during the whole period of the life of the society, and the previous experience of Mr. Evans as a journalist had been of immense value to them.

The Earl of Crawford moved, "That this meeting, in view of the importance of protecting rural scenery from disfigurement by the display of advertisements, pledges itself to support the efforts of the Scapa Society, and further urges the Government to provide facilities for the remaining stages of the society's Advertisements Regulation Bill." He said that after an existence of thirty years the status and influence of the society were making a real impression on public opinion. The results of thirty years' propaganda had taken long to fructify, but they were now showing themselves in a most tangible and practical form. Personally, he liked advertisements, and if they pleased the eye and kept within proper limits he was inclined to patronise the firms, but when they dispossessed him of his common rights and forced themselves on the eye and into the face of every inoffensive citizen passing through beautiful country, he was repelled, and the advertisements did more harm than profit to the firms. That was not the opinion of a faddist, but was common knowledge and a growing habit.

With reference to local centres, he was glad to see it stated in the report that much could be done from London, and as far as possible was done, but effective action depended upon the willingness of residents to combine and co-operate in every effort to defend and to extend the amenities of their districts.

Mr. John Bailey (Treasurer), in seconding, said Mr. Evans, although not able to attend the meeting, had shown that his interest had not abated by a gift of £250. He considered the society had had four great successes. First securing Lord Lascelles as President; second the circular which Col. Ashley, when at the Ministry, had sent to the main road authorities with regard to their control of advertising; third, the wonderful negotiations with the oil companies; fourth, their Advertisement Regulation Bill. In conclusion, Mr. Bailey said although they had fixed the subscription at the low rate of 5s., he felt sure there were a number of subscribers who would gladly give five guineas in order to enable him to present a better balance sheet.

Captain Bowyer then moved that Lord Lascelles be re-elected President, which was seconded by Mr. Halsey Ricardo.

Mr. Frank Salisbury moved a vote of thanks to the Chairman.

YORKSHIRE ARCHITECTURAL SOCIETY

The Yorkshire Architectural and York Archæological Society recently held their annual meeting. Mr. P. J. Spalding presided.

The Honorary Secretary presented the annual report. The suggested desecration of the York Cholera Burial Ground in Station-road, with a view to facilitating the vehicular traffic at that spot, and safeguarding pedestrians, had, he said, occasioned the society much alarm, and although a deputation was sent to the City Council to protest against this scheme on æsthetic grounds, the project, by a large majority of votes, was sanctioned. This, on the face of it, might appear perturbing, but before finality was reached the promoters of the scheme had a very thorny path to negotiate, which this society felt confident in the end would prove impassable. The report expressed appreciation that Bedern Chapel was to be saved. The city's fortifications, among the York treasures, having been scheduled by His Majesty's Office of Works, the encroachment suggested on the moat in the neighbourhood of Layerthorpe Bridge, which was to be widened, had every probability of not being carried through, and it was hoped that the authorities would keep a vigilant eye on any suggested encroachment in the neighbourhood of the Cholera Burial Ground. It was agreed to make the following addition to the rule explaining what the society existed for:—

"And to prevent the disfigurement of the city by the erection of unsightly buildings and advertisements."

Dr. Evelyn, who suggested the addition, said their energies were practically concentrated on preserving the antiquities of the city of York

Satellite Towns.

At a recent meeting of the London County Council, Mr. Herbert Morrison moved for a report as to the submission of a supplemental estimate of £1,000 in respect of surveys in the Home Counties, with a view to the establishment by the Council of garden cities—"alternatively known as satellite towns or new industrial centres."

LEGAL SECTION

NOTES ON CURRENT CASES

Damages against Lessor for Breach of Covenant to Repair.

THE recent case, Hewitt *v.* Rowlands (*Weekly Notes*, April 5), decided a point which has not directly been decided before, probably because no one has ever raised it, that point being stated in the head-note to the report as follows, "Whether in an action by a tenant against his landlord for repairs, the execution of the repairs by the tenant is a condition precedent to the recovery of damages?"

The plaintiff in the action was the tenant of a dwelling house, and in 1875 had originally become tenant under an agreement for a term of five years, which provided that the landlord should "keep the cottage dry and the outside in repair." At the expiration of the term of five years, the plaintiff had remained in occupation as a yearly tenant.

The defendant was the owner in fee simple, having purchased the property in 1920. On March 31, 1921, the defendant had given the plaintiff notice to quit on the following October 1, but the tenant had remained on as a statutory tenant under the Rent Acts, and was still in occupation at the date the action was commenced.

The dwelling-house was formerly a farm-house to which additions had been made, the oldest portion being probably 150 years old, and the additions having been built about eighty and sixty years ago respectively. The outer walls of the original building were of red sandstone, the additions being of brick or brickwork covered with plaster, but there was no dampcourse to any part of the building. During 1921 the plaintiff had complained to the defendant of the house being damp, and a formal notice was given on November 25, 1921, to the defendant's solicitors that the house was very damp, and requesting immediate steps to be taken to render the house damp-proof. The defendant did not take any steps to do the repairs, and the plaintiff then issued a writ claiming damages for the breach of agreement. In the court below, judgment had been given for the defendant, but this had been reversed by the Court of Appeal, judgment being entered for the plaintiff, the damages to be assessed by the District Registrar of the High Court at Liverpool.

The dampness arose chiefly from the old sandstone walls having become saturated in course of time owing to the absence of a damp-course, but the defective condition of the roof and gutters had contributed to it. The cost of putting in a dampcourse and making good the roof and gutters and doing all work to put the house in proper repair was estimated by both sides at about £600, but one of the plaintiff's witnesses had admitted that the house was worn out, and that it would not be worth while to make such an expenditure on repairs if there was no obligation to do so. Evidence was given of certain special damage to certain pictures, a piano, and a carpet.

The District Registrar had assessed the damages at £30, stating that he had directed h mself that as regards the repairs a tenant in an action against his landlord for damages for breach of an agreement to repair, apart from any pecuniary loss or damage which the tenant had suffered from the landlord's default, could only recover the actual sum expended by him in executing repairs for which the landlord was responsible.

A Divisional Court decided that the Registrar was wrong in so directing himself, for although there was no exact authority upon the point, it had been held in Torrens *v.* Walker (1906, 2 Ch. 166; *The Builder*, May 19, 1906), that there was no difference in principle between the liability of a lessee on a covenant to repair, and the liability of a lessor under a like covenant, and in an action by a lessor against his tenant for non-repair, it was clear that the lessor need not repair the property before recovering damages.

The case was, therefore, remitted to the Registrar with, however, an int'mation that it did not follow that he ought to allow the total estimated cost of the repairs, for regard ought to be paid to the extent of the tenant's interest in the premises.

Torrens *v.* Walker was a very curious case; the house was some 200 years old, and the front and back walls had become dangerous. The tenant had served no notice on the landlord as to the want of repairs, but the London County Council had served a dangerous structure notice on the landlord requiring him to take down the front and back walls. The lessee communicated this notice to his landlord and vacated the premises, and brought an action for breach of covenant against the landlord, that covenant being to keep the outside of the house in good repair, but the Court held that as in law there is no breach of the covenant to repair before notice of want of repair is given, the tenant had no ground of action, for when notice was given the premises were irreparable. It may be noted in connection with this case that this house was on a triangular site and the destruction of those two walls practically destroyed it as a house, as this has a bearing on our observations below on Lurcott *v.* Wakeley.

On the subject of covenants to repair we may remind our readers that a very important pronouncement on the subject was made in the recent case Calthorpe *v.* McOscar (1923 2 K.B. 573), which we noted November 16 last. In that case three houses had been leased in 1825 for ninety-five years, the houses at that date being newly erected, under a covenant which, amongst other things, required the lessee to "well and sufficiently repair, support, uphold and maintain" them, and at the end of the term in 1919 the question was mainly whether under such a covenant all needful and necessary repairs had to be executed, or whether having regard to the age of the premises, the change in the neighbourhood, and the class of tenants who would be likely to take them, the repairs were limited to such as would render the houses fit for occupation by the class of tenant who would be likely to take them, and the difference between the two views was represented by a difference in the cost of the repairs between £586 and £220.

The Court accepted the latter view, and made some very valuable comments on the subject of repairing leases.

As regards the effects of time on a building, we noted a good many of the decisions in our issue December 8 in a note on Lurcott *v.* Wakeley (1911 1 K.B. 905), but the most important point in the decision in Calthorpe *v.* McOscar was, as we pointed out in our former note, November 16, that the Court considered all the various expressions used in repairing leases such as "well" or "proper" or "substantial or "good" or "sufficient" or "necessary" or "tenantable" and came to the conclusion that they added nothing to the meaning of the word "repair," and therefore that the principle laid down by the Court of Appeal in Proudfoot *v.* Hart (25 Q.B.D. 42) is applicable to all such cases, and the Court intimated that that principle was correctly set out in the headnote to that case: "Under an agreement to keep a house in good tenantable repair, and so leave the same at the end of the expiration of the term, the tenant's obligation is to put and keep the premises in such repair, as having regard to the age, character, and locality of the house would make it reasonably fit for the occupation of a tenant of the class who would be likely to take it." The Court, however, was careful to point out that the point as to detailed covenants, for instance to paint at particular periods, did not arise in that case.

The Court said: "Some standard must be taken. What is it to be? The notion of the actual owner may be generous or severe. The notion of the actual tenant may be narrow or indulgent. It is well to adopt a practical and working standard and thus to meet the difficulty arising when landlords and tenants have opposite views with respect to houses which vary greatly in age, description, locality and purpose. Such a standard is provided by Proudfoot *v.* Hart."

This question of repairs is of such importance we may usefully refer to one or two other observations of the Court in this case.

Mr. Justice McCardie pointed out that it seemed necessary to remember that although the words of the covenant did not vary with the lapse of years, yet the subject matter of the covenant—the house—changed greatly, and in the case he was considering when the lease expired in 1919 the houses in question had become old houses, although there was no question here as to their being old when they were demised as was the case in Lister *v.* Lane (1893 2 Q.B. 212) for instance. He then cited cases to show that the covenant in any event must be construed with moderation and not with severity—(Stanley *v.* Towgood, 1836 3 Bing (N.C.) 4), Harris *v.* Jones (1832 1 Moo. & Rob. 173), Scales *v.* Lawrence (1860 2 F. & F. 289), and Perry *v.* Chotzner, 1893 9 *Times* L.R. 488)—and he added that the landlord's right to damages is not affected either by the special purpose to which he may intend to put the premises upon the expiration of the term, or by any special arrangement he may have made with a new incoming tenant. For instance he does not lose his full right to damages although he intends to demolish the building—Rawlings *v.* Morgan (1865 18 C.B. (N.S.) 776)—nor by intending to pull down part of the premises to make structural alterations (Inderwick *v.* Leech (1885 1 *Times* L.R. 484), nor by the fact that he has let at a higher rent to a new tenant (Joyner *v.* Weeks (1891 2 Q.B. 31), but the standard of repair, as the Court pointed out, is not illustrated by the above cases, and it has now been decided to be as stated above.

We have thought it may be of use to examine in further detail this very important decision on this question of repair, a subject upon which there has been much conflict of opinion in the decided cases, and in conclusion we may say a word upon the subject of old houses, although there does not seem much to add to our note of December 8, 1911, on Lurcott *v.* Wakeley and other cases, as Lurcott *v.* Wakeley, which was a decision of the Court of Appeal, still represents the law.

In that case the defendants were assignees of a lease of premises some 200 or 300 years old. The lease had been granted for 28 years and in 1909, just before it expired, the London County Council had given the owner notice that the front external eastern wall to the level of the ground floor was in a dangerous condition and requiring him to take down the wall. The lease contained covenants requiring the lessees "well and substantially to repair . . . and keep in thorough repair and good condition all the demised premises and to yield them up at the termination of the term so repaired and kept together."

The owner of the premises complied with the order of the County Council and rebuilt the wall, but claimed the sum so expended from the assignees of the lease.

The assignees contended that this state of the wall was due to the effects of time and the elements and the age of the structure and they were not liable to make it good, but the Court of Appeal, affirming a Divisional Court, held

the lessees were liable and applied following test as expressed in the ent of the Master of the Rolls: Had ubject matter of the demise changed s the operation merely making good idiary portion of it as distinguished from hole? It was held that the repair in on was only restoration of a subsidiary n of the building. This distinguishes the rom Torrens *v.* Walker, which we have d to above. It must be noted that this ot affect the decision in Proudfoot *v.* Hart *upra*), which was approved by the Court of l in Lurcott's case, it only applies it.

would appear necessary to point out that gh the actual word "repair" may be have the same meaning, whether qualified t by adjectives, of course specific terms e introduced into a covenant which might he liability.

nce of Persons Employed on Relief Works.

ecision has been given in the case in *re* East Vest Flegg Rural District Council *re* Turner Pipes (*Weekly Notes*, May 3), which, as it the question of insurance generally under Unemployment Insurance Acts, as well as National Health Insurance Acts, does not r to us in the brief report yet available y satisfactory. The question raised in the was whether the appellants who were the authority and who employed persons who ly were exempt from Unemployment ance, being fishermen or agricultural rers, on relief work in raising material from l pits of which the authority were lessees, e on the roads, should make deductions the men's wages and pay contributions em under the Unemployment Insurance 1920. By leave of the Court the question lso raised as to Health Insurance.

e work was unremunerative to the Council, n making the payment they were assisted grant from the Unemployment Grants ittee. Payment was made to the men at ite of 22s. a week, but there was no agree- to employ the men on any particular terms r any period, although the contract was ly terminated by a week's notice.

vas contended that under the First Schedule II of the Unemployment Insurance Act employment was an "excepted employ- " being "Employment of a casual nature wise than for the purpose of the employer's or business." The Minister of Labour ecided that the men were employed persons the Act and the Council had appealed this decision.

Court held that the employment was l, one of the conditions being that the s of the men should remain on the register unemployment exchange and that they be required to leave at any time, but it ssed some doubt whether the work being nomic for the purpose of the Council's scheme it could be said to be "for the pur- of the employer's trade or business." As, ver, it was employment on road work by ppellants who were the road authority the is reported to have intimated that on the it was not prepared to disturb the decision Minister of Labour. This being a test e could have wished that a more authori- decision could have been given, especially re must be some doubt whether very ittent payments to the insurance funds and in respect of, persons engaged on works, in place of receiving poor law relief, benefit to anyone except in so far as they se the general insurance funds.

Rent Act: Furnished Flats.

omewhat new point appears to have been d in the recent case Prout *v.* Hunter and er (*Weekly Notes*, April 9). The plaintiff e owner of a block of flats at Brixton and d let three of the flats to a Mrs. Hunter, cupied one of them herself, but the other ts, which she held from the plaintiff on tenancies at rentals of 19s. 6d. and l., Mrs. Hunter had furnished and sublet, one to the other defendant in the action and the other to one Scott. The plaintiff had given Mrs. Hunter notice to quit and subsequently brought an action in the county court to recover possession of the two flats which Mrs. Hunter had let furnished.

One of the contentions raised by the plaintiff in the county court had been that this letting of the premises by Mrs. Hunter had rendered them business premises and outside the Act on that ground, but this had been negatived, but the county court Judge had held that under section 12 subsection (2) of the Act of 1920 the premises were within the Act. The plaintiff appealed and a Divisional Court entered judgment for the plaintiff, giving possession.

The point depends upon the first proviso to section 12 subsection (2).

Subsection (2) provides "This Act shall apply to a house or part of a house let as a separate dwelling" (within the limits prescribed as to rent or rateable value) "and every such house or part of a house shall be deemed to be a dwelling-house to which this Act applies, Provided that (i) this Act shall not, save as otherwise expressly provided, apply to a dwelling-house *bona fide* let at a rent which includes payment in respect of board, attendance or use of furniture."

The Court held that the Act dealt with the status of the premises themselves and not with the terms on which they were held, that is to say they had to look at the letting of the flats to the occupying tenants and not to the letting to the intermediate tenant, and as the flats were let to occupying tenants as furnished flats they were outside the protection of the Act. In so finding the Court intimated they were following the decision in Glossop and Another *v.* Ashley (1922 1 K.B. 1; *The Builder*, April 15, 1921), where to ascertain the standard rent the letting between the tenant and the subtenant in occupation was regarded. At present we can do nothing more but briefly note this decision as reported, but we may revert to it when an extended report in the Law Reports is available.

As the decision stands it appears that a subtenant who takes part of a dwelling-house furnished from the tenant is outside the protection of the Act, and the amendment introduced into section 12 subsection (2) proviso (i) by section 10 does not affect this point.

Rates and Increased Rent.

The case, Strickland *v.* Palmer, which we noted in our Legal Section, February 29, and which has drawn the attention of the Legislature to the necessity of amending the law if the decision of the Divisional Court correctly expressed it, has now been reversed by the Court of Appeal, and therefore the necessity for further legislation no longer exists. The main question raised in that case was: If an increase of rent has been made to meet an increase in rates, and subsequently the rates are lowered, is the tenant entitled to a corresponding reduction in the rent?

The Divisional Court had decided that question in the negative, but the Court of Appeal has now reversed this decision, holding that whenever a landlord claims to recover rent, which includes an increase in rent which represents an increase in rates, he must show that the increase over the standard rent does not include an increase in respect of rates in excess of the amount actually paid by him in respect of increase of rates.

This decision seems to give a more logical interpretation to section 2, sub-section (1) (*b*) of the Act of 1920, which speaks of "an amount not exceeding any increase in the amount for the time being payable by the landlord in respect of rates over the corresponding amount paid in respect of the yearly, half-yearly, or other period which included August 3, 1914; or, in the case of a dwelling-house for which no rates were payable in respect of any period which included the said date, the date on which the rates first became payable thereafter." And it has also been generally agreed that where rent has been increased in respect of increased rates, it is only equitable that when the rates fall the tenant should have the benefit of the reduction, but it will add to the difficulties of landlords in calculating increases of rent.

THE SURVEYORS' INSTITUTION

The Surveyors' Institution recently held their annual general meeting at Great George-street, Westminster.

In presenting their fifty-sixth annual report (from which we take the following extracts) the Council felt that they might congratulate members on another year of useful public work and on the continued progress of the Institution. The most important work of a public nature which had occupied the Institution during the year had been in connection with the Draft Rating and Valuation Bill, which was submitted to the Council in December last by the then Minister of Health, with a request for the considered views of the profession upon the various proposals contained therein. The Council had also given, during the year, much attention to the housing position and the control of houses. In connection with the latter they issued to members a further memorandum by Mr. Graham Mould bringing up to date the information and explaining the legal position with regard to the Rent Restrictions Act. Since then a Bill had been introduced in the House of Commons by a private Member, and had been referred to Grand Committee. Under this Bill the period of restriction would be extended, and the provisions of the 1923 Act with regard to decontrol would be, to a great extent, repealed. A meeting, also, was arranged between representatives of the Institution and officers representing the Minister of Health, at which the views of the Institution as to the effect of restrictions on the housing problem were explained. In advising on these questions the Council had attempted to indicate their effect upon the real problem which had to be solved, the shortage of houses, and, in doing so, had placed in the forefront the public need rather than the immediate advantage of any particular class.

The vacancies on the Board of Governors of the College of Estate Management caused by the deaths of Mr. George Corderoy and Mr. Howard Martin had been filled by the nomination of Mr. F. H. A. Hardcastle and Mr. E. H. Leeder on behalf of the Institution. The place of Mr. R. Parry had been filled by the appointment of Mr. B. W. Adkin, who had acted as Vice-Principal under Mr. Parry.

Representations made to the Ministry of Health on the subject of notices to owners of property in connection with town planning schemes, and on the hardship imposed upon owners of property by the penal provisions of Section 9 of the Housing, Town Planning, etc., Act, 1919, were still under consideration by that Department.

Sir Edwin Savill, President, and the Council of the Surveyors' Institution held a reception recently at the Zoological Gardens. Among those present were:—

Sir John Oakley and Messrs. J. I. Davidson, J. M. Clark, Arthur Vernon, and John Willmot, Past Presidents of the Institution; Messrs. J. D. Wallis, H. M. Cobb, and E. A. Rawlence, Vice-Presidents; and Messrs. C. H. Bedells, C. Chant, S. Hicks, J. E. Bidwell, F. H. A. Hardcastle, W. T. Hall, H. Hartley, C. J. Howell Thomas, W. H. Eve, C. H. Gott, A. G. Cross, G. T. Brown, and Frank Hunt, members of the Council. The Presidents of the Institute of Builders, the Institution of Structural Engineers, the Institute of Painters and Decorators, and the Institution of Chartered Accountants; and the Secretaries of the Auctioneers' Institute and the Land Agents' Society. Sir Richard Redmayne, Sir William Wells, Sir Charles Ruthen, Sir Edward Boyle, K.C., Sir Henry Tanner, Sir Percy Thompson, Sir Thomas Morton, Brigadier-General Mowatt.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in typescript?—ED.

[REPLY TO MR. HOLLOWAY.]

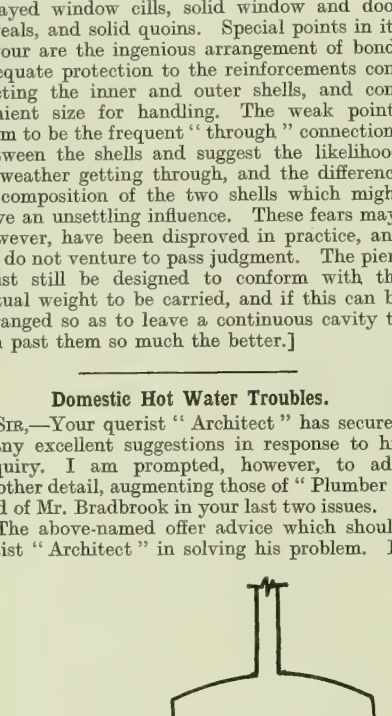
Concrete Building Blocks.

[We have received particulars of a patent improved concrete building block for casting on the site from materials to hand, which we have forwarded to our correspondent. In some respects it would appear to meet many of the difficulties of the case in point, while the patentee claims to have saved 40 per cent. on ordinary brick construction in actual work. The blocks have a continuous cavity within themselves and are 9 in. thick including same, which would apply readily to the setting out of the 14 in. walls, the outer shell being as suggested in 4½ in. brick applied direct to the outer face of the blocks and adequately tied in with galvanised iron ties. The system includes the production of solid door cills and steps, solid splayed window cills, solid window and door reveals, and solid quoins. Special points in its favour are the ingenious arrangement of bond, adequate protection to the reinforcements connecting the inner and outer shells, and convenient size for handling. The weak points seem to be the frequent "through" connections between the shells and suggest the likelihood of weather getting through, and the difference in composition of the two shells which might have an unsettling influence. These fears may, however, have been disproved in practice, and we do not venture to pass judgment. The piers must still be designed to conform with the actual weight to be carried, and if this can be arranged so as to leave a continuous cavity to run past them so much the better.]

Domestic Hot Water Troubles.

SIR,—Your querist "Architect" has secured many excellent suggestions in response to his inquiry. I am prompted, however, to add another detail, augmenting those of "Plumber" and of Mr. Bradbrook in your last two issues.

The above-named offer advice which should assist "Architect" in solving his problem. It



is not necessary, however, to reduce permanently the storage capacity of the cylinder in order to ensure a more speedy hot water supply.

The enclosed sketch shows arrangement whereby with little modification of schemes suggested the quicker supply may be obtained, and also, when speed is not the primary consideration, the cylinder may be used to its full capacity. The alteration merely consists of connection, as has been advised, of a return higher up the cylinder, the existing return being retained, and a two-way valve introduced at the point indicated. EDWARD C. TASKER.

Iron Tank Leakage.

SIR,—A galvanised iron tank, some twelve years old, measuring about 3 ft. by 2 ft. by 2 ft. (depth) for storage of water for general service (but not for drinking), in a private house, has developed a pinhole leak due to action of rust on inside. At present it is, in itself, very trifling, but raises apprehension as to the future—possibly very near future. Renewal or removal of the tank would be extremely inconvenient.

Can any of your readers advise effectual measures for dealing with the trouble and preventing further development?

"ARCHITECT."

[REPLY TO "QUERY."]

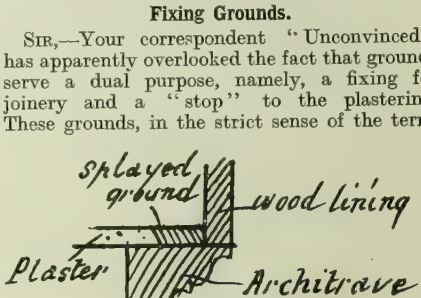
Party Wall.

SIR,—The usual by-law requirement for corbelling out is that the work so corbelled out should not project more than the thickness of the wall measured immediately below the corbel, this being in the case of chimney breasts. This is quite a maximum unless equilibrium is maintained by the shoring action of cross-beams, girders or joists, or unless the outer portion of the upper wall is heavily loaded with a parapet or otherwise. The centre of gravity of the cross section of the wall is easily found, and should occur vertically over the middle half of the wall below, or at worst not outside the wall below unless further assisted against the over-turning tendency. Generally the overhanging portion is honeycombed with flues, lightening it considerably and drawing back the centre of gravity of the mass. F. D.

[REPLY TO "UNCONVINCED."]

Fixing Grounds.

SIR,—Your correspondent "Unconvinced" has apparently overlooked the fact that grounds serve a dual purpose, namely, a fixing for joinery and a "stop" to the plastering. These grounds, in the strict sense of the term,



Sectional Plan

are not needed as a fixing to unplastered walls—the technical terms given to fixings in this case being "battens." Attached is a rough sketch of a ground at the back of an architrave in a plastered wall.

Croydon. A. E. FLOWER.

SIR,—In work of which a high finish is not expected it is certainly unnecessary to fix wood grounds for skirtings, frieze rails and dado rails, &c., but where a high standard is demanded and where it is intended to condemn any little hollows that may appear in the plaster surface where these rails, &c., occur, it is only fair to provide the grounds as a guide to the plasterer at the points where irregularities will be most apparent.

This is really the main purpose served by grounds and it is correct to assume that they provide no better fixing to the joinery than the original plugs. Frequent nailing between plugs does not arrest warping and twisting tendencies, as the joinery members are generally stronger than the grounds themselves and will carry them out with them if they have the will to warp.

For the cheaper class of building grounds can certainly be omitted, and we probably do well to swallow the slight shortcomings that result, in these days of high prices. B. M.

[REPLY TO "NOVICE."]

Lightning Conductor.

SIR,—The best earth connection for a lightni conductor is a copper plate with a substant soldered connection to the lightning rod. T plate should be in permanently moist soil if t can be reached at a reasonable depth, but if t cannot be ensured the plate should be w packed round with moist charcoal and co which will retain the moisture.

Incidentally, if the authorities are not lookir by far the safest connection is to a public wat main. "CONDUCTOR."

Cracks in Plaster.

SIR,—In the house in which I am living, a which I entered soon after completion, the has developed a crack of rather unsightly dime sions at the junction of ceiling and wall along o side of a room. There is no sign of any sett ment in the brickwork outside, and it has be suggested to me that the joists above have be unevenly bedded, that the fixing of the flo boards above in the first place drew up certain the joists to a level top surface (the plasteri being done at this stage), and that subseque traffic and heavy furniture has been drivi these joists back on to their beds, so disturbi the plastering below. The modern practice omitting bond timbers seems to lend this soluti some colour.

If this is really the case, will it be safe no after two years, to cut out the cracks and ma good, or is the trouble likely to recur?

"HOUSEHOLDER."

ROYAL INSTITUTE O BRITISH ARCHITECTS

Annual Conference.

The Annual Conference of the R.I.B.A. w take place at Oxford from July 9–12, at t invitation of the Berks, Bucks and Ox Architectural Association.

Visit to Fletton Brickyards.

At the invitation of the directors of the Lond Brick Co. and Forders, Ltd., the Science Sta ing Committee of the R.I.B.A. has arrange visit to the Fletton Brickyards, Peterborough, take place on May 31.

Minutes.

The following notes are from the minutes the last Council meeting:—

WATERLOO BRIDGE.—On the recommendati of the Art Standing Committee it was decided communicate with the London County Coun expressing the hope firstly, that there would no alteration to the elevation of the Bridge, a especially that there would be no footpa constructed so as to project from the parap and secondly, that in the event of some sche for widening being inevitable, such widen will be the minimum possible consonant w traffic requirements.

REPORTS OF LAW CASES.—On the recomm dation of the Practice Standing Committee was decided to arrange with the Instit Solicitors for the supply from time to time typewritten copies of important cases deal with Building Acts, Ancient Lights and Prof sional Practice, which are reported at length the official Law Reports, and which are availa only to solicitors and barristers, and that th copies of reports be filed and indexed in Library for reference.

PROFESSIONAL CONDUCT.—Under the p visions of By-law 24 a member was censured contravening Clause 4 of the "Suggesti Governing the Professional Conduct and Prac of Architects" by supplanting another mem who had already been entrusted with a co mission.

INSURANCE OF ARCHITECTS' AND QUANT SURVEYORS' FEES.—On the recommendation the Practice Standing Committee it was deci to publish a note in the "Journal," as to desirability of adequately insuring archite and quantity surveyors' fees, including that making the claim.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

A DEBATE took place in the House of Lords ... on the subject of St. Paul's Bridge. ... Denham moved that before further steps ... the Fine Arts Committee shall be ...

... Balfour, on behalf of the Government, ... was glad that the City Corporation was ... going into the whole matter, and he ... agreed that no irrevocable steps should ... until the Fine Arts Committee had ... consulted. Nothing ought to be done ... as far as human foresight could make it ..., it was made certain that no damage ... done to the stability of St. Paul's ... If such damage occurred it would ... national misfortune of the first import-

... Balfour said that the æsthetic issues ... the proposal of the new bridge were ... selves of national importance, because, ... place, they dealt with one of the ... derful river and urban prospects in ..., and secondly, because they touched ... existence of one of the greatest build- ... which London boasted, undoubtedly ... east modern post-mediæval cathedral ... world, and a perpetual source of pride ... to London but to the whole Empire. ... was a national possession.

... Curzon said that Lord Crawford had ... that if the motion were adopted the ... Committee would be prepared to ... ce. He hoped the purely æsthetic ... the matter had not been swept aside ... the much larger practical, technical, ... and scientific considerations involved. ... describing London as "a wonderful ... contrasts, he commented on the ... succession of bridges which at present ... the Thames, and asked if they were ... to add to these æsthetic horrors, or ... the Metropolis something that would ... source of beauty and delight? It was ... importance from the æsthetic point ... that no new bridge should be built ... Thames unless it added to the ... the landscape. He was speaking of ... of the landscape in relation to the ... St. Paul's; any new bridge must ... with the beauty of the dome. ... motion was agreed to.

The Apprenticeship Scheme.

Mr. Sunlight asked the Minister of Health ... understanding, if any, he had arrived at ... employers in the building industry ... ensure the carrying out of the scheme ... tation of labour by apprentices in ... but the housing programme, the con- ... would equally be fulfilled on building ... than houses.

Mr. Greenwood said that the Minister under- ... the proposal of the Committee of ... Employers and Operatives was that ... apprenticeship scheme should apply both ... and other building work.

Regional Town Planning.

Mr. Sunlight asked the Minister if, along- ... his proposals for building 2,500,000 ... during the next fifteen years, adequate ... been taken in his department to lay ... regional plans to cover the whole country ... left to the individual interest of local ..., with a view to avoiding congested ... areas in the future as towns expanded.

Mr. Greenwood said that the Minister ... was encouraging the formation of ... own-planning committees, and good ... had been made, but he did not think ... necessary at the moment to attempt ... the whole country.

Ancient Monuments.

Mr. Middleton asked the First Commissioner ... whether he was aware of the diffi- culty members found in readily obtaining authoritative information about ancient monuments in the care of his department; and whether he would arrange for periodical reports regarding these monuments to be made to Parliament.

Mr. Jowett said he hoped that it might be possible this year to resume the issue of annual reports, the suspension of which was necessary during the war and had since been continued on grounds of economy. His department was also arranging for cheap leaflets to be prepared, giving a short history of each monument of importance throughout the country.

Fine Arts Commission.

Asked by Lord H. Cavendish-Bentinck whether it was proposed to add fresh members to the Commission of Fine Arts, Mr. Snowden, Chancellor of the Exchequer, said no final decision had yet been taken. If any fresh members were appointed before the time when the present members automatically retired, the appointments would be made on the recommendation of the Prime Minister.

The Thames Bridges.

Mr. Gosling, the Minister of Transport, replying to a number of questions, said that he understood that the London County Council was studying the problem of the Thames bridges, and would probably call into consultation other metropolitan authorities. The responsibility for the maintenance of Westminster Bridge rested with the London County Council, who kept careful observation on the structure. The Council had their own competent expert advisers, with whom officers in his department were in close touch.

Working-Class Houses.

Mr. Wheatley informed Mr. E. Simon that according to returns obtained from local authorities in England and Wales as to building by private enterprise without assistance from public funds, it was estimated that over 28,000 houses of not more than £26 rateable value in the provinces and £35 in the Metropolitan Police districts were completed during the six months ending March last. During the same period 4,158 houses were also completed by private enterprise with State assistance under the Housing, etc., Act, 1923.

Results of Private Enterprise.

Mr. Wheatley informed Mr. E. Simon that the following numbers of houses were in course of erection by private enterprise on March 31 last:—

Subsidy houses	20,222
Non-subsidy houses of all sizes (approximate) ...	36,750
Total	56,972

Increased Building Costs.

Mr. Lambert asked the Minister of Health the reason for the increase in the cost of building parlour-houses from £386 in January last to £425 in April; and when he anticipated the cost of building houses would be reduced correspondingly with the cost of living to about 75 per cent. above pre-war prices.

Mr. Wheatley said that the increase due to the actual increase in market price of materials and in rates of wages since January last was equivalent on the average to about £5 10s. per non-parlour house. He hoped that with the adoption of the Government's proposals, difficulties of shortage of labour and materials would be removed and that the excess cost might be sensibly reduced.

The 1923 Act.

Sir William Joynson-Hicks asked the total number of houses for which subsidies had been applied for under the 1923 Act, and the total number sanctioned.

Mr. Wheatley said that approval had been given to schemes providing for the erection of 135,660 houses, including 46,133 proposed to be built by local authorities and 89,507 by private enterprise. Contracts had been let by local authorities carrying 28,754 houses, while in respect of the houses to be built by private enterprise definite arrangements had been made for 56,626 houses.

The Brick Supply.

Mr. Wheatley said the question of brick supply was under consideration in connection with the Government's housing proposals, and he was not at present in a position to make a statement.

Answering a question as to whether the Government had any intention of controlling the brickfields, Mr. Wheatley said that the difficulty—and many other difficulties associated with the problem of housing—was due to the breakdown of private enterprise.

The New Housing Bill.

Mr. Wheatley informed Sir K. Wood that, while giving no pledge on the matter, he hoped to be able to introduce the new Housing Bill before the Whitsuntide recess.

Recent Prices.

Mr. Wheatley informed Sir K. Wood that returns from local authorities showed that for England and Wales the average prices for houses built during the last two months for which information was available were as follows:—

	Non-parlour.		Parlour.
March ...	£416	...	£459
April ...	425	...	440
	Increase £9		Decrease £19

The £700 Limit.

Viscount Wolmer asked the Minister of Health under which section of the Housing Act of 1923 he had imposed a limit of £700 on the cost of houses eligible for subsidy under that Act.

Mr. Wheatley said that before approving the proposals of a local authority for subsidising the erection of working-class houses he was required by Section 2 of the Housing Act, 1923, to be satisfied that the need for the houses could not be met without assistance under the Act. The question whether the subsidy should be available for houses of so high a cost as that indicated by the noble lord would depend on local circumstances. No general rule could be laid down, but he was of opinion that the price mentioned was too high for a working-class house.

Unemployment in the Building Trades.

Replying to a question, Mr. T. Shaw stated the average percentage of unemployment in the building industry for the years 1920 to 1924 was as follows:—

	1920	1921	1922 Jan. & Mar.	1922 Feb. to Dec.*	1923	1924 Jan. to April
Carpenters ..	0·7	7·0	10·2	9·1	7·3	3·7
Bricklayers	0·4	4·3	13·1	9·8	6·5	1·7
Masons	1·9	8·0	16·4	9·1	6·1	3·1
Plasterers ..	1·8	2·4	4·1	7·4	10·0	2·9
Painters	5·3	17·6	25·3	14·3	19·2	17·6
Plumbers....	2·6	8·3	10·2	10·3	10·0	7·0
Total of Six Unskilled Occuptns	2·3	9·8	15·2	10·8	11·0	7·7

* Includes Northern Ireland.

Sale of Works of Art.

Mr. Sunlight asked the First Commissioner of Works if he received periodical reports from the Commission of Fine Arts on whether or not works of art occasionally offered for sale by auction were of such national importance that steps should be taken to acquire them for the nation, having in view that an important public sale was about to be held.

Mr. Jowett said that the answer to the first part of the question was in the negative. Such matters were, he understood, outside the scope of the Royal Commission of Fine Arts. The latter part of the question was one for the Chancellor of the Exchequer.

THE BUILDING TRADE

TRAFFIC SHOCKS AND CONSTRUCTION

By J. HEMBROW.

During the first fifteen or twenty years of this century, and more particularly in this last ten years, there has been an augmented evidence of the effect on buildings of the rapidly increasing vibration from traffic, and probably before long, when it is considered that such shocks are almost inevitable, and that in large old towns they will continue for many years, we shall find it necessary to include some special provision in the construction of our buildings to counteract the effect.

The most simple step towards reducing this vibration would be the abandonment by local authorities of antiquated and unsatisfactory street surfaces, particularly stone setts, which, from their individual irregularity and their inevitably early gift of a road like a choppy sea, cause more shocks and noise than any other surface. Any reader can estimate for himself their effect by noticing some of the points in such a road, where a heavy motor lorry travelling at a good speed (and speed will increase in the future) drops suddenly from a height sometimes of inches and gives a direct blow of many tons to the surface of the road. Even with a reasonable lorry load of, say, four tons, and the weight of the chassis, perhaps three tons, the blow it will give in dropping when it is travelling horizontally at, say, twelve miles per hour is tremendous.

To do away with this kind of road surface would lessen the problem, but it would not do away with vibration altogether, as all roads wear, and tramlines will probably exist for years yet. Further, when one sees the number of important towns—up-to-date in other respects—which cling to this habit—it is nothing more—of their fathers, one feels that one must turn to other solutions.

Certainly it will be necessary to calculate for vibration in the future in some way perhaps similar to our provision against the vibration of machinery, but the problem will divide itself into four sections, *i.e.*, the treatment of old and new buildings and the question whether it will be better to deal with the structure itself or to insulate it from shocks in each case.

Recently the writer was asked by a brother architect to advise him in the case of an old (about 1860 or 70) commercial building which was suffering in this way. The building had been (the phrase sounds rather humorous) behaving itself quite well until recently, since when plaster had refused to stay sound on certain internal walls, with increasing persistency sheets of glass had cracked without any apparent human agency, and other phenomena disturbing and mysterious to the occupants had occurred. It appeared, on examining the structure, that although the whole building was shaken when a heavy lorry came by, the effect was greatest in one particular part. This was found to be over a very long steel or iron beam. The beam had on account of plan difficulties been made of considerably less than text-book depth for its length, but had been correctly calculated in view of this circumstance and the greater defection allowed for. The architect in his day had not provided for speedy blows of ten or more tons impact any more than he had provided for machinery, with an obvious result that the beam was acting like the trusty yew of the long bow. A central support was impossible in the form of stanchion or column, but a scheme was devised to stiffen the beam.

This implies that in a new building a factor ought to be agreed by which the normal calculations for steelwork and wood beams at present used can be improved. It would probably be fairly simple to arrive at such if a means could be found of recording the effect of traffic shocks through some suitable instrument. I think some such factor will be a real necessity in towns like Bradford and Manchester where some day tubes or other underground traffic will add to the shocks received by heavily loaded buildings never calculated to suffer them.

Prevention is better than cure, however, and as far as street shocks are concerned it should be possible to insulate a building. I believe records show that, except in certain isolated circumstances, the surface blows of traffic only affect the subsoil for a comparatively short distance downwards, the shocks being absorbed by lateral distribution of the force. If, therefore, this distance could be calculated a trench or area cut round the affected fronts of a building, with its foundations below the effect of traffic, might be effective to absorb the vibration. The wall, of course, would have to be at a sufficient distance from the building for it to move independently of it, and if the area could not be left open, as in a street paved up to the building, it could be filled with sand or some material to be determined upon which would move vertically and absorb horizontally the surface movements. In any conversations on this subject this has been the most tical suggestion we could find. I believe W. R. Davidge was the first to moot the in this country. There are certain di ties in the way of this method in n streets where the local authority enough wants its mains, etc., under the path. It should be possible, however, ever the authority allows sufficient spac pavement lights.

Where no area can be obtained the lem is more difficult, and this is unfort as in narrow streets the trouble is worse. A suggestion has been made t vertical joint between the face of the and the ground, obtained by placing sheets of suitable material together, effect a cure. But "graphs" seem to that the lateral movement resulting fr traffic blow would momentarily bind sheets and the vibration be conveyed. would wish that it was possible to hope in future some adequate insulation mig provided by the authorities in making remaking the street.

Many of the readers of *The Builder* have met with this problem. The branch the building and kindred trades it affect very numerous. It would be interesting instance, to know how many serious have been caused by the constant vibr of traffic causing tube conduits for el light of a low grade specification, to c short and fire. Its effect on closely jo masonry is varied and unhappy—tiling terra-cotta are often affected. In poi fact, it is hard to say where its malig activities end.

There may be numerous better solu than those I have suggested. It woul most useful if anyone able to add to knowledge would give seekers after enlig ment the benefit of their experience and gestions.

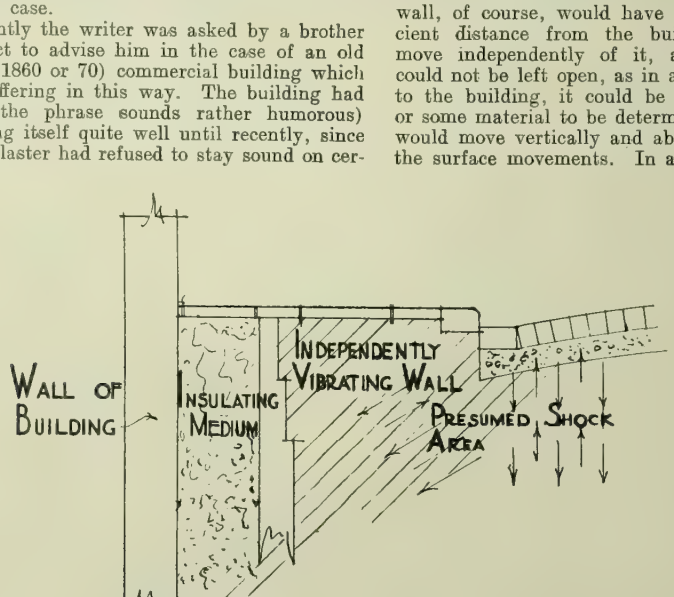


DIAGRAM OF SUGGESTED INSULATION

BUILDING COURSE A GLOUCESTER

We have received from the Board of Ed tion, Westminster, the following commu tion :—

If the number of suitable applicants is cient the Board of Education will provi Gloucester, from the evening of July 10 t morning of July 13, a short course of instru for full-time and part-time teachers of bui and allied subjects employed in technical evening schools in Gloucester and the surro ing towns and areas. The object of the cou to afford teachers opportunities of stud practically the growth, conversion, and qua of English forest-grown timber; the occurr quarrying, and qualities of sandstone and o building stones; and by means of lectures demonstrations modern methods of teac building and allied subjects. The cour limited to 20 members, and the cost is expe to be about £1 11s. Certain allowances w granted by the Board.

As the numbers are limited it is essential teachers should not apply unless they are pared to attend if selected. Teachers who to apply for permission to attend the co must fill up and return a Form (106i. U. later than June 14, and selected applicants be informed before June 23 that accommod has been reserved for them. Teachers in sc working under the direction of the local ed tion authority must return their applica through that authority. Various lectures be given, including one by Mr. Martin S. Bi H.M.I., F.R.I.B.A., on "The Architectu Gloucester and the Cotswold Area."

LEASEHOLD ENFRANCHISEMENT

We commend to the notice of our readers Memorandum issued by the Council of the eyors' Institution (an abstract of which ave last week) on the subject of Leasehold ranchisement, which is dealt with in a cial spirit, although the conclusion the ncil has come to is adverse to the enfran- ement of leaseholds. The enfranchisement easeholds perhaps in the abstract appeals ie public mind, and measures dealing with question may be passed without due con- ation being given to the weighty reasons nst such a policy, and as the arguments nst such a course being adopted are con- d in this Memorandum, and very lucidly essed, we hope those interested in the tion will take the opportunity of consider- them. The Memorandum states that two were introduced in the recent session for compulsory enfranchisement of leaseholds, that a movement in favour of such a y is gaining support; but it points out certain recognised hardships and disabili- have already to a large extent been met ecent legislation, and it further indicates such remedies may be extended without ting to compulsory enfranchisement, and reasons and arguments against wholesale nchisement.

he Memorandum is practically divided into sections, the first section showing the ptions from the public point of view as against the interests of the community, second section dealing with private inter- t and the third section containing proposals dealing with disabilities attaching to the hold system which have not already been with by legislation. In these days the ments contained in the first section relat- o the interests of the community are likely arry more weight than those addressed to the interests of the freeholder and the holder, and it is important that those ments should be brought to the notice of nterested in the improvement of housing itions, and the clearing of slum areas, and re in entire accord with the views ex- ed that, far from encouraging bad build- nd the growth of slum areas, the lease- system is advantageous, and the abolition rge estates and the multiplication of indi- l owners only increases the difficulties pienced, and, moreover, lays the local rities open to more extortionate demands. the second section of the Memorandum question is again referred to, when it is ed out that the right to enfranchise would e lessees to obstruct the re-development of ing estates by demanding the acquisition of rights by the owners, very likely at ex- rtnate rates, and it is stated that the Rent t have provided many examples of these bilities, but that that legislation is merely porary. It is certainly correct to say that limit has been promised to the duration the Rent Restriction Acts, but will the effect hat legislation be merely temporary? It s dealt a blow at the leasehold system which ayhave permanent results, and those who adthis Memorandum will see that the argu- m used against enfranchisement to a great t apply equally to the conditions prevail- consequence of Rent Restriction, and e suspension of the leasehold system will ve serious results in the future, and its ec can already be discerned throughout the ntry, coupled with the breaking up of the g estates. The third section of the Memo- dum containing proposals for dealing with abilities attaching to the leasehold system ints some very practical suggestions, as. instance, that fines or payments demanded consent on the part of a landlord to altera- n and additions to premises should be made ecverable, as is the case under Section 3 the Conveyancing and Law of Property Act, 92 in the case of licences to under-let or ing, and that where properties are about be pulled down the measure of damages should be the actual damage to the reversion and not the cost of compliance with the lease at the end of the term as well as during its currency; but in connection with the proposals made it is suggested that a special tribunal should be set up, something on the model of that under the London Building Act with regard to party walls, which would have power to consider such questions as consent to alterations and additions, compensation for improvements, dilapidations, terms of renewal, and other matters. At the moment we prefer not to express any definite opinion on this proposal, but reserve our opinion. The whole report should be read and be given the most careful consideration.

BUILDING CONDITIONS IN CANADA

The general secretary of the United Operative Plumbers and Domestic Engineers' Association recently received the following letter from the United Association of Journeymen Plumbers and Steam Fitters of the United States and Canada, Local Union No. 46, regarding the condition of the building trade in Canada:—

"In view of the fact that many of your members are coming to Canada at the present time, I feel it is my duty to write you to inform you of the existing conditions of the trade here in Toronto, which is the largest local union in Canada, and to which city most of your members migrate. A large number of our members have been idle since December 1 last, and a number have only worked on broken time, in many cases a few hours each week. The prospects are that there will be many more months of idleness, as there is nothing doing in the building trades line. Many of our members, who were born here and were never out of the city, have been compelled to seek work in the United States, so you will no doubt realise the conditions existing at the present time. Therefore my object in writing you is to ask you to inform your members of the true state of the trade existing here at present, and to inform them that there is no possibility of obtaining work for many months, if at all. In conversation with some of your members who have recently arrived here, they have told me that in some of the districts the building work is fairly good in England. If that is so, it would be unwise for them to come to a strange country, where there are thousands out of work, notwithstanding reports to the contrary. I trust you will receive this letter in the spirit in which it is written, for I am of the opinion that, should the emigration continue to Canada, there is going to be many cases of suffering and hardship during the winter months to come."

Speaking recently at a meeting of the Council of the I.L.P., Mr. Tom Richardson, ex-M.P. for Workington, who has just returned from a visit to Canada, made the following statement with regard to the question of immigration into that country:—

"In view of the unemployment in the cities and the poor conditions on the land, it is not only criminal, but an act of cruelty to encourage people to seek work in Canada," he asserted. "There are thousands of unemployed in the cities, and 75 per cent. of the immigrants who go to work on the land go down."

Town Planning.

At a meeting of the London County Council, on May 27, Mrs. Lowe moved that it be referred to the Housing Committee and the Town-Planning (Special) Committee to consider and report whether or not the Council should exercise its powers under section 10 of the Housing (Additional Powers) Act, 1919, with a view to the establishment by the Council of garden cities (alternatively known as satellite towns or new industrial centres) on the general lines of Letchworth and Welwyn garden cities.

FACTORY LIGHTING

At a recent meeting of the Illuminating Engineering Society, Mr. P. J. Waldram lectured on "Some Problems in the Daylight Lighting of Textile Factories." In order to appreciate properly the extent to which lighting was affected by the exigencies of manufacture, it was, he said, necessary to review the processes involved between the receipt of the cotton in bale to the finished goods.

In all the operations of spinning the yarn was severely handled, and everything must be subordinated to keeping it supple and tenacious. The high temperatures and humidity required would be impossible in top-lit sheds. Side-lit rooms were the only possible structures, and even in them, although adequate natural illumination was almost essential, high and equable temperature, especially in fine spinning, was absolutely so. Large windows were, therefore, ruled out by the risk of frequent yarn breakages. Narrow rooms would help, but the necessary length of modern mules involved widths of 140 ft. or thereabouts.

The operations of weaving were far less trying to the completely spun yarn, and the necessary requirements of humidity and temperature permitted of them being carried out in single-story buildings. The only precaution necessary was to use north-light roofs with the steeper or glazed side facing the north or north-east to avoid sun. The shorter and steeper slope only of the weaving shed roof was glazed. If it faced due north and was not flatter than about 60 degs. with the vertical, all sun between 6 a.m. to 6 p.m. (nominally 7 a.m. to 7 p.m. summer time) would be excluded. That was important because with such a large glass area it was even more difficult to keep down the temperature in summer sufficiently to prevent the operatives collapsing from heat exhaustion than it was to keep it up in winter sufficiently to prevent undue breakage of yarn. At one time an aspect for the glass side of shed roofs slightly east of north was favoured, because the afternoon sun after 6 p.m. was hotter than the early morning sun before 6 a.m., but the introduction of summer time and the shortening of hours of working had rendered that almost unnecessary.

The card room, scutching room, conditioning room and reception bays almost invariably occupied the whole of the ground floor and the area they required was, fortunately for the lighting, greater than that of a spinning floor above. That meant that the long rectangular box of the mill proper was enlarged by sheds or one-story buildings on at least three sides, the engine and boiler rooms generally occupying one end. The sheds were usually top-lit—the card room proper being kept high to secure a belt of windows above the level of the shed roofs. The card room windows should, like all windows in textile buildings, go right up to the ceiling. Even a slight bulk-heading of the window in the thickness of the floor, to bring the top edge of the glass flush with or even slightly above the ceiling, was desirable in order to secure the maximum amount of reflected light from the ceiling, which should be whitewashed as frequently as possible. All conditioning, carding and combing operations required more vertical than horizontal light, in which they differed essentially from spinning operations. In modern card rooms a glass area of about 9 per cent. to 10 per cent. of the floor area was generally provided.

On account of the length of the modern mule, rooms 130 to 140 ft. wide were essential. There would probably be 10 to 12 bays of some 21 ft. to 22 ft. wide. The difficulties of keeping a high and equable temperature in rooms of these huge dimensions were obvious if the glass area was great; and attempts to use practically continuous windows had failed because of the severe cooling of the air round the ends of the mules. But the old 5 ft. to 5 ft. 6 in. brick pier between every pair of windows would be reduced. Even for fine spinning a ratio of 7.7 per cent. of glass to

floor was found in one of the newest and most successful mills, and in a very modern mill at Oldham he had found as much as 12 per cent. in a 140 ft. mule room. The lower squares of the windows were almost invariably glazed with hammered plate. That was said to give a soft diffused light surface against which to view the long lines of yarn. But as one did not view the yarns against the glass, but against a dark floor, there would appear to be more to be said for the alternative reason that such glass prevented a clear view and the workers' attention was not distracted. End windows in mule spinning rooms which threw cross lights between the spindles and destroyed the contrast between the light yarn and the dark floor were better omitted, especially in a south wall where the sun's rays were apt to scorch and even char the frame woodwork in highly heated rooms.

NEW BUILDINGS IN LONDON

Norbury.—POLICE STATION.—A new Police Station is now being erected near Norbury Station. The main building construction is of brickwork with Portland stone dressings. The sub-contractors are:—Portland stone, Messrs. F. Mortimer, Ltd.; steelwork and fireproof floors, Fawcett Construction Co., Ltd.; steel sashes, Messrs. Williams, Gamon & Co.; glazed bricks, Messrs. Leeds Fireclay Co.; artificial stone stairs, &c., Messrs. Patent Victoria Stone Co.; asphalte, Messrs. Lawford & Co.; wrot ironwork, Messrs. Clark, Hunt & Co. Mr. G. Mackenzie Trench, of Scotland Yard, is the architect. The builders are Messrs. A. E. Symes, of Carpenter's-road, Stratford, E.15.

Stratford.—DEPOT.—Messrs. Carter, Paterson, Ltd., are having a new depot at Stratford, which is to be the largest in the east of London. The architect is Mr. Leslie Carter. The buildings are executed in stock bricks and cement, comprising garage for a large fleet of lorries, stabling for 60 horses, with smithy, granary, &c., all complete. Also extensive loading bank with strong room and offices at end, including house for manager and roads all round. The sub-contractors are:—Stocks and cement, Messrs. J. Byford & Son, Ltd.; steelwork, Messrs. A. J. Main & Co.; roller shutters, Messrs. Adams & Co.; roofing, Messrs. Turners Asbestos Co.; glazing, Messrs. British Challenge Glazing Co. Messrs. A. E. Symes, of Carpenter's-road, E.15, are the builders.

Edgware-road.—BUILDING.—Shops and flats are being erected at 108–110, Edgware-road and 28, 29, 30, Upper George-street, W.1. The building is being constructed of brick with stucco dressings, reinforced floors by Messrs. Frazzi. Lifts (passenger and service to flats) are by Messrs. Waygood-Otis, together with the enclosure. Electric work by Messrs. Pinching & Walton; ranges and grates and mantels, by Messrs. Nicholls & Clarke; steelwork, by Mr. A. J. Bridle, 72, Victoria-street. Quantity Surveyor, Mr. Alan W. Davison, F.S.I., Belgravia Chambers, Victoria-street, S.W.1. Shop fittings by Messrs. E. Pollard & Co., Ltd. The demolition work is by Messrs. H. Sabey & Co. The general contractors are Messrs. Shurmur & Sons, Ltd., of Upper Clapton, E.5. Mr. L. S. Sullivan, F.R.I.B.A., of 158, Fenchurch-street, E.C.3, is the architect for the work.

Kentish Town-road.—REBUILDING.—Premises are being rebuilt for Messrs. C. & A. Daniels, drapers, at 174–178, Kentish Town-road. Mr. C. T. Armstrong and Messrs. Yates, Cook & Darbyshire are the joint architects for the work. The sub-contractors are: Steelwork, Messrs. Smith, Walker, Ltd.; fire escape staircase, pavement lights, &c., Messrs. Haywards, Ltd.; asphalte, Messrs. Thos. Faldo & Co., Ltd.; roofing, Messrs. Permanite, Ltd.; staircase balustrading, Messrs. Caston & Co.; heating, Messrs. James Slater & Co. (Engineers), Ltd. Messrs. T. H. Adamson & Sons, of High-street, Putney, are the builders.

RATES OF WAGES IN THE BUILDING TRADE

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Bricklayers.	C'p'ters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/-
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maldstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/0½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/2½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 892).

CONTRACTS, COMPETITIONS, &c.

ome contracts still open, but not included in this List, see previous issues. Those with an asterisk vertised in this number. Certain conditions beyond those given in the following information posed in some cases, such as that advertisers do not bind themselves to accept the lowest or any ; that a fair wages clause shall be observed ; that no allowance will be made for tenders ; and posits are returned on receipt of a bona-fide tender unless stated to the contrary.

date given at the commencement of each paragraph is the latest date when the tender, or the names willing to submit tenders, may be sent in ; the name and address at the end is the person from whom e where quantities, forms of tender, &c., may be obtained.

UILDING AND PAINTING.

31.—**Eastleigh.**—BRIDGE.—For the widening -concrete of a brick-built bridge and erection ning walls, for the U.D.C. Mr. W. W. Gandy, r, Council Offices, Eastleigh.

31.—**Goole.**—ANNEXE.—Erection of annexe as room at Rawcliffe Hall, near Goole, for West Mental Deficiency Act Committee. West Architect, County Hall, Wakefield.

31.—**Kilrea.**—WAR MEMORIAL.—For erection of emorial. Mr. S. J. M'Fadden, architect, e. Deposit £1 1s.

31.—**Lewisham.**—BRICKLAYING.—For building nd vaults, &c., at Ladywell and Hither Green y, for one or three years, for B.C. Mr. J. W. Town Clerk.

31.—**Leyton.**—PAINTING, &C.—Cleansing and schools, and for repairing and re-dressing the ing of playgrounds, for the U.D.C. Mr. John ques, Lic.R.I.B.A., 61, West Ham-lane, Strat- .15. Deposit £1.

31.—**Nantymoel (Glam).**—ADDITIONS.—king alterations to and erecting additions to rn Band Institute. Messrs. P. J. Thomas & Sons, cts, Bridgend (Glam).

31.—**Neath.**—ADDITIONS.—For alterations and ns to the laundry block and entrance hall at gan Farm School, for the C.C. Mr. T. Mansel n, Clerk, Glamorgan County Hall, Cardiff.

1.—**Browney Colliery.**—RENOVATIONS.—For ion of Institute. Mr. W. Grey, 20, Front- Browney Colliery, Durham.

2.—**Carlisle.**—CONVERSION.—For the conver- outbuildings adjoining Coledale Hall into farm- for the T.C. Mr. H. C. Marks, City Engineer,

2.—**Charlton.**—FENCING.—For (1) cleft pale cing and (2) wrought iron unclimbable fencing ron, Wilson Park, for the L.C.C. Chief Officer s Department, County Hall, S.E.

2.—**Chester.**—PAINTING.—For internal decora- Cherry-grove County School, for the T.C. Mr. enwood, City Engineer, Chester.

2.—**Devizes.**—HOUSES.—For the erection of ottages at Bromhand, and two cottages at e, for the R.D.C. Mr. T. V. Trumper, surveyor, oria-villas, Bath-road, Devizes.

2.—**Glamorganshire.**—VARIOUS WORKS.—(1) ndy Police Station, alterations and additions ; ndale Police Station, alterations and additions ; th Police Court, construction of new porch and use, &c. ; (4) Gowerton Police Station, construc- new porch, &c. ; (5) Canton Police Station, l and external painting, repairs, &c. ; (6) Dow- lice Station, renewal of rain-water gutters, &c., ternal painting and repairs ; (7) Southerndown Cottage, internal painting, repairs, &c. Mr. T. nklin, Clerk, Glamorgan C.C., Cardiff.

2.—**Huddersfield.**—HOUSE.—For the erection of ched house at Gledholt. Messrs. J. H. Hall & rchitects, Market-street, Huddersfield.

2.—**Hull.**—HOUSES.—For erection of 200 on East Hull Site, for the T.C. City Architect,

2.—**Ilford.**—PREMISES.—For new club es, for the Lexford Social Club and Institute. J. Lewis, 12, Toronto-road, Ilford. Deposit £2.

2.—**Lincoln.**—HOUSES.—For the erection of for the T.C. Builders to submit own plans and s. Mr. L. O. Need, Town Clerk, Town Hall,

2.—**London, E.C.2.**—REDECORATION.—ration of the Hoxton Public Library, Pitfield- N. 1, for the Shoreditch B.C. Mr. T. L. Hustler, h Surveyor, Town Hall, Old-street, E.C. 2.

2.—**Margate.**—PAINTING.—Internal decora- the Engineer's house and workmen's cottages Corporation's Waterworks Pumping Station at am, near Canterbury. Borough Engineer, svenor-place, Margate.

2.—**Poole.**—HOUSES.—Erection of 48 houses, rains, fences, &c. (1) five pairs at Granville- (2) twelve pairs at Grove-road ; (3) seven t Hamworthy-road, for the Poole B.C. Mr. J. Newman, Borough Surveyor, Municipal Poole.

2.—**Porthcawl.**—HOUSE.—For erection of ed residence for Mr. G. Hutchins. Mr. W. vood, architect, Porthcawl.

2.—**St. Helens.**—POWER STATION.—(*a*) The ion of part of the existing engine-house at the tion's Electricity Power Station at Cropper's d the erection of a new building on the site ; (*b*) the work and materials required in connec- h the steel and ironwork for the new building to in (*a*). Mr. A. Bradley, Borough Engineer, ens. Deposit £2.

2.—**Saltash.**—EXTENSIONS.—For alterations ensions to the Working Men's Club. Messrs. Adams, architects, 28, Ker-street, Devonport.

2.—**Sedbergh.**—HOUSES.—For new boarding- or fifty boys, with masters' residence. Messrs. & Sons, surveyors, Lancaster.

2.—**Strabane.**—COTTAGES.—For the erection cottages at Northwest Agricultural School, for vernment of Northern Ireland. Secretary, of Finance, 15, Donegal-square, W. Belfast.

JUNE 2.—**Wakefield.**—PAINTING.—For internal and external painting at the County Hall, Wakefield, and internal painting at the West Riding Land Agent's Offices, Cliff-lane, Wakefield. West Riding Architect, County Hall, Wakefield.

JUNE 2.—**West Ham, London, E.15.**—PAINTING AND REPAIRS TO SCHOOLS.—Cleansing, painting and repairing various schools during the summer vacation, for the Education Committee of the County Borough of West Ham. Mr. John H. Jacques, Lic.R.I.B.A., Architect to the Committee, 61, West Ham-lane, Stratford, E.15. Deposit £1.

JUNE 2.—**Workington.**—PREMISES.—For the erection of new gas distribution premises for the T.C. Mr. H. B. Williams, Borough Electrical Engineer, Town Hall, Workington. Deposit £3 3s.

JUNE 3.—**Ballymena.**—HOUSES.—For the erection in Ballymena Rural District of five cottages for ex-servicemen. Ministry of Finance, 15, Donegall-square West. Belfast. Deposit £1.

JUNE 3.—**Barnsley.**—PAINTING.—For painting the Beckett Hospital, Barnsley. Apply Secretary, Beckett Hospital.

JUNE 3.—**Barnsley.**—WHITEWASHING.—For whitewashing and distempering Gawber-road Working Men's Club. Mr. Jas. Ainsworth, Secretary, Barnsley.

JUNE 3.—**Belfast.**—WALL.—For erection of boundary wall in connection with widening of Holywood-road, for the T.C. City Engineer, Belfast.

JUNE 3.—**Brownhills.**—HOUSES.—For the erection of 100 houses for the U.D.C. Mr. H. P. Hing, architect, 121, Colemore-row, Birmingham. Deposit £5.

JUNE 3.—**Hoylake.**—HOUSES.—Erection of six pairs of semi-detached houses, for U.D.C. Surveyor, Town Hall, Hoylake. Deposit £2 2s.

JUNE 3.—**Huddersfield.**—HOUSE.—For erection of house, Thurpe-lane, Elmansbury. Mr. W. C. Garner, quantity surveyor, 1, Westgate, Huddersfield.

JUNE 3.—**London, S.W.18.**—MOTOR GARAGE EXTENSION.—Extension of motor garage at St. James' Hospital, Ouseley-road, Balham, S.W.12, for the Guardians of the Wandsworth Union. Mr. F. J. Curtis, Clerk, Union Offices, St. John's Hill, Wandsworth, S.W.18.

JUNE 3.—**Marsden.**—HOUSES.—Erection of 36 houses for U.D.C. Mr. H. Greenwood, Clerk, Marsden, near Huddersfield. Deposit £1 1s.

JUNE 3.—**Sheffield.**—BUILDINGS, WORKS AND PLANT.—Buildings, works and plant required in connection with the erection and equipment of a new electricity generating station at Blackburn Meadows, Sheffield, for the Electricity Supply Committee of the City of Sheffield. Mr. S. E. Fedden, M.Inst.C.E., General Manager and Engineer, Commercial-street, Sheffield. Deposit £3 in respect of each specification up to three will be refunded on receipt of a *bona-fide* tender.

JUNE 4.—**Clayton-le-Moors.**—ALTERATIONS, &C.—For alterations, sanitary accommodation, &c., at Town Hall, for the U.D.C. Mr. A. Dodgeon, Surveyor, Council Offices, Clayton-le-Moors. Deposit £2.

★JUNE 4.—**Coventry.**—SCHOOL.—Erection of proposed school for 580 children, at Stoke Heath, Wyken Grange, Coventry. Mr. A. C. Bunch, County Architect, 27, Binswood-avenue, Leamington.

JUNE 4.—**Ebbw Vale.**—PAINTING.—For painting the hutments at : (*a*) Cwm-road, Waunlwyd ; (*b*) Briery Hill ; (*c*) Waungoch District, Beaufort ; (*d*) Recreation Ground, Beaufort, for the U.D.C. Mr. P. I. Davies, Council Offices, Ebbw Vale, Mon.

JUNE 4.—**Hemsworth.**—HOUSES.—For the erection of 30 houses and construction of roads and sewers at Littlehoughton, for the R.D.C. Mr. W. T. Lynam, architect, Hemsworth.

JUNE 4.—**Hemsworth.**—HOUSES.—For the erection of 30 houses, Havercroft, for the R.D.C. Mr. W. T. Lynam, architect, Hemsworth.

JUNE 4.—**Hemsworth.**—HOUSES.—For the erection of 40 houses and construction of roads and sewers at South Hindley, for the R.D.C. Mr. W. T. Lynam, architect, Hemsworth.

JUNE 4.—**Manchester.**—SLATING.—For the stripping and reslating of a portion of the roof of the Smithfield Fruit and Vegetable Market, for the T.C. General Superintendent, Markets Office, Town Hall, Manchester.

JUNE 4.—**Portadown.**—COTTAGES.—For erection of twenty cottages, for Government of Northern Ireland. Mr. W. D. Scott, Ministry of Finance, Belfast. Deposit £1.

JUNE 4.—**Sheffield.**—PAINTING.—For painting, distempering, &c., at the Collegiate Hall, College of Domestic Science, Abbeydale Secondary School (Abbeydale Grange), Central Secondary Boys' School (Science block), Central Secondary Girls' School (Kenwood Annexe), and Technical School of Art, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

JUNE 5.—**Aberayon.**—REPAIRS.—For repairing and decorating the Manse, Wellington-street, Aberayon. Secretary, Manchester House, Aberayon.

JUNE 5.—**Hampton.**—HOUSES.—For the erection and completion of 31 houses on the Priory-road site for the U.D.C. Mr. Sidney H. Chambers, Surveyor to the Council, Public Offices, Hampton, Middlesex. Deposit £2 2s.

JUNE 5.—**Kelloholm.**—SCHOOL.—For the erection of a school at Kelloholm, Kirkconnel, for the Dumfriesshire Education Authority. Mr. J. R. Hill, Education Offices, Dumfries.

JUNE 5.—**Lichfield.**—HOUSES.—For the erection of six parlour type houses, for the T.C. Mr. P. A. Benn, City Surveyor, Lichfield. Deposit £2 2s.

★JUNE 5.—**London, S.W. 2.**—PAINTING.—External painting of housing estates situate in St. Louis-road, West Norwood, S.E. 27, and Redan-terrace, Camberwell, S.E. 5, for the Lambeth B.C. Mr. Osmond Cattlin, Borough Engineer, Town Hall, Brixton Hill, S.W. 2, on receipt of a stamped addressed envelope.

JUNE 5.—**Sheffield.**—PAINTING.—For cleaning and painting at the Court House and buildings adjoining in Castle-street and Waingate, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

JUNE 5.—**Warrington.**—PAINTING.—For painting and decorating various schools, for the T.C. Mr. A. M. Ker, Borough Engineer, Warrington.

JUNE 5.—**West Norwood.**—ALTERATIONS, &C.—For (*a*) structural alterations and redecorations at the Hannen House Welfare Centre, Hannen-road ; and (*b*) construction of a convenience and lavatory at the Rommany-road depot, Rommany-road, for the Metropolitan Borough of Lambeth. Mr. Osmond Cattlin, A.M.I.C.E., Borough Engineer, Town Hall, Brixton Hill. S.W.2.

JUNE 5.—**Wortley.**—HOUSES.—For the erection of 20 houses at Ecclesfield, for the R.D.C. Mr. F. Thurlby, surveyor, Wortley. Deposit £2 2s.

JUNE 6.—**Long Stratton.**—REPAIRS.—For repairs to cottages and farm buildings at Ford's Farm, Long Stratton, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich. Deposit £1 1s.

JUNE 6.—**Lough Derg, Co. Donegal.**—FOUNDATIONS.—Constructing the foundations (to be built partly in the Lake) of the proposed new church designed by the late Professor W. A. Scott, at St. Patrick's Purgatory. Mr. Thomas J. Cullen, F.R.I.A.I., architect, 25, Suffolk-street, Dublin.

JUNE 6.—**Manchester.**—PAINTING.—For painting grand stand of the Manchester United Football Club. Mr. J. H. Chapman, Secretary, Warwick-road North, Old Trafford.

JUNE 6.—**Martham.**—REPAIRS.—For repairs to cottages and farm premises at Thunderhill Farm, Martham, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich. Deposit, £1 1s.

JUNE 6.—**Middlewich.**—ALMSHOUSES.—For the erection of four almshouses, for the Trustees of the Charity of William Allcock. Mr. F. W. Stocks, Town Hall Buildings, Middlewich.

JUNE 6.—**Penybont.**—HOUSES.—(1) Erection of 16 parlour and six non-parlour houses at Pyle ; (2) of 16 parlour and six non-parlour houses at Pyle ; (3) of 14 parlour type houses at Sarn ; (4) of six non-parlour type houses at Sarn, for the R.D.C. Mr. J. Simon Davies, surveyor, 8, Wyndham-street, Bridgend. Deposit £2 2s.

JUNE 6.—**Repps-cum-Bastwick.**—REPAIRS.—For repairs to cottages and farm buildings at Lynford Farm, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich. Deposit £1 1s.

JUNE 6.—**Rochford.**—HOSPITAL BLOCK.—For erection of hospital block, extension of nurses' home, new board room, &c., for the B.G. Mr. Norman Evans, architect, 26, County Chambers, Southend-on-Sea. Deposit £1 1s.

★JUNE 6.—**St. Helens.**—HOSPITAL EXTENSIONS.—New wing at the St. Helen's Hospital. Messrs. Biram & Fletcher, architects, St. Helens.

★JUNE 7.—**Alnwick.**—HOUSES.—Erection of 24 houses in one or more pairs, for the Alnwick U.D.C. Mr. G. Reavell, architect, Lloyds Bank Chambers, Alnwick.

JUNE 7.—**Bridgend.**—ALTERATIONS.—For additions to the Masonic Buildings, Adair-street, Bridgend, for the Ogmore Lodge Freemasons. Mr. O. D. Davies, architect, 18, King's-terrace, Nantyffyllon, near Bridgend.

JUNE 7.—**Durham.**—HOUSES.—For the erection of 12 houses in Wenlock-road, Tyne Dock, for the Proposed Durham County Public Utility Society, Ltd. Mr. Stephen Wilkinson, architect, L. & N.E. Railway (N.E. Area), Irving House, Westgate-road, Newcastle-upon-Tyne.

JUNE 7.—**Lochgelly.**—HOUSES.—For reconstruction of insanitary area property, for the T.C. Mr. Robert Small, Town Clerk, Lochgelly. Deposit £1 1s.

JUNE 7.—**Swaffham.**—CHAPEL.—For erection of a chapel in the Cemetery at Hilborough-road, Swaffham, for the Burial Board. Mr. O. W. Parry, surveyor, Shire Hall, Swaffham.

JUNE 9.—**Aberdeen.**—EXTENSIONS.—For extensions at Kinseat Mental Hospital, for the City District Board of Control. Messrs. Gall & Hay, architects, 177, Union-street, Aberdeen.

JUNE 9.—**Jacobstowe.**—RECTORY.—For the erection of a rectory at Jacobstowe, North Cornwall. Messrs. Parkes, Lees & Roservear, architects, Launceston.

JUNE 10.—**Bucklow.**—NURSES HOME.—For the erection of a nurses' home at the Institution, Knutsford, for the B.G. Mr. W. Kennedy, Lic.R.I.B.A., 14, St. Peter's-square, Manchester. Deposit £2 2s.

JUNE 10.—**Foynes.**—STATION BUILDINGS.—For restoration of Foynes Station buildings, for the Great Southern and Western Railway Co. Chief Engineer, Inchicore, Dublin. Deposit £1 1s.

JUNE 10.—**Walthamstow.**—RENOVATION WORKS.—For works of interior and exterior renovation in painting and distempering, &c., as follows :—Winns-avenue Schools, interior and exterior ; Queen's-road Schools, exterior ; Blackhorse-road Schools, exterior ; Selwyn-avenue (Junior Department only), interior ; St. Saviour's Boys' School, interior ; Offices, High-street, exterior. Mr. H. Prosser, M.S.A., Education Committee Offices, 263, High-street, Walthamstow, E.17.

JUNE 11.—**Barnet.**—TIMBER AND ASBESTOS BUILDING.—Provision and erection of a timber-framed asbestos-lined building on brick foundations, intended to be used as an office for the Barnet Rural District Council. Mr. A. J. Wiltshire, Engineer and Surveyor to the Council, Council Offices, Boreham Wood.

JUNE 11.—**Glasgow.**—EMPLOYMENT EXCHANGE.—For the erection of an employment exchange at Bridgeton, for H.M. Commissioners of Works. Architect, H.M. Office of Works, Edinburgh. Deposit £1 1s.

JUNE 11.—**Pontardawe.**—HOUSES.—For erection of 12 houses at Alltwen site, for R.D.C. Mr. E. D. Jones, Council Offices, Pontardawe. Deposit £2.

JUNE 11.—**Romsley.**—COTTAGE.—For the erection of a police cottage for the Worcester C.C. Mr. A. V. Rowe, County Architect, Worcester.

JUNE 11.—**Sheffield.**—ADDITIONS.—For additions to Attercliffe Employment Exchange, for H.M. Commissioners of Works, Contracts Branch, H.M. Office of Works, King Charles-street, S.W. Deposit £1 1s.

JUNE 11.—**West Bromwich.**—BUILDER'S WORK.—For excavating and builder's work at Halum House, for the B.G. Messrs. Edwards & Shaw, Consulting Engineers, 105, Colemore-row, Birmingham. Deposit £5 5s.

JUNE 12.— **Colchester.**—ALTERATIONS, &C.—For painting, distempering, alterations and additions to lavatory accommodation at various Council schools, for the T.C. Messrs. Goodey & Cressell, architects, St. Peter's Chas., Colchester.

JUNE 12.—**Lichfield.**—PAINTING, &C.—(1) Erection of public conveniences in Chase Town; and (2) painting of Council houses, for the R.D.C. Surveyor, Rural Council House, Lichfield.

JUNE 12.—**Salford.**—PAINTING.—For painting works at the cottage homes, Culcheth, near Leigh, for the B.G. Mr. E. H. Inchley, clerk, Poor Law Offices, Eccles New-road, Salford.

JUNE 12.—**West Molesey, Surrey.**—BRICK BUILDINGS.—Erection of two brick buildings at West Molesey, Surrey, including the following trades:—Bricklayer, carpenter and joiner, pavior, mason, slater, plasterer, plumber, glazier and painter, sanitary and sundry works. Messrs. Christiani & Neilson, 72–74, Victoria-street, S.W.1. Deposit £1 1s.

JUNE 13.—**Aylesford.**—HOUSES.—Erection of 25 houses for the Industrial Settlement (Incorporated) at Preston Hall, Aylesford, near Maidstone. Messrs. Collcutt & Hamp, architects, 126, Wigmore-street, London, W.1. Deposit £1 1s.

JUNE 13.—**Colchester.**—PAINTING, &C.—For painting and other works at Myland School and Kendal-road non-provident school, for the T.C. Mr. D. W. Clark, architect, Colchester.

JUNE 14.—**Bristol.**—PAINTING.—For painting, &c., of certain schools, for the T.C. City Estates Surveyor, The Exchange, Bristol. Deposit £1 1s.

✱JUNE 14.—**East Ham, E. 6.**—REPAIRS, PAINTING, &C.—Repairs, painting and sundry works to various schools in the Borough. Borough Engineer, Town Hall, East Ham, E. 6. Deposit 10s. in respect of each specification.

JUNE 14.—**Essex.**—PAVILION.—Erection and completion of a pavilion (brick built) at the Bowling Green, Young's Nursery, for the Corporation of Southend-on-Sea. Mr. R. H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

JUNE 14.—**Evesham.**—HOUSES.—For the erection of 26 houses on the King's-road, Bengeworth, site, for the T.C. Mr. J. Abbott, Borough Surveyor, Town Hall, Evesham. Deposit £2 2s.

JUNE 16.—**Aberystwyth.**—PAINTING.—For the internal painting and decorating of the Alexandra Hall of Residence, Aberystwyth. General Secretary, University College of Wales, Aberystwyth.

JUNE 16.—**Coventry.**—CONVENIENCE.—For the erection of an underground convenience at Grey Friars Green, for the T.C. Mr. J. E. Swindlehurst, City Engineer, Coventry. Deposit £2 2s.

JUNE 16.—**London, N.W.1.**—ALTERATIONS.—Certain structural alterations at the Public Baths, Marylebone-road, in connection with the installation of filtration plant for First Class Swimming Baths, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

JUNE 16.—**Manchester.**—GARAGE.—For erection of motor bus garage at Didsbury, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

JUNE 16.—**Paisley.**—ANNEXE.—For erection of special classes school annexe, Paisley, for the Renfrewshire Education Authority. Mr. J. Hamilton Pullar, County Education Offices, Paisley. Deposit £1 1s.

✱JUNE 16.—**Southend-on-Sea.**—PAINTING, &C.—For cleaning and painting at various Council Schools, for the Corporation. Mr. Robert H. Dyer, Borough Engineer, Southend-on-Sea. Deposit £1 1s.

JUNE 17.—**Bessington.**—REPAIRS.—For repairs to the large temporary building at Council school, for West Riding C.C. Education Department, County Hall, Wakefield.

✱JUNE 17.—**London, S.W.**—TELEPHONE EXCHANGE.—Erection of the "Western" Telephone Exchange in Trafalgar-place, South Kensington, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

✱JUNE 18.—**Cheltenham.**—SCHOOLS.—Completion of the new Swindon-road Council Schools. The additions to the buildings include (*a*) Erection of new classrooms; (*b*) alteration of Swindon-road boys' school; (*c*) erection of practical instruction buildings, for the Cheltenham Education Committee. Mr. L. W. Barnard, architect, Promenade, Cheltenham. Deposit £2 2s.

✱JUNE 18.—**Herne Bay.**—HOUSES.—Erection of twelve semi-detached houses, all of the same design, for the Herne Bay U.D.C. Mr. B. J. Wormleighton, Engineer and Surveyor, Town Hall, Herne Bay. Deposit £3 3s.

✱JUNE 18.—**London.**—PAINTING, &C.—Separate tenders for (1) External cleaning and painting at Sheffield-strect Hospital, Sheffield-street, W.C.2; (2) Cleaning and painting and repairs at the North-Eastern Fever Hospital, St. Ann's-road, Tottenham, N. 15, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1 each.

✱JUNE 18.—**London.**—PAINTING, &C.—Separate tenders for cleaning and painting works and repairs at Eastern Fever Hospital, Homerton-grove, E. 9; Park Fever Hospital, Hither Green, S.E. 13; Wandsworth Casual Ward, Swaffield-road, S.W. 18; Paddington Casual Ward, Woodfield-road, Harrow-road, W., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1 each.

JUNE 18.—**Longton.**—SCHOOL.—Erection of school at Longton, near Preston, for the Lancashire C.C. Mr. H. Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

✱JUNE 18.—**Near Dartford, Kent.**—PAINTING, &C.—For cleaning and painting works and repairs at the Southern Hospital, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

✱JUNE 18.—**Sutton, Surrey.**—STEEL CONSTRUCTION.—For erection of forage store (Dutch barn), at Belmont Stables, Stanley-road, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

JUNE 20.—**Montrose.**—SCHOOL.—Erection of elementary school for Forfarshire Education Authority. Mr. Hugh Gavin, architect, 194, High-street, Montrose. Deposit £1 1s.

JUNE 20.—**Norwich.**—PAINTING.—For painting of Burlingham Hall, near Norwich, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich.

✱JUNE 23.—**Dorking.**—COTTAGES.—Erection of fifty cottages, in lots of ten or multiples of ten, in one contract. The contracts to include the actual erection of cottages only, excluding drainage, roads, paths and fencing, for the Dorking U.D.C. Mr. S. S. Gettings, Surveyor, Council Offices, Dorking. Deposit £2 2s.

✱JUNE 25.—**Gravesend.**—HOUSES.—For the erection alternatively of 50 and 100 houses on King's Farm Estate, for the Corporation. Mr. H. H. Brown, Town Clerk, 4, Woodville-terrace, Gravesend, Kent. Deposit £2 2s.

✱JUNE 25.—**London, E. 5.**—SHOWROOMS.—For the erection of the building required for electricity showrooms at Lower Clapton-road, for the Metropolitan Borough of Hackney. Mr. J. A. Bowden, 30, Craven-street, Strand, W.C. 2. Deposit, £2 2s., to Mr. H. R. Lee, Town Clerk, Town Hall, Hackney, E. 8.

✱JULY 8.—**Greenwich, S.E. 10.**—UNLERGROUND CONVENIENCE.—Construction of an underground convenience for both sexes, at the foot of Blackheath-hill, Greenwich, for the Council of the Metropolitan Borough of Greenwich. Borough Engineer, Town Hall, Greenwich, between the hours of 10 a.m. and 4 p.m. (Saturdays, 10 a.m. and 12 noon).

NO DATE.—**Birmingham.**—HOUSES.—Erection of one (or two) pairs of houses in Pershore-road, Edgbaston. Mr. W. H. D. Caple, F.R.I.B.A., Queen's College, Birmingham.

NO DATE.—**Brighouse.**—PAINTING.—For painting work at five schools and the Mechanics' Institute, for the T.C. Mr. A. W. Hoyle, Director of Education, Brighouse.

NO DATE.—**Bryngwyn.**—PARISH ROOM.—For the erection of a parish room in the parish of Bryngwyn, near Raglan. Mr. W. Evans, Court Robert Farm, near Raglan.

NO DATE.—**Congleton.**—MILLS.—For the erection of new mills for Redfern, R. Head & Co. Mr. J. M. Walters, architect, Moody Chambers, Congleton. Deposit £2.

NO DATE.—**Haverfordwest.**—PAINTING.—For painting and decorating the premises of the Liberal Club, for the Committee. The Joint Secretaries, at the Club.

NO DATE.—**Kidwelly.**—STORES.—For the erection of new stores at Kidwelly, for the Carmarthen Farmers' Co-operative Society (Ltd.). Mr. J. Howard Morgan, architect, 24, King-street, Carmarthen.

NO DATE.—**Kilmarnock.**—HOUSES.—For the erection of 24 houses, for the T.C. Mr. Robert Armour, surveyor, 38, Bank-street, Kilmarnock.

NO DATE.—**Newport (Salop).**—HOSPITAL.—For the erection of a cottage hospital for the Anabella Lady Boughey Hospital Trust. Mr. F. Hearn, architect, 42, Deansgate-street, Manchester.

NO DATE.—**Seven Sisters (Neath).**—PUMP HOUSES, &C.—For making pump houses and driving a cross-cut, underground, at Seven Sisters Colliery, Seven Sisters, Neath, for the proprietors. The Manager, Seven Sisters, Colliery Offices, Neath.

✱NO DATE.—**Walthamstow.**—CHURCH HALL.—Erection of church hall, semi-permanent. Mr. N. Lake, 30, Blackhorse-road, Walthamstow, E. 17.

NO DATE.—**Weston-super-Mare.**—ADDITIONS.—For additions to the Masonic Hall, Clevedon, Somerset. Messrs. Fry, Paterson & Jones, architects, Waterloo-street, Weston-super-Mare.

FURNITURE, MATERIALS, etc.

JUNE 2.—**Charlton.**—FENCING.—Supply and erection of (1) cleft pale oak fencing; and (2) wrought-iron unclimbable fencing, at Maryon Wilson Park, Charlton, for the L.C.C. Chief Officer of the Parks Department (Room 393 F), The County Hall, Westminster Bridge, S.E.1.

JUNE 2.—**Dewsbury.**—MANHOLE COVERS.—Supply of cast-iron manhole covers and gulley crates, to the T.C. Mr. H. Dearden, Borough Engineer, Dewsbury.

JUNE 2.—**Dublin.**—STORES.—For six months' stores for the Midland Great Western Railway of Ireland. Storekeeper, Broadstone Station, Dublin. Tender forms of which there are 46, 6d. each.

JUNE 2. — **Honley.** — MATERIALS. — Supply 1,300 tons of 4 in.×5 in. granite setts to the U Mr. H. N. Royston, surveyor, Honley.

JUNE 2.— **South Africa.**—VARNISHES, &C.—Supp South African Railways of varnishes and free fl enamels. Department of Overseas Trade, 35, Queen-street, S.W. Reference 13615/E.D./C.C.

JUNE 4.—**Dublin.**—MATERIALS.—Supply of for six months to the Great Southern and We Railway (Ireland) Co. Stores Superintendent, core, Dublin.

JUNE 6.—**Swinton.**—GRANITE SETS.—For supp 300 4 in. by 6 in. granite sets to the U.D.C. M Entwhistle, Council Offices, Swinton.

JUNE 7.— **Stockton-on-Tees.** — MATERIALS. — stores for Stockton-on-Tees and Thornaby Joint poration Tramways. Manager, Bridge-road, Stoc on-Tees.

JUNE 10.—**Warrington.**—PROTECTOR SLABS.—S of reinforced concrete cable protector slabs, fo T.C. Mr. F. V. L. Mathias, Borough Electrical gineer, Warrington.

JUNE 11.—**Liverpool.**—STORES.—For supply of to Liverpool Overhead Railway Co. General Man 31, James-street, Liverpool.

NO DATE.—**Warrington.**—FURNITURE.—For ge office furniture for new offices of B.G. Messrs. W & Seagar Owen, architects, Warrington. Deposit

ENGINEERING, IRON AND STE

MAY 31.—**Cardiff.**—STEEL WORK.—For supp and erecting about 90 tons of steel work at the br carrying the Cardiff and Penarth-road over the r Taff and Ely. Mr. E. W. M. Corbett, 3, Castle-st Cardiff.

MAY 31.—**Penarth.**—STEELWORK.—For supp and erecting between 80 and 90 tons of steelwork a bridges on the Penarth-Cardiff road over the rivers and Ely. Mr. E. W. M. Corbett, Manager of the R 3, Castle-street, Cardiff.

JUNE 2.—**Dublin.**—STEELWORK.—Supply of work for Bridges Nos. 643 and 645, Cavan Branch the Midland Great Western Railway of Ireland Chief Engineer, Broadstone Terminus, Dublin. ment 8s.

JUNE 2.—**Newmarket.**—PIPES.—Supply of 200 of 3 in. cast iron pipes and specials to the R Messrs. Sands & Walker, Milton-street, Nottingh Deposit £2 2s.

JUNE 2.—**Silsden.**—PIPES.—For the supply of iron water mains of various sizes to the U.D.C. veyor, Town Hall, Silsden.

JUNE 7.—**Dumfries.**—WATERWORKS.—(1) Exten of filter house and excavations, &c., (2) construction reinforced concrete clear water tank on the Hennet system, (3) provision and erection of mechanical f (4) Kelloholm water mains and sewers, for Dum C.C. Mr. W. C. Easton, Civil Engineer, 183, George-street, Glasgow. Deposit £1 1s.

JUNE 7.—**Troon.**—GAS HOLDER.—Supply and tion of a three-lift spiral guided gas-holder of 500 cubic feet capacity with steel tank and connections the T.C. Mr. J. W. Beveridge, Engineer, Gas Wo Troon.

JUNE 10.—**Chosham Bois.**—FENCING.—For fencing and gates for cemetery, for the Parish Counc Chesham Bois. Mr. T. T. Thorpe, clerk, 180, H hampstead-road, Chesham.

JUNE 10.—**Walton.**—PIPES.—For supply of 13 pipes and specials for the Metropolitan Water Board Walton Pumping Station. Chief Engineer, Off 173, Rosebery-avenue, E.C.

JUNE 16.—**Sligo.**—STEELWORK.—For supply steelwork for station roof, for the Midland G Western Railway of Ireland Co. Chief Engi Broadstone Terminus, Dublin. Charge £1.

JUNE 17.—**London.**—BRIDGES.—Supply of gi bridges to the Madras and Southern Mahratta Rail Co. Secretary, 25, Buckingham Palace-road, S Charge £1 1s.

JUNE 25.—**London.**—BRIDGES.—Supply of gi bridges to East Indian Railway Co. Secretary, King William-street, E.C. Charge £1 1s.

JULY 1.—**Chili.**—HARBOUR WORKS.—For the w of improvement of the Harbour of Constitucion, C Chilian Legation, 22, Grosvenor-square, W.1.

NO DATE.—**Caerphilly.**—BRIDGE.—For constru for the Caerphilly and the Bedwas and Machen U.D a ferro-concrete footbridge over the Rhymney Riv Pontypandy, Caerphilly. Mr. T. H. Richards, veyor, Council Offices, Caerphilly (Glam.).

ROAD, SANITARY, AND WATE WORKS.

MAY 31.—**Kingston-on-Thames.**—SEWER.—Cons tion of a foul water sewer and a surface water sew Cambridge-road, for T.C. Borough Surveyor, E ston. Deposit £1 1s.

MAY 31.—**Mytholmroyd.**—ROADS.—For recons tion of 3,230 lineal yards of the Todmorden, Halifax Burnley main road, for the West Riding C.C. Riding Surveyor, County Hall, Wakefield. De £1 1s.

MAY 31.—**Stretford.**—ROADS.—For paving in asphalte, &c., for the U.D.C. Mr. Ernest Wo Surveyor, Stretford Council Offices, Old Traf Deposit £2 2s.

JUNE 2.—**Arundel.**—CONVENIENCE.—For the tion of a sanitary convenience, for the T.C. Bor Surveyor, Arundel.

JUNE 2.—**Barnsley.**—ROADS.—For making following streets and back roads:—Blenheim-road: of); Langdale-road (part of); back roads betwee George's-road and Blenheim-road. Borough Engi Fairfield House Offices, Barnsley.

JUNE 2.—**Chester.**—ROADS.—For roads and se works on the Curzon Park Estate, for the T.C. C. Greenwood, City Engineer, Chester. De £1 1s.

NE 2.—**Hebden Bridge.**— ROADS.—For reconstruc- of 698 yards of the Todmorden Halifax and nley main road, for the U.D.C. Mr. H. Bottomley, eyor, Hebden Bridge. Deposit £1.

NE 2.—**Lanark.**—ROADS.—For widening and roving of Tollcross-Uddingston-road, for the ark C.C. Mr. W. A. Chapman, Surveyor, District ces, Hamilton.

NE 2.—**Lisburn.**—ROADS.—For reconstruction and rfacing of roads for the U.D.C. Mr. T. W. Wilson, n Clerk, Lisburn.

NE 2.—**Meltham.**—SEWER.—For construction of er, &c., for the U.D.C. Messrs. Abbey & Hanson, neers, 11, Cloth Hall-street, Huddersfield. Deposit

NE 2.—**Newmarket.**—WATER MAINS.—For laying miles of 3 in. cast iron water pipes, &c., for the .C. Messrs. Sands & Walker, Milton-street, tingham. Deposit £2 2s.

NE 2.—**Porthcawl.**—WATER MAINS, &c.—Con- ction of small filter bed and laying of 170 yds. of er main, for the U.D.C. Mr. T. L. Oliver, surveyor, thcawl. Deposit £3 3s.

NE 2.—**Warrington.**—ROADS.—For supply and ng of bituminous material on roads in various parts he Borough, for the T.C. Mr. A. M. Ker, Borough ineer, Warrington.

NE 2.—**Wealdstone.**—CULVERT.—For the construc- n of concrete culvert for the U.D.C. Mr. H. Walker, veyor, Council Offices, Wealdstone. Deposit £1.

NE 3.—**Ealing.**—ROADS.—For making-up Hilcroft- cent, Mervyn-road and Raymond-avenue, for the . Mr. W. R. Hicks, Borough Engineer, Ealing. posit 10s. 6d. each road.

NE 3.—**Finchley.**—ROADS.—For wood paving statement for the U.D.C. Mr. P. T. Harrison, veyor, 9, The Hawthorns, Regent's Park-road, N. posit £1.

NE 3.—**Maldens and Coombe.**—ROADS.—For (1) struction of stoneware pipe sewer; (2) laying of 50 yards of artificial stone footway; (3) laying 80 yards of bituminous surfacing for carriageway, the U.D.C. Mr. R. H. Jeffes, Surveyor, New lden. Deposit £2 2s. per contract.

NE 4.—**Birmingham.**—SEWER.—For the construc- n of about 36 yards of brick and concrete sewer and 90 yards of stoneware pipe sewers in Westley-road, nmer-road, Spring-road, and Shaftmoor-lane, ock's Green, for the T.C. Mr. H. H. Humphries, y Engineer, Council House, Birmingham. Deposit

NE 4.—**Nantwich.**—WATER WORKS.—For laying 50 lineal yds. of 6 in. cast-iron pipes, &c., for the D.C. Mr. H. Crabtree, Engineer, 1, Dysehart- ldings, Nantwich. Deposit 10s.

NE 4.—**Woolwich.**—SANITARY.—For sink waste l drainage in connection at the Infirmary, Plumstead gh-street, for the Board of Guardians. Messrs. dincop & Channer, architects, 47, Thomas-street, olwich.

NE 5.—**Brierley Hill.**—ROADS.—For laying 866 er yards set paving and 4,200 super yards creosote od block paving, for the U.D.C. Mr. H. Yorke, veyor, Town Hall, Brierley Hill. Deposit £5 5s.

NE 5.—**Enniskillen.**—ROADS.—For making a new d in the townlands of Letterking and Drumrush, for Fermanagh C.C. Mr. W. H. West, Secretary, urt House, Enniskillen.

NE 5.—**Greenford.**—WATER MAIN.—For laying in. cast-iron main from Greenford to Cricklewood, laying 27 in. cast-iron pipes near Hanger-lane the Metropolitan Water Board. Chief Engineer, ces, Clerkenwell, E.C. Deposit £20.

NE 5.—**Hornsey.**—SEWERS.—For construction of 000 ft. of sewers and surface water sewers, for the . Mr. E. J. Lovegrove, Surveyor, Town Hall, High- ge.

NE 5.—**Maidstone.**—WATERWORKS.—For construc- n of surface reservoir brickwork and concrete and for n. cast-iron main, for the T.C. Messrs. John Taylor ons, 36, Victoria-street, S.W. Deposit £5.

NE 5.—**Newton Abbot.**—ROADS.—For laying tic rock asphalte in various streets, for the U.D.C. C. D. White, Surveyor, Town Hall, Newton Abbot. posit £2 2s.

NE 6.—**Tyrone.**—ROADS.—For re-surfacing various ions of roads, for the Tyrone C.C. County Sur- ors of A. Division at Dungannon, and of the B. ision at Omagh.

NE 7.—**Ashington.**—SEWERS.—(1) Laying 4,700 s. of 42, 36, 30, 27, 24 and 21 in. pipe sewers; (2) lay- g 9,200 yds. of sewers from 9 in. to 36 in. diameter; (3) laying 6,500 yds. of sewers from 9 in. to 36 in. meter, for the U.D.C. Messrs. Taylor & Wallin, Pilgrim-street, Newcastle-on-Tyne. Deposit £5 ch contract.

NE 7.—**Glasgow.**—ROADS.—For the widening of kwell-street, for the T.C. Mr. J. Lindsey, Town k, Glasgow.

NE 9.—**Glamorganshire.**—WATER WORKS.—For struction of (1) two service reservoirs; (2) laying -iron pipes in the Garw Valley to service reservoir laying of pipes in the Ogmore Valley; and (3) lay- 15,580 yds. of cast-iron pipes between Tontycymmer Maesteg, for the Mid-Glamorgan Water Works. Mars. Thomas & Morgan & Partners, Pontypridd. Deposit £5 5s. each contract.

NE 9.—**Portland.**—SEWER.—For repairs to the -iron sewage outfall on the Chesall Beach, for the .C. Mr. R. Davison, Surveyor, Council Offices, land.

NE 9.—**Wokingham.**—WATER MAIN.—For laying 3 yds. of 4 in. water main, &c., at Swallowfield, he R.D.C. Mr. P. H. Phipps, Clerk, Council Offices, kingham. Deposit £1 1s.

NE 9.—**York.**—SEWER.—For construction of 12 in. sewer, &c., for the T.C. Mr. F. W. Spurr, City ineer, Guildhall, York. Deposit £1 1s.

NE 10.—**Chesham Bois.**—CEMETERY.—For work nnection with the laying out of the new Burial und near Bois Moor-road:—(*a*) The supply of 75 ic yards of fine gravel, and 100 yards of good clinker. (*b*) 950 square yards of path and road-making and ring. (*c*) Erecting and painting the fencing and s. (*d*) Taking down and re-erecting on the adjoin- nd and the existing shed and pump. Mr. T. T. Thorpe, Clerk to the Parish Council, 180, Berkhamsted-road, Chesham.

JUNE 10.—**Chislehurst.**—ROADS.—Construction of new by-pass road of 490 ft., for the U.D.C. Mr. J. J. Brown, Clerk, Council Offices, Chislehurst. Deposit £2.

JUNE 10.—**Great Houghton.**— ASPHALTING.—For the tar asphalting to playgrounds at Great Houghton Council School. Education Department, County Hall, Wakefield.

JUNE 11.—**Easington.**—TAR PAVING.—For new and repairs to tar paving of school playgrounds in the Easington district, for the Durham C.C. District Clerk, Council School, Haswell.

JUNE 11.—**Middleton.**—SEWER.—For sewering Ivy- drive and Home-drive, for the T.C. Borough Engineer, Town Hall, Middleton.

JUNE 12.—**Arnold.**—ROADS.—For making-up Mait- land-road and levelling part of Breck-road, for the U.D.C. Mr. R. E. Clarke, Surveyor, Arnold.

JUNE 12.—**Islington.**—RE-PAVING.—For re-paving works in Archway-road, Seven Sisters-road, Highbury- grove, and Church-walk, for the B.C. Borough Engineer, Municipal Offices, Islington, N.

✱JUNE 12.—**Southend-on-Sea.**—TAR PAVING.— For tar paving the playgrounds and incidental works at the High School for Boys and School of Art, for the Corporation. Mr. Robert H. Dyer, Borough Engineer, Southend-on-Sea. Deposit £1.

JUNE 13.—**London, N.W.1.**—BUILDING.—Construc- tion of an overground public convenience in Salisbury- street, by Church-street, Lisson-grove, for the Metro- politan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

JUNE 14.—**Birmingham.**—ROADS.—Construction of 550 lin. yds. of 50 ft. wide road at Blackheath, near Birmingham. Architect, Factory Construction Dept., British Thomson-Houston Co., Rugby.

JUNE 17.—**Barnsley.**—ASPHALTING.—Asphalting to grounds adjoining Great Houlton School. Apply Education Department, County Hall, Wakefield.

JUNE 17.—**Great Sankey.**—ROADS.—For set paving and flagging playgrounds of Council school, for the Lancashire C.C. Mr. H. Littler, County Architect, 16, Ribblesdale-place, Preston.

NO DATE. — **Ruislip-Northwood.** — SEWERS. — For construction of soil and surface water sewers on housing site at Pinner-road, for the U.D.C. Mr. E. R. Abbott, Clerk, Northwood. Deposit £2 2s.

Competitions.

(*See Competition News, page* 862.)

Auction Sales, Tenders, etc.

✱JUNE 3.—**London, S.W.**—Messrs. Hampton & Sons will sell at St. James's Estate Rooms, 20, St. James's-square, London, S.W., the freehold residence known as "The Venlaw," Lowestoft, with delightful gardens of over three acres, together with outbuildings. Auctioneers, 20, St. James's-square, S.W.1.

✱JUNE 3.—**Upper Norwood.**—Messrs. Veryard & Yates will sell, without reserve, timber, fittings, and building materials, arising from demolition of Bloom- field Hall, Central-hill, at one o'clock. Auctioneers, 365, Norwood-road, S.E. 27.

✱JUNE 4.—**Ickenham, Middlesex.**—Messrs. Frank G. Bowen, Ltd., will sell, by order of the Receiver for Debenture Holders, in the matter of Major Wilkinson & Kelly, Ltd., in liquidation, building materials and timber, on Swakeley's Estate, at 12 o'clock. Auc- tioneers, 62A, Aldersgate-street, E.C.1.

JUNE 5.—**Great Bookham.**—Mr. C. E. Clark will sell, under cover, at Eastwick Buildings, Lower-road, Great Bookham, new timbers and builder's effects. Auctioneers, Beddington House, Beddington, near Croydon, and Eastwick Buildings, Great Bookham.

✱JUNE 10 & 11.—**Banbury, Oxon.**—Mr. F. H. Clarke will sell, without reserve, on the site, at 11 a.m. each day, timber and building materials accruing from demolition of Banbury Filling Factory, Central Stores Depot, No. 423. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

✱JUNE 11.—**London, S.W.**—Messrs. Fuller, Horsey Sons & Cassell will sell at 77, Grosvenor-road, S.W., surplus stock of plant and material (builder's machinery, ironmongery, &c.). Auctioneers, 11, Billiter-square, E.C.3.

JUNE 12.—**Middlesex.**—Messrs. Alfred Savill & Sons and Mr. Percival Hodson will sell, at Winchester House, Old Broad-street, freehold building estates (by order of the Trustees), at Winchmore Hill, Middle- sex. Auctioneers, 69, South Audley-street, W. 1.

✱JUNE 16.—**Lincolnshire.**—Mr. Hobson Bateman is favoured with instructions from W. Dennis & Sons, Ltd. (in consequence of the removal of the timber branch of their business to Boston), at the Docks, Sutton Bridge, Lincolnshire, timber warehouse, the lease expiring on September 29, 1928, and the building will be sold for removal before that date. Vacant possession of the premises will be given on July 1, 1924. Auctioneer, Sutton Bridge.

✱JUNE 18.—**London, E.C.**—Messrs. Humbert & Flint will sell, by order of the Receiver for the Note Holders, *re* National Diamond Factories (B.O.), Ltd., the magnificent freehold factory premises known as The National Diamond Factories (B.O.), Ltd., Lewes- road, Brighton, a block of three newly-erected build- ings, steam heated, and lifts to every floor, the whole of the diamond working equipment, possession on completion, for sale in one or two lots, at the London Auction Mart, 155, Queen Victoria-street, E.C.4 (unless meanwhile sold privately). Auctioneers, 11, Serle-street, Lincoln's Inn, W.C.2.

✱JUNE 26.—**London, W.1.**—Messrs. Farebrother, Ellis & Co., will sell, with vacant possession, at the Mart, Queen Victoria-street, E.C., freehold building site of over quarter of an acre in an exceptionally convenient and central situation, between Drury-lane and Shaftesbury-avenue. Auctioneers, 29, Fleet- street, E.C. 4, and 26, Dover-street, W 1.

✱JULY 8.—**Tunbridge Wells.**—Messrs. Hampton & Sons will sell, at the St. James's Estate Rooms, 20, St. James's-square, London, S.W., freehold property, Tunbridge Wells, in the premier position at the corner of important cross roads, comprising over one acre. Auctioneers, 20, St. James's-square, S.W.1.

Public Appointments.

MAY 31.—**Wigan.**—Architectural Assistant and Town-Planning Assistant required in the Borough Engineer's Department, by the C.B. Mr. R. B. Donald, M.Inst.C.E., Borough Engineer, Wigan.

JUNE 2.—**Greenwich, S.E.10.**—Appointment of an officer in connection with the Council's Housing Estate (Grade "C") in the Town Clerk's Department, by the Council of the Metropolitan Borough of Green- wich. Mr. Frederick J. Simpson, Town Clerk, Town Hall, Greenwich-road, S.E.10.

JUNE 2.—**Hove.**—Superintendent of Roads, &c., required by the T.C. The Borough Surveyor, Town Hall, Hove.

JUNE 2.—**Mitcham.**—Building inspector in the Engineer and Surveyors' Department, at a commencing salary of £200 per annum, required by the Mitcham U.D.C.—Mr. Stephen Chart, Clerk to the Council, Vestry Hall, Mitcham, endorsed "Building Inspector."

JUNE 3.—**Cardiff.**—The Board of Guardians is to appoint an architect for the proposed new hospital at Llandough. Mr. R. Stephenson, Clerk, 11, Park-place, Cardiff.

JUNE 3. — **Glamorgan.** — ASSISTANT QUANTITY SURVEYOR.—Temporary assistant quantity surveyor in the Architect's Department (Western Division) required by the Glamorgan County Council. County Architect, Metropolitan Chambers, Neath.

✱JUNE 4.—**Leamington.**—ARCHITECTURAL ASSIS- TANTS.—Two temporary architectural assistants re- quired. Mr. A. C. Bunch, County Architect, 27, Binswood-avenue, Leamington.

JUNE 4.—**Portsmouth.**—Clerk of Works required in connection with the erection of 100 houses on the Portsdown Hill Housing site, by the County Borough Council of Portsmouth. Mr. F. J. Sparks, Town Clerk. The Town Hall, Portsmouth.

✱JUNE 7.—**Hereford.**—ASSISTANT.—Assistant re- quired in connection with school work, must be a neat and expeditious draughtsman, required in the County Architect's Department by the County Council of Hereford. Mr. G. H. Jack, County Surveyor and County Architect, High Town, Hereford.

✱JUNE 9.—**Welwyn.**—CLERK OF WORKS.—Clerk of Works required by the R.D.C. Mr. P. Elton Long- more, Clerk to the Council, 24, Castle-street, Hertford.

✱JULY 10. — **London, W.1.** — FORTHCOMING EXAMINATION.—Male cartographer in the Hydro- graphic Department of the Admiralty (19–25). The Secretary, Civil Service Commission, Burlington- gardens, London, W. 1.

✱NO DATE.—**Tanganyika.**—Skilled carpenters (two) required by the Government of Tanganyika for appoint- ment as Industrial Instructors in the Education Depart- ment for a tour of twenty to thirty months' continuous service, with possible extension. Apply at once by letter, stating age and experience, to the Crown Agents for the Colonies, 4, Millbank, Westminster, S.W.1, quoting M/12815.

Port Talbot Building Association.

The Port Talbot and District Building Industry Association held their annual meeting recently. Mr. T. Rees (retiring President) presided. The following officers were elected for the ensuing year: President, Mr. A. G. Foley; Vice-President, Mr. T. Rees; Treasurer, Mr. Morgan Cox, jnr.; Auditor, Mr. S. Hussell; and Secretary, Mr. W. G. Davies. Messrs. Llewellyn Nicholas and D. Reynolds were appointed the Association's delegates to the Federation meetings; while Messrs. E. L. Reed, Llew. Nicholas, and Vaughan John were appointed to represent the Association on the Overtime Committee.

A letter was read from the Secretary to the operatives, pointing out that Federated Builders were employing non-unionist labour and com- plaining generally of the principle. After some discussion it was agreed to reply, stating that it had been brought to the notice of the Associa- tion that union operatives were working for non- federated builders and asking them to rectify that grievance.

A complaint was lodged by various builders who had undertaken to erect a number of houses under the Government subsidy scheme, that, although they had completed the build- ings, they had not yet been paid the subsidy money, nor the balance which was forthcoming under the Small Dwellings Acquisition Act. It was stated that the amounts due to some of the builders were considerable. It was agreed to send a deputation to see the Town Clerk. The delegates appointed were the President, with Messrs. E. L. Rees, Llew. Nicholas, Vaughan John, and the Secretary. The delegates attended before the Town Clerk and Chairman of the Housing Committee the following day, and it is hoped that the result will be productive of an early settlement.

PROPOSED NEW BUILDINGS & OTHER WORKS *

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABERAYRON.—Plans passed: House for Mr. H. Davis at the Plump; house for Miss S. Jones, Garthwen; house for Mr. J. Evans, Felinfed; house for Miss Jenkins, Abermeurig; and house for Mr. D. Davies, Ffynonfair.

ABERDEEN.—Plans passed by T.C.: House, Rubislaw-den North, for Mr. James Davidson, junr., per Mr. George Watt, architect; offices, Union-row, for Messrs. Paull & Williamsons, per Messrs. Jenkins & Marr, architects.

ALDERLEY EDGE.—Funds are to be provided by the members of the Music Festival Society for the erection of a proposed new hall with accommodation for 800 to 900 persons.

ALNWICK.—The U.D.C. have adopted a recommendation from their Housing Committee to erect 24 houses, and have decided to invite tenders immediately.

ANDOVER.—New offices and partition are to be constructed at Andover Junior Girls' and Infants' School, for the Hampshire E.C., at a cost of £570.

ANNFIELD PLAIN.—Plans, specifications and estimates prepared by the surveyor for the erection of houses at Catchgate have been approved by the U.D.C. They will consist of 22 houses at £375 each; 22 houses at £440 each; and 12 houses at £480 each.—The U.D.C. have approved plans: 42 houses at Annfield Plain, by the South Moor Coal Co., Ltd.; and 12 houses at Dipton, by Messrs. John Bowes & Partners.

ASHFORD.—The Kent C.C. are considering a proposal to erect at Westwell, near Ashford, an institution for the accommodation of 500 mental defectives, at a cost of £150,000.

ASHTON-UNDER-LYNE.—Sanction has been secured for the erection of fifty houses in the West End by the Corporation.

AXMINSTER.—The Board of Guardians approved a recommendation that a new building should be erected at the institution. This scheme has been forwarded to the M.H.

BAKEWELL.—The R.D.C. are to submit a housing scheme to the M.H. for sanction.

BARKING.—The U.D.C. is completing the purchase of property preparatory to the scheme for widening the town quay. Plans deposited: Celluloid store, West Bank, for River Roden Co. Approved: Ten houses and shop, Suffolk-road, for Messrs. E. H. Glenny & Son.—Consideration is being given to a proposal for the erection of a cottage hospital.—The M.H. has sanctioned a scheme to cost £4,450 for laying out the Greatlands Recreation Ground. Negotiations are proceeding for the purchase of more land for housing.

BARMOUTH.—The plans of Mr. S. Richards, of Cardiff, for the proposed sea defence works on the promenade and improvements on the foreshore, estimated to cost £18,000, have been approved by the Council, and application is to be made to the M.H. for sanction.

BARNSLEY.—A site has been acquired in Oaks-lane for the erection of Miners' Baths, as a Miners' Welfare scheme. The estimated cost of the scheme is £8,000, of which the Miners' Welfare Fund will grant £7,200 and the Barnsley Main Colliery Co., Ltd., will grant the remainder.—The R.D.C. has approved plans: House, Seckar, Woolley, for Mr. W. R. Eyre: bungalow in Carlton-lane, Carlton, for Mr. Joseph Swift; house in Staincross-lane, for Mr. Hanby.

BARROWFORD.—Plans approved by the T.C.: House, for Mr. R. Meeks, in Gisburn-road.

BATLEY.—The E.C. proposes the enlargement of Healey Council School.

BAWTRY.—The L. & N.E.R. are seeking powers to construct a railway to the Bledworth Colliery.

BEDFORD.—Plans passed by T.C.: House, Kimbolton-road, W. E. G. Hull, for C. Turner; conversion to flats, 51, Goldington-road, E. H. Inskip, for R. Grant; house, 47, York-street, R. E. Coulsdon, for W. Skirman; house, Beresford-road, E. H. Inskip, for W. Chester.

BEDWAS.—The Bedwas Navigation Colliery Co. has decided to erect 179 dwellings at Trethomas.—The U.D.C. has decided that the sewerage system at Machen be extended, at a total cost of £1,870.

BEXHILL.—The T.C. has decided to invite tenders for the provision of living accommodation at the fire station.—The Works Committee recommend the completion of the East Parade improvement, at a cost of £3,889.—The Health Committee is to proceed with the erection of a refuse destructor as soon as a site is decided on.—A subsidy grant is recommended to Mr. L. G. Barrett for a house in Plemont-gardens.—Plans approved: Bungalow, Knebworth-road, Mr. D. B. Sceats, for Mr. R. Gosden; two houses, London-road, Mr. D. B. Sceats, for Mrs. Carey; house, Wickham-avenue, Mr. J. E. Maynard, for Messrs. J. & T. Skinner; house, Denbigh-terrace, Mr. J. E. Maynard, for Mr. E. C. Phillipo; house, Colebrook-road, Mr. C. W. Freeman, for Messrs. T. W. Mason & Son, Ltd.; residence, Barrack-road, Mr. G. H. Gray, for Miss Lockhart; bungalow, near Peartree-lane, Mr. C. T. Armstrong, for Miss Ayres; residence, Ellerslie-lane, Messrs. Imrie & Angell, for Dr. H. S. Leigh Canney; house, Kewhurst-avenue, Mr. E. H. Gandy; bungalow, Gillham Wood-avenue, Mr. E. H. Gandy, for Mr. G. Spencer; house, Collington-avenue, Messrs. Poulton & Son; house, Mayo-lane, Messrs. Rayson & Rayson, for Mr. J. G. Honeysett; house, Barnhorn-lane, Mr. P. Oxley, for Mr. R. C. Bennett; house, Cranston-avenue, Mr. D. B. Sceats; bungalow, Plemont-gardens, Messrs. Stevens & Sons, for Mr. L. G. Borrett.

BILSBORROW.—Funds are being raised for the extension to the Sunday School premises by the members of the Wesleyan Church.

BLACKBURN.—The B.G. has been recommended by the M.H. to provide additional accommodation and a maternity block at the Infirmary. Funds are being raised by the parishioners of St. Gabriel's for the proposed erection of a new church on a site near the main entrance to Roe Lee Park, Brownhill.

BLACKPOOL.—The Building Plans Committee have approved 97 plans for the erection of houses in the district.

BLAYDON.—The U.D.C. have passed plans for the erection, by the Consett Iron Co., Ltd., of the following: 56 houses at Spen; 39 houses, Hugar-road, High Spen; 12 cottages at Hugar-road; 6 cottages and 6 houses at Tongue Burns, Chopwell.—The Council have accepted the tender of Mr. Hy. Bowers, Rowlands Gill, for the erection of 24 houses at Chopwell, at £8,800, and that of Messrs. Noble & Ward, High Spen, for the erection of 20 houses on the Bleach Green Estate, near Winlaton, at £7,450.

BOLTON.—The Corporation is to consider the erection of 250 houses.—Plans have been approved for fifty-six houses to be erected by private enterprise.—The members of the Bolton and District Railway Employees' Institute are to erect a sports pavilion.

BOTLEY.—The Hampshire County Agricultural Committee is to spend £1,200 on the erection of two cottages for the staff of the Fruit Experimental Station.

BOURNE.—The U.D.C. are to erect another eight houses.

BOURNEMOUTH.—The T.C. has asked a committee to consider the advisability of proceeding with the erection of a Council chamber.—The B.S. has prepared a revised lay-out for five blocks of flats on the Southill Estate.

BRIDLINGTON.—Plans passed by T.C.: Mr. C. L. Waite, bungalow, Fortyfoot-road, for Mrs. Fletcher; Mr. F. Vaux, lock-up shops, auction room and offices, Prospect-street, for Messrs. Cumming & Spark; Mr. M. B. Parkin, houses, corner of Rhodena- and Elma-avenues, for Mr. W. Woodcock; Mr. M. B. Parkin, house, Kingsgate, for Mrs. A. Cuttle; Mr. M. B. Parkin, house, Kingsgate, for Mr. R. Hardy; Mr. M. B. Parkin, house, Kingsgate, for Mr. J. Waring; Mr. F. Spink, conversion of warehouse into house, Fairfield-road, for Mr. J. Martin; Mr. L. Stewart, two garages with flat over, Flamborough-road, for Mr. W. Witting.

BRIGHTON.—Plans passed by T.C.: Two houses, Dyke-road, Gates & Sons, for E. Dancey; house, Nesbit-road, J. M. Comber, for Mr. Holloway.

BUCKLEY.—A scheme has been submitted to the U.D.C. for provision of baths for miners, estimated to cost £3,700.

BURNAGE.—A site has been secured by the parishioners of St. Margaret's Church for proposed extensions.

BURNLEY.—The Parks Committee are proposing to acquire land on the Palace house site for a recreation ground.

BURY.—The B.G. have instructed Mr. Crosby to prepare sketch plans for alterations and extensions to the maternity ward, to make provision for sick children.—Better accommodation at Chesham Mount Boys' Home is under consideration.—Plans for six houses to be erected in the district have been approved.—The directors of the Bury Football Club are actively engaged in preparing for increased accommodation at Gigg-lane.

CAMBRIDGE.—Plans passed by T.C.: Twenty-five and 26 houses, Chesterton Hall Estate, for the Corporation; house, Huntingdon-road, for C. B. Conybeare; store, Millington-road, for S. Adie; house, Milton-road, for F. J. J. Masters; instrument room, Grange-road, for Dr. A. E. H. Tutton; pair of houses, Milton-road, for Buttress & Bacon; house, Cherryhinton-road, for W. E. Hardingham; pair of houses, Cherryhinton-road, for F. C. Wolfenden and R. F. Brigham; house, Trumpington-road, for Mrs. Vernon Cow.

CARLISLE.—The Cumberland and Westmorland Joint Mental Hospital, Garlands, Carlisle, has decided to invite tenders for the erection of three pairs of cottages.

CARMARTHENSHIRE.—The Kidwelly Council has decided upon a comprehensive housing scheme and will apply for sanction to proceed with erection of 50 houses.

CARSHALTON.—The U.D.C. has passed the following plans: Three pairs of houses, Stanley Park-road, for Messrs. G. Greenwood & Sons; house, 28, The Chase, for Capt. G. Jensen; pair of houses, Ruskin-road, for Messrs. G. Greenwood & Sons; house, Upland-road, for Mr. W. L. Underwood; house, Crichton-road, for Mr. J. Butler; conversion of stables into dormitories, Barrow Hedges School, for Mr. H. R. Budgell; pair of houses, Salisbury-road, for Mr. C. Scott; house, Upland-road, for Mr. O. H. Diver; house, Bramble-down-road, for Messrs. L. & W. and Miss Dixon.

CHADDERTON.—Application is to be made to the M.H. for sanction to proceed with the erection of a new maternity home and children's welfare centre and school clinic.

CHEPSTOW.—The G.W.R. Co. has agreed to erect sidings and accommodation in connection with the new course to be laid out by the Chepstow Race Syndicate, at an estimated cost of £150,000.

CHESTER.—Plans passed by T.C.: F. C. Saxon, house, Park-road; S. Aston & Son, reconstruction of premises, 14, Watergate-street; H. Steen, house, Pargate-road; W. E. F. Phillips and R. Bell, se detached houses, Curzon Park Estate; W. E. Pa and P. A. Street, two houses, Curzon Park Esta C. W. Edwards, house, Curzon Park Estate.

CHESTERFIELD.—The M.H. has given its sanction the R.D.C. erecting 100 more houses.

CHORLEY.—The T.C. is calling for tenders alteration and repairs at Ackhurst Lodge. Pl prepared by Borough Surveyor for houses in E Ward building site, and lay-out of part of Highfi Estate have been approved and tenders are to invited for the erection of 40 houses.

CLITHEROE.—It is proposed to adapt the buildi of the County Court into Council Offices.—Land West View, costing £400, is being acquired by Corporation.—Messrs. Moore, builders, Morecam are proposing to erect 142 semi-detached houses Corporation land in Pendle-road.

CLOWNE.—Plans passed by R.D.C.: Two bun lows, for Messrs. Jackson & Widdowson, in Mansfi road, Clowne; house, Elmton-road, Creswell, for H. Haslam; house, Damsbrook-lane, Clowne, for W. Mellish; bungalow, Creswell-road, Clowne, for M Pearson.

COLNE.—A memorial is proposed to the late rec of the parish church, and is to take the form o stained glass window and tablet, estimated to c £300.

COLWYN BAY.—The Parochial Church Council St. Andrew's, Kings-road, are proposing extension the church by the erection of a new chancel, or chamber, and vestry to plans prepared by Mes J. M. Porter & Co., architects.

COULSDON AND PURLEY.—The U.D.C. has had sa tion to borrow £6,800 for street improvement surface water drainage in Purley Oaks-road.—Pl recommended: House, Downlands-road, for Mr. Cottage; two houses, Warwick-road, for Mr. F. Aylett; house, Fairdene-road, for Mr. J. L. O. Yeowa house, Arkwright-road, for Mr. Malcolm Sharpe; hou Smitham Downs-road, for Mr. E. Hayward; hou Ridgeway, for Mr. A. C. Egerton; house, Smith Downs-road, for Mr. G. S. Amies; two houses, P wortham-road, for Mr. W. Brown; house, Downs-ro for Mr. S. E. Norris; two houses, Grasmere-road, Mr. S. C. Kirby; bungalow, Red Down-road, for T. Thornton; house, Beech-avenue, for Mrs. Eva four houses, Downlands-road, for Mr. E. W. V. Tribe

COVENTRY.—The E.C. has had a lay-out scheme the Radlord Housing Estate.

CROMPTON.—The D.C. are considering the questi of sewering Clough and Grains Bar, and the survey has been instructed to prepare estimates of cost.

CUDWORTH.—Plans passed by U.D.C.: Houses Mr. J. W. Allen, E. Taylor, and A. Grant.

DARLINGTON.—The Corporation Streets and Bui ings Committee have approved plans for the erecti of 35 houses.

DERBY.—The Governors of the Derby School ha accepted a tender of £939 for the erection of a n pavilion at the schools playing-field.

DEWSBURY.—The E.C. proposes the erection of school for about 600 children at Myrtle-road, Raven thorpe, and to enlarge the Thornhill Walker School accommodate 250 more scholars.

DODWORTH.—About 200 houses are being erect on behalf of the Old Silkstone Collieries.

DOUGLAS.—The T.C. has approved of plans Mr. J. F. Teare for the erection of 40 houses on t Hills Estate.—Plans passed: Premises, Quart Bridge-road, for Mr. T. H. Hodson; 11 houses in fi and three shops, Derby-road, for Mr. G. H. Horn house, Quarter Bridge-road, for Mr. Moore. T Borough Surveyor is to make a concrete culvert the stream at Peel-road, at a cost of about £300.

DRAYTON.—Hampshire E.C. has voted £7,770 for t erection of a new school for 210 children.

DUBLIN.—Plans passed: Wynn's Hotel, 35-3 Lower Abbey-street, rebuilding, The Clarence Hot Co.; Botanic-road and Prospect-avenue, resident shops, Mr. J. J. Hart; 9, Lamb-alley, house, Mr. Breen; St. Ignatius-road (rear 63, Lower Dors street), shop, Mr. Robert Toal; 36, Fleet-street, building, The Provincial Bank of Ireland.

DYSERTH.—A sewerage scheme for the parish h been the subject of a Government inquiry.

EARBY.—Application by the U.D.C. is to be ma to the M.H. for sanction to borrow £830 for purcha of two sites at Slough for housing; three houses s to be erected in Stoney Bank by the Council.

EASTBOURNE.—Plans passed by T.C.: Miss Hu house, Le Brun-road; Miller & Selmes, three pa semi-detached houses, Woodgate-road; J. Thurlow Son, three pairs semi-detached houses, Woodga road; Rowsell & Ticehurst, three detached hous Upwick-road; Major L. S. Denham, house, Pashl road; Mrs. C. Reid, house, Brassey-avenue, Hampd Park; W. J. Martin & Co., seven garages, Kin drive; J. Hookham, three pairs semi-detached hou Woodgate-road; Mrs. J. H. Langton, detached hou The Goffs.

EAST HAM.—The Works Committee have approv of plan for Sunday school and church rooms at Berkel road, for Messrs. Wills & Armitage, architects.

EDINBURGH.—Warrants granted by Dean of Gu Court: Andrew R. Davidson, bungalow in Bona road, Colinton; John V. Mackenzie, bungalow Capelaw-road, Colinton; Sir George H. Chubb, ho in Colinton-road; Andrew Bremner, three houses Davidson's Mains; Edinburgh Corporation, electric sub-station in Craigend-road, Liberton; Brit Oxygen Co., Ltd., carbide store in Seafield-road, Lei

EDLINGTON.—Work is about to be begun on the n Primitive Methodist Chapel for which Messrs. Har Arnold & Sons, Ltd., of Doncaster, are the contracto

EGERTON.—The members of the Congregatio Church have decided to rebuild the organ and m structural alterations to the church, estimated to c £1,000.

ELLESMERE PORT AND WHITBY.—Plans approv by U.D.C.: House, Silverne-drive, for Mr. T. Francis: house, Copenhurst-lane, for Mr. H. P. B kett; lay-out of proposed brickworks at Whitby.

* See also our List of Contracts, Competitions, etc.

H. Wilson.—The Wolverhampton Corrugated
). has submitted plans of sewerage in respect
Wolverham Estate.—The U.D.C. has advertised
lers for 208 houses.—Messrs. F. A. Frost & Son
paring a scheme for the erection of a pavilion
r sports ground in Rossmore-road.—The Sur-
as prepared plans of alteration at the markets.—
ne is under consideration for a home for crippled
n at Leasowe.

BOROUGH.—Plans passed by U.D.C.: House,
road, for A. H. P. Jarvis; two houses, Albert-
or Mrs. E. A. Clayton; house, Manor-road, for
J. Palmer.——The County E.C. proposes the
se of Carment School, at a cost of £7,000, in
tion with a scheme for a new secondary school.

RSHAM.—The R.D.C. has passed plans for house
nham, for Messrs. Smeed, Dean & Co.

T.—The Hampshire E.C. is purchasing ad-
l land to secure a larger site for a proposed
ary school, at a cost of £2,000.

TWOOD.—The M.H. have sanctioned the borrow-
7,328 by the T.C. for the construction of a band-
nd paddling pool, in connection with the scheme
provision of an open-air bath.——It is reported
unty authorities are considering a proposal to
new bridge over the Wyre in lieu of the ferry.
ans passed by U.D.C.: Bungalow, Agnew-road,
. G. A. Blockley; six houses, Darbishire-road,
Richard Roskell; house, Mount-road, for Mr. T.
s.

ESHEAD.—The T.C. is negotiating with the
stle Corporation for the purchase of two acres
Saltmeadows Estate, required for a scheme for
ing.

MORGAN.—The Penarth U.D.C. has decided to
a caretaker's cottage and ladies' cloakroom, esti-
to cost £850, at the Recreation Ground. The
yr Tydfil E.C. is to extend laboratory accommo-
in the schools and is considering a site at Quaker's-
or erection of a Mining Laboratory.—The Caer-
U.D.C. is to erect at Llwyn On-street a public
ter-house.—The Port Talbot B.C. has under
eration the erection of dressing-rooms at the
baths. The Council is recommended by its
Committee to proceed immediately with construc-
f a shelter to accommodate 2,400 people, at an
ted cost of £10,000, on the beach.—The Maesteg
. has resolved to press for early sanction of its
sal to erect 50 houses.—The Pontardawe U.D.C.
rect twelve houses at Alltwen, and will strengthen
wyncelyn Bridge.

OSNARGH.—The members of the Wesleyan Church
aising funds for the erection of a new Sunday
l on a site at the rear of existing chapel.

EAT OUSEBURN.—A scheme has been submitted
e B.E. for the enlargement and improvement of
ouncil school at a cost of £1,700.

LDFORD.—Plans approved by T.C.: Four flats,
tside, by Mr. A. Mason, for Miss Field; two
s, Joseph's-road, Messrs. Hodgson, Lunn & Co.,
essrs. Cox, Aldershot; shops and offices, North-
, Messrs. Hodgson, Lunn & Co., for the West
y Central Dairy Co., Ltd.; house, Harvey-
, Mr. J. H. Norris, for Mr. G. N. Pilliner; two
s, Woodbridge-road, Mr. J. Lake, for Mr. G. Hare;
, Worplesdon-road, Mr. J. Lake, for Mr. R. E.
; house, Eastgate Gardens Estate, Messrs.
son & Walsh, for Dr. Mitchell; house, Ridg-
t, by Mr. W. G. Sheppard, for Mrs. M. A. Parsons;
alow, off Aldershot-road, by Mr. C. Nicklen, for
R. Nicklen; house, Ridgemount, by Messrs.
s Bros., for Messrs. Watts Bros.; two houses,
h's-road, by Mr. T. Dyer; for Mrs. Holford;
, Stoughton-road, by Mr. P. T. Padgham, for
P. T. Padgham; brick kiln and chimney shaft,
lford Park Brickworks, by Messrs. Dean, Hether-
Co., for Messrs. Thomas Mitchell & Sons; two
es, Stoughton-road, by Mr. Holt, for Mr. Shard
Mrs. Berney.——The B.S. is to prepare plans for
airs of non-parlour houses at Clive-road.——The
has been authorised to improve the entrance to
w Village, at a cost of about £230.——Tenders
o be invited for a surface water sewer in Grange-
estimated to cost £250.——The B.S. is to prepare
ates for a sewer in Stoke-road.——The B.S. has
red estimates for additional baths, &c., and a loan
,400 is to be sought to carry out the work.

MPSHIRE.—The County Mental Deficiency Com-
e has authorised the provision of an institution
he accommodation of 250; estimated cost is
00.——Cottages are to be built at the Knowle
al Hospital at a cost of £3,000.——A loan of
00 is to be sought for the diversion of the South-
on-Bournemouth main road between Redbridge
Totton.——Cow-sheds and piggeries are to be
ed at the Park Prewett Hospital, at an estimated
of £4,000.——Repairs and decorations are pro-
l at the Chandler's Ford Sanatorium, at an
ated cost of £700.

CKMONDWIKE.—The Surveyor to the U.D.C. has
instructed to prepare a cost for the relaying of a
on of "The Bottoms" sewer.

MSWORTH.—Plans passed by R.D.C.: Three
s at Ackworth Moor Top, for Messrs. Boston, J.
and A. Moss; two houses at Ackworth Moor Top
r. W. Trevey; three houses at Ackworth Moor
for Messrs. Draper, Jones & Hobman; bungalows
ckworth Moor Top, for Messrs. Draper and J.
house at South Hiendley, for Mr. Keeling;
and shop at Havercroft, for Mr. A. D. Kemp;
and shop at Havercroft, for Mr. D. Pinches;
and shop at Havercroft, for Mr. J. Gill; residence
uth Elmsall, for Mr. N. Lockwood; house at Little
hton, for Mr. J. Holmes; bungalow at South
ll, for Mr. J. Willey; four houses at Havercroft,
rs. Peckett; 16 houses at Common Side-lane,
Kirby, for Messrs. Smales & Golland; lock-up
at Moorthorpe, for Mr. J. Hunt; two houses, and
and shop at South Elmsall, for Mr. J. W. Waller;
and offices at South Elmsall, for Mr. S. L. Turner;
at Dymond-avenue, Kirby Bridge Field-lane,
Kirby, for Mr. John Simpson.—It is proposed
ct a new hospital on a site on the Bullinshaw
Estate, with funds provided by the Miners' Welfare Scheme. The estimated cost of the building and equipment is £25,000.

HODSOCK.—A school building accommodating 120 children is to be moved and re-erected at Langold.—The Notts E.C. is purchasing a site for a new school at Langold.

HOUGHTON-LE-SPRING.—The R.D.C. has decided to seek permission from the M.H. to erect a further twenty-five houses on each of the Silksworth, East Rainton, Herrington, Newbottle, and Penshaw sites.

KENILWORTH.—Plans passed by U.D.C.: House, Morthouse-lane, for Mr. E. Lucas; bungalow, Red-lane, for Mr. J. College; house, Findon-lane, for Mr. T. A. Morris.

KENTON.—A new building estate providing for over 100 sites is being developed. The architects for the scheme are Messrs. Newcombe & Newcombe, of Newcastle.

KIRKHAM.—The U.D.C. have instructed the Surveyor to prepare estimates of cost of repairing Freckleton-road. Negotiations are taking place to acquire land in Bibby-road for road widening purposes.

LANCHESTER.—The R.D.C. has decided to invite tenders for the erection of six houses at Castleside.

LEICESTER.—The T.C. proposes the erection of bridges across the Saffron Brook in Whittier-road and Knighton-road. A scheme is proposed for a new disinfecting station.

LEVENSHULME.—The Manchester C.C. are to erect a pavilion with conveniences at the Chapel-street Recreation Ground.

LINCOLNSHIRE.—The Wesleyan Synod have made grants for the erection of a new Sunday school at Stow, a new mission hall at Louth, a new chapel at Navenby, and a cottage for Thorpe Fendyke.

LINDSEY.—The C.C. has obtained permission to erect two elementary schools at Frodingham.

LITTLEBOROUGH.—It is proposed to make structural alterations to the "White Horse," Blackstone Edge, and to erect a canteen room.——Sixteen houses are to be erected on the Calderbrook-road site, for the D.C.

LIVERPOOL.—Plans for new schools for the Sacred Heart parish have been approved by the B.E.——The members of the Wesleyan Church, Clubmoor, are raising funds for a proposed new church.—Burton's, the tailoring firm, who have taken the vacant portion of the St. Peter's Church site, in Church-street, have placed the contract with W. Moss & Sons.

LLANDUDNO.—M.H. has sanctioned £3,000 scheme of the U.D.C. to widen parade and promenade. Plans approved: Residence, Vicarage-road, for Mr. J. H. Barber; six houses, Howard-road, for Messrs. Kelly & Spencer, and others; villa, corner of Dale-street and Great Orme's-road, for Mrs. Emily Hewitt; residence, Bryn-y-bia-road, for Mr. J. H. Fletcher; house, corner of Great Orme's-road and Lloyd-street West, for Mr. David Davies; house, Morfa-road, for Mr. Kaworth.

LLANELLY.—The General Hospital Governors propose to commence early with the extension of buildings scheme. The total cost is estimated at £25,000. The Council has decided to erect a public abattoir at an estimated cost of £30,000.

LONDON (BERMONDSEY).—Plans passed by B.C.: Warehouse, 38–44, Princes-street, G. H. Burgess, for Gilman & Spencer; warehouse and drainage, 2A, Monow-road, for J. A. Franey & Son.

LONDON (HACKNEY).—Plans passed by B.C.: E. F. Saunders, Wesleyan Central Hall, Mare-street; shop premises, 63, Westgate-street; J. Moon, bungalow, 159, Stamford-hill.

LONDON (POPLAR).—Plans passed: Colour factory Inglehim-place, for Borrell & Co.

LONDON (SHOREDITCH).—Plans approved by B.C.: Factory rear of 34, 36 and 38, Queen's-road.

LONGBENTON.—The U.D.C. have decided to carry out an extensive street-making scheme at West Allotment, West Moor, Burradon, and Forest Hall, at an approximate cost of £44,000.

LONG EATON.—The M.H. has held an enquiry into a scheme of the U.D.C. for new sewage works at a cost of £20,000.

LUDDENDENFOOT.—Plans passed: Butcher's shop in Burnley-road, for Mr. R. Kershaw.

LUTON.—The T.C. has had sanction to borrow £2,700 for public conveniences, £6,943 for main sewers, £2,200 for public walks and pleasure grounds, and £15,000 for housing grants. The Borough Surveyor has been asked to prepare plans for administration and cubicle blocks at the infectious diseases hospital. The M.H. has consented to a scheme for a covered market at a cost of £12,075, and the Borough Surveyor is to prepare the specification and working plans.

LYDNEY.—The Governors propose to put a scheme in hand for the extension of the Cottage Hospital, for which plans have been approved.

MABLETHORPE.—The U.D.C. has approved of plans for the widening of High-street.

MAIDENHEAD.—Plans passed by T.C.: House, North Star-lane, for Miss B. Partlo; four shops, 86-90, High-street, for Mr. Wilson; house, Belmont-crescent, for Mr. F. W. Singer; house, All Saints'-avenue, for Mr. J. Slatter; two houses, Kingswood Court Estate, Braywick-road, for J. K. Cooper & Sons; three houses, Belmont Park-avenue, for Mr. G. A. Harrions; house, Forlease-road, for Mr. F. J. Morrison; bungalow, Derek-road, for Miss Cooksey; bungalow, Ray Mead-road, for Mr. G. N. Smale; extension to house, "In the Ray," Ray Park-avenue, for Mr. Longman; house, Cookham-road, for Mr. H. J. Gosling; house, Crescent-drive, for Mr. A. G. Rowsell; and six houses, Keble-road, for Cripps & Green.

MAINSFORTH.—The Mainsforth Colliery District Scheme of the Durham Aged Mine Workers' Homes Association is to erect six new homes.

MANCHESTER.—The 1924–25 estimates of the E.C. provide for £77,600 for new secondary schools and £97,370 for new elementary schools, and the replacement of old and unsuitable schools.—The Health Committee estimates expenditure of £41,030 for the acquisition and clearance of the Medlock-street area.—A sum of £10,150 is scheduled for a site for a new tuberculosis dispensary at Lincoln Grove; and £10,000 is set aside for sewage and water supply in connection with the new children's hospital at Abergele.

MERTHYR TYDFIL.—The T.C. has decided to build 28 houses. Mr. F. Thackeray, the Council Architect, has suggested sites for housing at Aberfau. Four tenders were received for 50 houses at Panscollog, with an estimate by the Borough Architect of £26,000, and the Housing Committee has decided to accept the estimate of the Borough Architect and build. Three tenders were received for 28 houses at Aberfau, with an estimate of £14,000 from the Borough Architect, who is to do the work by direct labour.——The Borough Surveyor is to prepare plans for a footbridge over the railway at Dowlais. Sanction is sought for a loan of £11,000 for a ferro-concrete bridge at Troedyrhiw.——Plans recommended: Addition to Forward Movement Hall; shop, Kingsley-terrace, for Mrs. W. D. Davies.——The Libraries Committee recommends that Messrs. Johnson & Richards, architects, should prepare plans for a central library on the St. David's school site.——A sub-committee is to negotiate for land adjoining the derelict Glamorganshire Canal for the erection of a motor 'bus garage.

MIDDLETON.—Plans passed by T.C.: Six bungalows, Mossway, Mr. J. Rowbottom, for Mr. T. Hodson; four houses, Town Planning-road, No. 14, for J. D. Dempsey.

MILNROW.—The U.D.C. has instructed its Surveyor to obtain prices for eight houses.

MONMOUTHSHIRE.—The Brynmawr U.D.C. is to invite tenders for completing the Warwick, Windsor and Osborne-roads.——The Bargoed and District Miners' Welfare Committee is to purchase Bargoed Park for £2,400, and will spend a considerable sum in lay-out and improvements.——The Gellygaer U.D.C. is to erect conveniences at Bargoed. The Council is considering the erection of a public abattoir. The Star Brickworks Co., Ltd., Cwmbran, is reported to be about to erect a new brickworks, on a large scale, at Penrhos, near Caerleon.——The M.T. has agreed to the C.C. widening the Newport-Pontypool road at Malpas, at an estimated cost of £2,500, and will make a fifty per cent. of cost grant.

MYTHOLMROYD.—A new Working Men's Club is to be erected.

NELSON.—Demolition of premises formerly occupied by the Nelson Co-operative Society is now going forward, in preparation of the site for the erection of a bank.

NEW ALRESFORD.—The Council School is to be converted into a junior and senior mixed school by the Hampshire E.C., at a cost of £1,500.

NEW BRIGHTON.—Funds are being raised for the purpose of converting the New Brighton Convalescent Home into a R.C. Convent School.

NEWBURY.—The T.C. has passed plans: House, Donnington-square, for Mr. J. H. Johnson.—The M.H. has sanctioned a loan of £2,000 for further housing grants.

NEWCASTLE.—The Corporation Town Improvement and Streets Committee have passed plans for the erection of 18 self-contained houses in different parts of the city, and have given sanction to the Newcastle Electric Supply Co. to construct a large garage in Hutton-terrace.

NORTHUMBERLAND.—The C.C. proposes to erect a police station and courthouse at Hirst, and new police stations at Bedlington and Rosehill.

NOTTS.—The B.E. has revised plans of the following new schools: Harworth, Bircotes, for 448 scholars, £11,900; Warsop, Netherfield-lane, for 448 scholars, £11,500; Clipstone, for 736 scholars, £18,200; and Worksop, Prior's Wells-road, for 568 scholars, £13,600.—The E.C. has instructed the Director of Education to prepare a report as to new secondary school accommodation that is required.

OLDHAM.—Plans by Mr. E. Thorpe, architect, have been submitted to the E.C. for the erection of an elementary school on a site in Ward-street and Tilbury-street for 400 children.

OSWALDTWISTLE.—Plans passed by the T.C.: Two houses in Harrow-street, for Messrs. Walsh & Pullan; four houses in Park-lane, for same; two houses in Fielding-lane, for Mr. T. Gregson.

OTLEY.—A scheme originally prepared in 1921, for the erection of a new grammar school, is to be proceeded with at a cost of £12,000.——Plans passed by U.D.C.: Bungalow on Otley Chevin, for Mr. Tate.

OXFORD.—Plans passed by T.C.: L. T. Coxhill, house, Hamilton-road; Messrs. Simmons & Watts, six houses, Fairacres-road extension; T. E. Knowles, two houses, Hamilton-road; Mrs. E. S. Smith, two houses, Victoria-road.

PADIHAM.—The members of the local brigade of the St. John's Ambulance Association are raising funds for the erection of a new drill hall.

PAIGNTON.—The U.D.C. Surveyor has prepared plans for the lay-out of the Goodrington South Sands. Plans have been submitted for offices and extension to public conveniences on sea front, and tenders are to be invited. The Surveyor is to proceed with the widening of part of Oldway-road. Plans approved: Farmhouse and buildings, Totnes-road, for the Devon C.C.; house, Oldway-road, for Mr. M. A. Haywood; house, Southfield-avenue, for Mr. F. W. Woods; three shops and three flats, Torquay-road, for Mr. H. P. Robbich; two houses, Cliff-road, for Messrs. Endicott, Rumbelow & Wills; eight houses, Osney-crescent, for Messrs. Melhuish & Berry; alterations and additions to "Manor Inn," Old Torquay-road, for Mr. A. Wills; house, Marine-road, for Mr. W. J. Jury.

PEMBROKESHIRE.—The County Small Holdings Committee has decided to proceed with the following building programme: (1) Approved already by Ministry of Agriculture, at East Jordeston, new house and set of outbuildings, Chapel Farm, Castlemartin; new house and repairs to outbuildings, Pallan; new house and outbuildings, Sealyham; two new houses and two sets of outbuildings. (2) New cowhouses to be erected at four holdings and general repairs at four other holdings and minor buildings and repair works. (3) New houses to be erected at a number of holdings, and existing cottages to be converted into outbuildings. These the Committee have decided upon, but they have

yet to be sanctioned by the Ministry. In all 100 buildings are to be repaired and sites are being obtained for erecting new houses.

PENMAENMAWR.—The M.H. has sanctioned a subsidy grant in respect of 18 houses in St. David's-terrace for the Penmaenmawr and Welsh Granite Co.; three houses for Mr. J. J. Morgan; three houses in Celyn-street, for Major J. R. Williams; six houses in Celyn-street, for Mrs. Cemlyn Jones.—The U.D.C. has approved plans for three houses in Treforris-road for Messrs. Shepherd & Mounteney.

PRESTON.—A scheme for a new swimming bath is under consideration. The new building will contain two full-size plunges, one for each sex. From Preston Police Poor Children's Fund it is proposed to erect at Wharton, near Lytham, a building to be used as a convalescent home. A new road is proposed to be made from the cattle market, through the townships of Cottam and Ingol, Bartle, Clifton, with Salwick, and through the Fylde district as far as Little Marton.

PUDSEY.—The Surveyor to the T.C. has been instructed to prepare plans and an estimate for the erection of a house at the Smalewell Sewerage Works for the Sewerage Works Manager. The conveniences at the Recreation Ground are also to be altered.

READING.—The Board of Guardians have decided to carry out alterations at the Nurses' Home at the Battle Infirmary, at an estimated cost of £2,500.

RUISLIP AND NORTHWOOD. — Plans passed by U.D.C.:—Shop, Field End-road, Eastcote, for Messrs. Telling Bros., per Mr. F. Osler; house, Hill-road, Northwood, for Mr. A. E. Sylvester, per Mr. D. Wood; house, Linksway, Northwood, for Mr. F. Alver, per Mr. A. S. Soutar; house, Park-way, Ruislip, for Mr. W. A. Caffall, per Mr. G. C. Williams, pair semi-detached houses, Kingsend-avenue, Ruislip, for Mr. G. I. Mold, per Mr. W. T. Attenbrow; house, Wood-lane, Ruislip, for Miss O. Blazey, per Mr. A. S. Soutar; pair semi-detached houses, Morford-way, Eastcote, for Messrs. Telling Bros., per Mr. F. Osler; bungalow, Acacia-avenue, Eastcote, for Mr. J. D. Dore, per Mr. W. L. Carr; house, Dene-road, Northwood, for Mr. F. W. Lott, per Mr. A. Thornton; bungalow, Manor-road, Ruislip, for Mr. H. S. Sharp, per Mr. R. Hayes.

RUMWORTH.—Plans have been submitted for the extension and reconstruction of the Labour Institute.

ST. ANNES-ON-SEA.—The Governors of King Edward School are considering the provision of a secondary school for girls on a site within the borough.

ST. ANTHONY.—Sir Maurice Fitzmaurice and Mr. Basil Mott have been commissioned to prepare plans and estimates for the construction of a new high level road bridge over the Tyne.

ST. MICHAEL'S-ON-WYRE.—The Managers of the Parish Church are proposing facing the playground of the schools with concrete or asphalte, estimated to cost £200.

SALTBURN.—The U.D.C. is asking the M.H. to order an inquiry into its application to borrow £19,000 for sewage works.

SAWBRIDGEWORTH.—The U.D.C. passed plans: Bungalow, Brook-road, for Mr. J. Hayes; two houses, London-road, for Mr. Cunliffe.

SCORTON.—A large building, known as Moses Cowell's Barn, has been presented by Mr. P. G. Ormerod to the village for conversion to a public hall and institute.

SEDGEFIELD.—The R.D.C. have decided to erect 150 houses at Ferryhill, 130 at West Cornforth and Trimdon area, and 10 each in the Fishburn and Sedgefield districts.

SHIPLEY.—Plans passed: Two shops and houses, Carr-lane, for Windhill Industrial Co.-op. Society; hostel superintendent's house and isolation room, Park-street, for Messrs. Salts (Saltaire), Ltd.; house, Bargrange-avenue, for Messrs. H. Chippindale & Co.; two houses, Aireville-avenue, for Mr. H. Dawson.

SIDMOUTH.—The U.D.C. proposes the purchase of land at £300 an acre and inviting architects to submit schemes for the lay-out of land and the erection of 60 houses.

SOUTHEND-ON-SEA.—Plans passed by T.C.: Two houses and shops, London-road, Mrs. Beams; two houses, Kenilworth-gardens, F. J. Gregory; conversion of house into flats, 28, Westcliff-parade, Mr. Ewing; six bungalows, Burlescombe-close, F. W. Goldsworthy; three houses and two garages, Crescent-road, D. R. Wells; two flats and garages, Leighcliff-road, W. D. Batcock; house and shop and house, Lonsdale-road, F. Cook; bungalow, Recreation-avenue, E. Brewer; four houses, Northview-drive, F. W. Taylor; house, Esplanade-gardens, G. W. Eves; house, Westbourne-grove, S. E. Francis; bungalow, Chalkwell-avenue, A. J. Cross; two houses, Western-road, N. Morris; shop and flat, Elm-road, Dr. W. D. Watson; lock-up garages, The Broadway, Leigh, S. Taylor; house, Thorpe Hall-avenue, F. T. Fisher; conversion of house into shop, 15, Eastern-esplanade, L. Bertorelli; house, Burlescombe-road, T. D. Nevard; two houses, Tyrone-road, E. Price; eleven garages, Lovelace-gardens, C. Wingrave; two houses, Electric-avenue, R. Ward; two houses, Eastwood-boulevard, R. Ward; house and shop, garage and stores, Trinity-road, J. W. Cox; bungalow, Esplanade-gardens, Mrs. Ellett; ten houses, Hadleigh-road, S. F. Johnson; twelve houses, Victoria-road, H. G. Axcell; house, Central-avenue, Miss E. Cowgill; bungalow, Eastwood-road, T. W. Sloman; two houses, St. Clement's-avenue, J. Dutton; bungalow, Grasmead-avenue, K. E. Markby; two houses, Daines-way, R. Ling; house, King's-road, Wheeler & Houlding; house, Chadwick-road, S. A. Riley; house, Southview-drive, E. G. Pryor; house, Lovelace-gardens, W. T. Welbourn; store, 43, Manor-road, Mrs. Freeman; house, Silverseadrive, Burrill Bros.; alterations, Hamlet Court-road, Curzon Bros.; six flats, Clatterfield-gardens, C. Neil; bungalow, Olivia-drive, W. Sadd; conversion of four houses into shops, London-road, A. D. Martin; house, Burlescome-road, Mrs. F. Stibbard; conversion of house into flats, 14, Westcliff-avenue, Miss J. Suffield; three houses, Hildaville-drive, G. Wells; bungalow, Esplanade-gardens, H. Harwood; six houses, Ambleside-drive, Thorby Bros.; house, Woodcote-road, J. French; six bungalows, Stirling-avenue, Twitchett & Co.; two houses, Cromwell-road, Mrs. S. A. Wiseman; new premises, London-road, S. W. Powell, Ltd.; seven shops and flats, Hamlet Court-road, W. H. O. Ainslie; two houses, Ely-road, W. T. Cusdin; seven houses, The Grove, L. J. Simpson; house and garage, Woodcote-road, J. French; house, Surbiton-avenue, T. S. Owen; house, Woodcote-road, W. A. Gardner; bungalow, Esplanade-gardens, H. Duffas; two houses, Burlescombe-road, Southend-on-Sea Estates Co., Ltd.; two houses, Thorpe Hall-avenue, Southend-on-Sea Estates Co., Ltd.; school hall, Pall-mall, Leigh, Mrs. A. B. Watts; nineteen houses, North-avenue, D. J. Standen; bungalow, Rylands-road, H. Goodwin; conversion of house into shop and store in rear, London-road, J. W. Lawrence; house, Westleigh-avenue, Mrs. E. Robertson; two houses and shops, London-road, A. D. Martin; additions, Inverness-avenue, W. Melloy; warehouse, Hamlet-road, Denman & Archer; house and shop, Fairview-drive, W. Pennell; seven houses and garages, Stirling-avenue, Walker Bros; conversion of house into shops, London-road, G. F. Ramuz; bungalow, Coleman's-avenue, J. Richardson; house, Elmgrove, Misses Atkins & Verity; house and shop, London-road, J. E. Drawater & Son; house, Silverdale-avenue, H. Clisby; house, Harley-street, G. Lyons; four houses, Park-lane, G. W. Potter; bungalow, South-avenue, Mrs. E. V. Perry; alterations, Cliff Town-parade, D. Towell; bungalow, Fairfax-drive, F. S. Lawford; bungalow, Station-road, G. Wood; house, Chadwick-road, A. Jennings; bungalow, Duke of Manchester-drive, J. Daniels; two houses, Lonsdale-road, E. M. Farnborough; bungalow, Sutton-road, A. G. Poole; house, Lymington-avenue, T. H. Stephings.

SOUTHPORT.—Funds are being raised by the Holy Family Church for the alterations to the day schools required to be made by the E.C.

SPENBOROUGH.—Plans have been approved for alterations to the Littletown Council School and to provide separate entrances to the playground.

STANLEY.—The U.D.C. has decided to have plans prepared for 72 houses at Shield-row and 72 at South Stanley. ——Plans passed: House at Aberford-road, for Mrs. Blackburn.

STOCKTON.—Plans passed by the T.C.: Four cottage homes, Crook-street, for the L.N.E.R. Co.; bungalow, Durham-road, for Mr. J. Henshall; house, South-road, Norton, for Mr. J. R. Kilgour.

SUNDERLAND.—The T.C. has decided to proceed with the extension of the Technical College at an estimated cost of £20,000.

SURREY.—The E.C. estimates provide expenditure for new and improved higher education accommodation as follows: Barnes, £30,000; Wallington, £30,000; Reigate, £22,500; Mitcham, £2,000; and as follows for elementary accommodation: Merton St. Mary's, £7,500; Mitcham, £16,000; Clinics at Chertsey and Malden, £3,800.

SWANSEA.—Plans passed by T.C.: House, Cwmgwyn Estate, for Messrs. T. & G. Spragg; house, Clydach-road, for Mr. J. B. Williams; two houses, Glanmor Estate, for Messrs. Jones Bros.; house, Hendrefoilan-road, for Mr. I. J. Aubrey: two bungalows, Townhill, for Mr. I. Beynon: house and shop, &c., Kinley-terrace, for Mr. D. S. Taylor; two houses, Parkwern-road, for Messrs. R. Evans & B. Rees; house West Cross-lane, for Mr. T. J. Rees; three houses, West Cross-lane, for Messrs. Watkins & Jones; bungalow, Murton, for Mrs. M. C. Fry; house, Newroad, Norton, for Mr. W. A. Boyle; house, Sketty-road, for Mr. G. O. Luff; two houses, New-road, Norton, for Messrs. Stephens & Davies: two houses, Park Wern-road, for Mr. G. Symons; three houses, Gower-road, for Mr. G. R. Thomas; two houses, Pinewood-road, for Messrs. Jones & Watkins; house, West Cross-lane, for Mr. W. R. Davies; house, Station-road, Cockett, for Mr. B. Hill; bungalow, Townhill, for Mr. Ivor Beynon; new road, off Caswell-road, for Messrs. W. J. Rees & Partners; house, St. John's-road, for Mr. E. D. Matthews; house, Llan-llien-wen-road, for Mr. Dd. Evans; house, Middle-road, for Mr. E. S. Moore; house, Goitre Fach-road, Killay, for Mr. John Bevan: bungalow, Bayswater-road, for Mr. T. Richards; house, Waun Wen-road, for Mr. L. J. White; two houses, Tycoch Estate, for Mr. F. W. Taylor; house, Knoyle-street, Treboeth, for Mr. R. Lewis; bungalow, Tycoch Estate, for Mrs. Marsh; bungalow, Hendrefoilan-road, for Mr. H. Harry; house, Waun Wen-road, for Mr. W. H. Hawkes; house, Waun Wen-road, for Mr. T. J. Kiley; house, Clyndu-street, Morriston, for Mr. W. H. Place; bungalow, Bayswater-road, for Mr. D. A. Williams; house, Vicarage-road, Morriston, for Mr. T. Mitchell; house, Llangyfelach-road, Morriston, for Mr. O. Walters; two houses, Cwmgwyn Estate, for Messrs. T. & G. Spragg; two houses, Cwmgwyn Estate, for Messrs. T. & G. Spragg; two houses, Caereithen, Fforestfach, for Mr. H. Wyman; house, Tycoch Estate, for Mr. C. Griffiths; house, Prospect-place, Sketty, for Mrs. M. Rees; house, Prospect-place, Sketty, for Messrs. Watkins & Lloyd; two houses, Tycoch Estate, for Mr. R. E. Frayne; house, Carmarthen-road, for Mr. D. H. Dennis; house, Carmarthen-road, for Mrs. D. Vice; house, Vicarage-road, Morriston, for Mr. T. J. Bowen; house, Middle-road, for Mr. L. C. Morgan; house, St. John's-road, for Mr. T. H. L. Sampson; house, St. John's-road, for Mr. Chas. Weaver; house, Cecil-street, for Mr. J. Barter; house, Cecil-street, for Mr. D. T. Hopkins; house, Cecil-street, for Mr. Wm. Samuel; bungalow, Bayswater-road, for Mr. D. A. Williams; bungalow, Tycoch Estate, for Mr. A. B. Mears; house, Tycoch Estate, for Mr. O. M. Davies; house, St. John's-road, for Mr. W. J. Jones; six houses, Fairfield-terrace, for Mr. E. E. Dawson; bungalow, Pentregethin-road, for Mr. E. N. Treweek; bungalow, Pentregethin-road, for Mr. Wm. Jones; house, Sadler-street, for Mr. J. W. Gregory; bungalow, Bayswater-road, for Mr. D. A. Williams; house, Tycoch Estate, for Mr. E. Lewis; two houses, Tycoch Estate, for Mr. W. T. Humphreys.

SWINTON AND PENDLEBURY.—The U.D.C. has asked a sub-committee to report as to the provision of a war memorial. Plans passed: Cottage home, Partin lane, for Miss M. E. S. Heywood; sewer off Birch-Folly-lane, Swinton, for the Eccles Co-operative Soc section of Bridgewater-road, Blantyre-road, and rington-road, for the Bridgewater Estates, Ltd.

TAMWORTH.—The Managers of St. John's Sc have submitted to the Staffs E.C. plans for the ere of a new school in Moorgate for about 216 childr

THURNSCOE.—The U.D.C. are to make applicati the M.H. for sanction to borrow £12,000 for the pu of constructing a new reservoir and new distrib mains in connection with the new water scheme. C.C. are also being urged to get on with the erecti new Council schools.

TORQUAY.—A local syndicate has purchased 20 of land of the Warberry Vale Estate, upon whic to be erected about 300 houses. The lay-out has prepared by Mr. H. Goss, architect, Torquay.

TOTNES (DEVON).—The B.G. has instructed architect to prepare plans for alterations to the c wards at the workhouse.

TOTTINGTON.—As a memorial it is proposed to in St. Anne's Church, oak panelling and screens o north and south sides of the chancel.

TROWBRIDGE.—Plans passed by U.D.C.: H Bradley-road, for Mr. E. Wood; six villas, Bra road, for Mr. S. J. Wood; two houses, Upper Stu for Mr. J. A. Smith; bungalow, Bradley-road, fo H. Wiltshire.—The U.D.C. is considering the purc of a site in Charlotte-street for housing. A wid scheme at Bradley-road is under consideration. architect has been asked to prepare a plan of a ge lay-out of the Bradley-road housing estate. A committee has been asked to report as to decoratio the Town Hall.

TYNEMOUTH.—Plans passed by T.C.: Villa, T mouth-terrace, for the Misses Clepham; 16 ho Delavel-avenue, Hays & Gray, for Chisholm & two villas, Broadway, Hays & Gray, for Rayn Purley; six houses, Preston-avenue, F. R. Ha & Co., for Brannem Bros.

ULVERSTON.—Plans passed by R.D.C.: Hou Lindale, for Mr. T. Thompson; conversion of s into cottages at Broom Hill, Broughton, for Fawcett; bungalow at Kirkby, for Mr. W. Ta bungalow at Tower Wood, Windermere, for Mr Cannan; bungalow at Tower Wood, for Miss Tayl

UPHOLLAND.—Application is to be made to the for permission to borrow £125 for the purchase o Dingle as a site for the War Memorial.

UXBRIDGE.—Plans recommended by U.D.C.: galow, Press-road, for Surbesta Ferris; offices, Hil don-road, for Messrs. Lowe & Shawyer, Ltd.; h Fairfield-road, for Mr. G. C. Gumbrell.—The Surv has prepared a lay-out of the Fassnidge Mem Recreation Ground, with an estimate of the £6,500.—The fire station is to be repaired and decor —A sub-committee has been appointed to repor likely housing sites.—The Surveyor has been aske prepare plans for an iron bridge over the G.W.R Whitehall-road.

WADDINGTON.—Funds are being raised tow the cost of erecting a new reading room, estimate cost £1,000. A site for the building has alre been secured.

WALLASEY.—Powers are to be sought unde Wallasey Corporation Bill for an improved scheme the development of the foreshore from North Bri Harrison-drive, at an estimated cost of £750,000. plans have been prepared by the Borough Surveyo

WEST HARTLEPOOL.—Plans passed by T.C.: Binning, bungalow, Caledonian-road; Mr. C. Turni bungalow, Caledonian-road; Mr. McCullock, bunga Caledonian-road; Mr. A. Lister, bungalow, Caledon road; Messrs. Smith & Young, pair of semi-detac villas, The Oval; Mr. F. Thompson, pair of s detached villas, The Oval; Messrs. W. H. Robi & Brudenell, bungalow and cottage, Bolton-gr Seaton Carew.

WEST WESTMORLAND.—The R.D.C. has decide erect a girder bridge at Bysteads. The bank of River Eden is to be pitched with stone and the concreted to prevent flooding.

WETHERBY.—Plans passed by R.D.C.: Memo Hall at Spofforth; extensions to the Wetherby Auc Mart; and a number of houses and bungalows.

WHITEHAVEN.—The Whitehaven Colliery Co. poses to erect 500 houses.

WILLESDEN.—Plans passed by U.D.C.: Ten ho Heber-road, Cricklewood, for Mr. George Co factory, Crownhill-road, Harlesden, for Mr. B. Qu five shops with flats above, All Souls'-avenue, Ke Rise, for Messrs. G. Ball (Willesden), Ltd.; boile iron chimney stack, rear of Avenue Dairy, Crown road, Harlesden, by Mr. H. Shaw, for Mr. Edwa 18 houses, Geary-road, Willesden, by Mr. G. A. Sex for Mr. E. H. Sadler; ten houses, Quainton-st Neasden, for Metropolitan Railway Co.; eight ho Elm-way, Neasden, by Mr. G. A. Sexton, for Me Green Bros.; shop and house, 29, Dudden Hill-l Willesden, by Mr. H. Shaw, for Mr. Mitchell.

WOKING.—The U.D.C. is seeking a site suitable a fire station and depot. Plans passed: House, H street, Horsell, for Mr. W. Belton; house, Membri for Mr. J. Lutley; house, Kingsway, for Mr. J Grove; bungalow, Worplesdon, for Mr. H. L. Hold house, Manor-road, for Mr. F. A. Woolnough; ho Hockering-gardens, for Mr. W. G. Tarrant; ho Hockering-gardens, for Mr. S. E. A. Barrow; con sion of stables into house, Lavender-road, for Peter's Home.

WOMBWELL.—The U.D.C. are to make applica to the M.H. for sanction to erect 60 additional ho on the King's-road Site.

WORKSOP.—The B.G. has decided to erect a morti at the Kilton Hill Infirmary, at a cost of £700.

WORKSOP, HAGGOASFIELDS.—Plans sanctioned B.E. for the erection of first section of school.

WREXHAM.—The Council approved lay-out plans the erection by the United Westminster and Wrexi Collieries, Ltd., of about 230 houses. The M.H. authorised the erection by the Council of 70 houses.

PRICES CURRENT OF MATERIALS

g to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

1,000 Alongside, in River Thames up to London Bridge. £ s. d.
ks 4 3 6
ard Stocks 3 18 6
000. Delivered at London Goods Stations.
at £ s. d.
Cross 2 13 3
ved for
.... 2 15 3
nose .. 3 8 3
rbridge Fire brick:—
..... 8 11 0
3 in. 10 3 0

BRICKS—
White and Glazed
ers .. 22 0 0
..... 21 10 0
Bull-nd 4½in.
..... 28 10 0

D'ble Str'tch'rs 30 10 0
D'ble Headers 27 10 0
One Side and two Ends .. 31 10 0
Two Sides and one End 32 10 0
Splays and Squints 30 0 0

Quality, £1 per 1,000 less than best. Cream £2 extra over white. Other colours, Hard 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

s. d.
yd. super 2 1
" 2 6

3 in. per yd. super 2 11
4 in. " 3 6

s. d.
Ballast ..... 10 6 per yard.
14 9 " "
Sand ..... 15 6 " "
shed Sand ..... 15 6 " "
hingle for Ferro-ete ..... 14 0 " "
15 0 " "
oken Brick ..... 10 6 " "
eze ..... 7 6 " "

delivered 2 miles radius Paddington.

n delivered in London area in full van loads.

ortland Cement, British ard Specification Test £2 18 0 to £3 3 6
alongside at Vauxhall in 80-ton lots.
te per ton extra on above 0 10 0
ement 4 8 0
Cement 8 15 0
Cement 5 15 0
Cement, White 5 15 0
" Pink 5 10 0
Coarse, Pink 3 0 0
" White 3 12 6
Fine 5 12 0
e, Coarse 3 9 0
Finish 3 17 0
one Lime 2 11 9
Lime 2 11 9
round Blue Lias Lime 2 4 6
..... 17 0 0
Chippings 1 12 0

-Sacks are charged 1s. 9d. each and credited d. if returned in good condition within three hs, carr. pd.
idge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

STONE—delivered in railway trucks at s. d.
rbourne Park, Paddington, G.W.R., or h Lambeth, G.W.R., per ft. cube 2 9½
. delivered in railway trucks at Nine s, L. & S.W.R., per ft. cube 2 11½

AND STONE—
en Whitbed, in random blocks of 20 ft. erage, delivered in railway trucks at ine Elms, L. & S.W.R., South Lambeth ation, G.W.R., and Westbourne Park, addington, G.W.R., per ft. cube 4 4
do. delivered on road wagons at above ations, per ft. cube 4 5
te basebed, 3d. per ft. cube extra.
E.—½d. ft. cube extra for every foot over 20 ft. *erage*, and ½d. beyond 30 ft.

N-WOOD STONE.
elivered at any Goods Station, London. random blocks, up to 10 ft. cube. Per ft. cube 7/-
m blocks from 10 ft. and over " 17/-
two sides ..... " 27/-
three or four sides ..... " 32/-

STONE, BLUE—*Robin Hood Quality.*
elivered at any Goods Station London. s. d.
awn two sides landings to sizes (under t. super.) ..... Per Ft. Super 5 3
ubbed two sides, ditto ..... " 5 9
awn two sides slabs (random sizes) " 2 1½
to 2½ in. sawn one side slabs dom sizes) ..... " 1 5½
to 2 in. ditto, ditto ..... " 1 3

YORK—
elivered at any Goods Station London. led random blocks ..... Per Ft. Cube 5 6
awn two sides landing to sizes (under t. super.) ..... Per Ft. Super 5 4½
bbed two sides ditto ..... " 6 0½
wn two sides slabs (random sizes) " 2 10
ditto. ditto " 2 5
elf-faced random flags .. Per Yard Super 7 11

ARTIFICIAL STONE.

red in London Area in full van loads. s. d.
..... per ft. cube 6 6
ed ..... " " 7 9
..... " " 8 3

WOOD.

GOOD BUILDING DEAL.

s.	per stan.		Inches.		per stan.
11	.... £34 0	3	× 6	.... £24 10	
9	.... 32 0	3	× 11	.... 30 0	
8	.... 26 0	2	× 11	.... 30 0	
7	.... 26 0	3	× 9	.... 26 0	
8	.... 25 10	2½	× 9	.... 27 0	
7	.... 25 10	3	× 4½	 25	
7	.... 24 0	3	× 4	.... 24 10	

WOOD (*Continued*).

PLANED BOARDS.

1 × 11 .... £37 10 | 1 × 9 .... £36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/-	1¼	33/6
½	24/-	1½	37/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/-

MATCHINGS (BEST).

Inches	per sq.
⅜	17/6
½	21/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle 0 2 8

Dry Wainscot Oak, per ft. super, as inch	0	2	0 to	0	2 6
¾ in. do. do.	0	1	6 to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1	9 to	0	2 6
Cuba Mahogany	0	3	0 to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0	0 to	50	0 0
American Whitewood planks, per ft. cube ..	0	1	4 to	0	16 0
Best Scotch Glue, per cwt.	4	10	0 to	—	
Liquid Glue, per cwt. ..	4	7	0 to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station.

Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) { Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in...	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

Tubes.	Fittings.	Flanges.
Gas 52½%	..... 52½%	..... 62½%
Water 47½%	..... 47½%	..... 57½%
Steam 42½%	..... 42½%	..... 52½%
Galv'd—		
Gas 37½%	..... 42½%	..... 52½%
Water 31½%	..... 37½%	..... 47½%
Steam .... 25 %	..... 32½%	..... 42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Angles and Nozzles.	Stop Ends.
	Gutters.	
3 in.	1/1½	11d. 3½d.
3½ in.	1/2½	1/0½ 3½d.
4 in.	1/4	1/1½ 3½d.
4½ in.	1/5½	1/4 4d.
5 in.	1/7½	1/5½ 5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0 ..		14 0 0
Hoop iron, basis price	16 10 0 ..		17 10 0
Galvanised	31 0 0 ..		32 0 0
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g...	15 0 0 ..		16 0 0
" " " 24 g...	16 0 0 ..		17 0 0
" " " 26 g...	18 0 0 ..		19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0 ..		22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	22 10 0 ..		23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0 ..		26 10 0
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0 ..		22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0 ..		22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0 ..		24 10 0
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0 ..		24 10 0
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0 ..		26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0 ..		27 0 0
Cut Nails, 3in. to 6 in.	20 10 0 ..		22 0 0

(under 3in. usual trade extras.)

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet, English, 4 lb. and up	40 10 0
Pipe in coils	41 0 0
Soil Pipe	44 0 0
Compo pipe	47 0 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	26 10 0 ..	—
Do., ex country, carriage forward ..... per ton	27 10 0 ..	—

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

¼ in.	½ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1¼ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
6 lbs. P. traps ..	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps ..	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.	
Strong Sheet ....per lb.	0 2 3 ..	—
Thin " .... "	0 2 4 ..	—
Copper nails .... "	0 2 3 ..	—
Copper wire .... "	0 2 4 ..	—
TIN—English Ingots "	0 2 2 ..	—
SOLDER—Plumbers' "	0 1 0 ..	—
Tinmen's ..... "	0 1 2 ..	—
Blowpipe ..... "	0 1 4 ..	—

PAINTS, &c.

		£ s. d
Raw Linseed Oil, in pipes .....per gallon		0 3 7
" " " in barrels .... "		0 3 9
" " " in drums		0 4 0
Boiled " " in barrels	..	0 4 0
" " " in drums	..	0 4 3
Turpentine in barrels		0 6 7
" in drums (10 gall.) ..		0 6 10
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)		55 0 0

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 1¼ lb. tins) not less than 5 cwt lots per ton delivered 78 5 0
Red Lead, Dry (packages extra) ....per ton 52 0 0
Best Linseed Oil Putty .....per cwt. 0 16 0
Filocol .....per cwt. 0 15 6
Size. XD Quality .....fkn 0 3 0

[*Concluded on next page.*]

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PRICES CURRENT OF MATERIALS (*contd.*)

GLASS.

ENGLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
15 oz. fourths ..	3½d.	32 oz. fourths	8½d.
15 „ thirds	4½d.	32 „ thirds .....10½d.	
21 „ fourths ..	5½d.	Obscured Sheet, 15 oz.	4d.
21 „ thirds	6½d.	„ „ 21 „	5½d.
26 „ fourths ..	6d.	Fluted 15oz. 6½d.,21oz.	9½d.
26 „ thirds	8d.	En'lled 15oz. 5½d.,21 oz	7½d.

Extra price according to size and substance for squares cut from stock.

ENGLISH ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft.

¼	Rolled plate	4½d.
3/16	Rough rolled	5½d.
⅛	Rough rolled	6⅞d.

Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white ..... 6½d.
Ditto, tinted ..... 9d.
Rolled Sheet ..... 6d.
White Rolled Cathedral ..... 5½d.
Tinted do. ..... 7½d.
Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon £ s. d.
Oak Varnish	Outside	0 14 0
Fine ditto	ditto	0 16 0
Fine Copal	ditto	0 18 0
Pale Copal	ditto	1 0 0
Pale Copal Carriage	ditto	1 4 0
Best Ditto	ditto	1 12 0
Floor Varnish	Inside	0 18 0
Fine Pale Paper	ditto	0 18 0
Fine Copal Cabinet	ditto	1 2 6
Fine Copal Flatting	ditto	1 0 6
Hard Drying Oak.....	ditto	0 18 0
Fine Hard Drying Oak	ditto	0 19 0
Fine Copal Varnish	ditto	1 0 0
Pale ditto	ditto	1 2 0
Best ditto	ditto	1 12 0
Best Japan Gold Size		0 10 0
Best Black Japan		0 10 6
Oak and Mahogany Stain (water).....		0 12 0
Brunswick Black.....		0 7 6
Berlin Black		0 14 6
Knotting (patent)		1 5 0
French and Brush Polish		0 17 0
Liquid Dryers in Terebine.....		0 9 0
Cuirass Black Enamel.....		0 7 0

Cowgate and Rosebank Schools.

The following contracts have been placed in this competition for the installation of heating and ventilating systems :—Cowgate School, Messrs. J. L. Saunders & Co., Ltd., heating engineers, 259, St. Vincent-street, Glasgow, £1,207 18s. 2d. Rosebank School, Mr. T. P. Fimister, heating engineer, 55, South Tay-street, Dundee, £1,390.

Scottish Building Trade.

At a meeting in Glasgow recently of the Scottish Allied Building Trade Employers and the Scottish Regional Representatives of the National Building Trade Operatives, the question of hours and conditions was discussed. It was intimated at the close that the employers agreed to give the proposals of the operatives sympathetic consideration, and that the meeting stand adjourned until a day to be fixed by the joint secretaries. The operatives' proposals are :—(1) That a 44-hours' week be established in Scotland; and (2) that the operatives are prepared to put into operation the national working rules.

Widening Berkeley-street.

The Improvements Committee of the Westminster Council recently recommended the Council to proceed with a scheme for widening Berkeley-street, W., by the acquisition of part of the Devonshire House site. The cost of the land and necessary paving and other work was stated to be £85,000, of which sum £28,334 would have to be borne by the Council. The Ministry of Transport would bear one-third of its cost. The price of the land alone was £70,000.

Clacton Hotel Extensions.

The extensive alterations and additions to the Grosvenor Court Hotel, Clacton, having been completed, the proprietors (Mr. and Mrs. P. Clements) recently entertained the workmen, numbering nearly sixty, to dinner.

The firms concerned were Mr. F. W. King, builder; Messrs. Hember & Malby, electricians; Messrs. F. W. Lewellen & Co., furnishing and equipment.

THE SCOTTISH BUILDE

NEW BUILDINGS IN SCOTLAND

Paisley.—Houses.—The T.C. proposes to erect 102 houses. The District Board of Guardians have appointed Messrs. Ambercrombie & Maitland, County-place, Paisley, architects for a new mental defective institution to be erected on the Hawkhead Estate. The new building in the meantime provides accommodation for 100 patients and a plan of a further extension shows accommodation for 500.

Glasgow.—Housing.—The Corporation has accepted tenders amounting to £155,000 for a housing scheme in the Tollcross district.

Alloa.—School.—The Clackmannan C.E.C. is considering the architect's plans and an estimate at £1,450 for an addition to Ludgate School.

Edinburgh.—The University of Edinburgh has received an offer of a grant of £8,000 from the Miners' Welfare Committee, towards the provision of additional mining engineering laboratories and equipment, estimated to cost over £23,000.

Alva.—Addition.—The Clackmannan C.E.C. has issued instructions to the architect to obtain tenders for the various works required in connection with the erection of an addition to Alva Academy. The total estimated cost is between £6,000 and £7,000.

Dundee.—Extension.—The Corporation Police and Lighting Committee propose the extension to the central fire brigade station in Bell-street, so as to accommodate the whole of the permanent staff.

Montrose.—Housing.—The Town Chamberlain notified the Corporation Housing Committee that the sum of £95,000 would be required to complete the scheme. Only £80,000 has been sanctioned by the Board of Health.

Dumfries.—Houses.—The Dean of Guild Court has approved of plans for the erection of 100 additional houses on the Cresswell Estate, for the T.C.

Renfrew.—Houses.—The T.C. has obtained a site for the erection of 60 houses.

EDINBURGH COLLEG OF ART

Mr. Gerald Moira has recently been appo Director of the Edinburgh College of A fill the vacancy created by Mr. Frank M Fletcher's acceptance last year of the directorship at Sta. Barbara, California Moira will control the three-years' train about a thousand students, studying fo diplomas in painting, architecture, dr and design. The diplomas are regard equivalent to a University degree, th architecture exempting holders of it fro intermediate examination of the R. Mr. Moira was, of course, Professor of deco painting at the Royal College of Art, well-known as a decorative painter beginning of his decorative career, foll studentship in the Royal Academy Sc was the decoration, together with Mr. Jenkins, of the Trocadero Restaurant, series of mural paintings in London an provinces include those for Lloyd's Re the United Kingdom Provident Instit and the great lunettes and stained glass Central Criminal Court.

Aberdeen and Smoke Abatement.

The Aberdeen Chamber of Commerce rec had under discussion the Smoke Abate Bill. A letter was submitted from the burgh Chamber enclosing a copy of a sent by that Chamber to the Scottish Bo Health, with criticism by that Chamber o Bill at present before the House of Com The General Purposes Committee of the deen Chamber had, it was stated, instr the secretary to reply that their views we accord with the views expressed by the burgh Chamber, but that they would lik see more smoke coming from some of the fact and industrial chimneys, and that they th such a Bill might well be held over unti trade of the country improved. The Cha approved of this recommendation.

BUILDING TRADE WAGES IN SCOTLAND

The following are the present rates of wages in the building trade in the principal towns Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for er that may occur :—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/3
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½
Inverness	1/4	—	1/3½	1/4	1/4	1/4	1/3½	10½d to 1/2½
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½

* The information given in this table is copyright. The rates of wages in the various towns in England Wales are given on page 884.

CURRENT PRICES FOR BUILDING WORK IN LONDON

EXCAVATOR.

		s.	d.
g and throwing or wheeling and filling carts,			
d carting away to shoot—6 ft. deep	per yard cube	11	6
in clay	„ „	1	0
or every additional depth of 6 ft.	„ „	0	6
ng and strutting to trenches	per foot super	0	5
to sides of excavation, including shoring	„ „	1	0

CONCRETOR.

nd cement concrete in foundation 1 to 6 ..	per yard cube	35	0
f in underpinning in short lengths	„ „	7	6
in floors 6 in. thick	„ „	3	6
in beams	„ „	4	0
aggregate 1 : 2: 4	„ „	10	0
or hoisting not exceeding 10 ft. beyond the rst 10 ft.	„ „	3	3

BRICKLAYER.

		£	s	d.
ed brickwork in lime mortar and Fletton ricks	per rod	30	0	0
f in stocks	„	7	10	0
f in Staffordshire blues	„	22	0	0
f in Portland cement and sand	„	2	0	0

FACINGS.

for facing in English or Flemish bond for very 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1½

POINTING.

flat struck or weathered joint	„ „	0	0	3

ARCHES.

only to the price of ordinary brickwork :—				
external in half brick rings	„ „	0	0	10
in stocks	„ „	0	1	9
ed and gauged jointed in putty camber or egmental	„ „	0	6	0

SUNDRIES.

course in double course of slates breaking oint and bedded in Portland cement	„ „	0	1	1
ng ordinary register grates and stoves	each	1	0	0
ng kitchener, including forming flues, &c., with all necessary fire bricks	„	4	15	0

ASPHALTER.

		s.	d.
inch horizontal damp course	per yard sup.	4	3
e-quarter-inch vertical damp course	„ „	9	0
h on flats in two thicknesses.....	„ „	6	6
e fillet	per foot run	0	3
ing and fillet 6 in. high	„ „	1	3

MASON.

stone templates fixed	per foot cube	12	6
stone sills fixed	„ „	21	6
stone and all labour fixed	„ „	10	6
land stone fixed	„ „	19	6

SLATER.

h 16 in. × 8 in. 3 in. lap, including nails....	per square	72	9
. 20 in. × 10 in. Do. Do.	„	80	9
. 24 in. × 12 in. Do. Do.	„	90	0

CARPENTER AND JOINER.

framed in plates .....per foot cube		5	3
Do. joists	„ „	5	9
Do. roofs, floors and partitions	„ „	6	3
Do. trusses	„ „	8	3

		¾″	1″	1¼″	2″
rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
centering for concrete floor, including struts or hangers ..	„	50	0
. to beams .....per ft. sup.....		1	0
res for arches	„	1	6
ter boards and bearers	„	1	0

FLOORING.		¾″	1″	1¼″	1½″
-edges shot	per sq.		49/-	58/-	67/-
. tongued and grooved	„		54/-	65/-	72/-
. matchings	„	45/-	55/-		
lded skirting, including backings and grounds .....per ft. sup.		1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
and-a-half moulded sashes or casements	per foot super	1	10
Do. Do. Do.	„ „	2	1
for fitting and fixing	„ „	0	4
-cased frames with 1 in. inner and outer linings, 1⅛ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size.....	„ „	3	9

DOORS.		1½″	1¾″	2″
panel square framed .....per ft. sup		2/1	2/4	2/6
-panel Do.	„	2/5	2/8	2/11
-panel moulded both sides	„	2/8	2/11	3/2
-panel Do. Do.	„	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1″	1¼″	1½″
Plain deal jamb linings framed	per ft. sup	1/8	1/9	2/0
Deal shelves and bearers	„	1/5	1/7	1/10
Add if cross tongued	„	2d.	2d	2d.

STAIRCASES.

	1″	1¼″	1½″	2″	2½″
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	„ „	6	0
Add if ramped	„ „	11	10
Add if wreathed	„	23	9

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/4
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s	d.
Rolled steel joists	per cwt.	17	0
Plain compound girders	„	20	0
Do. stanchions	„	23	0
In roof work	„	28	0

RAIN-WATER GOODS.

		3″	4″	5″	6″
Half-round plain rebated joints ..	ft run	1/11	2/4½	3/7	4/-
Ogee Do. Do. ..	„	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	„	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	„	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	„	2/2	2/7	3/10	4/3

PLUMBER.

		s	d.
Milled lead and laying in flashings and gutters	per cwt.	57	0
Do. Do. in flats	„	55	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	„ „	1	6
Copper nailing	„ „	0	3

	½″	¾″	1″	1½″	2″	4″
Drawn lead waste per ft. run	1/1	1/9	1/11	3/5	4/2	
Do. service „	1/8	2/2	2/7	3/10		
Do. soil „						7/6
Bends in lead pipe each					3/3	8/2
Soldered stop ends „	1/2	1/8	2/1	2/10	3/6	
Red lead joints .... „	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints „	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws .....„				14/7	19/6	
Bib cocks and joints ..„	6/4	9/7	15/4	41/-		
Stop cocks and joints „	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	„ „	2	4
Do. Do. Keen's	„ „	3	3
Add sawn lathing	„ „	1	5
Add metal lathing	„ „	2	3
Portland cement screed	„ „	1	10
Do. plain face	„ „	3	0
Mouldings in plaster	per 1 girth	0	1¾
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

21 oz. sheet plain	per foot sup.	0	8
26 oz. Do.	„ „	1	0
Obscured sheet	„ „	1	1
⅛ in. rolled plate	„ „	0	9
¼ in. rough rolled or cast plate	„ „	0	10½
¼ in. wired cast plate	„ „	1	4

PAINTER.

Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	„ „	0	7
Plain painting 1 coat	„ „	0	9
Do. 2 coats	„ „	1	2
Do. 3 coats	„ „	1	9
Do. 4 coats	„ „	2	4
Graining	„ „	2	3
Varnishing twice	„ „	1	9
Sizing	„ „	0	3
Flatting	„ „	0	7
Enamel	„ „	1	1
Wax polishing	per foot sup.	0	6
French polishing	„ „	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A stage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

PATENTS

APPLICATIONS PUBLISHED.*

209,832.—R. Dixon: Houses and pens.
209,865.—H. Bowen and G. E. Gibins: Tools for drilling walls.
209,880.—British Electrical Federation, Ltd., A. Twidle, and E. P. Worsfold: Controlling-means for drop windows.
209,931.—R. Brown and T. Wragg & Sons, Ltd.: Manholes or inspection chambers for sewers or drains.
209,934.—British Electrical Federation, Ltd., A. Twidle and E. P. Worsfold: Balance-gear of drop windows.
209,973.—H. Kershaw & Co., Ltd., and W. S. Timmins: Stair-rod eyes.
199,009.—Roofing Research and Engineering Corporation: Roofing element.
198,669.—L. Lichtenfeld: Parquetry for flooring, ceiling, and wainscot.
210,010.—L. Lichtenfeld: Slat parquetry for floors.
210,012.—E. Hirsch: Reinforced-concrete constructions.
208,742.—F. J. Brougham (D. Moir and H. Buchanan): Joints for concrete pipes.
208,743.—A. Bean: Fitting insulation on ships and buildings.
187,210.—Sullivan Machinery Co.: Winches or hoisting-mechanism.
186,348.—M. J. G. A. Lemaistre: Hot-water heating installation.
208,770.—R. Tyler: Bituminous composition.
208,807.—W. T. Warne: Taps and cocks.
208,821.—C. F. Priest: Apparatus for drying and heating stone, slag, and other materials.
187,631.—V. H. Forssman: Preservation of wood and preserved wood.
208,855.—Cadbury Bros., Ltd., and H. Hackett: Machines for lining boxes.
208,865.—J. Greenwood: Ventilation screens for windows.
189,768.—Carr Fastener Co.: Separable fasteners.
208,921.—R. H. Bicknell: Pipe joints.
208,926.—J. Clements: Shuttering for casting walls *in situ*.
208,933.—B. Todd: Floor covering.
208,937.—H. Conradi: Machines for making structures centrifugally.
208,943.—H. Humberstone: Collapsible boxes and packing-cases.
208,958.—Internationale Siegwartbalken Ges.: Reinforced-concrete pipes or like bodies.
199,697.—L. T. Larsen: Apparatus for automatic rotation of watering-pipes.
208,982.—T. Marshall: Means for heating buildings and the like by means of hot air.
208,992.—E. Hantz: Flushing-cisterns.
209,116.—A. Hill and A. Womersley: Plug-cocks.
209,176.—R. V. Farnham: Disinfector attachment for the flushing arrangements of water-closets.
209,179.—J. A. Harrison and O. A. Waschatz: Apparatus for the manufacture of composition building sheets or slabs.
209,186.—W. Dunstan: Cementitious composition for manufacturing into plaster sheets and moulded articles.
209,251.—H. Moreau: Method of and apparatus for central heating.
209,274.—S. H. Adams: Road-gulley gratings and frames.
209,293.—W. Newman & Sons, Ltd., and W. Jones: Combined casement stays and fasteners.
209,316.—H. L. Wettern: Road construction.
198,646.—L. Courtot: Radiators for heating buildings.
209,327.—W. W. Waine, T. G. Waine and E. G. Honeywill: Settees convertible into bedsteads and other articles.
209,366.—G. Carteret and M. Devaux: Pigment for anti-rust paint, and process.
202,642.—Dorr Co., Inc.: Apparatus for preparing and mixing cement mixture.
209,468.—A. Round and R. W. Seaby: Manufacture of knobs, terminals, and the like.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

TRADE NEWS

Messrs. Bryce, White & Co., Ltd., of Wharf-road, N.1, have for the convenience of their South Coast customers opened a new branch at Southampton. The address is as follows:—Bryce, White & Co., Ltd., Emsworth Works, Leighton-avenue, Shirley, Southampton. Telephone: Southampton 4971.

The Holborn Sanitary Company (whose registered trade mark is "Hosanco") have, owing to increased trade, taken more commodious premises at Sardinia House, Kingsway, W.C.2.

Messrs. William Shepherd & Sons, Ltd., Milkstone, Rochdale, inform us that an Australian firm has recently placed with them an order for 1,000 gallons of "Shepfast" Composition. This material is for use in connection with Australian wood block flooring contracts.

The firm of Winget, Ltd., has recently been reconstructed as "Winget (1924), Ltd.," under the control of its founder, Mr. J. Faulder Burn, who remains chairman and managing director of the new company.

The London office of Messrs. Matthews & Mumby, Ltd., reinforced concrete engineers and contractors, has been removed from Feather-stone-buildings, Holborn, to 36, Furnival-street, E.C.4. Their new telephone number is Holborn 4982. Mr. Hamilton Smith will continue to act as their London manager.

For the convenience of architects and contractors in the Midlands, Messrs. Horace W. Cullum & Co., Ltd., the manufacturers of "Cullum" floors, are opening offices in Warwick Chambers, Corporation-street, Birmingham.

"The Gazeway," Surbiton.

The Queen of Roumania, accompanied by the Infanta Beatrice of Spain, recently spent nearly an hour in going round the show house and gardens known as "The Gazeway," Surbiton. Her Majesty expressed pleasure with all she saw; the gardens are looking delightful at present, and Her Majesty is placing an order for a consignment of the varieties to be sent out to Roumania. The Children's Garden also called for attention, and the "All Weather" hard tennis court provoked much interest. The house itself, with its selection of antique and modern furniture set out in rooms decorated particularly to show the value of colour used in the home, next called for attention.

Unemployment and Spring and Winter Painting.

The Minister of Health draws our attention to the fact that unemployment among painters and other tradesmen normally engaged in work of internal decoration is much higher in the winter than in the summer. In a circular issued by the Ministry it is very truly stated that "There would be manifest advantage if an effort were made to spread throughout the year the work which is available. The Government, therefore, wish to urge local authorities that, so far as it may be practicable to do so, they should arrange that painting and other work of internal decoration is not put in hand during the spring and summer, when there is usually a full demand from other sources for painters, &c., but that they should arrange to have such work done during the late autumn and winter months, when the opportunities for employment are less. The Minister is of opinion that the general gain if local authorities would adopt this suggestion would outweigh any advantage which might accrue from following the normal course of doing internal painting work during months of fine weather. He trusts, therefore, that local authorities will take all possible steps to postpone work of the kind mentioned which is contemplated during the next few months, in order that it may be put in hand during the winter months of 1924–25, and will adopt the same policy in subsequent years."

TENDERS

Communications for insertion under this heading be addressed to "The Editor," and must reach h later than Tuesday evening.

* Denotes accepted. † Denotes provisionally ac
‡ Denotes recommended for acceptance.
§ Denotes accepted subject to modifications.

ALDERLEY EDGE.—For erection of eight co at Heyes-lane, for the U.D.C. Mr. H. Sh Architect, Council Offices, Alderley Edge:—
*Isaac Massey & Sons, Ltd., Alderley Edge ..... per pair £1,0

BEXHILL.—For supply of railings at East P for T.C.:—

R. W. Waine	£158 15
French & Co.	140 7
*P. Hodgkinson	134 19

BROMSGROVE.—For laying 100 yards of sewer for North Bromsgrove Council at Rose Hill

G. Macdonald, Hunt & Co., Harborne	£279 0
C. G. Huins, Redditch	272 4
Tilt Bros., Bromsgrove	243 13

BROTHERTON.—For erection of 20 including formation of roads, footpaths, fencin drainage, &c., for the Pontefract R.D.C. Tennant & Smith, architects and surveyors, fract:—
*Garrett & Grail, Carleton, Pontefract, Yorks £8,461 2

CAMBRIDGE.—For painting refreshment room at Cattle Market, for T.C.:—

P. Leach & Son	£217 4
*A. Negus & Sons	169 15

CAMBRIDGE.—For erection of 10 houses in Vi road, for the T.C.:—

Clark & Sons	£6,225
J. R. Bennett & Sons	5,700
Crown & Cox	5,600
A. Negus & Sons	5,545
E. C. Northfield & Sons, Ltd.	5,500
*J. Brignell	4,868 1

CAMBRIDGE.—For erection of 10 houses on terton Hall Estate and 40 in Vinery-road, fo T.C.:—
Chesterton Hall Housing Scheme—

Wm. Saint, Ltd.	£5,78
*J. R. Bennett & Sons	5,23
J. Brignell	5,15

Vinery-road Housing Scheme—

	18 Houses.	Hou
Wm. Saint, Ltd.	£10,464	£13
Negus & Sons	10,083	12
J. R. Bennett & Sons	10,170	12
*J. Brignell	9,760	12

CHESTER.—Alteration to building at New C street, for T.C.:—
W. Vernon & Son £300

CHORLEY.—For construction of sewage dis works, for the T.C. Messrs. Dodd & Watson, engin County Chambers, Corporation-street, Birmingha
Baxendale Bros. (Chorley), Ltd., Chorley £40,670

COULSDON AND PURLEY.—For constructio sewer in Hartley Down, for U.D.C.:—

H. Hemmings	£532 10 9
E. B. Yewen	519 10 0
R. J. Streeter	507 7 6
*H. M. Blaker	467 0 0

ESSEX.—For rebuilding of Langford Bridge, fo Essex C.C.:—
*A. J. Arnold, Chelmsford .. £6,001 18 7

EVESHAM.—For the erection of cottages Broadway and Offingham, for the R.D.C.:—

*C. Stewart	£5,520
*John Taylor & Sons	3,663

EVESHAM.—For erection of a convenience a Town Hall, for the T.C. Mr. J. Abbott, Borough veyor, Town Hall:—
*Meades & Cox, Ltd., Evesham £374 10

FEATHERSTONE.—For erection of 50 ho Streethouse, for the U.D.C. Mr. S. Chesney, Archi Council Offices, Featherstone, near Pontefract:—
*Rodgers Bros., Purston, near Pontefract.

FITZWILLIAMS.—For erection of business mises and residence. Messrs. Crawshaw & Wilkin architects, 13, Regent-street, Barnsley:—
*J. W. Waller, South Elmsall.

GLOUCESTER.—For erection of a new scho the Kingsholm District, for the City Council's E.C
*Byard & Co. £26,354

GREAT TOTHAM.—For reconstructing a culve the parish of Great Totham, for the Essex C.C.:—
*A. J. Arnold, Chelmsford £386 10 6

GUILDFORD.—For rebuilding walls in York Stoke-roads, for the T.C.:—

Tribe & Robinson	£166
*Swayne & Sons	135

GUILDFORD.—Construction of concrete roa Onslow-street, for the T.C.:—

E. Ireland, Bath	£2,857 0 0
C. W. Davidson, Chiswick	2,747 19 0
Franks, Harris Bros.	2,207 11 9
‡J. Douglas, Southampton	1,871 0 0

FAX.—For (1) Erection of a sterilising room ; ional story over dining room at the Royal . Messrs. Walsh & Maddock, architects and , 10, Harrison-road :—
ing room—
on—F. Stockton, Sowerby Bridge.
ers—S. Wadsworth & Son, Halifax.
bers—Bolton Bros., Halifax.
retors—G. Greenwood & Sons, Halifax.
rs and Plasterers—H. Castle & Co., Brighouse.
ral story over dining room—
ons—C. Robinson & Sons, Halifax.
ers—S. Wadsworth & Son, Halifax.
aber—John Holdsworth, Halifax.
rs and Plasterers—H. Castle & Co., Brighouse.

OFFICE OF WORKS (accepted during

g Works.—Abertillery P.O.—Erection : W. F. td., Stroud. Ammanford P.O.—Erection : illiams & Davies, Caerphilly. Bedford—of a Telephone Exchange and alterations, &c., .O. : W. F. Drew, Ltd., Stroud. Belvedere ection : William F. Blay, Ltd., Dartford. g : H. S. Thorne, London, S.E. Steelwork : Brown & Co., Ltd., London, E.C. Brierley ephone Exchange—Joinery : The Premier Co., Ltd., Birmingham. Steelwork : Charles Co., Ltd., Birmingham. Chesterfield P.O., &c. ork : W. H. Blake & Co., Ltd., Sheffield. l Employment Exchange—Work in connection ction : F. & H. F. Higgs, Ltd., London, S.E. Telephone Exchange—Asphalte : The Ragusa Paving Co., Ltd., London, W. Steelwork : s Bros. (1911), Ltd., London, S.E. Stonework : Bysouth & Sons, Enfield. Gateshead Tele-xchange—Painting and Glazing : Merrilees & Ltd., Gateshead. Plastering : Newman Newcastle-on-Tyne. Plumbing : Morrison & wcastle-on-Tyne. Gloucester Telephone Ex--Asphalte : The Limmer & Trinidad Lake Co., Ltd., London, S.W. Gloucester Tele-Repeater Station—Asphalte : The Ragusa Paving Co., Ltd., London, W. Hereford Sorting Office—Erection : William Bowers & reford. Leeds Head P.O.—Alterations, &c. : Sapcote & Sons, Birmingham. Mill Hill e Exchange—Erection : H. Lacey & Sons, Asphalte : Engert & Rolfe, Ltd., London, E. k : Redpath, Brown & Co., Ltd., London, ew Malden Telephone Exchange—Asbestos and Poilite Tiling : E. Parkinson (London), ndon, N. North Telephone Exchange—Wood looring : J. F. Ebner, London, E. Nuneaton ment Exchange—Erection : J. E. Harper & td., Birmingham. Pontllanfraith Housing —Roads and Paths : J. E. Jones & Co., Pont-h. Porth P.O.—Erection : Knox & Wells. ardiff. Regent's Park—Demolition Work : oyes, London, S.W. Rugby Wireless Station—hic Work : Stuart's Granolithic Co., Ltd., W.C. Portland Stone : Frank Mortimer, ondon, E. Tilbury Telephone Exchange—g : H. S. Thorne, London, S.E. Whitley O., &c.—Plumbing and Glazing : George & Co., Sheffield. Roof Tiling and Slating : Nelson & Son, Sunderland. Widnes P.O.—: J. W. Jones & Sons, Ltd., Liverpool.
eering Services.—Broadmoor Asylum—Cornish Holdsworth & Sons, Ltd., Bradford. Rampton nstitution—Cables, Lamp Standards, &c. : Bros. & Co., Ltd., London, S.E. Heating : ightside Foundry & Engineering Co., Ltd., .

L.—For sub-station at the St. Andrew's Dock, Electricity Committee :—
n Houlton & Son..... £750

PETER.—The improvement of the Poor Law ion, for the B.G.—
Davies £610 0
Davies 587 10
D. Owen 466 0

DS.—For structural alterations to premises in ne acquired by the Corporation for municipal Mr. F. W. Lancashire, Borough Engineer :—
ssrs. J. Tomlinson & Son, Leeds.. £10,685

DS.—For erection of garage, showrooms, shops ces at the junction of Wade-lane and Wood-ane :—
n and Joiner's work—
P. E. Snowden.
alter—
nstall's Rock Asphalte Co., Ltd.

DON.—For the erection of block of flats on North-street area, for the Poplar B.C. :—
Sims £9,734

DON.—For furniture and fittings at the nithe Library, for the Bermondsey B.C. :—
M. Hammer & Co. £598

DON.—For erection of scaffolding for repair ework at Caxton Hall, for the Westminster
ffolding (Great Britain), Ltd..... £907
. Pearson 428
nsends (Builders), Ltd..... 387
s & Russell 340
phens & Carter, Ltd..... 203

DON.—The following tenders have been d by the Education Committee of the L.C.C. :—
ad, Dulwich—Formation of head teachers' boys', girls' and infants' departments)—
Brown & Son £578 0 0
King & Son..... 359 0 0
lling & Rayment 342 0 0
C. Bowyer, Ltd..... 319 0 0
C. Sames & Co., S.E.1. .... 271 5 0

Swaffield-road, Wandsworth, C.—Formation of head teachers' rooms (all departments), provision of new w.c., and removal of stepping—
Snelling & Rayment £630 0 0
W. Hammond 457 0 0
H. S. Lee, Ltd..... 425 0 0
*R. A. Jewell, Ltd., S.W.18..... 396 0 0
Sims & Russell..... 390 0 0

Eltringham-street, Wandsworth, C.—Removal of stepping—
H. J. Rushbrook, Ltd..... £221 0 0
J. & C. Bowyer, Ltd..... 190 0 0
W. Hammond 182 0 0
H. S. Lee, Ltd..... 178 0 0
*R. A. Jewell, Ltd., S.W.18 .... 175 0 0

Flora-gardens, Hammersmith, S.—Formation of head teachers' room (G) and provision of indoor w.c.s—
A. & F. Polden..... 365 0 0
J. McManus, Ltd. 337 0 0
C. H. Boyd & Son, Ltd..... 315 0 0
R. A. Jewell, Ltd..... 308 0 0
*Lole & Co., Chelsea..... 299 0 0

Farncombe-street, Rotherhithe—Formation of head teachers' room (boys') and removal of stepping—
E. C. Sames & Co.....17½ per cent. on cost.
H. King & Son..... £215 0 0
Ward, Saul & Co..... 210 0 0
W. J. Dixon & Son..... 185 0 0
Samuel Blow, Ltd..... 180 0 0
*Wm. Simms, Stepney..... 149 14 0

Woods-road, Peckham—Formation of head teachers' rooms (boys', girls' and infants')—
J. Francis £500 0 0
E. C. Sames & Co..... 374 0 0
H. King & Son..... 300 0 0
T. Brown & Son..... 299 0 0
J. & C. Bowyer, Ltd..... 272 0 0
*W. J. Dixon & Son, S.E.16.... 270 0 0

Smeed-road (Bow and Bromley)—Formation of head teachers' rooms (boys', girls' and infants')—
G. B. Farrar & Co..... £439 0 0
J. & C. Bowyer, Ltd..... 437 0 0
C. P. Roberts & Co., Ltd..... 432 0 0
W. M. Brand..... 418 0 0
W. S. Sharpin..... 372 0 0
*Wm. Simms, Stepney..... 325 2 6

Barlby-road (Kensington, N.)—Formation of head teachers' rooms (boys', girls' and infants'), removal of stepping, &c.—
J. Garrett & Son..... £868 0 0
A. Roberts & Co., Ltd..... 650 0 0
*J. & C. Bowyer, Ltd., Upper Norwood 636 0 0
Lole & Co. 620 0 0
The tender of Messrs. Lole & Co. (£620) is qualified as to wages.

Arthur-street (Camberwell, N.)—Formation of head teachers' rooms (boys', girls' and infants')—
H. Grove & Son..... £460 0 0
E. C. Sames & Co..... 441 0 0
H. King & Son..... 430 0 0
J. & C. Bowyer, Ltd..... 417 0 0
T. Brown & Son..... 398 0 0
*W. J. Dixon & Son, S.E.16..... 390 0 0

Surrey-square (Southwark, S.E.)—Formation of head teachers' room (boys')—
Lole & Co..... £195 0 0
W. Hammond 182 0 0
*J. & C. Bowyer, Ltd., S.E.19.... 157 0 0

Raveley-street (St. Pancras, N.)—Minor improvements—
W. T. Lawrence..... £510 14 0
Hooper & Hooper 510 0 0
Stevens & Sons 496 0 0
F. Cottrell, Ltd. 485 0 0
L. Kazak 476 0 0
The Pitcher Construction Co., Ltd. 460 0 0
J. C. Mather..... 443 0 0
Whitbys, Ltd. 435 0 0
S. Shaw..... 409 0 0
*Townsend & Pearson, Ltd..... 386 0 0

Enfield-road (Hackney, C.)—Minor improvements—
G. Barker £290 0 0
Whitbys, Ltd. 264 14 0
G. B. Farrar & Co..... 225 10 0
C. P. Roberts & Co., Ltd..... 221 0 0
G. Butters 212 0 0
J. C. Mather 211 0 0
J. & C. Bowyer, Ltd..... 211 0 0
W. M. Brand 205 0 0
W. S. Sharpin 198 10 0
G. Keetch 190 0 0
*W. Simms, Stepney 154 17 8

LONDON.—For alterations at the Westminster Fire Station, for the L.C.C. :—
Prestige & Co., Ltd., Westminster £1,532
Lole & Co., Chelsea 1,424
J. Garrett & Son, Balham 1,400
C. F. Kearley, Ltd., Westminster 1,357
Triggs & Co., Clapham 1,349
L. H. & R. Roberts, Hackney 1,299
J. & C. Bowyer, Ltd., Upper Norwood 1,279
C. P. Roberts & Co., Ltd., Hackney .. 1,210
Whitbys, Ltd., High Holborn 1,065
*John C. Mather, Islington 1,019

LONDON.—For the construction of petrol stores and pumping wells at certain fire stations, for the L.C.C. :—
N. Lidstone & Son, Finsbury Park £1,325
F. Cottrell, Ltd., Crouch Hill 1,310
W. M. Brand, Upper Clapton 1,290
Albert Monk, Lower Edmonton 1,250
C. P. Roberts & Co., Ltd., Hackney .. 1,186
J. & C. Bowyer, Ltd., Upper Norwood 1,127
Whitbys, Ltd., High Holborn 1,125
G. B. Farrar & Co., Stepney..... 1,125
E. A. Roome & Co., Ltd., Hackney .. 1,010
*John C. Mather, Islington 980

LONDON.—For lay-out of portion of Mortlake Cemetery site, for the Hammersmith T.C. :—
*F. G. Cressey, Ltd. £26,455

LONDON.—For adapting 59, Westgate-street, Hackney, for schoolkeeper's house, for the L.C.C. :—
*C. P. Roberts & Co. £490

LONDON.—Rebuilding of Raywood-street School, Battersea, for the L.C.C. :—
W. F. Blay, Ltd., Cannon-street £33,681 0 0
J. E. Billings & Co., Ltd., Victoria-street 32,915 0 0
F. & T. Thorne, Isle of Dogs.. 31,942 8 9
W. J. Maddison, Ltd., Minories 31,830 0 0
Lole & Co., Chelsea 31,793 6 3
W. H. Gaze & Sons, Ltd., Kingston 31,673 0 0
Holliday & Greenwood, Ltd., Battersea 31,622 0 0
John Garrett & Son, Balham-hill 31,608 0 0
*C. P. Roberts & Co., Ltd., Dalston 31,300 0 0
L. H. & R. Roberts, Lower Clapton-road 30,816 0 0
Rowley Bros., West Green .. 30,810 0 0
F. & H. F. Higgs, Ltd., Herne Hill 30,699 0 0
James Carmichael (Contractors), Ltd., Wandsworth 30,647 0 0
Allen Fairhead & Sons, Ltd., Enfield..... 30,496 0 0
G. E. Wallis & Co., Haymarket 30,454 0 0
Prestige & Co., Pimlico 30,399 0 0
J. & C. Bowyer, Ltd., Upper Norwood 29,837 0 0
T. D. Leng, Deptford 29,771 0 0
Albert Monk, Lower Edmonton, N.9 ..... 29,667 0 0

LUTON.—For internal decorating of 116 houses, for the T.C. :—
*A. & S. Bone—38 houses £124 9 8
*F. Bonner—32 houses 88 0 0
*F. Dudley—25 houses 87 10 0
*W. G. Humphrey—21 houses.... 73 17 6

MERTHYR TYDFIL.—Construction of viaduct at Quaker's Yard, for the T.C. :—
*Lewis, Rugg & Co., Westminster .. £8,650

MIDDLESEX.—For additions to Council school, Stanley-road, Teddington, for the E.C. of the C.C. of Middlesex, from plans prepared by M. H. G. Crothall, F.R.I.B.A., County Architect :—
E. Plaistowe & Sons, Ltd., Southall .. £16,550
W. H. Gaze & Sons, Ltd., Kingston-on-Thames 15,623
C. J. Newby & Bros., Southgate..... 14,815
W. Lawrence & Sons, Ltd., London .. 14,747
W. Lacey, Hounslow 14,736
H. Knight & Son, Tottenham 14,416
A. Monk, Lower Edmonton 14,390
G. Challis, Brentford 14,346
Godson & Sons, Ltd., London 14,325
W. Daley & Co., Acton 14,100
G. Bollom, Acton 13,760
W. J. Dickens, Ealing 13,750
‡Ferris Bros., Acton 13,584

NEWCASTLE.—Alterations to property adjoining the Vegetable Market, for the City C.C. :—
*George Mauchlen £358 11

NORMANTON.—For erection of an electricity sub-station, for the U.D.C. :—
*R. Leake & Son..... £750

NUNEATON.—For erection of a pair of detached houses, for the Co-operative Society, Ltd., and also enclosing site with wall and iron fencing and large entrance gates and piers. Messrs. H. Mayo & Son, architects and surveyors. Quantities by H. Mayo & Son :—
T. Gudgeon, Nuneaton £1,865 0
G. Cooper & Sons, Nuneaton 1,680 10
*G. E. & W. Wincott, Nuneaton .. 1,600 0

RAMSGATE.—For a school for boys, by the Kent E.C. Mr. W. H. Robinson, County Education Architect, Sessions House, Maidstone :—
R. J. Barwick, Dover £15,780
Rice & Son, Margate..... 15,540
G. H. Denne & Son, Deal 15,230
J. T. May, Broadstairs 15,120
G. Browning, Canterbury 15,036
E. W. Martin, Ramsgate..... 14,930
D. Godden & Son, Ashford 14,552
A. Ross & Co., Westgate-on-Sea .. 14,318
Grummant Bros., Ramsgate 13,877
*J. B. Sharman, Ltd., Ramsgate .. 13,397

ROTHWELL.—For erection of (*a*) 16 houses at Rothwell Haigh ; (*b*) 12 houses at Carlton ; (*c*) 12 houses at Lofthouse ; and (*d*) 12 houses at Thorpe, for the U.D.C. Mr. Southwart, Surveyor :—
*(*a*) A. Armitage & Co., Ltd., Outwood.
*(*b*) J. Malkin & Sons.
*(*c*) J. Malkin & Sons.
*(*d*) F. Clough, Ardsley.

RIPON.—For laying a 4 in. cast-iron water main, for the T.C. Quantities by Mr. A. Barlow, City Engineer :—
C. Wade, Sowerby Bridge £3,208 13 0
W. Patrick, Grassington 3,150 0 0
Howarth & Co., Doncaster .. 3,116 1 8
W. Benson, Ripon 2,826 5 7
A. Schofield, Thorner 2,729 0 0
W. Appleton, Ripon 2,565 13 0
*Squires & Sons, Selby 2,204 10 0

SHREWSBURY.—For erection of 30 houses at Coton Hill Estate, for the City Council. Revised tender :—
*Mr. Wm. Higley £12,314

SOUTHEND.—For laying final section of Fairfax-drive Valley sewer, for the T.C. :—
*H. Osman & Co., Southampton £23,365 5 3

SOUTHEND.—For laying of surfacing materials on portions of London-road, for the T.C. :—
*Whitehall Asphalte Co. .. 9s. per yd., and foundations, 9s. 4d. per yd.

SOUTHEND-ON-SEA.—For the erection of a new secondary school in Eastwood-lane, for the T.C. :—
*J. G. Gray & Co., Coventry £49,434

SOUTHPORT.—For erection of wall at Palace Hotel-road, for the T.C. :—
*R. Marshall & Sons..... £848 15 6

SOUTHPORT.—For erection of steps, Atholegrove, for the T.C. :—
*T. Porter & Son..... £118

TRURO.—For the construction of public convenience in Lemon-street, for the T.C. :—
*C. Williams £1,487

UTTOXETER.—For construction of about 8 miles of 7 in. water main with turbine pumping station, service reservoir, for the U.D.C. Messrs. Wilcox & Raikes, engineers, 63, Temple-row, Birmingham :—

Harry Middleton, The Studio, Newnham, Glos	£1,465	16	11
W. H. Rogers, Moat-street, Willenhall	1,376	6	6
Sheepbridge Coal & Iron Co., Chesterfield	1,350	2	4
G. F. Tomlinson, Derby	1,350	0	0
M. A. Boswell, Wolverhampton	1,309	3	4
J. Taylor & Sons, Basford, Stoke-on-Trent	1,301	1	0
Ward & Godbehere, Uttoxeter	1,300	0	0
Warwickshire Bridge & Engineering Co., Rugby	1,274	12	7
*Hodsons, Ltd., Nottingham	1,200	16	0

WALLINGTON.—For erection of 44 houses on the Miller's Orchard, Beddington Corner site, for the U.D.C. Mr. S. F. R. Carter, Engineer, Council Offices :—

H. Nash, Sutton	£25,444	0	
H. Hann, Merton	23,171	0	
T. Blandford, Croydon	22,839	0	
Guild Housing, Ltd., Acton	20,808	0	
*Burnand & Pickett, Ltd., Wallington	19,672	8	

WIDEGATES.—For erection of a Sunday school, for the United Methodist Church. Mr. E. Higman, architect and surveyor, Barras-street, Liskeard :—
*Hancock & Pearce, Liskeard..... £480 19

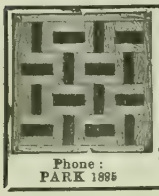
WIDNES.—For erection of a hall and clubroom at Halebank. Mr. H. Baguley, architect, 5, Victoria-street, Ball-o-Ditton :—

Gibbs & Sparks, Cressington	£4,480	14	0
T. Pedder, Widnes	4,397	17	6
F. Smith, Widnes	4,300	0	0
A. A. Cropper, Runcorn	4,180	0	0
W. J. Griffiths, Garston	4,017	0	0
S. Welding & Co., Widnes	3,950	0	0
T. Sadler, Widnes	3,869	14	0
J. Beech, Widnes	3,775	0	0
J. Penny, Widnes	3,740	0	0
*G. Cleaton, Widnes	3,665	14	0
F. Tuson, Widnes	3,563	0	0

WORMINGFORD.—For reconstruction of culvert, for the Essex C.C :—
*J. S. Norton, Halstead £443 11

Builder's Estate.

Mr. Joseph Pilley (88), of Glenfern Villas, Cheltenham, retired builder (net personalty £2,792), £17,295.


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JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

XXVI.—No. 4244. JUNE 6, 1924.

THE R.I.B.A. ELECTION

THE appeals which have been made to the electorate of the Royal Institute of British Architects to record their votes for or against the policy of the present Council have not been made in vain, and although there are still too many members who have not taken public to vote on a subject which is of vital interest to architects, the vote which has been recorded by the active members of the Institute shows that at least as much interest has been taken in this election as the last. The result of the for the Council and the Standing Committees was made at the meeting of the Institute on Monday, and, as will from the figures which we give on p. 903, the policy of present Council of amalgamation with the Society of tects as a necessary preliminary step in an attempt to registration of architects by Act of Parliament has been tically endorsed by a three to one majority. In recording sult we do not deny our satisfaction that the electorate have taken what we believe to be the long view, and by vote have at once lifted a debating issue into the realm ctical politics.

the course of the discussion on the amalgamation pro- of the present Council many interesting and often versial issues have been raised, and in dealing with as they have arisen we have endeavoured to keep the issue before our readers and, we believe, judging by the just recorded, the electorate have done the same, and same time have given as emphatic a declaration of their ns and wishes as could be expected in the circumstances. ssues between the two parties in the Institute have been considered, and we have now had a deliberate verdict by a well-informed electorate, and although the question disposed of it has been carried a long way forward by cceptance of the Council's proposals, made in agreement the Council of the Society of Architects, for amalgamation the Society.

controversial discussions points of difference can be so asised and exaggerated that the main issue is often lost of. The Institute's policy can be attacked, as we know been and will be, from several points of view, but that appears to us to be founded on very sound logic. If tration for all qualified architects is desired by the pro- n as a whole, and we know it is, and the best if not the only to obtain the necessary Act of Parliament is, according minent Counsel, by amalgamation with the Society of tects, an independent body which was formed many ago with the avowed object of securing Registration, it follows that those members of the Institute who desire tration for architects had no alternative but to vote e proposals of the R.I.B.A. Council. We do not express wn opinion on the subject of Registration, but we do that it is desired by the profession as a whole. We that from the plebiscite taken by the Society of Architects ubsequently by ourselves. We also know that without ted professional backing there is a very remote chance taining it: "There is a reasonable probability," Mr. t, K.C., tells us, "with a reasonable good case on public ll as professional grounds," if amalgamation takes place. opinion, of course, assumes that the proposed amalgama- vill be carried out, without which the difficulties would be much greater"—an opinion which is held by other lawyers as well as those familiar with Parliamentary procedure and the efforts of other bodies to obtain statutory registration.

We are familiar with the opinion of those members of the R.I.B.A. who believe that the amalgamation proposals of the Council will, if carried into effect, lower the status of the Institute and prejudicially affect the Associate class of members, but these views are clearly not shared by the majority of the electorate, who have no doubt been influenced by the experience of the United States and the Dominions, which have had practical experience of the effect of Registration. We cannot ignore the fact that there are registration laws in 23 of the United States, not one of which has been repealed, and that, as a result, it is claimed for Registration that the standard of architecture has been greatly improved as well as the position of architects; while in the Dominions the results have been much the same.

While the endorsement by the electorate of the policy of the Council of the Institute is a hopeful fact which encourages the belief that we now have a chance of getting something of practical value done for the benefit of the profession, we do not forget that the proposals have yet to be endorsed by a Special General meeting of the Institute and finally by the Society of Architects. We understand that the meeting will be held on June 17, at 3 p.m. (see p. 903), when it is to be hoped the verdict obtained by the vote just recorded will be confirmed. There will doubtless be a record attendance of members at the general meeting, and every opportunity should be given for the discussion of details of the Council's proposals with the object of obtaining, if possible, the largest measure of agreement. We cannot be indifferent to the sincerity of many of those who do not agree with the Council and who have voted against their proposals, and we cannot help thinking that some at least of their doubts can be removed by friendly discussion and explanation. If the recent correspondence in our own columns may be taken as at all typical of the objections to the proposals, we are entitled to conclude that much of this objection is due to misunderstanding and misinterpretation, much of which could surely be removed. At the same time, we would appeal to those who have been and are opposed to the proposed amalgamation. As we said in our last issue, we believe the members of the profession desire to make an end of the interminable arguments with which we have been made familiar for so many years and go forward with a practical policy on which the great majority of the profession are at one, and from which it is possible to hope for really useful results within a reasonable period. What we said last week appears to be amply confirmed by the result of the election. We have had too much destructive criticism, and we cannot help thinking the time has arrived when all men of good will should work together for the common good of the profession. We have now had two elections which appear to indicate that the present Council have the support of the majority of the members. Last year the election was fought on a policy of unification, but a policy which had not been clearly defined. This year the Council have been returned on a clearly-defined policy, the principal item of which is amalgamation with the Society, and this policy has received the support of a substantial majority of the members who have recorded their vote. Is it too much to ask those in opposition to the Council, against whom the verdict of the electorate has gone, to abandon their opposition and, if they cannot actively support, do nothing to hinder the efforts which will be made to give effect to the wishes of the majority?

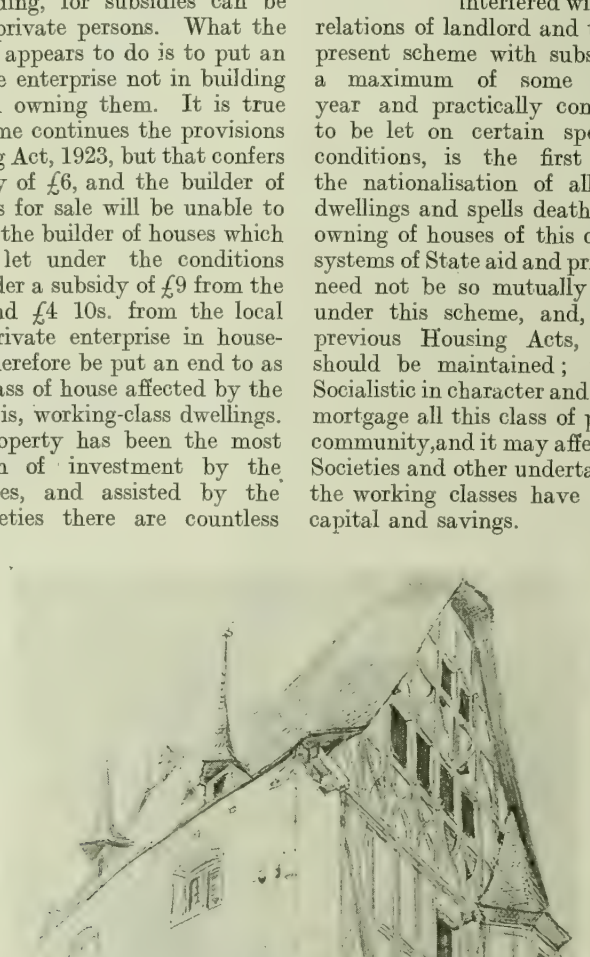
NOTES

The Housing Scheme.

THERE are so many points to be considered in the White Paper containing the financial proposals of the Government connected with the housing scheme that they can only be dealt with piecemeal, and in the present note we only desire to call attention to one aspect of the question. It has already been pointed out in certain quarters that the scheme will "put an end to private enterprise," but this statement being too wide will receive an answer that the proposals in themselves do recognise private enterprise in building, for subsidies can be obtained by private persons. What the scheme really appears to do is to put an end to private enterprise not in building houses but in owning them. It is true that the scheme continues the provisions of the Housing Act, 1923, but that confers only a subsidy of £6, and the builder of private houses for sale will be unable to compete with the builder of houses which can only be let under the conditions prescribed under a subsidy of £9 from the Exchequer and £4 10s. from the local authority. Private enterprise in house-owning will therefore be put an end to as regards the class of house affected by the scheme—that is, working-class dwellings. Yet house property has been the most favoured form of investment by the working classes, and assisted by the Building Societies there are countless numbers of small property owners. This has always appeared desirable from many points of view. The property owner has a stake in the country in the government of which he has a voice, and the owning of house property attaches labour to the district and tends to encourage fixity of employment, and to discourage the engagement of casual labour.

The Nationalisation of Working Class Houses.

IT is certainly desirable that a great many more houses should be available to be let for occupation than is at present the case since the Rent Restriction Acts have interfered with the ordinary relations of landlord and tenant, but the present scheme with subsidies rising to a maximum of some £32,000,000 a year and practically confined to towns to be let on certain special and fixed conditions, is the first step towards the nationalisation of all working-class dwellings and spells death to the private owning of houses of this class. The two systems of State aid and private enterprise need not be so mutually destructive as under this scheme, and, as under the previous Housing Acts, both systems should be maintained; the scheme is Socialistic in character and will practically mortgage all this class of property to the community, and it may affect the Building Societies and other undertakings in which the working classes have invested time, capital and savings.



Old House, Moselkerne-on-Mosel.
From a Sketch by MR. WALTER MILLARD, F.R.I.B.A.

Facing Facts.

AMONGST the many
tions to which it is d
to find an answer, a
pondent suggests the following: "
to a business man on Tuesday, wh
his firm required one hundred an
thousand bricks a day, and can
get half the amount, though h
two agents constantly at work
to buy them for ready cash. Thi
is not in the Government and he
I believe, building cottages, ar
cannot understand how it is possi
make proposals about building co
which can never be carried out. Th
thing he offers as a suggestion is th
Government should at once ope
a hundred brick-yards and increas
duction. It is not a little curious
whilst we have been told again and
that greater production is our on
remedy for economic ills, it seems
the one thing we do not seriously ai
We are faced already with a
market. A building costing £500
could have been built six months
for £420. Timber has gone up,
cannot be obtained for even the
now in hand, wages have gone up, s
workmen get fewer and fewer, st
still continue, and we are calmly
to provide for a capital expenditu
enormous and unknown cost to
cottages, for which it is hopeless to
labour or materials. Every thinking
must admit the question I have
is a very pertinent one. Where i
sober common-sense of the British ra

Plans and the Public.

MR. GOTCH'S remark a
opening of the Exhibiti
Modern Architecture
Wembley, referring to
necessity of plans to a proper readi
the building, seems very much to the p
and will find an echo in the regrets
many will feel that actual plans
absent from this particular Exhibi
As a necessary part of their education
public, interested in results, should
given some insight into the means
which the results have been attai
The more we can familiarise the ma
the street with the process of arch
tural expression, so much the more wi
learn to appreciate fine architecture,
the more clearly will he realise the ne
sity for the controlling influence of
architect over all matters of build
There is sufficient evidence of an awa
ing interest on the part of the publi
justify our thus raising the veil.

A Matter of Taste.

THE polite interchang
ceremonial speeches at
a gathering as the re
dinner of the R.I.
should not be taken too seriou
The Bishop of London was typi
emphatic, and we believe him v
he said he would rather resign his
than have any hand laid on such beau
churches as St. Bartholomew the G
We are glad the Bishop admits the bea
What we do deny is that the taste of

ıal should have power to preserve roy our national treasures. The is apparently ready to defend nasterpiece, but to sacrifice Let us assume that we lose a of Wren churches. How are ınow that his successor may not ren and dislike something else? circumstances we may lose, if not tholomew's, at least St. Helen's, gate. The outspoken appeal of ce-Chancellor of Oxford (Mr. J. hat the hand of the spoiler might ed will be endorsed by all who ondon and care for art.

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ish t. THE depression which is prevailing in the case of contemporary English art is a phenomenon not to be ked. It can hardly be a money n, as the sale rooms afford ample es of the amount of money spent pictures. It is for some reason se that the prestige of modern painting is rather in eclipse. interpretations are forthcoming ain this, such as that the public ken alarm from the vagaries of the xtremist theories about art at the time, or is it that we have to our interpretations about art? omotion of a certain kind of crafts- p has produced a certain kind of and some loss of prestige results n overstocked market. There is oduction in directions in which the of art is of little account. This is ve think, in the too ready adapt- to the habit and vogue of the time. ue artist needs fearlessly to empha- is own differing point of view. ıated to the ordinary aims of the ude, we forget that art is not a ss, and in his endeavour to reconcile s irreconcilable, his work lacks the ties of significance and spiritual ity which give it prestige. To s fine in art the world will in the end bow. The pursuit of a too- nodating adaptability to what the s reputed to want robs the artist of edom of his work. We hear of the rs entering the Academy on var- day whom no one would take to sts—so much the worse, in a sense. the arts become respectable, taking ssing colour of the time, its fashion modes, they are dying.

·ete at bley. THE austerity of the con- crete Palaces and of the Stadium at Wembley form a striking contrast to the sual type of white classical building, s the Canadian Pavilion. We are nes told that the unity of the ion would have been better served alaces of Engineering and Industry en whitened or washed to a cream leaving the Stadium alone to te the scheme as a mass of grey e. Many hold that the colour of concrete is ugly in itself; but is it not one of Nature's favourite shades? We find the same colour in limestone, and even in granite when seen from a distance. When it has had ample time to weather, concrete attains a fine mellow appearance, and since it is our principal new material we must learn to make the best of it and give it the chance of arriving at the maturity that time alone can bestow.

Old London Bridge. THE Wembley reproduction of the old cobbled bridge with shops on each side reminds us of the possibility of building such a bridge to-day, at Charing Cross or elsewhere. Mr. T. E. Collcutt, in "London of the Future," compares the open bridge and its dreary waste of road nearly half a mile in length, with no shelter from wind and rain, with the alternative of providing a shelter of covered colonnades, lined with shops, thus creating a mile of valuable property. Nowhere is the passer-by so fully exposed to the buffeting of wind and sleet as on crossing the river, and nothing could so efficiently bind together the two banks as a bridge lined with shops that presented the appearance of an unusually pleasant street. The possibility of building such a bridge should not be overlooked.

A Bottle-Neck. WE understand that Berkeley-street is to be widened. It takes more than a casual glance at the map to demonstrate the importance of this little street as the main artery for through traffic from Paddington to Charing Cross. The jamming of traffic at the Piccadilly end is nearly as bad as that experienced at Wellington-street in the Strand. The widening of Berkeley-street will, of course, help to ease the traffic, but Piccadilly itself is none too wide at the junction and it is difficult to see how the constant blocks at this point can be avoided.

A Wren Memorial. NOT content with the most striking memorial which the genius of Wren could have ever received, in the words, "Si monumentum requiris, circumspice," it is now suggested that the Architectural League of New York should place a memorial tablet to Wren's memory in the Cathedral. It would not be a gracious task to refuse such a tribute, neither is it an altogether agreeable thing to destroy something of the significance of those words which have sufficed for two centuries. It is possibly a matter of feeling and taste which is pretty evenly divided.

Open Spaces. THE appeal now being made for the purchase of the White City as an open space and playground, whether possible or not—and we see no reason why it should be thought impossible—



Sketch in Nuremberg.

From a Sketch by MR. WALTER MILLARD, F.R.I.B.A.

directs attention to other spaces, unoccupied for one reason or another—spaces which laid out with lawns and trees would add so much to the health and pleasure of the people. We know nothing of the financial possibilities, but a public spirit enlightened enough to desire these improvements is certainly on the way to getting them. The appeal is one which should be appreciated by the owners of these sites to offer their aid in the purchase. Other well known sites suggest themselves; such as the old Post Office site in the City, which we never pass without a yearning to see this barren spot, defaced by hoardings, made into a leafy garden retreat, in a neighbourhood so congested and far from nature. This property, which we take it belongs to the Crown, might be bestowed on the people in this way, as an addition to their inheritance. At Earl's Court is another site which it has been suggested should be acquired—the old exhibition ground; in such a locality, deprived of much open space or recreation grounds, it would be an immense improvement to the neighbourhood. Our public spirit cannot be better exercised than in assisting such undertakings, and we believe that the growing desire for such improvements should bring them to pass. We are, therefore, glad to see the attention now being bestowed on the subject.

GENERAL NEWS

Professional Announcement.

The partnership between Mr. A. G. Bond, F.R.I.B.A., and Mr. Gilbert Scott Cockrill, A.R.I.B.A., has been dissolved by mutual consent as and from April 1. Mr. Bond will continue to practise at 115, Gower-street.

Architect's Estate.

Mr. Thomas Wardlaw, of Wesley-street, Waterloo, Lancs., retired architect and surveyor (net personalty *nil*), £10,985.

Sir Aston Webb.

It is stated the condition of Sir Aston Webb has shown decided improvement during the past week, and he is progressing as well as can be expected.

Obituary.

Mr. John William Cockrill, M.Inst.C.E., A.R.I.B.A., died recently at the age of seventy-five. For fifty-three years he had been in the municipal service of Great Yarmouth as Surveyor and Architect.

Birthday Honours.

The first list of King's Birthday Honours bestowed in the administration of a Labour Government was issued recently. Among the new Knights are Mr. David Young Cameron, R.A., LL.D., in recognition of his contributions to art, and Mr. John Sulman, F.R.I.B.A., of the City of Sydney (Chairman of the Canberra Advisory Committee), in recognition of his services to the Commonwealth of Australia. Mr. Charles Reed Peers, Chief Inspector of Ancient Monuments, receives the honour of C.B.E. (Civil).

Northern Architectural Association.

Members of the Northern Architectural Association had their second outing of their summer programme on May 29, when they visited the Lord Roberts' Memorial Workshops for Disabled Soldiers and Sailors, in Orchard-street, Newcastle. They were received by the local general manager, Mr. J. Currie, and toured the works inspecting a large contract for boundary railings, balcony railings, and staircases which is being carried out for the Rochester-street housing scheme, and also viewed some excellent specimens of ornamental work turned out by men at the workshops.

Central School of Arts and Crafts.

The annual exhibition of the work of the session will be open from June 2–28, 10 a.m. to 8 p.m. daily; Saturdays, 10 to 12 (noon). Admission is free on signing the visitors' book. The exhibits include work in architecture, furniture, wood and stone carving, stained glass, pottery, embroidery, tapestry and other weaving, silversmithing and allied crafts, writing and illumination, printing, bookbinding, wood engraving, book illustration, etching, lithography, miniature, drawing, modelling, and design.

Tablet to Wren.

A tablet in memory of Sir Christopher Wren, presented by the Architectural League of New York, will be unveiled in St. Paul's Cathedral by the American Ambassador on June 30, at 2.30 p.m. The arrangements for the presentation have been made through Mr. Alfred C. Bossom, an American architect, who is on his way to England from New York. The tablet bears the following inscription :—

"In recognition of the inspiration and enduring influence on American architecture of the work of Sir Christopher Wren, this tablet is inscribed by the Architectural League of New York."

Art Students in Industry.

The Federation of British Industries has, through the work of its Industrial Art Committee, recently established, at its head office, an employment bureau for students from art schools. This bureau will not deal with the great bulk of students who normally find employment in the localities in which they are trained, but will confine its activities to students whose exceptional capacity marks them as suitable to become original designers or—given the requisite practical experience—to occupy important positions in industry. Lists (accompanied by specimens or photographs of work) of candidates desiring industrial or commercial employment, and considered to be fitted for such work, will be supplied by the art schools throughout the country

Mr. F. W. Pomeroy, R.A.

A memorial service for Mr. Frederick W. Pomeroy, R.A., was held on May 30, at St. James's Church, Piccadilly. Among those present were Mrs. Pomeroy (widow), Sir H Hughes-Stanton, Sir Frank Short, Sir R Blomfield, Sir Bertram Mackennal, Sir Cope, Sir David Murray, Sir William an Llewellyn, Sir W. Goscombe John, Si Lavery, Mr. Adrian Stokes, Mr. Solo Solomon, Mr. W. Curtis Green, Mr. Leo Merrifield, Mr. J. W. Mackail, Professor Anning Bell, Mr. Louis de St. Quent Arthur D. Rendall (Imperial Arts L Mr. Reid Dick, Mr. A. Forbes Sievekin W. Reynolds Stephens (President Royal of British Sculptors), Captain and Mrs. Jones, Mr. R. Maitland Lamb (Secretary Royal Academy), Mr. Frank Dicksee, Mr. Perks, and Mr. Mervyn Macartney.

COMPETITION NE

Glasgow High School Memorial.

Competitive designs are invited for a m club house and pavilion to be erected ground of the Glasgow High School Anniesland, Glasgow. The competition fined to former pupils of the High Sc Glasgow. Premiums of £150 £100 a are offered respectively. Mr. John F.R.I.B.A., Glasgow, has been appoin sessor. Particulars and plans may be o from Mr. H. R. Buchanan, 172, St. V street, Glasgow. (See advertisement this

Sidmouth Housing Scheme.

The conditions of this competition in accordance with the R.I.B.A. Regul

Southampton Town Hall.

Mr. H. Austen Hall, F.R.I.B.A., ha appointed assessor in this competition.

Other Competitions.

Other competitions still open inclu following (the dates given are, first the in date, and second the issue of *The Bu* which full particulars were given) :—(n Designs (June; Dec. 21, 1923). Ros Memorial (Sept. 30; Feb. 21). Glasgow Hall (July 4; May 2). Football St Edinburgh (June 9; May 23). Ha Infirmary (Sept. 30; May 30). Bexhill tainment Hall (Sept. 1; May 30). Ha War Memorial (Sept. 1; May 30).



Glasgow War Memorial. SIR JOHN BURNET, A.R.A., SON & DICK, Architects.

ORRESPONDENCE

The Institute Election.

—It has come to our notice that the
n of our names from the Emergency
ttee's list for the R.I.B.A. Annual
n might be considered by members to
a lack of sympathy with the Council's
ls for amalgamation. We therefore
n early opportunity of stating that, on
trary, the proposals have our unqualified
. We withdrew with the sole object of
the Council, inasmuch as the retention
names would have resulted in splitting

GILBERT FRASER,
T. R. MILBURN,
W. G. NEWTON,
MAURICE E. WEBB,
HERBERT A. WELCH,
J. HUBERT WORTHINGTON.

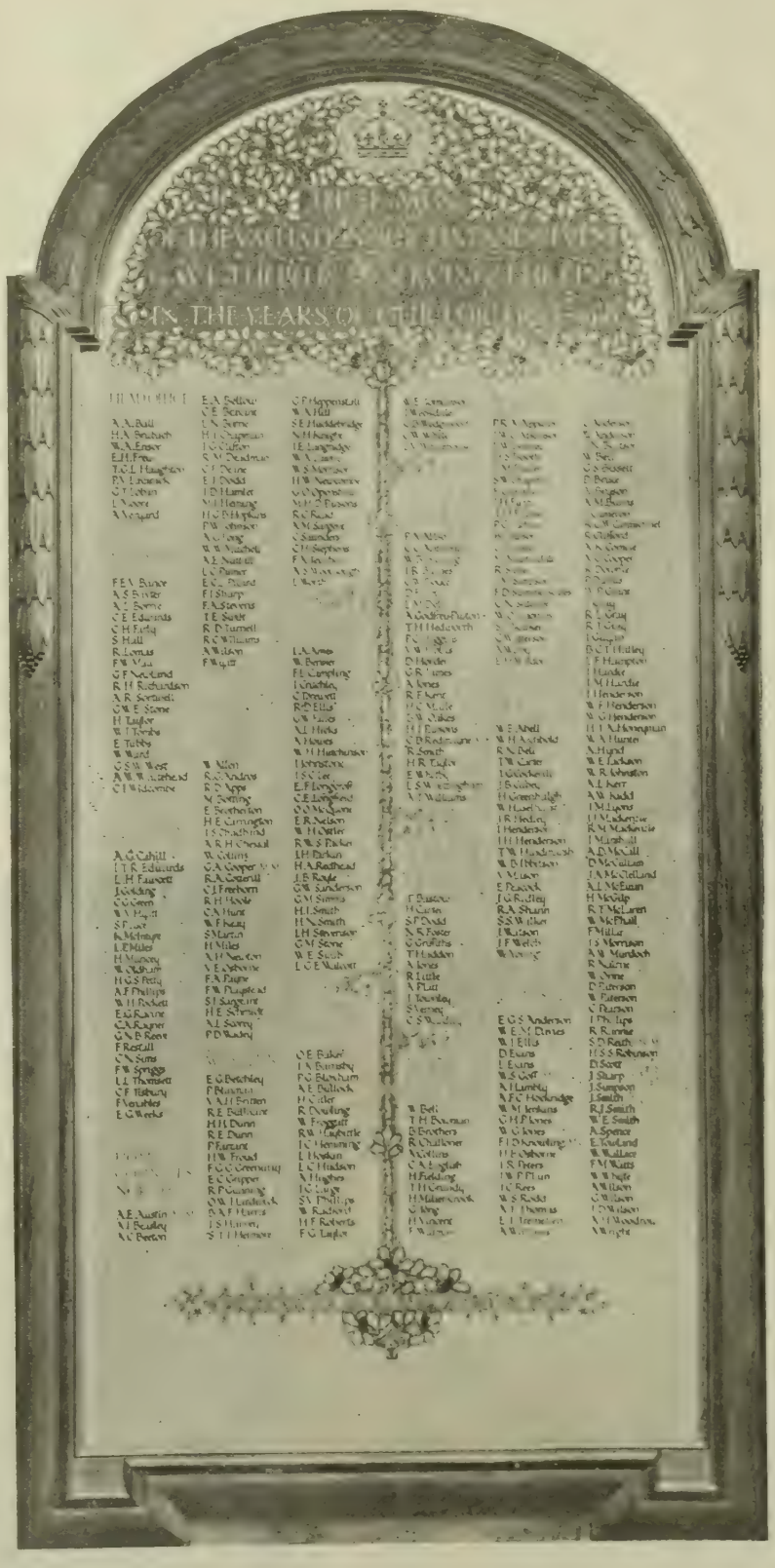
Artists and their Work.

—In your Notes recently you mention
I. de Juvenel is interested in a French
hich gives a percentage on profits in
of original purchase-prices to artists
neir works change hands in a public
This law exists also in Belgium, and
been suggested by the International
leration of Intellectual Workers that
e it efficient it is necessary for a simi-
w to be passed in every country. The
of the law, in the first place in
. was the result of nearly seventeen
hard work by M. Franz-Jourdain, the
ct-president of the Salon d'Automne.
hen it might not have passed if it had
d behind it the big force of the Con-
ion of Intellectual Workers (French
of the International, which now re-
ts two million such workers organised
rope). The French Confederation has
able to do other things of importance
ench intellectual workers, such as get-
representation for them on boards of
ion, health and housing, and seeing
he national housing scheme includes
for intellectual workers. It has also
able to make direct representations to
eague of Nations, with good effect.
ry art and intellectual society in France
s to the French National Confederation,
ing the four Salons. They have
ed the seemingly impossible, for the old
es have joined as well as the young
and the extreme left as well as the
e right are now members of the same
leration, which leaves liberty to indivi-
while presenting a unified force to the
and to the League of Nations.

.923, at the Botanical Theatre, Univer-
London, the British section of this In-
onal Confederation of Intellectual
rs came into being; its constitution
adopted at that meeting. It took part
International Congress at the Sor-
and is represented on the International
l by its chairman, Mr. Cloudesley
on. It has already been able to make
two important moves on the part of
ofessions included in the arts, and it
eeds to get the whole-hearted support
entire profession (as the French sec-
as already obtained there) to be able
n great deal more. It should certainly
r at an early date the problem of this
w in which M. de Juvenel is interested;
some form it seems only right that we
gland should render this tardy justice
sts whose works have often fetched
20 years of their first sale a hundred
more than was originally paid for them,
any benefit accruing to the artist or
rs. This and many other matters
areful consideration by every section of
ofession, and, when a decision has
rrived at, then it needs a body such as
onfederation, which has the support
of half a million professional workers
e islands, to see that their decision
s law.

British Confederation of Art is holding at Wembley on June 25, its second annual conference, to which the art societies of the Empire are invited, and the chief speaker on this occasion will be M. Louis Gallié, representing the two million organised intellectual workers in the International Confederation. He will explain the whole movement and tell us what it has done in other countries: also he will tell us the results of his two official visits to the League of Nations at Geneva. Mr. Brereton, chairman, Mr. H. V. Lanchester, F.R.I.B.A. (Architecture), Mlle. Genée (Dancing), Mr. Austen Harrison (Literature), Mr. Geoffrey Whitworth (Drama) are among the speakers. But the main feature of the conference will be the hearing from the delegates of the societies represented what the Confederation should do for the arts concerned. Further particulars can be obtained from the Organiser of Conferences, Wembley, and from the Hon. Sec., B.C.A., 95, Belgrave-road.

AMELIA DEFRIES.



Valuation Office, Inland Revenue, War Memorial. By MR. W. GRAILY HEWITT.

[This memorial was unveiled by Lord Plumer on May 28.]

THE LATE H. HEATHCOTE STATHAM

It is with much regret we announce the death of Mr. Henry Heathcote Statham, F.R.I.B.A., who passed away last Friday at Torquay in his 86th year. Mr. Statham had many claims to distinction, but he was probably best known as a former Editor of *The Builder*, a position which he occupied for a quarter of a century. The son of a Liverpool solicitor, he was born in that city in the year 1839, was educated at Liverpool Collegiate Institution, and received his architectural training in the office of George Williams. He subsequently practised in Liverpool for a short period, and about this time he became a contributor to *The Builder*, which was then edited by George Godwin, on whose suggestion, at the age of thirty, Mr. Statham removed to London and devoted most of his time to writing. In fact, as he told the writer of this notice, he preferred writing to architectural work, and although he subsequently prepared some admirable architectural designs in competitions, which were not carried out, his gift was for literary work. On the retirement of George Godwin, after 42 years of editorship, Statham was appointed his successor, and his facile pen had free scope in the development of his ideas, not only on innumerable architectural and professional subjects, but on most subjects of interest to an educated person. His industry was amazing and few men could have worked as hard, as methodically, as unsparingly of himself and as conscientiously. Leading articles, competition and book reviews, articles on art and science, building and the crafts, notes, and even news paragraphs, were written with an apparent ease which was made possible only by a vast accumulation of knowledge and a logical and orderly mind. Those who knew him well and have conversed with him, and even those who read his articles, must have realised that he thoroughly believed in himself, and if this made him appear to be somewhat dogmatic in speech—for he was quite an accomplished public speaker—as well as in his literary work, it was rather the dogmatism of knowledge than of mere opinion. Such was his energy that during his period of editorship he found time not only to write for and edit *The Builder*, but to contribute essays on artistic, musical and literary subjects to such periodicals as the *Edinburgh* and *Fortnightly Reviews* and the *Nineteenth Century*. He also read a good many papers before the Royal Institute of British Architects, the Architectural Association, the London Institution, the Royal Society of Arts, the Royal Institution, and other bodies. He was also a writer on musical subjects as well as an amateur musician of considerable ability. He contributed to Groves' Dictionary of Music, was for many years musical critic to the *Edinburgh Review*, and for several successive years gave classical organ recitals at the Albert Hall on Sunday afternoons, and was organist for a time at St. Jude's Church, Whitechapel. His literary work was not limited to editing or to the writing of newspaper and magazine articles, for he was the author of the following publications, all but one written, we believe, during his editorship of *The Builder*, and indicating the wide range of his interests as well as his immense energy:—"Architecture for General Readers," "Modern Architecture," "Architecture Among the Poets," a reprint of articles first published in our own pages, "The Changes in the London Building Act of 1894," "My Thoughts on Music and Musicians," "Form and Design in Music," "Winged Words"—a collection of essays on various subjects, published anonymously and exciting a good deal of interest as to their authorship—"The Organ and Its Place in Musical Art," "A Short Critical History of Architecture," and "What is Music?" a short analysis for the general reader.

That he was an exceptionally versatile and energetic man will appear from this record. But it must not be supposed that his interests were altogether confined to literature. He not only designed and carried out several architectural works, including the refronting of *The Builder* offices, but he prepared an interesting design for remodelling the front of the National Gallery and laying out Trafalgar-square, which was published in *The Builder*, as well as a design in collaboration with Mr. John Slater in the important competition for Edinburgh Municipal Buildings, and a competition design for Sheffield Municipal Buildings.

He also made drawings of several of the English Cathedrals for our Cathedral series, and various characteristic designs indicating the poetical and imaginative side of his nature, which were published at intervals in our pages. He took great interest in bridges and published several designs for bridges to cross the Thames, in which his theories of design were indicated.

An Associate of the R.I.B.A. from 1871 and a Fellow from 1878, he was thus one of the oldest members. He was also a member of the Architectural Association, the London Society, the Oxford and Cambridge Musical Club, the Musical Association, and a Fellow of the Royal Philharmonic Society. He was married in 1887 to the youngest daughter of W. Stephens Dicken, Deputy-General Inspector of Hospitals, East India Company's service, and had four sons (two of whom were lost in the war) and two daughters.

It is impossible in a short article to mention all the activities which characterised his long and energetic life. That he occupied a distinguished position in the profession our readers know, but that he received the recognition which his work and abilities justified we doubt, though we do not forget that when he retired from the editorship of *The Builder* the following tribute was paid to him by the Council of the Royal Institute of British Architects: "The Council desire to express their appreciation of the services he has rendered to architecture and the high ideals he has kept steadily in view in his conduct of that journal." We believe that to be a just tribute. Those who knew him well could not fail to appreciate his great ability and above all his high standard of honour, and if he sometimes practised too literally William Blake's motto, "Always be ready to speak your mind and a base man will avoid you," he was a fair as well as a keen controversialist, while a somewhat reserved manner served but to conceal a warm and affectionate nature.

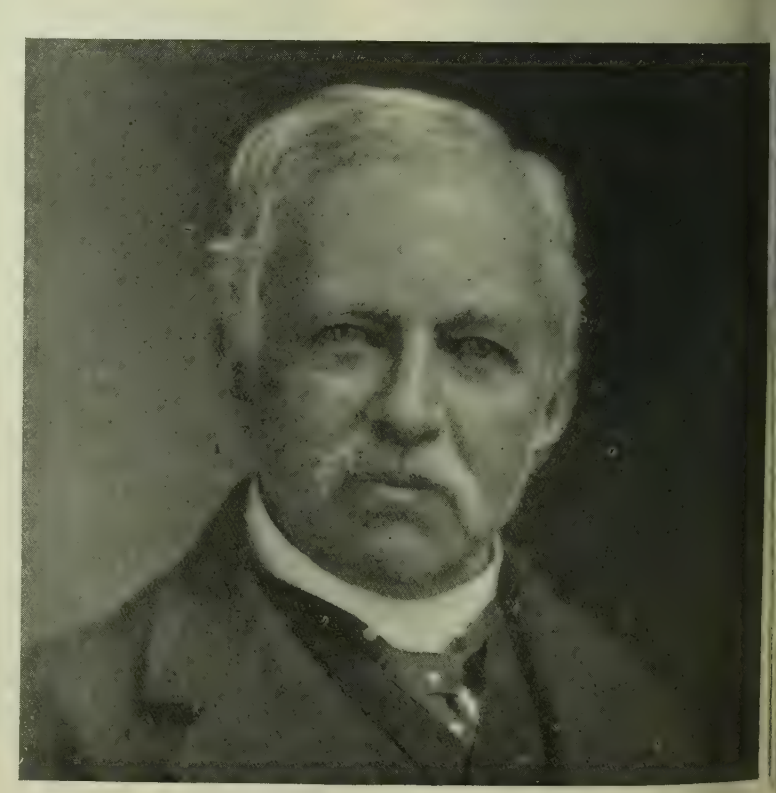
Since *The Builder* was edited by H. H Statham the world has changed so gre we can hardly yet realise to what exten hope and believe that the principles ideals which he had before him will neve and that at least in these pages they wi be upheld and cherished.

We have received the following appr from three of Mr. Statham's friends.

Professor Beresford Pite, F.I writes:—

Mr. Statham, among architects, sto His character had singularity. He that he desired to be feared as an ec loved as a man, a combination of id may explain some difficulties. He w fiably conscious of his superior in equipment, and he would not have un criticism with such fearlessness if he doubts of the essential fairness of his ju Apparently he was unaware of the sympathies and enthusiasms of the s his earlier days. He could look upon Shaw's work from a detached view-p his brethren did not know how to attai Webb and the subtler influences of but powerful school had little force estimate of contemporaries. But his enjoyment of the French School did him to desire its transplantation to and the eclecticism of his mind strugg the problems of architectural composit design *in vacuo*. He systematised ornam lectured on its "theory," experiment it in a few buildings, of which *The* office and a lodge at Golders Green Par late Sir Spencer Wells remain. A f petition designs carried out his original of an architecture based upon private d of these one for Edinburgh Municipal B may be instanced. Occasional ima designs made annually on Boxing D drawn around some well-studied pas poetry, often from Browning. His archi outlook was as unique and as deserving o as his character.

Apparently among musicians his sta similar. To devote his acknowledged a great organist to Bach has been insta characteristic. For many years he was honorary organist to Canon Barne



The late Henry Heathcote Statham.

Whitechapel, but gave Sunday after-
citals on the Albert Hall organ.
Statham, however, will be remembered
reat editor. He was the master of a
ious style, everything that he wrote
od English, intelligent, individual and
iting in quality, and he did not spare
in his personal contributions to *The*
In this sphere he was happy in
his own ideals, and here he laid the
rofession and the art under an obligation
ices of real value to his generation. He
ed upon the world through the press his
h view of what an architect should be ;
idealistic, practical and of unflinching
of mind and deed.
y not be fair to omit the remark that
individuality may run into apparent
s in certain aspects and judgments ;
en that length of life which ensures
ess, sincere admiration for the critic
supervened, even in those to whom an
ength seemed once repellent, and a
affection for the strong man became
nised element in the professional view
Statham.
ort intimacy at an important epoch in
eers led to a long respect and mutual
and the blank now caused by his death
wholeness of our architectural fellowship
hat naturally cannot be occupied. We
content to cherish his memory.

Ialsey Ricardo writes :—
equaintance with Statham dates back
ime when he assumed the editorship of
ilder, and I became conscious of a
more widely cultured outlook in that
so that, when we met, I recognised that
s a character who held definite principles
g the art of architecture as the product
nced thought due to the assimilation
ne literature of the time. The poetry of
g formed a link between us—he could
ppositely from "Sordello" (to my
tion, who had, after some trial, to
myself with the headlines) ; and
we were, often, far from agreement
atter of literature and music, there was
aying the sincerity of his criticisms.
as a charm in their vehemence—one
behind it was, he was confident, the
ion gathered from his own harvest,
from assiduous reading and tinctured
own personal sympathies. His memory
ve been extraordinary ; his power of
tation was striking ; there was, in-
consistency in his appraisements.
honesty there could be no question.
his gifts—as a musician—were a great
im in broadening his outlook on life,
he conception that art is integral with
t in the rendering of fine music (apart
ting it) one can share the pride of
oser, as well as enjoy the satisfaction
outory craftsmanship, both as homage
ersonal enjoyment of a fine thing well
l. This communicable exhilaration
the masterpieces of art—in archi-
painting and statuary, as in prose,
d song ; and in music the part played
nterpreters brings this element into
ce. Had his conditions been more
him, he might have shown himself
acknowledged composer, both in archi-
d in music. Of his craftsmanship, as
nd illustrator, his work had a friendly
ithout rising into any special eminence.
er his books and essays show, apart
ungrudging industry, a noticeable
nsion of the subjects dealt with—
ing value they may have is for pos-
estimate. As a man, *noscitur a*
l from their verdict there is nothing

urice B. Adams, F.R.I.B.A., writes :—
be allowed a brief space to add a
s in recognition of the journalistic
my contemporary, H. H. Statham,
th at the mature age of 85 is announced
Times ? My intrusion in your pages
justified by my long experience as a competitor of his in the field of architectural journalism, about which much, of course, might be said, though this is neither the time nor place for any such dissertations. They certainly were varied by not a few amusing incidents, and some misunderstandings between us happened occasionally. When Heathcote Statham retired from the editorship of *The Builder*, I took my part in the movement which was spontaneously started by other members of the R.I.B.A. Council, whose names as subscribers he never knew. He, however, sent Mr. Curtis Green, who acted as Hon. Sec., a circular note of grateful thanks and acknowledgment, expressing his satisfaction that his "efforts during many years to keep a high standard in a journal representative of architecture have been thought to justify this kind and generous recognition." A copy of this paper is now before me, kept as a memento.

Soon after Statham arrived from Liverpool I became acquainted with him as a contributor to the *Building News*, when he was about 35 years of age. Subsequently he joined *The Builder*, so that I frequently met him at different places when reviewing exhibitions and competitions. His just criticisms and knowledge of such artistic and technical subjects were consequently very familiar to me. I reckoned his work highly, and considered it well done.

The last letter I received from Statham was dictated, he not being able to write personally. He said he "had lived well past three score years and ten, having reached the age of 84 a few days ago." "I have had my fair share of life, but my mind and my interest in things artistic is as active as ever. It was very good of you to send me your most welcome and kind-hearted letter, for which I thank you very much. You bring back to me many old memories of the days when *The Builder* stuck to wood engraving. Two or three years before I became editor I made efforts now and then to break Godwin's adherence to that, but I found these attempts put him in a bad temper. I like wood engraving myself when it is not too mechanical, and Brewer's subjects were generally much better engraved than the rest."

The illustrations of the professional press have, of course, changed vastly during my 51 years of active journalism, during which Statham's editorship extended to 25 years. The developments since he resigned have been enormous.

MAURICE B. ADAMS.

R.I.B.A. ANNUAL ELECTIONS, 1924-25

THE COUNCIL.

PRESIDENT.

Mr. John Alfred Gotch, 1223 votes.

VICE-PRESIDENTS.

Sir Edwin Lutyens, 1,302 votes ; Mr. E. Guy Dawber, 1,298 ; Major Harry Barnes, 1,234 ; Mr. H. T. Buckland, 1,213.

HONORARY SECRETARY.

Mr. Arthur Keen.

PAST PRESIDENTS.

Sir Reginald Blomfield, R.A., Mr. Paul Waterhouse.

MEMBERS OF COUNCIL.

Fellows.—Sir John James Burnet, 1,251 votes ; Mr. H. V. Lanchester, 1,227 ; Mr. W. Cave, 1,211 ; Mr. W. Curtis Green, A.R.A., 1,210 ; Professor S. D. Adshead, 1,205 ; Mr. G. Gilbert Scott, 1,173 ; Mr. H. V. Ashley, 1,145 ; Sir Banister Fletcher, 1,138 ; Major H. C. Corlette, 1,131 ; Sir A. Brumwell Thomas, 1,119 ; Mr. F. T. Verity, 1,113 ; Mr. J. Keppie, 1,097 ; Mr. H. M. Fletcher, 1,089 ; Mr. Francis Jones, 1,080 ; Mr. P. E. Thomas, 1,069 ; Mr. T. Taliesin Rees, 1,062 ; Mr. E. J. Sadgrove, 1,037 ; Mr. E. C. P. Monson, 999.

Associate Members of Council.—Mr. L. H. Bucknell, 1,220 votes ; Professor L. B. Budden, 1,208 ; Mr. M. T. Waterhouse, 1,208 ; Mr. H. C. Bradshaw, 1,206 ; Mr. J. A. Slater, 1,204 ; Mr. H. Bagenal, 1,179.

Representatives of Allied Societies.—Mr. A. J. Hope (Manchester) ; Mr. W. T. Jones (Northern Association) ; Mr. G. A. Paterson (Glasgow Institute) ; Mr. R. M. Young (Ulster Society) ; Mr. G. C. Lawrence (Wessex Society) ; Mr. J. S. Harrison (Leicester and Leicestershire Society) ; Mr. E. B. Kirby (Liverpool Society) ; Mr. H. L. Paterson (Sheffield Society) ; Mr. E. P. Warren (Berks, Bucks and Oxon Association).

Representative of the Architectural Association.—Mr. Harry Stuart Goodhart-Rendel.

ART STANDING COMMITTEE.

Fellows.—Sir J. J. Burnet, 932 votes ; Messrs. E. G. Dawber, 882 ; H. V. Lanchester, 879 ; S. D. Adshead, 854 ; G. Gilbert Scott, 817 ; W. Cave, 789 ; Halsey Ricardo, 612 ; F. M. Simpson, 589 ; H. A. Hall, 488 ; F. W. Newman, 482.

Associates.—Messrs. C. A. Farey, 1,122 votes ; L. H. Bucknell, 1,102 ; M. T. Waterhouse, 1,036 ; P. W. Lovell, 995 ; W. H. Thompson, 956 ; T. S. Tait, 947.

LITERATURE STANDING COMMITTEE.

Fellows.—Messrs. H. M. Fletcher, 996 votes ; H. C. Corlette, 975 ; E. S. Hall, 945 ; M. S. Briggs, 886 ; D. T. Fyfe, 880 ; C. H. Townsend, 864 ; A. Stratton, 848 ; L. Ambler, 825 ; C. S. Spooner, 816 ; W. H. Ansell, 792.

Associates.—Messrs. J. H. Worthington, 1,037 votes ; H. C. Bradshaw, 955 ; J. A. Slater, 955 ; C. Cowles-Voysey, 839 ; P. W. Hubbard, 807 ; A. T. Edwards, 741.

PRACTICE STANDING COMMITTEE.

Fellows.—Messrs. Arthur Keen, 1,065 votes ; H. V. Ashley, 906 ; D. B. Niven, 749 ; T. R. Milburn, 724 ; F. Jones, 697 ; G. H. Lovegrove, 686 ; G. H. Grayson, 675 ; Max Clarke, 645 ; W. Gillbee Scott, 624 ; F. Chatterton, 597.

Associates.—Messrs. H. W. Cubitt, G. L. Elkington, H. V. M. Emerson, J. D. Scott, H. A. Welch, C. Woodward.

SCIENCE STANDING COMMITTEE.

Fellows.—Messrs. W. A. Pite, 967 votes ; A. E. Munby, 870 ; H. T. Buckland, 865 ; R. Unwin, 861 ; R. E. Smith, 853 ; H. D. Searles-Wood, 819 ; J. E. Dixon-Spain, 730 ; R. S. Ayling, 636 ; W. E. V. Crompton, 588 ; D. L. Solomon, 575.

Associates.—Messrs. H. Bagenal, 1,120 votes ; H. W. Burrows, 1,104 ; P. W. Barnett, 1,035 ; R. J. Angel, 1,016 ; H. R. Sayer, 972 ; T. F. Ford, 949.

The Proposed Amalgamation.

A special general meeting of the Royal Institute of British Architects is to be held at Caxton Hall, Caxton-street, Westminster, on June 17, at 3 p.m., for the purpose of considering, and, if thought fit, passing the subjoined Resolution No. 1 ; and also for the purpose of considering, and, if thought fit, passing the subjoined Resolutions Nos. 2 and 3 respectively, approving with or without modifications the draft Supplemental Charter and new By-laws which will be submitted to the meeting. Should the said Resolutions be passed by the requisite majority, they will be submitted for confirmation to a further special general meeting to be subsequently convened.

(1) That this meeting hereby approves, ratifies and confirms the provisional agreement for amalgamation, dated May 29, 1924, made between the Royal Institute of British Architects and the Society of Architects, and directs the Council of the Institute to carry the said agreement into effect.

(2) That this meeting hereby approves of the Draft Supplemental Charter contained in the printed document produced to the meeting, and authorises and directs the Council to take the necessary steps to obtain for such Supplemental Charter the approval of His Majesty's Privy Council.

(3) That this meeting hereby approves and adopts the new By-laws contained in the printed document produced to the meeting, and authorises and directs the Council to take the necessary steps to obtain for the new By-laws the approval of His Majesty's Privy Council ; and that the existing By-laws be rescinded immediately after such approval has been signified.

DISCOVERIES AT ST. ALBAN'S ABBEY

FOUNDATIONS OF MONASTIC BUILDINGS EXCAVATED

To the south of St. Alban's Abbey Church (now Cathedral), and overshadowed by its venerable Norman tower, an open space, commonly known as the "Abbey Orchard," slopes gently south-west towards the river Ver. This field has been for generations marked by extensive and irregular mounds, long suspected to cover the remains of the monastic buildings of the once flourishing community of Benedictine monks, and it is gratifying to see that excavations have at last been projected under the auspices of the parochial church council. Operations have already commenced in earnest near the north end of this space, and though so far they have only repeated the discoveries of some years ago (recorded on the plan in the Inventory of Historical Monuments of the county) yet what is revealed will be seen for the first time by most of those living to-day, and is of the greatest interest.

It should first, perhaps, be stressed that—independently, of course, of the abbey church—there are but two vestiges of the monastery ordinarily visible: the fine gatehouse, now part of St. Alban's School (Fig. 1), and the inner or north wall of the north cloister, built into the eastern part of the south nave wall of the church. This cloister walk, being open to the south, was warmed by the sun, and was therefore probably occupied, as at Westminster and elsewhere, by the monastic manuscripts and carrels or study-cubicles, and for the same reason this extant inner wall was decorated by blank tracery, which is of late Geometrical type. It is to be noted with much regret, in passing, that Lord Grimthorpe's modern attached buttresses, supporting the aisle wall and vaulting, bear no relation to the spacing of the bays of this arcade and have rudely cut into it—a clumsy piece of restoration which could, perhaps, be partially effaced by re-erecting the lower parts of the buttresses to spring free from the wall on to detached footings, completing the design behind where previously interrupted, as unobtrusively as possible, but without risking confusion with original work, and utilising any ancient fragments that can be reclaimed tween these mutiliated arches are shafts ing originally the vaulting of this wa which only the springers over these remain, the rest having disappeared wi open arcade which supported it on the and looked into the garth.

Immediately south of the nave is n place of this cloister and extending f westward, a strip of greensward some wide (concealing the remains of the parlour" once revealed near the west the cathedral), bordered again by a path running N.W. and S.E. (not ye turbed), divided from the "orchard which the excavations are being made railing bisecting the area of the gar which therefore only the southern half accessible.

All that is left of the uncovered portio any rate, is mere foundations, with occ ally a few courses of masonry—chiefly north-east and south-west corners (Figs of the cloister (the former delineated earlier excavation)—above the original ment level, which is several feet belo present surface of the ground. Above level and some distance below it the re appear to be of rough rubble, but beneat Roman tiles (visible in the west walk) in hundreds from the site of Verulamium thickly bedded as a firm substructure. plan already referred to assigns the cloister to the same period as the north ter and part of church adjoining, viz. early fourteenth century, for which tracery remaining is of a retrogressive the east and south walks, however, attributed to later in that century, as fragment at the north-east corner referre There is, therefore, some analogy to the ters at Westminster, of which part of the walk is of the former and the south and of the latter period. The earth, gravel, rubbish which have so long concealed ruins were evidently heaped in haphaz after the demolition of the buildings.

The excavations begin, then, with the cloister (Figs. 2, 3), and show substa foundations of its western wall, which ru ranges N.N.E. and S.S.W., but is very gular in outline, possibly indicating stopp in the work from time to time, and at abou middle of its original length is interrupte a threshold with the beds of what were a ently three shafts, two flanking and one tral, dividing it into a double opening—p ably a narrow doorway to the "cellarium wine cellars and buttery (bottlery), and haps rooms for their custodian. The ab lodging probably stood farther west, and guest-house (of which remains were once found) adjoined the gate-house. Ea and parallel with the cloister wall was arcade fronting the garth, marked by substructures of the great buttresses w took the thrust of the cloister vaulting.

The exposed sleeper walls of both ar and inner wall continue southwards for s bays and then turn eastwards, having excavated to date as far as the path lea from the south transept of the church so westward, but doubtless continuing u ground, the wall extending to the des garden wall (to join the east cloister whose site the latter approximately ma and the arcade stopping some yards befo join the corresponding range of open The arcade piers (Fig. 4), with their ma buttress substructures, resemble those on west walk, but the inner wall to the s (Fig. 5) has been even more thoroug effaced, with small fragments remainin the east and larger but intermittent bloc the west, the latter of about the same thick as those of the west walk.

Some yards south, part of a further parallel wall has been unearthed, prob forming the south wall of the refectory, suming its position here, as almost invari south of the cloister, opposite the ch This wall might well be earlier in date the cloister, and perhaps dates from the



FIG. 1. Plan of St. Albans Abbey & its surroundings (past & present)

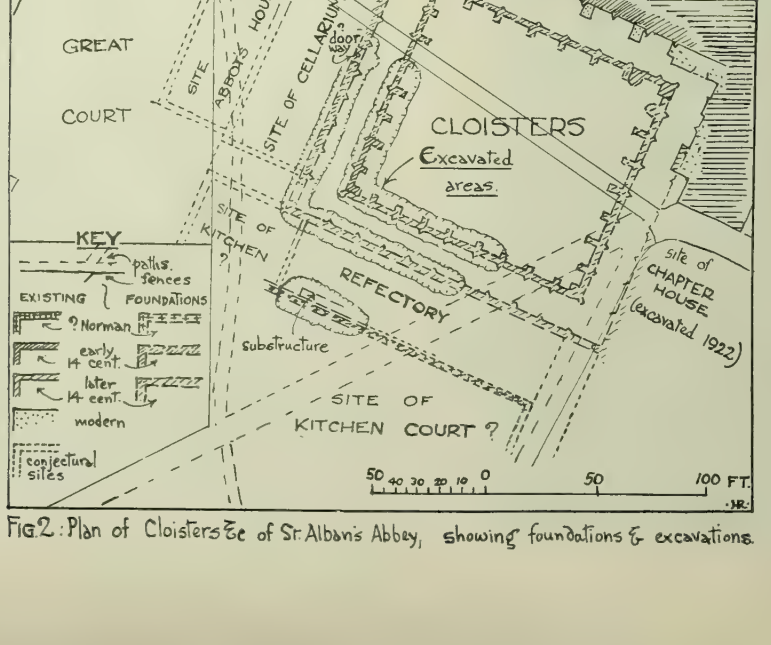


FIG. 2. Plan of Cloisters &c of St. Albans Abbey, showing foundations & excavations.



3.—View Looking North to Abbey Church.

ckgr.und: Inner Arcade of North
e:. *Left:* Foundat.on of Inner Wall
Vest C.oist'r' (adjo.ni.g ce.lar'um);
round: Rema.ns of S.utn-West Angle
:ster.

foundation. An unusual feature is the end of a long rectangular and project- ubstructure which may have formed the of the abbot's dais (unlikely, as this was ly at the east end and could be formed hbering only), or a support for projecting ing enclosing seats of abbot and prior, ore probably—a base for a reading-desk ascending steps, as at Chester. Excava- farther east, beyond the present path, enlighten us on this and many other which are as yet obscure. It is be- that a smaller court adjoined the refec- on the south, perhaps a kitchen yard for ation of those concerned in domestic s. and that the kitchen stood, as com- . at the western end.

s pleasant to record that the organisers se to extend operations southward, over rea which apparently has never been ex- d since the destruction and burial in 'eformation period and after of the val structures. St. Albans is, there- probably on the threshold of unique eries of her buried past, and it will afford help and pleasure to many archæologists if this work of exploration is pursued to its legitimate end, and the domestic buildings of this celebrated monastery are brought to light after their uninterrupted sleep of three centuries or more.

It is understood, moreover, that a plan is on foot to remove the ground left between the trenches, reduce the ground to something like its original level, and restore the enclosure to the semblance of a cathedral close; and it is much to be desired that the foundations should be allowed to remain visible, protected if necessary from rain and snow by light roofing supported on brick piles, as adopted over St. Ethelbert's basilica at Canterbury.

Excavations have now been extended to the kitchen and other monastic buildings.

[In preparing this interim notice, with the concurrence of the Rev. Canon Glossop, M.A., promoter of the excavations, the writer acknowledges the assistance of the plan of former discoveries in the Inventory of Historical Monuments, Hertfordshire.]

DECORATION OF VESTIBULE, OXFORD-ST.

An exceptionally interesting open competition was held last autumn, when nearly 800 designs were submitted for the decoration in colour for the octagonal vestibule on the first floor of Messrs. Thomas Parsons & Son's premises in Oxford-street. The promoters offered prizes of the aggregate value of 225 guineas. The awards were made by a committee of assessors, whose distinctions added greatly to the importance of the occasion, viz., Sir Edwin Lutyens, R.A., Mr. Frank Brangwyn, R.A., Sir John Lavery, R.A., Sir David Murray, R.A., and Mr. E. Guy Dawber, F.S.A.

Only eight schemes were shown to the public and these selected proposals were reviewed in *The Builder* for November 9. The chosen design, by Mr. E. A. Cox, carried off the first premium of 100 guineas. A reproduction of his drawing will be found in our issue for November 16 last.

In careful accordance with his adopted scheme this colour decoration in paint is now completed and open to inspection. The original details for the major part have been faithfully adhered to. The result, however, certainly justifies our conclusions impartially stated when we criticised the award, and the series of patterns exhibited. The choice was not exactly unanimous, being arrived at by a majority vote. We fully realised the difficulty which arose inherently from the over elaborated character of the apartment to be decorated, including a domed ceiling over an octagonal diversified plan set off by restless architectural features. A dignified solution seemed almost impossible.

The project appeared primarily intended to display the extraordinary variety obtainable by the use of extremely fine pigments almost endlessly available, as well as the work of artificers accustomed to their application. In so far as the finish and unquestioned merit of Messrs. Parsons' materials and workmanlike application are concerned the work speaks for itself. The glossiness and brilliance of the mural surfaces may justly be described as perfect. Seemingly so perfect as to "tempt Providence" because the least scratch might mar the splendid surfaces thus brought to a polish by repeated rubbings down after the fashion of the famous coach builders' triumphs of the past. Mat finish of the Wm. Morris' day mode has given place to sheen in these times.

The assessors, for reasons best known to themselves, ignored the value of subordinating the overplus of structural features, by giving preference to partial colouring instead of adopting, as they well might have done, a more consistent homogeneous breadth of handling, if not a precise monochromatic treatment, by which this overwrought vestibule might be sobered down and moderated. The Baroque frolicsomeness introduced by Mr. Cox found favour as now realised in the pendentive positions, where the cartouches look so greatly out of scale both in form and idea, to say nothing of the ribbons which sprawl into twisted evolutions along the narrow space over the main elliptical archways. Their incongruity is emphasised by the clouds encircling the cupola below the base of the culminating radial pattern which completes the dome, pierced at its apex by a pine-apple-shaped pendant electric light drop on which the illumination of the vestibule always must depend. We note that the salmon ribs rising over the alizaris red pilasters are wisely left plain without their pale chrome enrichments originally contemplated. The spandrils over the jet black top surroundings and doors are treated like the rich recesses with pale bronze paint which in time necessarily must tarnish. The slab floor of these niches is finished in the same metallic tint brought to a feather edge in front, thus giving a thin effect in juxtaposition with the broad vermilion scarlet frontis work below. The green discs flanking the black overdoors are properly omitted from the competition design, and also we gladly remarked that the yellow picking out of the panel mouldings below the niches was given up too. The picture in the recess facing the staircase has yet to be added, and might be spared. The painted black wooden floor already shows the effects of constant traffic, a result which is inevitable.



4.—View Looking West: Foundations of South Cloister Arcade and Buttresses.



Fig. 5.—View Looking West (to South of Fig. 4): Remains of Wall between South Cloister and Refectory (?)

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ILLUSTRATIONS

"Ivoris," Cowfold, Sussex.

This illustration is from this year's R.A. Exhibition. Messrs. W. H. Brierley, F.R.I.B.A., and J. H. Rutherford are the architects.

Greenwich Baths.

This drawing, No. 1,228, exhibited at the Royal Academy, is the main frontage to Trafalgar-road of the design submitted by Messrs. Horace Field and H. Dighton Pearson in the recent open competition for new public baths at Greenwich, and was placed second by the assessor, Mr. H. V. Ashley. This was a particularly interesting competition, and the site lent itself to an architectural treatment of the lay-out not usually associated with technical buildings of this kind, and what added to the importance of the elevations and grouping of the buildings was the proximity of Christopher Wren's Greenwich Hospital. The entrance to the baths was from a central court formed by projecting the swimming baths on both sides and connecting these two wings by an open screen. The plans and other drawings of this design were illustrated in *The Builder* of October 12, 1923.

Church at Gorton.

This building is in its initial stage, and no building work has yet been commenced. The architect is Mr. Walter Tapper, F.R.I.B.A. Our illustration is from this year's R.A. Exhibition.

Wallasey Town Hall Staircase.

This illustration represents the principal staircase landing of the Town Hall, Wallasey, which was commenced in 1914 and completed at the termination of the war.

The treads and risers are of white marble with cast-iron balustrade and bronze handrails. The walls are treated in cream-coloured stucco plaster. The ceiling is of fibrous plaster decorated in two shades of cream. The woodwork throughout is of fumed oak. The floors of the halls and landings are of white marble and Hopton wood stone margins, with fillings of mereuil marble.

Messrs. Wm. Moss & Sons were the general contractors.

Messrs. John Stubbs & Sons executed the marble work; Messrs. W. Macfarlane & Co. the cast-iron work; and Messrs. John Tar Sons the fibrous plaster and stucco.

Messrs. Briggs & Thorneley, F.R.I.B. the architects.

Stafford Library.

This illustration shows the principal en of the Free Public Library, Stafford, whi completed in 1914.

The materials used were: Ancaster column supports of Darley Dale; and the work built with 2¼ in. sand-faced rubbed with white putty joints. Messrs. Bri Thorneley, F.R.I.B.A., are the architects

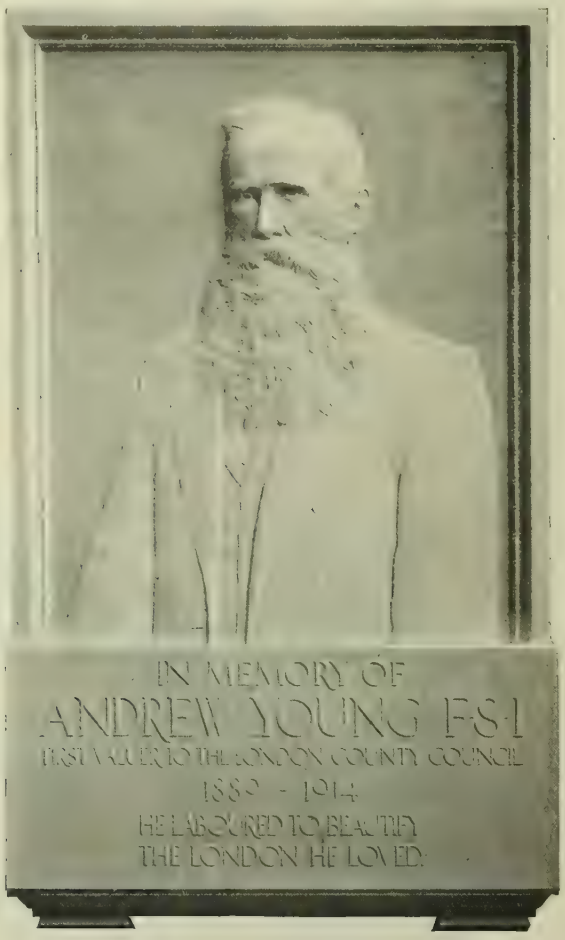
Bank of British West Africa.

This illustration shows the lower por the façade facing the Back Goree, Liv The building, which is ten stories hig commenced in 1914 and completed in 19

The façade was executed in Portland Messrs. Jones & Sons, Pleasant-street, w general contractors. Messrs. Briggs & Tho F.R.I.B.A., are the architects.

Westminster Bank, Piccadilly.

The Westminster Bank, Piccadilly, wa in 1922, the builders being Messrs. J. Stewart, Berkeley-street. The mahoga tings were made from the architect's des Messrs. Howard & Sons, Ltd., Berners- The heating apparatus was by Messrs. ham & Sons, Ltd., Wigmore-street; a lift by the Penrose Lift Co., Ltd. Mr. Ambler, F.S.A., F.R.I.B.A., is the archit



Portrait Panel of the late Andrew Young, F.S.I.

Designed by MR. ERIC BRADBURY.

[This memorial to the late Andrew Young, who was for many years Valuer to the London County Council, was unveiled at Bush House, Strand, on May 28.]

ROYAL INSTITUTE BRITISH ARCHITECT

The Annual Conference of the R.I.B.A take place at Oxford on July 9–12, invitation of the Berks, Bucks and Architectural Association. The followin gramme has been arranged:—

Wednesday, July 9.—Reception by the Chancellor of the University of Oxford.

Thursday, July 10.—10.30 a.m., welcome by the Vice-Chancellor; and Warren, F.S.A., will deliver a lecture, "An Historical Sketch of Oxford." luncheon. 2.30 p.m., visits to Universit College Buildings. 5.45 p.m., lecture b Raymond Unwin, on "Town Planning City like Oxford." 8.30–11 p.m., recept Magdalen College.

Friday, July 11.—9.30 a.m. to 6 p.m., of the vicinity.

Saturday, July 12.—Excursions and vi

At a Business Meeting of the Royal Ins of British Architects, held at No. 9, Co street, W. 1, on Monday last, the foll new members were elected:—

As FELLOWS.

T. T. Cumming, Reading.
J. P. D. Grant, Cardiff.
A. B. Knapp-Fisher, Westminster.
H. Langman, Southport.
S. D. Meadows, Singapore.
H. I. Merriman, Golder's Green.
G. A. Mitchell, Ealing.
F. A. Richards, minster.
A. W. Sheppard, Hill.
A. Symon, bury.
A. K. Tasker, castle-on-Tyn
F. E. Williams, sington.
G. B. Wills, Ma

As ASSOCIATES.

E. R. Arthur, Toronto.
D. Musker, Colwyn Bay.
W. J. Whiteside, wayo.

HON. ASSOCIATE.

Oscar Faber, London.

HON. CORRESPONDING MEMBERS.

Commendatore Carl Brummer, Copenhagen.
Dr. P. H. Fett, Christiania.
Professor Olaf hagen, Trondl
Eliel Saarinen, gan.
D. F. Sloth Amsterdam.



om the Exhibition of Modern Architecture at Wembley.

Royal Automobile Club Premises, Piccadilly.

MESSRS. MEWES & DAVIS, F.R.I.B.A., Architects.

*

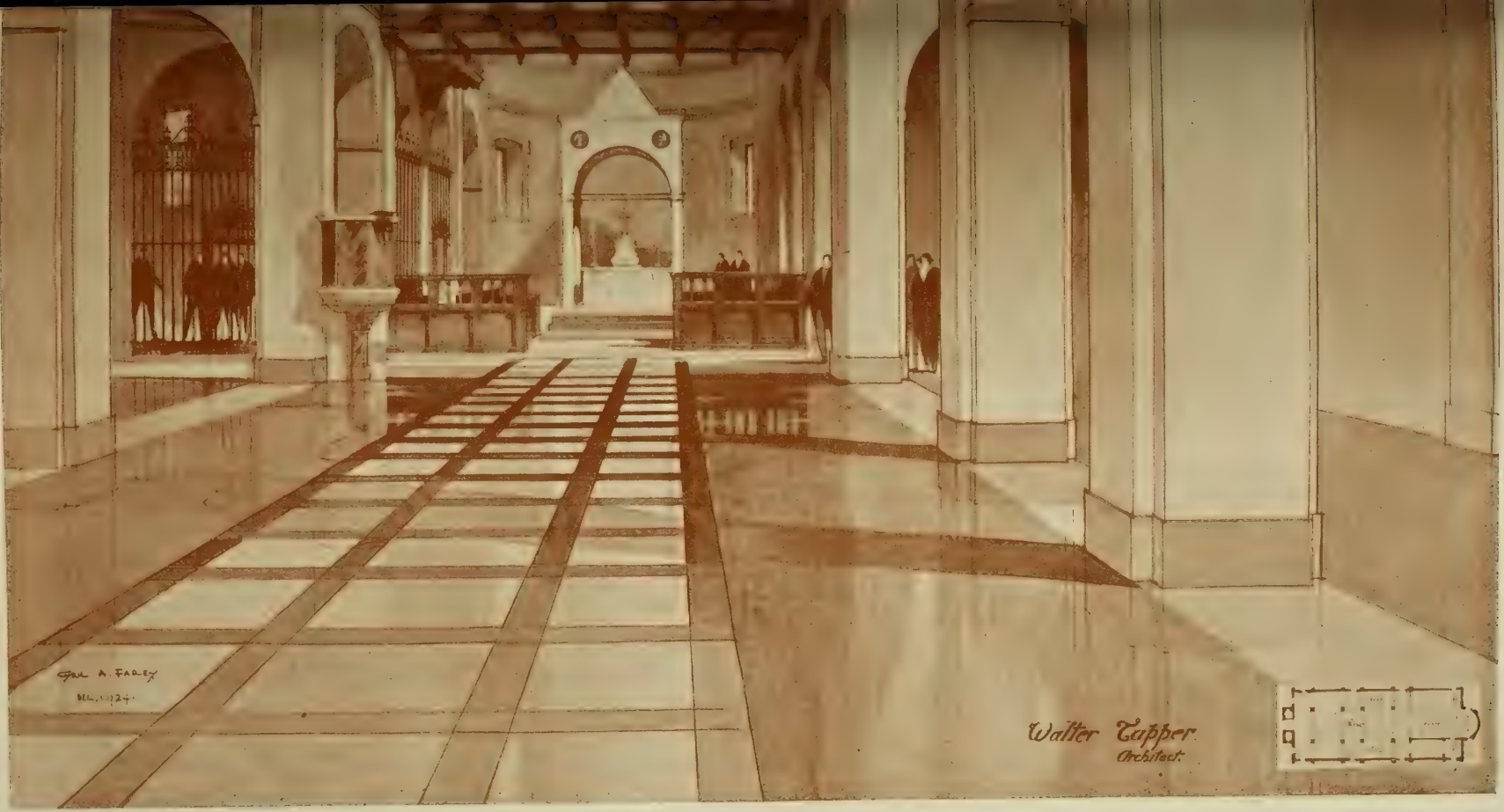


From the Exhibition of Modern Architecture at Wembley.

Detail of Entrance, Stafford Public Library.

MESSRS. BRIGGS & THORNELEY, FF.R.I.B.A., Architects.





R.A. Exhibition, 1924.

Church at Gorton, Lancs: Interior.

Mr. Walter Tapper, F.R.I.B.A., Architect.



R.A. Exhibition 1924

Design by Messrs. Horace Field and H. Dighton Pearson, F.F.R.I.B.A., Architects.



m the Exhibition of Modern Architecture at Wembley.

Staircase at Wallasey Town Hall.

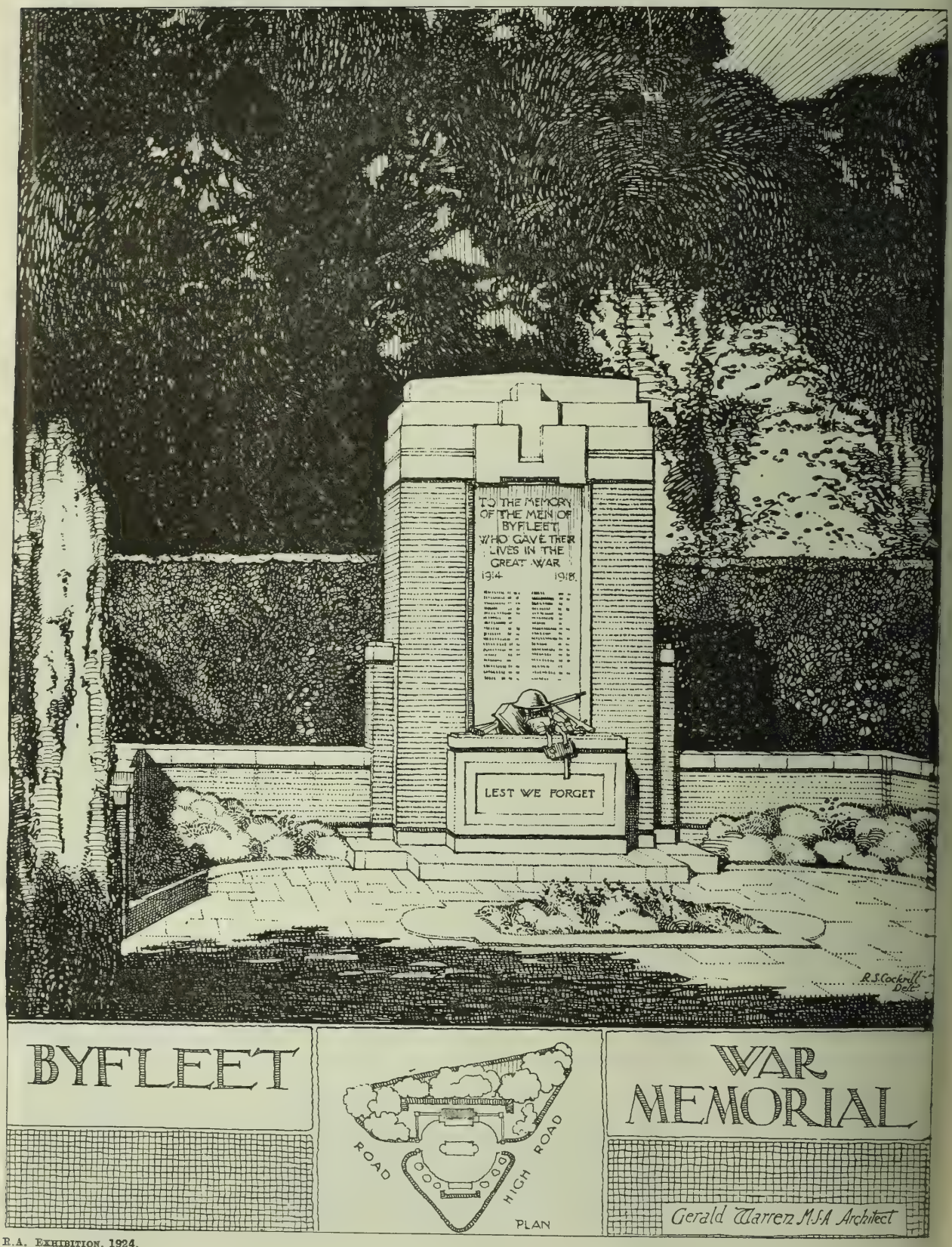
MESSRS. BRIGGS & THORNELEY, FF.R.I.B.A., Architects.



From the Exhibition of Modern Architecture at Wembley.



Westminster Bank, Piccadilly, W. MR. LOUIS AMBLER, F.S.A., F.R.I.B.A., Architect.



R.A. EXHIBITION, 1924.

Byfleet War Memorial.

MR. GERALD WARREN, Architect.

ESTMINSTER ABBEY RE-EXAMINED—IV

By W. R. LETHABY.

THE CHAPTER HOUSE.

IS noble building is necessarily considered annex of the great church, but it deserves separate study.

e Chapter House can be securely dated as about 1250. From the fabric rolls it is that it must have been begun with the st work in 1245, and Matthew Paris ions it under the year 1250 as the incomble Chapter House. In 1253 canvas was hased as a temporary filling for the windows, iew, we may suppose, of some immediate eing made of the building.

ie source for the octagonal type of plan, ir as is known, is the circular Chapter se vaulted in ten bays to a central pillar, at Worcester in the first half of the th century. A transition between the e and the octagon is represented by the ter Houses of twelve sides at Margam Dore, one formerly at Evesham, and that incoln; the last two had ten sides. Those Beverley and Westminster are the earliest rn which reached the octagonal type: the er was probably begun about 1230.

e will preface our examination of the building by condensing some descriptions of it en before the great restoration of 1866. first is by John Carter (1799); I call attention to some passages by putting them in italic.

"The entrance is from the Cloister through a double archway; the work [here] is profuse and beautiful. How is our just indignation raised at beholding the ravages of those savage hands which have destroyed *the statue of the Virgin* which stood on a bracket in the centre, and nearly so the accompanying angels. . . . We proceed along a double avenue; a flight of steps brings us to the double archway entering the Chapter House itself. *This double archway has had its dividing column in the centre with nearly all its open tracery (in the manner of the Chapter Houses at Wells and Southwell) cut away.* We are now within, and find that five, of the eight, sides which were nearly open in one large window have had *their tracery* filled in with brickwork and small modern windows. The tracery in two of the remaining sides has been cut away; the groins, destroyed to a small portion which is yet springing from the delicate and delightful cluster of columns at the centre, arched to the several angles of the structure, *where a few portions of their mouldings may be observed.* In all probability the stalls and decorations against the lower part of the walls may be remaining but the presses block them up from the view of those few who may visit this once celebrated place. Here observers will find little but modern carpenter's work, vast rolls of parchment, dust and rubbish, and the famous Domesday Book. Among the reflections that occur is one for the danger that attends *the cluster of columns* in the centre by the modern false floor whose centrical part rests on *the remnant of the groins* springing from it."—(*Gentleman's Magazine*, 1799.) In his Specimens of Architecture and Sculpture Carter gave a plate of the outer doorway with a valuable account of it in which the small sculptured figures of the archivolt were identified as the Ancestors of the Virgin.

The next account is that given by Neale and Brayley (1823):—

"The present battlements are of brick with a stone coping. A small doorway, for official convenience [!] has been made through the wall adjoining Poets' Corner. [The filling of this may be seen in the north bay of the interior.] The great pointed arch across the [inner main] entrance is sculptured and *the capitals display beautiful foliage.* The walls are surrounded by trefoil arches; on the east side the wall behind is *beautifully gilt and painted* with a series of Angels who appear to be receiving the Faithful and rewarding them with crowns of glory; the wings of the Angels are partly expanded, and the feathers are inscribed in black letter. The original pavement appears to consist of *figured tiles* wrought with lions, foliage, and other subjects."

About this time the valuable drawing of these paintings in the eastern bays which is now placed near them was made, apparently by John Carter.

In 1842 Henry Cole (later Sir H.) wrote a popular guide to the Abbey, in which the Chapter House is again described: "The sculptures of the mouldings of the entrance arches will be found more perfect than those outside [in the Cloister], and *when cleaned of whitewash may possibly appear in all their original crispness and bright colour.* . . . Enormous windows: if we may judge from *a window now closed up*, their [lower] circles were quatrefoiled surmounting trefoiled arches. The ancient groins branch from *the exquisite capital* of the columns of the light shafts which has been suffered to remain. The floor was paved with tiles, heraldic and otherwise; portions are shown. Pillars on a stone basement support [wall] arcades. Sculptures above in *the capitals have been hewn away.* Behind the pillars all the walls seem to have been adorned with paintings executed on the stone. Enough in the paintings on the walls, *the colours and gilding of the arcades and the mural ornaments [diapers] above them*, exists to furnish authority for colours in Gothic architecture."

At this time the sculptured Angel had been removed from its niche and was standing in the vestibule. The author says of the destruction of the vault: "In 1703 when it was proposed to make a gallery, Sir C. Wren absolutely refused." The old groined roof was standing as late as 1740. It was then reported by Thos. Ripley, Wm. Kent [the chief architects of the time], and Wm. Gill to be so bad that it was necessary to take it down. "We have viewed the walls and buttresses and find them in a very ruinous condition. But the necessary repairs cannot be made to the buttresses without taking off the decayed roof" (October 4, 1744).

In *Gleanings* (1863) Sir Gilbert Scott gave an account of his examination of the building which was to lead up to the "restoration." As this is so well known I shall only make use of special points as we get further on.

In 1866, on the eve of the "restoration," it was also described in the *Ecclesiologist* by a writer who must, I think, from internal evidence, have been William Burges: "For loveliness there was probably no more conspicuous building in the kingdom when it was in its glory. What remains is so excellent—though, alas, sadly dilapidated—that we dread any attempt at restoration lest damage should be done to its precious fragments. The Chapter House which most resembles it is that at Salisbury, which was, in fact, to a great extent copied from it. . . . At Westminster we have tracery of a high order. These were *as fine specimens of*

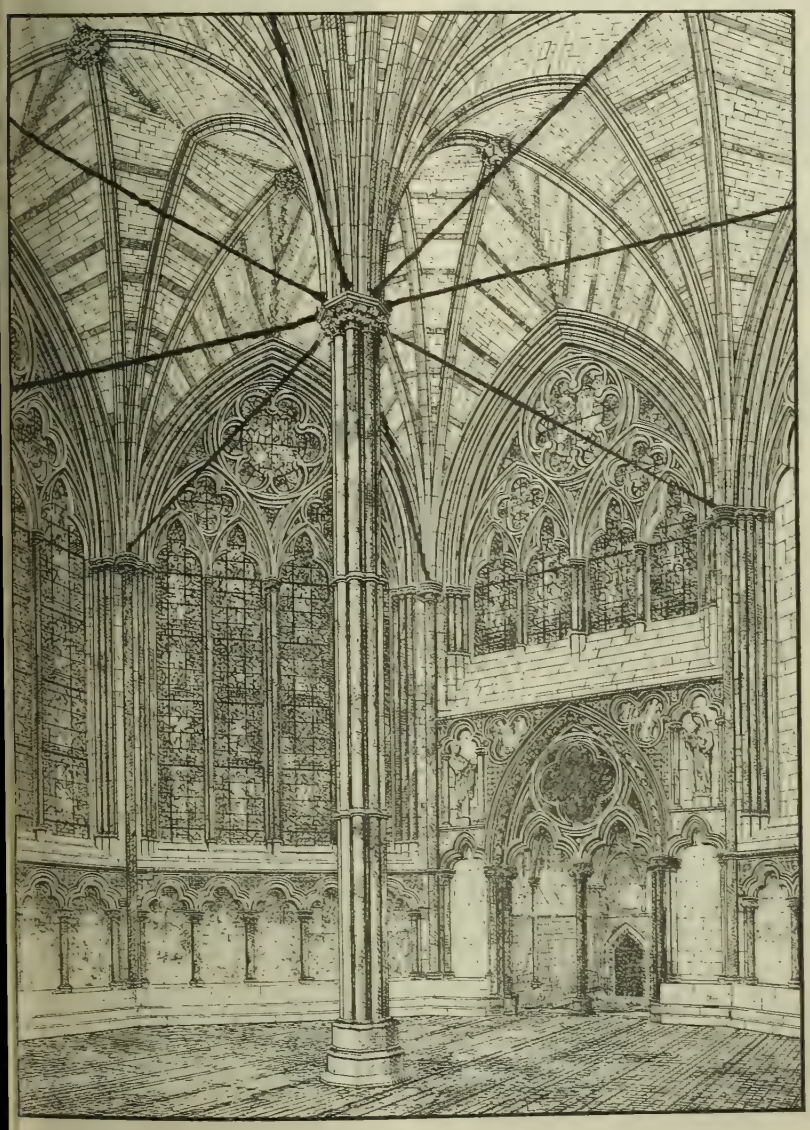


FIG. 1. DRAWING BY MR. S. WEATHERLEY, SLIGHTLY ALTERED.

four-light windows as are to be found in any country. Over the portal the shortened window was of five lights, as may be seen from the sill which still remains. . . . Nothing can well be more shameful—every window blocked up; the whole of the exterior so entirely defaced as scarcely to leave a vestige of its glory. Fortunately, *there is just enough to show that the exterior mouldings and ornaments* [of the windows] *were similar to the interior*, and so the task of restoring will be an easy matter. The interior has suffered less. The Government have simply let it go to decay. . . . A contemporary has actually recommended that nothing should be done but put the place in good repair [!]. It is urged that this fragment of art will serve the purpose of education better as it is than if placed beside twice its bulk of modern imitation. Though there is much good sense in all this, yet in the present instance [!] we cannot agree with it. . . . It is by no means impossible that *some of the old work built up in the windows, &c., may be used again*. . . . Any attempt to make a smart new building will be worse than leaving the place alone, and the greatest possible care must be exercised in retaining every bit that exists. On no account must anything be done to the wall paintings except with a view to their *preservation*. It is to be hoped that there will be no hurry in deciding the execution of the stained glass; the state of this manufacture—for at present it is no more—is not such as to warrant haste. As there is *so much valuable wall-painting* there can scarcely be a doubt that much of this *glass should be grisaille* so as not to exclude the light."

A useful record of the unrestored interior is given by a woodcut from one of the illustrated papers (May, 1866), which stands in the Chapter House. A smaller woodcut is given in *Gleanings*, and Mr. Stacy Marks made a large water-colour drawing.

Vault and Windows.—The slender central column is now a copy of that which remained until our own day, together with a part of the central springer of the vault. "The central pillar," Scott said in 1863, "*still exists* and is about thirty-five feet high. It is entirely of Purbeck marble and consists of a central shaft surrounded by eight subordinate shafts attached to it by three [two] moulded bands. The capital, though of marble, is most richly carved. On the top of the capital is *a systematically constructed set of eight hooks of iron* for as many cross-ties. The same was the case at Salisbury, and I have no doubt that the hooks on the columns in the church are many of them original and were intended for security during the progress of the works."

There is a measured drawing of the Chapter House made by R. J. Johnson, about 1859, and now at Westminster; it shows the central shaft 13 in. and the eight others only about 4½ in. in diameter. The whole pillar is so slender that we may wonder at the skill and daring which balanced so great a load on so slight a prop. There was certainly here a definite attempt to do the most that might be possible in playing with stonework.

The capital is probably a copy of the original; it is deeply carved with crisp foliage. Above it appear the eight hooks mentioned by Scott. Both here and in the church the hooks and tie-rods were intended to give not only "security during the progress of the works," but to the completed work as well. It was the fashion in Scott's day, as of ours, not to see a certain class of mediæval facts, and he seems to imply that the ties—eight rods of forged iron thirty feet long, which must have been very costly—were only of the nature of temporary scaffolding.

However, Scott had the hooks replaced or copied, and eight corresponding hooks may be seen in the springers of the vaults at the angles of the octagon. The whole conception of this octagonal structure depended in a large degree on the use of these tie-bars. The same system was copied at Salisbury, where the ties lasted on into the nineteenth century. That careful observer, John Carter, put it on record that more than a century ago it was proposed to remove them; and soon they were removed, it seems, for forty or fifty years after he wrote the building showed serious evidence of failure and the architects then called in explained that the buttresses were insufficient and added great lumps to them while cutting out the locked system of iron hooks from the central springer, which may now be seen in the south-west angle of the Cloister.

At Westminster Scott did not put back the iron tie-bars, but a visit to the roof above shows that he would not trust the construction without them. His engineer has hung up the vault to the iron roof.

At Salisbury there were never any external flying buttresses to the Chapter House, and, as it is obviously almost a copy of Westminster, this raises the question whether the flying buttresses here are original, and I believe that they are not. The one immediately outside Poets' Corner was built for the first time by Scott. The one next to it has a plinth of fourteenth-century form; the three others differ in their spans, and their plinths do not range with the plinth of the main building. I conclude that the Chapter House was built without flying buttresses in entire dependence upon its "chainage" of iron bars. (It may be mentioned that the flying buttresses around the Chapter House at Lincoln seem also to be additions.) Possibly, some of the hooks drew away from the springers and made additional support necessary at an early time. Besides the eight ties mentioned above, the windows are threaded by three tiers of strong iron bars, which are still wholly or largely original. One may assume that they link up at the angles and form bands right around the octagon. Scott found from the fact that the round bars were beaten square where they passed through the mullions, that the western window originally had four lights like the others. It seems to have had five lights substituted in the fourteenth century, following the fire of 1298 (Fig. 1).

Not only did the springing courses of the vaulting remain in the angles as well as at the centre, but Scott found many voussoirs of the ribs, several of which seem to have been re-used. There is thus no question as to the form of the vault.

Windows, Arcade and Floor.—It is clear from the old views that the central mullions and larger sub-arches remained in many of the windows, and probably some tracery was found other than that of the blank bay, which was in a large degree intact. Drawings by R. Johnson, made about 1859, now in the Abb Collection, show the windows and vault pr tically as restored by Scott; and there fortunately, no doubt as to the form details of the noble four light windows. This all the more important as they seem to ha been the source for the "geometrical" trace which spread over England. Themsel

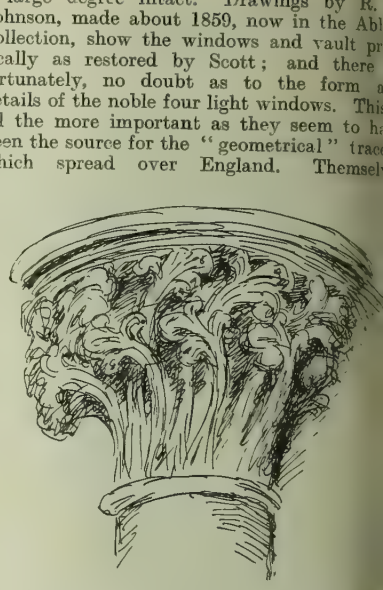


FIG. 2.

derived from Amiens or the Sainte Chapel they were copied and adapted in the Chapt House and Cloister at Salisbury, the east windo at St. Albans, the side windows at Lincoln, a those in the transepts of St. Mary's, York also at Netley, Bakewell, Grantham, and oth places. Altogether, Westminster was a gre milestone in the progress of English buildin It is more than a mere truism to say that eve other church in England was either earlier later than Westminster.

The scale of the windows is greater tha might be supposed; they are about 19½ ft. wi and 39 ft. high, the lights being 4¼ ft. wi and the large central circle 10 ft. in diamete A pretty minor detail may be observed in th two quatrefoils of each window; the upp moulding conforms to the shape of the pointe



FIG. 3. ABOUT HALF-SIZE. DRAWN BY J. C. BARTHOLOMEW.

aining arch, and only the "daylight" e is rounded.
e wall arcade above the stone benches ounding the walls is largely restored, but is hardly anything conjectural except the ed heads, &c., above the end arches in each That there were such carvings is shown one almost shapeless little body which ins. Not only the heads, but parts of the es and in most cases the fronts of the als had been cut away. The marble capitals ne eastern recesses are all sculptured, and have long bonding attachments to the wall, h are also carved. Scott, describing these ern recesses, said, "Their capitals carved in beck marble are of exquisite beauty" . 2). They have, however, been "re- ed" with a heavy hand. In the Gardner ection was a set of sketches of these capitals the attachments at the back, which prove they were badly broken, and the existing shows that large parts have been skilfully ed on. They are, however, original in a ndary degree, and the sides of the bond- es are largely untouched. One of these, ed with dragons, is of high beauty, and unately it is guaranteed by one of the ches just mentioned. Capitals carved in beck marble are very scarce. Some at South sington, which came from Chertsey Abbey, ely resemble them, especially one with gons. As will be seen later I think that these came from a work of Henry the Third. lost of the other capitals of the wall-arcade e been more largely renewed, but usually full evidence as to their ancient forms. y had puzzled me until the late Mr. S. itherley, who had been Scott's assistant, ited out to me that only an inch or so of inner part of most of them was really old, that the rest had been spliced on with



FIG. 4.

t accuracy. Mr. Weatherley gave me a t of profiles that had been made in 1866 the remaining parts by the clerk of works, Kaberry—"a more careful level-headed kshireman I never met." Mr. Weatherley wrote that "the detailing and superin- ence" of the work was confided to the ger Gilbert Scott by Sir Gilbert. The was executed by Poole & Son, the Abbey ons.
here is a carved capital on the left of the h side of the octagon which seems entirely nal, and there are some others—mostly the angles — which look old. The d heads of the wall arcade are halves of refoils, and a similar arcade is found at west end of Amiens Cathedral; the square ering in the spandrels certainly was bor- d from Amiens. The large trefoils over entrance doorway seem to have been ited from those above the western rose at ens (Fig. 1). These correspondences make it probable that the source for the four-light ows of the Chapter House was the same edral from which we shall find many other owings, rather than the Ste. Chapelle. The als and the carved spandrels over the es furnish a striking instance of the old natural delight in variation. The spandrels are of great beauty, several containing varieties of rose patterns. One, by the central eastern arch, has branches of roses on a trellis; it almost looks as if it had suggested Morris's

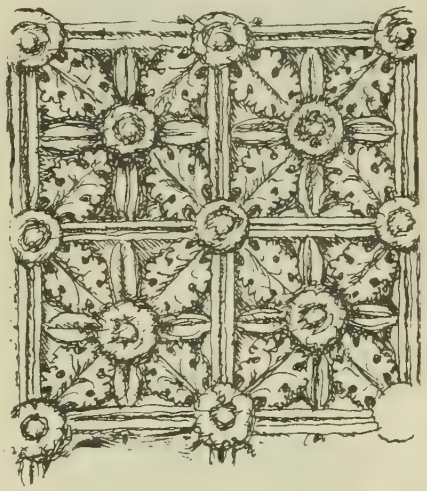


FIG. 5.

trellis pattern wall-paper (Fig. 3). Others at the north-east corner have repeated groups of five roses and there are other varieties (Figs. 4 and 5). A trail of roses is carved on the jamb of the entrance.

It was observed before that rose decoration was much used in the church, and roses were certainly in the minds of the builders of the Chapter House, as we shall see from an inscription. There was a cult of roses at this time, and rose decoration is found on the west front of Amiens Cathedral. Even at the end of the fourteenth century, when the panels formed by the wall arcade were painted, a margin at the beginning had a big rose pattern which can now hardly be traced.

The tiled floor laid down about 1255 is the finest existing pavement of the kind. There are six short inscriptions on the pavement, but they are so worn that little has been done in reading them. The best, indeed the only attempt, is that by Mr. Clayton (*Archæological Journal*, 1912). Four single lines are in the south-east sector, and two longer lines are associated with some "picture tiles" of a hunting scene on the south side. The second of the four short lines was read by Mr. Clayton:

[*Qua ?*] *Rex Henricus Sce Trinitatis Amicus.*

The floor has recently been well cleaned, and that has allowed me to read enough of the first line to make out its meaning (Fig. 6). This first inscription is given by Mr. Clayton thus:—

..SPOS.F..SI...SI.D..C.....O..U+

(The U at the end represents a contraction mark.) Re-examining it in a good light I thought the first letters were rather . . TROSAF. At the end are letters which seemed to be OMO followed by the contraction mark, which I will represent by 4, and the same mark occurs near the middle. Fig. 6 gives the beginning and end of this inscription something as it appears.

The well-known inscription written up in the Chapter House at York likening it to a rose now suggested itself.

In a guide book the York inscription is given thus:—*Ut rosa flos florum sic est domus ista domorum.* On returning to verify I find that there is no doubt as to the first five words or of the final word, and four places in front of that is a narrow space suitable for I, so *ista domorum* is also sure. I now give my reading of the Chapter House inscription, the cross at the beginning being repeated from that at the end, and 4 being used as a contraction mark for *rum*.

+ . T ROSAF . . SFLO4 SIC . . . . . ISTA DOMO4 +

It is now evident that the saying told to every visitor of the York Chapter House was made for Henry III to inscribe on the floor of the Chapter House at Westminster, and that it was only borrowed at York.

This, then, was the King's own claim, that his new Chapter House surpassed others as the rose surpasses other flowers. Matthew Paris, in calling it the "incomparable Chapter House," held the same view—possibly, indeed, he wrote the inscription.

The cleaning of the tiles makes it possible to confirm the general accuracy of Mr. Clayton's reading of the second verse—

. . A [?] REX HENRICS . . T . I . . T . TISAMI.

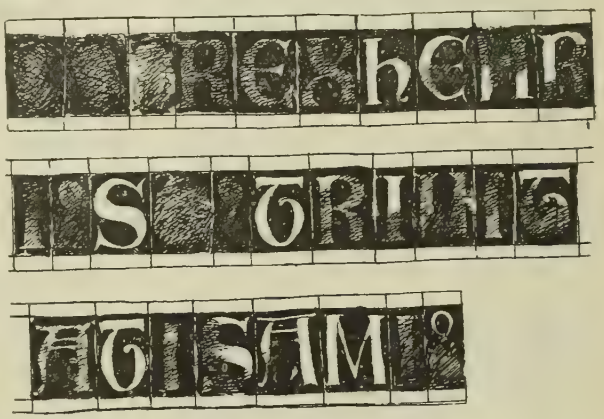


FIG. 7. ALL IN ONE LINE.

The word Trinitatis can now be read with certainty. At the end is another variety of contraction mark which I will represent by 2, and the same occurred, I think, in another place also.

. . . REX HENRI2 SCE TRINITATIS AMI2

It would probably have had a cross at the beginning, which would allow room for only a word of two letters before Rex. I give in Fig. 7 a sketch of this interesting and, one might have thought, important inscription.

The third of the verses is given by Mr. Clayton as below, and he pointed out that the last word must be *amavit*.

. RP . . . . B . . . T . V . . E .
TE . . . . MAVIT

The beginning I have no doubt is + XPō (Fig. 8). The mosaic floor of the Presbytery has an inscrip-

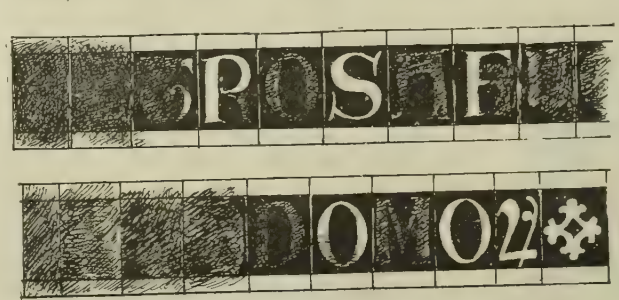


FIG. 6. BEGINNING AND END OF LINE ONLY.

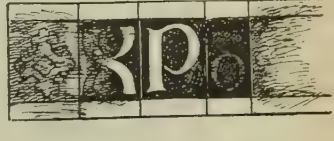


FIG. 8. BEGINNING ONLY.

tion beginning +XPI. All the letters cannot be filled in, but I think the following may be trusted :—

+XPŌ . . . . AVIT QVI SA . TE . I . AMAVIT

No word has yet been read of the fourth line, but the general meaning of the whole is pretty clear and it could now probably be read by an expert: "This Chapter House as superior to others as the rose is among flowers: it King Henry friend of the Holy Trinity: to Christ dedicated who him loved." . . .

The other two inscriptions are in longer lines and seem to have referred to the hunting scene with which they were associated. The first began HIC RESONAN[T].

The tiles seem to be by the same craftsmen who executed a very remarkable floor once at Chertsey Abbey, where the tiles contained scenes from the "Romance of Tristram." which are of particular interest in furnishing a check on the early text of that romance. At the Chapter House, besides small figures of a King, Queen and Abbot, one tile has figures of the Confessor and the pilgrim, another two musicians, and three others contain a hunting scene—a horseman and dog, a bowman, and a stag. These were called "painted tiles," and they must have been drawn by one of the ablest painters of the time. They were probably executed at Chertsey, where kilns have recently been found. Our kings had a special interest in the story of Tristram, and the version of the poet Thomas was, it is thought, written at the Court of Henry II. The pointless sword carried at the Coronations was said to have been the sword of Tristram. Now Chertsey is close to Windsor, and the Tristram floor at that Abbey must, I think, have been a gift of Henry III. The tiles seem to have paved the floor of a chapel which lay along the side of the choir aisle—a position in which a Lady Chapel is often found. From this chapel come the beautiful capitals carved in Purbeck marble mentioned above. I reach the conclusion that this chapel at Chertsey with the Tristram tiles and marble capitals was built by Henry III, and this finds confirmation in the fact that in the wardrobe account of his son an item records the gift of a cross to the King's Chapel at Chertsey Abbey.

The picture tiles in both places are so alike that I think they must have been designed by the same artist. The ornament is also very similar, and there are one or two tiles at Westminster (not in the Chapter House) which are identical with others at Chertsey. The inscriptions at Chertsey are also very similar in style to those at Westminster; some are on separate blocks, others are in longer strips, and of one of these I give a sketch (Fig. 9). The style of all

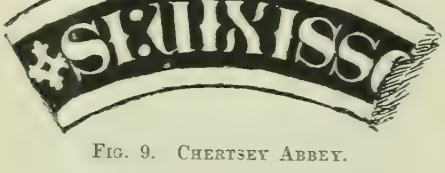


FIG. 9. CHERTSEY ABBEY.

is very like that practised at St. Albans in the middle of the thirteenth century. Apart from the figures, a type of foliage occurs with a long waving pointed leaf and cross bars on the stalks

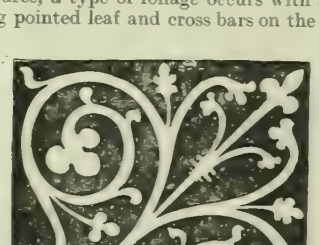


FIG. 10.

(Fig. 10), which I have only found on a beautiful St. Albans drawing at the British Museum (2 B, VI), and in North French MS. The same

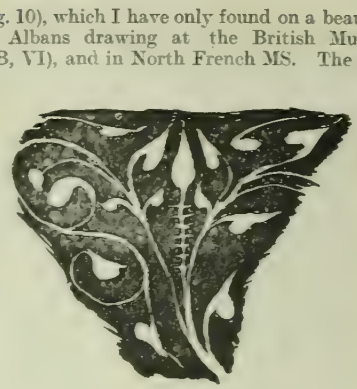


FIG. 11.

artist who did the drawing may have designed the tiles. Fig. 11 is from the Saint Albans drawing; Fig. 12 is from one of the smaller tiles,

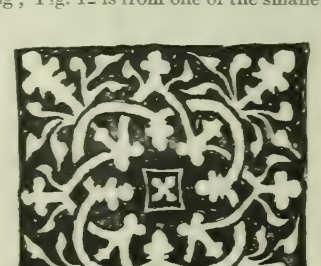


FIG. 12.

which, I think, has never been illustrated. The kind of leafage just mentioned is most marked on some border tiles.

[CORRECTION.—In part III for "accessors" read assessors.]

BOOK REVIEWS

The Styles of Ornament. By ALEXANDER SPELTZ. Translated by R. PHENE SPIERS. New edition. (London: B. T. Batsford.) 20s.

MANY objects derive their principal effect directly from their own form and structure; the embellishment is of the very essence of the object itself, and has developed out of its construction and framework. Such, for example, are many of the great buildings of the past, erected in all ages and countries, and the higher form of decoration doubtless finds its expression in giving interesting emphasis and character to the outstanding features of the structure. Others, again, such as large wall or floor surfaces, depend almost entirely for their effect on the decoration applied to them. The attempt to embrace the whole range of the decorative arts in one volume, such as the above, must have been a heavy task. In a series of 400 plates are shown about 5,000 examples of almost every conceivable branch of the decorative arts, both plastic and applied, and illustrative of objects of all periods, from prehistoric times to the present day. These include almost every form of decoration, from that adopted for the embellishment of temples to that applied to household furniture, wearing apparel and illuminated manuscript. Most of the figures are well drawn and all are taken from actual objects of the period and character illustrated. The wealth of useful material collected here in a convenient and comparatively small compass is of great value for purposes of reference. That such compression has been attained in some cases at great sacrifice was but to be expected. This is particularly observable in cases, such as large wall surfaces and pavements, in which the decorative effect is entirely dependent on the scheme as a whole, fragments represented on plate 49, for exa can convey only a faint idea of the effect of Pompeian mural decoration. The is divided into three main sections, Antiquity, the Middle Ages, and Renai and Modern Times, and each section is f sub-divided into sections under the cou of origin and styles treated. There is chapter on Prehistoric and Primitive Orna Decoration is thus traced from its oldest of geometrical figures, composed of bands, and straight and curved lines, employment, on the advance of intellectu technical skill, of the forms of plant animals; and, finally, the human figure. deduction that ornament should be in con subjection to the form of the object embel and to the nature of the material of whic object is composed is unquestionable. A bibliography is appended.

Pattern Design. By LEWIS F. DAY. (Lo B. T. Batsford, Ltd.). 10s. 6d.

Pattern design, defined here as orname ornament in repetition, is seen unde guidance of this able and practical wri develop from a single unit in so simpl natural a manner that we wonder wh principles of this development are so violated. It is much to be desired tha book should be in the hands—and its m grasped—by all designers of marble, t mosaic floors, of wall papers, carpets, or, in of all surface decoration. We should th spared much that offends the eye and additional pain at times when prolonged on such surfaces is rather a matter of nec than of choice. The main lines upon repeated ornament is built are so few simple that they can be easily traced and generally be reduced to the square, the tria the octagon, or the circle. The author has siderable reason for his belief that the elab Oriental patternwork was developed designs formed out of triangular piece marble, glass or tile, and demonstrate description and illustration how the appar most complicated designs, such as those wall surfaces of the Alhambra, may be red to a nucleus of the most simple form. principles of the drop repeat, the turn and the turn round, are lucidly dealt with there are useful chapters on colour, which sh be planned from the first, and on bor The work is copiously and well illust throughout.

Islamic Architecture. By PROF. SATTAR KH M.A. (London: John Tiranti & Price 2s. 6d.

This book contains a collection of forty- photographs selected principally from exam of Islamic architecture in Spain, North A Turkestan, Arabia and India. They repr mosques, tombs, fountains and civil and do tic buildings built during the mediæval later periods. As far as the restricted si the work permits these form a typical seri examples of Moslem architecture, are suffici large to be useful illustrations, and are cl produced. Their value, however, would greatly improved if the descriptions printed below the photographs instead of collected and placed in the front part of the The text preceding the illustrations is conce chiefly with Islamic apologetics and ther scarcely justifies the title of the work.

Books Received.

THAMES VALLEY, Preliminary Report the Regional Survey. By Thomas Adams Longstreth Thompson. Price 3s. 6d.

ROAD ENGINEERING. By E. L. Lee (London: Constable & Co., Ltd.) Price net.

LONDON ON THE THAMES. By H. Orn (London: Sifton, Praed & Co., Ltd.) 7s. 6d. net.

PAYMENT BY RESULTS. By J. E. Pe (London: Longmans, Green & Co.) Price net.

VERCROWDING IN THE ARCHITECTURAL AND SURVEYING PROFESSIONS

E Executive Council of the Architects' Surveyors' Assistants' Professional Union issued a report on "Education and Overding in the Professions of Architecture Surveying and the Technical Branch of Building Industry," in the course of which stated:

At the present time there are two systems rofessional training in being for the proon, namely, the pupil system and the ol system. A census which we have taken is to show that at present there are in the essions five articled men to every school . Having regard to the fact, however, the school system is barely twenty years and is increasing rapidly, the disproportion kely to rapidly diminish. It is not denied the "articles" system has in the past productive of excellent men. As a system as probably fitted for its time; this time, ever. has passed away.

To-day in the big town offices the prinl's time is much too valuable to devote sonally to the training of pupils. It is rettable, however, that in many offices in incial towns pupils are still taken, but left ely to their own resources. In the smaller incial towns pupils are still generally en where they can be found, but here also pupil is at a disadvantage. He is taken the office not because the principal feels articular aptitude for training another man his profession, though he himself may be apable architect or surveyor, but because practice is not sufficiently remunerative hout the constant succession of premiums. such an office, unfortunately, the pupil is ng little more than learning to trace and s letters. The general opinion of members his Union is that much of the time they nt in their articles was wasted; what they nt they claim to have learnt afterwards in r offices, at evening classes, and by private y.

There is, however, a greater evil in this tinued succession of pupils. It is the mass duction of young architects and surveyors, ly equipped, at a rate quite incommensurate the world's use for them. We have obied certain statistics and give these mples:—

(A.) A large town in south-west England at present 22 architects and surveyors ened as principals, 15 paid assistants, and premium-paying pupils.

(B.) A town in Scotland has 7 firms of itects and surveyors, 8 assistants, and apprentices.

(C.) A large industrial town in Wales: irms, 5 assistants, 12 pupils.

(D.) A town in Lancashire: 2 principals, ssistant, 2 pupils.

(E.) A town in North Wales: 2 prinls, 1 assistant, 3 pupils.

A report with reference to the Aberdeen calls attention to the schools as a source vercrowding equally with the apprenticeship em, and we are of opinion this should ive the serious attention of the respective itutions for our professions. We are of ion that the professional institutions should eavour to obtain a greater control over the ols run by local education authorities than have at present, and to afford them in rn a more generous recognition.

There is in addition a large class entering profession with no definite scheme of train at all. The unarticled pupil enters an e with the idea of picking up a few ings a week as odd boy; perhaps he learns race; perhaps he attends a class in build construction or quantities or land surng in the evening school. A few make l, but the majority swell the ranks of the i-skilled and form the bulk of that subtum which is always unemployed in a "slump." We are of opinion that the whole structure of evening technical schools should be remodelled, that they should only be open to those definitely entered for a calling and intending to qualify completely for it.

"The danger to the professions and to those men lies in the fact that they are not wanted, and that the professions have no control whatever as to their entry into them. A census as to the training of architects, surveyors and their assistants showed that of 568 architects 67, or 11.8 per cent., and of 309 surveyors, 47, or about 16 per cent., had not been definitely intended and trained for their professions.

"In addition to the recommendations above, in order to obviate the present conditions of overcrowding and unsuitable training, we have come to the following further conclusions:—

"(1) That the Royal Institute of British Architects and its Allied Societies, the Society of Architects, and the Architects' and Surveyors' Assistants' Professional Union for the architectural profession, and the Surveyors' Institution, the Faculty of Surveyors (Scotland), and the Architects' and Surveyors' Assistants' Professional Union for the surveying profession, in co-operation, can even without registration almost completely control the conditions of entry into and training for their respective professions, and should form Joint Boards.

"(2) That no member of the above bodies should be allowed to employ in his office on other than purely clerical duties any person who has not been trained at a proper school for the training of his profession, or has not been articled as specified below, or has not been employed as an assistant or engaged as a principal in practice for at least three years previous to a date to be agreed.

"(3) That the ultimate end of all education must be that it is for the benefit of the student and not for that of the teacher (in the case of indentured pupils or apprentices, the employer), though each of these is undoubtedly entitled to proper remuneration for his services.

"(4) That though undoubtedly the school system is greatly superior to the 'articles' system, yet the combined cost of tuition and maintaining the student in the town where a school is situate would be prohibitive to many parents and guardians in towns where no school is within easy reach, and yet they may have sufficient connection to ensure a reasonable practice in the years to come. We are therefore of opinion that the 'articles' system should be continued in such districts, but under such conditions as will ensure an adequate training.

"(5) We therefore recommend that pupilage should not be allowed in the office of any member of the institutions situate within one hour's railway journey (during ordinary business hours of travel) of a proper school of architecture or surveying.

"(6) That no pupil or student shall be entered in any office or school unless he has obtained matriculation standard.

"(7) That, subject to a satisfactory probationary period in such a school, a student's parents or guardians should be obliged to enter into a legal contract, under penalty, to maintain the student at the school for at least three years.

"(8) That outside the areas of such schools (defined (5) above) the Joint Board for each profession should only permit pupilage in certain approved offices under strict conditions of control.

"(9) That the annual quota of new students for each school and the number of new articled pupils shall be pre-determined by the Joint Boards in accordance with the needs of the professions.

"(10) That separate approval shall be given for each articled pupil entered in an office and shall be discontinued if the results are unsatisfactory.

"(11) That pupilage shall be for not less than three years. During the first half of his term the pupil shall spend his whole time in study; during the second half of the term not less than half time; the other half to be devoted to obtaining practical experience in the office.

"(12) That the first three months shall be probationary, and the ratification of the indenture shall be subject to the approval of the Joint Board as the result of test work.

"(13) That a detailed syllabus of training to be strictly adhered to shall be issued by the Joint Board or by such other authority as may be delegated by it, and a summary of it incorporated in the indenture; that such syllabus shall cover academic and practical subjects.

"(14) That the pupil shall sit for his intermediate examination at the termination of his pupilage. Failure to pass shall necessitate a further six months or year of pupilage. If fault is felt to be with the employer a transfer may be decided by the Joint Board, and the employer not allowed to have further pupils.

"(15) That no assistant shall be employed until he has passed his intermediate examination.

"(16) That on the termination of his pupilage the student shall be recommended and aided to obtain employment, if possible, in some town where he can obtain useful experience and further professional tuition in some good evening school.

"(17) That the existing evening institutions be reorganised to this end.

"(18) That premiums shall be allowed, but that fees should be charged out of them to defray the cost of the syllabuses. No indenture under this scheme should, however, be allowed to contain restrictive clauses as to future practice.

"(19) That letters be circulated to the headmasters of all public and secondary schools, the Association of Headmasters and Headmistresses, and all local education authorities, setting forth the method of entry into the professions as approved and recognised by the Joint Board for the information of intending entrants.

"We have used the term 'proper' school in these recommendations to cover any other day school for the teaching of architecture and surveying which may be approved by the respective Boards. This would probably include a large number of the present polytechics and municipal institutes. All other schools would eventually have to close."

The Surveyors' Institution.

Sir Edwin Savill (London) has been elected President of the Institution for the coming year; and Mr. J. D. Wallis (Manchester), Mr. Dendy Watney (London), Mr. H. M. Cobb, C.B.E. (Rochester), and Mr. E. A. Rawlence (Salisbury), Vice-Presidents. The new Members of Council elected at the recent ballot were Mr. C. Chart (Croydon), Mr. W. Fraser (Glasgow), and Mr. Cuthbert Lake (London).

Cardiff Technical College.

A party of architects recently visited the Technical College, Cardiff, to inspect the work of the department of architecture and civic design. The party represented the Board of Architectural Education of the Royal Institute of British Architects and consisted of Mr. Curtis Green (Chairman of the Board and Vice-President of the R.I.B.A.), Mr. Maurice Webb (member of the Council of the R.I.B.A.), Professor Reilly, and Mr. E. J. Haynes (Secretary of the Board).

After its visit to the Technical College the Visiting Board, together with the chairman of the Technical College Committee (Councillor A. J. Howell, J.P.) and Principal Coles, were entertained to lunch by the committee of the Cardiff branch of the South Wales Institute of Architects, Mr. Percy Thomas, President of the South Wales Institute, occupying the chair.

BRITISH SOCIETY OF MASTER GLASS PAINTERS

On May 27 the Earl of Crawford and Balcarres took the chair at a joint meeting of the British Society of Master Glass-Painters and the Society of Glass Technology. Dr. Ethel Mellor, Mr. Noël Heaton, and Professor W. E. S. Turner read papers.

Dr. Ethel Mellor, in the course of her paper on "The Decay of Window Glass from the Point of View of Lichenous Growths," said lichens were a group of plants placed quite low in the vegetable kingdom.

The fragments of glass from church windows so far examined by Dr. Mellor showed a lichen flora comprising 24 species and varieties. The three most common lichens, Diploicia canescens Ach, Pertusaria leucosora Nyl, and Lepraria flava Ach, were frequently found in the smooth surfaces of glass; their débris occurred on slightly roughened surfaces corresponding to the area covered by the living plant.

Crustaceous lichens represented the greater part of the lichen flora of church windows; they were the best adapted of all lichens to an exposed substratum, as the whole of their under surface was attached to the support. The foliose lichens, so-called because of the leaf-like thallus, were present on fragments of glass. These root-like attachments of the thallus often corresponded to tiny opaque discs or beginning of pits in the glass; particles of glass were fixed to them and incorporated in them.

The inner or front surface of glass sometimes bore poor specimens of the common crustaceous lichens. The front of the glass was most frequently covered with fungal strands resembling cobwebs intermixed with colonies of algal cells. Though the conditions existing inside a church were not favourable to the building up of the fungus and alga into a lichen, these two constituents of a lichen frequently existed on the front surface of the window, and incorporation of glass particles occurred.

What effect, continued Dr. Mellor, had the lichens on their support? Water must be retained by capillarity between the lichen and the glass, and this water must become surcharged with the carbon dioxide given out by the lichen during respiration; the glass was thus subjected to increased chemical action. Lichens accelerated the corrosion of window glass in much the same way that they aided the weathering of rocks. Bachmann, a German botanist, had stated that lichens must exert a mechanical and chemical action on their substrata, and that they must give out solvent acids. The growth of lichens was favoured by a free circulation of fresh air, a certain intensity of light, and a degree of humidity; wind and the hot, direct rays of the mid-day sun were unfavourable conditions.

In conclusion, Dr. Mellor said lichen spores, soredia, and algal cells were all very minute, and found a resting place on the unaltered surface of glass. To prevent the establishment of lichens, brushing, washing or otherwise cleansing the windows was necessary.

The second point was that the leading of windows was a substratum for lichens, and also often acted as reservoirs for water surcharged with carbon dioxide evolved during the respiration of lichens growing on the glass. It had been stated by H. Gaudin that the leadings might become friable and unstable within a period of fifty years, and that more windows had been lost through this chemical change of the leadings than through the corrosion of the glass. The glass of a window might be pitted or even perforated, but it still existed, whereas the chemical change undergone by the leadings might be completed before detection, and the glass as a whole lost through the instability of its skeletal framework.

Mr. Noël Heaton, in the course of a paper on "The Decay of Mediæval Stained Glass," said they were familiar with the variation in decay, but the cause had for a long time been a subject of speculation: the moon, insects, birds, and bacteria had all been held responsible. Even as late as 1920 it had been referred to as an inexplicable mystery. His first paper, as far back as 1896, had led him to the conclusion that decay was mainly due to the composition of the glass.

Roman rolled window glass, of which the lecturer showed actual examples, was an example of the requisite composition. It was very plentiful, and although introduced about the first century A.D., was always in perfect condition. Examples of Roman sheet glass, which had been buried since the departure of the Romans, had been found in a perfect condition with the exception of a slight iridescence. This, surely, was a proof that its preservation was due to its composition.

Mediæval glass, however, which had been buried since the Reformation, was completely destroyed. In fact, in comparison with Roman, all mediæval glass was subject to excessive decay.

The Roman formula, which corresponded closely to the formula of to-day for making sound window-glass, seemed to have been lost in mediæval times. Striving for larger sheets and a lack of proper materials contributed to the decay, in mediæval times; also their kilns were very irregular in action.

With regard to the processes of decay, it seemed due to chemical decomposition through the absorption of water, and the extent seemed due to the amount of alkali in the composition in relation to silica. High silica content gave an adherent iridescent film, which gave rise to the legend that old glass threw no shadow.

Actual glass from York Minster showed well defined pits, one of them showing transparent as if something had actually fallen out. There was an example of pitting in modern glass in a piece from Ambleforth Church, painted by Hodgson, of York, in 1855, but this was quite abnormal. The cause of pitting was, probably, lack of uniformity in composition.

Enamel, being mainly of lead silicate, was a great protection to glass. From his experiments he had proved that it was possible to produce artificial decay, therefore he considered lichen was more an effect than a cause.

In conclusion, the lecturer said they could go into old churches like York Minster where the glass was decaying owing to its poor composition. It needed delicate handling, and it was a matter for regret it was not getting it. They could go into modern churches, like St. Martin's, Scarborough, where the enamel had peeled off in a few years. Both cases were due to ignorance of glass technology. That was why collaboration between the two trades was to be welcomed. If the glass itself was of the right composition, and the enamel used in painting of the right composition there was no reason why windows executed to-day should not last intact to the thirtieth century, as those glorious windows of Chartres and Bourges, Poictiers and Auxerres, Canterbury and Lincoln had come down to them to-day.

Professor W. E. S. Turner, in a paper on "The Weathering and Decay of Glass," said he was interested in glass from the point of view of physics and chemistry. He did not think that the problem of weathering in glass could be solved apart from the question of corrosion in metals.

With regard to the time factor mentioned by Mr. Heaton, the glass had been subject to artificial corrosion as soon as the glass was made, and not left for a period of 70 years. It was quite possible to reproduce in gla intensive methods decay which, under n temperatures, required centuries to about.

The prime cause of decay in glass simply water. Some of the most stab glasses, such as granite, etc., showed of absorbing water. Schott and Lene Germany, had produced various tables ing that stable glasses, corresponding to absorbed water.

SOUTH WALES SUR VEYORS' INSTITUTIO

The South Wales and Monmouthshire B of the Surveyors' Institution held its a general meeting recently at Cardiff. Mr. Davies presided.

After the election of officers for 1924 a d on "Leasehold Enfranchisement" followe

Mr. Pendlebury, in opening the debate, that the leasehold system was probably in vogue in South Wales than in any other of the country. He recited the grievanc lessees, and added that for more than a thou years land in this country had been regard private property. The proposal now made to seize upon the man now owning land deprive him of a considerable part of its v The difficulty was that there was no syste selection other than jumping upon the pr owner of certain property whilst the ve escaped with the full value paid to him. Amo the advantages of leasehold were the fact under the 99 years lease system land was systematically laid out for building than u any form of freehold in the hands of s investors; that greater harmony existed to between large landowners and local author as regard lay-out of land, &c.; that the exist of restrictive covenants as to the character use of buildings tended to amenities of a dis and prevented unsightly buildings being ere that leasehold system afforded great facil for large urban improvements at no g expense to the public when the leases fel and that it tended to check jerry-building promote building.

THE FUTURE OF SK SCRAPERS

In an interview with an American ne paper Mr. Alfred C. Bossom pointed out advisability of making provision for the tension of new tall buildings. " laws have," he points out, "restri the height of buildings in an endeav to give each building its due share light, and hence the steady trend upw has decreased. The wholesale demolishing big office buildings, while they seem to be good as new, will thus be checked. A matter of efficiency and prudence, theref skyscrapers must be so built that they from time to time renew their youth and retain their main structure. The older can be raised a little in height by add if the necessary ground can be obtained." new era has already dawned as a result these conditions, in the opinion of Bossom. "The skyscraper which is be built to-day," he said, "will be the old scraper of to-morrow. It should live to a old age. More money is now being inve in large commercial buildings than before, and the period of indiscrimin scrapping of one tall building to make for another still taller will soon be close Mr. Bossom then proceeds to dwell on necessity for so designing the building future ideas can be incorporated in it with affecting the main structure.

Institute of Patentees.

The Institute of Patentees will hold an exh tion of inventions from August 11–16, in Aldw House, Kingsway, W.C.2.

HOUSING

MR. JOHN E. YERBURY, LIC.R.I.B.A., rites:—

SIR,—I have read your leader and notes of ay 23 last with great interest, and should glad if I may comment upon one or two of e salient facts upon which you desire to cus attention. The most important fact is at no one has succeeded in constructive atesmanship although we are all quite good destructive criticism. I must leave you to dge whether what I have to say is suffiently important to justify the space required your columns.

I think you are over-sanguine when you say We know the problem will be solved some ay in the way the community has got other ings that it wants with little or no State d." What has the community got without e aid of Parliament? Factory Acts, Edu-tion, Insurance, Old Age Pensions, Housing id Town Planning, everything that is of al value to the community has been ob-ined only by the aid of the State. Of ourse, individually, employers are humane nd even charitable, but that does not answer ie question which the worker asks. Why ould I obtain only a mere miserable exist-nce which denies me all that makes life orth living, while the investor in bonus iares receives the return of his investment, nd then interest on his watered capital? It upon the answers given to such questions iat depends the increased output which alone an save the situation. It is the middle class mployee who now asks these questions much iore than the manual worker, and he will ress for an answer.

In attributing our present troubles to the ict that building was too cheap and profits f speculation cut too fine before the war, ou ignore the salient fact that working class wellings never were provided by speculators. s Major Barnes has shown, the poorer paid orker has always lived in third, fourth, or fth hand houses as he has worn second-hand othes.

Speculating builders provided small residen-al villas and sold to the occupier or investor. ut the working man cannot be a buyer; he as not the money, and cannot afford to be ained down to one locality. If in the past has been impossible to provide working-ass dwellings, is private enterprise more kely to succeed with the admitted inevitable osts added to the difficulties?

There is a chance of a decline in labour ost and a reduction in cost of houses by ther methods than reducing wages, *i.e.*, by creasing wages and obtaining the best out-ut. It is the spirit of your "Notes" on a'-canny that is required, and in the building ade of London I am sure trust would create ust.

I do not know whom you quote, "What ost people competent to express an pinion" propose that the Government should "to encourage those who had provided ouses in the past"; I fear they too over-oked the rather important fact that no one id provided in the past the particular houses e need.

The repeal of the Rent Acts at the present me would spell ruin to the professional and her middle class occupiers who do not live their own houses.

Rents would go up, but you are wrong in pposing "people are in a position to pay"; id the assumption that because everything st more people paid more (you say, "As e know they did") is wrong. Most of us ent without because we could not pay for hundred and one things we used to think sential. The repeal of the Rent Acts ould lead to property sales and increased ntals to the breaking point, but not to ttage building; thousands of middle-class milies would be driven into working-class wellings, and those for whom the dwellings ere intended would be forced into slums; but it would not produce one single workman's cottage, simply because it does not pay to build and let at rentals which can be obtained on the present wage of would-be occupiers. When "those most competent to express opinions" talk of more houses built they mean villas "to sell," not cottages "to let." You say "there can be no doubt more and more houses would have been built," and "rents would have fallen as the supply increased." What sort of houses are those? Working-class cottages? There certainly can be "doubt," in fact, it is almost a dead certainty that your statement is a fallacy. Your statement that "even now this is the best way out of the difficulty" is an alarming one; and your reason, "that the cost would be borne, not by the community as a whole, but by those who were supplied with what they wanted," takes my breath away. So our friends who gave up their homes to serve their country must pay extortionate rents, because their stay-at-home neighbours were wiser in their generation; and the profiteeer may suck the blood of the man who sacrificed his home that the community as a whole should not be asked to pay—only those who are being supplied with what they want. This is homes for heroes with a vengeance. "The best way out of the difficulty." Is it? Let us have the next best then.

In reply to Sir Ernest Benn's letter to the *Times*, it will be nearer the truth to say that if the Housing Acts had never existed we should probably have had a second great plague. I don't think Sir Ernest's letter helps very much. The Government scheme, as outlined, will probably not be successful; and, if successful, is frightfully costly; but I certainly should be surprised to find the Government prepared to repeal the Rent Acts and pay the increased rents. Surely this would be stark staring daylight madness, and would make the whole community pay exorbitant profits to those who, having bought property (while there was a panic and a consequent rush to sell) at a very low price would, without compunction, double rents all round, and convert an already extremely profitable deal into a real gold mine.

The decent property-owner, of course, would not conceive the idea, but even he would be forced in time "to do as others do."

A subsidy is the wrong method, being generally an encouragement to extravagance and unfair inflation of prices. In the Report of the Building Industry I fear the main impelling thought is for those other works which keep the industry fully employed, rather than for housing. There is a shortage of skilled labour, but stabilisation is not worth having if all building is to cost more by the creation of a huge combine of employers and employed, based on high wages and profits, and small output.

We cannot produce houses without the good will and best efforts of those engaged in building them, but the building industry as a whole in its report declares that housing is a very small portion of its activities, and seems so much more concerned for the other work than for houses that one is inclined to think a new side to the industry should be started for the provision of working-class dwellings, which might easily be done by the fuller development of concrete buildings, which would require comparatively few highly skilled men, and would pay good wages to semi-skilled and unskilled workers giving their best output.

To adopt a lower standard of output than the pre-war, or even to accept the standard of 1914 would be fatal to success. For 20 years before 1914 output in the building trade had become lower and lower as wages became higher and higher. The Census of Production Report for 1907, published in 1913, gave the output at £84 per head per person employed; one dreads to estimate what it is to-day.

The one and only way to obtain the best output is to create contented workers and to give them confidence in those who direct the industry. It is nonsense to suppose the worker is out to rob his employer, or that the employer consciously desires to enslave the worker; but the unfortunate fact remains, they both act as though this were the case, and neither seems disposed to give the other credit for any good will; mainly because the most commercially minded employers and the most revolutionary workers are more often heard than the men of peace and good will. I shall never cease to regret the scrapping of the Foster Committee's Report to the Building Trade Parliament.

It is true we cannot satisfy our needs with the present amount of skilled labour, and public opinion should be roused to force the trade unions to accept whatever dilution is necessary under proper and reasonable guarantees; but at the same time public opinion must be equally emphatic against profiteers and safeguard the community against unreasonable profits.

Unfortunately housing must be "a pawn in the great game of politics," for the simple reason that private enterprise cannot "cure the evil," and your quotation from Sir William Joynson Hicks only shows how little he knows of the subject. Once more I must repeat, working-class dwellings never have been supplied by private enterprise, and with much stronger reason cannot be supplied now, without assistance from the State.

I most cordially agree with the writer of your "Notes" on "Ca' canny" and "Increased Output." Without confidence all our efforts are vain. I enclose copy of scheme for Housing Finance, which I have put before the Minister of Health.

In my view the question must be dealt with in conjunction with rating reform and taxation of land values; and by Government loans on easy terms to public utility societies or municipalities, who would employ contractors in the usual way if prices were reasonable, and carry out the work with direct labour if contractors tried to profiteer. In the same way they would deal with merchants if fairly treated and become manufacturers and importers if not so treated.

I do not claim that my scheme is perfect as it stands, but it is cheaper and more certain than any put forward by the three Governments which have tried to solve the problem.

One other thing needs saying, that is, if the working classes are to have houses by the help of the State proper protection must be given to those who provide them against "No Rent" strikes, the number of which and the losses occasioned should be made public in order that the community may know how it is sometimes served by certain classes of its members.

Government Housing.

At a meeting of the Council of the Association of Municipal Corporations, held recently in London, the report of the Special Committee appointed to consider the Government's housing proposals was presented. The report reviewed the negotiations between the Minister of Health and local authorities. The resolutions passed at the conference on the 8th ult., set out in Mr. Wheatley's letter published on the 16th ult., were approved, subject to the following conditions: (1) That the Government proposals as to subsidy be accepted; (2) That the terms providing that the Government shall make good any loss sustained by local authorities by reason of reduction of rents of houses erected under the Acts of 1919 and 1923, as a result of the limitations of rents under the proposed legislation, be insisted upon; and (3) That the proposed revision of financial arrangements shall take place triennially during the period of the Government's proposed building programme, but this triennial revision shall not under any circumstances reduce the contribution of the Government in respect of the houses erected or in course of erection before such revision takes place.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

Housing Proposals.

The speech of the Minister of Health on the new housing proposals is given on p. 920.

Four Years' Progress.

Mr. Wheatley informed Mr. Franklin that the number of houses completed since the beginning of the scheme or under erection at the end of each year, in respect of which the annual deficit in excess of the penny rate was borne by the Exchequer was as follows :—

1920	70,335
1921	146,122
1922	166,238
1923	172,747

Brickfields Closed.

Mr. Wheatley informed Mr. W. Thorne that records were not available to enable distinction to be drawn between the numbers of bricks produced by machine-made and hand-made processes. The approximate number of brickfields producing or temporarily closed was estimated by a Committee of the Ministry of Reconstruction in January, 1918, as follows, viz. :—

England	1,135
Wales	46

The present rate of production was variously estimated at between 2,500 million and 4,000 million a year, and from a recent report by the Building Industry Committee it would appear that the full capacity had not yet been reached. The Government had had under consideration various means by which undue rises in prices of bricks might be obviated and proposals with this end in view would be made in due course.

Houses for Sale.

Mr. Mills asked the Minister of Health if he would take steps to initiate legislation that would result in the occupation of over 250,000 houses at present held for sale ; whether subsidies were in prospect to builders who intended building for sale only ; and what steps he proposed to take to deal with those builders who had houses kept for sale which had received the subsidy.

Mr. Wheatley said he was not aware of the basis of the figures given. After careful consideration he had come to the conclusion that he could not undertake to introduce legislation this session to prevent the holding of houses for sale and he could only concur with the hon. Member in regretting that not even the provision of subsidies had made it possible for the private builder generally to build houses for letting.

Tender Prices.

In reply to Mr. A. T. Davies, Mr. Wheatley said he was aware that the tender prices for houses received by local authorities had in the last few months been increasing. It was obvious that increases in cost must prejudice the efforts being made to meet the need for houses, and it was the intention of the Government to take every practicable step to prevent increase of prices.

Direct Manufacture of Building Materials.

Mr. Wheatley informed Mr. Hardie that as at present proposed it was not the intention of the Government to undertake the direct manufacture of building materials.

Conversion into Flats.

Mr. Wheatley informed Sir C. Starmer that provision was made in Section 5 (1) (c) of the Housing, &c., Act, 1923, for assistance to be given by local authorities in the case of the conversion of a house into flats. It was not the intention of the Government to extend the new subsidy proposals to this purpose.

Smoke Abatement.

Mr. Wheatley informed Mr. Lorimer that the Government hoped to introduce a Smoke Abatement Bill at an early date.

Contract Basis.

Mr. Baker asked the Minister of Health whether the veto on the granting to the building guilds of housing contracts of the form known as basic sum contracts, originally approved by his department under the late housing scheme, was still in force ; and whether local authorities were free under the present housing scheme, and would be free under that now in contemplation, to enter into contracts with the building guilds on the basic sum principle with his approval.

Mr. Wheatley said this question was under consideration and he hoped to be able to find means of enlisting the help of the building guilds, but he was unable to make a statement at the present time. He might say generally that he thought it was very desirable that contracts should be on a lump sum basis.

Public Utility Societies.

Replying to Lieut.-Colonel Fremantle, who asked whether he would include practical proposals in the new Housing Bill for the encouragement of public utility societies, Mr. Wheatley said he would give the fullest consideration to the suggestion.

Land Registration.

Sir P. Hastings, Attorney-General, informed Mr. Linfield that the Government would be prepared to make orders establishing compulsory registration of title to land in any county or counties where application was made for such an Order by the County Council concerned in accordance with the provisions of the Land Transfer Act, 1897.

Miniature Lighthouses.

Sir W. Davison asked the First Commissioner of Works, whether the design of the miniature lighthouses with blinking green eyes, which had recently been erected in front of Buckingham Palace, was submitted to and approved by the recently established Fine Art Commission ; and, if not, would he indicate why it was not so referred ; and what was the cost of the lighthouses.

Mr. Jowett said that the refuges in question were temporary and of a purely experimental character. The experiments were being conducted in consultation with the Commissioner of Police in the interests of the safety of the public. The Fine Art Commission had not been consulted, but the question of the design and type of permanent refuge was under consideration.

New Subsidy for Rural Areas.

Mr. D. Millar asked the Minister of Health if he was now in a position to state the amount of the subsidy proposed by the Government to meet the housing needs in rural areas.

Mr. Greenwood said as a result of discussions with the representatives of rural authorities an Exchequer grant of £12 10s. a house for 40 years in agricultural parishes would be proposed.

Housing Costs.

Mr. Wheatley informed Sir E. Cecil that payments made from the Exchequer in respect of annual housing subsidies during 1923–24 amounted to £7,857,000. The payment from rates in respect of annual loss on the Housing Act, 1919 (penny rate scheme) was estimated at £866,000. He had no information as to the payment from rates in respect of annual loss on the schemes carried out by local authorities under the Housing Act, 1923. The capital expenditure defrayed from loans during the year was estimated at £11,000,000.

Office of Works Houses.

Mr. Jowett, First Commissioner of Works, informed Lieut.-Commander Kenworthy that the construction of houses by his department on behalf of certain local authorities was authorised by Section 16 of the Housing, Town-Planning, &c., Act, 1919, which had now been repealed. Under the revised proposals to be submitted by the Minister of Health, the responsibility for the erection of working-class houses would rest with the local authorities.

War-time Buildings.

Mr. Jowett informed Sir H. Brittain that the demolition of the aircraft buildings in Regent's Park, which were the only war-time buildings r maining in this park, was commenced on April last. The demolition would take about seve months to carry out, and the work of reinstati the surface of the park would be completed soon as possible after the buildings had be removed.

Loss Under the 1919 Act.

Mr. Greenwood informed Mr. E. Brown th the average annual loss per house in respect houses erected by local authorities under t terms of the 1919 Act was estimated at £50 p annum, of which £5 was borne by rates and £ by the Exchequer.

Unemployment.

Replying to Mr. T. Thomson, Mr. Shaw sa the following table showed the highest ar lowest monthly rates of unemployment amor insured workpeople in the building industr recorded in the years 1918 to 1923, and in t first four months of 1924 :—

	Highest.	Lowest.
1918	5.3	0.5
1919	11.4	4.2
1920	7.3	2.0
1921	19.8	8.8
1922	21.5	14.2
1923	20.1	11.3
1924	14.9	8.7

The A. and S.A.P.U. Sports Meeting.

The members of the Architects' and Surveyor Assistants' Professional Union are holding sports tournament with the Associated Portlan Cement Manufacturers at Snaresbroo (L.N.E.R.) on June 7, at 2.30 p.m.

City Coroner's Report.

In the course of his report, Dr. Waldo, dealin with the report of the Royal Commission o Fire Brigades, said he was of opinion that complicated panel system of fire inquiry, a suggested in the report, would result in a cost and comparatively ineffective experimen Again, the "panel of persons possessin special technical qualifications in buildin construction, engineering, fire extinction, &c., would presumably be largely drawn from th architects, surveyors, engineers and firemen i the service of the authority calling for th inquiry. As such, they would, in many in stances, be directly interested in the circum stances of the fire and the result of the inquiry The London County Council Fire Brigade Com mittee recently considered this report, an decided that, in their opinion, the appoint ment of a "Fire Adviser" was unnecessary.

Norwich Union Fire Insurance Society, Ltd.

The annual general meeting of the Norwic Union Fire Insurance Society, Ltd., was hel recently at Norwich, Sir Gerald H. Ryan, Bart in the chair. The net fire premium incom amounted to £2,115,068. Losses paid an outstanding, £1,069,107 net. The sum o £135,299 was carried to profit and loss. Th fire funds at end of 1923 amounted t £2,046,000. The accident premium incom amounted to £1,451,434, and the claims pai amounted to £793,681 and £33,688 was trans ferred to profit and loss. At the close of th account the funds of this department amounte to £1,095,000. In the marine account th premium income amounted to £345,602 which with the balance brought forward, gave a tota of £881,342. The sum of £28,213 was carrie to profit and loss in respect of the year 1922 The marine fund at the end of 1923 amounte to £572,134. The total premium income fron all departments was £3,912,105. In the profi and loss account the balance brought forwar was £156,125 and £197,201 was credited, bein the transfers from the fire, accident and marin accounts. Interest and dividends (less tax amounted to £164,918. After debiting dividen and debenture interest, income tax in respec of profits earned up to December 31, 1923 and colonial and foreign taxation, the accoun closed with a balance of £213,664. The tota assets of the Society stood at £5,497,811.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, cannot accept responsibility for contributed ies, especially on legal matters.

lay we appeal to our correspondents to mit their queries on paper of a size easily , and written as legibly as possible, or better , in typescript?—ED.

Laying-Out a Building Site.

[REPLY TO J. LANDELL NICHOLSON.]

IR,—Whether, in the district referred to, local authority is rural or urban is not ntioned in the question.

t is assumed the half street was laid out, the large villas on the 300 ft. deep sites ted to the approval of the local authority. he fact that the street in question is still rate and not taken over does not affect the nts raised by the enquirer.

Inder Sec. 157 of the Public Health Act, 5, an urban authority may make (and ally does make) by-laws with respect to els and widths of streets, the structure of lls, foundations, &c., of new buildings, suffi- ncy of air space around buildings, drainage buildings, &c.; and, by Sec. 158, when a ice plan or description of any work is uired by any by-law made by an urban hority to be laid before that authority, it ll within one month signify in writing its roval or disapproval of the intended work. s last section is in force in every urban rict, also in every rural district, that has pted Part III of the Public Health Act, 0. The disapproval of the authority is of avail, if it can be shown that a by-law has been disobeyed; though, of course, it is ilous to proceed without such approval (see v. Tynemouth R.D.C. (1896) 2 Q.B. 230). local authority must either approve or pprove. It has no option. It has been l that it has no right to enquire into the t or the title of the person proposing to ld on the land to which the plan submitted tes (see ex parte Crosby (1877) 41 J.P. 740). Thomson *v.* Failsworth (L.B. (1881) 46 21), however, where a builder whose plans local board had approved, had not sufficient l on which to comply with the by-laws to se a street, and which fact was not known he local board till after the houses had been lt, it was held that the local board should e satisfied itself before sanctioning the ns that there would be sufficient land upon ch to make the street when the houses uld be completed.

local authority can take into consideration tters brought to their notice, which show t a plan submitted cannot be carried out. R. *v.* Tynemouth Cor. (1911) (2 K.B. 361) lan submitted showed the greater part of y-out was on a meadow field, and the local hority was advised that the field must under ain restrictive covenants be kept for ever rable or pasture land, "and for no other pose." The plan was disapproved. It held that the local authority had juris- ion to refuse approval, on the ground that view of the restrictive covenant the plan ld not in fact be carried out.

n equity, a restrictive covenant relating to l will be enforced by injunction against all sons who subsequently take the land; unless obtain the legal estate therein for value ıout notice of the covenant (see Tuck *v.* hay (1848) 2 Ph. 774). Therefore, in a ding scheme the benefit of restrictive nants entered into by one purchaser of a is attached to the plots bought by the r purchasers; and they are entitled to rce the covenants, not only *inter se*, but against any sub-purchasers or (as to unsold s) against the vendor (see Birmingham rict Land Co. and Allday (1893) 1 Ch. 342.) right to enforce such covenants may be by delay or acquiescence in the defendant's ch of the covenants, or by the plaintiff or his predecessors in title causing, or permitting, such an alteration in the character of the neighbourhood, that the enforcement of the covenant would be unreasonable (see Sayers *v.* Collyer (1884) 28 Ch.D. 103; Bedford *v.* British Museum (1822) 2 My & K. 552; Sobrey *v.* Sainsbury (1913) 2 Ch. 513; and Frost *v.* King Edward VII Welsh, &c., Association (1918) 2 Ch. 180).

A rural authority, unless it be vested with the necessary urban powers, cannot regulate the line of buildings in a street. When, however, the Public Health (Building in Streets) Act, 1888, is in force (as in all urban districts, also rural districts, and contributory plans when the Act has been applied), it is illegal, without the written consent of the authority, to erect or bring forward any house or building or part of a house or building . . . in any street beyond the front main wall of the house or building on either side thereof in the same street. An approval in writing, by the council, of plans showing an infringement of the building line, suffices, even though the Council's attention was not particularly directed to the projections (see Merrett *v.* Charlton Kings U.D.C. (1903) 67 J.P. 419, and Mullis *v.* Hubbard (1903) 2 Ch. 431). An adjoining building must be looked at as a whole. A particular wing or projection cannot be regarded as the front main wall (see A. G. *v.* Edwards (1891) 1 Ch. 194). Sec. 3 of the Act applies to a house having another building only on one side of it; and, if there are buildings on both sides, the line of the least prominent one must prevail (see Leyton L.B. *v.* Causton (1893) 57 J.P. 135. and Anderson *v.* Richards (1906) 70 J.P. 231).

From the foregoing answers to the questions specifically put are as follows:—

(1) Yes. The local authority must approve or disapprove; and is not concerned with any restrictive covenants, provided the by-laws can be carried out. It is entitled to take into account all matters not shown on the plans that might prevent compliance with by-laws.

(2) In general, yes, as against the defaulting owner or owners in respect of the restrictive covenants. Reference should be made to the conveyance for particulars as to value of buildings to be erected, the number of houses on one plot, whether detached or semi-detached, the building line, &c.

(3) Against the owner of the field by one or all of the adjoining owners on the estate; and against the vendor when unsold plots.

(4) The local authority has power to approve a plan submitted showing the building line brought forward, but see above.

(5) The ruling cases, &c., are given above when necessary.

O.P.

Rubber Paving.

SIR,—I have been asked to arrange for an old wood bath-room floor to be paved with rubber squared paving, but am a little nervous lest by sealing the surface of the floor, dry rot might be set up. I propose, in order to avert the disaster, to take off the skirting, saw off the sides of the floor boards against the walls which take the ends of the joists, and bore a series of holes in the skirting when refixed to maintain a constant through draught. Do you think that such a procedure would adequately meet the case? Other alternatives would be welcomed.

"SANITARY."

Cracks in Plaster.

[REPLY TO "HOUSEHOLDER."]

SIR,—If the trouble is as suggested by your correspondent all settlement should have finished after this long interval, and it should be safe to cut out and make good the cracks. The fact that the crack is apparently confined to one wall suggests, however, that there may be another cause such as loose ends of laths, or a run of hot water pipes above the ceiling. The latter might be a very probable cause, and these pipes should be insulated before making good the cracks if they are not to recur.

"DOUBTFUL."

Iron Tank Leakage.

[REPLY TO "ARCHITECT."]

Our correspondent should have the leakage soldered up and made good, and then coat the inner surface with bitumastic paint, applying a second coat of the same when the first is dry. This has been found quite a success in similar cases. We do not mention trade names except in very exceptional cases, but our correspondent will find the names of several reliable firms within our advertisement columns.]

Domestic Hot Water Troubles.

SIR,—May I take the opportunity of thanking those of your correspondents who have sent advice upon my difficulty, and of expressing how very helpful and practical this has been?

ARCHITECT.

EXHIBITION NOTES

THE WALKER GALLERIES.

Amongst the varied shows which the Walker Galleries provide throughout the year, we count the Pastoral Exhibition one of our chief pleasures, and we have this year a collection of high quality and charm. There are drawings here which seem to reach nearly perfection of their kind, such as "The Old Barn," by Gerald Ackerman (No. 3); "The Afternoon of a Wet Day," by Eyre Walker (No. 10); "The Moonlight Twilight," by the same artist (No. 9); "Strathfield Mortimer," by Chas. Harrington (No. 24); and drawings by Murray Smith and S. Lamorna Birch. The vivid force of the land and trees against the delicate sky in "Strathfield Mortimer" has surely never been surpassed.

Some interesting Swiss sketches, by J. Hardwick Lewis and Mrs. Redman are on view; some of those by Mrs. Redman have a definite charm of colour.

THE FINE ART SOCIETY.

Out of some two dozen invitations to picture shows which lay before us this week we should least have liked to miss the Fine Art Society's. The Walcot Exhibition should be seen by every architect. If Walcot is too Walcotian for expression of modern architectural individuality, he can at least claim to be a host in himself. He shows us in No. 17 that even Charing Cross Bridge can be made to serve an artistic purpose; he shows an original and piquant point of view of the County Hall; and he gives us a shorthand note of the Arc de Triomphe, which invests it with quite a fresh interest. Wherever he goes, he makes his pictures. In New York, with his "Fifth Avenue," he is as pleasing as in views of Rome. He can be as tender and delicate as anyone, yet he is as virile as the best in his "Bernini's Fountain" (No. 19) and the "Piazza Termini" (No. 42).

THE LEICESTER GALLERIES.

Extremes meet in the Leicester Galleries. Anything more unlike than the spontaneity and refreshing colour of Frederic Whiting's paintings of country life and the laboured and saddening drawings by Paul Nash one could hardly imagine. Some of the Whiting water-colours are especially attractive, with a verve and breadth which one sees little enough of; these pictures should secure a large measure of appreciation. At the same Galleries the fine drawings and models by Elsie Henderson prove her in the first rank of living artists. The vigour and character of her modellings and the fine decorative sense which pervades them should find a ready market amongst those who know and can afford. This is a kind of work which may be highly valued by well-to-do connoisseurs, but one would like to think that this able artist was doing something for the permanent decoration of our buildings. Her fine drawings, whilst they fill their frames with a satisfaction of composition, exhibit the character of the animals with a vitality and truth which it would surely be difficult to surpass.

THE BUILDING TRADE

THE LAW RELATING TO BUILDING

By W. T. CRESWELL, Lic.R.I.B.A., F.R.San.Inst. (Barrister-at-Law).

IX.—TENDERS.

Obtaining of Tenders.

A building contract may be let direct to a contractor, without first obtaining his tender for the work, *e.g.*, in the case of jobbing works. In every such case, however, the contractor is entitled to "fair and reasonable" prices.

Lump sum contracts are the general rule, and in this case, usually, tenders are invited either in limited or open competition; the former by special invitations, and the latter by public advertisement. In either case, there is an invitation by the employer to contractors to "treat"—"an offer to receive offers"—and there is no liability thereby incurred by him in regard to any expenses to which the contractors may be put in tendering. But, on this score, there is a moral responsibility on the invitor to give precise particulars in the invitation issued. It is usual to state that the employer does not bind himself "to accept the lowest or any tender," though, legally, there is not any claim on him to state this, since, in the absence of this, there is no promise to any of those tendering that any tender will be accepted. See Spencer *v.* Harding (1870), L.R. 5 C.P. 561.

Revoking Invitation to Tender.

The invitation to tender may be revoked at any time by the employer; and, even in this event, no contractor has any claim on the employer for expenses incurred. See Harris *v.* Nickerson (1873), L.R. 8 Q.B. 286. Fraud (*e.g.*, giving special particulars to any one or more contractors so as to give them any particular advantage over others) renders the invitor liable for damages for deceit.

The Acceptance.

No tender should be accepted immediately on receipt of it, except under a condition that the contractor undertakes to sign a formal contract to be presented subsequently. Nevertheless, an obvious intention, in the written acceptance, that a formal contract will be submitted subsequently (which intention is not carried out by the presentation to the contractor of such a document), does not affect the binding nature of the tender and acceptance, if it is clear therefrom that it was the intention of the parties to enter into an agreement. See Lewis *v.* Brass (1877), 3 Q.B.D. 667. Here, the plaintiff advertised for tenders, and the defendant, a builder, sent in a tender which was accepted duly. No "formal contract" was mentioned in the advertisement; but the acceptance contained a statement that a formal contract would afterwards be prepared. The defendant, before signing such formal contract, found he had made an error in his estimate and tender, and wrote withdrawing his offer. Eventually, other builders were employed; but the resulting expense to the employer was very much in excess of the price tendered by the defendant. It was held that the contract was complete and binding on both parties; and that the defendant was liable to the plaintiff for the difference between his tender and the actual cost of completion by another.

Offer and Acceptance.

In general, to establish the existence of a contract, an offer and the acceptance of that offer, must be proved. The offer must be legal and precise, and there must be proof of communication of both offer and acceptance. Similarly, the acceptance must not be unduly delayed, and must be absolute and identical with the offer. If a time is fixed in the invitation at which the offer will be accepted if at all, communication must be within the time so prescribed.

In the absence of any special documents defining the exact terms of the contract, the Court will deduce or uphold a statement of the terms governing the contract, compiled from the terms of other documents relevant to the agreement, the customs bearing on the specific case, and the conduct of the parties.

Withdrawing the Tender or Offer.

An offer may be withdrawn at any time prior to the acceptance, even though the party giving the invitation promises to keep it open for a given time, unless the offer is under seal or made for a definite consideration. See Ramsgate Hotel Co. *v.* Montefiore (1866), L.R.I. Ex. 109; Bristol and Cardiff Co. *v.* Maggs (1890), 44 Ch. D. 616.

But the withdrawal of an offer must reach the other party before he has communicated his acceptance; and proof of having posted his acceptance prior to receipt of the withdrawal is enough, even if the letter of acceptance be lost in the post.

An offer is no less binding because it is headed "estimate." In Croshaw *v.* Pritchard (1899), 16 T.L.R. 45 the contractor wrote "Estimate—Our estimate, to carry out the sundry alterations, etc., etc., amounts to the sum of £1,230." The plaintiff accepted at once this "offer to execute for the sum of £1,230" the work in question. Subsequently, the contractor discovered an error in his calculations, withdrew his offer, and refused to complete. Another builder was engaged by the plaintiff and carried out the work, but at a higher figure. The plaintiff then sued the defendant for damages for breach of contract. In giving judgment for the plaintiff, Bigham J. said, "It had been suggested that there was some well-known understanding that a letter in this form (*i.e.*, headed "Estimate") was not to be treated as an offer. There was no such custom, and if there was, it was contrary to law."

Custom, if fully established by accredited witnesses, is usually accepted by the Court as evidence.

In Pauling *v.* Pontifex (1852), 1 W.R. 64, it was held, on appeal to the Queen's Bench, that the conduct of the parties was such that, coupled with a custom of the trade, it implied an acceptance of the lowest tender.

Tenders coupled with Special Conditions.

The tender submitted by a contractor may be either unqualified—when it is assumed that he unreservedly accepts the conditions of the contract put before him by the invitation; or it may be submitted coupled with certain reservations or conditions modifying the text or implied intention of the invitation. In the latter circumstances, it is the responsibility of the employer to carefully consider any such conditions or reservations before accepting the offer. If he accepts without questioning these modifications, it is assumed that he includes and confirms them as a part of his agreement with the contractor.

Lowest Tender.

In some cases the employer does bind himself to accept the lowest tender; but an offer from any contractor to "do the work for £200 (or any other sum) less than any other tender" is to be rejected, as not being a genuine offer; and the terms of the invitation could not be read as compelling the invitor to accept it.

In the South Hetton Coal Co. *v.* Haswell Coal Co. (1898) 1 Ch. 465, the vendor of certain coal agreed to accept the highest money tender amongst any sealed tenders received from intending purchasers. One offerer tendered to "exceed the highest offer by £200." The Court struck out his claim for "Specific Performance" against the vendor who had refused his offer as not a "net money offer."

Sureties.

A contractor may be required by the invitation to find sureties, approved by the employer, for his due execution of the work.

Acceptance of Tender by the Architect.

It is not advisable for the architect to accept any tender on behalf of his employer except on condition that the contractor subsequently signs a contract in customary form, and, if advisable, agrees therein to find sureties for his due performance of the contract. And, as previously indicated, the contractor is bound to fulfil (or relieve the damage incurred by his refusal to fulfil) any contract once it has been duly accepted, whatever may be his loss. He is responsible to exercise due care in estimating. In Seaton Brick Co. *v.* Mitchell (1900), 2 F. Ct. of Sessions 550, the defendant had tendered a price, £859, which was duly accepted. Subsequently he sought to withdraw his offer, pleading that the estimate had been made by his son, and was a miscalculation, and should have been £1,1[illegible]. He refused to fulfil his agreement, and the work was carried out by the contractor who had submitted the next lowest tender, viz. £1,085. Lord Moncrieff, in giving judgment to the plaintiff for damages for breach of contract amounting to £226 (the difference) said, "When the defendant's offer was made the architect had nothing before him to indicate that any mistake had been made on the part of the offerer. Now, I understand the law to be that a party who enters into a contract, under a mistake, must be held to it unless the mistake was induced by the other party, or was brought under the other party's notice before acceptance."

Unauthorised Acceptance.

The employer is not bound to accept a tender which has been accepted by anyone but himself or his authorised agent; nor is the contractor bound by any such unauthorised acceptance. But if, by word or act, the employer ratifies such unauthorised acceptance then both he and the contractor are bound from the date of such ratification.

Careful Consideration of Tenders before Acceptance.

Though it may have been shown that the employer or his agent may reasonably accept a tender without keen scrutiny in the case of a lump sum contract, yet very careful and skilled scrutiny is advisable when the contract in question is to be carried out on a tender schedule of prices and measurements taken *in situ*.

Because, it is possible for a contractor to submit a schedule which promises an acceptable total cost on the face of it; but, in which schedule, items likely to be in excess of the calculated quantities, are priced high and those likely to fall short of the estimated quantities are priced low; in this way the contractor seeks to gain unduly on additions and lose lightly on omissions, the employer losing both ways. Of course, this would occur, if at all, when the contractor has special knowledge. For instance, in the case of excavations through several strata of harder and softer rock; and where the co

tor had more exact local knowledge of
n strata at the site of the excavations,
n that possessed by the employer or his
nt. Such a ruse should easily be detected
a careful comparison of prices considered
relation to each other.
Where large works are in contemplation,
re is sometimes prepared a comparative
mary of schedules tendered, for the con-
ration of the employer. Not only must
total prices be compared, but the indi-
al items; and careful attention given to
special quotations in order to see that the
nded profits are reasonable and in the
rests of the employer.

Mutual Agreements amongst Contractors.

Several contractors may make mutual ar-
gements to abstain from tendering for a
sideration, or to share the work tendered
by one of their number; and such arrange-
nts have been held to be binding on the
eral individuals concerned in the arrange-
nt.
n Metcalf *v.* Bruck (1871), 25 L.T. 539.
and B agreed not to tender in competition
inst each other, so that B obtained the
tract. On the expiration of the contract
s obtained, fresh advertisements for sup-
of the same commodity were issued by
same invitor; B again tendered and his
der was rejected. A then, without inform-
B, sent in a tender. A was held liable
B by the Court for breach of their original
eement.
n Jones *v.* North (1875), 19 Eq. 426.
ders had been invited for the supply of
ne to a corporation. An arrangement was
ne to between A, B, C and D whereby it
s intended that A was to, and he did,
in the contract, he agreeing to purchase
ne from B, C and D at an agreed price;
, in their turn, agreeing not to supply
corporation with stone during the current
r. B, however, sent in a tender which
accepted; but the Court granted an in-
ction to A restraining B from supplying
e during the year agreed upon.
everal vendors of any commodity may
ee, and in agreeing bind themselves, not
ell below a fixed minimum price. This is
pted as a legal arrangement, but might
be declared void, as acting in restraint
rade, and so being against public policy.

Stamping of Agreement.

t least one of the documents governing the
ract must be stamped.
under seal, the stamp duty is ten shil-
s. and the stamping must be done at the
ip office either before execution or within
lays after.
not under seal, and the contract price is
or upwards, then the duty is 6d. (six-
ce); and it may be paid by affixing an
sive stamp, which stamp must be can-
d at the time of signing the contract and
the signature of the first party to sign.
an adhesive stamp is not used, but the
ument is stamped at the stamp office, then
stamping must be done either before
ution or within 14 days of execution.
e penalty for non-stamping is £10 in each
.

Hospital Architecture.

r Berkeley Moynihan recently gave
outline of what he considered to be
ideal modern hospital. He said there
ld be very little of forbidding-looking
dings of bricks and stones; the hospital
ld be built so that 40 years hence it
d be destroyed without much loss in order
eep pace with the advancement of medical
ice. During the war, patients in tents did
h better than those in buildings. If new
itals were to be built the question would
to be seriously considered as to whether
as really worth while putting so much money
rather heavily shaped buildings of bricks,
e and mortar.

PRICES OF BRICKS

OFFICIAL REPORT

THE fourth interim report of the Inter-Departmental Committee appointed to survey the prices of building materials, was issued recently (Cmd. 2,153, price 6d. net). The terms of reference were:—

To survey the prices of building materials and to receive and consider complaints in respect thereof, and to report from time to time to the Minister of Health and the President of the Board of Trade as to the facts, and in particular as to the extent to which in any case the price appears to be unduly high by reason of the operation of any trade combination, trust or agreement.

We take the following extracts from the Report:—

Since the appointment of the Committee in April, 1923, up to the early part of this year, the price of bricks generally remained fairly steady, although there were, of course, some local fluctuations, and with the exception of the London area, to which reference was made in the Committee's Third Interim Report, no great difficulty as a rule was experienced in obtaining adequate supplies for building purposes.

In the early part of this year the demand for bricks increased considerably, and it has since continued to expand, with the result that in many areas, notwithstanding an increased production, the available supply of bricks has proved inadequate to meet requirements and numerous instances have been reported where house building has been delayed through inability to obtain adequate deliveries.

In the Chairman's report on the prices of building materials during the month of February of this year, increase in the price of bricks were shown in five of the centres selected by the Committee. Further increases were indicated in the subsequent monthly reports, and the following tabular statement shows the various advances in brick prices reported to the Committee between January and May of this year:—

District.	Description.	Price per 1,000. Jan.	Feb.	March.	April.	May.
Willesden ..	Common—Fletton	59/3 ..	59/3 ..	61/3 ..	61/3 ..	61/3
	Facing—Picked stock ..	97/– ..	97/– ..	99/– ..	99/– ..	106/–
Birmingham ..	Common—Local common ..	55/– ..	55/– ..	55/– ..	55/– ..	60/–
	Facing—Sandfaced	110/– ..	110/– ..	110 – ..	110 – ..	115 –
Bristol	Common—Local	60/– ..	62/6 ..	62/6 ..	62/6 ..	62/6
	Facing—Selected common ..	65/– ..	67/6 ..	67/6 ..	67/6 ..	67/6
Leeds	Common—Local common ..	45/– ..	45/– ..	50/– ..	50/– ..	50/–
	Facing—Local common selected at yard	55/– ..	55/– ..	60/– ..	60/– ..	60/–
Leicester ..	Common—Fletton	56/– ..	56/– ..	56/– ..	56/– ..	56/–
	,, Sileby	57/6 ..	57/6 ..	57/6 ..	57/6 ..	57/6
Manchester ..	Common—Wire cut	55/– ..	56/– ..	56/– ..	58/– ..	59/–
	Facing—Local red semi-plastic	73/6 ..	74/– ..	74/– ..	74/– ..	75/–
Newcastle-on-Tyne	Common—Local common ..	55/– ..	58/– ..	58/– ..	58/– ..	59/–
	Facing—First quality pressed	104/– ..	104/– ..	104/– ..	104/– ..	104/–
Swansea.. ..	Common—Local	59/– ..	64/– ..	64/– ..	67/6 ..	70/–
	Facing—Local common picked	68/– ..	70/– ..	70/– ..	75/– ..	77/6
Hampshire ..	Common—Red bricks from approved kiln	80/– ..	80/– ..	80/– ..	80/– ..	80/–
	Facing—Picked stock ..	100/– ..	100/– ..	100/– ..	100/– ..	100/–
Dundee	Common—3½-in. composition	58/4 ..	58/4 ..	58/4 ..	64/4 ..	64/4
	Facing—Local selected ..	80/– ..	80/– ..	80/– ..	80/– ..	80/–
Edinburgh ..	Common—3½-in. composition	55/– ..	55/– ..	55/– ..	55/– ..	55/–
	Facing—Local selected ..	68/– ..	68/– ..	68/– ..	68/– ..	68/–
Glasgow ..	Common—3½-in. composition	44/6 ..	47/6 ..	47/6 ..	47/6 ..	47/6
	Facing—3½-in.	110/– ..	110/– ..	110/– ..	110/– ..	110/–

Apart from the 12 centres included in the monthly schedules of prices, which we selected as being representative as far as practicable of our general conditions, we have had brought to our notice many other instances of increases of varying amounts in brick prices in areas not actually covered by the schedules, and it would seem to be clearly established that throughout the country generally the price of bricks has risen considerably.

The prices recorded in the schedules relate to those normally fixed by the manufacturers individually or in associations. It does not, however, follow necessarily either that the price at which bricks may be obtained will be the recorded normal price or that bricks will be obtained in sufficient quantities, or indeed at all.

It has been represented to us that for actual or adequate deliveries additional increases to those recorded are charged and obtained. Such increased charges vary in circumstances and amount, but there would seem to be good reason to think that the general prices which have to be paid in order to obtain bricks are at present often in excess of those which we have recorded, and therefore that the actual increase is greater than would appear from the figures which have been given above.

We initiated preliminary inquiries when the upward trend of prices first became apparent, and such information as was immediately available attributed the increase mainly to an advance in the price of fuel or to the depressed condition of the industry during the previous year when, it was stated, it had been necessary to dispose of surplus stocks at unremunerative prices. In other cases local advances in wages were said to have been conceded.

There is evidence that in some districts there has been an advance in the price of fuel and it may well be that some local wage increases have been granted, though we understand that no settlement has so far been effected generally in the clay industry. By further inquiries we could no doubt have obtained from the manufacturers the actual increase in cost per ton of fuel and in the rate of wages, but an inquiry which was limited in its scope solely to these particular items in the total that go to make up the cost of production would clearly be inadequate, and having regard to the general situation and to the indications that there had been an appreciable increase in production, which should have a material effect on overhead charges, we thought it necessary as a first step towards a satisfactory investigation that we should endeavour to obtain further and more detailed information as to output, production costs, and profits at the present time as compared with the previous year.

For this purpose we addressed inquiries to certain of the local associations and manufacturers in the areas where increases in price had occurred, but up to the present we have not obtained any satisfactory information, and we

therefore are not in a position to report with any degree of reliability as to the true facts of the situation, and as to the justification or otherwise of present prices. Some manufacturers have stated that it is impossible for them to furnish all the detailed particulars for which we have asked; others have proved unwilling to give information, and from others we are still awaiting replies. We have reluctantly formed the opinion, judging by the response so far made to us, that our further investigations on the present basis will not be productive of any tangible results.

At our first meeting it was intimated to us by the Minister of Health, the Right Hon. Neville Chamberlain, that he hoped that the object he had in view in setting up the Committee would be achieved by publicity, but if this were found not to be the case he was fully prepared to go to Parliament and ask for powers,and we undertook that we would at once notify him if such a situation arose. Our function is at present limited to reporting on the basis of such information as may voluntarily be submitted to us, and as a result of our experience we feel bound to report that we find ourselves inadequately equipped to ascertain the facts in regard to the reasonableness of prices.

The Report is signed as follows:—

A. V. ALEXANDER (Deputy Chairman), THEODORE CHAMBERS, CHARLES T. RUTHEN, G. S. BAILEY, R. COPPOCK, STEPHEN EASTEN, GEORGE HICKS, J. STANLEY HOLMES, W. T. LANCASHIRE, CECIL B. LEVITA, D. RONALD, J. WALKER SMITH.

Mr. A. V. Alexander, in the course of a letter, adds the following to the Report:—"The Committee's Fourth Interim Report is concerned with the position in regard to bricks and it is not necessary for me to draw attention to the matter here. It will be seen that there has been a further fall in the price of lead ranging, according to the various districts, from £2 to £5 10s. a ton. Otherwise there have been no fluctuations of general application to which attention need be drawn."

Tables are given showing the market prices of building materials in London, Birmingham, Bristol, Leeds, Leicester, Manchester, Newcastle-on-Tyne, Swansea, Hampshire, Dundee, Edinburgh, and Glasgow.

THE NEW HOUSING PROPOSALS

MR. WHEATLEY, Minister of Health, in moving in the House of Commons on Tuesday the financial resolution which is to form the basis of the Government's Housing Bill, said that the Housing Act of last year had been a complete failure in producing houses to be let at a weekly rental. He had sought to deal with the building industry in a spirit of goodwill and not of force, and his new proposals were not Socialistic, but an attempt, in the interests of humanity, to patch up a battered capitalist order of society. In order to get the essential labour for the erection of houses, it was necessary to stabilise the building industry by the adoption of a long-term programme. He had told both employers and men that, if they were prepared to accept a fifteen years' programme on condition that they delivered a certain number of houses every year, he was prepared to consider entering into such an arrangement, and ultimately an agreement was made on that basis. That scheme would work automatically, so far as the building industry was concerned. It would be examined at the end of three years, and if the average of houses agreed on by the State and the industry was not being maintained, then the agreement would automatically terminate. If the output of houses was maintained, the agreement automatically proceeded for a further period, when stock would again be taken. If the increased number of houses was being maintained, the scheme would go on for a further period, and so on for fifteen years, when they should have produced 2,500,000 houses. The houses to be produced were those of the subsidy type, and were additional and not alternative to those of the larger type that were being produced outside the subsidy limits. The builders said they must have some protection against higher costs of building materials. He accordingly interviewed the manufacturers and merchants of building materials and the Associated Brick Manufacturers made what he thought was a very generous offer. They said they were prepared to take the price ruling at January, 1924, as the basis of prices for future building under his housing scheme. He did not think the nation could get a more generous offer. The Bill would deal with this matter and would provide that, unless it could be proved that any increase over these prices were fully justified, the charging of such increase would be regarded as a serious offence.

Referring again to the long-term building programme, Mr. Wheatley said it had been objected to on the ground that no other industry was given any such protection, but the building industry was quite separate and distinct from any other. The Government were not preparing to sanction more houses than they would otherwise sanction; they were merely ordering ahead. If they wanted to get houses, they must stabilise the industry in the interests of all concerned.

It was proposed to set up three committees, one composed of builders and operatives, another of manufacturers and merchants of building materials, and the third was to be a prices survey committee. These three committees would be interlocked by three representatives of each sitting as a sort of supercommittee, a national building committee, set up by the Ministry of Health. The object of these committees was to see that the new housing scheme was successfully carried out. They would operate in seeing that there was a sufficient supply of labour and materials available. There would be a central committee, and for the builders and operatives there would be local committees to assist and advise local authorities. Assuming that Manchester wanted to build 5,000 houses, it would be the business of these committees to advise Manchester as to the available labour and materials in the neighbourhood, and how far it could be augmented so as to balance orders for building with the supply of material and labour. One of the great defects of the Addison scheme was that there was no attempt at all at balancing supply and demand, and the fundamental object of the present scheme was to relate supply and demand and to build houses where most labour and material was available.

The subsidy to local authorities was to be £9 a year per house for forty years, and, in defined agricultural areas, £12 10s. The amount of the subsidy was to be revised every three years. The rents to be charged for the houses were to be as nearly as possible those prevailing now in the areas for working-class houses erected before the war. The annual expenditure would be thirty-four million pounds for the State and local authorities combined. That was only one per cent. of our national income and was only equal to ten per cent. of the national drink bill. But there was much to be put on the credit side. The scheme was one under which they could visualise the building industry growing stronger and stronger every year and our people being taken from the shadow of the slums.

In the debate which followed, the scheme was severely criticised by Sir W. Joynson-Hicks, who said that the Minister proposed to suspend the laws of supply and demand. The capital subsidy proposed under the 1923 Act was only £75 a house, but the present value of the subsidy now proposed was about £240 per house. The burden of the proposed subsidy would amount sooner or later to something like fourteen-hundred million pounds, and the total cost of the scheme to the country would be two thousand, five hundred millions sterling, or, roughly, about one-third of our national debt. The Minister contemplated a too lavish use of subsidies. Houses could not be built without labour and the Minister shirked that issue.

LIABILITY FOR INJURI AFFECTION OF PROPE

SITTING at the Auctioneers' and Agents' Institute, Mr. J. Seagram R son, as umpire, heard claims by M Coish and Mr. S. T. Smurthwaite fo and £1,000 respectively, as damages jurious affection of Nos. 44 and 46. G Green-crescent, alleged to be due to th struction by the London Electric R Company of a viaduct and bridge in fr those houses.

Mr. A. Boraston was counsel for the ants, while the Hon. R. Stafford represented the Railway Company.

In opening, Mr. Boraston said the r bridge was finished in 1923, and consid diminished the amount of sunlight i front rooms, and obstructed the view created loss of privacy, amenities, and advantages.

Mr. Crump said the value of No. 44 the construction of the bridge was £2,(£2,100; now he put the value at £1,200. 46 was worth £4,000 before, and £2,7 £2,500 at present values. The test for tion in his presence gave negative resu

On behalf of the railway company Hon. R. S. Cripps said his case was th legal claim could be set up under any four items for which damage was cla namely, loss of light, loss of privacy, lo amenities, and damage by vibration. Re ing the first item, there were no an lights, and clearly no right of the claiman that respect had been interfered with. regard to compensation where no land taken, and injurious affection arose, the ciples of legal claim set out in "Cripps Lord Parmoor) on Compensation" limited to loss or damage which must r from the acts caused by the exercis statutory powers; damage or less w would have been actionable but for statutory powers; damage occasioned by construction of the authorised works; o jury to lands, and not personal or that ca to trade. None of the losses set up by claimants were actionable; there was no of ancient lights; the claimants had no v right to privacy as people could build oppo and no action could lie for loss of ameni There had been no evidence of what the had been, and the claim for vibration knocked out altogether. If the umpire sidered that compensation should be awa on either of the heads of claim, he Cripps) would ask him to state a case fo opinion of the High Court.

The Umpire: Certainly.

The Hon. R. S. Cripps said he should evidence with the reservation that in opinion of the law the umpire could award any damage at all. He admitted t were hard cases, but as the railway compa were dealing with public money they bound to take up the attitude that there no legal claim.

The umpire reserved his award which take the form of a special case for the opi of the High Court.

LONDON MASTER BUILDERS' SPO ASSOCIATION.

Football Section, 1923—1924.

FINAL TABLE.

	P.	W.	L.	D.	Goals F.	Goals A.
Perrycobow	14	11	1	2	50	14
Trocoll	14	8	4	2	67	17
Holloway	14	8	5	1	18	11
Minter	14	7	5	2	43	25
Holancube	14	6	3	5	32	17
Whitehead	14	5	7	2	31	76
Higgs	14	4	8	2	25	44
Vigor	14	1	10	3	20	52
Higadillo	12	3	8	1	19	58

THE RENT ACT

SEPARATE DWELLING APPORTIONMENT

have from time to time drawn attention es illustrating the difficulty of interpret- ne Rent Acts where part of a house is a separate dwelling, and a recent de- of the Court of Appeal in the case v. Begley (1923, 2 K.B. 694) has done hing to explain the law on this point. acts of the case are shortly as follows: arch, 1921, two ladies had taken a large in Leamington on lease for five years rental of £100 a year, they agreeing to ates and taxes and do internal repair. g the war this house had been occupied e Air Force, and it had been left in te of dilapidation. The rateable value e premises in August, 1914, was £60 and £48 net.

June, 1921, the ladies, defendants in ction, had agreed to let four rooms on round floor to the plaintiff, a solicitor, the right to use other parts of the pre- such as the hall, basement, kitchen, in common with the landlords and other ts. The rent for this was £80 per n, the defendants paying rates and and keeping the main walls in repair. ructural alterations appear to have been

June, 1922, the plaintiff applied for an ionment of the rent, and the County Judge fixed the proportion of the rd rent of the plaintiff's portion of the and accommodation at £60 a year, and as affirmed on appeal to a Divisional

County Court Judge had said that if been left free by the decided cases to he would have held that the rooms in n were a dwelling house under the themselves, and with a standard rent amount of the rent agreed to for them they were first let in June, 1921, but e was constrained to hold as he had y the cases Woodward *v.* Samuels (*The* . February 27, 1920) and Sinclair *v.* (1922, 1 K.B. 393; *The Builder*, 28, 1922).

question as to whether rooms separately n part of the original house, with the the original house to be apportioned, or r they are separate dwelling houses standard rent of their own, has caused y ever since the initiation of Rent tion, and it will be necessary, first, ate the sections of the Act that are rela- this question, then to refer to the de- ases, and finally to show how the Court eal, in dealing with this case, has to xtent cleared up the matter.

on 12, subsection (1) (*a*) defines the d rent as the rent at which a dwelling was let on August 3, 1914, or where elling house was not let at that date t at which it was last let before that r " in the case of a dwelling house was first let after that date the rent h it was first let." Subsection (2) s that the Act shall apply to a house, of a house, let as a separate dwelling eference to certain rents or rateable " and every such house or part of a hall be deemed to be a dwelling house h this Act applies."

tionment of the rent of a dwelling s dealt with in subsection (3). Sub- (8) provides that " any rooms in a house subject to a separate letting or partly as a dwelling shall, for the s of this Act, be treated as a part of ng house let as a separate dwelling." ction (9) provides that the Act shall ly to a dwelling house erected, or in of erection, on April 2, 1919, or to elling house which has been since te or was at that date being bona- onstructed by way of conversion into more separate and self-contained flats nents.

ward *v.* Samuels has always been as a case where the structural altera- tions had not been such as to cause the house to have lost its identity, the test laid down in Sinclair *v.* Powell (*ubi sup*) and applied in Marchbank *v.* Campbell (1923, 1 K.B. 245; *The Builder*, December 8, 1922). Sinclair *v.* Powell was decided apart from subsection (9) as the house had been converted before the Act of 1920 came into force, and in Darell *v.* Whitaker (*The Builder*, May 18, 1923) it was first pointed out by one of the Judges in a Divisional Court that the construction put upon the Act in the case of Sinclair *v.* Powell seemed to make subsection (9) unnecessary. The answer to this point, however, seems to us to be that a house converted into two or more separate and self-contained flats under section 12, subsection (9) is taken altogether out of the Act, whereas houses let as separate dwellings need not necessarily be separate and self-contained flats, but may also be dwelling houses not part of the original house but having a separate identity with a standard rent of their own. The decision now delivered by the Court of Appeal in Sutton *v.* Begley is of assistance in explaining some of the above questions. There was no question in this case of subsection (9) as the appellants relied upon subsection (8), the argument being that as these rooms were subject to a separate letting, wholly or in part as a dwelling house, they were to be treated as let as a separate dwelling with a standard rent, the rent at which they were first let.

The decision of the Court of Appeal appears to clear up some of the above points, and we understand the decision to be as follows: Where a house is let in separate portions but with no structural alterations, the rent must be apportioned (Woodward *v.* Samuels), but where structural alterations have been made so that the house has lost its identity then the portions let off may have a standard rent of their own (Sinclair *v.* Powell; Marchbank *v.* Campbell). Besides these two cases there is the case where under subsection (9) the house since 1919 has been converted into two or more separate and self-contained flats. Under this latter subsection we may remind our readers there is now also another consideration which has to be taken account of in regard to such flats, which is are they separate and self-contained? See Smith *v.* Prime, *The Builder*, May 25, 1923; Darrell *v.* Whitaker, *The Builder*, May 18, 1923.

The law under the cases is thus made clear, but there remains some difficulty in understanding the Statute and especially subsection (8) as interpreted with the other subsections referred to above. As we understand the judgment, the application of this subsection (8) is to rooms in a dwelling house subject to a separate letting, but where no reconstruction has been undertaken, the house as a whole retaining its identity, and they are treated as a separate dwelling only for the purpose of apportioning the standard rent of the whole house amongst the parts so let. In the case under consideration, there having been no such structural alteration as to alter the identity of the house, it was held the rent must be apportioned, and to this extent the rooms were held to be part of a dwelling house let as a separate dwelling with an apportioned standard rent.

We hope this matter is now clear, but it certainly is to be regretted that the Legislature in the various subsections used such very ambiguous expressions.

Garden Village in Kent.

It is proposed to start shortly with the building of the first instalment of 176 houses at what will ultimately be a new garden village at Kemsley, near Sittingbourne, Kent. The layout provides for 750 houses to accommodate a population of 3,500 people.

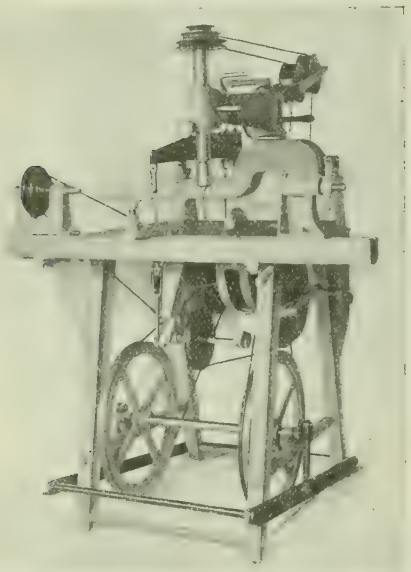
COMPARISON OF PRICES OF BUILDING MATERIALS BETWEEN AUGUST 4, 1914, AND JUNE 1, 1924

Material.	Aug. 4, 1914. £ s. d.	Nov. 11, 1918. £ s. d.	May 1, 1924. £ s. d.	June 1, 1924. £ s. d.	Rise or Fall during Month. (Per cent.)
Bricks—					
Best Stocks	1 16 6	3 3 6	4 3 6	4 3 6	—
Flettons	1 14 0	2 7 8	2 13 3	2 13 3	—
Glazed	13 0 0	17 17 6	22 0 0	22 0 0	—
Thames Ballast	5 9	17 0	10 6	10 6	—
Thames Sand	7 3	17 0	15 6	15 6	—
Shingle (¾ in.)	—	15 0	14 0	14 0	—
Portland Cement	1 17 0	3 8 0	2 18 0	2 18 0	—
Ground Blue Lias Lime	1 0 0	2 2 6	2 4 6	2 4 6	—
Grey Stone Lime	1 8 0	2 7 0	2 11 9	2 11 9	—
Bath Stone	1 7½	1 7	2 9½	2 9½	—
Portland Stone	2 4½	2 10½	4 4	4 4	—
Good Sound Building Timber—					
4 in. × 11 in.	16 10 0	53 0 0	34 0 0	34 0 0	—
3 in. × 7 in.	13 0 0	46 0 0	25 10 0	25 10 0	—
3 in. × 11 in.	15 0 0	50 0 0	31 0 0	30 0 0	—3.23
2 in. × 11 in.	—	51 0 0	32 0 0	30 0 0	—6.25
2 in. × 7 in.	—	46 0 0	25 0 0	24 0 0	—4.00
3 in. × 4 in.	—	—	25 0 0	24 10 0	—2.00
Slates—					
24 in. × 12 in.	—	—	37 12 6	37 12 6	—
22 in. × 12 in.	—	—	34 0 0	34 0 0	—
20 in. × 10 in.	—	—	25 12 6	25 12 6	—
16 in. × 10 in.	—	—	17 12 6	17 12 6	—
16 in. × 8 in.	—	—	13 15 0	13 15 0	—
R.S. Joists	9 10 0	—	13 10 0	13 10 0	—
Iron—					
Common Bars	9 0 0	16 10 0	13 10 0	13 10 0	—
Mild Steel Bars	9 5 0	21 0 0	12 10 0	12 10 0	—
Steel Bars	9 5 0	19 10 0	13 0 0	13 0 0	—
Cut Nails	11 10 0	20 0 0	20 10 0	20 10 0	—
Sheet Lead	22 15 0	40 0 0	42 10 0	41 0 0	—2.38
Glass—					
15 oz. Sheet	2	7	3½	3½	—
21 oz. „	3	8	5¼	5¼	—
26 oz. „	3½	9	6	6	—
Raw Linseed Oil	2 4	8 4	3 9	3 9	—
Turpentine	2 6	11 0	6 5	6 2	—3.89
Ground English White Lead	30 5 0	60 10 0	57 10 0	55 0 0	—4.35
White Lead Paint	—	83 10 0	80 15 0	78 5 0	—3.10
Red Lead	28 10 0	47 0 0	54 10 0	52 0 0	—4.59

NEW INVENTION

THE accompanying photograph shows the Wheeler "4 in 1" quick-change Combination Woodworker, which has been put on the market by the Wheeler Manufacturing Co., Ltd., Trench Crossing, near Wellington, Salop. This treadle-driven machine, combining on one frame a circular saw, lathe, fret or jig saw and boring machine, is specially designed for cabinet makers, carpenters, joiners, &c. Being driven by treadle motion it is always ready for use. An important feature is the small amount of floor space the whole combination of four machines requires. The illustration shows the machine with the lathe ready for use; this lathe will swing 10 in. diameter, and will take 31 in. in length between centres; by easing two locking handles the lathe can be swung bodily out of the way underneath the machine table, and locked in that position.

The circular saw is 10 in. in diameter, and has a quick and effective rise and fall motion so that the saw can be arranged at any height required above the table, and can be completely lowered safely below the top of the table when not in use. It will deal with planking up to 3 in. thick and practically any length, as there is a clear way through the back of the machine. Tongueing, grooving and rebating can also be done with the saw, and it



is fitted with machined fences for ripping and cross-cutting. The ripping fence is arranged to work either side of the saw, so that the edges of exceptionally wide boards can be trimmed.

When set up with boring machine and the fret or jig saw ready for use, either of these machines can be moved out of the way of each other, but the boring machine is often used in connection with the saw for putting the starting holes through for internal frets. The boring machine has a rise and fall motion of 8 in., in any position of which it can be locked, a necessary feature when it is used for routing and moulding. The spindle revolves in a quill, and the end is fitted with a chuck for holding the boring or routing bits; with suitable bits it will drill ordinary holes up to ½ in. or more. Cores of mortise holes can be got out, and with suitable cutters routing or recessing can be accomplished. An attachment for carrying small moulding cutters when used for a suitable fence enables moulds to be readily struck upon furniture, &c. By easing two locking handles the whole apparatus can be turned on one side out of the way if necessary.

The fret saw takes 8 in. saw blades, and the top arm can be lifted up out of the way when required. It will do all classes of internal or external scroll or fret sawing, and will cut up to 2 in. thick and to the centre of a circle 4 ft. diameter.

RATES OF WAGES IN THE BUILDING TRAD

The following are the rates of wages in the building trade in England and Wales. E endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur

	Masons.	Brick-layers.	C'p'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Val.)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 929).

CONTRACTS, COMPETITIONS, &c.

ome contracts still open, but not included in this List, see previous issues. Those with an asterisk vertised in this number. Certain conditions beyond those given in the following information posed in some cases, such as that advertisers do not bind themselves to accept the lowest or any ; that a fair wages clause shall be observed ; that no allowance will be made for tenders ; and posits are returned on receipt of a bona-fide tender unless stated to the contrary.

date given at the commencement of each paragraph is the latest date when the tender, or the name willing to submit tenders, may be sent in ; the name and address at the end is the person from whom where quantities, forms of tender, &c., may be obtained.

UILDING AND PAINTING.

7.— **Alnwick.** — HOUSES. — Erection of es in one or more pairs, for the Alnwick Mr. G. Reavell, architect, Lloyds Bank rs, Alnwick.

7.—**Bridgend.**—ALTERATIONS.—For additions Masonic Buildings, Adair-street, Bridgend, for nore Lodge Freemasons. Mr. O. D. Davies, t, 18, King's-terrace, Nantyffyllon, near d.

7.—**Durham.**—HOUSES.—For the erection of es in Wenlock-road, Tyne Dock, for the Pro- Durham County Public Utility Society, Ltd. phen Wilkinson, architect, L. & N.E. Railway rea), Irving House, Westgate-road, Newcastle- yne.

7.—**Lochgelly.**—HOUSES.—For reconstruction nitary area property, for the T.C. Mr. Robert Town Clerk, Lochgelly. Deposit £1 1s.

7.—**Swaffham.**—CHAPEL.—For erection of a in the Cemetery at Hilborough-road, Swaffham, Burial Board. Mr. O. W. Parry, surveyor, Hall, Swaffham.

9.—**Aberdeen.**—EXTENSIONS.—For extensions seat Mental Hospital, for the City District of Control. Messrs. Gall & Hay, architects, nion-street, Aberdeen.

9.—**Barnsley.**—HOUSE.—For the erection of a d house, Huddersfield-road, Barnsley. Apply A. Hinchliffe, 14, Regent-street, Barnsley.

9.—**Barnsley.**—HOUSES.—For the erection of tached houses, Huddersfield-road. Apply Mr. aigh, 2, St. Mary's-place, Barnsley.

9.—**Edinburgh.**—PAINTING.—For painting of streets lamp columns, for the T.C. Engineer, place, Edinburgh.

9.—**Guildford.**—REPAIRS.—For repairs and g at elementary schools for the T.C. Mr. W. G. Borough Surveyor, Guildford.

9.—**Jacobstowe.**—RECTORY.—For the erection ctory at Jacobstowe, North Cornwall. Messrs. Lees & Roservear, architects, Launceston.

9.—**Lanarkshire.**— PLASTERING, &C. — For work of 50 houses at Caldercrux and plumber f 100 houses at Torbohie. for the Lanark C.C. C. Smith, Housing Department, District Offices, on.

9.—**Liverpool.**—PAINTING.—For painting at fey Hospital, Brownlow-hill Infirmary, Cottage Fazakerley, Deysbrook House, and Kirkdale Westminster-road, for the West Derby B.G. Department, Belmont-grove, Anfield, Liverpool.

9.—**Liverpool.**—REPAIRS.—For reconstructing y stacks, roofs, &c., at Smithdown-road Institu- or the West Derby B.G. Works Department, t-road, Annfield, Liverpool.

9.—**Pen-Llwyn.**—HOUSE, &C.—For erection e, repairs to existing buildings, &c., at Pen- landewifach, for the Radnorshire Small Holdings ttee. Mr. R. Wellings Thomas, architect, ndod Wells.

9.—**Ushinish.**—ROOFS.—Renewal and repair s at Ushinish Lighthouse, South Uist, and at ness Lighthouse, near Tain, for the Com- ers of Northern Lighthouses. Engineer, 84, street, Edinburgh.

10.—**Bentley.**—EXTENSION.—For extension of Offices for the U.D.C. Mr. P. C. Woodall, or, Bentley. Deposit £1 1s.

10.—**Buckie.**—SCHOOL.—For the erection igh school at Buckie, for the Banff County ion Authority. Architect, Banff County

10.—**Bucklow.**—NURSES HOME.—For the n of a nurses' home at the Institution, Knuts- or the B.G. Mr. W. Kennedy, Lic.R.I.B.A., Peter's-square, Manchester. Deposit £2 2s.

10.—**Cardiganshire (South).**—VARIOUS.—For g out works in the south division schools of the nshire E.C. Mr. R. Jones, architect, Llan-

10.—**Chesterfield.**—HOUSES.—For the erection ouses, Type A 3 and B 3, on the Highfield Hall for the T.C. Mr. W. M. Ashmore, architect, ld-road, Chesterfield. Deposit £1 1s.

10.—**Dublin.**—PAINTING.—For painting the l of the B.G. Mr. J. B. Comben, Clerk, 1, St. -street, Dublin.

10.—**Foynes.**—STATION BUILDINGS.—For ion of Foynes Station buildings, for the Great n and Western Railway Co. Chief Engineer, e, Dublin. Deposit £1 1s.

10.—**Guthram.**—HOUSES.—For the erection of ses on the Drainage Farm at Guthram, Bourne. R. Andrews, Clerk, Bourne.

10.—**Ilford.**—EXTENSION.—For the addition t floor at the electricity works, for the U.D.C. Shaw, Surveyor, Town Hall, Ilford. Deposit £2.

10.—**Ilford.**—SHOWROOM.—For the addition owroom and workshops at electricity sub- at Goodmayes, for the U.D.C. Mr. H. Shaw, r, Ilford. Deposit £2.

10.— **Walthamstow.** — RENOVATION WORKS. works of interior and exterior renovation in and distempering, &c., as follows:—Winns- Schools, interior and exterior; Queen's-road exterior; Blackhorse-road Schools, exterior; Selwyn-avenue (Junior Department only), interior ; St. Saviour's Boys' School, interior ; Offices, High-street, exterior. Mr. H. Prosser, M.S.A., Education Committee Offices, 263, High-street, Walthamstow, E.17.

JUNE 11.—**Barnet.**—TIMBER AND ASBESTOS BUILDING.—Provision and erection of a timber-framed asbestos-lined building on brick foundations, intended to be used as an office for the Barnet Rural District Council. Mr. A. J. Wiltshire, Engineer and Surveyor to the Council, Council Offices, Boreham Wood.

JUNE 11.—**Bexley.**—SUB-STATION.—For erection of sub-station building at Bexley Heath, for the U.D.C. Mr. J. F. B. Cowper, 5, King's Bench-walk, Temple, E.C. Deposit, £2 2s.

JUNE 11.—**Birmingham.**—WALLS.—For the construction of concrete retaining walls and brick parapet walls to hte bridge approaches, Bristol-road, over the River Rea and London, Midland and Scottish Railway at Longbridge, for the T.C. Mr. Herbert H. Humphries, City Engineer, Council House, Birmingham. Deposit £2.

✱JUNE 11.—**Bournemouth.**—CHURCH HALL.—Erection of proposed church hall, Christchurch, Hants, for the Parochial Church Council. Mr. W. J. Dacombe, Architect and surveyor, Lloyds Bank Chambers, Boscombe, Bournemouth.

JUNE 11.—**Glasgow.**—EMPLOYMENT EXCHANGE.—For the erection of an employment exchange at Bridgeton, for H.M. Commissioners of Works. Architect, H.M. Office of Works, Edinburgh. Deposit £1 1s.

JUNE 11.—**Honley.**—FENCE.—For erection of burr and fence walls, &c., for the U.D.C. Mr. H. R. Royston, Surveyor, Council Offices, Honley.

JUNE 11.—**Leyton.**—HOUSE, &C.—Erection of Relief Office at Officers' Residence, for the West Ham B.G. Mr. W. M. Knight, architect, Bushwood, Leytonstone. Deposit £2.

JUNE 11.—**Liverpool.**—TENEMENTS.—For the erection of 12 tenement dwellings at Burnet-street, for the T.C. Housing Officer, Municipal Buildings, Dale-street, Liverpool. Deposit £2 2s.

JUNE 11.—**Pontardawe.**—HOUSES.—For erection of 12 houses at Alltwen site, for R.D.C. Mr. E. D. Jones, Council Offices, Pontardawe. Deposit £2.

JUNE 11.—**Romsley.**—COTTAGE.—For the erection of a police cottage for the Worcester C.C. Mr. A. V. Rowe, County Architect, Worcester.

JUNE 11.—**Sheffield.**—ADDITIONS.—For additions to Attercliffe Employment Exchange, for H.M. Commissioners of Works, Contracts Branch, H.M. Office of Works, King Charles-street, S.W. Deposit £1 1s.

✱JUNE 11.—**Wembley, Middlesex.**—HOUSES.—Erection of 50 non-parlour houses in extension of their Christchurch Estate, Ealing-road, Wembley, for the Wembley Urban District Council. Mr. Cecil R. W. Chapman, Engineer and Surveyor, Council Offices, Wembley, Middlesex. Deposit £2 2s.

JUNE 11.—**West Bromwich.**—BUILDER'S WORK.—For excavating and builder's work at Halum House, for the B.G. Messrs. Edwards & Shaw, Consulting Engineers, 105, Colemore-row, Birmingham. Deposit £5 5s.

JUNE 12.—**Bootle.**—PAINTING.—For painting at various schools, for the T.C. Borough Engineer, Town Hall, Bootle.

JUNE 12.— **Colchester.**—ALTERATIONS, &C.—For painting, distempering, alterations and additions to lavatory accommodation at various Council schools, for the T.C. Messrs. Goodey & Cressell, architects, St. Peter's Chas., Colchester.

JUNE 12.—**Enniskillen.**—PAINTING, &C.— External painting of the Town Hall buildings, erection of two iron fences, and repairs and painting to four houses in Fairview, for the U.D.C. Mr. Jas. Donnelly, Borough Surveyor, Enniskillen.

JUNE 12.—**Lichfield.**—PAINTING, &C.—(1) Erection of public conveniences in Chase Town ; and (2) painting of Council houses, for the R.D.C. Surveyor, Rural Council House, Lichfield.

JUNE 12.—**Salford.**—PAINTING.—For painting works at the cottage homes, Culcheth, near Leigh, for the B.G. Mr. E. H. Inchley, Clerk, Poor Law Offices, Eccles New-road, Salford.

JUNE 12.—**West Molesey, Surrey.**—BRICK BUILDINGS.—Erection of two brick buildings at West Molesey, Surrey, including the following trades :—Bricklayer, carpenter and joiner, pavior, mason, slater, plasterer, plumber, glazier and painter, sanitary and sundry works. Messrs. Christiani & Neilson, 72–74, Victoria-street, S.W.1. Deposit £1 1s.

JUNE 13.—**Aylesford.**—HOUSES.—Erection of 25 houses for the Industrial Settlement (Incorporated) at Preston Hall, Aylesford, near Maidstone. Messrs. Collcutt & Hamp, architects, 126, Wigmore-street, London, W.1. Deposit £1 1s.

✱JUNE 13.—**Bexley Heath.**—ADDITIONS.—Additions to the Forester's Homes, Bexley Heath, Kent. J. Wrightson (Bateson, A.R.I.B.A., architect, 46, Bedford-row, W.C.1.

JUNE 13.—**Bradford.**—PAINTING.—For painting at V.D. Clinic and Pre-School Clinic, for the T.C. City Architect, Bradford.

JUNE 13.—**Colchester.**—PAINTING, &C.—For painting and other works at Myland School and Kendal-road non-provident school, for the T.C. Mr. D. W. Clark, architect, Colchester.

✱JUNE 13.—**Deal.**—COTTAGES.—Tenders for "All Trades," only are invited for the construction of 54 cottages on the Betteshanger Colliery—Deal site, for Pearson & Dorman Long, Ltd., 19, Victoria-street, Westminster, S.W.1. Deposit £1.

JUNE 13.—**London, N.W.1.**—BUILDING.—Construction of an overground public convenience in Salisbury-street, by Church-street, Lisson-grove, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

✱JUNE 13.—**London, N.15.**—DEMOLITION, &C.—Demolition of existing buildings now used as a school for deaf children, Philip-lane, Tottenham, N.15, and for clearing away the whole of the old materials, for the Tottenham E.C. Mr. C. E. Blackburn, M.S.A., architect, 374–8, Old-street, E.C.2. Deposit £1 1s.

JUNE 13.—**Milnsbridge.**—BUNGALOW.—For erection of bungalow in Woodside-road. Messrs. Lunn & Kaye, Architects, Milnsbridge.

✱JUNE 13.—**Tottenham.**—GATES, &C.—For taking down and re-erecting the entrance gates and piers and length of railing at Tottenham Cemetery, for the Tottenham and Wood Green Burial Board. Mr. J. C. S. Mummery, 34, Bloomsbury-square, W.C.

JUNE 14.—**Aylesbury.**—HOUSING.—For Oxford-road housing, for the T.C. Mr. W. H. Taylor, Borough Engineer, Aylesbury.

JUNE 14.—**Barnsley.**—PAINTING.—For painting exterior of Girls' High School, Mr. E. Davies, Clerk to Governor, Education Offices, Barnsley.

JUNE 14.—**Bradford.**—PAINTING.—For painters' work at the Central Fire Station, Nelson-street, for the T.C. City Architect, Town Hall, Bradford.

JUNE 14.—**Bristol.**—PAINTING.—For painting, &c., of certain schools, for the T.C. City Estates Surveyor, The Exchange, Bristol. Deposit £1 1s.

JUNE 14.—**Dewsbury.**—PAINTING.—For painting conservatory, greenhouses, &c., at Crowsest Park, for the T.C. Borough Engineer, Dewsbury.

JUNE 14.—**Dunfermline.**—GRAND STAND.—For erection of temporary grand stand and paddock, &c., at Urquhart Race Park, for the Dunfermline Racing and Highland Gathering Co. Mr. A. P. MacBain, Secretary, High-street, Dunfermline.

JUNE 14.—**East Ham, E. 6.**—REPAIRS, PAINTING, &C.—Repairs, painting and sundry works to various schools in the Borough. Borough Engineer, Town Hall, East Ham, E. 6. Deposit 10s. in respect of each specification.

JUNE 14.— **Enniskillen.**—HOUSE.—For the reconstruction of a house near The Five Points, for Dr. Maguire, of Derrygiff House, Florencecourt. Mr. Jas. Donnelly, architect, Enniskillen.

JUNE 14.—**Essex.**—PAVILION.—Erection and completion of a pavilion (brick built) at the Bowling Green, Young's Nursery, for the Corporation of Southend-on-Sea. Mr. R. H. Dyer, Borough Engineer, Municipal Buildings, Southend-on-Sea. Deposit £2.

JUNE 14.—**Evesham.**—HOUSES.—For the erection of 26 houses on the King's-road, Bengeworth, site, for the T.C. Mr. J. Abbott, Borough Surveyor, Town Hall, Evesham. Deposit £2 2s.

JUNE 14.—**Langley Moor.**—PAINTING.—For painting hall and staircases at Langley Moor Club. Secretary, Langley Moor Club, near Durham.

JUNE 14.—**Northallerton.**—HOUSES.—For erection of ten pairs of semi-detached houses, for the U.D.C. Mr. E. O. Hillyard, surveyor, Northallerton.

JUNE 14.—**Westhampnett.**—HOUSES.—For the erection of six houses at Walberton, for the R.D.C. Mr. W. D. Rasell, Clerk, Council Offices, Pallant House, Chichester.

JUNE 14.—**Wigan.**—PAINTING.—For painting, lime washing, &c., at various schools, for the T.C. Director of Education, Wigan.

JUNE 14.—**Wrexham.**—ALTERATIONS.—For alterations, repairs, redecorations throughout to Capel Mawr C.M. Chapel and schoolrooms, Rhos, Wrexham. Messrs. John Owen, F.A.I., and F. A. Roberts, M.S.A., Westminster Bank Chambers, Church-street, Wrexham.

JUNE 16.—**Aberystwyth.**—PAINTING.—For the internal painting and decorating of the Alexandra Hall of Residence, Aberystwyth. General Secretary, University College of Wales, Aberystwyth.

JUNE 16.—**Bradford.**—FILTER HOUSE.—For erection of house in stone for pressure filters, for the T.C. Mr. L. Mitchell, Waterworks Engineer, Town Hall, Bradford. Deposit £5.

JUNE 16.—**Broughton-in-Furness.**—ALTERATIONS.—For alterations to property, for the Furness and South Cumberland Supply Association. Secretary, Broughton-in-Furness.

JUNE 16.—**Coventry.**—CONVENIENCE.—For the erection of an underground convenience at Grey Friars Green, for the T.C. Mr. J. E. Swindlehurst, City Engineer, Coventry. Deposit £2 2s.

JUNE 16.—**Kent.**—PAINTING.—For painting of 38 Council schools and 26 buildings used for the purpose of Higher Education, in various parts of the county, for the Kent C.C. Mr. W. H. Robinson, Architect, Sessions House, Maidstone. Deposit £1 1s.

JUNE 16.—**Leeds.**—PAINTING.—For painting and cleaning of schools during summer vacation, for the T.C. Education Offices, Leeds.

JUNE 16.—**Liverpool.**—DEMOLITION.— For the demolition of property in New Quay, for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

JUNE 16.—**London, N.W.1.** — ALTERATIONS.— Certain structural alterations at the Public Baths, Marylebone-road, in connection with the installation of filtration plant for First Class Swimming Baths, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

JUNE 16.—**Lytham St. Annes.**—HOUSES.—For the erection of 92 houses for the T.C. Borough Surveyor, Town Hall, St. Annes.

JUNE 16.—**Manchester.**—GARAGE.—For erection of motor bus garage at Didsbury, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

JUNE 16.—**Middlesbrough.**—ALTERATIONS.—For re-

arranging wagon repair shops at Newport and Erimus mineral yards for the London & North-Eastern Rly. Co. Mr. S. Wilkinson, Architect, L. & N.E. Railway, York.

JUNE 16.—**Morecambe.**—BOILER HOUSE.—For the erection of a boiler house at the Gas Works, for the T.C. Mr. P. Holt, Borough Surveyor, Morecambe. Deposit £1 1s.

JUNE 16.—**Paisley.**—ANNEXE.—For erection of special classes school annexe, Paisley, for the Renfrewshire Education Authority. Mr. J. Hamilton Pullar, County Education Offices, Paisley. Deposit £1 1s.

JUNE 16. — **Southend-on-Sea.** — PAINTING, &C.—For cleaning and painting at various Council Schools, for the Corporation. Mr. Robert H. Dyer, Borough Engineer, Southend-on-Sea. Deposit £1 1s.

✱JUNE 16.—**Wombwell.**—HOUSES.—Erection of 60 or, alternatively, in lots of 30, Type A houses on a site situate in King's-road, Wombwell, for the Wombwell U.D.C. Mr. D. H. Roberts, M.S.A., Park-street, Wombwell. Deposit £2.

✱JUNE 16.—**Wombwell.**—HOUSES.—Erection of 14 Type A houses on a site situate at Hemingfield, in the urban district, for the Wombwell U.D.C. Mr. Norman Culley, F.R.I.B.A., 13, John William-street, Huddersfield. Deposit £2.

✱JUNE 17.—**Acton, W.3.**—VARIOUS WORKS.—Execution of the following works: Redecoration and repairs generally of various schools; tar paving at various schools; additional lavatory accommodation, South Acton Girls' Schools; maple flooring, &c., Central Hall, Priory Schools; electric lighting installation, Beaumont Park School; for the Borough of Acton E.C. Engineer and Surveyor Municipal Offices, Acton, W.3.

JUNE 17.—**Bessington.**—REPAIRS.—For repairs to the large temporary building at Council school, for West Riding C.C. Education Department, County Hall, Wakefield.

JUNE 17. — **London, S.W.** — TELEPHONE EXCHANGE.—Erection of the "Western" Telephone Exchange in Trafalgar-place, South Kensington, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W. 1. Deposit £1 1s. (Cheques payable to the Secretary.)

JUNE 17.—**Whittingham.**—PAINTING.—For painting at County Mental Hospital, Whittingham, near Preston. Mr. H. E. Morgan, Clerk to the Hospital.

JUNE 18. — **Cheltenham.** — SCHOOLS. — Completion of the new Swindon-road Council Schools. The additions to the buildings include (*a*) Erection of new classrooms; (*b*) alteration of Swindon-road boys' school; (*c*) erection of practical instruction buildings, for the Cheltenham Education Committee. Mr. L. W. Barnard, architect, Promenade, Cheltenham. Deposit £2 2s.

JUNE 18.—**Eastwood.**—ALTERATIONS.—For additions and alterations to house at Blatches Farm, Eastwood, near Southend, for the Essex C.C. Mr. C. Lock, County Land Agent, Chelmsford.

JUNE 18.—**Herne Bay.**—HOUSES.—Erection of twelve semi-detached houses, all of the same design, for the Herne Bay U.D.C. Mr. B. J. Wormleighton, Engineer and Surveyor, Town Hall, Herne Bay. Deposit £3 3s.

JUNE 18. — **London.** — PAINTING, &C.—Separate tenders for (1) External cleaning and painting at Sheffield-street Hospital, Sheffield-street, W.C. 2; (2) Cleaning and painting and repairs at the North-Eastern Fever Hospital, St. Ann's-road, Tottenham, N. 15, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1 each.

JUNE 18.—**London.**—PAINTING, &C.—Separate tenders for cleaning and painting works and repairs at Eastern Fever Hospital, Homerton-grove, E. 9; Park Fever Hospital, Hither Green, S.E. 13; Wandsworth Casual Ward, Swaffield-road, S.W. 18; Paddington Casual Ward, Woodfield-road, Harrow-road, W., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1 each.

✱JUNE 18.—**London.**—ROOF EXTENSION.—For extension of the existing roofs of covered yards at the Eastern Ambulance Station, Homerton-grove, Homerton, E.9, and the South-Eastern Ambulance Station, New Cross-road, New Cross, S.E., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱JUNE 18.—**London, S.E.13.**—WEIGHBRIDGE FOUNDATIONS.—Work required to be done in forming weighbridge foundations at the Park Fever Hospital, Hither Green, S.E.13, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱JUNE 18.—**London, S.W.**—RECONSTRUCTION WORK.—Reconstruction of boiler house and laundry at South Western Fever Hospital, Landor-road, Stockwell, S.W., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1, on and after June 4.

✱JUNE 18.—**London, S.W.1.**—PAINTING, DECORATION AND REPAIRS.—Painting, decoration, repairs and electric wiring at the Receiving House, Wallis's-yard, Buckingham Palace-road, S.W.1. Mr. W. Lickley, Clerk to the Guardians, Guardians' Offices, Princes-row, Buckingham Palace-road, S.W.

JUNE 18.—**Longton.**—SCHOOL.—Erection of school at Longton, near Preston, for the Lancashire C.C. Mr. H. Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

JUNE 18.—**Near Dartford, Kent.**—PAINTING, &C.—For cleaning and painting works and repairs at the Southern Hospital, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

JUNE 18. — **Sutton, Surrey.** — STEEL CONSTRUCTION.—For erection of forage store (Dutch barn), at Belmont Stables, Stanley-road, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C. 4. Deposit £1.

✱JUNE 18.—**Tooting, S.W. 17.**—GLAZING.—For supplying and fixing patent glazing to roofs of covered ways at Tooting Bec Mental Hospital Extensions, Church-lane, for the Metropolitan Asylums Board Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

✱JUNE 18.—**Wanstead.**—ALTERATIONS.—For alterations to the "Old Rectory," Redbridge-lane, in order to adapt the premises for use as secondary school, for Essex Education Committee. Mr. Herbert J. Goodwin, Education Offices, Loughton.

JUNE 19.—**Salford.**—CONVENIENCES.—For erection of public conveniences, for the T.C. Borough Engineer, Town Hall, Salford. Deposit £2 2s.

JUNE 20.—**Montrose.**—SCHOOL.—Erection of elementary school for Forfarshire Education Authority. Mr. Hugh Gavin, architect, 194, High-street, Montrose. Deposit £1 1s.

JUNE 20.—**Norwich.**—PAINTING.—For painting of Burlingham Hall, near Norwich, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich.

✱JUNE 21.—**Reading.**—HOUSES.—Erection of 50 houses on the Shinfield-road Housing site, for the Housing and Town-Planning Committee of the County Borough of Reading. Housing Architect, Old College Buildings, St. Laurence's Churchyard.

JUNE 23.—**Buckinghamshire.**—COTTAGES.—For the following work for the Bucks Agricultural Committee: Rectory Farm, Tingewick, one new dairy cottage; Claydon Hill Farm, Steeple Claydon, one new dairy cottage; Accommodation Holding, Whaddon, one new dairy cottage. Mr. G. M. Odam, County Land Agent, Aylesbury.

✱JUNE 23.—**Bournemouth.**—ALTERATIONS POLICE QUARTERS.—Erection of prisoners' cells, alterations to existing police quarters, and erection of police dormitories, at the Police Station, Stafford-road, Bournemouth, for the County Borough of Bournemouth. Borough Engineer, Town Hall, Bournemouth; Deposit £1 1s.

JUNE 23. — **Dorking.** — COTTAGES.—Erection of fifty cottages, in lots of ten or multiples of ten, in one contract. The contracts to include the actual erection of cottages only, excluding drainage, roads, paths and fencing, for the Dorking U.D.C. Mr. S. S. Gettings, Surveyor, Council Offices, Dorking. Deposit £2 2s.

JUNE 23.—**Prestwich.**—HOUSES.—For the erection of six houses for the U.D.C. Surveyor, Town Hall, Prestwich. Deposit £1 1s.

JUNE 25.—**Gravesend.**—HOUSES.—For the erection alternatively of 50 and 100 houses on King's Farm Estate, for the Corporation. Mr. H. H. Brown, Town Clerk, 4, Woodville-terrace, Gravesend, Kent. Deposit £2 2s.

JUNE 25.—**London, E. 5.**—SHOWROOMS.—For the erection of the building required for electricity showrooms at Lower Clapton-road, for the Metropolitan Borough of Hackney. Mr. J. A. Bowden, 30, Craven-street, Strand, W.C. 2. Deposit, £2 2s., to Mr. H. R. Lee, Town Clerk, Town Hall, Hackney, E. 8.

JUNE 27.—**Belfast.**—EMPLOYMENT EXCHANGE.—For the erection of a central employment exchange, Belfast, for the Ministry of Finance. Secretary, Ministry of Finance, 15, Donegal-square, W. Belfast. Deposit £5.

✱JUNE 27.—**Ireland.**—EMPLOYMENT EXCHANGE.—Erection of a central employment exchange in Corporation-street, Belfast, for the Ministry of Finance, Government of Northern Ireland. 15, Donegall-square, West, Belfast. (Room 35). Deposit £5.

✱JULY 5.—**Hanwell, W.7.**—WOOD FLOORING.—Providing and laying a new deal floor for the dining hall at the Central London District School, Greenford-avenue, Hanwell, W.7, for the Managers. Mr. George P. Morrell, Clerk to the Managers, at the above school.

JULY 8.—**Greenwich, S.E. 10.**—UNDERGROUND CONVENIENCE.—Construction of an underground convenience for both sexes, at the foot of Blackheath-hill, Greenwich, for the Council of the Metropolitan Borough of Greenwich. Borough Engineer, Town Hall, Greenwich, between the hours of 10 a.m. and 4 p.m. (Saturdays, 10 a.m. and 12 noon).

NO DATE.—**Barnsley.**—HOUSE.—Erection of house in Huddersfield-road. Mr. P. A. Hinchliffe, architect, Barnsley.

NO DATE.—**Batley.**—FITTINGS, &C.—For fittings and alterations at Batley Technical School. Messrs. Walter Handstock & Sons, architects, Batley.

✱NO DATE.—**Hornsey.**—REPAIRS, &C.—For repairs, decorations, &c., and tar paving at various schools, for Education Committee. Mr. A. W. Allen, Secretary for Education, Hornsey Education Office, 6, Topsfield-parade, Crouch End, N.8.

NO DATE.—**Ilkley.**—HOUSE.—Erection of detached house at Ilkley. Mr. J. G. Adkin, architect, Ilkley.

NO DATE.—**Ipswich.**—ADDITIONS.—For additions to Heathfields, Woodbridge-road, for the B.G. Mr. J. A. Sherman, architect, Ipswich.

NO DATE.—**North Luffenham.**—COTTAGES.—Erection of three cottages at North Luffenham, for the Staveley Coal & Iron Co. Pilton Ironstone Co., 114, London-road, Nottingham.

NO DATE.—**Penistone.**—CINEMA.—For rebuilding of cinema. Mr. P. A. Hinchliffe, architect, Barnsley.

FURNITURE, MATERIALS, etc.

JUNE 7.— **Stockton-on-Tees.** — MATERIALS. — For stores for Stockton-on-Tees and Thornaby Joint Corporation Tramways. Manager, Bridge-road, Stockton-on-Tees.

JUNE 9.—**Darlington.**—CONCRETE FLAGS.—For supply of 10,000 super. yds. of cement concrete flags, for the T.C. Mr. G. Winter, Borough Surveyor, Darlington.

JUNE 10.—**Warrington.**—PROTECTOR SLABS.—Supply of reinforced concrete cable protector slabs, for the T.C. Mr. F. V. L. Mathias, Borough Electrical Engineer, Warrington.

JUNE 11.—**Liverpool.**—STORES.—For supply of stores to Liverpool Overhead Railway Co. General Manager, 31, James-street, Liverpool.

JUNE 12.—**Greenwich.**—PAVING.—For supply of 6,000 ft. super. of York stonepaving to the B.C. Borough Engineer, Town Hall, Greenwich.

JUNE 12.—**Holborn.**—MATERIALS.—For supply of road material, castings, &c., for nine months, to the B.C. Town Clerk, Town Clerk's Offices, Holborn, W.C.

JUNE 13.—**Greetland.**—GRANITE SETTS.—Su about 400 tons of granite setts. Mr. F. Moo veyor, Public Hall, Greetland.

JUNE 14.—**Stockbridge.**—LIMESTONE.—For of limestone, to the R.D.C. Mr. W. W. Ea Surveyor, Broughton, Stockbridge.

JUNE 17.—**Tottenham.**—MATERIALS.—Supp road materials, asphalte and tar paving, lime, &c., for the U.D.C. Mr. R. C. Graves, Clerk Hall, Tottenham.

ENGINEERING, IRON AND ST

JUNE 7.—**Dumfries.**—WATERWORKS.—(1) Ex of filter house and excavations, &c., (2) construct reinforced concrete clear water tank on the Hen system, (3) provision and erection of mechanica (4) Kelloholm water mains and sewers, for D C.C. Mr. W. C. Easton, Civil Engineer, 183 George-street, Glasgow. Deposit £1 1s.

JUNE 7.—**Troon.**—GAS HOLDER.—Supply an tion of a three-lift spiral guided gas-holder of cubic feet capacity with steel tank and connecti the T.C. Mr. J. W. Beveridge, Engineer, Gas Troon.

JUNE 9.—**Long Ashton.**—BRIDGE.—For the co tion of a reinforced concrete bridge and approac over the River Ken, for the R.D.C. Surveyor, Grounds, Flaxsborton.

JUNE 10.—**Chesham Bois.**—FENCING.—Fo fencing and gates for cemetery, for the Parish Co Chesham Bois. Mr. T. T. Thorpe, clerk, 180 hampstead-road, Chesham.

JUNE 10.—**South Molton.**—PIPES.—For sup iron water pipes and fittings to the R.D.C. Mr Gardner, surveyor, Chittlehampton.

JUNE 10.—**Walton.**—PIPES.—For supply of 1 pipes and specials for the Metropolitan Water Bo Walton Pumping Station. Chief Engineer, 173, Rosebery-avenue, E.C.

JUNE 16.—**Carlton.**—BRIDGE.—Constructio ferro-concrete viaducts and earthern embani to carry approach ways of new bridge over the Aire at Carlton, for the West Riding C.C. Riding Surveyor, County Hall, Wakefield. Depo

JUNE 16.—**Sligo.**—STEELWORK.—For supp steelwork for station roof, for the Midland Western Railway of Ireland Co. Chief En Broadstone Terminus, Dublin. Charge £1.

JUNE 17.—**London.**—BRIDGES.—Supply of bridges to the Madras and Southern Mahratta R Co. Secretary, 25, Buckingham Palace-road, Charge £1 1s.

JUNE 25.—**London.**—BRIDGES.—Supply of bridges to East Indian Railway Co. Secreta King William-street, E.C. Charge £1 1s.

JUNE 30.—**St. Helens.**—BRIDGE.—For erect movable bridge over canal at Redgate, for th Mr. A. W. Bradley, Borough Engineer, St. He

JULY 1.—**Chili.**—HARBOUR WORKS.—For th of improvement of the Harbour of Constitucion Chilian Legation, 22, Grosvenor-square, W.1.

ROAD, SANITARY, AND WAT WORKS.

JUNE 7.—**Ashington.**—SEWERS.—(1) Laying yds. of 42, 36, 30, 27, 24 and 21 in. pipe sewers; ing 9,200 yds. of sewers from 9 in. to 36 in. dia and (3) laying 6,500 yds. of sewers from 9 in. to diameter, for the U.D.C. Messrs. Taylor & 47, Pilgrim-street, Newcastle-on-Tyne. Depo each contract.

JUNE 7.—**Glasgow.**—ROADS.—For the widen Stockwell-street, for the T.C. Mr. J. Lindsey, Clerk, Glasgow.

JUNE 9.—**Glamorganshire.**—WATER WORKS construction of (1) two service reservoirs; (2) cast-iron pipes in the Garw Valley to service re and laying of pipes in the Ogmore Valley; and (3 ing 5,580 yds. of cast-iron pipes between Tontyc and Maesteg, for the Mid-Glamorgan Water Messrs. Thomas & Morgan & Partners, Ponty Deposit £5 5s. each contract.

JUNE 9.—**Portland.**—SEWER.—For repairs cast-iron sewage outfall on the Chesall Beach, U.D.C. Mr. R. Davison, Surveyor, Council Portland.

JUNE 9.—**Wokingham.**—WATER MAIN.—For 4,933 yds. of 4 in. water main, &c., at Swallo for the R.D.C. Mr. P. H. Phipps, Clerk, Council Wokingham. Deposit £1 1s.

JUNE 9.—**York.**—SEWER.—For construction of pipe sewer, &c., for the T.C. Mr. F. W. Spun Engineer, Guildhall, York. Deposit £1 1s.

JUNE 10.—**Chesham Bois.**—CEMETERY.—For In connection with the laying out of the new Ground near Bois Moor-road:—(*a*) The supply cubic yards of fine gravel, and 100 yards of good (*b*) 950 square yards of path and road-makin repairing. (*c*) Erecting and painting the fencin gates. (*d*) Taking down and re-erecting on the ing land the existing shed and pump. Mr. T. T. T Clerk to the Parish Council, 180, Berkhamstead Chesham.

JUNE 10.—**Chislehurst.**—ROADS.—Constructi new by-pass road of 490 ft., for the U.D.C. Mr Brown, Clerk, Council Offices, Chislehurst. Depo

JUNE 10.—**Finchley.**—SEWER.—For the co tion of 1,883 yds. of 21 in. and 1,132 yds. of sewer, for the U.D.C. Mr. P. T. Harrison, sur Finchley, N. Deposit £2.

JUNE 10.—**Great Houghton.**—ASPHALTING.—F tar asphalting to playgrounds at Great Hou Council School. Education Department, County Wakefield.

JUNE 10.—**Southgate.**—ROADS.—For makin (*a*) The Close, (*b*) Mayfield-avenue, and (*c*) Hazel lane, for the U.D.C. Mr. R. Phillips, Surveyor, Hall, Palmers Green, N.

JUNE 11.—**Carlisle.**—WATER SUPPLY.—For construction of water supply works in the pari Rockcliffe, for the R.D.C. Mr. J. C. Boyd, 18 street, Carlisle. Deposit £2.

JUNE 11.—**Easington.**—TAR PAVING.—For ne

airs to tar paving of school playgrounds in the sington district, for the Durham C.C. District rk, Council School, Haswell.
UNE 11.—**Ellie and Earles Ferry.**—SEWER.—For ension of two sewer pipes for the Town Councils. ssrs. D. & C. Stevenson, Engineers, 85, George-street, nburgh. Deposit £1.
UNE 11.—**Middleton.**—SEWER.—For sewering Ivy-ve and Home-drive, for the T.C. Borough Engineer, wn Hall, Middleton.
k JUNE 11.—**Wembley, Middlesex.**—ROADS AND VERS.—Construction of roads and sewers in extension he Christchurch Estate, Ealing-road, Wembley, for Wembley Urban District Council. Mr. Cecil W. Chapman, Engineer and Surveyor, Council ce, Wembley, Middlesex. Deposit £2 2s.
UNE 12.—**Arnold.**—ROADS.—For making-up Mait-d-road and levelling part of Breck-road, for the D.C. Mr. R. E. Clarke, Surveyor, Arnold.
UNE 12.—**Ayr.**—WATER MAIN.—For duplication main water pipe at Sillyhole Moss, Dalmellington, the Ayr T.C. Mr. J. Young, Water Engineer, Ayr. posit, £2 2s.
UNE 12.—**Belper.**—SEWER.—Construction of 130 ds of 6 in. sewer, &c., for the R.D.C. Mr. R. T. rdon, Surveyor. Duffield, near Derby. Deposit 10s.
UNE 12.—**Islington.**—RE-PAVING.—For re-paving rks in Archway-road, Seven Sisters-road, Highbury-ve, and Church-walk, for the B.C. Borough gineer, Municipal Offices, Islington, N.
UNE 12.—**Leeds.**—ROADS.—For tarpaving works l making up roads on housing estates, for the T.C. using Department, Leeds. Deposit £1 1s.
UNE 12. — **Southend-on-Sea.** — TAR PAVING.— r tar paving the playgrounds and incidental works the High School for Boys and School of Art, for the rporation. Mr. Robert H. Dyer, Borough Engineer, uthend-on-Sea. Deposit £1.
UNE 13.—**Greetland.**—ROADS.—For concrete road ndation and granite paving works (approximate a, 1,600 sq. yds.). Mr. F. Moore, Surveyor, Council fices, Greetland.
UNE 13.—**Shafton.**—RECREATION GROUND.—For ing out of recreation ground in connection with elfare Scheme. Mr. T. Schorah, secretary, "Ash-unt," Shafton, near Barnsley.
UNE 14.—**Birmingham.**—ROADS.—Construction of) lin. yds. of 50 ft. wide road at Blackheath, near mingham. Architect, Factory Construction Dept., tish Thomson-Houston Co., Rugby.
UNE 14.—**Ellesmere Port.**—ROADS.—For making Picton-avenue, for the U.D.C. Surveyor, Council ices, Ellesmere Port.
UNE 14.—**Haywards Heath.**—SEWERS.—For con-uction of 680 lineal yards of 9 in. stoneware pipe vers for the U.D.C. Mr. G. Plumber, Surveyor, ywards Heath.
UNE 16.—**Aberdeen.**—WATERWORKS.—(1) Supply one mile of 12 in. and 10 in. diameter cast-iron es and specials; (2) laying of pipes, for the T.C. George Mitchell, Water Engineer's Office, 41½, ion-street, Aberdeen. Deposit £2.
UNE 16.—**Greenock.**—ROADS.—For making up part Eldon-street, for the T.C. Office of Public Works, nicipal Buildings, Greenock. Deposit £1 1s.
UNE 16.—**Manchester.**—PAVING.—For paving, &c., the City Abattoirs, for the T.C. General Super-endent, Market Office, Town Hall, Manchester.
UNE 16.—**Pudsey.**—ROADS.—For construction of ds and footway on various housing sites, for the T.C. rough Surveyor, Pudsey.
UNE 17.—**Barnsley.**—ASPHALTING.—Asphalting to unds adjoining Great Houlton School. Apply ucation Department, County Hall, Wakefield.
k JUNE 17.—**Bromley.**—ROADS.—Surfacing a por-n of certain roads in the Borough of Bromley with uminous asphalte carpet, about 14,203 sq. yds.; uminous asphalte slag carpet, about 40,818 sq. .. for the T.C. Mr. Stanley Hawkings, Borough ngineer, Municipal Offices, Bromley, Kent. De-it £2.
UNE 17.—**Glasgow.**—ROADS.—For construction of ds and sewers at Hawthorn-street and Campbell-et, for the T.C. Town Clerk, Glasgow.
UNE 17.—**Great Sankey.**—ROADS.—For set paving flagging playgrounds of Council school, for the ncashire C.C. Mr. H. Littler, County Architect, Ribblesdale-place, Preston.
k JUNE 17.—**Southend-on-Sea.**—ROAD MAKING.—sing-up of the following streets:—Kingswood-chase, tion 1; Chase-road, Section 2; Riviera-drive, tion 2, and incidental works in connection thereto, the County Borough of Southend-on-Sea. Mr. ert H. Dyer, Borough Engineer and Surveyor, nicipal Buildings, Clarence-road, Southend-on-Sea. osit £2 for each road.
NE 18.—**Birmingham.**—SEWER.—For construction ewers in Tyburn-road, &c., Erdington, for the T.C. H. H. Humphries, City Engineer, Birmingham. osit £2.
NE 18.—**Epsom.**—SEWER.—For construction of ewware and cast-iron sewers, &c., at Banstead, the R.D.C. Messrs. John Taylor & Sons, 36, Vic-a-street, S.W. Deposit £5.
NE 18.—**Prestwich.**—ROADS.—For private street rovements in Long-lane and Drought's-lane, for U.D.C. Surveyor, Town Hall, Prestwich. De-t £1 1s.
JUNE 18.—**Tooting, S.W.**—ROADS.—For supplying laying tar macadam to roads, &c., at Tooting Bec tal Hospital Extensions, Church-lane, for Metro-tan Asylums Board. Office of the Board, Victoria bankment, E.C.4. Deposit £1.
NE 20.—**Manchester.**—ROADS.—For various works ewering and paving in Gorton, West Gorton, nage and Cheetham, for the T.C. Paving Dept., n Hall, Manchester. Deposit £1 1s.
NE 21.—**Haslemere.**—SEWER.—For the construc-of 700 yards of 6 in. stoneware pipe sewer, &c., for U.D.C. Mr. C. A. Best, Surveyor, Council Offices, emere. Deposit £1 1s.

JUNE 23.—**Reading.**—DRAINAGE.—For laying branch drains in various parts of the borough for the T.C. Borough Surveyor, Town Hall, Reading. Deposit £2 2s.

JUNE 30.—**Easthampstead.**—DRAINAGE.—For construction of main drainage system at Binfield, for the R.D.C. Messrs. H. Humphries & Sons, 28, Victoria-street, S.W. Deposit £3 3s.

Competitions.

(See Competition News, page 900.)

Auction Sales, Tenders, etc.

JUNE 10 & 11. — **Banbury, Oxon.** — Mr. F. H. Clarke will sell, without reserve, on the site, at 11 a.m. each day, timber and building materials accruing from demolition of Banbury Filling Factory, Central Stores Depot, No. 423. Auctioneer, Railway Wharf, York-road, Wandsworth, S.W.18.

★JUNE 11.—**London, S.W.**—Messrs. Fuller, Horsey Sons & Cassell will sell at 77, Grosvenor-road, S.W., surplus stock of plant and material (builder's machinery, ironmongery, &c.). Auctioneers, 11, Billiter-square, E.C.3.

JUNE 12.—**Middlesex.**—Messrs. Alfred Savill & Sons and Mr. Percival Hodson will sell, at Winchester House, Old Broad-street, freehold building estates (by order of the Trustees), at Winchmore Hill, Middlesex. Auctioneers, 69, South Audley-street, W.1.

★JUNE 16.—**Barnes, S.W.**—Messrs. Veryard & Yates will sell, without reserve, owing to completion of contract, at "The Field," Lonsdale-road, Barnes, useful building plant and materials. Auctioneers, 365, Norwood-road, S.E.27.

JUNE 16.—**Lincolnshire.**—Mr. Hobson Bateman is favoured with instructions from W. Dennis & Sons, Ltd. (in consequence of the removal of the timber branch of their business to Boston), at the Docks, Sutton Bridge, Lincolnshire, timber warehouse, the lease expiring on September 29, 1928, and the building will be sold for removal before that date. Vacant possession of the premises will be given on July 1, 1924. Auctioneer, Sutton Bridge.

★JUNE 16 AND 17.—**Orpington, Kent.**—Messrs. W. Levens & Sons, F.A.I., will sell, at Aynscomb End Yard, High-street, Orpington, Kent, builders' plant and stock, contractors' portable offices, carpenters' shop in sections, and a large quantity of timber, ironmongery, and rainwater goods. Auctioneers, Station-approach, Orpington, Kent.

★JUNE 17.—**London, S.E.18.**—Mr. F. H. Clark will sell without reserve, at the Boy's Hostels, Woodhurst-road, Plumstead, S.E.16, clearance sale of sectional buildings, timber, and building material accruing from the demolition of the above hostels. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18.

★JUNE 17.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, removed for convenience of sale, at 255, Clapham-road, Stockwell, S.W., a large stock of nearly new timber, fittings and building materials (from demolition of aircraft buildings, Regent's Park). Auctioneers, 365, Norwood-road, S.E.27.

JUNE 18.—**London, E.C.**—Messrs. Humbert & Flint will sell, by order of the Receiver for the Note Holders, *re* National Diamond Factories (B.O.), Ltd., the magnificent freehold factory premises known as The National Diamond Factories (B.O.), Ltd., Lewes-road, Brighton, a block of three newly-erected buildings, steam heated, and lifts to every floor, the whole of the diamond working equipment, possession on completion, for sale in one or two lots, at the London Auction Mart, 155, Queen Victoria-street, E.C.4 (unless meanwhile sold privately). Auctioneers, 11, Serle-street, Lincoln's Inn, W.C.2.

★JUNE 19.—**Essex.**—Messrs. Goddard & Smith will sell, at the Auction Hall, 22, King-street, St. James's, S.W.1, freehold building land frontages to main Romford-road and Whalebone-lane. Auctioneers, 22, King-street, St. James's, S.W.1.

★JUNE 24 AND 25.—**Middlesex.**—Mr. F. H. Clark will sell, at the National Filling Factory, Hayes, Middlesex, timber and building materials arising from the demolition of the above factory, in lots to suit all purchasers. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18.

★JUNE 25.—**Harrow Weald, Middlesex.**—Messrs. Sedgwick, Weall & Beck (incorporated with Rumball & Edwards) will sell in convenient lots, on the premises of "Brookshill," Harrow Weald, the freehold estate, comprising a family residence, farmery and land; also residence known as "Fairfield," and other building land. Auctioneers, 38, High-street, Watford.

JUNE 26. — **London, W.1.** — Messrs. Farebrother, Ellis & Co., will sell, with vacant possession, at the Mart, Queen Victoria-street, E.C., freehold building site of over quarter of an acre in an exceptionally convenient and central situation, between Drury-lane and Shaftesbury-avenue. Auctioneers, 29, Fleet-street, E.C. 4, and 26, Dover-street, W 1.

JULY 8.—**Tunbridge Wells.**—Messrs. Hampton & Sons will sell, at the St. James's Estate Rooms, 20, St. James's-square, London, S.W., freehold property, Tunbridge Wells, in the premier position at the corner of important cross roads, comprising over one acre. Auctioneers, 20, St. James's-square, S.W.1.

Public Appointments.

JUNE 7. — **Hereford.** — ASSISTANT.—Assistant required in connection with school work, must be a neat and expeditious draughtsman, required in the County Architect's Department by the County Council of Hereford. Mr. G. H. Jack, County Surveyor and County Architect, High Town, Hereford.

JUNE 9.—**Welwyn.**—CLERK OF WORKS.—Clerk of Works required by the R.D.C. Mr. P. Elton Longmore, Clerk to the Council, 24, Castle-street, Hertford.

★JUNE 14. — **Kingston-upon-Thames.** — Clerk of Works required by the Borough Council of Kingston-upon-Thames to act under the direction of the Borough Surveyor for the erection of houses and the construction of roads and sewers. Mr. Harold A. Winser, Town Clerk, Municipal Offices, Kingston-upon-Thames, endorsed "Clerk of Works."

JULY 10. — **London, W.1.** — FORTHCOMING EXAMINATION.—Male cartographer in the Hydrographic Department of the Admiralty (19–25). The Secretary, Civil Service Commission, Burlington-gardens, London, W. 1.

★JUNE 13.—**Bermondsey, S.E.16.**—Building Works Manager required by the Borough of Bermondsey. The appointment will be for a probationary period of twelve months only. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, Bermondsey, S.E.16, endorsed "Building Works Manager."

★JUNE 17.—**Bermondsey, S.E.16.**—Sanitary Inspector required by the Borough of Bermondsey; must possess the Certificate of the Sanitary Inspectors' Examination Board. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, S.E.16.

★JUNE 18.—**Leicester.**—Two Architectural Assistants required by the City of Leicester. Mr. J. S. Fyfe, A.R.I.B.A., Housing Architect, Wyggeston House, Highcross-street, Leicester.

★JUNE 24.—**Lewes.**—Temporary Architectural Assistant required by the East Sussex C.C. The County Surveyor, County Hall, Lewes.

★JUNE 30.—**Skipton.**—Architectural and General Assistant in the Engineer and Surveyor's Department of the Skipton U.D.C. Mr. A. E. W. Aldridge, Engineer and Surveyor to the Council, Town Hall, Skipton, with copies of three recent testimonials.

★NO DATE.—**London, N.7.**—Teacher of Builders' Quantities; also Teacher of Structural Engineering and Reinforced Concrete. The Secretary, Northern Polytechnic Institute, Holloway, London, N.7.

Building in Canada.

Montreal and Quebec cities, according to the *Bulletin* of the Federation of British Industries, report that for this year an increase in the construction of buildings for business purposes is contemplated, though less for residential; but, in the Province of Ontario, it is anticipated that building will be hardly normal. According to certain real estate agents of Montreal, the costs of building in cities now run 50 per cent. material, 50 per cent. labour, the latter being a serious problem. High wages in the United States are having an unsettling effect on Canadian labour, particularly in Ontario, and a steady movement of skilled labour across the border is reported. A Chicago firm recently endeavouring to obtain plasterers from Toronto, offered 13 dols. a day of eight hours, and guaranteed sixty days' work. As an added incentive they undertook to pay transportation both ways.

Wandsworth Technical Institute.

On May 10 a party of building and surveying students, under the direction of Mr. Geo. Arnall, F.S.I. (Head of the Building Department), visited several places of architectural and technical interest in the Northants district. At Geddington the famous Eleanor Cross (erected by Edward I in 1295) was inspected. This cross, as mentioned by Parker in his "A.B.C. of Gothic Architecture," is, perhaps, the most perfect of all those erected in memory of Queen Eleanor; the decorated diaper work is particularly fine. The party next visited the mines of Messrs. Lloyd's Ironstone Mines Co., and great interest was displayed when the 300 ft. steam excavator commenced operations, moving nine tons of iron ore at each grasp. The works and blast furnaces were next inspected, including the modern machinery, and a furnace was discharged for the benefit of the visitors. At Kirby Hall photographs were taken of the beautiful work of Inigo Jones, and it is hoped that some will be reproduced in the technical press. Next the church at Fotheringay was visited. This specimen of a complete perpendicular building is dated 1435, and the building contract is still in existence. Mr. Arnall drew the attention of the students particularly to the wonderful flying buttresses. A halt was made at the ruins of Fotheringay Castle, famous as the scene of the execution of Mary Queen of Scots. Another visit will shortly take place, when it is hoped to visit Peterborough Cathedral and the Fletton brickworks, but for the moment the students are concentrating upon the outdoor land surveying classes which have recently commenced.

PROPOSED NEW BUILDINGS & OTHER WORKS *

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ACCRINGTON.—Plans have been approved for three shops in Peel-street.—The Corporation have received sanction to their application for extensions to their electricity works at a cost of over £50,000.

AUDENSHAW.—Plans passed by U.D.C.:—20 houses, Manchester-road, for Mr. S. Hadfield; two houses, Kershaw-lane, for Miss Robinson; two houses, Kershaw-lane, for Mr. H. Lomas; three houses, Kershaw-lane, for Mr. E. Lawton, Mr. J. S. Lawton, and Mr. E. Davey. Plans are to be prepared for the erection of bowl house, shelter and lavatories on the green.

ALDERLEY EDGE.—The Parochial Council of St. Peter's Church are proposing to renovate and redecorate the church.

AMMANFORD.—The estimate for the joint sewer and outfall works of the Amman Valley Joint Sewerage Board amounted to £66,000. The Board has instructed final measures to be taken to acquire the necessary land. Trunk and internal schemes, in connection with the joint scheme, are also to be proceeded with by the constituent local authorities of the Joint Board.

BARNSLEY.—A proposal for the erection of a public abattoir is under consideration.——Sanction for the borrowing of £11,090 for the building of a new central school has been received from the M.H. The architects are Messrs. Dyson, Cawthorne & Coles.——The Markets Committee are considering proposals to extend the public conveniences in the centre of the town and the erection of new market offices.

BARROWFORD.—Revised plans approved of house in Wheatley Lane-road, for Mr. Cort.

BERWICK.—The Northumberland C.C. has passed plans for a secondary school at an estimated cost of £13,950.

BATH.—Plans passed by T.C.: Flats, 15, Camden-crescent; house, Hayesfield-park; shops, Newark House, Dorchester-street; house, Lymore-gardens; bungalow, Newbridge-road West; shops, Dorchester-street; bungalow, Newbridge-road West.

BELFAST.—Plans passed: Villa, Salisbury-avenue, for Mr. George Mercer, building contractor; villa on Cliftonville-road, for Mr. Hugh McGuigan (architect, Mr. D. W. Boyd); 20 villas on Aylesbury-road, for Messrs. H. & J. Martin; shops, showrooms on Lisburn-road, for Mr. E. L. Smyth (architect, Mr. Benjamin Cowser); factory in Russell-street, for Mr. R. McLardy (architect, Mr. Thomas Houston); eight villas in Devon-parade, for Mr. Alexander Devon (architect, Mr. Joseph Reid); six houses and a shop and house on Donegall-road, for Mr. J. McKee (architect, Mr. W. J. Convery); two villas in Wandsworth-gardens, for Mr. R. O. Templeton (architect, Mr. John MacGeagh); conversion of house into two shops and house in Windsor-avenue, for Mr. M. Davidson (architect, Mr. S. J. McAvoy); villa in Maryville-park, for Mrs. M. A. Brown (architect, Mr. T. A. Eagar).

BENSFIELDSIDE.—The U.D.C. have approved of the lay-out of 34 houses at Blackfyne, for the Consett Iron Co., Ltd.: and has decided to recommend the granting of subsidy in respect to 40 houses which the company propose to erect at the same place.

BENTLEY.—The U.D.C. has adopted a lay-out plan for 50 houses on the Old Hall site, near High-street. Plans were approved for 16 houses to be erected by various private enterprise.

BIRKENHEAD.—The T.C. is conferring with the Babington and Bromborough U.D.C. as to the question of the development of the foreshore between Dock Ferry and New Ferry. The T.C. is to spend £10,000 on gas mains and services. Accommodation for the Stores Department is to be provided on the site of the Borough-road waterworks at an estimated cost of £3,000. The T.C. has approved plans for sewer extension to drain houses to be erected to the north of Dacre House, at a cost of £2,046. Plans passed: 16 houses on the southerly side of Norman-street; two pairs of semi-detached houses on the north side of Bedford-drive, near Bebington-road; two pairs of semi-detached houses, Bedford-drive; three pairs of semi-detached houses in Bedford-drive; four pairs of semi-detached houses in Bedford-drive; house in Borough-road; two pairs of semi-detached houses in a new street called The Weind; motor spirit and kerosene depot, on vacant land between Corporation-road and Beautfort-road; two pairs of semi-detached houses, Ravenswood-avenue; house at the corner of Bidston-road and Howbeck-road; show-rooms and warehouse building on vacant land between Messrs. Bernards and the *Birkenhead Advertiser* printing premises, Hamilton-street. The Borough Surveyor has prepared a lay-out plan for 193 houses at Derby Park and tenders are to be invited for the construction of the houses.

BLACKBURN.—As an improvement of Whitebirk-road, from Burnley-road to Accrington-road, it is proposed to widen the road from 25 ft. to 60 ft., at an estimated cost of £10,000.

BLYTH.—The R.D.C. has decided to apply to the M.H. for sanction to borrow £1,297 for the Langwith sewerage and sewage disposal scheme rendered necessary by the new colliery at Firbeck.

BOLTON.—The T.C. has prepared a scheme for extension at the Hacken sewage works. Plans approved:—Pavilion, Green-lane, for L.M.S. Rly. Recreation Club; six houses, Fairmount-avenue, for Mr. A. Coward; three houses, Bradford-road, for Mr. E. Howard; two houses, St. Michael-avenue, for Messrs. G. & S. Street; two houses, Rydal-road, for Mr. A. S. Woods; 12 houses, Rowsley-avenue, for Mr. A. S. Woods; two houses, Chorley Old-road, for Mr. J. Horrocks; house, Within's-lane, for Miss L. Garstang; two houses, Lever Edge-lane, for Mr. Thos. Blakley; two houses, Bradford-road, for Bolton Modern Building Co.; lay-out plan, off Wigan-road, for Lady Beaumont; new street and levels, Higher Swan-lane, for Lord Bradford; house, Parkside-street, for Mr. W. F. Lowe; pavilion, Weymouth-street, for Messrs. Greenhalgh & Shaw; extension to car shed, Bridgman, for Tramways Dept.; two houses, Lever Edge-lane, for Mr. T. Blakley; new bank premises, Deansgate, for Bank of Liverpool and Martin's, Ltd. The Libraries Committee has approved plans submitted by Messrs. Bradshaw Gass & Hope, for proposed art gallery and museum.

BRAMPTON.—Plans passed by R.D.C.: Pair of semi-detached bungalows at the foot of Paving Brow, for Mr. Penfold; house, Heads Nook; dwelling near Laversdale Lane-end, for Mr. W. Law, Scaleby; recreation room near Stone house, Hayton.

BRIDGEND.—Plans passed by U.D.C.: Two houses at Brynteg, for E. M. Clarke, Bridgend. The Surveyor is to submit plans to the C.C. for the widening of Tondu-road, and to prepare a scheme for the lay-out of Green Meadow for building of houses. The M.T. has requested the Council to proceed at once with the new bridge from Quarella-road to New Bridge Fields. The Council has applied for grant in respect to the proposed building of two new footbridges.

BROMLEY.—Plans of houses approved by the T.C.: one, Blenheim-road, Mr. F. A. Wastell's plan; one, Park-avenue, Mr. F. R. Priest; Claremont-road, Messrs. Walker, Clinging & Co.; King's-avenue, Messrs. T. H. Sawyer & Sons; Alexandra-crescent, Mr. A. Frampton; two, Avondale-road, Mr. H. G. Skinner; Avondale-road, Mr. A. G. Shorter; Mayfield-road, Mr. J. H. Bloomfield; two, Avondale-road, Mr. G. Tate.

BURNLEY.—The Borough Surveyor is shortly to submit plans to the Council for the proposed erection of a central library, estimated to cost £18,000.

BURY.—The B.C. are seeking powers to compulsorily acquire certain lands and premises to carry out improvements in Tithebarn-street and Fleet-street, and have instructed their Surveyor to prepare plans showing new building lines of a street 70 ft. wide in Rock-street, from Unison-street to Cross-street, and in Stanley-street and Water-street, from Clough-street to Moor-gate.

CARLISLE.—The E.C. has decided to erect new school buildings for a boys' secondary school and a girl's secondary school, each of not less than 250 places; and the Chance School of Chemistry and General Science Laboratory, together with art rooms.

CASTLEFORD.—Plans passed: House, in Smawthorne-lane, for Mr. J. W. Keech; ballroom and shops in Sykes-street, for Mr. Scriven.

CHELMSFORD.—The Gas Committee recommend the T.C. to purchase land in Navigation-road for the erection of houses for gas workers. The Housing Committee propose to invite tenders for the erection of more houses of a type to be decided on. Baddow-road is to be widened and wood paved at a cost of £4,800. About 13 acres are being purchased near Sandford Mill for a new reservoir. The E.C. has asked a sub-committee to report on a request for a new school near the Boarded Barns Estate.

CHESTER.—The M.H. has sanctioned the borrowing of £10,000 for the purposes of purchasing and converting property into showrooms and offices for the Electricity Committee.

CLAYTON (YORKS).—The Bradford Corporation Mental Deficiency Committee has recommended to the City Council the immediate commencement of the erection of a new institution for mental defectives at Westwood, Clayton Heights. The total cost of the scheme is £120,000.

CLITHEROE.—The T.C. have obtained a site adjoining the gas works for the proposed erection of a new elementary school.

COLNE.—The T.C. are seeking sanction for loan in respect of sewerage work to be carried out in connection with property in course of erection in the Laneshaw Bridge District, for construction of a relief sewer from Whitewalls Meadow to Primet Bridge, and for the construction of storm overflows at Knotts-lane, and Broken Banks, estimated to cost £7,625.

CROWBOROUGH.—Plans passed by R.D.C.: House, Sweet Haws, for Mr. J. Buckingham; house, Rotherfield, for Dr. Pearce; house, Shirley-gardens, Mayfield, for Mr. Hodges; bungalow, Blackness-road, for Mrs. Griffin; additions to the Cottage Hospital and Nursing Home, Crowborough; bungalow, Station-road, for Mr. Southon.

CROYDON.—Plans passed by T.C.: New factory, Auricia-road, for Messrs. Grace & Marsh, Ltd., Waddon; four houses, Eva-road, for Mr. J. Midmer; 30 houses, Cedars-avenue, for Mr. J. Midmer; house, Crown-lane, for Messrs. Thorn & Co.; three houses, Fernham-road, for Mr. S. H. Laver; 33 garages, London-road, for Mr. S. W. Parker; bungalow, Ham Farm, for Mr. H. Payne; two houses and shops, Brigstock-road, for Mr. G. H. Dolls; 25 houses, Colliers Wood-lane, for Messrs. Crowley Bros.; bungalow, Ham Farm, for Mr. S. Breckwell; house, Haling Park-road, for Messrs. G. & A. Parris; four houses, Lodge-road, for Mr. C. F. E. Wells; two houses, Leicester-road, for Mr. J. Carpenter; four houses, Norbury-avenue, for Mr. J. Rodda; four shops and flats above, Brighton-road, for Messrs. Chart, Son & Reading; two houses, Blake-road, for Mr. R. J. Sadlier; house, Ham Farm, for Mr. W. A. Tyler public convenience, Grange-hill, for T.C.

DEVON.—The C.C. has acquired a site near Exete for a smallpox hospital.

DUDLEY.—Plans passed by T.C.: Pavilion extension Himley-road, for Dudley Golf Club; extension t works, Vauxhall-street, for the Co-operative Wholesal Society; house, Halesowen-road, for Mr. H. P. Case four houses, Blackacre-road, for Messrs. Watchorn Hughes; house, Himley-avenue, for Mr. Warby three houses, Dudley-wood, for Mr. J. W. Thompson cotton factory, Dibdale-street, for Scrim Manufacturin Co.

DUKINFIELD.—The T.C. propose reconstruction Dewsnap-lane, and Park-road.

DUNDEE.—Plans and sections of proposed ne buildings, &c., have been lodged at the office of th City Engineer: Martin-street, semi-detached villa for J. K. Anderson.

DURHAM.—The R.D.C. are to invite tenders for th various works required in the erection of houses a Ushaw Moor.—The R.D.C. has passed plans for 3 houses at High Pittington, for D. Glen.

EASINGTON.—Plans passed by the U.D.C.: Twelv houses at Horden; 10 aged miners' homes at Black head; 20 aged miners' homes at Shotton; 20 age miners' homes at Horden; 32 aged miners' homes a Easington Colliery; and a miners' hall and institut at Thornley.—The Housing Committee has receive authority from the M.H. for the erection of 100 ad ditional houses.

EASTBOURNE.—The T.C. proposes the purchase 20 acres of the Compton Estate at £300 an acre, for housing scheme.

FINCHLEY.—The U.D.C. has prepared a scheme fo surface water sewer, Earl End-road, to cost £5,27 Sanction is sought for a loan of £17,500 for a sewer Totteridge. Plans approved: Twelve garages, Chris church-avenue, Mr. H. Bradshaw; house, Northwa Mr. W. A. Stevens; house, Finchley-avenue, Mr. C. W Scott; six pairs of houses, Brookland-rise, Garsubu Ltd.; four houses, Gainsborough-road, Mr. Cha Brown; four houses, Sylvan-avenue, Mr. R. Ellwood house, Waverley-grove, Mr. J. D. Rawlins; fou houses, Nether-street and Eversleigh-road, Mr. J. Rainbird; house, Moss Hall-grove, Mr. H. J. West two houses, Northway, Mr. H. M. Hodgson; house Bishop's-avenue, Mr. A. Baker; house, Alexandra grove, Messrs. J. S. Stoke Vaughan & W. N. Wright tea room and tennis pavilion, Northway, Hampstea Garden Suburb Trust, Ltd.; three houses, Grea North-road, Whetstone, Messrs. King & Stannard house, Beechwood-avenue, Mr. J. Boyd Coubro; 9 houses, Summerlee Estate, Mr. Francis W. Walker six houses, Lansdowne-road, Messrs. Cude & Wood ward; house and garage, Hendon-avenue, Mr. C. W. B Simmonds; two houses, Woodberry-way, Messrs. C Halls & Sons; six houses, Ridgeview-road, Mr. D McGavin; five houses, Nether-street, Church End Mr. C. W. Scott; 11 houses, new road, junction o Argyle-road and Westbury-road, Mr. P. D. Walker amended block plan to seven houses, Birley-road Messrs. A. J. Harris & Sons. It is proposed to extend the Finchley Memorial Hospital.

FOLKESTONE.—Plans for a band pavilion on the Leas, estimated to cost £36,000, have been passed by the T.C.

GLOSSOP.—The T.C. has approved a plan of a bungalow in Winting-road, for Mr. W. Oliver.—It is proposed to ask the B.S. to amend his scheme for the lay out of the land adjoining the town hall extension so as to reduce the estimated cost from £600 to £450.

GOLBORNE.—The Rector of the Parish Church has been granted a faculty for re-roofing of the chancel removal of the chancel arch, the erection of new vestry and other alterations estimated to cost £2,130.

GOSFORTH.—Plans for a new secondary school have been passed by the Northumberland E.C. The estimated cost is £23,750.

GRAVESEND.—The T.C. has approved the Surveyor's plans for the lay-out of the King's Farm Estate Plans passed: Bungalow, Sun-lane, for Mrs. W. Axcell house, Whitehall-road, for Mr. M. L. Kent.—The Port of London Authority has given authority for the construction of a paddling pool.

HASLINGDEN.—Consultations have been held by the Corporation with representatives of the L.M.S. Railway for improvements to the approach to the station and better accommodation and more shelter on the platforms.

HESTON AND ISLEWORTH.—Plans passed by U.D.C. Mr. A. Hole, house, Wood-lane, Isleworth; Mr. W. H Richards, house, Bath-road, Hounslow; Messrs. P. Chase Gardener & Co., two houses, Tiverton-road, Hounslow; Messrs. P. Chase Gardener & Co., two houses, Tiverton-road, Hounslow; Messrs. Roper Son & Chapman, two houses, Great West-road, and one house, Sutton-road; Messrs. P. Chase Gardener & Co. house, Thornbury-avenue, Isleworth; Mr. H. Longford Moyle, house, Haliburton-road; Mr. S. Udall, bungalow, Sutton-lane; Messrs. P. Chase Gardener & Co. two houses, Hounslow-gardens; W. J. Horner, four houses, Denbigh-road; Mr. E. J. Cromwell, house London-road; Mr. W. J. Harris, two houses, Spring Grove-road; Messrs. Roper, Son & Chapman, two bungalows, Thornbury-road; fifteen houses, Great West-road, and bungalow, Sutton-lane.

HORSFORTH.—Plans passed: Butchers' shop a New Road-side, for the Leeds Industrial Co-operative Society, Ltd; pair of houses in Brownberrie-lane, for Messrs. Binns & Beumont; estate plan for Horsforth Co-Partnership Tenants, Ltd.; house in Holly-lane for Mr. Prince; house in Holly-lane, for Mr. Hall and house in Clarence-grove, for Mr. H. Ambler.

KIDDERMINSTER.—Plans passed by T.C.: House in Oldnell-road, for Mrs. Hodges.

KIRKDALE.—The erection of proposed war memorial in the form of a monument of Westmorland green stone, 5 ft. 6 in. high, at St. Lawrence's Church, has been approved.

* See also our List of Contracts, Competitions, etc.

TER.—Plans passed by T.C.: Shop, Sylvester-Mr. T. Grubb; builders' yard, engine house ooms, Damside-street, for Mr. R. L. Dilworth; k Island, for Mr. Jackson; house, Hall Park Mr. Murray; four houses, Scotforth-road, for Thompson; bungalow, Ardengate, Scotforth, lercer; two houses, Lincoln-road, for Mr. aites.

—The E.C. have forwarded to the B.E. for ideration, plans of two new open-air schools, iddleton the other at Crossgates. Each planned to accommodate 1,000 children.— n is being made for sanction to borrow the purposes of purchasing the furnishings tion with the new school at Bentley-lane,

D.—The plans and designs of Mr. F. Howarth, have been approved for the erection of the orial on a site in Church-road. Alternate re to be obtained for the work.

LD.—An inquiry has been held, respecting ation by the City Council for sanction to 2,300 for the purchase and adaptation of street, for the purpose of municipal offices, vement of the Guildhall, and the provision uary and a depot.

OOL.—A scheme for the erection of 6,000 dwellings for artisans is under consideration ousing Committee. The architects who sub- signs and plans for artistic houses and blocks to fringe Queen's-drive and Mather-avenue n instructed to send them to the Minister of and when approved to get out quantities, so construction can proceed. Tenders for the of 12 tenement houses in Burnet-street to be mmediately.

N.—The Royal Mail Steam Packet Co. is to new block of offices facing Leadenhall-street e-street.

N (BERMONDSEY).—The Housing Committee l plans of cottages proposed to be erected at 354, Rotherhithe-street, prepared by Messrs. Bowers, which they adopted.

N (KENSINGTON).—A recreation hall is to be at the junction of Golborne-gardens and d-crescent. The Council has prepared a or 40 tenements on the St. Quintin Housing

N (LEWISHAM).—Plans passed by B.C.: ll & Sons, eight houses, Manor-park; E. C. s, three houses, Sydenham Park-road; ros., four houses, Burnt Ash-hill; W. Rey- Co., seven houses, Bromley-road; Edmonds eight houses and four shops, Blyth-vale.

EATON.—The U.D.C. Architect has prepared plans for 15 houses, Tacworth-road; 51 at e-lane site; 16 at Midlaw-street; 14 at n-street; 9 at Myrtle-avenue; and 10 avenue. Subsidies were granted: House, oad, for Mr. W. Hurst; house, Trowell- Mr. O. R. Lewis; house, Longmoor-lane, for Allen; house, Curzon-street, for Mr. A. house, Oakley's-road, for Mr. A. C. Truman; ttingham-road, for Mr. G. Adams; bungalow, r-lane, for Mr. W. Bradley; and bungalow, treet, for Mr. Raynor. Plans passed: , Longmoor-lane, for Mr. F. Bradley; bunga- don-street, for Mr. Raynor; house, Thorney- l, for Mr. W. H. Woods; storerooms, &c., reet, for the Midland Waste Manufacturing se, Shaftesbury-avenue, for Mr. Bennett; edon-street extension, for Mr. Harrison.

f ST. ANNE'S.—Plans have been approved for on of 40 houses by private enterprise. The tion of the Public Baths is under considera- plication is to be made to the M.H. for

ESTER.—Plans approved for the erection of sub-station in Princess-street, Miles Platting, ommittee. Messrs. A. & S. Henry, Ltd., street, proposing erection of tea room on eir premises. Mr. A. Redford is proposing f 20 houses, Welford-road and Redford-road, ; plans by Mr. F. E. Drury, architect, Recreation hall for the Rev. H. Hicking, St. Andrews, Levenshulme, Hordicker-street, -road, Levenshulme; plans by Mr. H. M. evenshulme.

SBROUGH.—Of 32 sets of plans approved by ration Plans Committee, 20 were for houses.

THSHIRE.—A site has been secured by the War Memorial Committee on which to emorial, toward the cost of which £500 has en obtained.

MPTON.—Plans passed by T.C.: House, oad, W. T. Jephson; house, Beech-avenue, der; house, Cedar-road, G. H. Burgess; ngswell-road, M. Smith; house, Harlestone- Timpson; house, St. George's-avenue, D. warehouses, Marble-arch, H. J. Payne; es, Beech-avenue, F. Stafford and L. P. house, Kingsthorpe-grove, A. Nichols; ingsthorpe-grove, A. F. Morrow; house, nue, J. H. Welch; house, Lime-avenue, house, Park-avenue N., S. Clarke; two & 20, Boughton Green-road, Messrs. A. L. & wn; two houses, 46 & 48, Boughton Green- rs. A. L. & H. W. Chown; house, Delapre- J. H. Riddington; five houses, Ransome- rthampton Co-operative Society; house, Northampton Co-operative Society; two ng Edward-road, W. C. Throssell.

MBERLAND.—The E.C. is now taking steps to t an extensive building programme. Tenders nvited in the near future for a new secondary Bedlington, and steps are being taken to e of 1¼ acres at the Bothal end of Ashington the erection of a new elementary school.

—The International Coal Co. is to erect and afterwards an additional 100 houses.

—The U.D.C. has passed plans for a bun- Mrs. Elliot.

OLDHAM.—The Wesleyan Central Mission have secured a site for £400 for a permanent home for the mission. Funds are being raised by the parishioners of St. James' Church, Barry-street, for the erection of an Institute.—The Corporation are to make an improvement in Middlegate by widening Orrell-street.

PADIHAM.—The U.D.C. have under consideration the provision of a public library.—The E.C. have acceded to the application of the Lancashire Electric Power Co. to erect a power station.

PAIGNTON.—A site for a new Catholic church has been acquired, situated off the Torquay-road.

PEMBROKESHIRE.—The Fishguard U.D.C. has passed plans: Mr. W. Bateman, Gwynfa, two bungalows.——The Milford U.D.C. has passed plans: House, for Mr. Barras, Market-square; house, for Mr. W. H. Price, Wellington-street; house, for Mr. J. F. Price, Wellington-road; two houses, for Messrs. Evans & Davies, Picton-road.——The Council is to proceed with the erection of a public convenience.——Plans are being prepared for the proposed widening of Hakin bridge. ——The St. Dogmael's R.D.C. has agreed to widen and improve the Temple Bar-Jericho-road, at an estimated cost of £11,000, on the Ministry's promise of a 75 per cent. of cost grant.——The Council has applied for sanction to also carry out the improvement of the Penybryn-Blaenffos-road, at an estimated cost of £8,100.

PENRITH.—Plans approved by U.D.C.: Amended lay-out of Croft House Estate, showing central avenue, 48 ft. wide, for Mr. J. Harding; house, Graham-street, for Mrs. Knewstubb; house, Graham-street, for Mr. H. Wilkinson.

PETERBOROUGH.—The T.C. is to prepare a scheme for widening Narrow-street. Plans passed: House Westwood Park-road, for Mr. R. A. Walker.—The T.C. is negotiating regarding a proposed riverside embankment.—It has been decided to erect a maternity and welfare centre at the Brook-street depot, at an estimated cost of £750.—The Electricity Committee has decided to provide lavatory accommodation at the generating station at a cost of about £280.

PONTEFRACT.—Plans passed by R.D.C.: House at Stump Cross-road, for Mr. W. H. Watson; house at Carleton, for Mrs. C. Darnton; house at Whiteley Bridge, for Mr. A. E. Lindley; 12 houses at Glasshoughton, for Mr. H. Roper; five houses at Glasshoughton, for Mr. J. W. Coop; 10 houses at Glasshoughton, for R. Walker & Sons; 30 houses at Glasshoughton; two houses at East Hardwick, for Mr. G. Wigglesworth; and house at Carleton, for Mr. E. Whitehouse.

PORTISHEAD.—The M.H. has sanctioned the borrowing of £6,000 for the erection of an additional 10 houses on he South-road site.

PRESTON.—Plans passed by T.C.: J. Sargeant, two house, Primrose-road; J. H. & W. C. Mangan, for F. Swift, bungalow, Heather-grove; D. Wignall, two houses, Marsh-lane; E. J. Andrew, for Royal Fleet Reserve Association, club house, Strand-road; H. Heaton, for E. & W. Heaton, two houses, Maresfield-road; F. Mallott, for Horrockses, Crewdson & Co., welfare centre, New Hall-lane; H. Heaton, for R. L. Adamson, house, Deepdale-road; E. J. Andrew, for H. Rain, assembly hall, Tithebarn-street; B. Crabtree, for T. Morley, house, shop and cafe, Addison-road; J. Rowcroft, bungalow, Lytham-road; E. J. Andrew, for T. Worden, house, Primrose-road, off Blackpool-road; J. H. & W. C. Mangan, for Messrs. Webb, Salter, Ltd., show room, &c., Lawson-street; J. Albrighton, two houses, Windsor-avenue.

PRESTON.—Amongst the building or extension proposals under consideration by the Lancashire Asylums Board are the increase of single room accommodation on the male and female sides at Winwick Mental Hospital, involving about £16,000; extension of the accommodation at the shoemaker's shop at Calderstones, Whalley; covering in the reservoir at Calderstones Institution; the erection of houses on the Calderstones estate, at Whittingham, and at the Lancaster Mental Hospital, the M.H. having approved the Lancaster plans.——The members of the Railway Mission are raising funds for proposed extension to mission hall, estimated to cost £350.

PURDYSBURN.—The Inspector to the Ministry of Home Affairs, Northern Ireland, has held an inquiry into an application for sanction to a loan of £98,000 for the completion of the Villa Colony at Purdysburn Lunatic Asylum.

PWLLHELI.—The T.C. have decided to proceed with the scheme of widening Abererch-road, at the entrance to the town, at a cost of £2,200.

ROCHDALE.—The Buildings and Sites Sub-Committee have decided to recommend the E.C. to purchase a plot of land in front of the present Lower-place Council School, King's-road, for the purpose of school extensions.

ST. HELENS.—The Board of Management are proposing to proceed with the extensions to the Providence Free Hospital, which include a Women's Surgical Ward. Messrs. Biram & Fletcher are the architects for the scheme.

SEDGEFIELD.—Plans passed by the R.D.C.: Twelve houses on the Chilton Building Estate; dressing room and grand stand, for the Chilton Recreation Committee; workmen's club at Trimdon, for the Trimdon Colliery and Deaf-hill Workmen's Club Committee; bungalow at Ferryhill, for Mr. A. J. Jeffrey; bungalow at Sedgefield, for Mr. J. Gibbons.

SHEFFIELD.—Plans passed by T.C.: Bungalow, Dalewood-road, for Mr. E. Smith; house, Dalewood-road, for Mr. S. P. Dobson; house, Sandford Grove-road, for Mrs. Dorice Hughes; house, Earl Marshal-road, for Mr. John E. Crowe; bungalow, Selborne-road, for Mr. P. Parry; three bungalows, Dalewood-road, for Messrs. Bingham & Worthington; two houses, Hessle-road, for Mr. Bernard F. Glossop; house, Roscoe Bank, for Mr. Frank Ashton; two houses, Thorne-road, for Mr. B. Eagers; two houses, Main-road, Handsworth, for Mr. A. Allen; four houses, Brooklands-crescent, for Mr. G. Womersley; bungalow, Norton Lees-road, for Messrs. Hammett & Co.; house, Cobnar-road, for Mr. A. L. Halpin; house, Earl Marshal-road, for Mr. H. Picksley; house and garage, Ecclesall-road, for Mr. W. Ramsay; two houses, off Abbey-lane, for Mr. R. Bottomley; house, Broad Elms-lane, for Mr. R. Cawkwell; 16 houses, Tullibardine-road, for Mr. A. J. Belton; house, Whiteley-lane, for Mr. R. A. Paton; two houses, Overton and Carlton-roads, for Mr. W. J. Patchett; bungalow, Storth-lane, for Mr. F. H. Beaumont; house, Montgomery-road, for Mr. J. H. Webster; bungalow, Cherry Tree, Gainsboro' and St. Andrew's roads, for Mr. S. Bannister; two houses and garage, Rundle-road, for Messrs. Abbott & Bannister; house, Abbey-lane, for Mr. W. Howe; house and garage, Tom-lane, for Mr. J. W. Braim; two houses, Bristol-road, for Mr. James Samuel; eight houses, Dalewood-avenue, for Mr. W. H. Rowan; house, Sandford-grove, for Mr. H. Hemington; four houses, Rundle-road, for Mr. W. Ramsay; two houses, Whitehouse-crescent, for Mr. J. J. Hawksworth; two bungalows, off Abbey-lane, for Mr. A. J. Mackenzie; bungalow, Dalewood-road, for Mr. G. R. Parkin; 12 houses and garages, Tom-lane, for Mr. S. Hogg; two houses and garage, Carterknowle-road, for Miss L. R. Bisbey; bungalow, Abbey-lane, for Mr. J. A. M. Jenkins; bungalow, Abbey-lane, for Mr. J. Southern; 24 houses, Ecclesall-road South, Parkhead, for Mr. W. Ramsay; two houses, off Abbey-lane, for Mr. Geo. Storer; house, Broad Elms-lane, for Mr. J. Riley; bungalow and garage, Montgomery-road, for Mr. W. H. Ibbotson; house and shop, Brookhouse Hill and Brooklands-crescent, for Mr. E. S. Hancock; house and garage, Tom-lane, for Mr. W. Rose; bungalow, Brincliffe Edge-road, for Mr. W. Swithenbank; two houses, Richmond-road, for Mr. A. Tate; five houses, Castlewood-road, for Mr. James Samuel; four houses, Cairns-road, for Mr. G. Moulson; six houses, Prince of Wales-road, for Mr. T. R. Hinchliffe; four houses, Ford-road, for Mr. J. Ramsden; two houses, Ford-road, for Mrs. Temporal and Miss L. F. Marsden; two houses, Louth-road, for Mr. Moses Simpson; bungalow, Dalewood-road, for Mr. G. R. Parkin; eight houses, Trap-lane, for Mr Walter Green; house and garage, Tom-lane, for Mr. E. Roper; six houses, Louth-road, for Mr. Riley Watson; six houses, Ringinglow-road and Hugo-avenue, for Messrs. W. Malthouse, Ltd.; two houses, Abbey-lane and Dalewood-road, for Mrs. M. E. Conway; 202 houses, Manor Estate, for Sheffield Corporation Estates Committee; house, Crescent-road, Birley Carr, for Mr. B. Corbett; two bungalows, Dalewood-road, for Mr. J. V. Auckland; bungalow and garage, Abbey-lane, for Mr. T. Abbott: house, Abbey-lane, for Mr. C. T. Nichol; 3 houses, Gleadless-road, for Mr. P. Finney.

SOUTH SHIELDS.—Plans passed by T.C.: Mr. Dugald Currie, for The South Shields Gas Co., strong room, boiler house, &c., Chapter-row; Mr. Howard Hill, for Mr. A. Brown, conversion of shop premises into dwelling rooms, No. 2, Whitehead-street, Tyne Dock; Mr. F. W. Newby, for Messrs. Henderson Bros., semi-detached houses, West-avenue, Harton.

SOUTHPORT. — The Corporation have accepted a tender of £133 for construction of steps near Meols Cop railway station.

SOWERBY BRIDGE.—The Bolton Brow Wesleyan Church Council propose to carry out a scheme of alterations and renovations at an estimated cost of £1,250.

STOCKTON.—The Billingham (Stockton) U.D.C. are proposing to install the water carriage system at a cost of over £8,000.

STRETFORD.—Plans are being prepared for an open-air school for the children.

SWINTON (YORKS).—The Surveyor to the U.D.C. has been instructed to prepare plans for five groups of four non-parlour type houses each, the scheme has been sanctioned by the M.H.

TADCASTER.—Plans passed: House at Nova Scotia, Allerton-Bywater, for Mr. J. Heywood; two houses at Station-road, Scholes, for Messrs. G. H. Stockdale and A. Todd; parochial buildings and alterations to present school, for the Vicar of Allerton-Bywater.

TRAWSFYNYDD.—The North Wales Power Co. have begun work on the proposed huge dam four miles long. The work, which will cost over £1,500,000, has been let to Sir W. M'Alpine & Co., and includes the construction of a new hydro-electric station at Maentwrog, about two miles from the dam. It is also proposed to augment the company's station at Cwmyli, at the foot of Snowdon. A large railway siding on the G.W.R. between Maentwrog-road and Trawsfynydd is being erected.

WALSALL.—The E.C. have accepted a tender for the erection of a domestic science and handicraft centre at Bloxwich, for £2,180.

WARRINGTON.—The Vicar of St. Margaret's and All Hallows, Orford, has been granted a faculty for a carved oak screen, a stained glass window and alterations to the pulpit estimated to cost £1,000.

WEETSLADE.—The R.D.C. have resolved to seek compulsory powers for the acquisition of land for a housing site at Seaton Burn.

WIGAN.—Sanction received by T.C. for reconstruction of section of Wigan-road, estimated to cost £3,135. Acquisition of land at Whalley for proposed school site under consideration. The managers of St. Patrick's R.C. School propose an extension to playground of 564 square yards.

WOLVERHAMPTON.—The Sites and Buildings Committee of the E.C., in a report, state that the B.E. have intimated that they are prepared to consider plans for a proposed new mixed school at Merridale, and an infants' department at Willenhall-road.

WORTLEY (YORKS).—The R.D.C. are to erect 20 houses at Ecclesfield, and 10 houses at Tankersley.

WREXHAM.—Plans passed: Yale Motor Engineering Co., garage and showroom, Brook-street; D. H. Griffiths, four houses, Chester-road; J. Vaughan, house, Gerald-street.

FIRES.

RHONDDA.—Damage to plant and buildings, estimated at £250,000, has been caused by fire to Power Station at Messrs. D. Davies & Sons, Rhondda Group of Collieries, at Tylorstown.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.

BRICKS, &c,

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0

Best Stourbridge Fire brick:—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
⅜ in. Shingle for Ferro-Concrete	14 0	" "
½ in. "	15 0	" "
⅜ in. Broken Brick	10 6	" "
Pan Breeze	7 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6 51/- alongside at Vauxhall in 80-ton lots.

Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3

HARD YORK—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
4 in. ditto. ditto "	2 5
4 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£24 10
4 × 9	32 0	3 × 11	30 0
4 × 8	26 0	2 × 11	30 0
4 × 7	26 0	3 × 9	26 0
3 × 8	25 10	2½ × 9	27 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	24 0	3 × 4	24 10

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£37 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/-	1¼	33/6
¼	24/-	1½	37/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/-

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	21/-
1	26/-

BATTENS

Inches	s. d.
¾ × 2	2 6 per 100 ft.

SAWN LATHS.

Per bundle	0 2 8		
Dry Wainscot Oak. per ft. super, as inch	0 2 0	to 0 2 6	
⅜ in. do. do.	0 1 6	to 0 2 0	
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9	to 0 2 6	
Cuba Mahogany	0 3 0	to 0 3 6	
Teak (Rangoon, Moulmein or Java), per load	45 0 0	to 50 0 0	
American Whitewood planks, per ft. cube	0 14 0	to 0 16 0	
Best Scotch Glue, per cwt.	4 10 0	to —	
Liquid Glue, per cwt.	4 7 0	to 5 10 0	

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 12 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof "	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
½ in.	16 10 0	⅝ in. to ⅞ in.	13 10 0
⅜ in.	14 10 0	⅛ in. to 2⅞ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	52½%	52½%	62½%
Water	47½%	47½%	57½%
Steam	42½%	42½%	52½%
Galv'd—			
Gas	37½%	42½%	52½%
Water	31½%	37½%	47½%
Steam	25 %	32½%	42½%

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¾	11d.	3½d.
3½ in.	1/2¾	1/0¾	3¾d.
4 in.	1/4	1/1¾	3¾d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7¾	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2¾	3½d.
3½ in.	1/6½	1/2¾	3¾d.
4 in.	1/7¾	1/4	3¾d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1¾	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5¾
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5¾	3 3¾
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3¾	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. "	6 3	6 8	11 4
5 in. "	7 6	11 6	18 2
6 in. "	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	..	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.	
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..
Hoop iron, basis price	16 10 0	..
" Galvanised	31 0 0	..
Soft Steel Sheets, Black— Ordinary sizes to 20 g.	15 0 0	..
" " " 24 g.	16 0 0	..
" " " 26 g.	18 0 0	..
Sheets Flat Best Soft Steel, C.R. & C.A. qual		
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..
Best Soft Steel Sheets, 26 g.	26 0 0	..
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..

METAL WINDOWS—Standard sizes suitable plete houses, including all fittings, paint coats, and delivery to job, average price a to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)

	£
LEAD—Sheet. English, 4 lb. and up	
Pipe in coils	
Soil Pipe	
Compo pipe	

NOTE—Country delivery, 30s. per ton extra: lo 3 cwt., 2s. per cwt. extra and over 3cwt. and cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cw

Old lead, ex London area, at Mills per ton	£27 10 0 ..
Do., ex country, carriage forward per ton	£28 10 0 ..

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COC IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- p

NEW RIVER PATTERN SCREW DOWN STOP COC UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- p

NEW RIVER PATTERN SCREW DOWN MAIN FE

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1½ in.	1¾ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per d

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per d

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per do

NEW RIVER PATTERN CROYDON BALL VALVES.

½ in.	¾ in.	1 in.	1¼ in,	1½ in.
35/-	56/-	98/-	162/-	228/- pe

DRAWN LEAD P. & S. TRAPS WITH BRASS CL SCREW.

	1½ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- p
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	..
Thin " "	0 2 4	..
Copper nails "	0 2 3	..
Copper wire "	0 2 4	..
TIN—English Ingots "	0 2 2	..
SOLDER—Plumbers' "	0 1 0	..
Tinmen's "	0 1 2	..
Blowpipe "	0 1 4	..

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
" " " in barrels "	0
" " " in drums "	0
Boiled " " in barrels "	0
" " " in drums "	0
Turpentine in barrels "	0
" in drums (10 gall.) "	0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	65

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 78

Red Lead, Dry (packages extra) per ton	52
Best Linseed Oil Putty per cwt.	0
Filocol per cwt.	0
Size, XD Quality	0

[*Concluded on next page.*]

* The information given on this page has been s compiled for THE BUILDER and is copyright. Our this list is to give, as far as possible, the *average* of materials, not necessarily the highest or lowest. and quantity obviously affect prices—a fact which be remembered by those who make use of this infor

CURRENT OF MATERIALS (*contd.*,

GLASS.

SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
rths ..	3½d.	32 oz. fourths	8½d.
irds	4½d.	32 „ thirds	10½d.
rths ..	5½d.	Obscured Sheet, 15 oz.	4d.
irds	6½d.	„ „ 21 „	5½d.
rths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
irds	8d.	En'lled 15oz. 5½d., 21 oz	7½d.

ce according to size and substance for squares m stock.

ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
l plate	4½d.
n rolled	5½d.
n rolled	5½d.
ed Rolled, Oxford Rolled, Baltic, Oceanic, tic, Stippolyte, and small and large nish white	6½d.
Ditto, tinted	9d.
l Sheet	6d.
Rolled Cathedral	5½d.
l do.	7½d.

st Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
nish	Outside	0 14 0
to	ditto	0 16 0
pal	ditto	0 18 0
pal	ditto	1 0 0
pal Carriage	ditto	1 4 0
to	ditto	1 12 0
arnish	Inside	0 18 0
le Paper	ditto	0 18 0
pal Cabinet	ditto	1 2 6
pal Flatting	ditto	1 0 6
ying Oak	ditto	0 18 0
rd Drying Oak	ditto	0 19 0
pal Varnish	ditto	1 0 0
tto	ditto	1 2 0
tto	ditto	1 12 0
pan Gold Size		0 10 0
ck Japan		0 10 6
Mahogany Stain (water)		0 12 0
k Black		0 7 6
lack		0 14 6
(patent)		1 5 0
nd Brush Polish		0 17 0
ryers in Terebine		0 9 0
Black Enamel		0 7 0

Montrose.

rose War Memorial, which has been at a cost of £2,500, was unveiled recently. norial is the work of Mr. H. S. Gamley, and the pedestal was designed by Washington Browne, P.R.S.A.

THE SCOTTISH BUILDER

NEW BUILDINGS IN SCOTLAND

Dumfries.—RESTAURANT.—The Dean of Guild Court has passed plans for the new Imperial Restaurant, to be erected at the corner of King-street and Queensberry-square. The estimated cost of the building is £5,000.

Brechin.—HOUSING.—The Board of Health has approved provisionally of the district housing scheme, and the C.C. has instructed the District Committee to borrow to the extent of £3,000, as required.

Sanquhar.—SCHOOL.—The Dumfriesshire E.C. propose to erect an intermediate school at Sanquhar.

Forres.—BAKEHOUSE.—The Dean of Guild Court has passed plans for a bakehouse in Academy-street, for the Scottish Co-operative Society.

Greenock.—HOUSE.—The District Combination Hospital have submitted plans to the Dean of Guild Court for a house to be erected for the physician and superintendent at Gateside Hospital. The plans were passed.

Newtongrange.—VARIOUS.—Offers for a new school at Newtongrange were approved, at a recent meeting of the Midlothian E.A., subject to the approval of the department. The amount of the offers was about £13,850. Tenders were accepted in connection with the erection of a janitor's house and a rural branch library at Musselburgh Grammar School, amounting to £1,430.

Perth.—HALL.—The Dean of Guild Court has granted permission to Mr. J. D. M'Inroy, proprietor of the York House Restaurant, to erect a hall at the rear of the premises.

Tillicoultry.—HALL.—The Corporation Plans Committee has received plans for their consideration in connection with the erection of a new hall proposed to be erected in connection with the E.U. Church.

Ayr.—VARIOUS.—The Dean of Guild Court has passed the following plans: Grand stand, &c., at an estimated cost of £5,800, for the Ayr United Football and Athletic Club, Ltd.; alterations to shops in Newmarket-street, for James Bowie & Co. house furnishers, estimated to cost £1,100; Mrs. J. MacDonald, buildings in Sandgate; J. S. Wilson, engineer, house in Seafield-road, estimated to cost £800; Charles R. E. Mapstone, house in Doonfoot-road, estimated to cost £1,100; Robert Dempster, alterations to house in St. Leonard's-road, at an estimated cost of £220.

EDINBURGH'S £450 HOUSES

MR. JAMES BROWN, M.P., as Lord High Commissioner to the General Assembly of the Church of Scotland, recently inaugurated the extensive housing scheme, which is being undertaken by the Edinburgh Corporation on the Lochend Estate. Mr. Brown laid the foundation of a block of houses, which form the first contribution to a housing scheme which is to comprise 1,000 dwellings erected on the duo-slab system. It is expected that all the houses will be ready for occupancy before the end of the year. The Convener of the Housing Committee explained the extent of the scheme. The 1,000 houses were estimated to cost £450 each, and in consequence of the simplicity of the system would give employment to a large number of unskilled unemployed.

Addressing the gathering, Mr. Brown said there were many things that came into their national life to make the people truly great and good, but there was nothing—after the Gospel—that contributed more to the uplifting of the people than the houses in which they lived, and nothing caused more irritation in the body politic than the insufficiency of houses. He trusted that the scheme would not only be a beginning for Edinburgh, but that, as the capital of Scotland, they would give a lead to other Scottish cities and towns in house-building. The Lord Provost afterwards formally opened a demonstration house. He said that, by the duo-slab system, which was invented by Sir Edwin Airey (Lord Mayor of Leeds), and contractor for the scheme, these houses had been built in four months, and with the same efficiency and energy on the new scheme they hoped to accelerate the provision of houses.

ARCHITECTS IN SCOTLAND

THE monthly meeting of the Incorporation of Architects in Scotland was held recently at Edinburgh, Mr. T. P. Marwick, F.R.I.B.A., President, in the chair. The present position of the draft model building by-laws was explained by Mr. Andrew Robertson (Glasgow), a representative of the Incorporation on the body dealing with the subject. The report of the Practice Committee, submitted by Mr. G. P. K. Young (Perth), included a communication from the Scottish National Building Trades Federation on lump-sum contracts. Mr. J. Inch Morrison (Edinburgh), submitted the report of the Competitions Committee, embodying a recommendation to adopt for Scotland the new regulations for architectural competitions just issued by the Royal Institute of British Architects; and Mr. James Lochhead (Hamilton), convener of the Housing and Town-Planning Committee, laid before the meeting the revised scale of architects' fees under new housing schemes. The final arrangements were made for the annual convention at Ayr on June 13 and 14.

Glasgow Memorial Hall.

The war memorial of Mount Florida U.F. Church, Glasgow, which takes the form of a church hall, was opened recently by Lieut.-Colonel J. F. Daly, D.S.O. Mr. George Boswell, F.R.I.B.A., architect for the hall, on behalf of the contractors and himself presented Lieut.-Colonel Daly with a gold key as a memento of the occasion. The new hall is a commodious building with rough-cast exterior. There are various ante-rooms, a vestry, a kitchen, and a lower hall—not yet finished—which will meet the needs of functions for which the main hall is unsuitable. The cost of the memorial is £4,173.

ILDING TRADE WAGES IN SCOTLAND.*

following are the present rates of wages in the building trade in the principal towns of l. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors y occur:—

	Masons.	Bricklayers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Labourers.	Plasterers' Labourers.
.....	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
ia	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
.....	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½		
.....	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½		
rie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
ge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
on	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
.....	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
line	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
gh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
liam	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2		
s	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
.....	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
rgh	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2		
.....	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½		
.....	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d. to 1 2½		
ck	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
.....	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½		
.....	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
ell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
ire (Eastern)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½		

Information given in this table is copyright. The rates of wages in the various towns in England and given on page 922.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/–	44/–	50/–	80/–

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/–	58/–	67/–
Do. tongued and grooved	"		54/–	65/–	72/–
Do. matchings	"	45/–	55/–		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.
Deal wrot moulded and rebated	per foot cube	14

		1"	1¼"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d.

STAIRCASES.

	1"	1¼"	1½"	2"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—
Deal strings wrot on both sides and framed	1/8	2/–	2/2	2/8

		s.
Housings for steps and risers	each	
Deal balusters, 1 in. × 1½ in.	per ft. run.	
Mahogany handrail; average 3 in. × 3 in.	" "	
Add if ramped	" "	1
Add if wreathed	"	2

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	
Sash fasteners	11½d.	Mortice locks	
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.
Rolled steel joists	per cwt.	17
Plain compound girders	"	20
Do. stanchions	"	23
In roof work	"	28

RAIN-WATER GOODS.

		3"	4"	5"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7
Ogee Do. Do.	"	2/4½	3/1	3/10
Rain-water pipes with ears	"	2/9	3/7	
Extra for shoes and bends	each	4/4	5/11	
Do. stopped ends	"	1/11	2/4½	3/7
Do. nozzles for inlets	"	2/2	2/7	3/10

PLUMBER.

		s.
Milled lead and laying in flashings and gutters	per cwt.	57
Do. Do. in flats	"	55
Extra labour and solder in coated cesspools	each	6
Welt joint	per ft run.	0
Soldered seam	" "	1
Copper nailing	" "	0

		½"	¾"	1"	1½"	2"
Drawn lead waste	per ft. run	1/1	1/9	1/11	3/5	4/2
Do. service	"	1/8	2/2	2/7	3/10	
Do. soil	"					
Bends in lead pipe	each					3/3
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6
Red lead joints	"	11d.	1/–	1/3	1/11	2/4
Wiped soldered joints	"	2/10	3/6	4/–	4/11	6/6
Lead traps and cleaning screws	"				14/7	19/6
Bib cocks and joints	"	6/4	9/7	15/4	41/–	
Stop cocks and joints	"	15/4	17/2	25/8	64/–	

PLASTERER.

		s.
Render, float and set in lime and hair	per yard sup.	2
Do. Do. Sirapite	" "	2
Do. Do. Keen's	" "	3
Add sawn lathing	" "	1
Add metal lathing	" "	2
Portland cement screed	" "	1
Do. plain face	" "	3
Mouldings in plaster	per 1 girth	0
One-and-a-half granolithic pavings	per yard sup.	5

GLAZIER.

		s.
21 oz. sheet plain	per foot sup.	0
26 oz. Do.	" "	1
Obscured sheet	" "	1
⅛ in. rolled plate	" "	0
¼ in. rough rolled or cast plate	" "	0
¼ in. wired cast plate	" "	1

PAINTER.

		s.
Preparing and distempering, 2 coats	per yard sup.	0
Knotting and priming	" "	0
Plain painting 1 coat	" "	0
Do. 2 coats	" "	1
Do. 3 coats	" "	1
Do. 4 coats	" "	2
Graining	" "	2
Varnishing twice	" "	1
Sizing	" "	0
Flatting	" "	0
Enamel	" "	1
Wax polishing	per foot sup.	0
French polishing	" "	1
Preparing for and hanging paper	per piece 2/– to 4/	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

unications for insertion under this heading should ressed to "The Editor," and must reach him not han Tuesday evening.

otes *accepted.* † Denotes *provisionally accepted.*
otes *recommended for acceptance.*
otes *accepted subject to modifications.*

DENSHAW.—Reconstruction of Droylsden-
. H. Worthington, Ltd., Manchester £4,964

CKPOOL.—For the erection of a Secondary for Girls, Beech-avenue and Forest Gate. Plans ed by Borough Engineer :—
r Lindsay Parkinson & Co., Ltd., Blackpool.

TON.—For the erection of houses, for the

	Per pair.
mber Hill—G. W. Horton & Son..	£800 0
irton—Wm. Greenfield	779 0
osdyke—Wm. Greenfield	799 0
igtoft—E. T. Mowbray	788 0
ld Leake—J. W. Allen	778 10
irton Fen—W. A. Southwell....	800 0
rangle—J. W. Allen	785 0

STON (LINCS).—For erection of 14 pairs of s, for the R.D.C. Mr. A. Barton, surveyor, h-lane :—

	Per pair.
Maryland Locks, Amber-hill (2 *pairs*) :	
. W. Horton & Son, Horncastle	£800 0
Eleven Acre-lane, Kirton (2 *pairs*) :	
Wm. Greenfield, Boston	779 0
Bell-lane, Fosdyke (2 *pairs*) :	
Wm. Greenfield, Boston	799 0
Dipper-lane, Wigtoft (2 *pairs*) :	
. T. Mowbray Swineshead	788 0
Washdyke-lane, Old Leake (2 *pairs*) :	
. W. Allen, Wrangle, Boston	778 10
Kirton Fen-drive, Amber-hill (2 *pairs*):	
V. Southwell, Spain-lane, Boston ..	800 0
The Totts, Wrangle (2 *pairs*) :	
. W. Allen, Wrangle, Boston	785 0

ADFORD.—For the erection of 106 concrete s on the Bierley House Estate :—
. Boot & Sons, Ltd., London.

RNLEY.—For the erection of a pavilion on the courts at Townley Park :—
ator, drainer, bricklayers' work—
ith Stanworth & Sons, Burnley £228 8 3
s' work—
. & R. Clegg, Burnley..... 128 16 3

ELMSFORD.—For reconstruction of new road, Baddow, for the R.D.C. Mr. L. A. Cozens, or, Waterloo-lane :—
arrison & Co., Chelmsford £1,302
Rayner, East Hanningfield 1,225
rench & Co., Buckhurst Hill 1,150
. Potter, Chelmsford 987

ELMSFORD.—For kerbing and drainage works, e-lane, Great Baddow, for the R.D.C. :—
. Potter, Chelmsford £806 0
rench & Co., Buckhurst Hill..... 777 0
arrison & Co., Chelmsford..... 583 10
Rayner, East Hanningfield..... 650 0

WAY.—For the erection of Children's Homes ndudno Junction, for the Conway B.G. Plans ed by Mr. S. Colwyn Foulkes, Architect :—
ay & Co., Coventry £11,500

YDON.—For erection of tenement block in Orchard-road (in place of tender previously ed and since withdrawn) :—
H. Smith, Croydon £11,589

AYTON.—For the erection of a new Council at Drayton, for the Southampton C.C. :—
urtis & Hankins £7,769 14 3

ESMERE PORT.—For erection of 260 houses, e U.D.C. Mr. T. W. Francis, Clerk, Council :—
cks of 4 in block—
B. J. Gould, Ltd., Ellesmere Port £63,648
cks of semi-detached houses—
Warrington & Sons, Ltd., Ellesmere Port 22,334

CHLEY.—For decoration to schools, for the

all Bros., Hendon-lane £394

SGOW.—For railing, &c., at new baths and ouses at Whiteinch and Pollokshaws, for the
King & Sons £1,093 2

SGOW.—For supply of concrete breaker outfit, T.C. :—
gersoll-Rand Co., Ltd. £539 10

SGOW.—For the erection of shelter at tennis Belvedere Hospital, for the T.C. :—
wieson, Ltd. £195

VESEND.—New Child Welfare Centre, for the
E. Wallis & Sons, Ltd. £1,597

ERNESS.—For laying reinforced concrete in n-road, for the T.C. Mr. G. Smith Laing, Clerk, Town Hall. Quantities by Mr. A. F. nzie, Burgh Surveyor :—
Matheson & Co., Inverness.... £808 7 6
o. Duncan & Co., Inverness .. 722 2 6
mes Campbell, Inverness..... 612 4 2

LAMPETER.—For work on the Nantyffin bridge, Brechfa, for the Lampeter R.D.C. :—

H. Evans, Llandilo.....	£666
A. Williams, Manordilo.....	680
W. Davies, Llanybyther	640
*D. J. Evans, Llanybyther.....	556

LEEDS.—For reconstruction of the "Chain and Bull" at Moortown, for Messrs. Ind Coope & Co., Ltd., Burton, Brewers. Architects, A. & F. Mosleys, Wormald-row, Leeds :—
Mason—A Lambert & Sons, Bramley.
Joiner—Banks, Mawson, Sheepscar.
Steelwork—Leonard Cooper, Ltd., Leeds.
Slater—W. Atkinson & Sons, Leeds.
Plasterer—H. Moore, Leeds.
Asphalter—Tunstall's Rock Asphalte Co., Ltd., Leeds.
All accepted.

LEEDS.—For the erection of an Elementary School at Bentley-lane, Meanwood, for the E.C. The architect is Mr. Broadbent :—
*Wm. Thompson & Sons, Leeds.

LEEDS.—For erection of a Labour and Socialist Club at Hall-road, Town-street, Armley, near Leeds, for the Armley and Wortley Labour Party :—
*L. Harpham, Leeds.

LONDON.—For the reconstruction of the Gerald-road Police Station. Mr. G. Mackenzie Trench, A.R.I.B.A., architect and surveyor. Quantities by Messrs. Thurgood, Son & Chidgey, 18, Adam-street, W.C. :—

F. G. Minter	£9,648
Holliday & Greenwood, Ltd.....	9,448
Holloway Bros. (London), Ltd.	9,347
John Mowlem & Co., Ltd.	9,158
A. E. Symes	9,158
Prestige & Co., Ltd.	9,111
T. H. Adamson	9,038
Higgs & Hill, Ltd.	8,890
Walter J. Dickens	8,451
Patman & Fotheringham, Ltd.	8,410
Lole & Co.	8,219

LONDON.—For painting the interior roofs, &c., of Leadenhall Market, for the City Corporation :—

W. Lawrence & Son	£3,484	0	0
Roberts & Co.	3,472	0	0
Falkus Bros.	3,245	0	0
J. Greenwood, Ltd.	3,095	0	0
N. Lidstone & Son	2,500	0	0
Eustace & Son	2,450	2	6
*W. G. Beaumont & Sons	1,852	9	3

LONDON.—For supply of steel pipes and specials for Kempton to Cricklewood main, for the Metropolitan Water Board :—

Thomas Piggott & Co., Ltd....	£37,106	5	
British Mannesmann Tube Co., Ltd.....	36,567	0	
*Clayton, Son & Co., Ltd.	33,138	2	

LONDON.—For construction of main from Kempton to Cricklewood, for the Metropolitan Water Board :—

Thomas Muirhead & Co., Ltd.....	£357,580	5	8
Wm. Muirhead, Macdonald, Wilson & Co., Ltd.....	320,608	2	9
Sir Lindsay Parkinson & Co., Ltd.	157,364	15	3
John Mowlem & Co., Ltd...	129,574	4	8
David Weston & Co., Ltd...	127,166	6	3
Wm. Press & Son	123,391	7	5
Whittaker Ellis, Ltd.	116,135	12	10
T. J. Moran & Co.	101,502	0	0
Wilson Lovatt & Sons, Ltd.	91,758	14	1
The Foundation Co., Ltd...	83,705	16	5
*Sir W. G. Armstrong, Whitworth & Co., Ltd.	71,235	14	6
Crawford Brothers	62,144	3	5

LONG EATON.—Sewage outfall works, for the U.D.C. :—
*Ward & Tetley..... £22,500

LONDON.—For construction of roads and sewers on East Hill Estate, for the L.C.C. :—

Fred. & T. Thorne, Isle of Dogs.....	£11,749	0	0
Sir Wm. Prescott & Sons, Ltd., Westminster	10,583	18	4
Stephen Kavanagh & Co., Surbiton	10,387	0	0
J. E. Billings & Co., Ltd., S.W.	10,292	0	0
Howard Farrow, Golders Green	10,224	17	9
George Wimpey & Co., Ltd., Hammersmith	10,094	17	11
W. H. Wheeler & Co., Ltd., S.E.	10,014	12	11
E. Parry & Co., Putney.....	9,597	0	0
Henry Woodham & Sons, Ltd., Catford	8,326	0	0
F. J. Coxhead, Leytonstone..	8,300	0	0
Mears Bros., Lewisham.....	8,236	13	5
John Mowlem & Co., Ltd., S.W.....	7,927	5	10
*George Bell & Sons, Ltd., Tottenham	7,833	18	1

METROPOLITAN ASYLUMS BOARD.—The following tenders have been accepted by the Board :—

Southwark Casual Ward—Cleaning, painting and repairs—			
*Perry Bros., E.C.....	£157	0	0
Western Hospital—Cleaning, painting and repairs—			
M. Greenwood & Son, Ltd., W...	£2,106	16	2
W. Simms, Stepney	1,720	0	0
Norfolk Decorators, Ltd., E.C...	1,688	0	0
Douglass, Halse & Co., Ltd., Woolwich	1,680	0	0
J. Hocking & Co., Charlton	1,630	0	0
L. Kazak, Hampstead	1,610	0	0
J. S. Fenn, Woolwich	1,528	18	0
*A. H. Inns, Ltd., E.C.	1,358	0	0
North-Western Hospital—Painting and repairs—			
F. Cousins, Holloway	£4,884	2	11
Douglass, Halse & Co., Ltd., Woolwich	3,682	0	0
A. H. Inns, Ltd., E.C.	3,368	2	1
Worman & Hussey, W.	3,147	0	0
M. Greenwood & Son, Ltd., W...	2,991	17	11
W. Chappell, W.	2,913	12	1
Norfolk Decorators, Ltd., E.C...	2,749	0	0
L. Kazak, Hampstead	2,673	14	0
J. S. Fenn, Woolwich	2,587	14	4
*J. Hocking & Co., Charlton	2,578	15	5
South-Western Hospital—Cleaning and painting—			
M. Greenwood & Son, Ltd., W...	£3,300	0	0
W. Chappell, W.	3,150	0	0
Nox, Ltd., W.....	2,993	0	0
Perry Bros., E.C.	2,487	0	0
L. Kazak, Hampstead	2,450	0	0
Norfolk Decorators, Ltd., E.C...	2,424	0	0
Douglass, Halse & Co., Ltd., Woolwich	2,400	0	0
J. S. Fenn, Woolwich	2,332	0	0
J. Hocking & Co., Charlton	2,293	0	0
*H. A. Thomas & Son, S.E.	1,812	0	0

MIDDLESBROUGH.—For erection of 84 houses, Marton-grove, Grove Hill, for the Borough. Mr. S. E. Burgess, Borough Engineer, Municipal Buildings :—
40 "*B 3*" *Type Houses*—
Boyd & Ward, Borough-road, E. each £435
24 "*A 3*" *Type Houses*—
G. Long, 81, Park-lane ..... each £412

NORTHAMPTON.—For decorative repairs to houses, for the T.C. :—
Wellingborough-road—
*W. B. Parbery £387 12
Saxon-street, Briton-road and Norman-road—
*W. B. Parbery 315 10
Wheatfield-road—
*W. B. Parbery 207 17

PENGAM (MON).—For erection of an electrical transformer station, for the Bedwellty U.D.C. Mr. D. H. Price, Surveyor, Council Fire Station Offices, Aberbargoed. Quantities by Mr. D. H. Price :—

W. Ingleson, Merthyr	£454	11	0
Davies & Lloyd, Senghenydd ..	420	0	0
Wm. H. Lee, Bargoed	409	0	0
R. P. Evans, Fleur-de-Lis	375	0	0
Payne, Jones & Pope, Cefn-fforest	368	5	7
Ivor R. Thomas, Llanwit Fardre	353	9	7
*Geo. Davies & Sons, Ystrad Mynach	348	19	11

PETERBOROUGH.—For 16 houses at Grange-road, for the T.C. :—

	Per pair.
J. Gutteridge	£1,070 0
Peterborough Co-operative Society	1,028 0
L. Andrews & Co.	994 5
T. Measures	965 0
John Cracknell	955 10
*Blood & Kendrick	924 0

PONTYPOOL.—Construction of entrance gate, Italian Gardens, for U.D.C. :—
*W. D. Young £777 10

PONTYPOOL.—Public convenience for U.D.C. :—
*Powell Bros. £600

PRESTON.—For the erection of offices and dressing boxes at open-air baths at Haslam and Ribbleton Parks, for the T.C. :—
*G. Hill & Son, Preston..... £2,022 12

PRESTON.—For construction of foundations to dressing pavilions and offices in connection with open-air baths at Haslam and Ribbleton Parks, for the T.C. :—
*Swarbrick & Gaunt, Preston.... £514 17 8

PRESTON.—For surfacing of Senior-street, Allen-street, and Milton-street, for the T.C. :—
*John Moxon & Sons £1,298 14 10
*Whitehall Asphalte & Engineering Co. 1,068 18 2

PRESTON.—For making-up parts of Clyde-street, Mersey-street, Dart-street and back roads, for the T.C. :—

*J. Moxon & Sons	£1,414	19	9
*Whitehall Asphalte & Engineering Co.	811	5	4
*R. Bashall	843	7	6
*Penmaenmawr Asphalte Co...	561	17	6

PRESTON.—For surfacing of arterial road from Inkerman-street to Canal Bridge, for the T.C. :—
*Partington Steel & Iron Co., Manchester £1,458 6 8

REDCAR.—For the widening and improvement of Redcar-lane, for the T.C. :—
*Cleveland Slag Roads Co. £10,390

RUTLAND.—For improvement of the Preston Bridge, for the C.C. :—
*W. Higgs & Son, Oakham..... £335

SALFORD.—For erection on the Littleton-road Housing Estate of five blocks of houses, for the T.C. :—
*J. Gerrard & Sons, Swinton..... £18,000

SALFORD.—For supply and fixing of tiling for kitchen, &c., at Ladywell Sanatorium, for the T.C. :—
*Craven, Dunnill & Co..... £634 2 2

SALFORD.—For supply and erection of steelwork, &c., in connection with new hydraulic mains at Liverpool-street gas works, for the B.C. :—
*Gibbons Bros., Dudley £1,000

SALFORD.—For supply and erection of kitchen equipment at Ladywell Sanatorium, for the T.C. :—
*Newton, Chambers & Co. £1,006 17

SEVENOAKS.—For erection of a light steel-framed shed at the Council Depot, for the U.D.C. The Surveyor, Council Offices, Argyle-road :—

*David Rowell & Co., Ltd., London.... £159

SHEFFIELD.—Supply of water pipes and special castings, to the T.C. :—

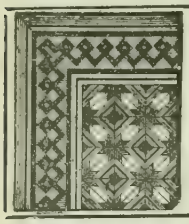
*Staveley Coal and Iron Co...£476 18 9
and £773 5 3

SHEFFIELD.—For erection of houses, for the T.C. :—

*C. W. Alflat (26 houses) £9,160 0
*J. Laver & Sons (19 houses) 7,170 10

SHEFFIELD.—For the erection of 202 houses on Manor Estate, for the T.C. :—

*Melling Bros., Ltd. £75,625



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CARPENTERS RD. STRATFORD LONDON E.15
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Telegrams: GLIKSTEN 'PHONE LONDON.

SMETHWICK.—Reconstruction of Rolfe Bridge, for the T.C. :—

‡Grays Ferro-Concrete Co., Ltd..... £5,367

SOLIHULL.—For erection of a public mortuary, including a post mortem room, for the Solihull Board of Guardians :—

†Bragg Bros., Ltd., Solihull. £761

SOUTH SHIELDS.—For construction of public convenience at Westoe, for the T.C. :—

*Henderson, Bros. £1,300

STAWCROSS.—For alterations to Miners' Inn, Wentworth-road. Messrs. Crawshaw & Wilkinson, architects, 13, Regent-street, Barnsley :—

John Mellor, Darton.

STOKE-ON-TRENT.—For conversion into w.c.'s of 100 privies, for the T.C. The Chief Sanitary Inspector, St. Peter's Chambers :—

*H. Cooke, Longton—52 privies £447 5
54 privies 484 5
(Exclusive of the cost of closet sets.)

SWANSEA.—For the erection of a new nurses' home at Parc Beck, in connection with the Swansea Hospital :—

Lloyd Bros., Swansea	£14,660 0 0
Geo. Mercer & Sons, Llanelly..	13,469 0 0
Thos. Rowbotham, Birmingham	13,342 0 0
D. Jenkins, Ltd., Swansea	12,700 0 0
C. Tyler, Swansea	12,618 0 0
Henry Billings & Sons, Swansea	12,500 0 0
Bennett Bros., Swansea	12,337 10 6
Not signed (? J. & F. Weaver)..	12,060 0 0
*Humphreys, Ltd., London ..	11,227 0 0
D. B. Davies.....	10,740 3 8

WATFORD.—For roads and sewers on the Wiggenhall Estate, for T.C. :—

*Standard Construction & Maintenance Co., Swansea £8,627

WHITSTABLE.—For making up various roads, for the U.D.C. Mr. J. Dunn, Surveyor, Council Offices, Whitstable :—

	Northwood road.	*St. Anne's road.*
J. Kemp, Whitstable.....	£5,668	.. £2,424
Gunn, MacNeill, Ltd., Victoria-street, S.W.1 ..	8,300	.. 3,500
Ballard & Newby, Ramsgate	5,900	.. 2,575
*R. Merton Hughes, Baron's Court, W.6	4,997	.. 2,196

WITHERNSEA.—For erection of block of five houses, block of six houses, bungalow, one detached house. Mr. C. O. Lockey, Engineer, Central Chambers, Withernsea :—

Block of four houses—

*G. Stephenson & Son, Withernsea.

WIMBLEDON.—For the erection of 87 houses of the types specified, viz., type B.W., 24; type B.W. 1, 3; type No. 97A, 36; type No. 154, 6; type No. 171, 18 :—

‡Alfred Monk, Lower Edmonton..... £60,432

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VI.—No. 4245. JUNE 13, 1924.

MR. WHEATLEY AND THE BUILDING INDUSTRY

IE proposals relative to housing now before Parliament constitute the gravest and most important measure which has ever affected the building industry. It may be said, indeed, that short of powers taken during the exigencies of war they constitute possibly momentous proposals ever laid before Parliament, for two reasons: First, the magnitude of the financial ing (alleged to involve considerably more than one million pounds); second, the introduction of a new of wholesale control of an industry in times of peace. only hope that Members of the House who have not welfare of the community at heart but also the many concerned with building are giving to these proposals ful and individual attention which such far-reaching n renders imperative.

s clear the air at the outset by repeating the assertion ry sensible person recognises the immediate need for rovision of small houses, a statement which might seem ıde were there not a tendency in certain quarters to ıat any criticism of Government housing proposals an attitude of indifference towards the squalor and ding it is wished to alleviate. We will go further s. We recognise in Mr. Wheatley a man of honesty se whose aim is the fulfilment of a promise made to nunity after the war that sufficient housing accom- ı should be provided. Now let us examine the Minister's as far as these are yet placed before us. The full ıe Bill is, as we write, not available, but the methods ting building costs have been before the House. We en pointed out in our columns that in human affairs of supply and demand is always the great dominating ich controls a situation. In exceptional circumstances occurred during the war legislation at variance with was necessary, and the dislocation, hardship and ience which followed were patiently borne as an e corollary. We maintain that in principle State-aid roduction of any material commodity is wrong. Let e mistaken. Circumstances may make it necessary, ould be regarded as a bad thing, to be dispensed with as possible, for not only does it react unfairly on other s or parts of the same industry not aided, but it pro- eat market dislocations and diverts Government from r function. The national memory is proverbially a e, but even we have hardly had time to forget the emonstrations of the facts we are asserting. Mr. 's proposals constitute the most gigantic interference laws of supply and demand yet attempted, and hence justification entirely convincing. The principle for e contend—no doubt incapable of immediate fruition, h we think is in danger of being lost sight of— ean that with the removal of rent restrictions the from house property would rise to a figure which ake this a profitable investment. Let us face the Unless the Government—which means the working much as anyone else—intends to saddle itself with ilding and pay rents in perpetuity, a luxury of which had some painful experience, we have got to come our principles some time.

et us examine the present proposals on the basis of an honest assumption that artificialism is inevitable. The immediate result of launching a big scheme is a general rise in prices; this we see at present as the result of the mere prospect of a Housing Bill. Mr. Wheatley meets this by taking very drastic powers to investigate costs and impose penalties. While we applaud the intention, we feel very doubtful of the success of these proposals. If we may regard the recent Profiteering Committees—of which we know something—as at all analogous to the Committees proposed, we fear that the Minister will be disappointed and the public impatient. An investigation into costs involves a great deal of evidence, which means time and money. The last has to be found from public taxation. On certain Committees suggested above as analogous, investigation, we believe, took so long that prices had appreciably altered by the time the report appeared. It is probable that unless a sufficiency of materials can be guaranteed, prices will rise, whether openly or secretly, to the level of the demand, notwithstanding these Committees, and that sums in excess of the market rate will be paid by those involved in transactions which would mean much heavier financial loss if delayed.

But we must turn to another and wider aspect of the Housing Bill which seems to have escaped Mr. Wheatley entirely, namely, its effect upon the rest of the building industry in the country, still, notwithstanding the scope of the housing scheme, much the larger part. We do not imagine that any serious attempt will be made to suggest legal restrictions on building other than housing, but the effect of the Bill is likely to be very penalising. It is easy for the street-corner politician to declare that the houses of the rich can wait, and we have no disagreement with him on this point, but what he conceals or fails to understand is that the cost of building business premises, public works and that of repairs and upkeep—a very large national item—quite apart from anything in the nature of "luxury building," will be seriously increased or made impracticable. These costs, or the costs of dislocations, will be handed on to the public in the shape of increased costs to the community on necessary purchases. Again, our schools and other educational centres—most of which have done no serious building for ten years—are crying out for expansion. Increased costs here, too, will be passed on to the taxpayer. If this patient person is to pay his thousand million, Mr. Wheatley must see to it that he can still carry on and afford to expand his buildings with expanding trade. We do not grudge the golden eggs to help those whose homes are not worthy of the name, but the number of these eggs has a limit, and if they are to be produced the necessary sustenance for their production must not be forgotten in the programme for the better housing of the workers.

This is no case of special pleading. We might very consistently argue that the greater part of an industry (perhaps the second largest in the country) should not be placed at a serious disadvantage by the assistance given to one of its branches in distress; but we have put the matter merely as one of national policy. The State, one would almost think, some people believed to be a rich man giving donations to laudable objects. It seems absurd to have to write that the State is the taxpayer and that the great mass of the nation are the workers who contribute to taxation. Let us be sure, therefore, that we spend our money wisely, and as little of it in Whitehall as can be arranged.

NOTES

The Amalgamation Proposals.

THE emphatic endorsement at the recent Institute election of the policy of the present Council of the R.I.B.A. of amalgamation with the Society of Architects with the object of obtaining the statutory registration of architects does not dispose of the question, and until the proposals of the Council have been approved by the general meeting which is to be held at Caxton Hall on the 17th inst. and confirmed at a subsequent meeting, the issue, so far as the Institute is concerned, will remain in a certain amount of doubt. We believe the approval so far given to the proposals will be confirmed by the necessary two to one majority, but if the scheme is to be contested at every stage—though we hope it will not—it is necessary that the two meetings should be attended by every member of the Institute who can arrange to be present. In view of the emphatic expression of opinion recorded by the electorate, it is to be hoped that the proposals will not be opposed; but in any case, the fullest attendance of members is desirable at the meetings.

A New Menace.

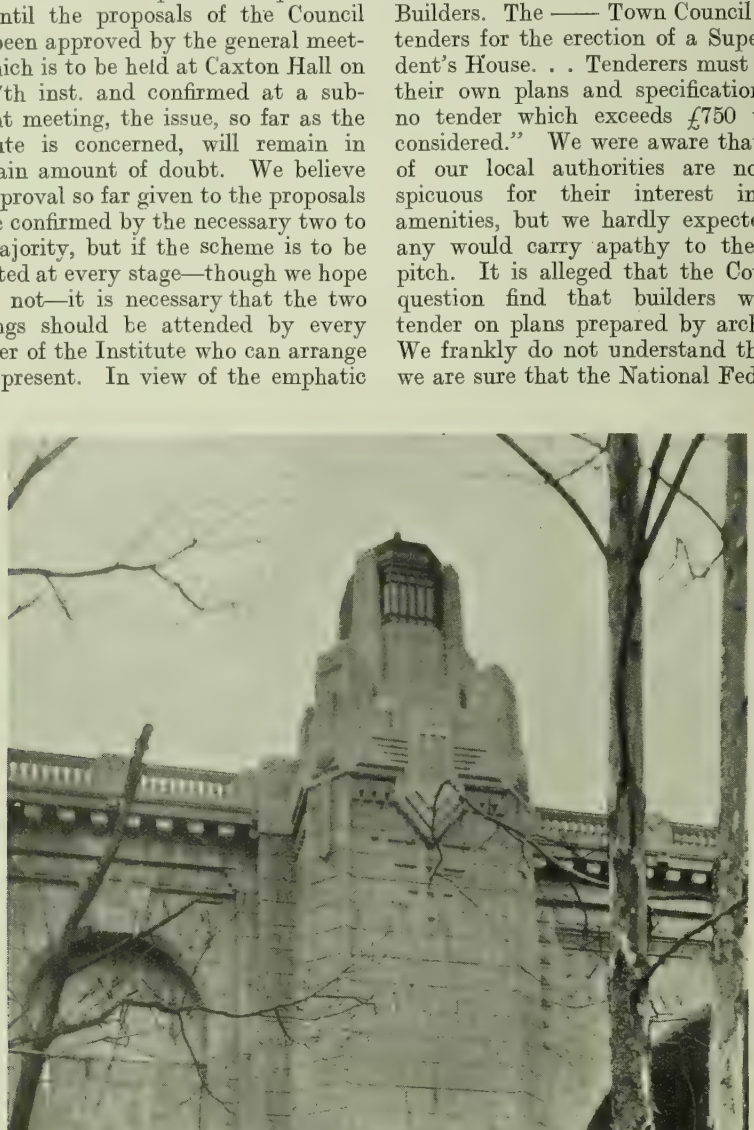
THE following advertisement has recently appeared in a local paper in one of the Home Counties: "To Builders. The —— Town Council invites tenders for the erection of a Superintendent's House. . . Tenderers must submit their own plans and specifications, but no tender which exceeds £750 will be considered." We were aware that many of our local authorities are not conspicuous for their interest in local amenities, but we hardly expected that any would carry apathy to the above pitch. It is alleged that the Council in question find that builders will not tender on plans prepared by architects! We frankly do not understand this, and we are sure that the National Federation of House Builders would not moment allow their members t an attitude that can only bring on private enterprise and play into the hands of its enemies. upon builders designing their ow is to throw an unjustifiable burd the shoulders of the builder. that Mr. Wheatley will take not tendency, and will take every pr to protect the public from in work and to avoid the discredit be reflected upon the Governme standard of housing under his falls below that introduced Addison.

Foolish Methods.

IMMEDIATELY bel advertisement we same authority tenders for the erection of 3 which the Council proposes t "A lithographed lay-out plan and plan of one pair of the propose . . . can be obtained upon appl Here is a Council proposing eighteen pairs of houses, all to t design, although we also note th Council is also prepared to alternative tenders for the erecti houses on a modified specificatio the tenderers have the option to in which case the modifications to be made in the plan and spec must be clearly described." It hoped that local feeling will itself in time to prevent this th disaster, and that it will be ass doing so by a lead from the Mi Health. It should be incumbe all local authorities to obtain arch advice, even if the architect acts a consultative capacity.

The Hollar Memorial.

IT is well that a n of Wenceslaus Holla be placed in St. Ma Westminster, and happy arrangement that the n should take the form of the desi by George Virtue, the learned an who, in his catalogue of Hollar's in 1745, designed a tablet wh design now proposed closely Hollar was buried in the church St. Margaret's, and it is t suitable that the proposed n should be erected within that We are all so indebted to Hollar topographical views—his prints of as it was in the seventeenth and others, showing the dev caused by the Great Fire, are o ordinary interest in depicting the of that time. The cost of carry the design made by Virtue will b £120, and there are so many adm Hollar's work that there will, of be no difficulty in raising so n sum. A representative commit been formed, including the Curzon and Sir Aston Webb, t subscriptions may be sent. Ho a conscientious and indefatigable



Concrete Bridge in Philadelphia: one of the Four Pylons.



Wooden Porch (dated 1680) at Orleton, Herefordshire.

his compensation was in no ommensurate with it, for he died verty.

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ent itors.

It is not without interest that prominent art schools should now find a place for the work of their more sing pupils in public exhibitions, here is certainly—as pointed out art critic—no favouritism in this. past and present pupils of the my and Slade Schools should figure ently in Academy and New English lub exhibitions is, however, a able thing, and the prominence to such work is, no doubt, meant ourage the schools' interests, which, of value, are not exactly those for public exhibitions were formerly ted. In giving this prominence to ork of clever students in public tions assumed to promote the l interests of art, these exhibitions e a different character, and their to a larger representation is some- weakened. This tendency, as it ps, suggests a new valuation of exhibitions and announces what ecently been pointed out that estige of exhibitions as standing encouragement of art at its best g replaced by other objects. And , perhaps, all to the good. The a which was placed on artists' through being shown in special ions, is gradually becoming dis- ted by a larger independence of which seeks for it where it can be

A Graphic Letter by Leech.

ALTHOUGH the jocular letter by John Leech, from which the following quotation is made, was written in 1850, it has not appeared in print till now. Its introduction in this place is pertinent to the interesting remarks given on page 903 in last week's *Builder* by a correspondent to whom they were communicated about a year ago by the late H. H. Statham. He described his experience of the well-known difficulty of ensuring sympathetic renderings of architectural details by means of wood engraving which, owing to the lack of technical knowledge on the part of the engraver, was always apt to become merely mechanical. Draughtsmen of all kinds have had good reason to complain of this drawback. John Leech, the world-famed artist whose name was described "as good as the lion stamp on silver," was not exempt in this regard and tells us how he suffered badly, having invented the familiar "Briggs' series of hunting pictures" for *Punch*. He was introduced by W. M. Thackeray to Robert Smith Surtees, creator of the immortal "Jorrocks," and E. D. Cuming, the author of the memorable and popular sporting novel, "Soapy Sponge," for which book Thackeray had been invited to make the drawings. He excused himself as not having the slightest idea how to draw a horse or any sporting subject. Fortunately for all concerned, he recommended his friend Leech; and Surtees, who started *The Field*, adopted this arrangement. The method of colour printing practised in the "'fifties" left the artist to the mercy of the journeyman who cut the blocks in his own haphazard way for the printers' renderings, often producing uncertain results. It thus happened when Leech received the impressions of the plates in question and submitted them to Surtees, he wrote: "Sponge has lost the hair on the top of his head through no fault of mine. It ought to have been coloured, like the rest, a dark brown, and was to my pattern. But I assure you the colourers are troublesome customers—a green horse or a blue man would not shock them at all if they imagined that there ought to be, for the sake of variety, these colours in the picture.



Old Lych Gate at Clun, Shropshire.

GENERAL NEWS

Royal Archæological Institute.

The Summer Meeting of the Royal Archæological Institute of Great Britain and Ireland will be held at Winchester from July 16–23.

Liverpool Housing Scheme.

The Liverpool Corporation Housing Committee recently adopted a scheme for the erection of 6,000 houses on land at Walton over a square mile in extent, at an estimated cost of between £3,000,000 and £4,000,000. Mr. T. White, the chairman, said the scheme would relieve thousands of persons lacking in housing accommodation.

Architects' Estates.

Mr. John Robinson, of Park Cottage, Wombwell, near Barnsley, Yorks, architect and surveyor, net personalty £2,290, gross £30,502.

Mr. Robert Fletcher Rogerson, of Henry-street, Brighouse, Yorks, architect and surveyor, a former member of the Brighouse Town Council, net personalty £5,721, gross £8,485.

The London Building Law.

In connection with the report of the London Building Acts Committee of the R.I.B.A., a special general meeting of the Institute will be held on Monday, June 23, at 4 p.m., when Mr. Charles A. Daubney will read a paper on "The Proposed Reform of the London Building Law." A further special general meeting will be held on Monday, June 30, at 4.30 p.m., to resume the discussion on Mr. Daubney's paper and the report.

Liverpool Cathedral.

Liverpool Cathedral will be consecrated in the presence of the King on the afternoon of Saturday, July 19; and on Sunday, July 20, His Majesty has expressed a wish to attend the morning service at the Cathedral (during this service the special War Memorial Transept will be dedicated). In addition to the above ceremonies, the Cathedral will be open to the public, on payment, between June 24 and 28 inclusive.



Interior of Old Parish Church, Ayr, showing War Memorial.

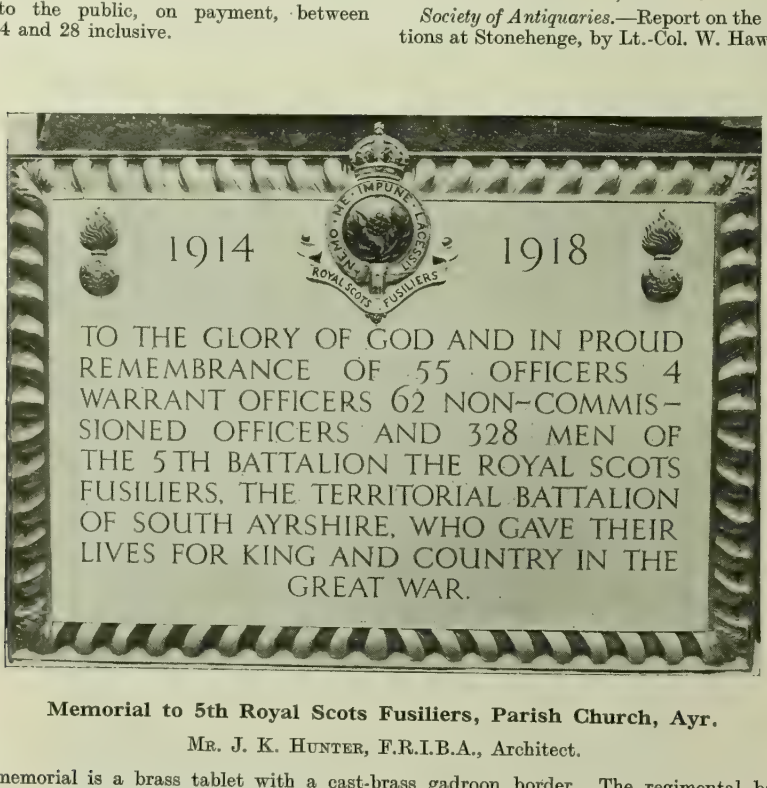
MEETINGS

TUESDAY, *June* 17.

Royal Institute of British Architects.—Meeting to consider provisional agreement between the R.I.B.A. and the Society of Architects. At Caxton Hall, S.W. 1. 3 p.m.

THURSDAY, *June* 19.

Society of Antiquaries.—Report on the excavations at Stonehenge, by Lt.-Col. W. Hawley.



Memorial to 5th Royal Scots Fusiliers, Parish Church, Ayr.

MR. J. K. HUNTER, F.R.I.B.A., Architect.

[This memorial is a brass tablet with a cast-brass gadroon border. The regimental badge in cast brass, relieved with colours, and two reproductions of the "Grenade" cap badges, are the only other features on the simple plate. The memorial was made by Messrs. H. H. Martyn & Co., Ltd., Cheltenham. The general view of the interior is interesting as being of the church built by aid of a grant from Oliver Cromwell, in lieu of the parish church of St. John which he at that time—1654—had enclosed within the walls of his great fortress of Ayr lying to the west of the town and commanding the harbour and its approach from the sea.]

COMPETITION NE

Glasgow High School Memorial.

Competitive designs are invited for a m club house and pavilion to be erected ground of the Glasgow High School Anniesland, Glasgow. The competition fined to former pupils of the High Sc Glasgow. Premiums of £150, £100 a are offered respectively. Mr. John F.R.I.B.A., Glasgow, has been appoint sessor. Sending-in day, Sept. 30. Part and plans may be obtained from Mr. Buchanan, 172, St. Vincent-street, G (See advertisement this week.)

Masonic Memorial.

Designs for rebuilding Freemasons' Great Queen-street, Kingsway. The petition to be conducted in two stages. of the architects submitting a design final competition will receive an hono of £500. Assessors, Sir Edwin Lutyen Walter Cave, Mr. A. Burnett Brown. On of one guinea competitors will receive tions of the competition, which has t proval of the R.I.B.A., together with plan of site.

Applications marked "M. M. M. Compe must be received by The Grand Sec Freemasons' Hall, Great Queen-street, L not later than August 23. (See adverti this week.)

School at Holbrook.

We are informed that of the list of app to compete in the competition for desi the proposed new Royal Hospital Sch Holbrook, near Ipswich, six architect been requested to send in designs to the D of Greenwich Hospital by December 1.

Other Competitions.

Other competitions still open inclu following (the dates given are, first the s in date, and second the issue of *The Bu* which full particulars were given):—Inc **Designs (June; Dec. 21, 1923). Ross Memorial (Sept. 30; Feb. 21). Glasgow Hall (July 4; May 2). Harrogate Inf (Sept. 30; May 30). Bexhill Enterta Hall (Sept. 1; May 30). Hamilton Memorial (Sept. 1; May 30).**

LDING AND DESIGN IN THE FUTURE

By J. HEMBROW

of us have realised that with the increasing cost of labour and materials mprovement or simplification of the methods of building will be forced upon t probably if labour were to remain he developments would still take place, h they might proceed more slowly. It o say that compared with shipbuilding, uilding, electrical engineering, and other dustries the art of building is backward ; still in a large measure doing as we have r centuries. We have not the scientific es of our friends in the industries or if we have we do not use them. tense conservatism of the architect e reaches years of maturity is the likely tion of this startling fact. But even he architect is of that hopeless mental which asserts that as in forty years' nce a certain way was found best a must not be contemplated, he will have home to him the fact that his having e thing one way for forty years is a sure at it is time it should be done differently. is something wrong with an industry cannot produce houses even for its own s at a rent they can afford to pay. The n will probably be found when we are to utilise labour, as we soon may be, in way that more cube is produced in a given of time, and this will inevitably affect The inventive mind is already moving direction, and reinforced concrete may me into its own, whilst the unit of other ls of construction will have to be in-

-concrete has many advantages in this on, and in addition allows us greater floor for the same strength. This is a con-le merit where ground rents are high, re tall buildings are built. How many ave really considered this comparatively edium with the seriousness it deserves ? l objection of our youth that "the world t enough experience of it" has no force nen with more courage have answered practical way. We have remarked the ing beauty or (out of respect for our ative friends) the diminution of ugliness reinforced concrete structure. Some of uctures have already attained a beauty own. As our knowledge of the medium es and it is more broadly adopted, it doubtedly affect design profoundly, if a riod in design or an almost entirely le is not evolved. Our present façades ll the outcome of our "ringing the " on lintel and arch, while it has never ie good fortune of any previous genera- have ready to its hand a material which itself available for tension as well as and torsion. Their buildings had to be ents of stone or brick for compression s, steel or wood and iron for tension, reinforced concrete we have a material tic as clay, as hard as stone, with the y for tension added. It is surely some- o dream of when we consider the new hich will insinuate themselves inevitably r buildings as our use of this material We shall perhaps be able to dispense at deception, the modern stone front, s merely a curtain of sham respectability ver the crude hideousness of steel, and in the same way, as when students in e hung a coloured curtain over a packing make our friends thing we possessed ng respectable to sit on.

we have an inheritance of the ages of the form of bricks as a building unit, those of us who love beauty for beauty's e Belgian brick, which is a still smaller This method of building will go by the ith time, except for special work. With of labour added to costliness it is ically unsound to construct a wall in such a laborious way. Habit and lethargy have mitigated against the adoption of a method more in keeping with the twentieth century, but it is mostly sheer laziness which has left the many clever methods which are being devised and improved every day to the enthusiasm and self-sacrifice of a few.

One of the most ingenious of these methods was devised by a steel casement manufacturer and used in the housing of his own men—a practical contribution to constructive thought whether we agree with his method or not. It was a method of units, as the present method we use for buildings is, *i.e.*, we measure or gauge everything by the brick. The unit used by this gentleman was simply a much larger one ; not so large as to be unwieldly nor so coarse as to restrict design, but one which would allow of quicker walling, quicker flooring, and greater general speed than building in brick will permit.

In the course of time, when the pioneer has worked and suffered his little life away, we shall come down magnanimously as a profession and adopt some such sane and feasible system as this and remain for ever blest except for our consciousness that we ought to have been more equal to the calls of the time upon us when this need first arose and the real distress created by it was more manifest.

I have said elsewhere that design at the moment is transitional. It shows all the restless unhappiness of self-consciousness and the realisation of its shortcomings with a desperate sense of its own sincerity. It is already apparent to the thoughtful that form is changing and that the older order is losing ground, as the old always will, in the battle against the new and vigorous. There is already one concrete façade in the heart of the West End of London ; there will be many more. There are already demonstrable contributions to more economical methods of building. This generation may not see revolutionary changes, but the change is gradually taking place now. If we could live a hundred years we should hear at the dinner table (if they have dinners) the conversational young man of mildly intellectual tendencies saying something like this of our times : "I cannot understand how the generations which developed the now obsolete steam engine, the internal combustion engine, the telephone, the telegraph, the phonograph, the cinematograph, and that crude but truly marvellous (to them) form of utilising the ether waves which they quaintly termed 'wireless,' could have been satisfied as they were to employ hundreds of men to put little bits of burnt clay side by side and one on t'other when they set out to construct a tower two hundred odd feet high."

YORK MINSTER GLASS

The Very Rev. the Dean of York recently presided over the annual meeting of the Minster Windows Preservations Fund Committee. In the course of his address he said there was no treatment of their glass more drastic than its immersion in a specially prepared bath of warm water. There was no soda or chemical in the water ; there was no hard implement employed in the cleaning of the glass. It was allowed to lie and soak in warm water. He could testify—and those who went occasionally into the shops could testify—to the delicacy and care with which the individual pieces of glass were finally treated by their workmen. He failed entirely to understand what Mr. Heaton was referring to at a recent meeting of the London Society of Glass Technology when he said the treatment was too drastic. There was no drastice treatment. Mr. Heaton was on the committee of five experts, and he (the Dean) would be only too willing to listen to anything he had to say in the way of advice, and to follow it if at all possible in reducing what he had described as drastic treatment of their glass, but honestly he did not know what was meant.

The Five Sisters Window was being preserved as a memorial to the women of the county who sacrificed their lives in the war. It was proposed to erect an oak screen in the north side of Saint Nicholas Chapel, the screen to be finely gilded and decorated on the top, and the lower part would be of panelled oak, the panels of which would open. The names of 1,400 women would be written inside the panels, so that when the screen was closed it would be just an oak screen, and the only things to be seen would be the various badges of the units in which women served.

It was reported that since May of last year seven north choir clerestory windows had been taken in hand, and five of them had been relaid. The stonework and tracery of five had been removed, and three had been restored and refixed. The old glass in the Five Sisters Window had been removed, 30 panels had been releaded, three were now in hand, and 37 had to be taken in hand. The total number of windows completed since November, 1918, was 28. The number releaded was 31, and there were yet 41 windows to be taken in hand.

York and East Yorkshire Architectural Society.

The members of the York and East Yorkshire Architectural Society recently paid a visit to Helmsley Castle, Rievaulx and Byland Abbeys. H.M. Office of Works, in whose hands the task of restoration has been entrusted, placed at the Society's disposal means by which the work could be inspected. Though the work in places is being repaired and strengthened by the insertion of reinforcements which cannot be detected, none of the feeling of consecratedness imparted by the original craftsmen is, it is stated, being violated.



Thirteenth-Century Church at Burrowbridge, Somerset.

[It is stated that the last service held in this church, which it is proposed to restore, took place in 1426.]

CORRESPONDENCE

Housing Costs.

SIR,—We beg to address you upon the subject of housing, so important in the eyes of Parliament and everyone. The present solution, gathered from the newspaper reports of the discussions in the House, which the Government favours, means the expenditure of colossal sums taken by taxation, and leaving still less for general productive business.

The scheme is an average gift of £11 per house per annum for forty years. For every 100,000 houses this means £1,100,000 per annum. The country cannot bear this outlay, considering two million houses are named as required. As there seems to us to be a means of obtaining the houses without this ruinous gift of capital, we ask to put our views before you.

In the country a good parlour house, with three bedrooms, would cost to-day £500 inclusive of drainage, interest on capital during construction, &c., and the net financial result would work out as follows :—

CAPITAL EXPENDITURE PER HOUSE.

Cost of erection	£500 0

Revenue Account.

	£ s.		£ s.
To Ground Rent	10	By Subsidy	11 0
,, Insurance ..	6	,, Rentals (12s. 6d. per week)	32 10
,, Repairs, &c.	2 10		
,, Management	14		
,, Reduced Rates ..	2 0		
	£6 0		43 10
		Less Costs	6 0
Balance per house per annum ..			£37 10

The net return of £37 10s. gives 7½ per cent. return on the expenditure, but only as the result of loss to the community of £11 per house per annum, a most non-economic position.

What we think is a better and an economic method is that instead of this gift of capital the same result be obtainable by lending the money as a mortgage *at a low rate of interest*. The Government borrows money at Short Call at a rate at which it could lend at below 4 per cent. without loss. At 4 per cent. there would be a margin to meet even the expense of book-keeping. The money could be lent at 4 per cent. not only without loss, but redeemable, so that there would be no charge and no loss on the transaction. It would cost the nation nothing, and the private builder can be trusted to erect as many houses as needed, or as many as there are workmen and material available for. This latter condition, of course, applies equally in any proposition. The financial result would, on similar lines to the foregoing, work out somewhat as follows :—

CAPITAL EXPENDITURE PER HOUSE.

Cost of erection	£500 0

Revenue Account.

	£ s.		£ s.
To Outgoings as before ..	6 0	By Rentals (12s. 6d. per week)	32 10
,, 80 per cent. of the £500 on Loan, namely £400 at 4 per cent. per annum ..	16 0		
,, Redemption (40 years) ..	3 7		
	£25 7		32 10
		Less Cost ..	25 7
Balance per house per annum ..			£7 3

The net return of £7 3s. gives 7 per cent. return on the £100 expenditure, and without loss or cost to the community—an economic position.

In any proposal, the question of rates will arise. If the local authorities are willing to pay, as stated, from £3 to £4 10s. per house per annum in Mr. Wheatley's method, they would very willingly agree instead to a simple rebate in the rates. In our calculations we have included £2 per house towards the rates.

As it seems to us to be sound reasoning, we beg to lay our suggestion before you for your consideration.

CHAS. HEATHCOTE & SONS.

"Damages Against Lessor."

SIR,—With reference to your "Notes on Current Cases" on page 878 of your issue of May 30.

May I point out that your commentator refers to the High Court case of Calthorpe *v.* McOscar (1923 K.B.) at some length, but entirely omits to make any reference of any kind to the fact that the judgment delivered in the Court of Appeal, December 14, 1923, entirely reversed the judgment of Mr. Justice McCardie ?

This omission on the part of your commentator is obviously an oversight, but his failure to note the judgment of Lords Justices Bankes, Scrutton and Atkin gives quite an erroneous impression to the uninitiated of the present state of the law in this matter (see also Morgan *v.* Hardy, L.R., 17 Q.B.D., 770).

It is important also to note that this d of the Appeal Judges has relegated the quoted case of Proudfoot *v.* Hart to its position.

Lord Justice Bankes said, as regards Pro *v.* Hart, that "what the Court were deali in this case, and all they were dealing wi a three years' agreement for a tenancy, it case the class of tenant at the end of the t was, in the Court's view, no doubt the sam of tenant as at the commencement."

ARTHUR H. D

[We have also received a letter from M Tyler, F.S.I., raising the same point.

Our legal contributor writes as follo

"The writer of the note on Hewitt lands expresses his acknowledgments correspondents who have drawn atten the fact that the case of Calthorpe *v.* M which he incidentally referred to in tha has been reversed on appeal.

"That appeal was not reported, so he can find, in the *Weekly Notes*, nor inserted in the daily record of business Court which appears every week in the *Notes*, but the appeal is fully reported the 'Law Reports,' which were pu a week after his note was published *Builder*.

"By a curious coincidence, that case, *v.* Rowlands, was also the subject of and a report of the decision appeared after the above note was published, theref whole subject will be reviewed in a 'Legal Section.'"]

Long-Span Arches.

SIR,—In your correspondence colu January this year, Mr. A. Henthorn protested against the proposal to b reinforced concrete bridge across the Straits in place of Telford's bridge, whi now become unsafe and is not wide for modern requirements, and stated reinforced concrete bridge was "impracti owing to the width and height (550 100 ft.) required for the navigation Straits.

I now enclose a photograph of a rei concrete bridge at present in course of e in France, the arches of which have span of 590 ft. 6 in., or 40 ft. in excess o Mr. Stott states to be necessary at This bridge is fully illustrated and de in the June issue of "Concrete and Co tional Engineering." I hope this will co Mr. Stott that a concrete bridge acro Menai Straits would be quite practicable



Reinforced Concrete Bridge with Arches of 590 ft. 6 in. span, at Elorn, France. (*See Letter on this page.*)

STREET ARCHITECTURE—VII.

By V. M. CHRISTY.

BROAD-STREET.

OAD-STREET in its present condition is one ose unfortunate streets that form a link een others, rather than possessing any very ed individuality or purpose of their own. rmer days it was an important thorough- giving its name to a Ward and lined with al important buildings of different kinds, as a city company's hall, the back of Sir ıas Gresham's mansion, and the approach e church of the Augustinian Friars, which " in the year 1550 granted to the Dutch ɔn in London, to be their preaching place," so remains to this day. To the north er of "Brode Street," in the time of Stow, ıed the great house and garden of Sir am Powlet, built on the site of the friars' e, cloisters and garden, while not far away the fine dwelling built by Thomas Cromwell, ıe unscrupulous methods of enlarging his en are so graphically described by the son ıe of his victims : " My father had a garden e, and a house standing close to his south ; this house they loosed from the groun.a, bare upon rollers into my father's garden ıty-two feet, ere my father heard thereof ; warning was given him nor other answer, n he spake to the surveyors of that work, that their master Sir Thomas commanded ı so to do ; no man durst argue the matter each man lost his land, and my father paid whole rent, which was 6s. 6d. the year, for half which was left." One wonders what ing the Rent Restriction Act would have n such a case !

ne great point about the modern street, ch was probably lacking in its earlier days, ıe impression of onward flow which is given the sweeping lines of blocks occupying the where the street curves towards the Royal hange. There is a continuity about these ks which contrasts with the more detached acter of others in the straighter parts of street. Two questions, however, seem to uggested by certain buildings in this part : is the question whether sm.ll-paned case- t windows do not strike too rural a note n used in an important modern London street point commented on in a previous article ussing Piccadilly ; the other, is it wisdom or isdom to employ square-edged, projecting ks of stone set in curves on plan, which, ough doubtless adding a note of originality something out of the ordinary, may easily t to a sense of restlessness and indecision ? ad-street is full of contrasts. There are very " English " older insurance companies' dings, which are solid, uncompromising, perhaps a trifle gloomy. The recent corating of their exteriors has given them airer chance among their more youthful hbours, and now that it is more possible ive them their due it is seen that their chief ıe is proportion. They have no pretensions rettiness, but they have dignity and good ding, combined perhaps with a slight pom- ty.

ıese mid-nineteenth-century buildings are a sant contrast to others not far away, some- t their juniors, which are restlessly over- ned. Sculpture on them runs riot. There much carving in the details that one finds ulty in distinguishing the main outlines of floral, human, or animal forms represented. wood is concealed by the trees. There are ıany scales on the dolphins that their heads lost among them ; so much beard and hair he head of the sea-god or man, that he may like a star-fish or a house on fire, according ıe angle from which the eye is caught ; and niceties of distinction are lost between the ned head and the sadly surprised Pan, or tever the fantastic portraiture represents. e are too few broad plain lines to give a ful link between different portions of the ration ; no stepping-stones from one to the r to give definite foothold in this confusing lpool. And this cumbersome and florid effect is the result of a well-meant effort after sprightliness.

About midway between these two strikingly contrasted parts of Broad-street the new Gresham House has by now securely established itself. This new building sums up certain characteristics of the two groups already mentioned, and presents its own conception of how the aims of both might be attained at one throw. There is a certain rather cold dignity about it, akin to the dignity of the painted smooth-fronted insurance buildings, although this dignity is attained by the modern method of plate-glass rigidity reflected in stonework. Like the older buildings this new one successfully avoids fussiness and floridness ; it accepts, nevertheless, the challenge of its other neighbours to the attainment of decorative effect. It achieves the latter by restrained methods which leave it light and well-balanced, instead of by protuberances and fussy detail. The three attics in receding stages, and the cornice supported on console brackets above the capitals, give distinctive individuality ; the solid lines upon which the upper part rests give anchorage. The impression of "anchorage" is given, in the case of the insurance buildings, by their block-like solidity with their few and regularly-spaced voids ; in the case of the Victorian shops and offices by the super-imposed sculpture, which somewhat suggests weights suspended from the awning of a street stall in windy weather. There is nothing frivolous about the new Gresham House, yet it contrives to be sprightly where others fail by over-striving after adornment ; there is nothing dour or gloomy about it, yet it has dignity such as many miss by taking life too seriously. It is a not unworthy distant successor to the mansion and the " eight proper alms-houses built of brick and timber by Sir Thomas Gresham, knight," whose name is very properly brought to mind by the plaque let into the wall.

The few yards of backwater-street to which the name of New Broad-street is usually alone applied is rather forlorn. It is a sort of waif belonging to no one in particular. It is actually almost as distinct a street as Wormwood-street nearly opposite, except that it is not a thoroughfare for vehicles, and yet it is given no name of its own while many a less distinguished court or passage has a special title. In the few yards covered by this almost cul-de-sac there is an extraordinary variety of buildings, showing what a diversity of architectural ideas was current and carried into effect during the early years of the present century. It seems typical of the curious restlessness and experimentalism in art prevalent at that time. It may be argued perhaps that restlessness and experimentalism are even more characteristic of the present decade, when Georgian brickwork springs up side by side with pseudo-Assyrian, when Doric friezes rub shoulders with Edwardian casements. But the more recent buildings have a more confident air ; they are not quite so tentative, though critics may sometimes feel that tentativeness rather than confidence would be more becoming in them. In that angle piece of New Broad-street one meets with Victorian Gothic next to twentieth-century classic-baroque, with its curves and strange angles ; a quieter, more severe façade, with somewhat meaningless swags of fruit tucked away in the most shadowed parts, a frankly " original " *mêlange* of Egyptian, Louis Quatorze and Doric ; then an imitation of early Georgian country-town architecture. Of these the last is too much in fancy dress to hold its position with real dignity in the City of London. Parts of it are almost as incongruous as a country farmer J.P. would be who brought a pig and a shot gun with him on a visit to London. In the real eighteen-hundreds the farmer or the provincial merchant would even make a few changes in his costume if he desired to mix harmoniously with his metropolitan confrères. Bottle glass cannot appropriately jostle plate glass in the latter's domain when the two are contemporary productions, though Staple Inn is able to hold its own against them both. The building in question is self-conscious because it is wearing an archaic veneer. The one opposite seems rather like a specimen case displaying various kinds of ornament used at distinct phases of architectural history. The gorge moulding is there, though shorn of its reeding and colour ; a French chateau window, and a doorway from somewhere else, while the pervading flavour is that of the land of the Pharaohs, represented by lotuses, religious symbols and sphinxes, interspersed with a relish of egg and dart. There is nothing vulgar or aggressive about it, but it is a trifle like the boy who does not know the answer to the question set in his examination and, therefore answers questions that were not set.



Reinforced Concrete Shop Front at Barcelona.

It seems almost a pity that the strikingly severe new building in Wormwood-street cannot be removed to this place, where the greater space and the absence of traffic would give the passer-by a chance of judging its merits without the bodily danger and contortions involved in endeavouring to do so where it stands. Some of our streets are becoming semi-tunnels, and tunnel-architecture to be appreciated as street architecture at all must be treated differently from architecture in streets that are " broad." Short of turning narrow streets with high modern buildings into true tunnels by means of concave façades, perhaps the solution of the problem lies in more particularly designing the lower portion of buildings in such positions so as to form a complete unit when regarded from street—or vehicle—level and yet to be an integral part of the whole when the façade can be seen *in toto* in the architect's drawings or when the street is widened. In tunnel-streets the whole façade is seldom easily seen ; in our " Broad-streets " the aspect of the whole rather than of the parts is what the man-in-the-street is able to take in. A design which may be excellent in a tunnel-street may produce a piecemeal effect in a Broad-street, yet we are slow to perceive small differences which mean so much, and still slower to act upon them.

FURTHER NOTES ON THE GLAZING OF KING HENRY VII CHAPEL, WESTMINSTER ABBEY

MR. J. D. LE COUTEUR writes:—

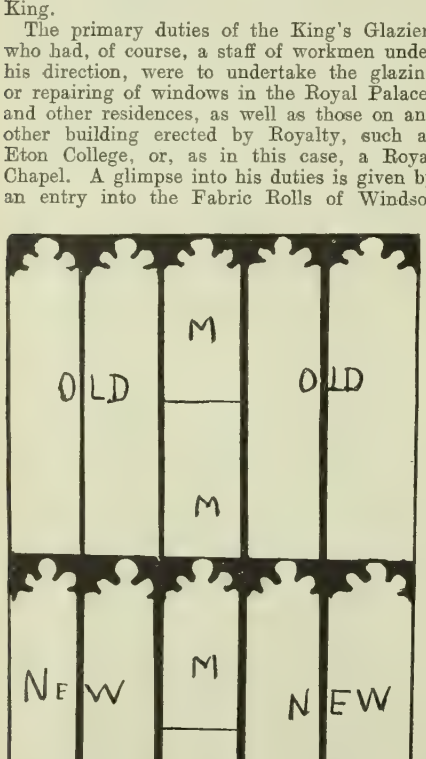
In the course of his most interesting and valuable notes on the glazing of Henry VII's Chapel in Westminster Abbey, which appeared in *The Builder* for May 9, Professor Lethaby raises several points which call for further comment.

He quotes Dr. M. R. James as saying that Barnard Flower, the King's Glazier, died in 1525 or 1526. But it has recently been ascertained (see "H. C." in *Notes and Queries* for October, 1917) that "Barnard Flower, the Kinge's Glasyer of England," really died in 1517, between July 25, the date of his Will, and August 14, the day on which probate of the Will was granted at Lambeth.

He was, moreover, not an Englishman, but a German, "a native of Almaine" who had been granted letters of denization on May 6, 1514, by King Henry VIII, and who had held the office of "King's Glazier" for several years previous to that date.

The post of King's Glazier was of some importance in the Middle Ages, the recipient holding it for life, unless a change took place in the Royal Succession. A predecessor of Barnard Flower's, one John Prudde (who held that office from his appointment in 1440 till the death of King Henry VI in 1461, when he was superseded by Thomas Bye, citizen and glazier of London), received "such fees and wages as Roger Gloucester held, by the hands of the Clerk of the Works, and all other appurtenants, profits, and a shedde' called the 'Glasier's logge' in the westernmost part within Westminster Palace, and a gown of the King's livery, of the suit of the sergeant of the works, yearly at Christmas." He also received the sum of 12d. per day by special grant of the King.

The primary duties of the King's Glazier, who had, of course, a staff of workmen under his direction, were to undertake the glazing or repairing of windows in the Royal Palaces and other residences, as well as those on any other building erected by Royalty, such as Eton College, or, as in this case, a Royal Chapel. A glimpse into his duties is given by an entry into the Fabric Rolls of Windsor Castle for the year 1533, where a payment of 8d. is recorded as made to "Rychard Hyll of Wyndsore ffor hys horse to London to fett Galyan the Kinge's Glasyer (Flower's successor), against the Kinge's coming to Wyndsore."



PLAN I.—ARRANGEMENT OF A WINDOW AT KING'S COLLEGE CHAPEL, CAMBRIDGE: MAIN LIGHTS ONLY SHOWN.

There was therefore every reason why Flower and his men should be employed upon the glazing of Henry VII Chapel, and, when ready, upon the window of King's College Chapel also. His death in 1517 brought the work of glazing King's College Chapel with coloured glass to a standstill, for it was not until 1526 that Galyan Hone, a Fleming who had succeeded as King's Glasyer, on his death in 1517, was set to work upon the task; whilst doubtless to prevent further unnecessary delay a number of other firms were allowed to share in the work.

Professor Lethaby's second point, that the ancient glazing of King Henry VII's Chapel corresponded entirely with the King's College scheme, is more open to question. He has overlooked one important detail, namely, the arrangement of the lights themselves; for whilst the King's College windows are all of five lights divided into two tiers by a transom, those in the clerestories of Henry VII's Chapel, though of five lights also, are divided into *three* tiers. It is impossible, therefore, that the arrangement of the two series of pictures can have been identical; indeed, it is difficult to understand exactly how the Westminster series was arranged.

It should be explained that these Old and New Testament subjects, arranged as type and anti-type, were copied from the picture bibles, and other such works. They were really elaborate pictorial commentaries upon the life of Christ. They usually consisted of one Gospel incident placed between two Old Testament types, and rarely contained more than three pictures in one group.

In the case of the King's College Chapel series the pictures dealing with this subject—"The Olde Lawe and the Newe," as it was generally called—are arranged four in a window, two above and two below the transom, the Gospel scene being below, with one Old Testament type only, set immediately above, in the upper tier. Each picture occupies two lights. The four "messengers" with their explanatory scrolls, one for each scene, occupy the central light from top to bottom, the general scheme of a window being that shown in Plan I.

It is difficult to see how this arrangement could be carried out in a three-tiered window, such as those in the clerestories of Henry VII's Chapel, where the lights, moreover, are very much smaller in size than those at King's. A picture confined to two lights only would be quite unintelligible from the ground level, whilst the "messengers" would have to be cut down to half-length. The most probable arrangement here would be to make each scene occupy four lights of a given row, the "messenger" with his explanatory scroll being placed at the extreme left or right. In that case the Gospel scene would fill the central row, the two Old Testament parallels being placed above and below. The window depicting the Crucifixion probably contained (as at King's College) no "messengers" at all (see Plan II).

Professor Lethaby's further suggestion that the figure of the prophet Jeremiah now in the east window has a "messenger" is not borne out by the evidence afforded by the glass itself, especially by the lettering on the scroll.

As already noted, the duty of the "messengers" in the central lights of the King's College Chapel windows is to explain by means of the inscriptions painted in black letter upon their scrolls, the various incidents illustrated in the lights on either side of them. But the inscription "Patre(m) laudate nomen domin(i)," on the scroll held by the pr Jeremiah, explains nothing. It is not a complete sentence, being apparently a p up of two such inscriptions. The "Patre(m)" may be original, being the mencement of the passage usually held by prophet—"*Patrem* invocabitis qui fea conditit coelos" (You shall call me Fat Who made and built the Heavens). This the Old Testament parallel to the first c of the Apostles' Creed held by St. Peter in series of Apostles and Prophets. "Cred Deum Patrem omnipotentem creatorem et terrae" (I believe in God the F Almighty, Maker of Heaven and Earth).

This, taken in conjunction with the cut-c condition of the figure itself, now minus its feet and the tesselated pavement whe it once stood (compare Fairford), stro suggests that this figure, together with smaller angel beneath, came from a l opening, namely, one of those in the (west window of the chapel. These, it be noted, are somewhat taller than thos the clerestories, and as Professor Let points out, did once contain tiers of fig under canopies on red or blue grounds.

Assuming this to be the case, we may te tively suggest that the figures in the window included twelve Old Testa prophets, each with a scroll inscribed some passage from his individual writi the Twelve Apostles with their Creed tences; and perhaps some of the Nine Or of Angels, bearing scrolls with exhorta sentences, such as "O Angeli laudate no domini" (Angels praise ye the name of Lord).

In regard to the heraldry once displaye the side windows, it is perhaps worthy o mark to point out that the windows of John's Chapel in the Tower of London retain one or two shields and badges, inclu the hawthorn bush, identical in date an treatment with those in King Henry V Chapel, and, like them, part of the decora painted and set up by Barnard Flower at King's command.

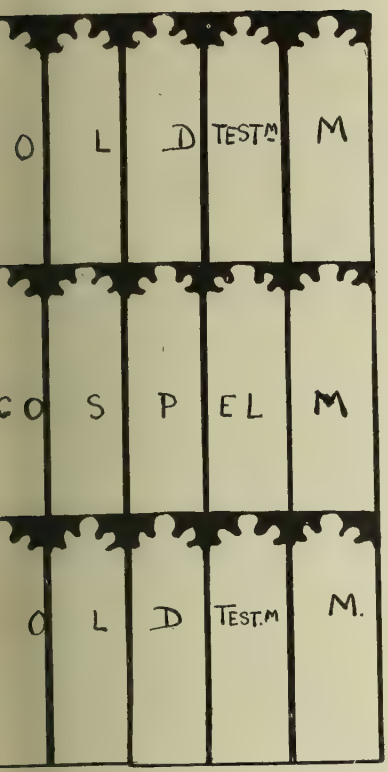
We have submitted this letter to Profe Lethaby, who writes:—

"I have read Mr. Le Couteur's notes w the greatest interest as a real contributio our knowledge of Westminster. I believe difference between the three tiers of light Westminster and the two at Cambridge mentioned; it was in my mind, but as I not a complete solution to offer I did emphasize it, the general agreement of schemes was all I hoped to bring out. I not appreciated the difference betw "Messengers" and Prophets, and the s gestion that the figure of Jeremiah may one of a set from the west window appear me admirable. My sketch of the figure very hastily made, but the inscription seem fit very well, and the lettering must h come from it, or a similar scroll. I c consider Mr. Le Couteur's suggestions c fully as opportunity offers, and hope if a thing further occurs to him he will put it record.

"W. R. LETHABY.

Glasgow Synagogue.

Ground has now been secured for the erect on a site in Lochleven-road, Langside, Glasg adjoining that of the Battlefield Parish Chu of a synagogue and class-rooms for the Que Park Hebrew congregation, and the plans the building are awaiting the approval of Dean of Guild Court. The proposed new bu ing has been designed by Mr. Ninian Macwh nell, F.R.I.B.A. It is planned on the Orie axis, with the east end facing Lochleven-ro In style the building will be Romanesque, the material employed will be artificial to stone.



II.—SUGGESTED ARRANGEMENT OF A CLERESTORY WINDOW IN HENRY VII'S CHAPEL: MAIN LIGHTS ONLY SHOWN.

THE R.I.B.A.

IE International Congress on Architectural ation will take place at 9, Conduit-street, July 28 to August 2. The following pro- me has been arranged :—

nday, July 28.—In the evening, at the B.A., there will be a reception by the dent and Council R.I.B.A.

esday, July 29.—In the morning there will meeting of the members at the R.I.B.A., papers on Architectural Education in ast in America, France, Italy, and England be read and discussed. In the afternoon nembers will assemble at the Architectural iation, 34, Bedford-square, W.C., for a visit School of Architecture, and proceed thence visit to the Bartlett School of Architecture.

dnesday, July 30.—In the morning, s on Architectural Education at the Present in America, France, Italy, and England be read and discussed. In the afternoon bers will embark on a launch at Lambeth, roceed to Greenwich.

ursday, July 31.—In the morning, members meet at the R.I.B.A., when papers on tectural Education in the Future in ica, France, Italy, and England will be and discussed. In the afternoon a visit be paid to the British Empire Exhibition Vembley. In the evening the Congress uet will take place at the Hotel Victoria.

day, August 1.—Visit to Cambridge.

urday, August 2.—The following conducted have been arranged : Westminster Abbey, ofessor W. R. Lethaby ; St. Paul's Cathe- by Mr. Mervyn Macartney ; the City hes, by Mr. Arthur Keen and Mr. Arthur on ; and the British Museum, by Sir John et.

Registration.

e poll of Licentiates on the Council's sals for the Registration and Consolidation e profession has been completed ; 881 s have been received. Of these 859 are our and 22 against.

The President.

e Honorary Degree of Master of Arts of University of Oxford will be conferred the President of the Royal Institute of h Architects, Mr. J. A. Gotch, on June 19.

ANCIENT MONUMENTS SOCIETY

THE first public meeting of the Ancient Monuments Society (a society for the study and conservation of Ancient Monuments and Craftsmanship in the north-western counties of England and North Wales, which was inaugurated in January, at Lancaster), was held recently at the John Rylands Library, Manchester, when the chair was taken by Sir Henry A. Miers (the Vice-Chancellor at the Manchester University). After describing the objects and outlining the proposed work of the new Society, the Chairman called on Professor T. F. Tout, who delivered an address on the study and conservation of Ancient Monuments and Craftsmanship. The meeting was attended by well-known antiquaries and others, representing all parts of the north-western counties of England and North Wales. The area to be protected by the Society has so far been limited to Cumberland, Westmorland, Lancashire, Cheshire, Derbyshire, Staffordshire, Shropshire, Flintshire, Denbighshire, Carnarvonshire, and Anglesey.

Professor Tout commenced his address by xpressing his reluctance to take part in the formation of new societies. The multiplication of societies was, he considered, one of the curses of modern civilisation. Yet he realised that good might sometimes come out of evil. In this case, after careful consideration, he felt that such evil as there might be in forming this Society would be amply compensated for by the great good that it was possible for it to achieve, and he wished it to be understood that he had come to express his goodwill and to most heartily bless the movement. Ancient monuments, said Professor Tout, would soon be almost extinct, and, undoubtedly, this Society would have been infinitely more useful if it could have been formed eighty or one hundred years ago. During that time many of their best ancient monuments had been demolished or rebuilt. Under the pretext of restoration, alterations had been made so extensively that very few of our ancient churches retained their original character and interest. Though he was personally a mediævalist, he did not merely plead for the conservation of mediæval remains, for he believed that monuments of later periods were of great interest and should be preserved with all possible care. It was often thought that architectural and archæological organisations were the proper bodies to deal with these matters, but whilst these bodies had been in existence for a long time and had done good work in their own respective spheres, he did not feel that they had safeguarded historical monuments in the way that an independent society devoted to that service could do. Many of the archæological societies had suffered owing to lack of funds, but in the case of the architectural societies the position was different. Their business was not principally to preserve old buildings, but rather to replace them with new ones. Now architects were making an honest and he hoped a successful effort to build in their own way and not to continue the facile processes of earlier generations. Architects had been too long disposed to consider that the right way to build was to copy old buildings—a method which had resulted in modern architecture being nothing but a series of replicas. An architect should not be a copyist ; he should not reproduce but create. There was in London a Society for the Protection of Ancient Buildings, but it had to cover a very large area, and he for one did not believe in undue centralisation. He always felt that, owing to centralisation in London, the provinces had a very small share of the benefits received. It was thought by some that the State should be responsible for the protection of ancient buildings, but they would be astonished to find how very limited the powers of the State were in dealing with matters of that kind. From half to two-thirds of the buildings worthy of preservation were altogether beyond the province of the State. It was also believed that the Church was in a measure responsible, but even in that case co-operation from without should be helpful. For these and other reasons he had come to the firm conclusion that the formation of this Society was essential in order to secure the better preservation of ancient monuments. He called attention to the minor antiquities, each of which might be thought in itself to be a matter of minor importance, but which, when considered together and collectively, meant so much. He pleaded that one style of architecture should not be considered more sacred than another, and pointed out that each type of building played its part, and that each tended to add interest and to diversify the monotony of modern life.

A vote of thanks to Professor Tout was moved by Mr. A. R. Powys, the Secretary of the Society for the Protection of Ancient Buildings, on behalf of that organisation. He welcomed the formation of the new Society. His committee agreed with Professor Tout that undue centralisation was by no means desirable. They felt that their position in the country would be greatly strengthened by the formation of additional societies of this kind to co-operate with them. Buildings he felt must be regarded as a record of the state of civilisation, and as a means whereby they could think of the beings who were responsible for their erection. He called attention to the humanity that they found speaking in the ancient buildings. He felt that a great work lay before the new Society if it would daily seek to spread the desire to preserve ancient buildings and not merely reserve itself for occasional efforts at times of crisis. The Society for the Protection of Ancient Buildings had from the first accepted the doctrine of Morris, which was based upon his desire to prevent the demolition of Ancient Buildings. In conclusion, he suggested various ways in which the Society might be able to make itself helpful to the community.

The vote of thanks was seconded by Councillor Walter Flinn, of Manchester, who referred to a number of local movements to prevent the destruction of ancient monuments in the district.

On the motion of Dr. Henry Guppy, Librarian of the John Rylands Library, seconded by Dr. F. C. Larkin, of Liverpool, a form of Constitution was adopted. Recommendations for the appointment of an advisory committee were then made by Alderman Arthur Bennett, of Warrington. These were seconded by Dr. A. A. Mumford, and adopted. The Council of the new Society was then appointed. Mr. Edward Owen, of the Royal Commission on Ancient Monuments in Wales, gave valuable information regarding the work of the Royal Commission in the Principality, and also made certain suggestions which are to be considered by the newly-elected Council at an early date. Amongst the principal speakers were Mr. F. H. Cheetham, F.S.A. (Chief Correspondent to the Ancient Monuments Committee for Lancashire), Mr. T. Cann Hughes, M.A., F.S.A., of Lancaster, Mr. F. H. Crossley, F.S.A., of Chester, and Mr. P. C. Brown, of Liverpool.

The acting Hon. Secretary of the new Society is Mr. John Swarbrick, of 30, St. Ann-street, Manchester.

Association of Teachers in Technical Institutions.

The fifteenth annual conference of this Association was held at Newcastle-on-Tyne from June 7 to June 11. In the course of his Presidential Address Mr. F. C. Clarke mentioned the Association had grown steadily year by year in the number of its members, and the weight and importance of its deliberations. It was the recognised medium through which the opinions of teachers in technical institutions were expressed, and through which conferences with them were carried on. The growth of its work had resulted in a considerable step forward since they met last year. He referred to the establishment of headquarters in London at 29, Gordon-square.

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ILLUSTRATIONS

Egyptian State Hospital, Cairo.

The illustration of Messrs. Nicholas & Dixon-Spain's Kasr-el-Aini Hospital and Medical School is from the Royal Academy Exhibition. The design was successful in the two-stage International competition, which terminated in March last year. The buildings have a monumental character proper to a State institution, and this quality has been achieved without apparently unreasonable expense.

Church, Institute and Chaplain's House at Shepherd's Bush.

The general lines of this group of buildings for the Royal Association in Aid of the Deaf and Dumb are in the manner of the Institute for the Deaf and Dumb, by the same architect, now nearing completion, in the Clapham-road. On the ground floor there is to be a large hall with billiard room and club rooms adjoining, together with a kitchen and canteen to serve meals for those who have to come from long distances. Above this hall is to be the church with its side chapel and vestry. The church has a raked floor in order that, without effort, all can see; special attention is being paid to backgrounds in order that speaking by hands may be made as easy as possible, and a gallery is being provided for a cinematograph apparatus as much of the work will be carried out by these means. By the side of the church and institute will be the chaplain's house, all being finished in Crowborough brickwork. The drawing we illustrate is in this year's exhibition at the Royal Academy.

The general contractors are Messrs. Holloway Brothers, Ltd. The architect is Mr. Edward Maufe, F.R.I.B.A.

Caterham School.

This design for new memorial hall and libraries at Caterham School, was placed first in a competition held in September, 1923.

The building originally consisted of a hall 50 ft. by 30 ft., but is now to be extended to 66 ft. by 30 ft., two libraries each 20 ft. by 20 ft., entrance hall and vestibule, book store 20 ft. by 20 ft., and heating chamber.

The walls are faced with rough hand-made bricks with dressings of Weldon stone. The roof is to be covered with Lombardic tiles.

One condition of the competition was that the work should not exceed £4,000. The architect's estimate for the building complete, but exclusive of the portico, which was to be built later, was £3,972 13s. 9d., and the lowest estimate received from the contractors (also exclusive of the portico) was £3,923. The building is now in course of erection.

The general contractor is Mr. C. Kerridge, Junr., of Sturton-street, Cambridge. The bricks and tiles are being supplied by Messrs. Ames & Finnis. The iron casement window frames and leaded lights by the Albany Forge, Wainwright & Waring, Ltd., the steel trusses are by Messrs. Smith Walker, Ltd.

Messrs. Kieffer, Fleming & Keesey are the architects.

Tankersley Miners' Welfare Scheme.

The pavilion, of which we give an illustration forms the centre feature of a park which is being laid out in the Bull Wood in connection with the Tankersley Miners' Welfare Scheme. The pavilion comprises a large assembly hall, about 50 ft. by 20 ft., with an open loggia on the south-west side, with men's and women's entrances, cloak and lavatory accommodation at each end; the kitchen and service arrangements being at the rear, and the resident caretaker's quarters on the first floor.

Local bricks and tiles are being used with external rough cast and local stone dressings. The general contractors are Messrs. Thos. Roper & Sons, Ltd., of Mowbray-street, Sheffield, and Mr. Maxwell M. Hart, of 162, Buchanan-street, Glasgow, is carrying out the work to the bowling green and tennis courts which are part of the general scheme.

Messrs. Sydney Tatchell & Geoffrey C. Wilson, FF.R.I.B.A., of Bank Chambers, 32, Strand, W.C.2, are the architects.

ART IN CHURCHES

WE take the following from an address recently given before the Chapter of Leeds by Mr. Reginald Hallward.

It would be easier to speak on this matter if there were any generally accepted views as to the nature of art and of its value to life. In those happier ages when art spoke a common language, emerging naturally through the people as part of the ordinary life, it was hardly necessary to do so: ages in which the noblest production hardly knew itself as art at all. But we should be nearer to a more common understanding if we could rid ourselves of some of the mistaken views about it. We hear of some secret which in the case of stained glass has been lost, and that glass itself is merely a survival. Yet the fact is that we have resources of material, glass of colour and lustre and of wider variety than those of mediæval times. And if it is regarded as a survival only it must surely be that we are not artists enough now to interpret its inexhaustible resources. Both views rest on a complete fallacy, and yet there is, in a sort of inarticulate way, some apprehension of a loss, though we do not know how to attribute it. Is not the secret of the beautiful work of the fourteenth and fifteenth centuries due more to the life than to materials; that it was not overlaid by influences obscuring the simpler outlook that should belong to such things? Their work inspires us because it inspired them, that it drew its strength from deeper sources.

Tradition was once something tangible and real; stood for a practice carried on and developed from generation to generation, a thread often binding intuitively the practice thus unconsciously inherited, until, as has been said, the craftsman hardly knew why he did the things. Yet, being done, it was right, and knew itself to be right. So the craftsman worked in a security with which the ages endowed him until the progress of industrialism, which, in plainer terms, is the substituting of profit for service, undermined and ultimately destroyed this security. It was not difficult to get good work done in the fourteenth century, it would have been more difficult to get it done badly. Yet the work they did was hardly conscious of itself as art because labour's aim was service. I do not mean to say there is not good work done now; far from it—but art is the expression of life lived abundantly, of the pleasure in work, and that pleasure has largely been taken away.

It is not much use applying ideals to art, it is better for practice to reveal them—for the deed to speak—and I have great hopes at the present time that this is felt to be true. Organisation, encouragement of art, art ideals, have had their day. This sort of security for art is found wanting, and the deepening of the personal life, of a simpler outlook is found h William Morris said on one occasion that arts have got to die before they can be again." If he had been alive to-day I thi would have felt that that new birth beginning. But the signs are not to be s in craftsmanship, or machinery, but in th sense of obligation, of service, of that surr which grows out of love of our fellow There is no medicine for art equal to a hun more loyal spirit. From the dawn of civilis the archæologist and historian is finding when the art of a nation turns from religi luxury that nation decays—is destroyed.

It is a criticism brought against artis mean those who bring a more personal direct approach to their work for churches— they are not ecclesiastical enough. That are not, in the sense in which we often regar matter, I do not deny, because it is n external forms, which may be imitated have done duty so long that we shall find We may found our craftsmanship on a ground of traditional example—and we are to do so—our own personal feeling will in itself later, writing over the old the spi experience of the new. There is near her Leeds University War Memorial which illustrate what I mean. It is easy to critic and it does not altogether appeal to me, have no hesitation in saying that there is of vital quality and spiritual apprehensi that memorial than in most "ecclesiastical

The success of a stained glass windo largely dependent on the amount of plea interest and discovery the artist puts int not the amount of likeness in it to mod achievement, and the improved craftsma of to-day is not in itself enough to give us This improvement, though wholly to the should not be mistaken as enough in itself is a means, but not the end, because know is not enough. It is the temper, the outlo our work, that matters. It is not craftsma that we are needing now—there is, of a plenty of it—so much as a humble asp spirit, searching out and giving expressio the divine, the beautiful on which the rests.

But in affirming the need of a more per endowment, I am not suggesting any against the corporate spirit, which is as nece in the arts as anywhere else. We have, how sought it too much in the wrong way external organisation, machinery—and are feeling its failure, because there can b corporate life where there is not the seekin the same things, where the objects of life ar united. And it is because I see in the you men a better understanding of the objec life that I feel so much hope for art at present time. And this leads me to the culty felt by the clergy of how to find good v There is no royal road to this, and the easy of relying on the accustomed methods, or dep ing on popular reputation and worldly succes not aid us. But the will to care for better, vital work will bring us to it.

If much of the security for art in churcl at present a false security, because it has be so much a sort of standardisation, which itself "ecclesiastical art," of low endow and defective artistry, we need not fear th of adventuring a little more. We must risks, but we shall find less risk in the adver in the readjustment of values, which are sf often wrong than in pursuing the old use wont, which has given so bad a name to "ec astical art." I welcome, therefore, very the signs that the clergy are looking for a genuine artistry—one with more vision personal conviction—on which rest the fou tions of all tradition and which will once restore us to it.

Lower Chapel, Eton.

With reference to our description of building in our issue of May 24, the archite the work was, of course, the late Sir A Blomfield, A.R.A. Mr. Walter Ta F.R.I.B.A., is only responsible for the new case, panelling and tapestries.



Easter Sepulchre at Hawton, Notts.



R.A. Exhibition, 1924.

Proposed Bank Premises, Town Centre, Welwyn Garden City.

Mr. Louis de Soissons, F.R.I.B.A., Architect.





Chaplain's House, Church & Institute for the Roya

R.A. EXHIBITION.

MR.



in aid of the Deaf & Dumb. Shepherds Bush. W.



R.A. Exhibition, 1924.

Kasr-el-Aini St

Messrs. C. Nichol



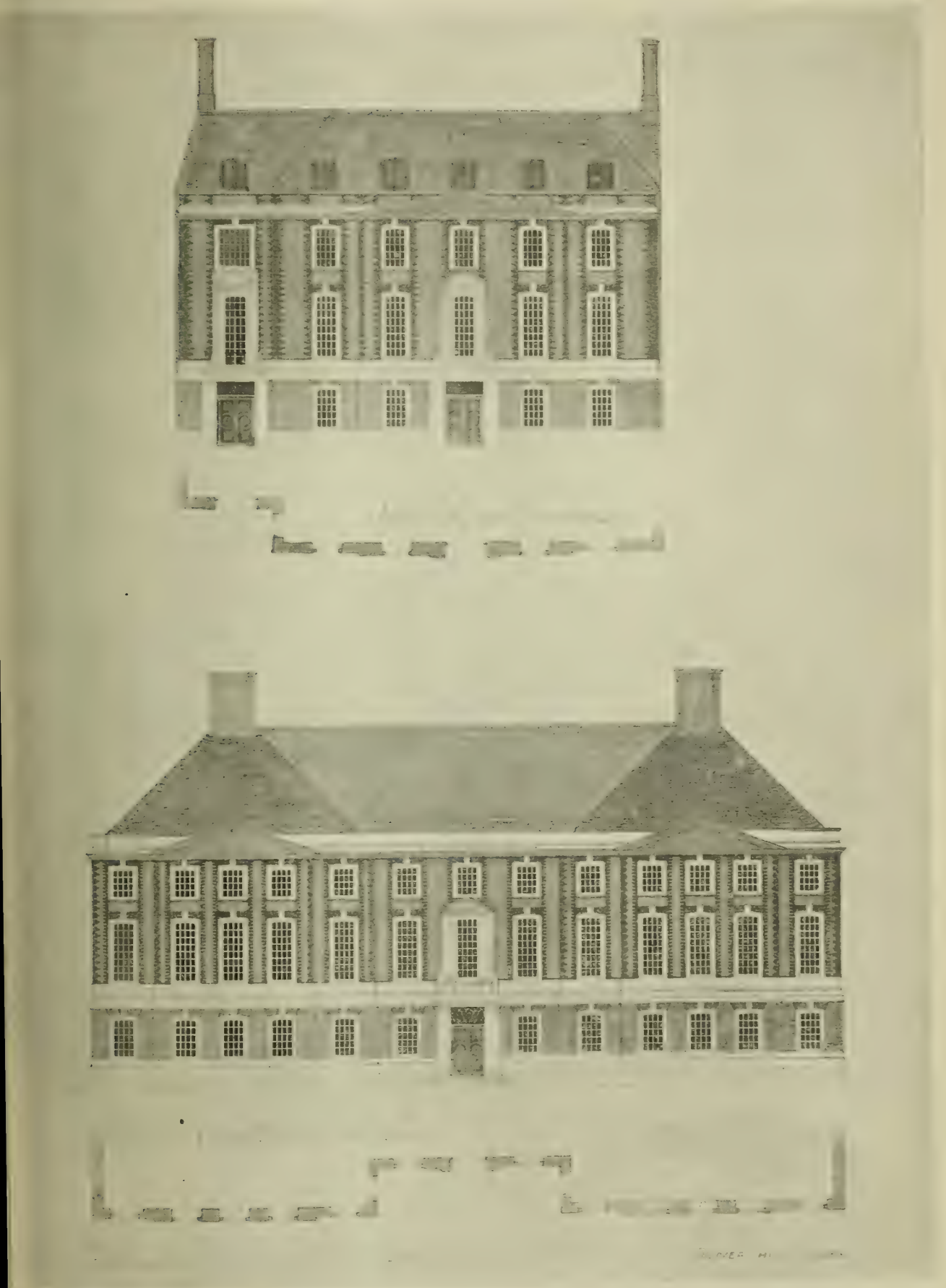
Schools, Cairo.

R.I.B.A., Architects.



R.A. EXHIBITION.

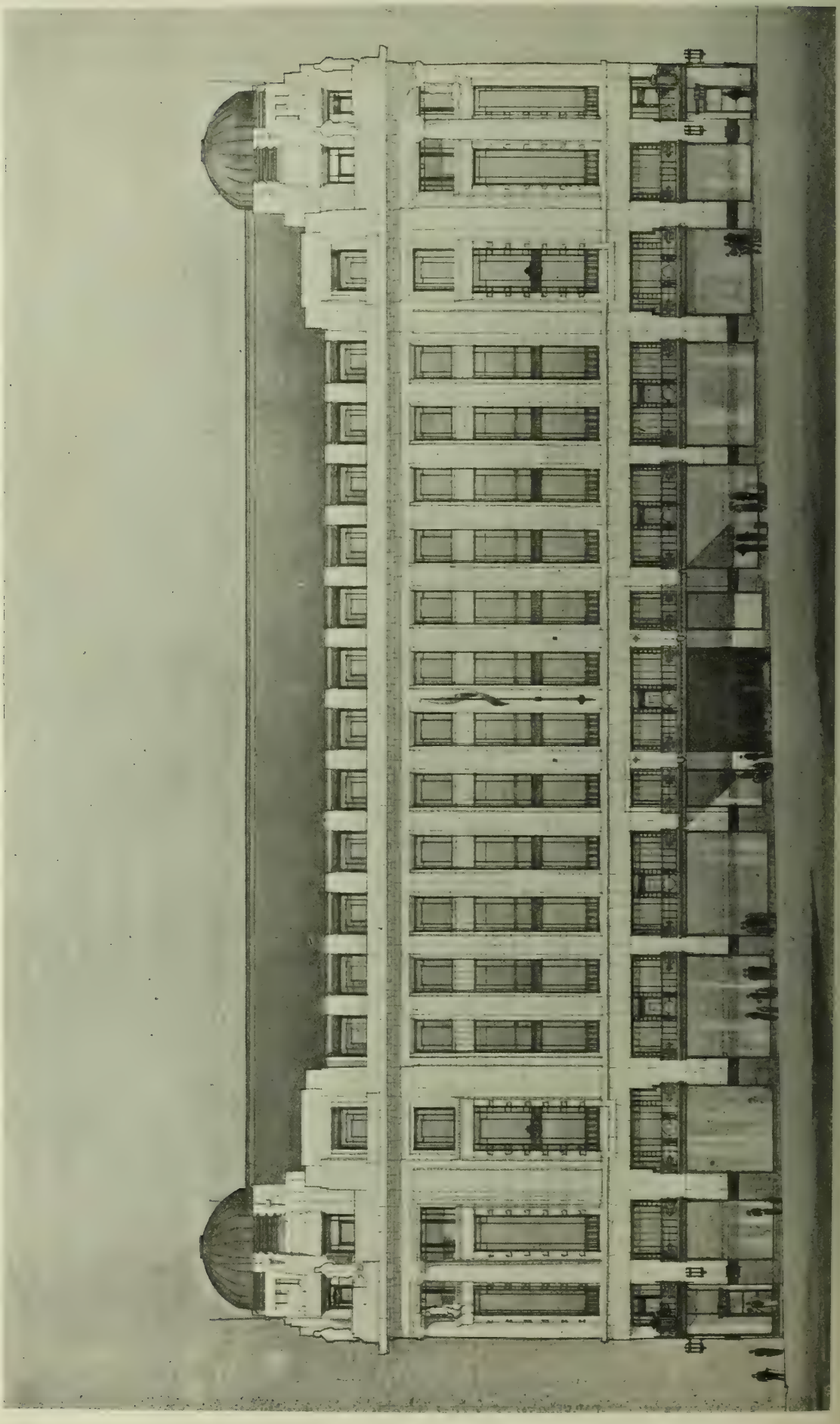
MESSRS. SYDNEY TATCHELL & GEOFFREY C. WILSON, FF.R.I.B.A., ARCHITECTS.



R.A. Exhibition, 1924

Facades to New Houses in Smith-square and Offices in Quality-court.

Mr. Oliver Hill, F.R.I.B.A., Architect.

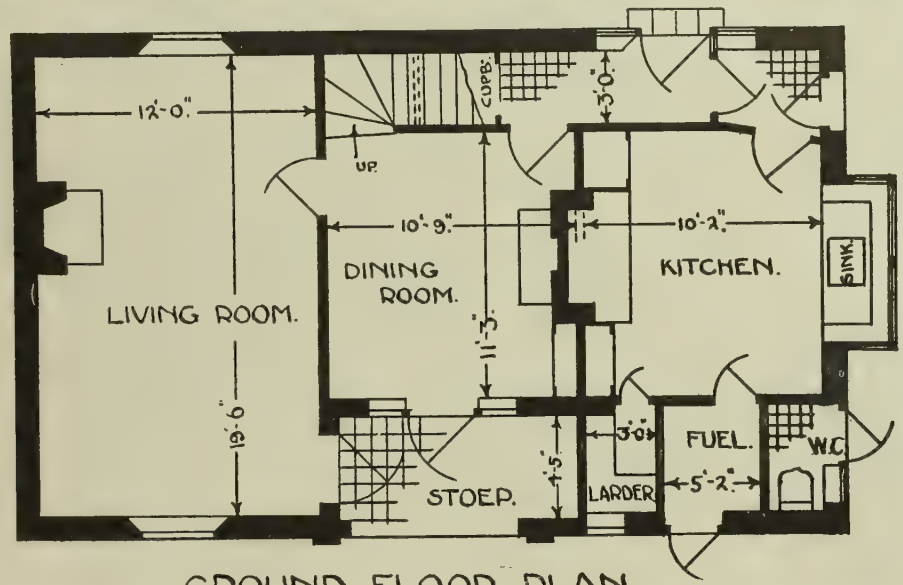


Vigo House, Vigo-street, Regent-street, W. SIR JOHN J. BURNET, A.R.A., & PARTNERS.

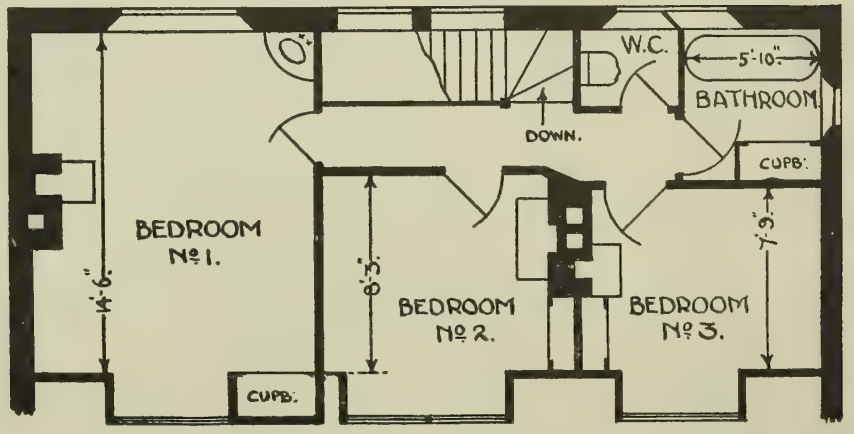
[A perspective drawing of this building, exhibited in this year's Royal Academy Exhibition, and a description of the building were given in our issue for May 16.]







GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

House at Leatherhead. MESSRS. DEANE & BRADDELL, Architects.

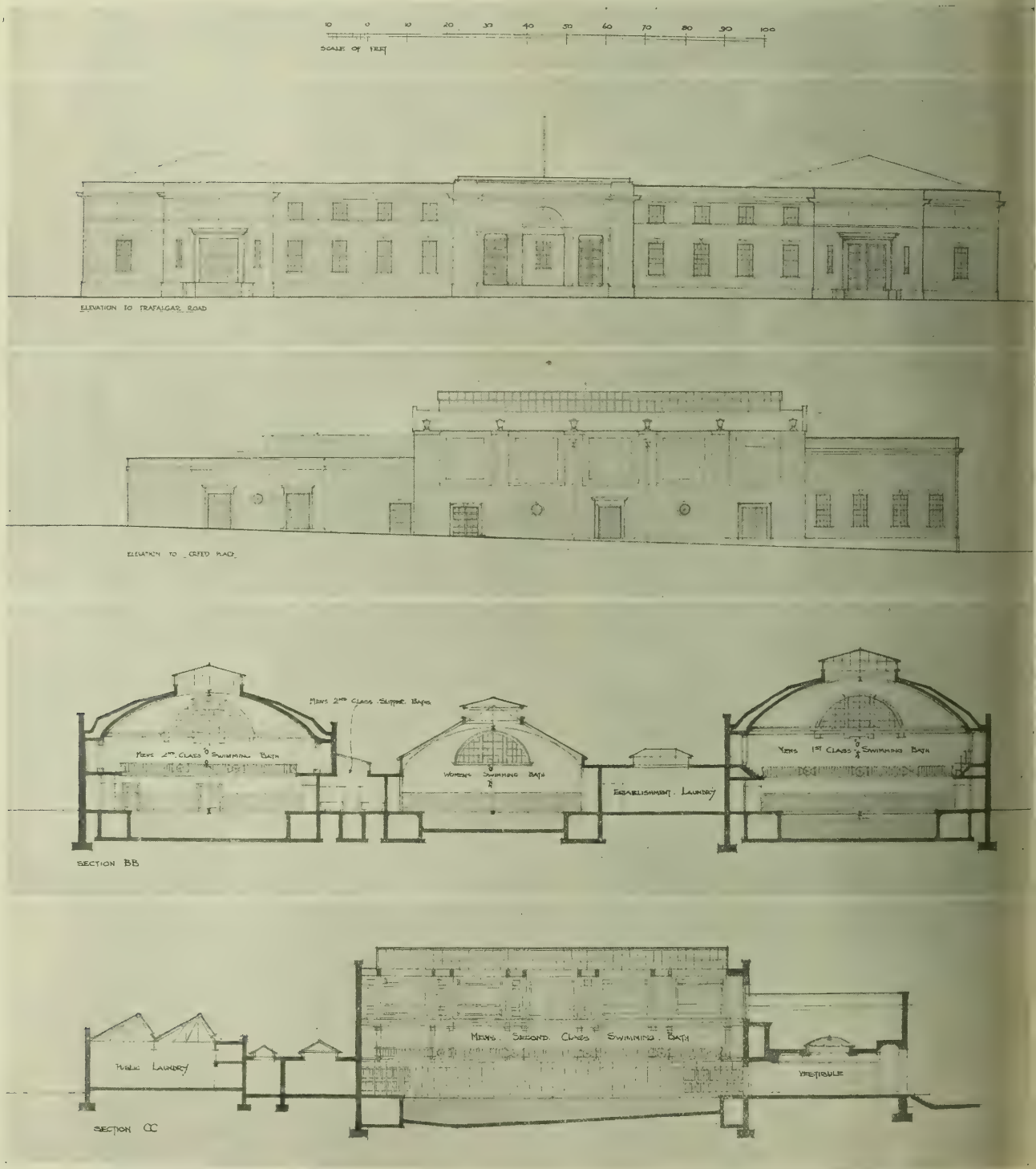
This little house stands in the middle of the country town of Leatherhead. The site it occupies was once part of what is still the park of a large house. It is protected from the road by a clump of fine elms, while the long and narrow garden at its back overlooks the kitchen garden of the neighbouring estate. It has been designed solely from the point of view of being occupied by one person, with one maidservant in attendance. The materials used are hollow brick walls plastered and lime-washed and black tarred base. The roof has been covered with old pantiles. These have been a complete success in spite of many warnings to the contrary. Green-painted woodwork with shutters treated in the Dutch fashion give a somewhat foreign air.

GREENWICH BATHS COMPETITION

THE design illustrated on this and the next page was submitted in the recent Greenwich Public Baths Competition by Mr. William Allison, A.R.I.B.A.

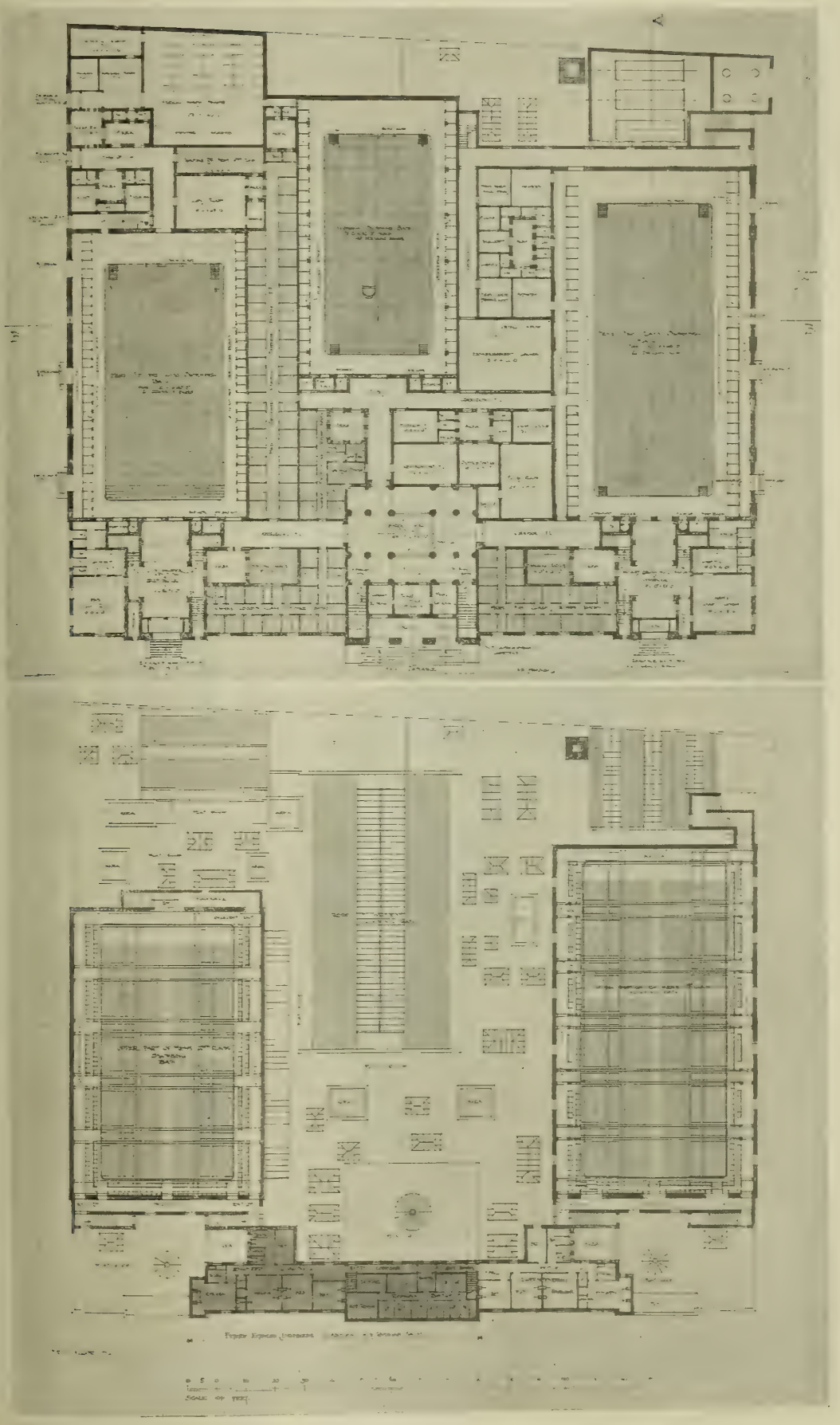
The plan was arranged on axial lines, but strict symmetry in planning was sacrificed in order to avoid long corridors leading to the slipper baths, and also to locate the establishment laundry centrally. The main entrance to the baths was placed in the centre of the Trafalgar-road front, which leads into a spacious entrance hall. The secondary entrance to the men's second-class baths and the public laundry was located near the back of the site in Creed-place. The entrances to the men's first and second-class swimming-baths, when used as public halls, were on the Trafalgar-road front, and placed axially on the longitudinal centre lines of the bath halls, which permitted a balanced elevation. The men's swimming-bath halls were placed on the Creed-place and Park-street frontages in order to obtain direct emerge exits into these thoroughfares. The elevat were kept very simple owing to the low ex diture permitted. The materials sugge for the exterior were brickwork with Port stone dressings. The roofs to the m swimming-bath halls were to be supported steel-framed trusses, and internal architect effect gained by suspended panelled fib plaster ceilings.

The design placed first in this competit by Messrs. F. J. Horth & H. And was given in our issue for October 12, 1923



Greenwich Public Baths Competition.

Design submitted by MR. WILLIAM ALLISON, A.R.I.B.A.

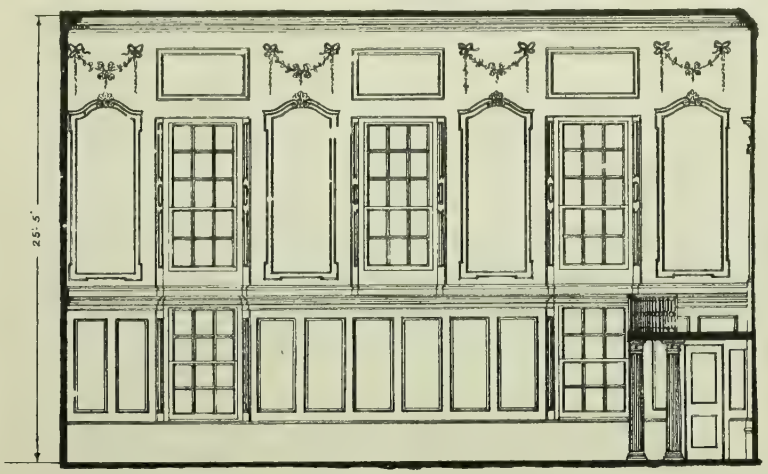


Greenwich Public Baths Competition.

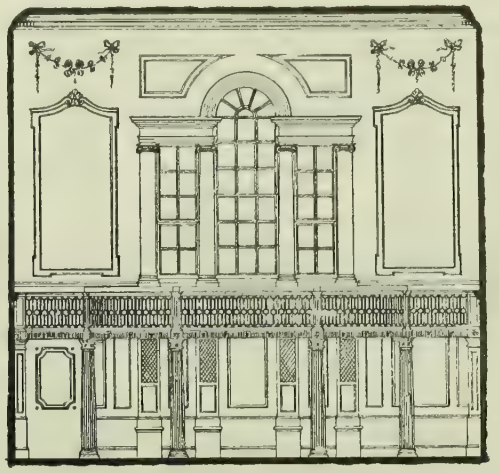
Design submitted by Mr. William Allison, A.R.I.B.A. (*See p.* 948.)

THE GIRLS' HIGH SCHOOL. NORWICH. T. IVORY. ARCHITECT.

QUARTER INCH SCALE DETAILS OF ROOM USED AS KINDERGARTEN & GYMNASIUM



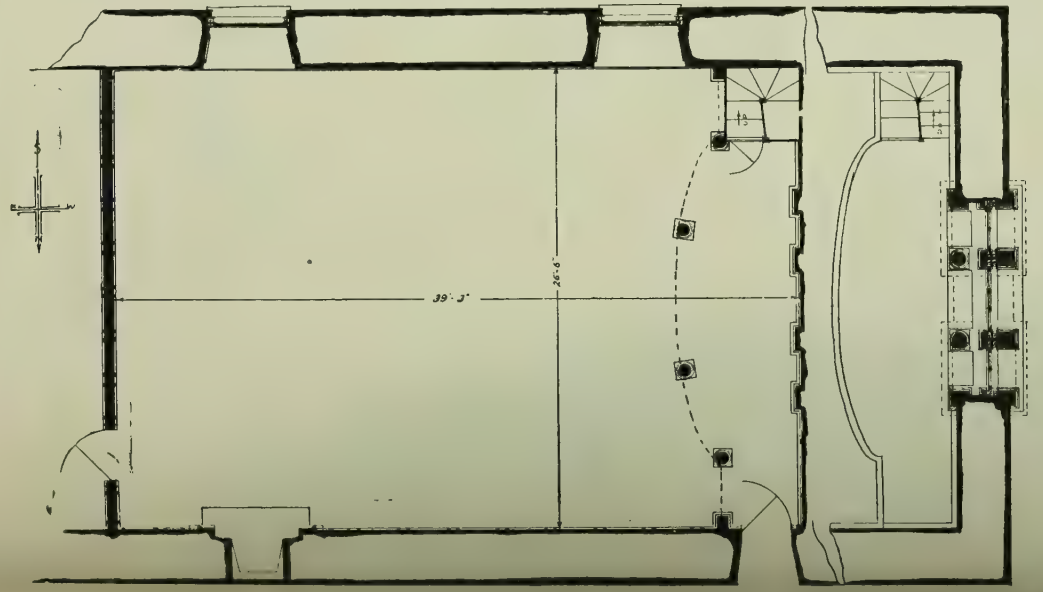
ELEVATION OF SOUTH WALL



ELEVATION OF WEST WALL



ELEVATION OF EAST WALL



GROUND FLOOR PLAN

PLAN OF GALLERY



ELEVATION OF NORTH WALL

SCALE - QUARTER INCH EQUALS ONE FOOT

DISTRICT SURVEYORS' FEES

BY AN EX-DISTRICT SURVEYOR.

Fees in Estimates.

E of the petty difficulties besetting a er when compiling an estimate is the ion of the district surveyor's fees. It is to calculate the fees payable in respect new building; it is in the case of an tion or addition that the difficulties arise. a new building is enclosed by party walls, alteration to these affects the adjoining ings, and entails the payment of fees dingly. Also fees are chargeable in respect e underpinning of external walls to adjoin- uildings.

Anomalous Fees.

der the Act of 1894, as originally drawn, alous conditions frequently resulted gh the fee upon an alteration being lated upon the extent of the building ective of the extent of the work. A small tion to a large building caused a dispro- onately large fee to become chargeable; appeals were made to the generosity of the ct surveyor, who was expected to forego portion of his legal charge. He, as a ent man, usually declined to commit lf until after the supervision of the work proved to be troublesome or otherwise, so the builder had either to include the full tory fee in his estimate or run the risk me loss. To a large extent this veil was ated by the Act of 1921, which allows the o be calculated upon the cost of the work o £500, beyond which limit the original m is applicable and is presumed to be able. But is this so? The fee chargeable an alteration costing not more than is only £8 8s., whereas an alteration at a of £550 to a large public building might il a fee of over £30. The scale of fees ed under the Act of 1921 is a reasonable and perhaps, after the year 1926, when this ct is to be reconsidered by the legislature, ar rules may be enacted, the limit of cost extended beyond £500.

Duties Without Fees.

am far from suggesting that district sur- rs are ordinarily overpaid, especially in of their heavy responsibilities. There are s incumbent upon them for which no fees chargeable. Great danger to the public requently arisen through imperfectly fixed ney pots and tallboys, defective brickwork himney stacks and parapets, and through coping stones in the latter. I have climbed ladders to satisfy myself as to the efficient ng of chimney-pots, the effective bonding ickwork in chimneys and parapets, and to effect to the rule of the Act that the upper- courses of chimneys must be built in nt. Yet the Act provides that no fee be charged in respect of the fixing of a ney pot, nor for the repairing of a chimney or parapet, unless pulled down to a greater nt than 12 in.

Fees Without Duties.

there are duties without fees, should there be, as compensation, some fees without s? Usually it is assumed that, where the eyor has no duty to perform, he is entitled o fee; and this is thought to be the rule regard to all buildings exempt from s VI and VII of the Act, relating to rules onstruction. But it should be borne in that such buildings are not exempt from third schedule, which provides for the ment of fees. Take, for example, the case detached greenhouse. It is conceivable here a duty might devolve upon the eyor in relation to the frontage lines of a nhouse on a corner plot. But in most cases would be no such duty; and yet it could ntended that the surveyor is entitled to e because the Act provides for the payment rtain fees upon every new building.

Apart from specific duties entailing specific fees, the surveyor has the general duty that he shall "cause the rules of the Act to be duly observed," and for this he receives no salary, but is paid according to a system of taxation upon building works.

VICTORIA AND ALBERT MUSEUM

Drawings by Inigo Jones.

The series of drawings by Inigo Jones, from the Library at Chatsworth, comprising designs for scenery and costume for use in the masques performed at the Court of James I and Charles I have been lent to the Victoria and Albert Museum for a short period, and are on view at the Museum until the end of June.

In connection with these drawings, the Museum authorities write:—

"A large portion of this collection of designs has been preserved intact, for Inigo Jones bequeathed his collection of architectural and stage designs to John Webb, his assistant and nephew by marriage, and from Webb's descendants the bulk of the collection passed ultimately to the Earl of Burlington, and from his famous villa at Chiswick to Chatsworth, where it has been preserved ever since.

"From 1604 until 1640, the year preceding the outbreak of the Civil War, Inigo Jones was continuously employed at Court, first in some subordinate capacity, then as surveyor of works to Henry Prince of Wales, and finally as surveyor-general to the King. His genius as an architect during these thirty-six years we recognise in his buildings, but we are not accustomed, as contemporary writers were, to hail him as a genius of stagecraft as well.

"Daniel, Davenant, Townshend, and in his earlier masques Ben Jonson, have nothing but the highest praise for his talent and invention. It might be difficult at this distance of time, even in the face of categorical statements of contemporary records such as Royal Accounts, to believe that some of their descriptions of scenery, which imply settings and effects needing elaborate preparation, had actually been realised on the stage, but the priceless additional testimony of actual designs from the hand of the great producer himself enable us actually to reconstruct some of the scenes.

"Nor need we end our reconstruction with scenery, for besides Inigo Jones's pen drawings for the opening scene of Ben Jonson's 'Chloridia' or William Davenant's 'Luminalia,' there are designs for the actual dresses which James and Anne, or Charles and Henrietta Maria, and the Lords and Ladies at Court wore, a series of some 300 drawings varying from the boldest and roughest first sketch by Jones himself to a detailed and careful design by some assistant for the completed dress. There is a tradition that Peter Oliver made some of the drawings of masque costumes, and it may be that some eight exquisite designs for dresses in pen and body-colours with gold and silver ornament are his. Finally, the designs are not, as has sometimes been suggested, mere academic experiments, notes of ideas which were not and could never have been realised. The names of the wearers on the projects for dresses, the splashes of the scene-painters' distemper on the sketches for scenery, prove that the drawings were in fact used for the practical purposes for which they were prepared. A catalogue raisonné of these drawings, with 50 reproductions, is being published this year by the Oxford University Press as the Twelfth Annual Volume of the Walpole Society."



Fireplace in the Girls' High School, Norwich.
Measured and drawn by MR. C. J. W. MESSENT.

THE REPORT OF THE RENTS TRIBUNAL

THE Tribunal appointed under Article VII (4) of the Local Authorities (Assisted Housing Schemes) Regulations, 1919, and Article II. of the Local Authorities (Assisted Housing Schemes) Amendment Regulations, 1921, has recently issued its Report. Article VII (1) of the Regulation of 1919 provided that in any determination of the amount of the Exchequer subsidy, whether based on estimate or otherwise, such deductions might be made from the amount of the deficit upon which the subsidy is calculated as will, in the opinion of the Minister of Health, represent (*c*) any deficiency of income or estimated income due to the insufficiency of rents charged or proposed to be charged by the local authority, or (*d*) any deficiency of income which is due to the failure of the local authority to secure due economy in the carrying out or administration of the scheme. In the event of any difference of opinion arising between the Minister and the local authority in regard to the above matters it was provided by Article VII (4) that the question in issue should be referred to this Tribunal and the decision of the Tribunal should be final and conclusive.

The Tribunal had to act under certain rules in determining the question of the sufficiency of rents; they had to have regard to (*a*) the rents obtaining in the locality for houses of the working classes, (*b*) any increase in the rent of houses of the working classes authorised under the Increase and Mortgage Interest (War Restrictions) Act, 1915, and any Acts amending or extending that Act, (*c*) any superiority in the condition or amenity of the houses to be let by the local authority under the assisted scheme or in the accommodation provided therein, and (*d*) the classes of tenant in the district for whom the houses are provided.

The decisions given in this Report relate only to cases where the question in issue was the sufficiency of the rents charged or proposed to be charged. In the period under review in the Report—that is, since the Tribunal was constituted in 1920 to March 31, 1924—198 cases have been referred to the Tribunal. In 78 cases a settlement by agreement was effected, the Tribunal made awards in 102 cases, and only 18 cases remained to be dealt with at the end of March. The Report contains a model form of pleading which was issued to assist the local authorities in stating their cases, and the results of the awards made in these 102 cases.

The awards are presented in a tabular form showing the type of house, the net rateable value, the rates in the £, the weekly rates and water charges payable on the local authority's rent, the rent suggested by the local authority, the rent suggested by the Minister, the rent fixed by the Tribunal, and lastly, any increase made by the awards in the local authority's rent or decrease on the Ministry's rent.

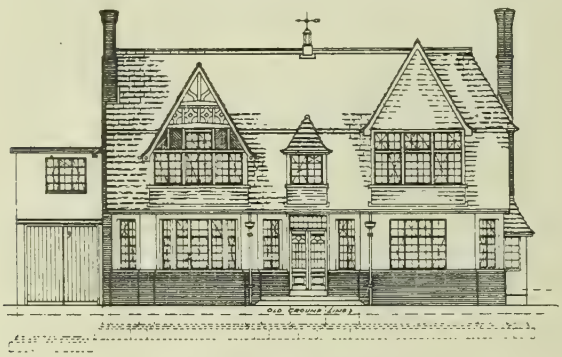
As the cases heard relate to a variety of districts all over the country the report contains some interesting statistical information. For instance, it will be seen that a high poundage in the rates does not in itself necessitate a high rental, but it has to be considered in relation to the assessed rateable value. Thus, take Norwich, which is one of the Corporation Boroughs where the rate in the £ is highest, viz., 27s. The charges for rates and water rates in respect of a non-parlour house with three bedrooms there on the local authority's rent were 6s. 5¼d., and the rent fixed by the Tribunal was 8s. 6d., an increase of 2s. 5½d. on the local authority's rent. For Birkenhead, a Corporation Borough where the rates are 15s. 3d. in the £, the charges on the local authority's rent w 6s. 9d. for a similar house and the rent fixed the Tribunal was 8s. 9d., a decrease of 3s. on the Ministry's figure.

The explanation of the close approximat of the rents in the two places, despite the gr difference of the poundage of the rates, possi lies in the rateable value. In Norwich this £13, but in Birkenhead it was £21. The Rep appears to show that the Tribunal had on whole to assess the rent in these disputed ca very evenly between the figures presented by local authorities and the Ministry.

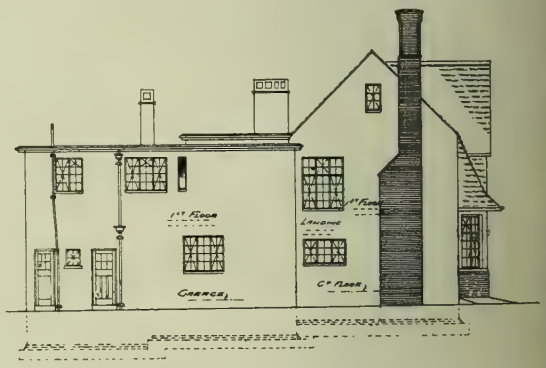
HOUSE AT ST. LEONARDS-ON-SEA

THIS house faces The Green, St. Leonar on-Sea. The site is about 200 ft. above level, and has a frontage of 100 ft. by 180 in depth. The plans were largely arranged the circumstance that the best bedroom required on the ground floor. This room been treated as a small flat, with bathro and dressing-room attached. The bathro provides a means of getting to the kitch without passing through the hall. On the f floor there is a studio, bedroom for guests, maids' bedrooms, bath, lavatory, &c. main staircase leads to a narrow gallery w French doors opening on to the studio which commands a beautiful view. There a separate staircase off this gallery to la lumber space in the roof. The chauffeur his rooms over the garage, with separate st case.

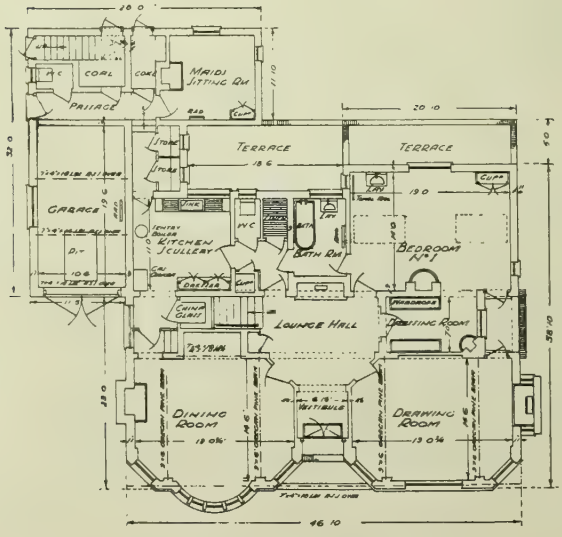
The builders are Messrs. James Bodle, L of Eastbourne and Bexhill-on-Sea. The arc tects are Messrs. Smee & Houchin, of By House, Fleet-street, London, E.C.4.



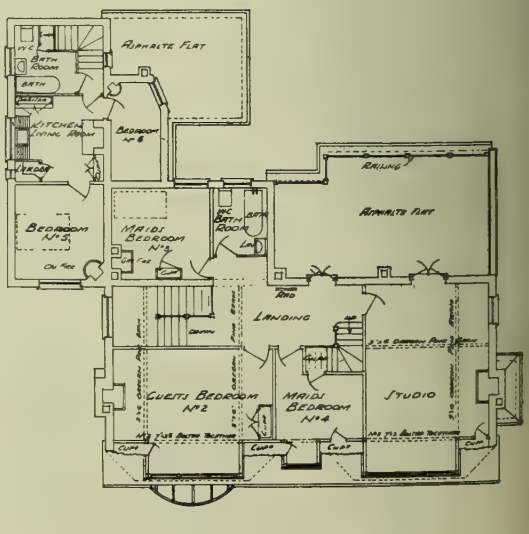
WEST ELEVATION



NORTH ELEVATION



GROUND FLOOR PLAN



FIRST FLOOR PLAN

House at St. Leonards-on-Sea. MESSRS. SMEE & HOUCHIN, Architects.

TOWN-PLANNING INSTITUTE

RAYMOND UNWIN presided over a meeting e Institute held on May 30, when Mr. nce W. Chubb (Secretary of the Commons Footpaths Preservation Society) read a on "Reservation of Lands, Open Spaces,

Chubb said he had been asked to deal with uestion of the reservation of lands and open under town-planning schemes in the f the Model Clauses issued by the Ministry alth for use in the preparation of schemes. mportance of providing and maintaining nable facilities for recreation was now lly admitted. Indeed, it was safe to that few persons now cavil at the expendi- necessary for the acquisition of parks and g fields because it had come to be univer- recognised that a sufficiency of "Open-air " was only less necessary to the citizen adequate systems of sewerage and water- y.

e Open Spaces movement had grown out of forts of the small band of enthusiasts who, 65, founded the Commons Preservation y. The attacks on commons in Parlia- or at the hands of Lords of Manors were checked and finally stopped by action in ament or in the Law Courts. By these s the Commons Preservation Society had able to frustrate attempts to enclose, or, natively, it had carried through schemes for uarding as open spaces a total area of about 00 acres of common lands in various parts ngland and Wales. Side by side with the sure of commons during the eighteenth and eenth centuries, there marched the steady of former rural population from country to . They rendered still more necessary the rvation of the natural open spaces of the nunity, but, unfortunately, the influx of gricultural labourers into manufacturing cts gave to the common lands a building which they had not previously possessed thereby accelerated the temptation to se them. It follows that, in order to fill e gaps caused by the loss of the commons, urban community was faced with the ing need for acquiring playing fields and s.

ring to the technical difficulties involved, ompulsory acquisition of land needed for ation was seldom attempted. Local orities generally preferred to buy by agree- and to avail themselves of the provisions e Open Spaces Act, 1906, notwithstanding nsatisfactory limitations of the definition e of that Act. This defined an "Open e" within the meaning of the Act as any whether enclosed or not, on which there no buildings, or of which not more than one- tieth part was covered with buildings, and hole or the remainder of which was laid out garden, or used for purposes of recreation, s waste and unoccupied.

is definition seemed to exclude from the al provisions of the Act enclosed cultivated whether arable, meadow, pasture, or wood, ll as land built over to a greater extent than wentieth. Efforts were now being made end this Act and to give to local authorities elastic and satisfactory powers than they possessed to purchase open spaces. When Housing and Town-Planning Act was being ssed in Parliament in 1909, considerable ntion was drawn to the possibilities it pre- d of ensuring for each "town-planned" a well-considered system of public and te parks and playgrounds. It was realised it ought to be made practicable for Councils ok ahead and to take such steps to antici- and control the development of the area in their jurisdiction that the mistakes of past should not be repeated.

e extent to which Councils were entitled to e was indicated in the Model Clause 35 d in 1923 by the Ministry of Health for use e preparation of town-planning schemes. clause sets up the necessary machinery for reservation of lands likely to be required as public open spaces, private open spaces, playing fields, allotments, and sites for elementary schools.

Until they had actually been acquired by the town-planning authority, the lands scheduled for the public purposes indicated—or, in the case of private open spaces, until such date as the Council in each case fix—would continue to be used as they were used at the date of approval of the scheme "for the purposes of agriculture and horticulture, or for such other purposes as the Council may permit." Buildings might be erected upon the lands before the date of acquisition subject to the right of the Council to impose conditions as to their removal after the acquisition. The definition of a private open space was wide and helpful. It was declared to mean "land reserved for use as a private ground for sports, play, rest or recreation, or as an ornamental garden or pleasure ground." The clause also enabled the Council to "acquire by agreement and, if they think fit, convert into a public open space or a playing field any of the lands reserved as private open spaces," as specially numbered in the map. Finally, the Council was given the very useful power "to let for purposes of recreation any land reserved as a playing field when acquired by them, or any land reserved as a private open space when acquired by the Council and converted into a playing field, but no such letting shall be for a term of more than seven years without the consent of the Minister." The wisdom of this last provision was self-evident. It enabled the town-planning authority to purchase land for the playing of games, and to charge for it a rent which athletic clubs or groups were willing to pay for the privilege of being allowed to play games. When the land had been purchased at a low or reasonable price, the return by way of rent for facilities for cricket, football, lawn tennis, hockey, bowls, and other pastimes should be almost, if not quite, sufficient to provide for loan interest and the repayment of capital. It was to be hoped, therefore, that in connection with every town-planning scheme steps would be taken to schedule ample areas of land for recreation, and that in forming an estimate of what ought to be scheduled, regard should be had not so much to the actual necessities of the moment, as to the probable needs of the local community in 20 or even 50 years' time.

Before suggesting steps to be taken under Clause 35 of the Model Clauses he would point out that the model code of the Ministry of Health contained two other allied Clauses which should also appear in every town-planning scheme. These were Clauses 38 and 39, which dealt with aspects of amenity.

But the really important questions before them for consideration were, first, to what extent each town-planning authority ought to take steps to schedule public and private open spaces in acordance with Model Clause 35; secondly, what types of open spaces should be provided, and thirdly, how the powers of the Town-Planning Acts might be most effectively used.

He hoped these questions would be approached with a determination by every town-planning authority that there shall be no repetition of the disastrous mistakes of the past. The whole subject should be approached in a broad and statesmanlike way. The issue should not be determined by a careful inquiry into the minimum needs of the moment, but by an intelligent effort to forecast the maximum requirements of the future. This would, in the end, prove to be the soundest policy. It would be foolish to attempt to dogmatise, but in most urban districts the ideal standard to aim at was the retention as public and private open spaces of 10 per cent. of the total acreage. As regarded the types of open space to be specially protected under town-planning schemes, he considered the advice of the Ministry of Health was most sound. They suggested that it would probably be found desirable, as a rule, to reserve only large areas for open spaces, allotments or the like, as smaller reservations could often be more prudently made later when the detailed development of any particular area could be more clearly foreseen.

It was true that small gardens and pleasure grounds were invaluable in a City, and that every town and village should have its special children's playgrounds with gymnasium, but no Council should, as the town-planning authority, feel that it had done its duty if it rested content with the reservation here and there of tiny pleasure grounds which would, in course of time, be hemmed in with dwellings.

He was all in favour of the reservation of bold and large areas of 50 acres and upwards. The relative cost of maintenance was reduced, the open spaces could be more easily controlled, and a large park, or playing field, helped to preserve the rural aspect of the neighbourhood. But, in addition to large parks, he would plead for the reservation of walks, open spaces, and playing fields at the sides of running water and around pools and lakes.

In cases where a town-planning scheme included the seashore, every effort should be made to reserve the cliff and foreshore. Then he pleaded for the reservation of hilltops and other striking features in local scenery.

It was desirable, too, to arrange for the preservation in every town-planned area of nature reserves where the flora and fauna of the neighbourhood would be protected. Interest in the observation of wild life of every form was rapidly growing and should be encouraged. It was undesirable that a stretch of woodland should be thrown open to indiscriminate use, more especially when birds were nesting, or wild flowers were in bloom. But for nature study every town should have reservations of this kind whether they remained in private hands or were acquired by the Council.

Playing fields should be provided in generous measure. Some would quite properly remain in private hands, but an ample area should be assured for future requirements.

In addition to the public open spaces, various types of private open spaces should be included, if possible, by agreement with the owners. Tracts of woodland, residential parks, existing golf courses and playing fields should be, as far as was practicable, scheduled.

He did not overlook the fact that a programme of this kind might appear to a Council as being unduly ambitious, and so expensive as to be impracticable. That might be so in some cases, but at all events it was better to "Hitch One's Waggon to a Star" than to attempt nothing. Difficulties only arose in order that they might be surmounted, and he was confident that once it was fully realised that town-planning schemes were giving to the public a final opportunity of protecting the interests of future generations, Councils would aim at securing the maximum rather than the minimum area of open spaces.

Mr. W. R. Davidge, in proposing a vote of thanks to the lecturer, said they all knew how the old open spaces of London, such as Moorfields and Spitalfields, had been covered with bricks and mortar, and they would find the same things take place in the outer districts, unless they were careful. It was the custom to blame Governments of the past for doing nothing in regard to the preservation of open spaces, but it was the Government in 1840 which secured Victoria and Battersea Parks for London. That Government did more to secure open spaces than the Government of the present day. It was true the Government was securing land for aerodromes and perhaps in time these would become available for the public. A matter which had to be watched was the acquisition of land by private companies as recreation grounds for their employees. These sites might easily become very valuable commercial sites, and the companies might build over them and find other land for their employees farther out. Mr. Davidge referred to the case of Wimbledon, where people who derived benefit from the Common were assessed, and thought this was a practice which might with advantage be extended.

Mr. G. L. Pepler said that since 1871 the Wimbledon Act had worked well, and he did not see why it should not be repeated. With regard to the proportion of open space, he thought it was better to have one acre for every 200 or 250 people.

Mr. J. Sulman (New South Wales) complimented English town planners on preserving fine trees in their schemes, and said that in Australia people would not listen to him when he suggested a similar thing.

Sir Richard Paget said that, looking to the future welfare of the race, it was probably more important to secure space for school gardens than for playgrounds. If they could ensure that every school child was brought up in touch with nature and with a working knowledge of gardening and the principles of agriculture, the coming race would have the ideal and most rational recreation ready to hand.

Mr. E. Willis (Chiswick) referred to the great efforts which had been made by his Council to preserve open spaces. If they took the river into account, one-fourth of the Chiswick area was available to the public. He wished that smaller authorities could by legislation be helped in securing open spaces.

Mr. H. V. Lanchester considered that density of population should be the governing factor in regard to the percentage of open space.

Mr. E. G. Allen said he had found several landowners in rural areas, who had bought tracks of land because they wished them to be open, were now considering the question of giving these tracks to the local authority, and thereby escaping death duties.

The Chairman pointed out that the question of the taxation of land values was a thing they might expect to have dealt with if the present Government remained in power. This was an important matter from their point of view, and they must consider carefully how far any increase of value which was due to municipal improvements could be kept separate from the general taxation.

ENGLISH DECORATION AND FURNITURE*

The period covered by Miss Jourdain's book on English Decoration and Furniture of the later eighteenth century, which is in every way a treasury of good things, saw the culmination of what may be called the aristocratic art of England and the onset of the decadence which reached its lowest depths in the reign of Victoria. How and why the change set in is partially indicated in the book. Political influences, conquests abroad, archæological research were all important factors in that they made men impatient of anything less than the finest work procurable, but perhaps the change for the worse set in just because the arts of decoration had attained a summit of delicacy and any change meant a descent. The craftsman working under competitive conditions for fame or for daily bread finds in these Western regions that novelty is required of him and after the fashion for light and dainty forms had been exploited to the full a return to massiveness and to something of crudity found many admirers.

The spread of democratic ideas consequent upon the French Revolution or the passing of the balance of wealth from the hands of the older landed gentry to those of the manufacturer enriched by the development of machine production undoubtedly interrupted the steady stream of good taste by breaking up the almost religious respect for a settled order of things and substituting an uncultivated untravelled patron for the critical minds trained in the earlier period, when fashion prescribed the Grand Tour as the proper finish to the education of a high-born or wealthy young man. The actual practice of design, too, was passing from the hands of the travelled student who had actually seen the remains of Rome, Pompeii or Athens, into those of the man who had only studied the published works of these pioneers, and who was placed in an unfavourable position in regard to important aspects of light and colour as affecting ancient architecture and decoration. Greece is decidedly less accessible to the traveller than is Italy, even at the present day, and when the rage for "Grecian purity" or "Grecian massiveness" became fashionable it had to be developed to a very much greater extent upon hearsay, and the reports of the favoured few. It was not possible to import from Greece an army of expert native workers to compare with the band of facile Italian artists who had made possible the faithful execution of Robert Adam's many elaborate designs.

The Renaissance in Rome had been a matter of great public interest, and the school of craftsmanship purporting to resemble that of the ancients had been developed and maintained in such a pitch of excellence that spurious antiques were manufactured that could pass current with all but the most expert critics. Greece, under the heel of the Turk, lacked the means, if not the will, for this sort of dexterity. To turn the mouthpiece of a Nargileh in amber or ebony, or to paint a traditional Ikon, were the artistic attainments of modern Greeks who had no school of the antique from which to send out expert workers to Europe or to England. The Grecian revival in furniture and decoration was severely handicapped by the same restrictions that showed their dismal effects in architecture. The simple soft curves of Roman art are easily learned by a British draughtsman, who finds it a constant labour to reproduce the more brilliant and more subtle curves to be seen in the remains of ancient Greece.

The colour tradition, too, which might have mitigated the clumsiness of the newer revival was allowed to lapse, and crude contrasts of black rosewood and brass, or flashy expanses of all-over gilding, took the place of the well-considered inlays and decorative painting executed by the Italians and the Italian school. The discovery that ancient Grecian architecture had originally been even more brilliantly coloured than that of Rome came too late to affect the growth of the Revival or give life to its dreary heaviness. "The early nineteenth century," writes Miss Jourdain, "was not aware of what it had lost, as we may see by an article by Sir Walter Scott in the *Quarterly Review*, in which he speaks warmly of the change from what was meagre, formal, and poor 'to a character of richness, variety, and solidity.' 'An ordinary chair,' he continues, 'in the most ordinary parlour has now something of an antique cast, something of Grecian massiveness, and elegance in its forms; that of twenty or thirty years since was mounted on four tapering and tottering legs, resembling four tobacco pipes; the present supporters of our stools have a curule air, curve outwards behind, and give a comfortable idea of stability to the weighty aristocrat or ponderous burgess who is about to occupy one of them.'"

Whole worlds of culture are attached to the knowledge of Greek; and scholarship, whether genuine or assumed, favoured the growth of the revival of Greek art according to the information available, which, though extensive, was not complete enough to serve as basis for anything much better than a parody. As Professor Richardson writes in his Foreword: "When the long reign of George III closed, eighteenth-century expression entered upon its final stage. The standard of taste, which had reached the tidal mark of refinement between the years 1790-1800, fluctuated between a coarse imitation of French Empire and an Anglicised version of Athenian Greek, reduced, let it be understood, to the terms of the straight waistcoat. . . . Architects, however, in matters of decoration, were becoming ambidextrous; it was considered accomplishment to design in a Gothic man one day and in Greek the next." Gothic fluences had been latent throughout, an curious mixture of style is to be seen in bureau cabinet illustrated in Fig. 303 B, structed 1775.

The recognisable sanity of the Italian s and its suitability to the method of life of period kept Gothic art in the backgro until interest in it was stirred up by wri of the Romantic school. Its return to fas was doubtless encouraged by a natural re sion from the starched pretentiousness of revived Greek.

The divorce of architectural decoration f sound, straightforward construction is rec nisable in far too many of the elaborate teriors of the period 1760-1820, though defect is partially atoned for by the mast handling of the ornamental detail. genuine constructional vaulting which gi an air of dignity to the Italian Palazzo generally lacking in England, but the ill trations reproduced in the book from ph graphs show that as far as superficial eff were concerned the designers and craftsn prior to 1800 understood to perfection the position of the lights and darks of a comp tion, whether in modelled ornament or colour. They were adept, too, in dispos the architectural features in relation to position of the windows, and in this import matter they succeeded even better than in minor question of ornament, where, if pr tice makes perfect, it also makes monotono As distinct from the architectural decoratio where fans and lacework and the graceful rather unconvincing personages of classi mythology are repeated to the limit of tole tion, furniture gained immensely in qua from the fact that it had perforce to be signed for a definite purpose, and the c struction is nearly always allowed to play part in the finished result. By this me profusion and daintiness of ornament w prevented from degenerating into insipidity

Economy was not to be expected, and upkeep of these stately interiors still nec sitates a prodigious outlay in the labour cleaning long after the first cost has b written off. In this they compare very favourably with the palaces of Eastern lan where solid marbles and mosaic or cera inlays present a sanitary surface that o requires a minimum of attention. Elabor cut-glass chandeliers are particularly troub some in cleaning, and spend three parts their existence swathed in cloth wrappin Fireplaces and fenders of embossed a polished steel also sin against common se in that they are liable to be tarnished imm diately a fire is lighted, and while the gr beauty of some examples shown in the pho graphs must be admitted, the hot-water pi and gas attachments which appear bes them should serve to remind the reader t efficiency must go hand in hand with bea if harmony is to be preserved.

*English Decoration and Furniture of the Later Eighteenth Century—1760–1820. By M. Jourdain. (London: B. T. Batsford, Ltd.) Price £3 3s.

Royal Fine Art Commission.

The terms of the Royal Warrant appointi the Royal Fine Art Commission appea recently in the *London Gazette*. The object the Commission is to inquire into such questio of public amenity or of artistic importance as m be referred to them from time to time by depa ments of State, and to give advice on simi questions when so requested by public or qua public bodies where it appears to the Commissi that their assistance would be advantageo The members of the Commission are the E of Crawford and Balcarres; Sir Aston Wel President of the Royal Academy of Arts; Reginald Blomfield, R.A.; Sir George Jan Frampton, R.A.; Sir Edwin Landseer Lutye R.A.; Sir David Young Cameron, R.A.; John Alfred Gotch, President of the Royal Ins tute of British Architects; and Mr. Thom Hayton Mawson, President of the Town-Planni Institute.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers, annot accept responsibility for contributed s, especially on legal matters.

ay we appeal to our correspondents to it their queries on paper of a size easily and written as legibly as possible, or better in typescript?—ED.

Claims Against Bankrupt Contractors.

R,—If a contractor goes bankrupt and ot finish a job, and the cost of completing nother builder, plus the amount already to the first builder, exceeds the original ract amount, can the employer sell the belonging to the bankrupt builder and y the proceeds towards meeting the extra ?

he contract is R.I.B.A., 1909; a claim nst the bankrupt's estate would have no e, but the value of the plant would just ıt meet the extra cost incurred.

"IONIC."

By the rule *Quicquid plantatur solo, solo* , where a builder has brought materials affixed them to the soil, they become the olute property of the building owner; nor the builder reclaim them should they at time be severed from the soil by the build- owner (see Tripp *v.* Armitage (1839), 4 M. . 687). With regard to plant affixed to the provision is usually made for its removal the builder on or before the completion of work, and, where no such provision is le, it may be inferred that there was an lied agreement that such plant as could emoved without injury to the freehold may emoved by the builder. Often there is a lition in a building contract that in bank- cy of the builder it shall be lawful for employer to enter and take possession of premises, and to employ another builder complete the work, and that the original der and his trustee in bankruptcy shall eit all claim to further payment, except balance there may be on completion of the k by another builder; but a stipulation to effect that on bankruptcy of the builder, or assignment of his estate for the benefit of creditors, the plant and materials, the perty of the builder, shall be forfeited to the loyer, is void, since it violates the policy he bankruptcy laws. The trustee in bank- tcy is the true owner of the bankrupt's erials, implements, and plants (see *ex parte* in *re* Harrison L.R. 14 Ch. D. 19). Where, ever (previous to the bankruptcy of the der), the property is vested in the employer, he has had a lien on it from the commence- ıt of the contract, there is a power given to employer to seize such plant and materials, ject to the question arising under the kruptcy acts as to reputed ownership. It lways a question of fact how far materials plant vested in the employer are in the ıted ownership of the builder. In general, he absence of notice, the builder would be l to be the reputed owner of plant; but it ends whether the materials are so far in order and disposition of the builder as to stitute him the reputed owner thereof.

he R.I.B.A. (1909) contract form contains clause as to forfeiture of materials and plant bankruptcy, though there are clauses as to eiture in certain other events.

lause 15 deals with unfixed materials, nded for the works and already taken into ount for the purposes of a certificate, becom- the property of the employer. No mention nade of plant should the builder become krupt; the materials having become vested he employer are not, it appears, under this se, within the order and disposition of the ractor so as to become vested in his trustee bankruptcy. The word "used" has a erent meaning as applied to materials than n applied to plant. In the former case it ns to consume by building into the work; and in the latter case it means to employ without consuming, except in so far as the plant is so affixed that it cannot be removed (see *ex parte* Barker (1884), 26 Ch. D. 510, and in *re* Keen (1902), 1 K.B. 555.

Clause 26 deals with both materials and plant. If the builder stops the work, after notice given and termination thereof, should the builder not proceed the plant and materials become the property of the employer for the purposes of the work, who may employ another builder to do that work. On completion the original builder is to have notice thereof, and to remove his plant and materials. It is only after a reasonable time has elapsed and after notice given that they may be sold by the employer, the proceeds going to the cost of removal and sale and to the credit of the builder. Under this claim it is clear the employer must account to the original builder for the plant, materials and retention money, though the lien, coupled with the power of seizure and user on the happening of an event, constitutes an interest invested in the employer from the commencement of the contract, protecting the employer against the original builder's trustee in bankruptcy. The original builder still remains the true owner of the plant and materials, subject to the lien.

The test is whether the employer has an equitable right to the plant from the date of signing the contract, enabling him to seize it (see Brown *v.* Bateman (1867), L.R. 2 C.P. 272). In the case in *re* Winter *ex parte* Bolland (1878), 47 L.J. (Bey) 52, the plant was to be deemed the property of the employer for the time being. It was held this gave the employer only a right of user, and that the plant necessarily passed to the trustee in bankruptcy.

From the foregoing, and in answer to the special circumstances stated by the enquirer, it would appear that the employer cannot sell the plant and apply the proceeds, but only has the right of user, and if sold must account for same to the original builder's credit, when the work is completed by another builder. In any case the matter can be determined by arbitration under Clause 32 of the contract, and every attention should be given to delivering the notices required by Clause 26 and the compliance required thereto before proceeding further.

Deadening Sound.

SIR,—Could you tell me of any plan for deadening sounds heard from adjoining houses? This is an old house, and I expect there are thin places in walls and where mortar has given way, and it is most annoying to hear voices distinctly from next door.

"E. G. S."

SIR,—Would a London quantity surveyor be good enough to inform a Provincial one (of many years' London experience on first-class work) what rate per hour "takers-off" and "workers-up" can, at the present time, command in London? First-class men only in question.

"Q.S."

Drying.

SIR,—Can particulars be given of the most simple and efficient form of chamber suitable for joinery for maximum length of 10 ft.? Electric power is available for working fans.

"BUILDER."

Fire-resisting Floors.

SIR,—I should be most interested to hear the opinions of your readers as to the relative merits of pre-cast concrete floors and of those cast *in situ*. I know of no text book that deals with this question in a judicial way, and most available information comes from interested quarters and is therefore very conflicting in judgment.

"STUDENT."

Columbian Pine.

SIR,—I have been warned against the use of Columbian pine owing to its qualities of excessive shrinkage, but have been shown samples of such beautiful figure, free from knots and eminently suitable for stained work, that I am most anxious to use it. My builder assures me that it is quite dry and that I need have no fear of using it, but I should be more satisfied to hear a few disinterested opinions before making a decision upon the point.

"FIGURE."

Rubber Paving.

[REPLY TO "SANITARY."]

SIR,—I have always found where lino has been stuck down that rot has started, not in the joists below, where the porous plaster ceiling allows a sufficiently free draught, but on the surface of the floor boards. The remedy is to first coat the surface of the boards with some preservative solution, such as Solignum. Strange to say, when the lino has not been stuck down I have found no cases of rot set up, and I am of opinion that this is because there is a certain amount of air imprisoned below the lino which is worked about from place to place by the traffic thereon.

"CLERK OF WORKS."

EXHIBITION NOTES

THE ART OF BRANGWYN.

PROBABLY the most remarkable exhibition of its kind ever seen in London is that of paintings and drawings by Mr. Frank Brangwyn, R.A., at 184, Queen's Gate, Kensington. When we remember that what is exhibited here is a small part of the output which has resulted from this artist's labours we are almost inclined to think he has about reached the limit of human capacity. The wealth of colour, the fine drawing, the unerring composition of nearly all we see at Queen's Gate form a wonderful tribute to an unique artistic capacity. It is hardly possible that such a collection can be provided for except in such exceptional conditions as the loan of this fine house by Mrs. Coutts-Mitchie. The breakfast room, dining-room, drawing-room, billiard room, ballroom and tapestry room afford an ideal setting for this accomplished work. After a careful study of the luxurious charm of so many of these pictures the Stations of the Cross strike one with a poignancy which re-enacts the tragedy with quite painful effect. We can call to mind no artist who has so vividly set forth the beauties and tragedies of life with such keen artistic values. This is an exhibition not to be missed and it must be remembered that this artist has long been hard at work decorating buildings all over the world, and that few of us can expect to see the results of his long and strenuous labours in the pictorial decoration of architecture. The very extremes of force and tenderness meet in this wonderful record. At this exhibition are included examples of Mr. Rowley's attractive wood inlay in mirror frames, screens, &c.

NEW ENGLISH ART CLUB.

If the chief objective of the New English Art Club is to get away from conventional ideas of design and method, a measure of success must be admitted, but the present Exhibition contains very few pictures that possess any special beauty of form, colour or technique. The capable painting of a portrait (13) by A. E. John, the river scene suffused with a roseate light (9) by David Muirhead, the clever portrait (44) by R. Wilson Steer, and the painting of a toilet (69) by W. Rothenstein are notable exceptions amongst a lot of very unconvincing work.

BROOK-STREET GALLERY.

Everyone knows what a wonderful spot is Polperro, with its many little stone dwellings climbing the hill sides; it is a very paintable place, but when we see it illustrated by pencil drawings, we realise how much it owes to colour values. The artist of "Polperro in Pencil," Herbert E. Butler, has long lived there and studied it well, and gives us, at the Brook-street Gallery, some pleasant drawings.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

DURING the continued debate on the financial resolutions on which to found the Government's new Housing Bill, Mr. Wheatley accepted an amendment, moved from the Liberal benches by Sir George McCrae, which gave the State power "to withhold contributions in the absence of adequate arrangements for the necessary increase in the supply of labour and material at reasonable prices."

Mr. Neville Chamberlain had previously criticised the Government's scheme very severely, stating that the result would be to make the price of houses rise, and thus increase the rents to be paid by the tenants.

Mr. D. G. Somerville, who spoke with practical experience of the question, characterised the whole programme of the Minister as unreal, impracticable and ridiculous. The great point was the cost of houses. The Prime Minister and the Minister of Health had based their scheme on a house at about £500. That figure included the land. It was said to be £200 for the material, £280 for labour and profits, and £20 for land. It did not include draining, roads, sewering, and other services. Where did these prices come from? He had looked at *The Builder* for May 23, and he had endeavoured to take a number of representative contracts. He found that on May 23 a 48-house contract was let at Croydon. The price for each of these houses was £664, exclusive of land, an excess of £164 over Mr. Wheatley's figures. At Brandon, in Warwickshire, a contract was let for twelve houses, at a price of £556 each, an excess of £56 over the figures of the Minister. At Liverpool there was a contract for 54 six-roomed houses, the price being £625 each, or £125 excess. They had, therefore, on 114 houses, an excess over the Minister's estimate of £15,300. That did not include land, drainage and other services. Suppose they took simply £20 to cover the land, and got an average excess of £160 per house, that meant, on a total of 2,500,000 houses, another £400,000,000 to be found by the country. Taking the Minister's estimate of the whole capital cost of the scheme for providing 2,500,000 houses at £1,250,000,000, and adding another £400,000,000, they got £1,650,000,000, which, with the subsidy expenditure of £1,375,000,000, gave a total capital expenditure over fifteen years of over £3,000,000,000, or nearly half the National Debt. Where was the money coming from? The Minister had not got the men to carry out the work, nor had he the materials. The Minister was relying on the undertaking of the people who joined in the agreement with the National House Building Committee, but the National Federation of Building Trade Workers, which included the key men, had informed the Chairman of their intention to withdraw from the agreement, because no wet time was to be allowed and because of the fear of dilution of the trade by the admission of men over twenty years of age. He denied that there was the need for 2,500,000 houses. There were certain well-defined areas where there was acute scarcity. Let the Ministry concentrate on those areas and build the houses—by the State if necessary. For the rest of the country, let them give a lump sum subsidy of £150 or £200, and private enterprise would build the houses wanted and would be able to let them.

The resolution, as amended, then passed through Committee.

On the report stage, on Thursday, the scope of the Liberal amendment which had been accepted in Committee was widened to enable the State contributions to be withheld in the case of contingencies other than those relating to an adequate supply of materials and labour.

The report stage was concluded and Mr. Wheatley then introduced his Bill, which was read a first time.

On the same day, Mr. Wheatley introduced a Bill "to prevent excessive charges for building materials, and to make provision for securing an adequate supply of such materials." The measure, which was read a first time, is given in full on page 957.

The Thames Bridges.

During a discussion on the L.C.C. (Money) Bill, Viscount Curzon urged on the L.C.C. the necessity of having a real bridge policy for London, and the construction of proper bridges at Charing Cross and Lambeth. He described the St. Paul's Bridge proposal as "extraordinary."

Col. Vaughan Morgan said there was really need for a bridge to take the traffic from the eastern end of Aldwych. That also ought to ante-date any idea of St. Paul's Bridge, which no one wanted, and which should be postponed until more important things had received the consideration they deserved.

Sir Cyril Cobb, speaking for the L.C.C., agreed with the idea that there should be some sort of general commission to consider the whole question of the bridges over the Thames. It was no good talking about St. Paul's, Lambeth or Charing Cross; the whole thing must be treated as one problem. With regard to Waterloo Bridge, the engineer had informed the L.C.C. that within three or four weeks it would be possible to reconstruct the 1,400 ft. which had been taken out of the centre of Waterloo Bridge and to make a temporary roadway for pedestrian traffic. Very soon, perhaps in a month or two, it might be possible to reopen the bridge for vehicular traffic. The weight of the bridge had been too much for the foundations. The weight on one of the piers which had been sunk was 11,000 tons, whereas the weight of the traffic at its maximum on the bridge was 5,000 tons. They had reduced the weight on that particular pier by 1,450 tons, and as soon as they got 500 or 600 tons off the sinking movement ceased.

The County Hall.

Sir Cyril Cobb informed the House of Commons that up to date the expenditure on the London County Hall had been £3,060,000, and the estimated total cost of the building when fully finished, including furniture, was £4,083,000. They had disposed of the old County Hall at a good rent.

Eviction of Government Tenants.

Sir K. Wood has introduced a Bill to provide for the further protection of Government tenants. The measure is supported by Mr. D. G. Somerville and many other members.

L.C.C. Tenements.

Mr. R. Morrison asked the Minister of Health whether he had received a letter from the Tottenham Urban District Council, protesting against further blocks of tenement dwellings being erected in Tottenham by the London County Council; and whether he would now withhold his sanction to the erection by a public authority of any further dwellings of this type upon the area of another authority without its consent.

Mr. Greenwood said that the Minister had received a resolution passed by the District Council, and he understood that a conference had been arranged between representatives of the London County Council and of the District Council to discuss the questions raised.

Supply of Bricks.

Sir C. Starmer asked the Minister of Health whether his attention had been drawn to the case of a landowner in a north-eastern district who, in spite of the prevailing scarcity in bricks, refused to sell the land necessary for the extension of the adjoining brickfield; and whether he would take the necessary steps to obtain powers to intervene in a case of this sort.

Mr. Wheatley said he had considered the case. He thought that owners of land could generally be trusted to act with public spirit in cases in which their land was required for the public good. If he found that the production of building materials was hampered by landowners, he would consider submitting a short Bill to the House.

Sir C. Starmer also asked the Minister whethe he was aware that the increased cost of buildin houses on Tees-side was due to transpor charges of bricks; and whether he would co operate with the local brick manufacturers wit a view to additional plant being installed unde a guarantee to take their increased production

Mr. Wheatley said he had no precise informa tion on the point raised in the first part of th question. As regarded the second, if a fiftee years' building programme was accepted by th House, brick manufacturers should be enable to extend their plant without specific guarantee in view of the continuing demand for thei product.

Mr. P. Harris: Will the right hon. gentlema permit the importation of foreign bricks wher there is an insufficient supply of bricks?

Mr. Wheatley: I have no intention of inte fering with the free supply of building materia

Mr. Hardie asked the Minister if he woul introduce legislation to enable him to preven owners of land with building materials in i from increasing their prices for these con modities.

Mr. Wheatley said that if his hon. friend kne of any case in which landowners had done had threatened to do as he suggested and woul let him have particulars, he would conside what action could be taken.

Public Utility Societies.

Mr. Wheatley informed Mr. A. Henderso that 4,540 houses had been erected by Publi Utility Societies with the aid of the subsid payable to societies under the provisions of th Housing Acts, 1919 and 1923, *viz.*, 50 per cen of the annual loan charges until 1927 and 40 pe cent. of the annual charges during the re mainder of the period of the loans (fifty years He was proposing that provision should be mad enabling increased assistance to be given t Societies, who built houses for the workin classes subject to special conditions as to the letting and to the amount of rent to be charge for them.

BOOK REVIEW

Plan Copying in Black Lines for Hot Countrie By R. J. HALL, M.I.Mech.E. (London Sir Isaac Pitman & Sons, Ltd.) 2s. 6d. ne

Those whose work has taken them to h climates will be glad of any effort that is bein made to improve the methods of printing dra ings, for the deterioration caused by the hum atmosphere is a serious difficulty. Particular is this so with ferro-gallic paper upon which w in England rely so much.

This little book is the outcome of a person visit to India by Mr. Hall, who has thus studi the conditions at first hand. The method whic he advocates is one which has largely been supe seded in this country by the extensive use Ordoverax, and is based on the well-known fa that on exposure to actinic light bichromat colloids become insoluble in water. A negati is made by exposing bichromated paper to t light beneath the tracing, and the process repeated to obtain the positive. By such method the cost of plant and materials is smal on the other hand, the labour is considerabl However, as labour is, in the countries concerne cheap, the total cost compares favourably wit the ferro-gallic process.

The advantages claimed for this process a that the chemicals and raw paper required a not liable to deteriorate and can consequent be bought in bulk, the copies will not fade, ar defects in the originals can be stopped out i the copies. The explanation of the material plant and method of working, is clearly give both textually and illustratively, and the litt volume should prove as useful in India ar countries of similar climatic conditions as t author's well-known earlier publications on t same subject are in this country.

Book Received.

THE OLD CHURCHES OF SNOWDONIA. By H Harold Hughes and H. L. North. (Bangor Jarvis & Foster.) Price 13s. 6d. net.

THE BUILDING TRADE

COST OF BUILDING MATERIALS

CHARGES AND SUPPLY BILL

E text as issued recently of the Bill, which read first time in the House of Commons une 5, on the motion of Mr. Wheatley, to ent excessive charges for building materials, to mak provision for securing an adequate ply of such materials. The Bill, which we r to in our leading article on p. 958, applies nglandScotland, and Wales.

t xts as follows :—

Pwer to Investigate Prices.

—(1) Where the Board of Trade receive a esentation from the Minister of Health to ect tht the price of any article or class of les in ommon use in connection with the ding ofouses for the working classes appears he Minter to be excessive, the Board shall e powerto investigate prices, conditions of ply, cos and profits at all stages in respect ich artle or class of articles, and to enquire the maers aforesaid to such an extent and elationo such persons or combinations of ons as he Board may deem necessary in r to eble them to deal with the repre-

ation.

) If as result of any such investigation the rd are atisfied that, whether through the on of a ombination of persons or from any r causwhatsoever, the prices charged or ght to bcharged by any person in respect of such aicle or class of articles are in view of he circustances, unreasonably high, or that conditis imposed or sought to be imposed any peon in relation to the supply of any a articlor class of articles are unreasonable, Board all, in respect of any such article or s of artles, have power by order—

(*a*) to x or regulate prices and to vary rices so xed or regulated ; and

(*b*) to cohibit or restrict the imposition of onditionof supply or the charging or seeking o chargprices in excess of maximum prices xed byhe order.

3) Any uch order may be made so as to ly to an person whose business has been the ject of vestigation and to any person who ears to te Board to be a member of any such binatioas aforesaid, and the provisions of such oer shall be complied with, notwithnding arthing contained in any agreement which ay persons affected by the order are ties, an any such agreement shall have ct accoingly.

4) Wherver it appears to the Board that an er so mae is ineffective to prevent the excesve chargewhich have been the subject of the resentatn, the Board may make an order ending te first mentioned order to all or any sons whe business is carried on in any cified an or so as to apply universally.

5) Any erson who contravenes or fails to nply wit the provisions of any such order ll be liale on summary conviction to a fine exceedg one hundred pounds or to imsonmentfor a term not exceeding three nths, oro both such fine and imprisonment.

Investigations.

2.—(1) F the purposes of an investigation der this et, any officer of the Board of Trade other pson authorised in writing by the ard maye quire the production to him of any oks or cuments relating to any matters ich are te subject of the investigation, and y inspecnd examine and copy the same, and y make uch enquiries relating to the said tters as ny appear to him to be necessary for e purpose of the investigation.

(2) If anperson at or for the purposes of any h investation—

(*a*) knoingly or recklessly furnishes any nformatn or makes any representation which is false in any material particular ; or

(*b*) having the custody or control of any book or document which an officer of the Board of Trade or other person is authorised to inspect under this section, unreasonably refuses or wilfully neglects to produce it for inspection ; or

(*c*) being able to give any information which is required under this section, unreasonably refuses or wilfully neglects when required to give that information ;

he shall be liable on summary conviction to a fine not exceeding one hundred pounds or to imprisonment for a term not exceeding three months, or to both such fine and imprisonment.

(3) Any information obtained at or for the purposes of an investigation under this Act shall be treated as confidential and shall not be communicated to any person except the Board of Trade and the Minister of Health, save in cases where the person giving or producing the same otherwise agrees, and, in cases where legal proceedings are taken, for the purpose of such proceedings, and if any person discloses or publishes any information so obtained in contravention of this provision he shall be liable on summary conviction to a fine not exceeding one hundred pounds or to imprisonment for a term not exceeding three months, or to both such fine and imprisonment :

Provided that any statement, whether oral or in writing, made for the purposes or in the course of any investigation under this Act sha'l be absolutely privileged.

Powers of the Minister of Health.

3.—(1) If after an investigation has been held under this Act it appears to the Minister of Health after consultation with the Board of Trade that the production or supply of any article or class of articles in common use in connection with the building of houses for the working classes is being unreasonably prevented, withheld or restricted by any person, the Minister may by order—

(*a*) require that person to place at the disposal of the Minister the whole or any part of the stocks of such article or class of articles held by him or the whole or any part of the output of the business carried on by him, and to deliver to the Minister or to any person or persons named by him the stocks or output or such part thereof as aforesaid in such quantities and at such time and places and during such periods as may be specified by the Minister ;

(*b*) take power to take possession of the lands and buildings in which the business of producing or supplying the articles is carried on by that person and of the plant and machinery used in the business, or any part of such lands, buildings, plant or machinery, and to retain possession thereof for such period as the Minister considers necessary, and to carry on the business or to make provision for the business being carried on under the direction of the Minister ;

and any such order shall have effect as if enacted in this Act.

(2) When the Minister has taken possession of the premises of any person under any such order, he shall withdraw from possession thereof if and when he is satisfied that the production and supply of the article or class of articles will no longer be unreasonably prevented, withheld or restricted by that person.

(3) If any person fails to comply with any requirement of the Minister under such order, or wilfully obstructs or interferes with the Minister in the exercise of any of his powers under the order, he shall be liable on summary conviction to a fine not exceeding one hundred pounds or to imprisonment for a term not exceeding three months, or to both such fine and imprisonment.

(4) Any order made by the Minister of Health under this section shall be laid before both Houses of Parliament as soon as may be after it is made.

Compensation Payable.

4. Any person to whom an order made by the Minister of Health under this Act applies shall be entitled to receive from the Minister compensation for any direct loss or damage suffered by him by reason of any direct interference with his property or business under the powers conferred by the order ; and the amount of such compensation shall, in default of agreement, be determined by an arbitrator appointed by the Lord Chancellor ; provided that in determining the amount of such compensation no allowance shall be made in respect of the loss of any profits, benefits or advantages that might have accrued to such person had not the Minister taken possession of the premises on which the business was carried on, and no compensation shall be awarded in respect of stocks or output of articles placed at the disposal of the Minister in excess of the maximum prices which could have been charged for the same in accordance with any order of the Board of Trade made under this Act, and applicable or capable of being extended to those articles at the time when they were placed at the disposal of the Minister.

Liability of a Company.

5. Where a person convicted of an offence under this Act is a company, the chairman and every managing director, and every officer concerned in the management of the company, shall be guilty of a like offence unless he proves that the act or default which constituted the offence took place without his knowledge.

Expenses.

6. Any expenses incurred by the Board of Trade or the Minister of Health in the execution of their respective powers and duties under this Act shall, subject to the approval of the Treasury, be defrayed out of moneys provided by Parliament.

Action by the Board of Trade.

7. Anything authorised or required to be done to or by the Board of Trade under this Act may be done to or by the President, or a Secretary or Assistant Secretary of the Board, or any person authorised in that behalf by the President of the Board.

Application to Scotland.

8. This Act in its application to Scotland shall have effect subject to the following modifications, namely :—the Scottish Board of Health shall be substituted for the Minister of Health, the Lord President of the Court of Session shall be substituted for the Lord Chancellor and "arbiter" shall be substituted for "arbitrator."

Short Title and Extent.

9. This Act may be cited as the Building Materials (Charges and Supply) Act, 1924, and shall not extend to Northern Ireland.

Town-Planning Conference, Amsterdam.

An International Town-Planning Conference has been organised by the International Garden Cities and Town-Planning Federation to take place at Amsterdam from July 2–9. Papers will be presented by experts from a number of countries. Among the papers from English-speaking countries will be those by Professor Abercrombie, Raymond Unwin, Thomas Adams, Professor H. V. Hubbard (U.S.A.), Flavel Shurtleff (U.S.A.), and C. B. Purdom. The chief items for discussion will be "Regional Planning in Relation to Large Cities," and "Parks, Park Systems and Recreation."

THE HOUSING PROPOSALS AND BUILDING MATERIALS BILL

It may be doubted if the Minister of Health advanced his cause in his statement of his housing scheme in the House of Commons by indulging even jocularly with the subject of capitalism *versus* socialism. In his analysis of the cost and rent of a working-class house in the first place he put the life of the kind of house he intended to build with the huge subsidies already announced at only sixty years, and on this basis made the cost of the land 1½d. a week, the materials 1s. 10½d. a week, and the labour 3s. 3d. a week, but the finance (that is to say, the interest on the borrowed money) at 6s. 8d., and, as reported, he proceeded to say: "That section of the community which lent not their labour but their credit took twice as much out of the rent of the house as all the useful contributors to the erection of the house." He then complained of the scheme being characterised as socialistic, and said that if it were real socialism he would begin dilution on the 6s. 8d. and end the dilution on the last penny.

The statement shows such confusion of thought that it is only fair to add that the Minister, apparently jocularly, said he was not a good judge of Socialism. In introducing a scheme which is to extend over a long period of years, and which will eventually involve an expenditure of some £1,400,000,000 out of public and local funds, such remarks as this are hardly likely to render it easier to raise those sums, and it may be asked, if the Minister's statement as to "real socialism" be accepted, "Why is a distinction made between the owner of the land who is to be paid £200 an acre and is termed 'a useful contributor,' and the tax and ratepayers, who are to put up the finance?" The workman who is given work at trade union rates of pay is described as "lending his labour," but the persons who supply the funds out of which his wages are paid, according to the Minister's definition of "real socialism," are not to lend the money, but either to give it or have it taken from them. If the Minister diluted this sum to the last penny under his idea of socialism, where would the Government turn for funds when their next scheme had to be financed? This is not an empty inquiry, as it shows where the policy of real socialism must inevitably lead: expropriation can only result in depletion, and a government deprived of credit resorts to force. The labourer without the capitalist behind him must work for what he can get, and the State will compel him to work, and thus we come to the transformation by stages of socialism into Bolshevism, as in Russia, where the labourer really "lends" his labour. The more expansive moments of Ministers serve a useful purpose.

This scheme may not be "real socialism," but its effect will be to extinguish private enterprise in connection with working-class dwellings, to nationalise all such dwellings (which will be erected at the public expense), and to subsidise that class of the community who occupy them by letting the houses at uneconomic rents. That at least is a new departure sufficient for a beginning, and the hints of future expropriation appear surplusage.

If there were any doubt as to where the policy of the Government would eventually lead it is set at rest by a consideration of the Bill now introduced, and to which we refer in our leading article this week, and which we give in full on p. 957, to prevent excessive charges for building materials and to make provision for an adequate supply of such materials, the Building Materials (Charges and Supply) Bill. The scheme has to be carried through at all cost, so bureaucratic methods are at once resorted to. The Bill provides that where the Board of Trade receives a representation from the Minister of Health to the effect that the price of any article or class of articles in common use in connection with the building of houses for the working classes "appears to be excessive" it shall have power "to investigate prices, conditions of supply, costs, and profits at all stages in respect of such article or class of articles, and to inquire into the matters aforesaid to such extent and in relation to such persons or combinations of persons as the Board may deem necessary." By sub-clause 2 the Board is made the absolute arbiter as to the unreasonableness of prices, with power to fix or regulate prices and to vary prices so fixed or regulated, and to prohibit or restrict the imposition of conditions of supply or the charging or seeking to charge prices in excess of maximum prices fixed by the order. This order may be made to apply to any person or combination of persons whose business has been the subject of investigation and to any person who appears to the Board to be a member of any combination, "and the provisions of such order shall be complied with notwithstanding anything contained in any agreement to which any persons affected by the order are parties, and any such agreement shall have effect accordingly."

But further than this, by subclause (4), if this order appears to the Board to be ineffective the first order may be extended to all persons whose business is carried on in any specified area so as to apply universally, and this apparently without allowing such persons to be heard. The penalty for failing to comply with an order or contravening an order is a fine of £100 or imprisonment for a term not exceeding three months, or both. Can this clause have been drafted by the same Government which has failed to induce the trade unions to allow the labour necessary to carry out the scheme to be provided, and which has been satisfied by the offer of youths not exceeding 20 years of age?

By clause 2 all books must be produced, and any person who at an inquiry makes knowingly or recklessly a statement which is false, or who withholds any document, or who even refuses to give information, is made liable to the same penalties. Clause 3 contains the powers of the Minister of Health, who, after an investigation has been held and after consultation with the Board if he is of the opinion that the production or supply of any article or class of articles in common use in connection with the building of houses for the working classes is being unreasonably prevented, withheld, or restricted, may by order require that person to place the whole or part of his stock at the disposal of the Minister, or the Minister shall have power to take possession of the lands and buildings in which the business of producing or supplying the articles is carried on and of the plant or machinery, to retain possession thereof for such period as he considers necessary, and to carry on, or make provision for carrying on, the business.

There seems no appeal from any of the above orders, but an order made by the Minister under the last clause must be laid before both Houses of Parliament "as soon as may be after it is made." Under this last order compensation is payable by the Minister "for any direct loss or damage" suffered by the person by any "direct interference" with his property or business, and this in default of agreement is to be settled by an arbitrator appointed by the Lord Chancellor; but in determining such compensation no allowance is to be made in respect of the loss of any profits, benefits, or advantages that might have accrued to such person had not the Minister taken possession, and no compensation is proposed to be awarded in respect of stocks or output or articles placed at the disposal of the Minister in excess of maximum prices which could have charged for the same in accordance wi order of the Board of Trade made unde Act.

The first thing which will occur to a reading this Bill is that if the situation for "martial law" of this description miniscent of the war restrictions and po that law should apply to all concern the production of working-class dwel The lack of labour is more likely to be to the housing scheme than any profit in materials, yet the Government, takin line of least resistance, is exerting pre on the producers and distributors of ma whilst allowing the trade unions by the drastic system of protection ever put in tice to restrict the labour.

How can powers of the above descri be put in force only in regard to "ar or classes of articles in common use in nection with the building of houses fo working classes" without dislocating market altogether and preventing the tion, or increasing the cost of the erectio business premises and premises require commercial undertakings? The Govern appears to have leapt before it came t stile, to have dealt with profiteering b profiteering was proved to exist, and, h failed to provide the necessary labou agreement, to have omitted to bring l within this "martial law" Bill.

All sections are anxious and willing t operate in endeavouring to solve the ho question, the gravity of which is fully a ciated, but if, in addition to a Housing which pledges the credit of the countr years ahead, and gives certain indu vested interests for a long period, a me such as this Building Materials Bill i essential adjunct, then we think the Ho Bill itself is hardly likely to be acce Class legislation has been tried and pro failure in connection with rent restric and a Bill such as this Housing Mate Bill is a piece of class legislation at its v and would prove a precedent for bureauc interference in almost every relation of life.

LAW REPORT

CLAIM FOR WORK DONE

In the Shoreditch County Court, rece before Judge Cluer, Jacob Finkelstein, ing as the Star Decorators, of 73, Newington-road, N.16, sued Mr. Walschenock, of 205, Evering-road, Cla E., to recover £68 7s. 6d., for painting decorating work done from February 2 March 21, and paint and material supp The claim was made up as to £24 15s., cheque on account, leavin balance of £43 7s. 6d., and £25 for br of contract, making a total of £68 7s. Mr. R. L. Parry appeared as counsel for plaintiff, and the defendant in person. Parry, in opening the case, said the case been adjourned on May 16 because the tract between the plaintiff and the defen was unstamped. Mr. Parry now prod the agreement, stamped, and reading it he said that the work was to be carried to the satisfaction of the surveyor. March 31 the plaintiff asked for a cheque £30, and then the defendant started to c plain of the quality of the work. The plai said it was all nonsense, and offered to l an independent man in to give his opin and, curiously enough, the defendant cho man named Griggs, whom the plaintiff already arranged with to do some spe plastering. On Saturday, March 22, was surprised to find that some men v working on the job. He found out that Wolschenock had engaged men to conti the work. After hearing the evidence, Ju Cluer decided in favour of the plaintiff £31 and costs.

ESTIMATING FOR SMALL BUILDERS

By J. H. BARNS, F.I.O.B.

GLAZIER.

ET glass is usually sold in four weights or nesses, viz., 15 oz., 21 oz., 26 oz., 32 oz., ot super, in crates containing 300 or 200 ft. of glass, in stock sizes for cutting up, to customers' own sizes.

quality of glass ordinarily used for glazing ths, and the commoner quality, which is y very wavy, is termed "coarse." For st class of glazing third quality sheet glass metimes used. Prices are subject to ation.

ISH SHEET GLASS IN CRATES, STOCK SIZES, FOR CUTTING UP, DELIVERED FREE.

	Per ft. super.			
	15 oz.	21 oz.	26 oz.	32 oz.
hs	3½d.	5¼d.	6d.	8¾d.
s	4½d.	6½d.	8d.	10½d.
d Sheet ..	4d.	5¾d.	7¼d.	10d.

ROLLED PLATE AND CAST.

⅛ in.	3/16 in.	¼ in.	⅜ in.
4½d. ..	5¾d. ..	5⅞d. ..	8¼d.

RED ROLLED, INCLUDING MURANESE AND FLEMISH.

Vhite ..... 6¼d. ft.

BELGIAN SHEET GLASS.

ered London City limits; cases free.

	Per case.
e 15 oz. and 21 oz., stock	61/– to 75/–
hs 15 oz. and 21 oz., stock	65/– to 85/–
e 26 oz. in 200 ft cases	80/– to 82/–
hs 26 oz. „ „ „	85/– to 90/–
e 32 oz. „ „ „	5½d. per foot
hs 32 oz. „ „ „	6d. „ „

IGN ROUGH ROLLED OR ROUGH CAST GLASS.

Delivery and cases free.

in. thick	3¾d. per foot
in. thick	4d. „ „
in. thick	4¼d. „ „

ARCTIC, FLEMISH OR MURANESE.

Vhite	4½d. per foot
Tinted	6d. „ „

prices of foreign glass will usually fluctuate he exchange. The glass is sometimes very and brittle. Small builders will no doubt to buy the glass they require either cut to te sizes or glazed complete.

ENGLISH SHEET GLASS.

Sizes not above	Glass only cut to sizes.	Glazed on Site or in sashes for any quantity over 100 ft. sup. in one job.
ft. sup.	per ft.	per ft.
.. 2 ..	3⅝d.	6⅝d.
.. 4 ..	4¼d.	7¼d.
.. 6 ..	4⅜d. ..	7⅜d.
.. 12 ..	4⅜d. ..	7⅜d.
.. 2 ..	4¼d. ..	7¼d.
.. 4 ..	5½d. ..	8½d.
.. 6 ..	6¼d. ..	9¼d.
.. 12 ..	6½d. ..	9½d.
.. 2 ..	6¼d. ..	9¼d.
.. 4 ..	7⅜d. ..	10¾d.
.. 6 ..	7⅜d. ..	10¾d.
.. 12 ..	8½d. ..	11½d.
.. 2 ..	7⅝d. ..	10⅝d.
.. 4 ..	11d. ..	1/2
.. 6 ..	11d. ..	1/2
.. 12 ..	11½d. ..	1/2½

'LUTED.

.. 2 ..	6⅜d. ..	9⅜d.
.. 6 ..	7⅜d. ..	10¾d.
.. 11 ..	8½d. ..	11½d.
.. 2 ..	9⅝d. ..	1/0⅝.
.. 6 ..	11d. ..	1/2
.. 11 ..	1/– ..	1/3

ED PLATE ROUGH CAST.

.. ..	4⅜d. ..	7⅜d.
.. ..	5⅞d. ..	8⅞d.
.. ..	6d. ..	9d.
.. ..	8⅜d. ..	11⅜d.
d Rolled ..	9¼d. ..	1/0¼
d Cast ..	9¾d. ..	1/0¾

Figured Rolled, Flemish and Arctic—	per ft.
White ..	7¼d.
Tinted ..	10d.
	per ft.
..	10½d.
..	1/1

The cost of taking sizes for and labour expended in glazing sheet glass, including cost of best linseed oil putty and sprigs, is about 2d. to 4d. per ft. super, and depends on size of job, difficulty of access, &c. The inferior kinds of putty may not become hard, and are apt to run down in tears during the hot weather.

Ordinary glazing would include in the prices quoted for usual sprigs and putty to wood sashes, and for metal sprigs and putty to metal sashes. In the latter instance the steel sash bars are usually drilled by the casement maker to receive sprigs. Some metal casements are fitted with wood or metal beads to secure the glass, and the cost of taking out the beads in readiness for the glazier and refixing after must be added. If the sashes have an extra deep rebate, a small additional charge will be made for glazing, because of the extra putty, &c., required.

Roof glazing will be charged at plus 1d. per ft. super where such work does not exceed 500 ft. super—greater areas no extra charge—and cost of all necessary scaffolding, ladders, &c., must be added.

Rolled plate is similar to what used to be known as "Hartley's Rolled."

Copper clips for skylight glazing .. 3d. each net.
Lead or zinc clips .. .. .. 2d. each net.

Hacking out and reglazing would be charged at double the above charges for the glazing of new work.

GROVERS BARS AND FIXING.

	Per ft. run.
For 21 oz. sheet	8d.
⅛ in. Substance glass	8½d.
3/16 „ „ „	9½d.
¼ „ „ „	10d.
⅜ „ „ „	1/–

Fixing only to grovers bars is worth about 2d. per ft. run.

BRITISH POLISHED PLATE GLASS CUT TO SIZES AND DELIVERED TO JOB. (Ordinary ¼ in. substance.)

In plates not exceeding—	For Glazing purposes.	Ordinary Glazing selected, or for silvering purposes.	Best quality.	Finest Silvering quality.
	Per ft. super.			
1 ft. super ..	1/7 ..	2/– ..	2/1 ..	2/7
2 „ „ ..	2/– ..	2/4 ..	2/5 ..	3/–
2 „ „ if 6/18 wide exceeding 35 in. long ..	2/5 ..	2/11..	3/– ..	3/7
3 ft. super ..	2/8 ..	3/2 ..	3/3 ..	3/11
3 „ „ if 6/18 wide exceeding 35 in. long ..	3/2 ..	3/9 ..	3/10..	4/6
4 ft. super ..	3/2 ..	3/9 ..	3/11..	4/8
4 „ „ if 6/18 wide exceeding 35 in. long ..	3/4 ..	3/11..	4/1 ..	4/10
6 ft. super ..	3/4 ..	4/1 ..	4/3 ..	5/1
6 „ „ if 6/18 wide exceeding 35 in. long ..	3/6 ..	4/3 ..	4/5 ..	5/3
8 ft. super ..	3/8 ..	4/4 ..	4/6 ..	5/4
12 „ „ ..	3/9 ..	4/5 ..	4/7 ..	5/6
20 „ „ ..	3/10..	4/6 ..	4/8 ..	5/8
45 „ „ ..	4/– ..	4/8 ..	4/10..	6/–
65 „ „ ..	4/2 ..	4/11..	5/1 ..	6/3
90 „ „ ..	4/5 ..	5/3 ..	5/5 ..	6/6
100 „ „ ..	4/7 ..	5/6 ..	5/9 ..	6/10

Plates exceeding 100 ft. super, or 160 in. long, or 104 in. wide at higher prices.

The usual thickness of polished plate glass is about ¼ in., but if required of special and exact thicknesses the following additional prices will be charged:—

	Not over 30 in. long or 14 in. wide.	Exceeding 30 in. long or 14 in. wide.
⅛ in. to ⅜ in. ..	5d.	7d.
3/16 in.	3d.	5d.
¼ in. bare or ¼ in. selected ..	1½d.	2½d.
5/16 in.	3d.	4d.
⅜ in...	4d.	6d.

Per ft. super additional.

Add to the above prices for cost of glazing up to 200 ft. 5d. per ft. super; over that quantity about 3d. per ft. super. If glass is glazed in wash leather, add 2d. per ft. run. If black velvet is used instead of wash leather the cost would be similar. Glass is cut to a circular shape by glazier without extra charge, but the cost of any templates or moulds must be added. Glass merchants will charge fractional parts of inches as full inches, *i.e.*, 12½ in. × 12½ in. would be charged as 13 in. × 13 in.

SILVERING (ONLY) TARIFF.

Squares not above	Ordinary quality on polished plate, plain or fluted sheet.	On embossed or decorative work.
	Per ft. super.	
12 ft. sup.	8d.	—
20 „	9d.	—
45 „	10d.	1/3
50 „	10½d.	1/4½
55 „	11d.	1/5
60 „	11½d.	1/6
65 „	1/–	1/6
70 „	1/1	1/7½
75 „	1/2	1/9
80 „	1/3	1/10½
85 „	1/6	2/3
90 „	1/9	2/7½
95 „	2/–	3/–
100 „	2/3	3/6

These prices are subject to a discount, probably 10 per cent. When part only of a square is silvered, the overall size will be charged. When plates are re-silvered an extra charge of 5d. per ft. will be added to tariff prices for stripping and cleaning. Where mirrors are likely to be exposed to wet or damp, they can be finished with a wet-proof backing at a charge of about 5d. per ft. super.

The cost of bevelling to plate glass will vary with the size of pane of glass and width of bevel, &c.

BEVELLING TARIFF.

Width of Bevel.	Up to 10 ft. run bevel on one square.	Up to 14 ft. run.	Over 14 ft. run to 10 ft. super.	To 15 ft. super.	To 20 ft. super.
	Per ft. run.				
Up to 5/32 in. ..	6d.	7d.	8d.	1/–	1/1
„ 7/32 in. ..	6½d.	7½d.	8½d.	1/1	1/2
„ 9/32 in. ..	8½d.	9½d.	10½d.	1/3	1/4
„ 1 in. ..	10½d.	11d.	1/–	1/5	1/6
„ 1⅛ in. ..	11d.	1/–½	1/2	1/7	1/8
„ 1¼ in. ..	1/2½	1/3½	1/5	1/9	1/10
„ 1⅜ in. ..	1/5	1/6	1/7	1/11	2/–
„ 1½ in. ..	1/7	1/8½	1/9½	2/1	2/2
„ 1⅝ in. ..	1/10	1/11	2/–	2/4	2/5
„ 1¾ in. ..	2/1	2/2	2/3	2/7	2/8
„ 1⅞ in. ..	2/4	2/5	2/6	2/10	2/11
„ 2 in. ..	2/7	2/8	2/9	3/1	3/2

Larger sizes additional.

The discount on the above is about 20 per cent.

Feather edged bevelling about double prices for ordinary bevelling.

The tariff for bending is too long to quote, the prices differing with the size of pane of glass, radius of bend and position of the bend on the square of glass.

Special quotations should be obtained from benders in every case.

It is advisable to get an estimate for the bent glass glazed complete, as if the glass is supplied to the firm for bending, the benders will take no risk or replace any square broken or damaged in bending or transit.

The charge for glazing bent glass is about 1s. per ft.

POLISHING EDGES ONLY, STRAIGHT WORK, TO ORDINARY ¼ IN. THICKNESS.

	Per ft. run.			
Lengths not over	36 in.	48 in.	54 in.	60 in.
Widths not over—				
14 in.	6d.	7d.	8d.	11½d.
19 in.	6d.	9d.	11½d.	1/3
30 in.	9d.	1/6	1/9	2/–
Lengths not over	66 in.	72 in.	84 in.	96 in.
Widths not over—				
14 in.	1/1	1/3	1/6	1/9
19 in.	1/9	2/–	2/–	2/3
30 in.	2/6	3/–	3/3	3/6

These prices are subject to a discount. All plates to 10 ft. run are charged at 6d. per ft. run net.

The cost of leaded lights for windows will depend on the kind of glass, whether ordinary clear, tinted or stained, and the width of the lead cames used and design of light. The saddle bars or steel cored cames are usually included in the price of the lights. Plain leaded lights in 21 oz. sheet in 4 in. × 3 in. squares with lead cames would cost about 1s. 6d. per ft. super delivered. The same, but in squares 8 in. x 6 in. about 1s. 9d. per ft. super delivered.

A fairly good design of leaded lights with a touch of colour can be bought for 4s. per ft. super, while for ornamental, or special stained work, the price may rise to almost any figure. It is worth about 4d. to 6d. per ft. super for glazing ordinary leaded lights.

The cost of embossing will depend upon the design chosen, and will vary from 2s. 6d. to 8s. 6d. per ft. super.

NEW BUILDINGS IN LONDON

Oxford-street.—REBUILDING.—Messrs. G. H. Carter, Ltd., of Holloway, N.7, are the contractors for the rebuilding of 36, East Castle-street, W. All sub-contracts are placed. The architect for the work is Mr. W. A. Lewis, A.R.I.B.A., of Finsbury-square, E.C.

Fulham.—ALTERATIONS.—Alterations are now being made to 145, Fulham Palace-road, S.W. The whole of the building work is being carried out by Messrs. Mullen & Lumsden, Ltd., of Holborn, with the exception of the steelwork, which has been placed with the Aston Construction Co., Eagle Wharf-road, N.

The Theatre Royal.

"London Life" is a play in three acts by Arnold Bennett and Edward Knoblock. Drury Lane continues its tradition, and has produced a spectacle staged in its usual brilliant manner. The play, though somewhat long, has been well received, and no doubt will draw visitors now in London, many of them for the first time, to this historical house. The play grips one to the end, the story is lucidly told, well acted and produced. It is outside our scope to deal with the plot, but it is sufficient to say that, late though the hour, it held our interest to the finish. The outstanding scene is the view on the terrace of the House of Commons along the river, Westminster Bridge, and the County Hall in the distance, which is well represented. Others are the courtyard of a well-known Dickensian inn at Ipswich, and a fête at a country house.

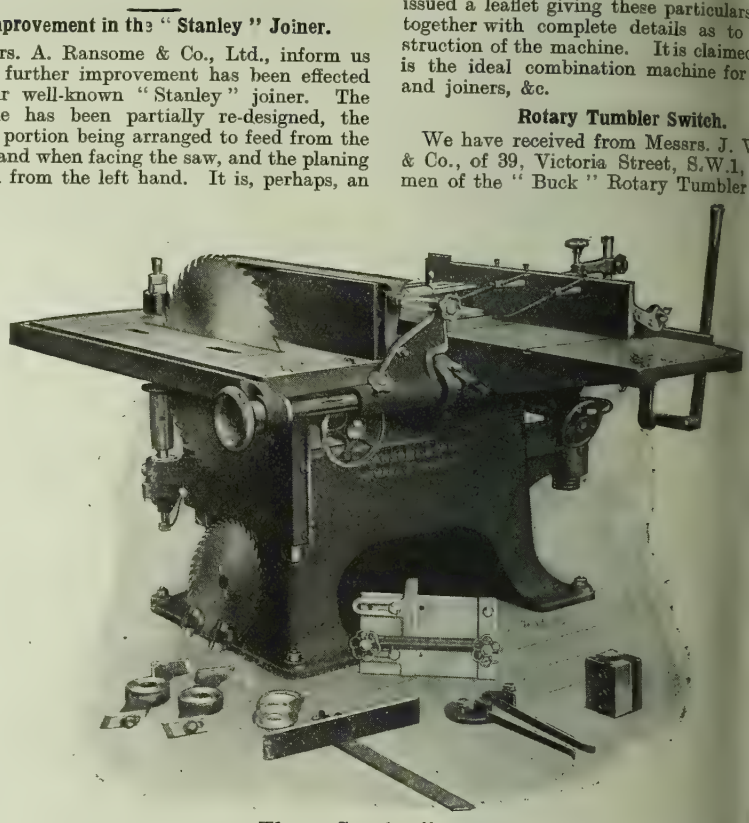
Change of Address.

Messrs. Allen-Liversidge, Ltd., manufacturers of dissolved acetylene and acetylene welders' equipment, have removed their head office to Victoria Station House, Westminster, S.W. 1. The Lighting, Heating and Power Installation Department remains as before at 123, Victoria-street, Westminster, S.W. 1, where the Company's showrooms will also be situated.

NEW INVENTIONS.

Improvement in the "Stanley" Joiner.

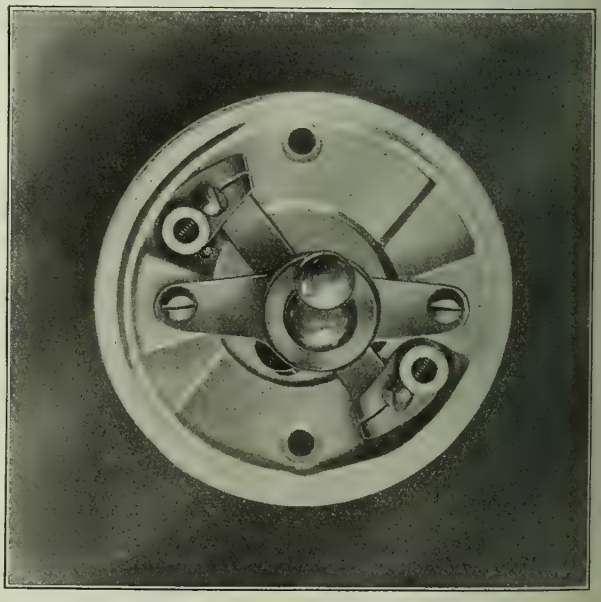
Messrs. A. Ransome & Co., Ltd., inform us that a further improvement has been effected in their well-known "Stanley" joiner. The machine has been partially re-designed, the sawing portion being arranged to feed from the right hand when facing the saw, and the planing portion from the left hand. It is, perhaps, an opportune moment to recapitulate the advantages claimed for this joiner :—It will take saws up to 24 in. diameter, allowing a maximum depth of 9 in.; crosscut timber of any length and up to 8 in. thick; surface boards up to 12 in. wide; thickness material up to 5 in. wide by means of a cutterblock fitted to the back end of the spindle; tongue and groove the edges of boards with cutters fitted into the circular planing cutterblock; mortise up to 2 in. wide, and bore holes up to 2 in. diameter to a maximum depth of 8 in.; cut tenons up to 5 in. long in timber up to 8 in. wide by means of cutterblocks fitted to the saw spindle; saw grooves up to 1½ in. wide by means of a drunken saw; stick straight mouldings, beadings, &c., up to 5 in. wide by means of a cutterblock fitted to the saw spindle; form any irregular or curved moulding up to 2½ in. deep from a vertical spindle projecting through the back end of the saw table. Messrs. Ransome & Co., have issued a leaflet giving these particulars together with complete details as to construction of the machine. It is claimed is the ideal combination machine for and joiners, &c.



The "Stanley" Joiner.

Rotary Tumbler Switch.

We have received from Messrs. J. W & Co., of 39, Victoria Street, S.W.1, men of the "Buck" Rotary Tumbler movement of which (illustrated page) is of extremely simple design robust construction. The contacts phosphor bronze, in pairs separated by washers, a new principle giving comple full contact. The contact blade having rotary action, ensures positive make and on both poles. The poles are separated maximum margin of 180 degrees. The tion is complete and damp-proof. The between contacts, viz., 1½ in., gives tional facilities for easy wiring. The is of flat spring steel, and its design that it is never called upon to exercise than one-fifth of its maximum strengt is only in compression during the fra time that the switch is actually being op The covers are produced from heavy material, having burnished or buffed The bases are of vitreous porcelain.



A New Switch.

E HOUSING ACT

ECOVERY OF EXPENSES.

briefly note the recent case Salford
v. Hale (*Weekly Notes*, May 24),
ed a point under section 28 of the
Town-Planning Act, 1919. The
n (appellants) had given the owner of
uses (the respondent) notice under
to execute works on the same in
nder them reasonably fit for human
and as he had not complied with the
Corporation had done the work them-
cost of £623.
24, 1922, an account of this expendi-
sent to the respondent, and sub-
negotiations were entered into between
as to the method of payment, and on
13, 1922, an agreement had been
nder which the respondent paid the
£19 10s., and undertook to pay the
y quarterly payments of a similar
He afterwards, however, declined to
further payments and on August 1,
appellants acting under section 28
(4) made an order declaring the
n question to be repayable by monthly
s.
pondent made default in paying the
erly instalment under this order and
ber 9, 1923, a summons was taken out
covery of this instalment under sub-
. The respondent had contended, on
ng of this summons, that as the
had sent him a complete account of
diture they had incurred in the first
his showed that they had elected to
ne money under subsection (3) and
not subsequently proceed under sub-
. the point of this being that if the
gs were held to be taken under sub-
. then they were out of time, for under
ction and section 11 of the Summary
on Act 1848, the proceedings must be
hin six months from the "date of
e of notice of demand," the words used
ion 3). If the proceedings were taken
section (4) they were in time. The
y magistrate had decided that the
had elected to proceed under sub-
and had dismissed the summons.
eal the Divisional Court overruled this
nd remitted the case to the magistrate
rection that the respondent be ordered
e instalment claimed. The Court held
appellants in delivering the demand
hole sum in the first instance had not
themselves from proceeding under
4): That subsection (4) must not be
urably to obtain a payment which
t otherwise be obtained, but here
n of the appellants had been quite
d they were not debarred from pro-
nder subsection (4).
se is briefly reported and will not be
reported in the Law Reports and any
we make must be taken as having no
, but as the two subsections have been
is case not to be mutually exclusive it
satisfactory to know what will amount
tion to proceed under subsection (3).
se under consideration only a demand
made for the whole sum, no summons
en issued, but the time, six months,
by the Summary Jurisdiction Act is
tion (3) of the Housing, &c., Act, 1919,
m the service of notice of demand.
ns only six months within which pro-
must be taken under this subsection.
appear reasonable to consider that an
not made until either (1) a summons
ly been issued under subsection (3), or
ations for payment by instalments
completed within six months. It
ceed that in this case the latter con-
been fulfilled; the demand was made
922, and the negotiations for payment
ents were completed by agreement
13, 1922.

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stol office of The British Reinforced
Engineering Co., Ltd., is now at Sun
Clare-street, Bristol.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	C'p'ters. Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/1½
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/1½
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall.)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/1½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0½
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/1½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7½	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/1½
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/1½
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page xcv.

CONTRACTS, COMPETITIONS, &c.

Forsome contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders; and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JUNE 16.—**Aberystwyth.**—PAINTING.—For the internal painting and decorating of the Alexandra Hall of Residence, Aberystwyth. General Secretary, University College of Wales, Aberystwyth.

JUNE 16.—**Banstead.**—PAINTING.—For painting works at Cuddington Isolation Hospital. Mr. A. C. Williams, architect, Ashley-road, Epsom.

JUNE 16.—**Blackhill, Durham.**—PAINTING.—For inside painting at the Richard Murray Hospital, for Joint Hospital Board. Secretary, Shire Hall, Durham.

JUNE 16.—**Bradford.**—FILTER HOUSE.—For erection of house in stone for pressure filters, for the T.C. Mr. L. Mitchell, Waterworks Engineer, Town Hall, Bradford. Deposit £5.

JUNE 16.—**Broughton-in-Furness.**—ALTERATIONS.—For alterations to property, for the Furness and South Cumberland Supply Association. Secretary, Broughton-in-Furness.

JUNE 16.—**Carlisle.**—JOINERY, &C.—For joiners' and painters' works at various schools, for the T.C. Mr. H. C. Marks, City Engineer, Carlisle.

JUNE 16.—**Coventry.**—CONVENIENCE.—For the erection of an underground convenience at Grey Friars Green, for the T.C. Mr. J. E. Swindlehurst, City Engineer, Coventry. Deposit £2 2s.

JUNE 16.—**Edinburgh.**—BUILDING WORKS.—For removal of administrative block from Slateford Hospital and re-erection at Collinton Mains Hospital, for the T.C. Mr. J. A. Williamson, City Officer, Edinburgh.

JUNE 16.—**Glasgow.**—PAINTING.—For painting work at Shelston and Crow Cross Library. Mr. J. Lindsay, Town Clerk, Glasgow.

JUNE 16.—**Glasgow.**—ROOF.—For new roof at the Blind Asylum, Castle-street, for the T.C. Office of Public Works, Glasgow.

JUNE 16.—**Kent.**—PAINTING.—For painting of 38 Council schools and 26 buildings used for the purpose of Higher Education, in various parts of the county, for the Kent C.C. Mr. W. H. Robinson, Architect, Sessions House, Maidstone. Deposit £1 1s.

JUNE 16.—**Leeds.**—PAINTING.—For painting and cleaning of schools during summer vacation, for the T.C. Education Offices, Leeds.

JUNE 16.—**Liverpool.**—DEMOLITION.—For the demolition of property in New Quay, for the T.C. Land Steward and Surveyor, Municipal Buildings, Liverpool.

JUNE 16.—**London, N.W.1.**—ALTERATIONS.—Certain structural alterations at the Public Baths, Marylebone-road, in connection with the installation of filtration plant for First Class Swimming Baths, for the Metropolitan Borough Council of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

JUNE 16.—**Lytham St. Annes.**—HOUSES.—For the erection of 92 houses for the T.C. Borough Surveyor, Town Hall, St. Annes.

JUNE 16.—**Manchester.**—GARAGE.—For erection of motor bus garage at Didsbury, for the T.C. City Architect, Town Hall, Manchester. Deposit £1 1s.

JUNE 16.—**Middlesbrough.**—ALTERATIONS.—For rearranging wagon repair shops at Newport and Erimus mineral yards for the London & North-Eastern Rly. Co. Mr. S. Wilkinson Architect, L. & N.E. Railway, York.

JUNE 16.—**Morecambe.**—BOILER HOUSE.—For the erection of a boiler house at the Gas Works, for the T.C. Mr. P. Holt, Borough Surveyor, Morecambe. Deposit £1 1s.

JUNE 16.—**Paisley.**—ANNEXE.—For erection of special classes school annexe, Paisley, for the Renfrewshire Education Authority. Mr. J. Hamilton Pullar, County Education Offices, Paisley. Deposit £1 1s.

JUNE 16.—**Portmadoc.**—HOUSES.—For the erection of block of eight cottages and block of two cottages, for Mr. P. O. Evans. Messrs. Jos. Owen's Sons & Lloyd Owen, architects, Menai Bridge.

JUNE 16.—**Rochdale.**—PAINTING.—For painting at Marland Isolation Hospital and Wolstenholme Hall Sanatorium, for the T.C. Public Health Office Rochdale.

JUNE 16.—**St. Austell.**—HOSPITAL.—For erection of infectious diseases hospital at Tregonissey, for the Joint Hospital Board. Mr. E. D. Groves, Council Offices, St. Austell. Deposit £3 3s.

JUNE 16.—**Sleaford.**—PAINTING.—For painting, &c., at Poor Law Institution, for the B.G. Master at the Institution.

JUNE 16. — **Southend-on-Sea.** — PAINTING, &C.—For cleaning and painting at various Council Schools, for the Corporation. Mr. Robert H. Dyer, Borough Engineer, Southend-on-Sea. Deposit £1 1s.

✱JUNE 16.—**Swindon.**—NEW CLUB.—For a new club building for the committee of the West Swindon Club. Messrs. R. J. Beswick & Son, A.R.I.B.A., 10, Victoria-road, Swindon. Deposit £2 2s.

JUNE 16.—**Wombwell.**—HOUSES.—Erection of 60 or, alternatively, in lots of 30, Type A houses on a site situate in King's-road, Wombwell, for the Wombwell U.D.C. Mr. D. H. Roberts, M.S.A., Park-street, Wombwell. Deposit £2.

JUNE 16.—**Wombwell.**—HOUSES.—Erection of 14 Type A houses on a site situate at Hemingfield, in the urban district, for the Wombwell U.D.C. Mr. Norman Culley, F.R.I.B.A., 13, John William-street. Huddersfield. Deposit £2.

JUNE 17.—**Acton, W.3.**—VARIOUS WORKS.—Execution of the following works: Redecoration and repairs generally of various schools; tar paving at various schools; additional lavatory accommodation, South Acton Girls' Schools; maple flooring, &c., Central Hall, Priory Schools; electric lighting installation, Beaumont Park School; for the Borough of Acton E.C. Engineer and Surveyor, Municipal Offices, Acton, W.3.

JUNE 17.—**Barnsley.**—HOUSES.—For the erection of 12 houses at Carlton, for the R.D.C. Messrs. Crawshaw & Wilkinson, architects, Barnsley.

JUNE 17.—**Bessington.**—REPAIRS.—For repairs to the large temporary building at Council school, for West Riding C.C. Education Department, County Hall, Wakefield.

JUNE 17.—**Buxton.**—CONVENIENCES.—For the erection of public conveniences at Fairfield, for the T.C. Mr. F. Langley, Borough Engineer, Buxton.

JUNE 17.—**Dewsbury.**—PAINTING.—For painting outside of Thornhill Lees Working Men's Club. Mr. H. Eames, Secretary, The Club.

✱JUNE 17.—**Epsom.**—COTTAGES, &C.—Erection of two pairs of cottages at Hook-road, Epsom, and for the conversion of a building off Miles-road into a dwelling, for the Epsom Urban District Council. The Surveyor, Mr. Edward R. Capon, 33, Church-street, Epsom.

JUNE 17. — **London, S.W.** — TELEPHONE EXCHANGE.—Erection of the "Western" Telephone Exchange in Trafalgar-place, South Kensington, for the Commissioners of H.M. Office of Works. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (Cheques payable to the Secretary.)

JUNE 17.—**Nantyglo.**—ALTERATIONS.—For alterations and additions at Hafod-y-ddol Secondary School, for Monmouthshire E.C. Mr. John Bain, F.R.I.B.A., County Hall, Newport.

JUNE 17.—**Whittingham.**—PAINTING.—For painting at County Mental Hospital, Whittingham, near Preston. Mr. H. E. Morgan, Clerk to the Hospital.

JUNE 18. — **Cheltenham.** — SCHOOLS. — Completion of the new Swindon-road Council Schools. The additions to the buildings include (*a*) Erection of new classrooms; (*b*) alteration of Swindon-road boys' school; (*c*) erection of practical instruction buildings, for the Cheltenham Education Committee. Mr. L. W. Barnard, architect, Promenade, Cheltenham. Deposit £2 2s.

JUNE 18.—**Devizes.**—PAINTING.—For painting works at secondary school, for the T.C. Mr. A. W. Jakeway, Borough Surveyor, Devizes.

JUNE 18.—**Eastwood.**—ALTERATIONS.—For additions and alterations to house at Blatches Farm, Eastwood, near Southend, for the Essex C.C. Mr. C. Lock, County Land Agent, Chelmsford.

JUNE 18.—**Herne Bay.**—HOUSES.—Erection of twelve semi-detached houses, all of the same design, for the Herne Bay U.D.C. Mr. B. J. Wormleighton, Engineer and Surveyor, Town Hall, Herne Bay. Deposit £3 3s.

JUNE 18. — **London.** — PAINTING, &C.—Separate tenders for (1) External cleaning and painting at Sheffield-strect Hospital, Sheffield-street, W.C.2; (2) Cleaning and painting and repairs at the North-Eastern Fever Hospital, St. Ann's-road, Tottenham, N.15, for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit £1 each.

JUNE 18.—**London.**—PAINTING, &C.—Separate tenders for cleaning and painting works and repairs at Eastern Fever Hospital, Homerton-grove, E.9; Park Fever Hospital, Hither Green, S.E.13; Wandsworth Casual Ward, Swaffield-road, S.W.18; Paddington Casual Ward, Woodfield-road, Harrow-road, W., for the Metropolitan Asylums Board. Office of the Board, Victoria-embankment, E.C.4. Deposit £1 each.

JUNE 18.—**London.**—ROOF EXTENSION.—For extension of the existing roofs of covered yards at the Eastern Ambulance Station, Homerton-grove, Homerton, E.9, and the South-Eastern Ambulance Station, New Cross-road, New Cross, S.E., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JUNE 18.—**London, S.E.13.**—WEIGHBRIDGE FOUNDATIONS.—Work required to be done in forming weighbridge foundations at the Park Fever Hospital, Hither Green, S.E.13, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JUNE 18.—**London, S.W.**—RECONSTRUCTION WORK.—Reconstruction of boiler house and laundry at South Western Fever Hospital, Landor-road, Stockwell, S.W., for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JUNE 18.—**London, S.W.1.**—PAINTING, DECORATION AND REPAIRS.—Painting, decoration, repairs and electric wiring at the Receiving House, Wallis's-yard, Buckingham Palace-road, S.W.1. Mr. W. Lickley, Clerk to the Guardians, Guardians' Offices, Princes-row, Buckingham Palace-road, S.W.

JUNE 18.—**Longton.**—SCHOOL.—Erection of school at Longton, near Preston, for the Lancashire C.C. Mr. H. Littler, County Architect, 16, Ribblesdale-place, Preston. Deposit £2.

JUNE 18.—**Near Dartford, Kent.**—PAINTING, For cleaning and painting works and repairs Southern Hospital, for the Metropolitan Asylums Office of the Board, Victoria-embankment, Deposit £1.

JUNE 18.—**Neath.**—PAINTING.—For pa Herbert-road and Vernon-place Schools, for th Mr. A. H. Clark, Borough Engineer, Neath. £1 1s.

JUNE 18.—**Penistone.**—CINEMA.—For the erect a cinema. Apply Mr. P. A. Hincliffe, 14, R street, Barnsley.

JUNE 18.—**Shipley.**—ALTERATION.—For alt and additions to St. Peter's Church School. T. H. & F. Heeley, architects, 42, Tearle-street, ford.

JUNE 18. — **Sutton, Surrey.** — STEEL CONS TION.—For erection of forage store (Dutch at Belmont Stables, Stanley-road, for the Metrop Asylums Board. Office of the Board, Victoria-em ment, E.C. 4. Deposit £1.

JUNE 18. — **Tooting, S.W. 17.** — GLAZING supplying and fixing patent glazing to roofs of c ways at Tooting Bec Mental Hospital Exte Church-lane, for the Metropolitan Asylums Office of the Board, Victoria Embankment, Deposit £1.

JUNE 18.—**Wanstead.**—ALTERATIONS.—For tions to the "Old Rectory," Redbridge-lane, in to adapt the premises for use as secondary scho Essex Education Committee. Mr. Herbert J. Goo Education Offices, Loughton.

JUNE 18.—**Willesden.**—ALTERATIONS.—For tions to sanitary annexes of E. Block at Mun Hospital, for U.D.C. Mr. F. Wilkinson, eng Town Hall, Kilburn, N.W.

JUNE 19.—**Glasgow.**—HOUSES.—For the er of 90 houses at West Creighton, for the T.C. Lindsay, Town Clerk, Glasgow.

JUNE 19.—**Keighley.**—PAINTING.—For pa a concert hall, &c., at Institute, for the T.C. Edu Offices, Keighley.

JUNE 19.—**Rochdale.**—CLASS ROOMS.—For er of two class rooms at Meanwood County Scho the T.C. Messrs. Smith & Cross, architects, Roc

JUNE 19.—**Salford.**—CONVENIENCES.—For er of public conveniences, for the T.C. Borough gineer, Town Hall, Salford. Deposit £2 2s.

JUNE 19.—**Salford.**—PAINTING, &C.—For pai pointing, asphalting, &c., at various schools, fo T.C. Secretary, Education Offices, Salford.

JUNE 19.—**Stocksbridge.**—PAINTING.—For re ing Victory Club. Secretary, Victory Club, St bridge.

JUNE 19.—**Whitehaven.**—ALTERATIONS.—For a tions to premises in Market-place, for Mrs. Fe Mr. A. Anderson, architect, Whitehaven.

JUNE 20.—**Montrose.**—SCHOOL.—Erection of ele tary school for Forfarshire Education Authority. Hugh Gavin, architect, 194, High-street, Mon Deposit £1 1s.

JUNE 20.—**Norwich.**—PAINTING.—For paintii Burlingham Hall, near Norwich, for the Norfolk Mr. V. Playle, County Land Agent, Shire H Norwich.

JUNE 21.—**Ashwell.**—HALL.—For the erectic a village hall at Ashwell, near Oakham. Mr. F Nichols, Market-place, Oakham.

✱JUNE 21.—**Bordon.**—RECONSTRUCTION.—R struction of concrete skating rink. Mr. J. Mor Royal Engineers' Headquarters, Bordon, Hants.

JUNE 21.—**Durham.**—HOUSES.—For the er of 14 houses, for the R.D.C. Mr. G. Gregson, surv 38, Sadler-street, Durham.

JUNE 21.—**Reading.**—HOUSES.—Erection of houses on the Shinfield-road Housing site, fo Housing and Town-Planning Committee of the Co Borough of Reading. Housing Architect, Old Co Buildings, St. Laurence's Churchyard.

JUNE 21.—**Southampton.**—CONVERSION.—For conversion of the Shirley Fire Station into st baths, for the T.C. Borough Engineer, 33, Fr street, Southampton. Deposit £1 1s.

JUNE 23.—**Bingley.**—COTTAGE.—For erectio cottage at Training College, for West Riding Education Department, County Hall, Wakefi

JUNE 23. — **Bournemouth.** — ALTERATIONS P QUARTERS.—Erection of prisoners' cells, alteratio existing police quarters, and erection of police d tories, at the Police Station, Stafford-road, Bo mouth, for the County Borough of Bournem Borough Engineer, Town Hall, Bournemouth posit £1 1s.

JUNE 23.—**Bristol.**—SUB-STATIONS.—For struction of 11 transformer sub-stations, for the Mr. H. Faraday Proctor, Electrical Engineer, B Deposit £2 2s.

JUNE 23.—**Buckinghamshire.**—COTTAGES.—Fo following work for the Bucks Agricultural Commi Rectory Farm, Tingewick, one new dairy cott Claydon Hill Farm, Steeple Claydon, one new cottage; Accommodation Holding, Whaddon, new dairy cottage. Mr. G. M. Odam, County Agent, Aylesbury.

JUNE 23. — **Dorking.** — COTTAGES.—Erectio fifty cottages, in lots of ten or multiples of ten, i contract. The contracts to include the actual er of cottages only, excluding drainage, roads, path fencing, for the Dorking U.D.C. Mr. S. S. Get Surveyor, Council Offices, Dorking. Deposit £2

JUNE 23.—**Edmonton.**—BUILDING WORK works to the interior of St. James' School, to Education Committee. Mr. E. O. Taylor, Educ Offices, Edmonton, N.

JUNE 23.—**Gainsborough.**—HOUSES.—For erecti 16 houses, for the U.D.C. Mr. S. W. Parker, Surv Gainsborough. Deposit £1.

JUNE 23.— **Nottingham.** — REPAIRS. — For repairs to properties under charge of Estates mittee for twelve months. Mr. W. E. Williams, E Surveyor, Guildhall, Nottingham. Deposit £1.

E 23.—**Prestwich.**—HOUSES.—For the erection houses for the U.D.C. Surveyor, Town Hall, vich. Deposit £1 1s.
UNE 23.—**Stafford.**—HOUSES.—Erection of 106 s of the parlour and non-parlour type on the nascote Housing Estate, for the Stafford Corpora- Mr. W. Plant, A.M.I.C.E., Borough Engineer, gh Hall, Stafford. Deposit £2 2s.
UNE 24.—**London, N.W.1.**—EXCAVATIONS, &C.— uilder's work in excavation and concreting foun- ns for alterations and additions to the boiler-house ing's-road Electricity Works, for Metropolitan gh of St. Pancras. The Council's offices, 57, -street, Camden Town, N.W.1. Deposit £2.
NE 24.—**Teignmouth.**—BUILDING.—For erection of el-framed house at the gasworks, for the U.D.C. . Hyam, Gas Engineer, Teignmouth.
NE 24.—**Thurnscoe.**—SWIMMING BATH.—For the on of covered swimming bath, for the Hickleton Miners' Welfare Scheme. Mr. T. Bull, architect, nscoe.
NE 25.—**Camborne.**—RENOVATIONS.—For renova- to chapel, school and outside property, for Trustee Wesley premises. Mr. F. Mills, Wellington-road, erley.
NE 25.—**Gravesend.**—HOUSES.—For the erection natively of 50 and 100 houses on King's Farm te, for the Corporation. Mr. H. H. Brown, Town , 4, Woodville-terrace, Gravesend, Kent. De- £2 2s.
NE 25.—**Heckmondwike.**—PAINTING.—For paint- t secondary school. Mr. H. C. Hebbes, Clerk to Governors, Heckmondwike.
NE 25.—**London, E. 5.**—SHOWROOMS.—For the ion of the building required for electricity show- s at Lower Clapton-road, for the Metropolitan ugh of Hackney. Mr. J. A. Bowden, 30, Craven- t, Strand, W.C. 2. Deposit, £2 2s., to Mr. H. R. Town Clerk, Town Hall, Hackney, E. 8.
NE 25.—**Wayland.**—HOUSES.—Erection of four es at Attleborough, for the R.D.C. Mr. F. Robin- Clerk, Watton, Norfolk.
UNE 25.—**Wembley.**—HOUSES.—For the erection 0 non-parlour houses on Christchurch Estate, ng-road, for the U.D.C. Mr. Cecil R. W. Chapman, neer and Surveyor, Council Offices, Wembley, llesex. Deposit £2 2s.
UNE 26.—**Southend-on-Sea.**—CLASS ROOMS.—For ooden framed building at Westcliff High School, oria-avenue, for the Corporation. Mr. R. H. r, Borough Engineer, Municipal Buildings, South- on-Sea. Deposit £2.
UNE 26.—**Southend-on-Sea.**—PAINTING, &C.—For ning and painting at the Borough Sanatorium, for Corporation. Mr. R. H. Dyer, Borough Engineer, icipal Buildings, Southend-on-Sea. Deposit £1.
UNE 27.—**Ireland.**—EMPLOYMENT EXCHANGE.— tion of a central employment exchange in Cor- tion-street, Belfast, for the Ministry of Finance, ernment of Northern Ireland. 15, Donegall- ire, West, Belfast. (Room 35). Deposit £5.
UNE 28.—**Tregoney.**—RECTORY.—For the erection w rectory. Messrs. Andrew & Randall, architects, Austell.
UNE 28.—**Truro.**—ADDITIONS.—For the enlarge- t of the County Hall, Truro, by the provision of her committee room and office accommodation, tories, &c., for the Cornwall C.C. Messrs. T. B. ck & Son, architects, 26, Green Park, Bath. osit £2 2s.
JUNE 28.—**Windsor Forest.**—ALTERATIONS.—For erection of a new classroom and other alterations improvements at Cranborne Council School, for shire Education Committee. Mr. W. C. F. erson, Education Secretary, Shire Hall, Reading. osit £1 1s.
UNE 30.—**Bedford.**—BUILDINGS.—For the erection uilding and reinforced coal bunkers, for the T.C. trical Engineer, Bedford. Deposit £1.
JUNE 30.—**North Kensington.**—FLOORING.—For flooring over and adaptation for use as a Public Hall he Women's First-class Swimming Bath at Lan- ter-road Baths, for the Council of the Royal Borough Kensington. The Borough Engineer, Town Hall, sington, W.8. Deposit £2 2s.
JULY 1.—**Cardiff.**—FIREMEN'S QUARTERS.— ders (based on firm prices for materials, and subject to variations owing to fluctuations in wages) for erection of 20 sets of firemen's quarters and other ks at the Central Fire Station, Cardiff, for the poration. Mr. T. Peirson Frank, F.S.I., City itect, City Hall, Cardiff, on production of a receipt the City Treasurer for a deposit of £2 2s.
JULY 1.—**London, N.1.**—ALTERATION AND CON- UCTION WORKS.—Alterations to an old building and construction of a convenience at the Depot, Liver- l-road, N.1, for the Council of the Metropolitan ough of Islington. Borough Engineer, Municipal ces, Tyndale-place, Upper-street, N.1.
JULY 2.—**Thorpe, Norwich.**—PAINTING.—External ting of the Main Hospital buildings at Saint rew's Hospital, for the Committee of Visitors. hitect and Surveyor, St. Andrew's Hospital, Thorpe, wich. Deposit £1 1s.
ULY 4.—**Binhan.**—COTTAGE, &C.—Erection of cot- e and additions to farm premises at Westgate Farm, ham, for Norfolk C.C. Mr. V. Playle, County d Agent, Shire House, Norwich.
JULY 4.—**Newmarket.**—HOUSES.—Erection of 10 k and slated houses at the Rows, Newmarket, for Newmarket Urban District Council, in the county Suffolk. Clerk's Office, Newmarket U.D.C., Dova mbers, Newmarket. Deposit £1.
ULY 5.—**Hanwell, W.7.**—WOOD FLOORING.— viding and laying a new deal floor for the dining at the Central London District School, Greenford- nue, Hanwell, W.7, for the Managers. Mr. George Morrell, Clerk to the Managers, at the above school.
ULY 8.—**Bolsover.**—HOUSES.—Erection of 30 houses n streets and sewers, for the U.D.C. Mr. Hoten, veyor, Bolsover. Deposit £1 1s.

JULY 8.—**Greenwich, S.E. 10.**—UNDERGROUND CONVENIENCE.—Construction of an underground convenience for both sexes, at the foot of Blackheath-hill, Greenwich, for the Council of the Metropolitan Borough of Greenwich. Borough Engineer, Town Hall, Greenwich, between the hours of 10 a.m. and 4 p.m. (Saturdays, 10 a.m. and 12 noon).

NO DATE.—**Bristol.**—ALTERATIONS.—For erecting new gallery and alterations at Fishponds Baptist Chapel. Mr. C. H. White, architect, 10, St. John's-street, Bristol.

✱NO DATE.—**Nottingham.**—MEMORIAL ARCH.—For the erection of a memorial arch with wing walls, terrace and river approach on the Victoria Embankment. Stone masons and contractors should submit their names to Mr. S. Wallis Gordon, City Engineer and Surveyor, Guildhall, Nottingham.

FURNITURE, MATERIALS, etc.

JUNE 17.—**Bow.**—SANITARY PIPES.—For supply of sanitary pipes and fittings, for the Managers of the Poplar and Stepney Sick Asylum District. Mr. S. G. Wright, Clerk, St. Andrew's Hospital, Bow, E.

JUNE 17.—**Tottenham.**—MATERIALS.—Supply of road materials, asphalte and tar paving, lime, cement, &c., for the U.D.C. Mr. R. C. Graves, Clerk, Town Hall, Tottenham.

JUNE 30.—**Lynn.**—MATERIALS.—Supply of 7,500 cub. yds. of hard material for making embankment of road at Lynn, for Norfolk C.C. Mr. S. H. Warren, County Surveyor, Shire House, Norwich.

ENGINEERING, IRON AND STEEL.

JUNE 16.—**Carlton.**—BRIDGE.—Construction of ferro-concrete viaducts and earthern embankments to carry approach ways of new bridge over the River Aire at Carlton, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

JUNE 16.—**Sligo.**—STEELWORK.—For supply of steelwork for station roof, for the Midland Great Western Railway of Ireland Co. Chief Engineer, Broadstone Terminus, Dublin. Charge £1.

JUNE 17.—**London.**—BRIDGES.—Supply of girder bridges to the Madras and Southern Mahratta Railway Co. Secretary, 25, Buckingham Palace-road, S.W. Charge £1 1s.

JUNE 17.—**South Shields.**—STEELWORK.—For constructional steelwork for engine room at electricity works, for the T.C. Mr. F. P. Sissons, Borough Engineer, Town Hall, South Shields.

JUNE 17.—**Tottenham.**—RAILWAY SIDING.—For the supply of material and the construction of a railway siding into the Council's Refuse Destructor Works at Tottenham. Engineer, Town Hall, Tottenham, N. 15. Deposit 10s. 6d.

JUNE 18.—**Leeds.**—PIPES.—Supply of castings and cast iron pipes, for gas department. Gas Engineer, Leeds.

JUNE 19.—**Manchester.**—PIPES.—Supply of 500 tons of cast iron water pipes, for the T.C. Secretary, Water Works Offices, Town Hall Manchester.

JUNE 21.—**Mexborough.**—PIPES.—For the supply of 3 in., 4 in. and 6 in. cast-iron spigot and socket water pipes, for the U.D.C. Mr. J. B. Feltham, Waterworks Engineer, Waterworks Offices, Station-road, Mexborough. Deposit 10s. 6d.

JUNE 25.—**London.**—BRIDGES.—Supply of girder bridges to East Indian Railway Co. Secretary, 73, King William-street, E.C. Charge £1 1s.

JUNE 30.—**St. Helens.**—BRIDGE.—For erection of movable bridge over canal at Redgate, for the T.C. Mr. A. W. Bradley, Borough Engineer, St. Helens.

JULY 1.—**Chili.**—HARBOUR WORKS.—**For the work of improvement of the Harbour of Constitucion, Chili.** Chilian Legation, 22, Grosvenor-square, W.1.

JULY 1.—**Kirkcudbright.**—BRIDGE.—For erection of a steel girder and concrete bridge over the River Fleet at Nether Ruscoe, for the C.C. Mr. J. Shepard, Surveyor, Creetown.

✱JULY 3.—**Penge, S.E.20.**—HEATING SYSTEM.—For the installation of a low-pressure heating system at Melvin-road School, for Penge U.D.C. Education Committee. Mr. H. W. Longdin, Surveyor to the Committee, Town Hall, Anerley, S.E. 20. Deposit £1 1s., to Mr. C. G. Liddle, Clerk to the Committee.

ROAD, SANITARY, AND WATER WORKS.

JUNE 16.—**Aberdeen.**—WATERWORKS.—(1) Supply of one mile of 12 in. and 10 in. diameter cast-iron pipes and specials; (2) laying of pipes, for the T.C. Mr. George Mitchell, Water Engineer's Office, 41½, Union-street, Aberdeen. Deposit £2.

JUNE 16.—**Carlisle.**—SEWERS.—For construction of stoneware sewers, &c., on Wigton-road housing estate, for the T.C. Mr. H. C. Marks, City Engineer, Carlisle. Deposit 10s.

JUNE 16.—**Greenock.**—ROADS.—For making up part of Eldon-street, for the T.C. Office of Public Works, Municipal Buildings, Greenock. Deposit £1 1s.

JUNE 16.—**Howden.**—SEWAGE WORKS.—For sewage disposal works at the Institution of the B.G. Messrs. Fairbank & Son, Lendal Chas. York. Deposit £1 1s.

✱JUNE 16.—**London, N.W.1.**—ROAD WORKS.—Reconstructing concrete foundations and providing and laying creosoted yellow deal paving in the following streets, viz.:—Oxford-street (Portman-street to Marble Arch), Regent-street (Oxford-circus to Great Castle-street), Mortimer-street (Regent-street to Berners-street), Wigmore-street (James-street to Duke-street), for the Metropolitan Borough of St. Marylebone. Mr. J. Paget Waddington, M.Inst.C.E., Borough Engineer and Surveyor, Town Hall, Marylebone-road, N.W.1. Deposit £5.

JUNE 16.—**Loughborough.**—ROADS.—For making up footpath of part of Forest-road, for the T.C. Mr. A. Walker, Borough Surveyor, Loughborough. Deposit £2 2s.

JUNE 16.—**Manchester.**—PAVING.—For paving, &c., at the City Abattoirs, for the T.C. General Superintendent, Market Office, Town Hall, Manchester.

JUNE 16.—**Pudsey.**—ROADS.—For construction of roads and footways on various housing sites, for the T.C. Borough Surveyor, Pudsey.

JUNE 16.—**St. Marylebone.**—ROADS.—For wood paving in parts of Oxford-street, Regent-street, Mortimer-street, and Wigmore-street, for the B.C. Mr. J. P. Waddington, Borough Engineer, Town Hall, Marylebone-road, N.W.

JUNE 16.—**Steyning East.**—FILTERS.—For construction of detritus tank and filter beds at Preston Rural, for the R.D.C. Mr. G. W. Warr, Town Hall, Southwick. Deposit £3 3s.

JUNE 17.—**Barnsley.**—ASPHALTING.—Asphalting to grounds adjoining Great Houlton School. Apply Education Department, County Hall, Wakefield.

JUNE 17.—**Bromley.**—ROADS.—Surfacing a portion of certain roads in the Borough of Bromley with bituminous asphalte carpet, about 14,203 sq. yds.; bituminous asphalte slag carpet, about 40,818 sq. yds., for the T.C. Mr. Stanley Hawkings, Borough Engineer, Municipal Offices, Bromley, Kent. Deposit £2.

JUNE 17.—**Glasgow.**—ROADS.—For construction of roads and sewers at Hawthorn-street and Campbell-street, for the T.C. Town Clerk, Glasgow.

JUNE 17.—**Great Sankey.**—ROADS.—For set paving and flagging playgrounds of Council school, for the Lancashire C.C. Mr. H. Littler, County Architect, 16, Ribblesdale-place, Preston.

JUNE 17.—**Southend-on-Sea.**—ROAD MAKING.—Making-up of the following streets:—Kingswood-chase, Section 1; Chase-road, Section 2; Riviera-drive, Section 2, and incidental works in connection thereto, for the County Borough of Southend-on-Sea. Mr. Robert H. Dyer, Borough Engineer and Surveyor, Municipal Buildings, Clarence-road, Southend-on-Sea. Deposit £2 for each road.

JUNE 18.—**Birmingham.**—SEWER.—For construction of sewers in Tyburn-road, &c., Erdington, for the T.C. Mr. H. H. Humphries, City Engineer, Birmingham. Deposit £2.

JUNE 18.—**Carlisle.**—WATER SUPPLY.—For the construction of about 5 miles, 240 yds. of 3 in. diameter cast-iron gravitation mains in the parish of Crosby-on-Eden, for the R.D.C. Mr. J. C. Boyd, 18, Bank-street, Carlisle. Deposit £2.

JUNE 18.—**Epsom.**—SEWERS.—For the construction of 8,300 yds. of stoneware and cast-iron sewers, &c., for the R.D.C. Messrs. J. Taylor & Sons, 36, Victoria-street, S.W. Deposit £5.

JUNE 18.—**Prestwich.**—ROADS.—For private street improvements in Long-lane and Drought's-lane, for the U.D.C. Surveyor, Town Hall, Prestwich. Deposit £1 1s.

JUNE 18.—**Tooting, S.W.**—ROADS.—For supplying and laying tar macadam to roads, &c., at Tooting Bec Mental Hospital Extensions, Church-lane, for Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1.

JUNE 19.—**Dunfermline.**—WATER MAIN.—For duplication of Glensherup water main, for the T.C. Messrs. Crouch & Hodge, Engineers, 17, Lynedock-street, Glasgow. Deposit £2 2s.

JUNE 20.—**Kensington.**—ROADS.—For providing and laying creosote deal blocks in Church-street and a portion of the Mall and Palace Gardens-terrace, for the B.C. Borough Engineer, Town Hall, Kensington.

JUNE 20.—**Manchester.**—ROADS.—For various works of sewering and paving in Gorton, West Gorton, Burnage and Cheetham, for the T.C. Paving Dept., Town Hall, Manchester. Deposit £1 1s.

JUNE 21.—**Haslemere.**—SEWER.—For the construction of 700 yards of 6 in. stoneware pipe sewer, &c., for the U.D.C. Mr. C. A. Best, Surveyor, Council Offices, Haslemere. Deposit £1 1s.

JUNE 23.—**Denholme.**—SEWER.—For laying 420 yards of main sewer, for the U.D.C. Surveyor, Council Offices, Denholme.

JUNE 23.—**Doncaster.**—ROADS.—For widening two roads and flagging others, for the T.C. Mr. F. O. Kirby, Borough Engineer, Doncaster. Deposit £5 5s.

JUNE 23.—**Finchley.**—ROADS.—For wood paving and improvement works, Great North-road, Whetstone, for the U.D.C. Mr. P. T. Harrison, Surveyor, Finchley, N. Deposit £2.

JUNE 23.—**Hendon.**—PAVING.—For laying 4,000 yds. super. of creosoted deal block paving, for the U.D.C. Mr. A. O. Knight, Surveyor, Hendon. Deposit £3 3s.

JUNE 23.—**Hendon.**—ROADS.—For making up Princes-Park-avenue, Leeside-crescent, Cranbourne-gardens, Portsdown-avenue, and Devonshire-place, for the U.D.C. Mr. A. O. Knight, Surveyor, Hendon. Deposit £5 5s.

JUNE 23.—**Reading.**—DRAINAGE.—For laying branch drains in various parts of the borough for the T.C. Borough Surveyor, Town Hall, Reading. Deposit £2 2s.

JUNE 25.—**Hackney.**—LAVATORY ACCOMMODATION.—For alterations and additions to lavatory accommodation at public baths, Lower Clapton-road, for the B.C. Mr. N. Scorgie, Borough Engineer, Hackney, E. Deposit £1 1s.

JUNE 25.—**Hawarden.**—SEWERS.—For supply and laying of cast iron and stoneware pipe sewers, &c., for the R.D.C. Messrs. Elliott & Brown, engineers, Burton Buildings, Nottingham. Deposit £2 2s.

JUNE 25.—**Leeds.**—ROADS.—For road-making at Institution of the B.G. Mr. J. H. Ford, Clerk, Poor Law Offices, Leeds.

✱JUNE 25.—**Wembley.**—ROADS AND SEWERS.—For the construction of roads and sewers in extension of the Christchurch Estate, Ealing-road, for the U.D.C. Mr. Cecil R. W. Chapman, Engineer and Surveyor, Council Offices, Wembley, Middlesex. Deposit £2 2s.

✱JUNE 26.—**London, W.C.**—WOOD PAVING WORKS, &C.—For the work of providing and laying creosoted deal blocks, new concrete foundation and repairs to existing foundation in various streets for the Metropolitan Borough of Holborn. Mr. E. F. Spurrell, Borough Surveyor, 197, High Holborn, W.C.

JUNE 27.—**South Westmorland.**—WATER WORKS.—(1) Supply of 686 tons of 6 in., 5 in., 4 in., and 3 in. cast-iron spigot and socket pipes, &c., and laying 13½ miles of pipes; (2) construction of Redhills Service Tank (30,000 gallons), at Arnside; Haverbrack Tank (95,000 gallons), near Sandside; Woodbank Tank (20,000 gallons), near Endmoor; and the erection of a filter house at Thompson Fold, near Lupton; (3) Construction of an impounding reservoir with earthen embankment (52 million gallons), and the driving of a drainage tunnel at Tarnhouse, &c., for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5.

JUNE 28.—**Lancashire.**—ROADS.—Construction of new road and two bridges between Clifton Marsh-road and Freckleton Village, for the C.C. County Surveyor, Preston.

JUNE 30.—**Abingdon.**—ROADS.—For construction of roads and sewers in connection with housing scheme extension for the T.C. Mr. R. V. Hall, Borough Engineer, Abingdon. Deposit £1 1s.

JUNE 30.—**Easthampstead.**—DRAINAGE.—For construction of main drainage system at Binfield, for the R.D.C. Messrs. H. Humphries & Sons, 28, Victoria-street, S.W. Deposit £3 3s.

★JUNE 30.—**London.**—PAVING.—For paving with wood, asphalte or natural rock asphalte on concrete, carriageways and footways, for the Streets Committee of the Corporation of London. The City Engineer, Guildhall, E.C.

★JUNE 30.—**London.**—PAVEMENT REPAIRS.—For repairs to the pavements of Blackwall and Rotherhithe Tunnels, for the L.C.C. The Chief Engineer of the Council, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

JULY 9.—**East Ham.**—TRAMWAY.—For reconstruction of the tramway and highway in High-street, North, Forest-drive, and Aldersbrook-road, for the T.C. Mr. J. Birch, Borough Engineer, Town Hall, East Ham. Deposit £2 2s.

Competitions.

(See Competition News, page 936.)

Auction Sales, Tenders, etc.

JUNE 16. — **Barnes, S.W.**— Messrs. Veryard & Yates will sell, without reserve, owing to completion of contract, at "The Field," Lonsdale-road, Barnes, useful building plant and materials. Auctioneers, 365, Norwood-road, S.E.27.

JUNE 16.— **Lincolnshire.**—Mr. Hobson Bateman is favoured with instructions from W. Dennis & Sons, Ltd. (in consequence of the removal of the timber branch of their business to Boston), at the Docks, Sutton Bridge, Lincolnshire, timber warehouse, the lease expiring on September 29, 1928, and the building will be sold for removal before that date. Vacant possession of the premises will be given on July 1, 1924. Auctioneer, Sutton Bridge.

JUNE 16 AND 17.—**Orpington, Kent.**—Messrs. W. Levens & Sons, F.A.I., will sell, at Aynscomb End Yard, High-street, Orpington, Kent, builders' plant and stock, contractors' portable offices, carpenters' shop in sections, and a large quantity of timber, ironmongery, and rainwater goods. Auctioneers, Station-approach, Orpington, Kent.

JUNE 16.— **Underriver.**—Messrs. J. T. Skelding & Co., will sell at Underriver, near Sevenoaks, nearly new ladder manufacturers' and woodworkers' plant and machinery, temporary timber buildings, &c. Auctioneers, 4, Gresham-street, Guildhall, E.C.2.

★JUNE 17 AND 18.—**Grimsby.**—Messrs. H. & L. Wood are favoured with instructions from the Receiver and Liquidator to sell *re* Markwell Holmes & Co., Ltd. (in voluntary liquidation), at Cromwell-road, Grimsby, the whole of the joiner's machinery, plant, building material, lorry and car, office furniture, &c., Auctioneers, 4, South Saint Mary's Gate, Grimsby.

★JUNE 17.—**London, N.1.**—Messrs. Charles R. Davis & Co. will sell, by order of the liquidators, builder's and contractors' plant, machinery, rolling stock and materials at No. 28, Barnsbury Park, Liverpool-road, at 12 o'clock. Auctioneers, 285, Borough High-street, S.E.1.

JUNE 17.—**London, S.E.18.**—Mr. F. H. Clark will sell without reserve, at the Boy's Hostels, Woodhurst-road, Plumstead, S.E.16, clearance sale of sectional buildings, timber, and building material accruing from the demolition of the above hostels. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18.

JUNE 17.—**London, S.W.**—Messrs. Veryard & Yates will sell, without reserve, removed for convenience of sale, at 255, Clapham-road, Stockwell, S.W., a large stock of nearly new timber, fittings and building materials (from demolition of aircraft buildings, Regent's Park). Auctioneers, 365, Norwood-road, S.E.27.

JUNE 18.—**London, E.C.**—Messrs. Humbert & Flint will sell, by order of the Receiver for the Note Holders, *re* National Diamond Factories (B.O.), Ltd., the magnificent freehold factory premises known as The National Diamond Factories (B.O.), Ltd., Lewes-road, Brighton, a block of three newly-erected buildings, steam heated, and lifts to every floor, the whole of the diamond working equipment, possession on completion, for sale in one or two lots, at the London Auction Mart, 155, Queen Victoria-street, E.C.4 (unless meanwhile sold privately). Auctioneers, 11, Serle-street, Lincoln's Inn, W.C.2.

JUNE 19.—**Essex.**—Messrs. Goddard & Smith will sell, at the Auction Hall, 22, King-street, St. James's, S.W.1, freehold building land frontages to main Romford-road and Whalebone-lane. Auctioneers, 22, King-street, St. James's, S.W.1.

★JUNE 19.—**Holloway, N.**—Messrs. Charles R. Davis & Co. will sell, by order of the Trustee, the stock-in-trade, plant and office furniture of a builder and shop-fitter at No. 200, Hornsey-road, at 12 o'clock. Auctioneers, 285, Borough High-street, S.E.1.

★JUNE 19.—**London, S.E.**—Messrs. Veryard & Yates will sell, without reserve (corner Camden-grove) useful building material (from demolition of "Talfourd House," Peckham-road). Auctioneers, 365, Norwood-road, S.E.27.

JUNE 24 AND 25.—**Middlesex.**—Mr. F. H. Clark will sell, at the National Filling Factory, Hayes, Middlesex, timber and building materials arising from the demolition of the above factory, in lots to suit all purchasers. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18.

★JUNE 24.—**Stonebridge Park.**—Messrs. H. W. Smith & Moon will sell, by order of Mr. J. E. Whiter, building plant and material, timber and shop-fittings, &c., at Mr. Herbert Boyer's yard, facing Stonebridge Park Station (Bakerloo Railway), at 12 o'clock. Auctioneers, 6, Great James-street, Bedford-row, W.C.1.

JUNE 25.—**Harrow Weald, Middlesex.**—Messrs. Sedgwick, Weall & Beck (incorporated with Rumball & Edwards) will sell in convenient lots, on the premises of "Brookshill," Harrow Weald, the freehold estate, comprising a family residence, farmery and land; also residence known as "Fairfield," and other building land. Auctioneers, 38, High-street, Watford.

JUNE 25, 26, AND 27.—**Letchworth, Herts.**—Mr. John Shilcock will sell joinery manufacturer's machinery, plant and tools, timber, &c., at Works-road, by direction of the Trustee. Auctioneer, Hitchin.

★JUNE 25.—**Newark, Notts.**—Messrs. Edward Bailey & Son will sell freehold factory, 15,880 super ft. floor space, adaptable for brewery, &c. Auctioneers, 7, Kirkgate, Newark.

JUNE 26. — **London, W.1.** — Messrs. Farebrother, Ellis & Co., will sell, with vacant possession, at the Mart, Queen Victoria-street, E.C., freehold building site of over quarter of an acre in an exceptionally convenient and central situation, between Drury-lane and Shaftesbury-avenue. Auctioneers, 29, Fleet-street, E.C.4, and 26, Dover-street, W.1.

★JUNE 27.—**Bicester, Oxon.**—Messrs. Paxton & Holiday will sell, at the King's Arms Hotel, Bicester, the Bicester Brick Yard, together with two enclosures of rich accommodation pasture land extending to an area of about 22 acres. Auctioneers, Bicester, Banbury and Chipping Norton.

JULY 8.—**Tunbridge Wells.**—Messrs. Hampton & Sons will sell, at the St. James's Estate Rooms, 20, St. James's-square, London, S.W., freehold property, Tunbridge Wells, in the premier position at the corner of important cross roads, comprising over one acre. Auctioneers, 20, St. James's-square, S.W.1.

★JULY 19.—**Bucks.**—Mr. G. Francis Duck will sell, unless previously disposed of, three wooded building sites, South Park, Gerrard's Cross, suitable for country residences. Freehold; main drainage. Auctioneers, Gerrard's Cross.

Public Appointments.

JUNE 17.—**Bermondsey, S.E.16.**—Sanitary Inspector required by the Borough of Bermondsey; must possess the Certificate of the Sanitary Inspectors' Examination Board. Mr. Fredk. Ryall, Town Clerk, Town Hall, Spa-road, S.E.16.

JUNE 18.—**Leicester.**—Two Architectural Assistants required by the City of Leicester. Mr. J. S. Fyfe, A.R.I.B.A., Housing Architect, Wyggeston House, Highcross-street, Leicester.

★JUNE 21.—**Bradford.**—Clerk of Works required by the Corporation of the City of Bradford. City Architect, Town Hall, Bradford.

★JUNE 21.—**Chelmsford.**—Architectural Assistants required in the office of the Borough Engineer and Surveyor by the Borough Council of Chelmsford. Mr. G. E. Barford, Town Clerk, Municipal Offices, Chelmsford.

JUNE 24.— **Lewes.** — Temporary Architectural Assistant required by the East Sussex C.C. The County Surveyor, County Hall, Lewes.

★JUNE 25.—**Stoke-on-Trent.**—Competent temporary Architectural Assistant required by the County Borough Council of Stoke-on-Trent. Mr. A. Burton, M.Inst.C.E., Borough Surveyor, Town Hall, Stoke-on-Trent.

★JUNE 30.—**Birmingham.**—Chief Architectural Assistant required by the City of Birmingham Education Committee. Mr. P. D. Innes, Chief Education Officer, Education Office, Margaret-street, Birmingham.

JUNE 30.—**Skipton.**—Architectural and General Assistant in the Engineer and Surveyor's Department of the Skipton U.D.C. Mr. A. E. W. Aldridge, Engineer and Surveyor to the Council, Town Hall, Skipton, with copies of three recent testimonials.

JULY 10. — **London, W.1.** — FORTHCOMING EXAMINATION.—Male cartographer in the Hydrographic Department of the Admiralty (19–25). The Secretary, Civil Service Commission, Burlington-gardens, London, W.1.

★NO DATE.—**Tanganyika.**—Inspector of Works required by the Government of Tanganyika for a tour of 20–30 months' continuous service, with possible extension. Crown Agents for the Colonies, 4, Millbank, Westminster, S.W.1, quoting M/12842.

Housing at Durham.

The annual meeting of the Durham and District branch of the National Council of Women was held recently at Durham. An increasing membership was reported by the President, Miss M. L. Stafford Smith. Miss Smith said she could not speak too highly of the enterprise, which they hoped would have a real achievement, on the part of the branch to do something definite to improve the housing conditions in Durham. They did what they thought wisest, however, in calling together others of experience to join with them.

PROPOSED NEW BUILDINGS & OTHER WORKS

IN these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; B.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABERDEEN.—Plans passed by T.C.: Bungalow, Anderson-drive, for Messrs. Brown & Watt, architects; house, Rubislaw Den South, for Mr. Charles H. Rankin; bungalow, Westburn-drive, for Mr. William Ewen; Messrs. Williamson & Bell, architects; bungalow, Broomhill-road, for Mr. Henry G. Stephen, per Messrs. D. & J. R. M'Millan, architects.——The water supply at Woodside is to be improved at an estimated cost of £4,100.

ALDERLEY EDGE.—A plan has been approved for reconstruction of steps leading to Messrs. Rosan Ltd., which will enable the Council to carry out a scheme for the general widening of the corner.

ALTRINCHAM.—The surveyor has been instructed to prepare plans for the erection of 100 houses for the T.C.

BELPER.—Plans passed by U.D.C.: Houses, Mar-lane, for W. Peat.

BERWICK.—Plans passed by T.C.: Cottage, Spring-hill, by and for Mr. J. E. Carr.

BIRKENHEAD.—To provide work for the unemployed the T.C. propose to erect a new garage with requisite machinery at the Sanitary Committees Central Depot, £12,500; road improvements, £84,658; for renewal and reconstruction of tramway track, £53,042; for renewal of water mains, £3,000; for cleaning, painting and redecorating Police and Sessions Court, £430.

BIRMINGHAM.—It is proposed to erect a Lady Chapel and a Lourdes Chapel at St. Francis R.C. Church, Handsworth, estimated to cost about £1,400.

BIRSTALL.—Plans passed: House in Bradford-road for Mr. Gledstone Park; two houses in Cambridge-road for Mr. C. W. Ward.

BIRTLE.—The R.D.C. have agreed to erect two public conveniences in the district of Bamford.

BLACKPOOL.—Ninety-nine plans for 170 houses were submitted to the Building Plans Committee proposed to be erected as follows: W. Seed, four houses, Laurel-avenue and Fir-grove; Mrs. W. Stott, bungalow, Norbreck-road; Mrs. E. M. Brammer, two houses, Ayesbury-avenue; J. Sullivan, house and shop, Hawkes Side-lane; W. Sykes, two bungalows, St. Walburg's-road; W. Flint, two houses, Aylesbury-avenue; G. Woodhead, 19 houses; J. Aldred, bungalow, Norbreck-road; J. W. Docking, bungalow, Mr. Ainscough, bungalow; Sir L. Parkinson, Ltd., two houses, St. George's-avenue; H. J. Johnson, eight houses, Rangeway; G. Hodgson, two houses, Cleaton-avenue; W. Tasker, two houses, St. Walburga's-road; E. Wright, four houses, off Mather street; G. A. S. Graham, two houses, Chistlehurst-avenue; A. Aunty, four houses, Westfield-road; T. Bowker, eight houses, Hornciffe-road; F. Undsworth, two houses, Rosebery-avenue; Mrs. M. Salisbury, two houses, Northumberland-avenue; J. Hill, seven houses, Watson's-lane; Dickinson & Barnes, two houses, Gosforth-road; A. Ingham, nine houses, Central-drive; H. Campbell, bungalow, Fleetwood-road; W. H. Bradshaw, 14 houses, Queen Victoria road; Armitage & Midegley, three houses, Frederic road; J. D. Williams, two bungalows, Salisbury-road; L. Marsden, three bungalows, Highfield-avenue and Abbey-road.

BOLTON.—The Deane Conservative Association have secured a site for the proposed erection of new club premises.——Plans passed by T.C.: A. Coward, six houses, Fairmount-avenue; Ernest Howarth, three houses, Bradford-road; G. & S. Street, two houses, St. Michael-avenue; A. S. Woods, two houses, Rydal-road; A. S. Woods, 12 houses, Rowsley-avenue; John Horrocks, two houses, Chorley Old-road; Mr. L. Garstang, house, Withins-lane; Thomas Blakley, two houses, new road off Lever Edge-lane; Bolton Modern Building Co., two houses, Bradford-road; T. Dandy, house, Bury-road; Rumworth & Hulton Labour Club, alteration to premises, Adelaide-street; Lady Beaumont, lay-out plan, off Wigan-road; Lot Bradford, new street and levels, Higher Swan-lane; W. F. Lowe, house, Parkside-street; Thomas Blakley, two houses, Lever Edge-lane; Bank of Liverpool Martins, Ltd., new bank premises, Deansgate and Crown-street.

BOURNEMOUTH.—Plans passed by the T.C.: Two houses, Ensbury Park and Vicarage roads, Mr. T. Fry; house, garage and store, Ensbury Park and Vicarage roads, Mr. T. Fry; house, Bushey-road. Mrs. J. Squires; house, 69, Highfield-road, Mr. Widdicombe; house, King Edward-avenue, Mr. A. G. Cobb; house, Grand-avenue, Mr. A. Moody; house, College-road, Messrs. J. Drewitt & Son; house, Highfield-road, Mr. A. E. Baker; additions, "St. Moritz," corner of Christ church and Boscombe Spa roads, Miss K. H. Barnes; five houses, Stamford-road, Messrs. H. B. Mudge & Son; conversion into flats, "Goodhope," Surrey-road, Mr. E. Bishop; three lock-up garages, rear of 67 Shelley-road, Mr. F. E. Brooks; house, Crabtree Close-road, Messrs. Midgley & Hardy, Ltd.; house, Crabton Close-road, Mr. H. R. Collins; house, Albert

* See also our List of Contracts, Competitions, etc.

d, Mr. C. H. Belbin; five houses, 35–39, De
l, Mr. A. A'Court Simmonds; house, Queen
enue, Mr. F. Richards; two houses, Horsa-
. G. Witt; house, Lonsdale-road, Mr. Morse;
rving-road, Mr. E. Wood; house, corner
iew and Glenmoor roads, Mr. A. Barnes;
East-avenue, Mr. A. Barnes; house and
unkeld-road, Mr. S. M. Davis, Junr.; house,
's-road, Mr. A. Barnes; bungalow, Delhi-
. R. Barre; two houses, Stamford-road, Mr.
; house and garage, Dingle-road, Mr. R. J. M.
houses and garage, Ravine-road, Mr.
. Nabney; two flats, corner of Green and
roads, Mrs. I. Pawsey; four houses, Musclid-
stor W. O. Hutchinson; house, De Lisle-road,
k; two houses, Pickford-road, Mr. G. G. Mapp;
es. Pickford-road, Mrs. R. Rosenberg; house,
-road, Mrs. Aish; house, Hengistbury-road,
Harrison; house, corner of Iddesleigh and
od-roads, Mr. J. W. Davis; house, Southill-
. W. P. Rogers; bungalow, Westfield-road,
H. Potter; house, Heatherlea-road, Mr. F.
house, rear of 33; Tower-road, Mrs. Legg;
, Delhi-road, Mr. C. T. Morgan; house,
road, Mr. P. Illingworth; house, The Avenue,
H. Ellison, Son & Dale; house and garage,
Arnewood and Boreham roads, Mr. H. Hook;
t. Ledger's-road, Mr. W. F. Alner; house,
-road, Mr. I. L. Smith.

TSFORD.—Plans passed by T.C.: House,
road, for the Misses Malyon; house, Galley-
ad, for Mr. H. J. Bover; pair of houses,
-avenue, for Messrs. W. Fincham & Son;
, Galleywood-road, for Miss Shrive; house,
-road, for Mr. E. E. Beckett.

RN BAY.—Plans passed by U.D.C.: Six
Howard-road, for Messrs. Kelly & Spencer and
villa, Dale-street, for Mrs. Emily Hewitt;
Brynbia-road, for Mr. J. H. Fletcher; house,
rmes-road, for Mr. D. Davies; house, Morfa-
Mr. Howarth; and a house, Vicarage-road, for
. Barber.

ASTER.—The Estates Surveyor to the T.C. has
tructed to prepare sketch plans and estimates
roposed new swimming bath project.

EY.—Plans passed by the T.C.: Mr. H. P.
use, Halesowen-road, Netherton; Messrs. J.
n and J. Hughes, four houses, Blackacre-road;
sty, two lock-up shops, Dixon's Green; Mr.
house, Himley-avenue; Mr. J. W. Thompson,
houses, Dudley Wood, Netherton; Scrim
turing Co., Cotton weaving factory, Dibdale-

UTH.—The U.D.C. has accepted a site from
nton on which to erect 16 cottages, and has
to buy land sufficient for 200 houses.

LEY.—Plans passed: Conversion of Redroyd
to two cottages, for E. A. G. Wilson.

NG.—The Architect to the E.C. has been
d to prepare plans for the erection of a new
pon a site behind St. Mary's-terrace.

NG (GATESHEAD).—The E.C. proposes to erect a
tral school, the suggested site being at the west
adway in rear of St. Mary's-terrace.

BOROUGH.—Plans passed: 16 houses in
reet, for the U.D.C.

EAD.—The R.D.C. has passed plans for a house
galow in Sible Hedingham, for Mr. A. F. Gibson.

URY.—Plans passed: House in Ossett-road
J. Taylor, and pavilion in Westfield-road, for
.C. Trustees.

D.—Plans passed by U.D.C.:—A. P. Griggs, 16
34–64, St. George's-road; W. J. Hobbs, house,
nce-avenue; J. A. Dartnall, proposed billiard
2. High-road; F. W. Coy, 12 houses, Cecil-
High-road; Bellamy & Lemon, four houses,
ce-terrace, Fencepiece-road; Chesterton &
houses, 15–45, Cameron-road; P. E. Brand,
es, Chaucer-gardens, Beehive-lane; R. Stroud,
d and sewers, Beddington-road; Rawlins,
Co., new road and sewers, Talbot-gardens;
wis, social club and institute at 61, Ilford-lane;
e & Co., two houses, 104–106, The Drive;
le Development Syndicate, seven houses, 122–
k-road; W. Redout, bungalow, Pretoria-road.

TON.—Plans passed by the T.C.: House,
ugh-avenue, for Mr. F. S. Harrison; house,
oad, for Mr. L. H. Watson; house, Charlotte-
for Mr. G. Riley; house, Bright-street, for
Webster; house, Cotmanhay-road, for Mrs. F.
; house, Cotmanhay-road, for Mrs. G. Wing;
ses, Hobson-drive, for Mr. E. Cobb; house,
tion-road, for Mr. Thos. Wall.

ILEY.—Plans passed by R.D.C.: Lay-out of
Sutton, for Sir J. Donald Horsfall; house at
e. Sutton, for Mr. W. Pickles.

TINGLEY.—Plans passed: House at Womer-
l, for Mr. J. Drinkwater.

POOL.—The Corporation Housing Committee
ted a scheme for the erection of 6,000 houses on
Walton over one square mile in extent, at an
d cost of between £3,000,000 and £4,000,000.

ON (BERMONDSEY).—Plans passed by B.C.:
se, Shad Thames Wharf, for Mr. J. R. Pace
. C. Nightingale, architect); additions to
actory, 365, Southwark Park-road, for Messrs.
arner & Sons.

HESTER.—The E.C. proposes an expenditure of
n structural alterations at Varna-street School;
£2,000 for improvements at the Emery-street
which was erected by the School Board over
rs ago.

LEY.—Plans passed:—House for Mr. H. Bell,
ltry farm for Mr. H. Green, at Low Green-

ESBROUGH.—The B.C. are to erect 30 houses
r labour at an estimated cost of £11,740.
ilders are to erect non-parlour type houses at
h for sale to the Council, and 104 sites have
ated for these.

ASTLE.—The City Council has authorised the
f improvement schemes amounting to £95,000
tion with slum clearance for Liverpool-street
dhoe-street, and has approved of plans and estimates for the work. The number of houses to be acquired is 79.

NORTHAMPTON.—The B.S. has prepared plans for lavatory accommodation in Wellingborough-road, at an estimated cost of £1,575.—Tenders are being invited for the re-decoration of the large hall of the Guildhall.—The Central Building, Wychurch-lane, is to be adapted as a welfare centre.—Application is to be made to the M.H. for approval for a further sixty houses.—The B.S. has prepared a scheme for a storm water sewer east of the sewage works, at an estimated cost of £860.—The B.S. has been asked to prepare plans for district slipper baths.—Application is being made for a loan of £6,420 for road development on the Harborough-road housing site.

NORTHFLEET.—The U.D.C. is considering estimates prepared by the Surveyor of cost of constructing a public landing stage at two different sites.—Consideration has been adjourned of a proposal to sell the old Council offices and erect a new Council chamber.

OLDHAM.—Plans passed by T.C.: J. T. Sim, house, Meadow-lane, Hollins Green; Oldham Building Co., five pairs semi-detached houses, York-avenue; W. Makin, cottage, Meadow-lane, Hollins Green; A. Kershaw, three houses, Melling-road.—Subsidies voted: Oldham Building Co., ten houses, York-avenue; W. Makin, one, Meadow-lane, Hollins Green; T. C. Lees, six, Keble-avenue; M. Nield, three, Langham-road.—The B.S. has been asked to prepare estimates for inverting the bed of the stream at Bower Clough, for three miles of concrete surfacing, for widening Ripponden-road, and reconstructing Shalver-lane.

PLYMOUTH.—Plans passed by T.C.: M. M. Hart, bungalow, Lower Compton-road; Flemen Bros., six houses, Home Park-avenue; W. H. Damerell, five garages, Elm-road; J. Brook, bungalow, Wolseley-road, St. Budeaux; F. W. Packen, two houses, New-road, Swilly; E. O. Nicholls, house, Mutley Park-road; S. Sutton, two houses, Lyndhurst-road; H. Matthews & Son, Ltd., bakehouse and flour store, 5, High-street.—Sanction is being sought for a loan of £6,252 for the purchase and adaptation of Hartley House as a school for the deaf and the blind.—The T.C. has obtained sanction to a loan of £3,000 for the construction of a subway at the Ford, and tenders are being invited for the work.—The G.W.R. has decided to purchase from the T.C. 7¾ acres at Beechfield for the provision of houses by Public Utility Society.—The Joint Committee reports that it is desirable to provide office accommodation on the Guildhall site in connection with the various departments of the Corporation with the exception of the following, viz., Tramways, Gas, Electricity and Street Lighting, Markets, Free Library and Museum. It has referred the matter to the Land Committee to prepare a scheme.

PONTEFRACT.—Plans passed: House in Halfpenny-lane, for Mr. Briscoe; roads in Halfpenny-lane for Mr. B. Hartley's exors.; house at Toll Hill, Glasshoughton, for Mr. G. H. Barnard; house in Old Sheepwalks-lane, for Mr. A. Dawber.

PRESTON.—The Corporation are to invite tenders immediately for the erection of fifty houses, on Corporation land between the arterial road and Miller-road.

ROCHDALE.—The B.G. are to invite tenders for painting work required at Marland Isolation Hospital and Wolstenholme Hall Sanatorium.

SALFORD.—Plans passed by T.C.: Four houses, Irwell-place, Salford.

SELBY.—Plan passed by U.D.C.: Bungalow, Green-lane, for Mr. Sambrook.—Proposals are under consideration for the reconstruction of the Stone Bridge.—Twelve houses are to be erected by the U.D.C.

SMETHWICK.—The T.C. has sold a site at Manor-road to Messrs. Mitchells & Butlers, Ltd., for the erection of an off-licence.—Plans passed: Four houses, Holly-lane, for Messrs. Strong Bros.; alterations to works, Lewisham-road, for Messrs. Evered & Co., Ltd.—The Rolfe Bridge is to be reconstructed.

SOUTHPORT.—The Southport E.C. have applied to the M.H. for sanction to borrow £91,700 for a boys' secondary school.

SOUTHPORT.—The T.C. are making application for sanction to borrow £7,000 for the development of Victoria Park entrance and the southern end of Promenade. The wall is to be put back to the corner of Rotten-row.

SPENBOROUGH.—Plans passed: House at Westfield-road, Cleckheaton; house in Child-lane, and four houses in Child-lane, Liversedge; offices &c., at Exchange-street, for Messrs. C. Hirst & Sons, Ltd.

STAINLAND.—The Surveyor to the U.D.C. has prepared a scheme for dealing with the sewage at an estimated cost of £880 6s.

STOCKTON.—The T.C. has passed plans submitted by the E.C. for the erection of an open-air school at Norton for 120 children. The cost of the building, exclusive of land, will be £10,340.—The Housing Committee announce that when the present contract for 100 houses is completed, it is proposed to erect another 100, on the Norton Blue Hall Estate.

STRETFORD.—Plans passed by T.C.: Sewering, &c., Avondale-road and Burleigh-street extension, for the De Trafford Estates; sewering, Halvis-grove, Rye Bank-road, for Messrs. Halliday & Davies; two houses, Halvis-grove, for Messrs. Halliday & Davies; three houses, Brooks-road, for Mr. Henry Kirby; 10 houses, Ollerton-avenue, for the Artistic Housing Co., Ltd.; eight houses, King's-road, for Messrs. Winders & Tindale; two houses, St. John's-road, for Mr. Thomas Hames; 24 houses, Avondale-road, for Mr. George A. Russell.

THURNSCOE.—The Miners' Welfare Scheme will shortly be commenced; it comprises a new swimming bath to be erected on a site off Lidgett-lane and Clayton-lane. A grant of £5,000 has been made from the Central Fund of the Miners' Welfare Scheme.

TORQUAY.—Plans passed by T.C.: House, Teignmouth-road, for Mrs. Webb; bungalow, Ridgway-road, for Mrs. Rundle; house, Westhill-lane, for Mr. R. Beynon; four houses, St. Margaret's-avenue, for Messrs. Horrell, Zaple, England & Read; house, Barton-road, for Mr. W. R. Richardson; two houses, St. Margaret's-avenue, for Messrs. Farr & Came; shop, Tor Hill-road, for Messrs. Gilley, Ltd.; two houses, Ellacombe Church-road, for Mr. H. T. Cruse; two houses, Coombe-lane, for Messrs. Babbage & Hall; three houses, Hartop-road, for Messrs. Humphreys, Hine & King; two houses, Castle-road, for Mr. H. J. T. Cruse; house, Higher Warberry-road, for Mr. P. Hodder; bungalow, Teignmouth-road, for Messrs. Lax & Sons; houses and shops, Belmont and Carlton-roads, for Torquay Co-operative Society, Ltd.; house, Oxlea-road, for Mr. G. Hunt; two houses, Old Wood's-hill, for Mr. Stoneman; house, Lincombe-drive, for Mrs. Moore; two bungalows, Teignmouth-road, for Mr. Mogridge; house, Teignmouth-road, for Mr. A. B. Costabadie.

UXBRIDGE.—Plans passed by U.D.C.: Bungalow, Press-road, for Mr. Ferris; offices, Hillingdon-road, for Messrs. Lowe & Shawyer; house, Fairfield-road, for Mr. G. C. Gumbrell.

WAKEFIELD.—Plans passed by R.D.C.: Four houses at Blacker-lane, Shitlington, for the Flockton Coal Co; house in Duckar-lane, Crigglestone, for Mr. S. Batley; slaughter-house, stables, &c., off Low Town, Walton, for Mr. W. B. Spurr.

WARRINGTON.—Plans recommended by T.C.: Extension to wet hair store in works area, Old Thelwall-lane, for Pierpoint & Bryant, Ltd.—Plans passed: Four houses, Orford-road, for Bramhall Bros.; house, Hewitt-street, for Executors of Mr. J. Lunt; roof to boiler house, Dixon-street, for Broadhurst & Sons.—The Improvement Committee cannot agree to a proposal of the Firth Co., Ltd., for the diversion of Nora-street to enable them to make provision for certain extensions required at their works.—The Borough Surveyor has been asked to report as to the provision of a garage for electric vehicles.—The Borough Surveyor was instructed to report upon the possibility of the erection of firemen's dwellings on Cambria-place, and the Housing Committee was requested to consider the possibility of now undertaking the erection of these dwellings.—The Council has considered a scheme for facilitating the erection of houses, and to ascertain the likelihood of support decided that tenders be invited for the erection of rows of four, six, eight or ten dwelling houses or multiples thereof of Type A, up to a total of 50.—Application is to be made to the M.H. for permission to complete the Reynolds-street site by obtaining tenders for the erection of a further 54 houses.

WATFORD.—Plans passed by T.C.: House, Bucks-avenue, for Mr. A. Broadhead; house and garage, Oxhey-road, for Mr. J. Crotty; garage with dwelling over, in road off Clarendon-road, for Mr. F. Fisher; house, Green-lane, for Mr. W. Kerr; two houses, King George's-avenue, for Messrs. Wakefield & Humphreys.——The Borough Surveyor has been instructed to prepare plans for 20 houses on the Gammons lane site.—The B.G. is negotiating for a site for children's homes.—Messrs. Fayers & Fayers have lodged plans with the T.C. with regard to the development of the Oxhey Estate.—Plans passed: pair of houses, Gammons-lane, for Messrs. Flock and Miller; house, Pinner-road, for Mr. G. G. Smith; house, Oxhey-road, for Mr. W. Welsh; two houses, Oxhey-road, for Messrs. Fulks & Barrett; house, Bushey Mill-lane, for Mr. W. J. Winters; house, Pinner-road, for Mr. P. H. Clark; house, Green-lane, for Mr. F. Robson; house, Bushey Mill-lane, for Mr. E. J. S. Goss; house, Bucks-avenue, for Mr. C. S. Knowles; two houses and shops, St. Albans-road, for Watford Ideal Homes, Ltd.; two houses, Bushey Mill-lane, for Mr. C. Artes; two houses, King George's-avenue, for Mr. J. H. Bullard and Mr. F. Levin; house, Bucks-avenue, for Mr. A. Broadhead; house, Oxhey-road, for Mr. J. Crotty; house, Green-lane, for Mr. W. Kerr; two houses, King George's-avenue, for Messrs. Wakefield & Humphreys; lay-out plans and sections of new roads and sewers, Cassiobury Estate, for Messrs. Brightman & Pleasants.—The T.C. has a scheme for 20 houses to be erected at Leggat's-lane.—The Borough Surveyor has prepared plans for a house near the waterworks, for the Superintendent, at a cost of £900.—Water mains are to be laid in new estates at a cost of £2,653.—The Borough Surveyor has been asked to prepare plans of two sites at St. Albans–Hempstead road corner for various municipal buildings.

WHITBY.—Plans passed: Warehouse in Cliffe-street, for Mr. Calvert, from plans by Mr. G. S. French; house on Ruswarp Hall Estate, for Mr. Atkins, from plans by Mr. A. E. Young.

WIMBLEDON.—The Electricity Committee recommends alterations at the generating station, at a cost of £1,000.—Plans passed: House, St. Mary's-road, for Messrs. Hudson Bros. (Builders), Ltd.; nine houses, Cambridge-road, for Messrs. H. Wakeford & Sons; two houses, Worple-road, for Mr. S. Derwent; two houses, Worple-road, for Messrs. H. Coombs & Sons; house, Montana-road, for Messrs. W. H. Whitehead & Co.—The Housing Committee suggests the purchase of a site in South Wimbledon for the erection of 20 houses.—The T.C. has now obtained the views of different committees as to the accommodation which will be required in the proposed new Town Hall.—Plans passed: Mr. C. H. King, house in Arterberry-road; Messrs. W. H. Whitehead & Co., house on north-east side of Mount Ararat; Mr. A. W. Kenyon, house in Cottenham Park-road; Mr. W. L. Walker, house on north side of Cottenham Park-road; Messrs. Wendon Bros., house and garage on east side of Durrington Park-road; Messrs. Whitehead Bros., extension to No. 14, The Broadway; Mr. R. J. Thomson, house in St. Mary's-road; Mr. E. S. Underwood, house in Parkside-gardens.

YORK.—Plans passed by T.C.: G. H. Pegg & Son, two houses, Bishopthorpe-road; H. De Burgh, two houses, Stockton-lane; Holmes & Ezart, two houses, Clifton; W. Dobbie, house, Hobgate; H. Colman & Sons, two houses, Hobgate; W. Todd, bungalow, Hobgate; J. Middleton, bungalow, Hobgate.

FIRE.

GLASGOW.—The Clyde Engine Works of Messrs. James Bennie & Co., Govan, has been damaged by fire to the extent of £70,000.

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick :—			
2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends	31 10 0
Headers	21 10 0	Two Sides and one End	32 10 0
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Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
⅜ in. Shingle for Ferro-Concrete	14 0	" "
½ in. "	15 0	" "
⅜ in. Broken Brick "	10 6	" "
Pan Breeze	7 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 3 6	
51/- alongside at Vauxhall in 80-ton lots.	
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5
White basebed, 3d. per ft. cube extra.	

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube.	Per ft. cube	7/-
Random blocks from 10 ft. and over	"	17/-
Sawn two sides	"	27/-
Sawn three or four sides	"	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto, "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3

HARD YORK—

Delivered at any Goods Station London.

	s. d.
Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
3 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded " "	7 9
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WOOD.

GOOD BUILDING DEAL.

Inches	per stan.	Inches	per stan.
4 × 11	£34 0	3 × 6	£24 10
4 × 9	32 0	3 × 11	30 0
4 × 8	26 0	2 × 11	30 0
4 × 7	26 0	3 × 9	26 0
3 × 8	25 10	2½ × 9	27 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	24 0	3 × 4	24 10

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£37 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	24/-	1½	37/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/-

MATCHINGS (BEST).

Inches	per sq.
⅝	17/6
¾	21/-
1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 8
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
⅜ in. do. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt.	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Hip and valley tiles (per dozen) Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅜ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2⅜ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	50 %	50 %	60 %
Water	45 %	45 %	55 %
Steam	40 %	40 %	50 %
Galv'd—			
Gas	35 %	40 %	50 %
Water	22½ %	35 %	45 %
Steam	22½ %	30 %	40 %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1¼	11d.	3½d.
3½ in.	1/2⅜	1/0⅜	3½d.
4 in.	1/4	1/1⅜	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7⅜	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2⅜	3½d.
3½ in.	1/6½	1/2⅜	3½d.
4 in.	1/7⅜	1/4	3½d.
4½ in.	1/9⅛	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1⅜	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5⅜
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches, stock angles.
	s. d.	s. d.	s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5⅜	3 3⅜
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3⅜	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe.	Bends, stock angles.	Branches stock angles.
	s. d.	s. d.	s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	"	15 10 0
Staffordshire "Marked Bars"	17 0 0	"	18 0 0
Mild Steel Bars	12 10 0	"	13 10 0

METALS (*Continued*).

	£ s. d.		£
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	1
Hoop iron, basis price	16 10 0	..	1
" Galvanised	31 0 0	..	3
Soft Steel Sheets, Black—			
Ordinary sizes to 20 g.	15 0 0	..	1
" " 24 g.	16 0 0	..	1
" " 26 g.	18 0 0	..	1
Sheets Flat Best Soft Steel, C.R. & C.A. quality			
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	2
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	2
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	2
Flat and Galvanised Corrugated Sheets—			
Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	2
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	2
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	2
Sheets Galvanised Flat, Best quality—			
Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	2
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	2
Best Soft Steel Sheets, 26 g.	26 0 0	..	2
Cut Nails, 3in. to 6 in.	20 10 0	..	2

(under 3in. usual trade extras.)

METAL WINDOWS—Standard sizes suitable for plete houses, including all fittings, paintin coats, and delivery to job, average price abo to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£
LEAD—Sheet, English, 4 lb. and up	41
Pipe in coils	42
Soil Pipe	45
Compo pipe	48

NOTE—Country delivery, 30s. per ton extra: lots 3 cwt., 2s. per cwt. extra and over 3cwt. and u cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt.

Old lead, ex London area, at Mills ... per ton	28 10 0	..
Do., ex country, carriage forward ... per ton	29 10 0	..

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCK IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per

NEW RIVER PATTERN SCREW DOWN STOP COCK UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per

NEW RIVER PATTERN SCREW DOWN MAIN FERR

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1½ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per do

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per do

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEA SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per
8 lbs. S. traps	35/-	45/-	66/-	126/-

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	..
Thin " "	0 2 4	..
Copper nails "	0 2 3	..
Copper wire "	0 2 4	..
TIN—English Ingots "	0 2 2	..
SOLDER—Plumbers' "	0 1 0	..
Tinmen's "	0 1 2	..
Blowpipe "	0 1 4	..

PAINTS, &c.

	£
Raw Linseed Oil, in pipes per gallon	0
" " " in barrels "	0
" " " in drums "	0
Boiled " " in barrels "	0
" " " in drums "	0
Turpentine in barrels "	0
" in drums (10 gall.) "	0
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57
GENUINE WHITE LEAD PAINT— "Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered	80
Red Lead, Dry (packages extra) per ton	53
Best Linseed Oil Putty per cwt.	0 1
Filocol per cwt.	0 1
Size. XD Quality fkn.	0

[*Concluded on next page.*]

* The information given on this page has been spe compiled for THE BUILDER and is copyright. Our ai this list is to give, as far as possible, the *average* of materials, not necessarily the highest or lowest. Qu and quantity obviously affect prices—a fact which s be remembered by those who make use of this informa

S CURRENT OF MATERIALS (*contd.*)

GLASS.

SH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
ourths ..	3½d.	32 oz. fourths	8½d.
hirds	4½d.	32 „ thirds	10½d.
ourths ..	5½d.	Obscured Sheet, 15 oz.	4d.
hirds	6½d.	„ „ 21 „	5½d.
ourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
hirds	8d.	En'lled 15oz. 5½d., 21 oz	7½d.

rice according to size and substance for squares rom stock.

SH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
led plate	4½d.
gh rolled	5½d.
gh rolled	5½d.
ired Rolled, Oxford Rolled, Baltic, Oceanic, rctic, Stippolyte, and small and large lemish white	6½d.
Ditto, tinted	9d.
led Sheet	6d.
ite Rolled Cathedral	5½d.
ted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
arnish	Outside	0 14 0
itto	ditto	0 16 0
opal	ditto	0 18 0
opal	ditto	1 0 0
opal Carriage	ditto	1 4 0
Ditto	ditto	1 12 0
Varnish	Inside	0 18 0
ale Paper	ditto	0 18 0
opal Cabinet	ditto	1 2 6
opal Flatting	ditto	1 0 6
Drying Oak.....	ditto	0 18 0
lard Drying Oak	ditto	0 19 0
opal Varnish	ditto	1 0 0
ditto	ditto	1 2 0
ditto	ditto	1 12 0
Japan Gold Size		0 10 0
Black Japan		0 10 6
nd Mahogany Stain (water).....		0 12 0
wick Black.....		0 7 6
Black		0 14 6
ing (patent)		1 5 0
and Brush Polish		0 17 0
Dryers in Terebine.....		0 9 0
s Black Enamel.....		0 7 0

Fire at Govan.

rge part of the premises of Messrs. James e & Sons, Ltd., Clyde Engine Works, oyne-road, Govan, was destroyed recently e. The damage done by the fire is esti- l at £70,000.

THE SCOTTISH BUILDER

SHORTAGE OF HOUSES

THE Executive Committee of the Association of District Committees in Scotland, at the request of the Scottish Board of Health, appointed their chairman and secretary to attend a meeting of representatives of English and Scottish local government organisations with the Minister of Health and the Secretary for Scotland in connection with the proposed new policy of State-aided housing, The meeting took place on April 25 last, when a statement was made by the Minister of Health, in which he suggested that the representatives of the local authorities should appoint a Committee to consider the question of the financial assistance which the local authorities would require in connection with any new State-aided scheme that might be evolved by the Government. It was agreed to appoint such a Committee, and the chairman and the secretary of the Association were nominated as members.

The Scottish representatives on the Committee held a meeting recently and, after going into the whole matter, including a consideration of the report which had been issued by the National Housebuilding Committee set up at the request of the Government, arrived at the following resolutions :—

1. That this meeting welcomes the steps taken by the Government to bring the building trades and manufacturers of building materials into a sympathetic interest in the housing shortage.

2. That this Committee, while appreciating the need for suitable machinery being set up to insure an adequate supply of building labour and building material for the provision of the houses required, and while welcoming any assistance that can be given to them by representatives of the building industry towards a solution of the housing problem, strongly represents that all the rights and powers of local authorities under the Housing Acts must be reserved to the local authorities.

3. That the subsidy to be given by the Government should be two-thirds of the annual deficit, the local authority having the right to fix the rents, and that no greater State control should be exercised than that which now obtains in connection with the slum improvement schemes.

4. That the Government be asked to insert in any Housing Bill to be placed before Parliament a clause to the effect that, notwithstanding the standard minimum size of the house in the Bill, the Scottish Board of Health, in special cases, should have the power, on representation from any local authority, to reduce that standard.

Further conferences, it is reported, have taken place with the English representatives and with the Minister of Health and representatives of the Scottish Board of Health, as a result of which the Minister has indicated what has been generally regarded as a favourable proposal, so far as local authorities are concerned, which provides for the liability of the local authorities being limited to a reasonable amount. A special effort is being made to secure, in view of differing conditions, special consideration for Scotland as compared with England, and also for the rural and less favourably placed areas whose burdens even under the improved terms proposed would be excessive.

NEW BUILDINGS IN SCOTLAND

Aberdeen.—HOUSES.—Plans passed for four houses to cost £5,300, and alterations to existing property to the value of £4,025.

Beith.—HOUSES.—The Northern District Committee of Ayrshire C.C. has accepted tenders for the erection of three blocks of houses in flats, amounting in all to £4,276.

Torry.—SCHOOL.—The Aberdeen E.C. has been recommended to erect a new school.

Waterside.—SCHOOL.—The Ayrshire E.C. has instructed the clerk of works to report on the cost of remodelling the school at Waterside.

Stirling.—BANK.—The Town Clerk has been asked to report on a proposal to institute a municipal bank at Stirling.

Stevenson.—HOUSES.—The Northern District Committee of the Ayrshire C.C. has accepted tenders for building 10 blocks of flatted houses. The extent of the tenders is £12,541.

Govan.—HOUSES.—The Glasgow Dean of Guild Court has passed plans for houses at Whitefield-road, Ibrox-street and Gilmour-street, Govan, for the Glasgow Corporation Housing Department. The estimated cost is £42,350.

Dalry.—FLATS.—The Northern District Committee of the C.C. of Ayrshire has accepted tenders amounting to £4,282 for the erection of three blocks of houses in flats.

Portsoy.—EXTENSIONS.—The Campbell Hospital Board adopted plans for the extension of the Infectious Diseases Hospital, at an estimated cost of £1,500.

Lethanhill.—SCHOOL.—The Ayrshire E.C. has decided to build a new school at Lethanhill of the semi-permanent type.

Paisley.—HOSPITAL.—Tenders have been accepted for extensions at the Royal Victoria Eye Infirmary, amounting to nearly £5,000. The furnishings and fittings will bring the total expenditure to almost £7,000.

Arbroath.—HALL.—The District Committee has approved of plans for a new hall to be erected at St. Vigeans.

Inchcolm.

The twelfth-century monastic buildings on Inchcolm have been taken over by the Ancient Monuments Department of H. M. Office of Works, and are now accessible to the public. A party was recently taken to Inchcolm by Councillor Thomson, manager of the Scottish Motor Traction Company. The company included Mr. R. Beveridge, Mr. D. Lyon, Mr. J. G. M'Callum, Mr. J. Inglis Ker, and Mr. J. Wilson Paterson, A.R.I.B.A., architect in Scotland to H.M. Office of Works, who took the party over the Abbey and explained the scheme which the Board intend to carry out.

UILDING TRADE WAGES IN SCOTLAND.*

: following are the present rates of wages in the building trade in the principal towns of nd. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors may occur :—

	Mason..	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Labourers.	Masons' Plasterers' Labourers.
een	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
e	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
odria.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
uth.....	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
ate.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
owrie.....	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
ss	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
ridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
arton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
ries.....	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
ee	1/7½	1/7½	1/7½	1/5	1/7	1/7	1/6½	1/2½	
rmline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
urgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
k	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2	
William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6	1/1½	
niels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/2½	
ow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/0 to 1/2½	
ock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/2½	
ton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2	
k	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2½	
sburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	10½d to 1/2½	
ness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	1/2½	
rnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
ldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/0	
all	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/2½	
k	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
rwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
.....	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
g	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
gshire(Eastern rict)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
w	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	

he information given in this table is copyright. The rates of wages in the various towns in England and are given on page 961.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2 : 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.
Deal wrot moulded and rebated	per foot cube	14

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/
Deal shelves and bearers	"	1/5	1/7	1/
Add if cross tongued	"	2d.	2d.	2

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.
Housings for steps and risers	each	0
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0
Mahogany handrail; average 3 in. × 3 in.	" "	6
Add if ramped	" "	11
Add if wreathed	"	23

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/
Sash fasteners	11½d.	Mortice locks	5/
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	19.
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	
Plain compound girders	"	20	
Do. stanchions	"	23	
In roof work	"	28	

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	57	0
Do. Do. in flats	"	55	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft run.	0	6
Soldered seam	" "	1	6
Copper nailing	"	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/1	1/9	1/11	3/5	4/2	
Do. service	"	1/8	2/2	2/7	3/10		
Do. soil	"						7/6
Bends in lead pipe	each					3/3	8/2
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/10
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	5
Add metal lathing	" "	2	3
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	1
One-and-a-half granolithic pavings	per yard sup.	5	9

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	8
26 oz. Do.	" "	1	0
Obscured sheet	" "	1	1
⅛ in. rolled plate	" "	0	9
¼ in. rough rolled or cast plate	" "	0	10½
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	9
Knotting and priming	" "	0	7
Plain painting 1 coat	" "	0	9
Do. 2 coats	" "	1	2
Do. 3 coats	" "	1	9
Do. 4 coats	" "	2	4
Graining	" "	2	3
Varnishing twice	" "	1	9
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece	2/- to 4/-	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

tions for insertion under this heading should to "The Editor," and must reach him not Tuesday evening.

accepted. † *Denotes provisionally accepted.*

recommended for acceptance.

accepted subject to modifications.

EN.—For erection of shelter and conveni- Bay of Nigg, for the T.C. :—

so", &c.—
Duguid & Son..... £149 19 0
—*Mason*—
Russell..... 194 12 2

EN.—For works in connection with ver- house, for the T.C. :—

der Hall & Son £148 10 0

Blaikie & Sons, Ltd. 277 0 0

Currie & Co. 245 15 0

ring—
es & Co., Ltd. 200 18 7

EEN.—For excavating, pipe laying and ork in connection with condensing water Ferry Hill Generating Station, for T.C. :—
wse £5,876 5 8

T.—For erection of a convenience at Old se Recreation Ground, for the U.D.C. Mr. ole, Town Clerk, Municipal Offices, Wood-

ough, Barnet..... £220

—Erection of fence at Sydney Gardens, for —

r & Sons £129 2 9

ORD.—For the erection of four brick houses, .D.C. :—
h, Bideford £2,090

ESWADE.—Extension to printing works, harles Elphick. Messrs. Cockrill & Sellek, Bedford and Biggleswade :—
Wright & Son, Langford..... £350 0
Bull & Son, St. Neots..... 322 10

NHEAD.—Painting and decorating at Town

Jones £525

NHEAD. –Painting Council houses, Bryne- —

reen £168

NHEAD.—For painting baths at Livingstone l Argyle-street, for the T.C. :—
Jones..... £161 12

NHEAD.—Construction of lavatories at ll :—
Elldge & Sons £815

NEMOUTH.—For making up various roads, C. :—
Loader—
svenor Gardens £633 0 0
atherica-road..... 480 15 3
thaway-road 392 6 2
wstead-road 611 10 8
xandra-road 572 7 2
lbrow-road..... 670 2 6

NEMOUTH.—For erection of office, shelter alows on Undercliff-drive, for T.C. :—
lard Construction and Main- ance Co. £3,850

NEMOUTH.—For reinforced concrete foot t Boscombe Chine and Alum Chine, for the

evis ..... £1,678 and £1,651 15

—For the erection of a Fire Station in Stanley the Corporation :—
apson & Brierley, Bury.

.—For alterations and improvements to the round for the Bury Football Club. Ltd., £11,000 to £12,000 :
yrom, Ltd., Bury.

ROFT.—For erection of hotel for Messrs. John Ltd., Tadcaster, Mr. Butler Wilson, :—
roves, Goldthorpe, near Doncaster.

DON.—For alterations at the Grangewood n Centre :—
kers & Co. £229 0 0
irt & Sons, Ltd..... 226 0 0
tt & Steel, Ltd..... 218 0 0
mith & Sons, Ltd. 210 0 0
multon & Sons..... 191 4 4

Y.—For part duplication of main pipe from Reservoir to Denny, for the T.C. Messrs. Hogg, civil engineers, 17, Lynedoch-street, —
lock MacKenzie, Ltd., Motherwell.

ASTER.—For erection of 50 houses on the rth-road site, for the T.C. Mr. R. E. Ford, -place :—
ate, Doncaster £20,418

HORNSEY.—For reconstruction and laying out of playgrounds at the Stationers' School, Hornsey, for the Middlesex C.C. :—
For excavation, levelling and drainage work—
*H. Knight & Son, Tottenham £1,815
For the erection of ferro-concrete retaining walls, steps and railings—
*Leslie & Co., Westminster 1,225

KIRKCALDY.—For additions to Saline Public School, for the Fife E.C. Mr. G. Sandilands, Education Offices :—
Joiner—
A. Mitchell, Dunfermline £884 4 0
Plumber—
Wm. Nicol & Sons, Ltd., Buckhaven 240 12 5
Slater—
J. Robertson & Sons, Dunfermline 195 9 0
Plasterer—
J. Paris, Dunfermline 229 17 2

LEEDS.—For paving and concreting various roads, for the T.C., and also for the making up of Bentley-lane and Ecclesburn-grove. The Highways Engineer, 1, Swinegate :—
Tramways Track Reconstruction—
Compton-road—D. Speight & Son.
Low Moor Side and Domestic-street—Jos. Speight.
Chapeltown-road—D. Speight & Son.
Highway Reconstruction—
Tong-road—Wm. Keighley.
Low-road (1st Section)—Jos. Speight.
Low-road (2nd Section)—Boyes & Leach.
Chapeltown-road—D. Speight & Son.
Dewsbury-road (1st Section)—Dalton & Higgins.
Dewsbury-road (2nd Section)—Dalton & Higgins.
Private Street Works—
Bentley-lane—M. Harrison & Son.
Back Ecclesburn-grove—D. Speight & Son.
Granited Rock Asphalte—
Chapeltown-road, Tunstalls—Seyssel & Limmer Rock Asphalte Co.
Wortley-lane, Tunstalls—Seyssel & Limmer Rock Asphalte Co.

LEEDS.—The following tenders have been accepted by the Parks Committee of the T.C. :—
Painting at Armley Park and Upper Armley Recreation Ground—
*T. Kendall & Son..... £165 10 0
Painting at Burley Park—
*L. E. Wilkinson..... 128 9 6
Provision and erection of wrought iron fencing at Hunslet and Woodhouse Moors—
*G. Westmoreland & Son..... 287 0 0
Recreation pavilion, Cross Gates Recreation Ground—
*H. C. Bridge..... 317 10 0
Conveniences, Cross Gates Recreation Ground—
*H. C. Bridge..... 494 0 0

LEEDS.—For painting at Meanwood Hall, &c., for the T.C. :—
*J. Cushworth £241 9 8

LEEDS.—For erection of shops and warehouses in George-street and Cross Union-street, for the T.C. :—
*G. Monkman £2,212 8 11

LEEDS.—For painting at (*a*) Leeds Bridge; (*b*) Monk Bridges, for the T.C. :—
*James Robb..... (*a*) £180 0
(*b*) 284 9

LEEDS.—For structural alterations at 40, Park-lane, for the T.C. :—
*W. Airey & Son £10,800

LEEDS.—For painting at Infants' Hospital, Wyther, for the T.C. :—
*L. E. Wilkinson £185 10 0

LEEDS.—For extension to the works of Messrs. Wilson & Mathieson's, Ltd., gas stove manufacturers, of Armley. Messrs. Chadwick Watson & Co., Architects, Albion-street, Leeds :—
*Hy. Atkinson & Sons, Ltd., Leeds.

MANCHESTER.—For supply of 2,000 tons of squared stone pitching, 400 tons of scaplins, and about 4,000 tons of rough rubble stone, for the Waterworks Committee. The Secretary, Waterworks Office, Town Hall :—
*Rudman & Phillipson, Ltd., Entwistle.

MANCHESTER.—Sub-contractors for the erection of an X-ray room at Baguley Sanatorium :—
**Plumbing and glazing*—R. Heyward & Co., Manchester.
**Slating*—Huntingdons, Ltd., Manchester.
**Plastering and painting*—G. H. Holding, Manchester.

MUSSELBURGH.—For construction of granolithic foot pavement and kerb at Edinburgh-road, for the T.C. Mr. J. Barclay, Burgh Surveyor, Musselburgh :—
*W. Brooks & Son, Musselburgh..... £735

MYTHOLMROYD.—For erection of a club. Mr. H. E. Hinchcliff, architect, Halifax ;—
Mason—
*J. A. Dufton, Todmorden.
Joiner—
*S. Senior, Mytholmroyd.
Plumber—
*J. H. Boocock, Hebden Bridge
Slater and plasterer—
*W. Robinson, Mytholmroyd.

NEWCASTLE.—For erection of a new operating theatre at Wingrove Hospital, for the Newcastle Board of Guardians :—
*J. & W. Lowry, Ltd., Newcastle £9,705

NORTHAMPTON.—For additions to shoe factory, for Messrs. Barratt & Co., Ltd. Mr. A. Anderson, Lic.R.I.B.A., architect :—
O. P. Drever, Ltd..... £34,915
Henry Green 33,873
H. Martin, Ltd. 33,750
E. Archer & Son 33,633
E. Green & Son 31,312
G. Heap 30,125
T. Higgs 30,040
A. L. & H. W. Chown 29,981
*A. Glenn & Sons 28,595

OSSETT.—Works at pumping station, for the T.C. :—
Bricklaying, &c.—
‡L. Ingham & Co., Ltd., Ossett £5,217 2 6
Joiners—
‡M. Lockwood & Son, Ossett.. 300 0 0
Plumber—
‡John Hepworth, Ossett..... 470 0 0
Smith and Founders—
‡The Progress Engineering Company (Ossett), Ltd. .. 179 18 2
Slaters—
‡T. Brear & Son, Dewsbury .. 332 0 0

OUSE.—Bridge improvement, for Warwickshire C.C. :—
*Alcester Builders, Ltd. £317

POLESWORTH.—Improvement of bridge, for the Warwickshire C.C. :—
*Reinforced Concrete Construction Co., Old Trafford, Manchester.... £5,443

PORTSMOUTH.—Rebuilding of premises, Fratton-road, for Mr. G. Parnell. Mr. G. Smith, architect, Southsea. Quantities by architect :—
Jas. Crockerell, Southsea £2,264
Tanner Bros., Southsea 1,974
Saml. Salter, Southsea 1,948
John Lay & Co., Portsmouth 1,874
*G. J. Davis, Southsea 1,823

PORTSMOUTH.—For Sunday School, Milton-road. Mr. L. M. Field, architect, Gosport :—
J. Hunt, Gosport £4,788 0
S. Salter, Southsea 4,770 0
Jno. Croad, Portsmouth 4,693 0
John Lay & Co., Portsmouth 4,593 10
F. Privett, Southsea 3,927 0

PORTSMOUTH.—Alterations at St. James-road, for British Argentine Meat Co., Ltd. Mr. A. E. Tutte, architect, Portsmouth :—
F. Privett £327
Tanner Bros. 320
E. & A. Sprigings 305
John Lay & Co..... 294
*Jno. Croad 236

PORTSMOUTH.—For re-decoration and conversion of the North End branch library into "open access," for the T.C. :—
‡Tanner Bros..... £380

SANDALLS.—Bridge improvement, for Warwickshire C.C. :—
*A. E. Farr, London £2,196

SOUTHPORT.—For erection of steps at Atholl-grove, for the T.C. :—
*Buck & Hodson £133 10

STRETFORD.—For repaving of Stretford-road, for the U.D.C. :—
*Wilson & Wilkinson £9,204 2 10

STRETFORD.—For reinstating after trenching various streets, for the U.D.C. :—
*Bethell & Sons..7s. 6d. per sq. yd. in carriage way, and 6s. in Park.

TORQUAY.—For conversion of old Harbour Master's office into two tenements, for the T.C. :—
*Pearce Bros. £104 5

TOTTENHAM.—For erection of school at Devonshire Hill, for the U.D.C. :—
*H. Knight & Son £23,760

UPPER NORWOOD.—For sewerage and road work on the Bloomfield Hall Housing Estate, Central Hill, for the Lambeth B.C. Mr. O. Cattlin, Borough Engineer, Town Hall, Brixton, S.W.2 :—
Thomas Muirhead & Co., Ltd., Westminster £8,702 1 0
C. E. Buchan & Co., Ltd., Brighton 8,655 3 5
Mears Bros., Lewisham 7,991 18 11
G. Percy Trentham, Ltd., Holborn 6,549 0 0
Howard Farrow, Golder's Green 6,469 1 0
Henry Woodham & Sons, Ltd., Catford 6,432 8 2
Gunn MacNeill, Ltd., Westminster 6,035 5 0
*John Cronk & Sons, Streatham 5,389 17 6

UXBRIDGE.—For the erection of 58 houses on the Hillingdon-road site, for U.D.C. :—
£41,000 0 0
H. Pickerell 35,907 19 0
Myerstoft 32,356 0 0
Fassnidge & Sons 32,125 0 0
Lovell & Son 31,665 16 1
*Walter Jones & Son .....

WATFORD.—For construction of footpaths in Rickmansworth-road, for the T.C. :—
*J. Molam & Sons £5,778 4 9

WATFORD.—For private street works in Wippendale-road and Sydney-road :—
*C. Ball, Letchworth, £7,573 4 3 and £2,265 18 6 respectively.

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WAKEFIELD.—For erection of 12 houses at Criggleston, near Wakefield, for the Housing Committee of the Wakefield R.D.C. :—

**Mason*—Marshall	£3,127 0
**Joiner*—Blackburn	2,035 10
**Plumber*—Williamson & Ward	665 0
**Slater*—Brear	373 0
**Plasterer*—Lockwood	530 0

WELWYN.—For erection of 40 working-class houses. Mr. H. G. Cherry, architect, 97, Jermyn-street, St. James, S.W.1. :—

L. R. Tonge, Watford	£24,460
Thos. Shillitoe, Holloway	22,080
Frost & Carter, Luton	21,000
T. Day & Son, Luton	20,880
E. Day & Son, Kimpton	20,275
Arthur Cole, Luton	20,162
Bennett Bros., Letchworth	19,080
G. W. Blow, Welwyn	19,039
John Wilmot & Son, Hitchin	18,900
Francis Newton, Hitchin	18,839
W. J. Jims, Son & Cooke, Nottingham	18,800
G. H. Bennett, Leytonstone	16,720

WHITEHAVEN.—For erection of 50 houses at Thornhill and 50 houses at Moresby, for the R.D.C. Mr. W. J. Goode, surveyor, Union Hall, Whitehaven :—
†J. Armstrong, Egremont—

Thornhill—	
Design A—Block of two	£423 6 6
Design C—Block of two	424 6 9
Design B—Block of four	425 16 0
Moresby—	
Design A—Block of two	410 0 3
Design C—Block of two	411 0 6
Design B—Block of four	412 19 2

WHITLEY AND MONKSEATON.—Street works at Windsor-road, &c., for U.D.C. :—
*M. D. Young, Hill Heads £402 13

WHITLEY AND MONKSEATON.—Sewers on housing estate, for U.D.C. :—
*F. M. Willers & Co., Bishop Auckland £609 2 6

WHITLEY AND MONKSEATON.—Roads on housing estate, for U.D.C. :—
*M. D. Young £1,041 15

WORKSOP.—For erection of 50 houses, for the U.D.C. :—
*M. McCarrick £24,411 10

YORK.—For painting interior of bonding warehouse, for the T.C. :—
*R. Pearson £106 6

YORK.—For making-up streets, for the T.C. :—

Precentor's Court—	
*C. Martin, Ltd.	£227 10 2
Back Howe Hill-road, north-west—	
*C. Martin, Ltd.	361 4 0
Back Garland-street—	
*C. Martin, Ltd.	157 7 6
Back Poppleton-road and passage—	
*W. Birch & Sons, Ltd.	109 6 0

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THE BUILDER

JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

XXVI.—No 4246. JUNE 20, 1924.

THE POLITICAL HOUSE

HE Government housing proposals would seem to confirm the belief of those who have assumed they were dealing with a chronic condition. That we should gradually lose count of the various housing schemes is perhaps excusable, but we are beginning either that we are losing sight of the original ideals or ır politicians are contriving to kill them.

›bably everything that can be said on the urgent need ıses has already been said, and from sheer weariness m is being choked and formalised in its utterance. ıments come and go, amidst social movements which slowly and economic forces which often change quickly, e housing question apparently moves in a fixed groove. ıor prophet could safely say that long before we have he end of a fifteen-years' housing programme our social conomic conditions will have altered and that we shall to other counsels. It is important that we should look though it is doubtful if true happiness lies this way; we look ahead in the spirit of the author of "Dædalus" fairly certain we shall concern ourselves more with the of the moment and less with legislation designed for the of posterity. In his little book Mr. J. B. S. Haldane es a possible social development during the next hundred which makes anyone chary of believing that the wisdom housing reformers and politicians is the wisdom of the It is surely something of a comedy that our politicians l be outlining their programme forty years ahead, knowing, do, that it is being discussed as a problem which is largely sed of abnormal conditions. It is a truth, which only ence will prove, that in this matter the short view in tion would give the most beneficial results to the nation. ight almost say that the short view contains all the tages and none of the disadvantages, since nothing seems certain than the fact that the long view will cause a lerable amount of harm while it is discovering that its ımme is obsolete.

is one of the anomalies of the housing problem that the ion was created artificially, and it is perhaps characteristic we should have our biggest ideas when building costs are when a housing shortage is acute, and (most important) when a large proportion of the people are unemployed. ıust build houses, but we can afford to pay neither an mic rental nor even a moderate rental when we are unem- d. These factors may not have a distinct connection with other, but that they have some bearing on each other is ıd all doubt, and it is well to remind ourselves that an ial cause is still operating amidst artificial conditions. situation is so manifestly absurd that it is impossible to e that it is anything more than temporary. It is idle to late now whether this situation was foreseen by politicians; sufficient that the situation is being exploited to the full.

e do not subscribe to the popular theory that private prise was directly responsible for the creation either of or modern suburbia. The fault lay partly with our ation; our building by-laws helped to create the slums maintained them by very rigid structural conditions. We e the laws were interpreted faithfully, and the recognised ions of public authorities strictly performed. The housing ems of past generations are represented by our slums y, and they point the moral that there is at least a possibility that we may be creating social misfits for posterity to deal with. Whatever criticism we care to apply to pre-war housing we must at least recognise the important fact that it was not a financial burden on the nation. It was not because of this virtue that its shortcomings are so great; on the contrary, the problem of better housing was always there, and was largely a question of superficial yards of land and street planning. The housing problem of to-day means financial losses and State subsidies, and has a distinct connection with the high costs of building. Cause and effect are to be seen operating in a vicious circle, and it is difficult now to realise that better housing, as an ideal, has no real connection with sacrifices and penalties. The impression has been created that ideal housing and subsidies are inseparable, and this belief appears to be confirmed when we see a desire to legislate many years ahead for the disposal of State funds and the consequent heavy taxation, regardless of probable economic movements. These two assumptions probably spring from the same source, and if we cannot at the moment prove that they are distinct fallacies there is at least evidence to indicate that it would be wiser to adopt a shorter view of the problem. For a short period the nation must accept huge liabilities for its housing policy, but it is fairly safe to say that force of circumstances will render obsolete any long-dated Bill which ignores the factors we have mentioned.

We frankly admit we have a lurking suspicion that the housing problem would cease to interest the politician were house-building again to become an economic proposition, when the distribution of State funds would no longer provide the main element of political contention. It is obviously easier to allocate State money than to face the issues of a real housing problem, and if this statement is disputed the plain fact must be faced that houses can be built, and are being built, which neither traffic with beauty nor conform to the principles which we have been led to suppose were essential to modern ideas upon housing. The excuse that they do not come within the category of "workers'" houses only confirms our opinion that the legislation which is necessary to secure certain elementary conditions is obscured by the obsession to obtain as much as possible in the form of subsidies. In other words, we see the principles of good housing mixed up with theories to provide houses, and an objective which seems to be merely a matter of quantity in relation to subsidies.

There is still a great field for our legislators in tackling the problem of lowering national and local taxation upon houses, but we are afraid that the idea of encouraging the individual to build his own house will receive little attention while the opportunity exists to exploit the facile theory of building by subsidies. It is true that a slight concession has been made by repealing the House Duty, but a braver course, we think, would have been to modify the rate of income-tax on house property. If we are to face facts squarely, it must be confessed that a prospective house owner contracts a number of responsibilities quite out of proportion to the advantages to be obtained by ignoring them, and this at a time when every encouragement ought to be offered to him. A rebate on income-tax on house property can surely be justified as reasonably as that on, say, life assurance, and we leave it to anyone to work out the philosophy which believes in granting rewards to the prudent. House building in ceasing to be an individual responsibility is none the less a necessity.

NOTES

The Institute and Amalgamation.

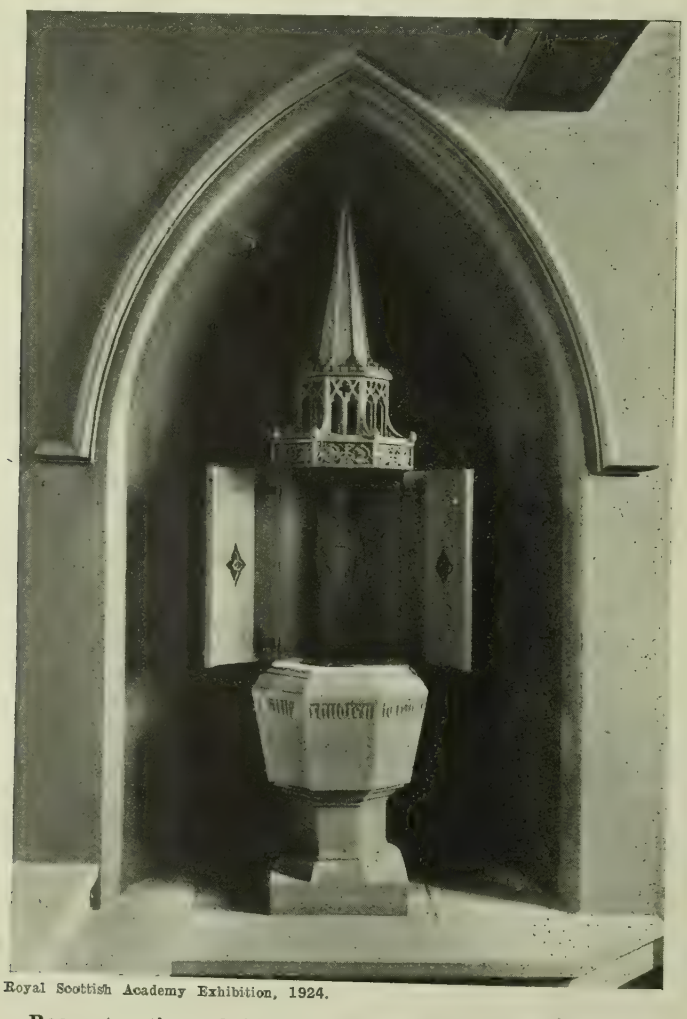
FEW members of the Royal Institute of British Architects who attended the special general meeting held at Caxton Hall on Tuesday to confirm or reject the proposed scheme of amalgamation with the Society of Architects knew of the proposals which had been made to reach agreement within the Institute, and no one could have been prepared for the extraordinary enthusiasm of the meeting or the readiness with which the Council's resolutions were passed. The Council's scheme had been endorsed by a two-to-one majority at the recent Council election, and the new proposals (which are reported on p. 977) to obtain a final and binding postal vote, viewed from one standpoint, appeared to be somewhat superfluous; but after Tuesday's meeting no one, surely, can doubt the wisdom shown by the Council and subsequently the meeting in accepting them. What might at first have looked like a graceful concession to a defeated party is now seen to be a statesmanlike act, which should make much easier the progress of the Council's scheme. In numbers alone the meeting was probably a record Institute gathering, and over 600 members must have been present from all parts of the country—from Belfast and Elgin, and even from Australia—while the businesslike manner in which the proceedings were conducted, and especially the able speeches of Major Harry Barnes in moving the various resolutions of the Council, did much to turn desire to agree into what appeared like agreement itself. The result was a very remarkable display of solidarity and enthusiasm, which promises well for the future.

The Next Steps.

THE decision to take a postal vote carries the amalgamation proposals as a preliminary to registration a long way forward, as it is not likely that the 30 per cent. of the electorate who failed to record their votes at the recent election will all be stirred from their apathy and vote; and even if they do, we believe the majority will be in favour of the Council's proposals. In any case, it will be of interest to state the probable course of events in the immediate future. The post-cards, we believe, will be sent out this week and will be returned about July 5—just prior to the confirming meeting two days later. The proposals have then to be confirmed by the Society of Architects, and a meeting for th pose will probably be held in the of the month. The proposals will if agreed to, be sent to the Privy C for their consideration, and all bein this should be possible by the end same month. On the assumption finally the proposals will not be op by the profession itself, the Privy C are not likely to hinder progress, a the opening of the session 1924–5 an mation should have become an a plished fact. The events of Tues meeting give grounds for hope tha old days of division and destru criticism are at an end, and that th fession will now go ahead as a united with general good feeling throughou ranks.

The Salon.

A VISIT to the Salon in this year, where one see sculpture and pic almost by the acre, sug many thoughts, and aids us in formin estimate of the nature of contempo art. And it will help us all the mo anticipating our visit to the Salon visit first the Galleries of the Lo This will enable us to view the mo works at the Salon from the perspective. We admire the su achievements of mediæval art no though feeling that it does not be to us and does not express us. modern world has wandered far fro these grave beauties and convictions the last generation has also wand from the deep feeling for nature humanity revealed in the Barbizan sch for herein we see intense purpose with revelation accompanying deeply-felt pulses. And the question arises, on l ing at such an exhibition as the pre Salon: with what are we replacing subject matter of the one, its reverc for mediæval beliefs; and the democr reverence for the common life revea through the other? We see the latter, work of Millet and Corot, finding divine, the supernatural in humanity nature itself. The work in the Sa taken as a whole, reveals little that can identified with either aim, and so it mi life almost altogether. It reaches, fact, nothing in particular at all exc elementary craftsmanship, if the to with which the artist works may be s to represent anything. Without subj matter it hardly reaches through to a but the most superficial acquainta with the externals of life and nature, a not always that. Nothing has revea more the poverty of subject matter, t lack of interpretation, than recent w memorials. It would appear that t world is so much with us that it does n permit of art or belief reaching to a depth of conviction at all. The inquir may well ask as he leaves the buildin What will happen to these multitudes pictures and statues touched so little any divine fire?



Royal Scottish Academy Exhibition, 1924.

Reconstruction of Helensburgh West Parish Church.
MESSRS. STEWART & PATERSON, Architects. (*See p.* 981.)



ottish Academy Exhibition, 1924.
Balfour Memorial (back view).
LIAM DAVIDSON, A.R.I.B.A., Architect.
emorial, which is of Ravelston stone. n. high, was modelled by Miss Bone and y Mr. S. McGlashen.]

e
iser
in.

IT is not only in our own country that the advertiser offends, and we may easily make too much of what is one towards the removal of field sements in England. A journey nce will acquaint us from the windows of the virtues of commodities assaulting us from t pastures of France. The escape l this will be slow, and needs the al pressure of the newly-aroused pinion if we are to be freed from use. What is chiefly contributing nge is the very evident improve- street advertising which empha- e defect in taste and method of eld advertisements. And there many forms of advertisement of charming us by their good d becoming artistry that these rvivals can hardly now serve the for which they were intended, in us, as they do, the desire to thing to do with the commodity rtised. With the great improve- lettering, in street signs, and ays, we may hope that as these more usual and therefore familiar ous poster with its "close up" nomy, so ugly in character, will ntinued and that lapses from l be less usual. There is much to nd in Mr. Beresford's proposal er to *The Times* that each shop ness as far as possible should have a painted sign. At any rate, the only sensible attitude is to look at advertisements as requiring taste and beauty to make them of serviceable use.

Waste of Time.

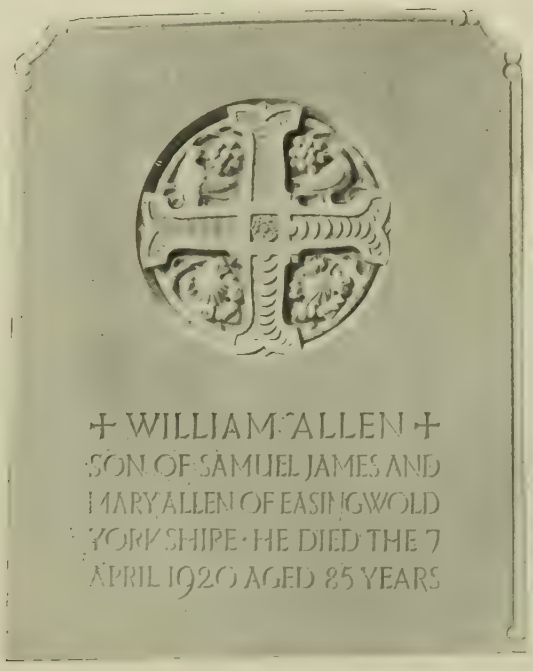
THE revival of village communal life, which is being encouraged by the Village Clubs' Association and the Women's Institute, should do much to mitigate the intolerable dulness of the country. May we urge a plea against certain pitfalls in the path of organised betterment? There is a certain fussiness about some reformers which confuses usefulness with the purely temporal, and distraction with entertainment. By all means let us make gloves and arrange whist drives, but let there also be a place for those personal crafts which the machine-made product has banished. Elaborate wood carving and fretwork, even the finest stitchery and lace, are not a waste of time. They contribute a personal value to life and the home for which nothing else can compensate. Many of us only recognise a great grandparent by an old sampler worked by a forgotten namesake "aged ten." Meccano and crystal sets will look after themselves, but in every village there are certain temperaments who like spending time on something that keeps. In fostering this spirit the new movement is doing work that will also keep. So much that we believe to be useful is merely waste of time, and the loss of village skill in art is the result of this delusion.

The Verandah.

THE growing popularity of the verandah, balcony, and terrace opens out interesting possibilities in small domestic work. It is now rather the exception than the rule to find new houses of any size planned without provision for the enjoyment of open-air meals. There is a world of difference between going out to sit on the gravel path and merely opening a door leading to what we may call an open-air room. Architecture, as we know, evolves through changing needs, and the popularity of the verandah opens out great possibilities of pleasant architectural development.

"Painted Signs."

THE recent discussion on the subject of shop signs came hard on the heels of the opening of Messrs. Liberty's Tudor House, and it seems a little strange that the building was not mentioned in the discussion. Not only are there actually swinging "painted signs" outside the entrance, but, more than that, the whole building itself, inside and out, is surely akin to some great "painted sign" of a few centuries ago. In many respects the new shop is an absolute antithesis to the modern idea of shop design; it is also an antithesis to the ferocious modern idea of advertisement. Yet, from its very existence we may infer that it is confidently expected to fulfil efficiently the function of both shop and advertisement. The influence of this new-style "painted sign" on future commercial building and on advertisement should be interesting to watch. It is surely significant that the building has aroused the interest of a section of the public perhaps not usually interested, and also that many people who came to scoff have remained to admire.



Headstone at Norton, Letchworth. MR. ALLEN FOXLEY, Architect.

[This headstone, in Ancaster stone, was made by Mr. W. Aumonier.]

GENERAL NEWS

Professional Announcement.

After June 20 the address of Mr. Max Clarke, F.R.I.B.A., will be 25, Castlebar-road, Ealing, W.5; telephone, Ealing 584.

Architect's Estate.

Mr. William Dunk, of Mount Park-road, Ealing, W., and of Billiter Square-buildings, E.C., architect (net personalty, £4,589) left £5,685.

The Fine Art Society.

An exhibition of the works of Ivan Mestrovic, the Yugoslavian sculptor, consisting of about thirty pieces, either in marble, bronze, or wood, will be held at the Galleries of this Society towards the end of this month.

The A. & S.A.P.U.

On June 28, the Architects' and Surveyors' Assistants' Professional Union will pay a visit to the Braintree Works of the Crittall Manufacturing Co. On the same day a visit is to be paid to Wembley, when Sir E. O. Williams will read a paper on "Concrete Construction in the Exhibition."

Danish Sculptor's Exhibition.

Queen Alexandra has given her patronage to the Exhibition of the work of the well-known sculptor Professor Utzon Frank, of Copenhagen, which is to be held at the Leicester Galleries, Leicester-square.

The Danish Minister, Count P. F. Ahlefeldt-Laurvig, will open the Exhibition on June 26, at twelve o'clock.

Open Space for London.

The Corporation of the City of London has received from Sir Henry Lennard (chairman of the Town Planning Committee of the District Council), of Wickham Court, Kent, the offer of nearly 38 acres of woodland for preservation as a public Open Space and Nature Reserve. As the guardians of the West Wickham Common, it rests with the Corporation as to whether or not they accept the gift.

Ex-Officer Architects.

On June 12 the League of Officers held a meeting at the Mansion House for the purpose of making an appeal to employers and the public in general to support the League. The Lord Mayor presided.

After the Lord Mayor had opened the meeting Sir Roger Keys said there were hundreds of ex-officers, many of them with the highest qualifications, on the books of the League, including men of the legal, medical, and architectural professions. In some cases men had only just commenced training at the commencement of war. At its conclusion it was extremely difficult, in some cases, for the men of these particular professions to continue their studies. If employers would try them, they would find them endowed with such qualifications as the power of organisation, devotion to duty, ability to assume responsibility, and possessed of enthusiasm, willingness, and reliability. He made a special appeal for employers to give priority to the claims of ex-Service officers.

Major-General S. S. Long, Rear-Admiral Sir Guy Gaunt, M.P., Mr. Cecil Rowntree, who proposed a vote of thanks to the Lord Mayor, and Rear-Admiral J. G. Armstrong also spoke.

COMPETITION NI

Portstewart War Memorial.

The design by Messrs. J. Robinson Belfast, has been selected in this com The cost is estimated at £750.

Gosport Central School.

The Education Committee has prov accepted the design of Mr. L. M. Field f Central School at Gosport.

Brancepeth Miners' Welfare Sche

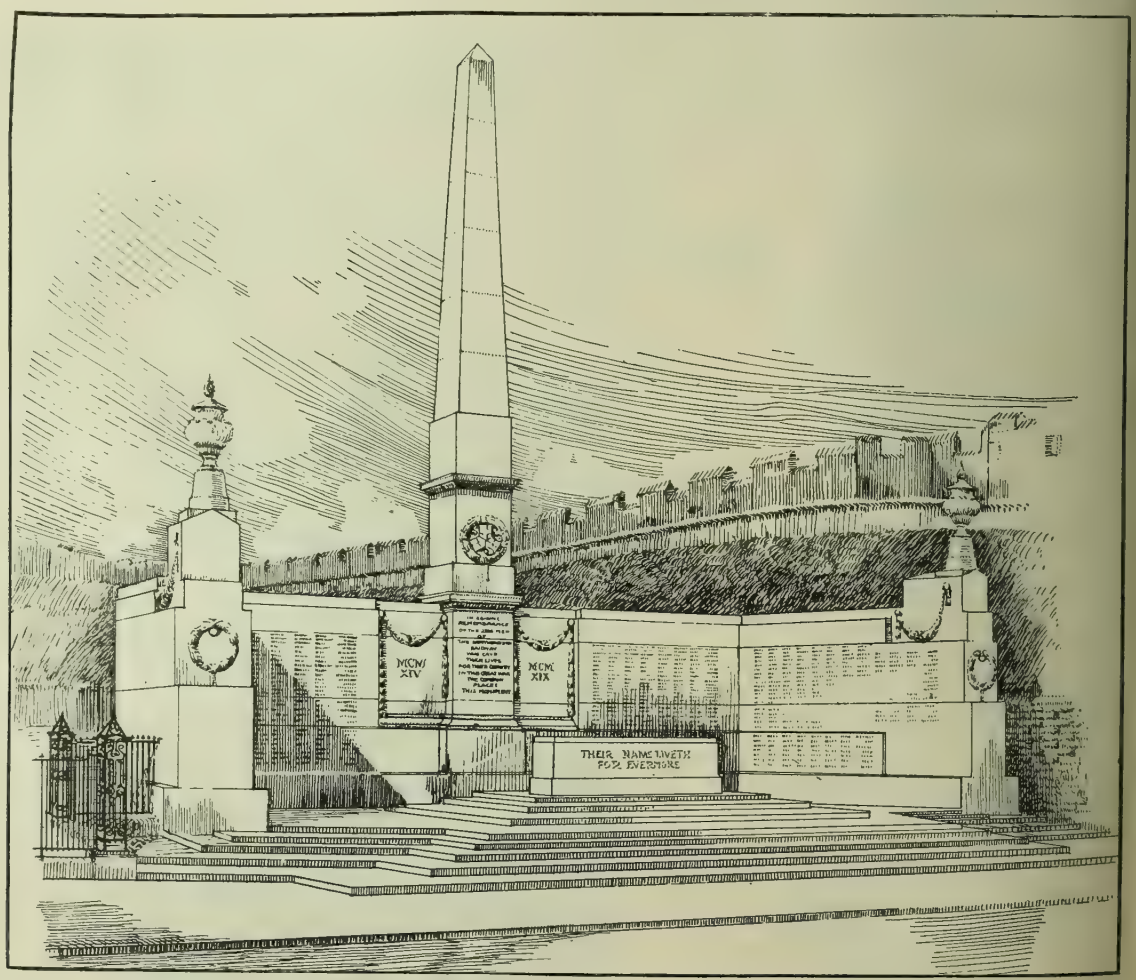
The design of Messrs. Hayes & AA.R.I.B.A., has been placed first in a competition for the Brancepeth Miners' Scheme, Willington, Co. Durham. Th the scheme is approximately £18,000.

Other Competitions.

Other competitions still open incl following (the dates given are, first the in date, and second the issue of *The B* which full particulars were given) :—In Designs (June; Dec. 21, 1923). Ro Memorial (Sept. 30; Feb. 21). Glasgo Hall (July 4; May 2). Harrogate I (Sept. 30; May 30). Bexhill Entert Hall (Sept. 1; May 30). Hamilto Memorial (Sept. 1; May 30). Glasg School Memorial (Sept. 30; June 13). Memorial (Aug. 23; June 13).

Royal Institute of British Architec

The Royal Institute of British A has published a list of books recomme students. Copies of the list may be c free on application at the Royal Institu



North-Eastern Railway Company Memorial, York. SIR EDWIN LUTYENS, Architect.

[This monument, unveiled on June 14, has been erected from the designs of Sir Edwin Lutyens, R.A., F.R.I.B.A., and under the supervision of Mr. Stephen Wilkinson, A.F.C., F.R.I.B.A., Architect to the Company. The masonry screens are 15 ft. high, and the obelisk 54 ft. The flanking screens are set slightly splayed on plan. On the internal faces of the screens are carved the names of 2,236 men of the R The entire structure is in Portland sto total weight being over 1,000 tons; the l stones in some cases weigh as much as si

THE ROYAL SCOTTISH ACADEMY

E 98th Annual Exhibition of the Royal ish Academy opened a few weeks ago dinburgh. The Exhibition has been ged on the same lines as in former to show to the public the standard trend of Scottish art in painting, ture, and architecture, and while the us works of art maintain a very high ard, yet to the casual visitor one of supreme importance seems to be ing in many of the exhibits, excellent gh these may be.

r a Scottish Exhibition one would ex- the predominant note to be Scottish. udent of Scottish character would ally expect to see a portrayal of all is best in the national life and senti- s of the people, and to receive an ession of that strength of mind and n of character which have made Scots- famous the world over. But the ed grandeur of the mountains, the depths of the lakes, the massive piles e castles, while still potent influences ational character, are not predominant res of the Exhibition this year. Ex- nt indeed, however, are many of the s of sculpture. The group "Abun- e," by Professor Derwent Wood, which ls in the centre of the hall, opposite staircase, is well worthy of the im- nt position it occupies.

rhaps the most attractive exhibit in sculpture section, however, is "The e," a group of two nude dancers d back to back, by George William sen. This group has been honoured he Guthrie Award, and is certainly a ning study, and induces the critic to the name of this promising young tor. "The Hoop," by the same , is also excellent.

o strong exhibits, "Romance," and George," by Gilbert Bayes, though in scale, recall to the mind the hts Templar and deeds of daring in gone by.

small group, "Madonna and Child." . Reid Dick, portrays the theme in st original light. The delicacy of the lling, the arresting charm, and the l it makes to the æsthetic sense, ate in no uncertain manner the quality r. Dick's work. "Mary" and "The Caroline Paget" are also fine ex- es by the same sculptor.

e draped figure, "Charity," holding a naked child against the broad masses of sweeping garments, makes this little statuette by Alfred Gilbert quite a notable achievement.

A fine bronze of "Sir Rowand Anderson," by Dr. Pittendrigh Macgillivray, destined for the Scottish National Portrait Gallery, attracts a good deal of attention.

The "Eton Statue," by Sir Bertram Mackennal, arrests the attention at once. This figure of a finely formed youth stepping out with upraised arms to offer himself altogether in his country's service tells its story in a most affecting way, and appeals strongly in the intellectual sense rather than in the sculpturesque technique.

While the foregoing are perhaps the main exhibits of interest in the sculpture section, excellent work has also been submitted by Messrs. Gamley, Hartwell, Portsmouth, Alex. Proudfoot, George Henry Paulin, and others.

The architectural section, from the architect's point of view, is certainly the most successful in bringing before the public many excellent specimens of modern work on a really grand scale. This section is strengthened greatly by some splendid drawings of prominent buildings in London, such as "Adelaide House," by Sir John Burnet, and "New Offices of the Anglo-Persian Oil Co., Finsbury Circus," by Sir E. Lutyens. "New Buildings, Piccadilly," by H. Austen Hall, is an outstanding exhibit.

Two fine examples of the work of Herbert Baker command attention: "Secretariats from Upper Court, Delhi," and "The Foreign Office Block, Secretariats, Delhi." The drawings are by W. Walcot and J. F. Wilson respectively, whose airy style of rendering gives relief to many of the rather ponderous pen-and-inks.

The Glasgow architects are again well represented by James Miller, Watson, Salmond & Gray, Stewart & Paterson, A. N. Paterson, Campbell Mackie, John Arthur, and Sir John Burnet, all of them submitting illustrations of work which is certainly a great credit to themselves, and bears testimony to the quality of designs being produced by the modern architect.

The Edinburgh School is prominent as formerly. James B. Dunn is perhaps the most outstanding of this school. The "War Memorial at George Heriot's School, Edinburgh," is strong in detail, the symbolical figure on the top of the monument—"The Pelican feeding its Young"—was modelled by Miss Phyllis Bone, and, along with the rest of the carving, was carried out by Alex. Carrick, A.R.S.A.

Other prominent Edinburgh exhibitors are William Davidson, R. S. Reid, Richardson & M'Kay, Reginald Fairlie, T. Aikman Swan, Andrew W. Lyons, H. O. Tarbolton, Messrs. Orphoot, Whiting & Bryce, and William Ogilvie.

The architectural section is really excellent, though the number of exhibits is essentially limited. The sculpture section, too, is good, but also very limited.

The quality of the oil paintings, water-colours, drawings, and prints, which occupy most of the space in the Academy, whilst in some respects brilliant, yet in the main is rather disappointing.

The impression on the mind as one leaves the building is that the artist has not risen to the heights that one would expect to see in the Royal Scottish Academy. The Scottish visitor who received a whiff from "the braes of broom and heather," a glimpse of the rude rocks or border towers, would feel an irresistible appeal to the imagination. The same fire and fervour that inspired the genius of Burns in his poems ought to be more evident in an exhibition of Scottish art.

In view of the fact that in two years the Royal Scottish Academy will celebrate its centenary, and that such an occasion should call forth the best efforts of everyone to crown with success the century's work, it is to be hoped that something more distinctive, more characteristic of Scotland and Scottish art, may be produced. Scottish artists in days gone by have produced works which have been the admiration of succeeding ages, and which reveal the characteristics of the national style, but modern artists would appear to dilute their work with ideas from foreign schools, to the weakening of the chief features of the Scottish Doric. This departure is to be deplored from a national standpoint. If our schools and colleges were approached and encouraged with a properly organised incentive, it is certain that many specimens illustrative of purely Scottish influence and vigour could be obtained, and then the success of the centenary of the R.S.A. would be assured, and Scottish art, free and untrammelled, once again reach its proper position in the world of art in general.



Royal Scottish Academy Exhibition, 1924.

Edinburgh Academy War Memorial. MR. R. S. REID, Architect.

CORRESPONDENCE

Mr. Wheatley and the Building Industry.

SIR,—Who can question the leading article in your last issue? But Mr. Wheatley is not responsible for the rent restriction Acts, and *all political* parties favour State-aided housing. The strain of the war has paralysed the reasoning power of the people But the degradation of politicians outbidding one another has much to answer for. The "refreshing fruit," the 9d. for 4d. touch, is an indication of degeneracy permeating all ranks of society.

At great cost in money and effort we are distributing comparative poverty instead of creating wealth. Parasitism is rampant. We fail to distinguish between work and work. We may work hard producing nothing, and we may work hard creating wealth. Our efforts are too much engaged on the former, and hence the distress and poverty. In any case, there will be few houses because there is no margin of wealth from which to create them. One could easily elucidate the causes of the present stagnation of industry and consequent unemployment.

A. HENTHORN STOTT.

Housing Costs.

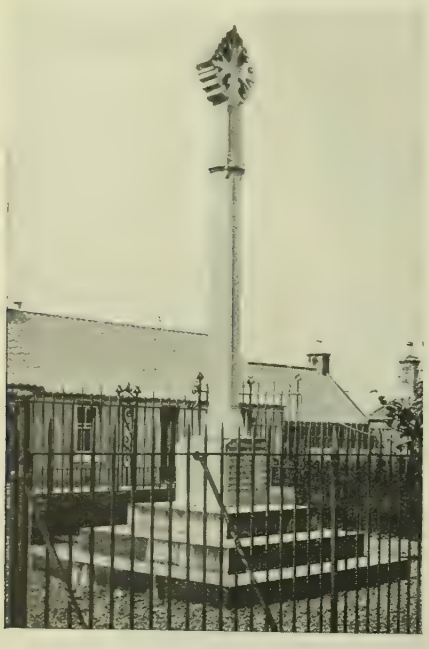
SIR,—Messrs. Chas. Heathcote & Sons, in your issue June 13, give some figures of a scheme of housing finance they propose as an alternative to Mr. Wheatley's.

Several questions occur to me in considering their scheme.

(1) They give the capital expenditure as £500, including drainage. Do they include sewers and roads? (2) In revenue account they include on debit side ground rent, 10s. Do they propose to erect cottages on leasehold land?

Ten shillings per annum is 5 per cent. on £10, and 12 houses to acre would make the cost of land £120 per acre, or if 15 houses are allowed, £150 per acre. Under the Land Acquisition Act land has been obtained at £180, but there are very few districts where it will be possible to obtain it at £150 per acre. But this is a small matter comparatively.

To provide three-bedroom parlour cottages, inclusive of roads and sewers, for £500 will mean building at 8d. per ft. cube, or less, varying with cost of roads and sewers. With goodwill this should be easily done if all parties concerned unite to give best possible output; but not under present conditions.



Balgonie Colliery War Memorial.
MR. WILLIAM DAVIDSON, A.R.I.B.A., Architect.
MR. H. S. GAMLEY, R.S.A., Sculptor.

But I think Messrs. Heathcote will find that they have underestimated the cost of maintenance and management; the former is not likely to be less than 1½ per cent. on capital expenditure, nor the latter less than ½ per cent. (practically 15 per cent. and 5 per cent. on gross rentals). These charges would be £10 instead of £3 4s., an addition to outgoing of £6 16s. To this £6 16s. must be added, say, 2s. only on ground rent and £5 2s. on rates, because reduction will not be given. You cannot take advantage of the subsidy and ask for a reduction in rates at the same time. On the credit side of revenue account Messrs. Heathcote have taken into account the amount they think the average subsidy will be under the scheme. They fix rent at 12s. 6d. to show a profit of 7½ per cent., but comparatively few workers can afford to pay 12s. 6d. per week. Even if one-fourth of income is paid in rent and rates, only those in receipt of 50s. per week assured income can pay 12s. 6d., and the average worker has neither 50s. per week nor any assurance of its regular payment, while the man requiring three bedrooms cannot afford to pay one-fourth income in rent.

To work Messrs. Heathcote's proposed scheme the figures, I think, would be as follows :—

	£ s.		£ s.		£ s.
*Ground Rent	12	*not*	10	†Subsidy	11 0
Insurance ..	6		6	Rent ..	32 10
Repairs, &c..	7 10	*not*	2 10		
Management	2 10	,,	14		
Rates ..	7 2	,,	2 0		
	£18 0	*not*	£6 0		£43 10
				Less outgoings ..	18 0
					£25 10

Or 5 per cent. instead of 7½ per cent.

To continue the analysis of Messrs. Heathcote's figures, I think they should be :—

	£ s.		£ s.		£ s.
Outgoing as before	18 0	*not*	6 0	Rentals ..	32 10
£400 at 4 p.c...	16 0		16 0		
£100 at, say, 6 p.c.	6 0		—		
SinkingFund at 5 p.c. to repay £500 in 40 years	4 3	*not*	3 7	Loss ..	11 13
	£44 3	*not*	£25 7		£44 3

If I may say so without offence, Messrs. Heathcote have not grasped the position, which would be as follows, accepting costs as given above :—

	£ s. d.
Land at £150 per acre per annum, 15 houses to acre	10 0 0
Cost of building, with roads and sewers..	500 0 0
Capital expenditure	£510 0 0

REVENUE ACCOUNT.

	£ s.		£ s.
£110 at, say, 6 p.c.	6 12	Subsidy	13 10
£400 at 4 p.c. ..	16 0	Rent required (say, 11s. 9d. per wk.)	30 13
Insurance ..	6		
Repairs	7 10		
Management ..	2 10		
Rates	7 2		
Sinking Fund ..	4 3		
	£44 3		£44 3

In proposals I have submitted to Minister of Health, instead of a subsidy of £9 per annum for 40 years, I suggest that the Government should provide capital at 2½ per cent., capital and interest repayable in 60 years, created by Housing Loans at 4 per cent., capital and interest repayable in 40 years, reducing rent charge £6 per annum. The loss of 1½ per cent. in first 40 years would be more than written off by the receipts for 20 years after liability had ceased. By this means the State would lose £6 per annum per house for 40 years, and gain £10 per annum for the next 20 years, instead of giving a subsidy of £9 for 40 years.

*In all Municipal housing schemes the freehold of land will, of course, be secured.
†It will be probably found that the maximum subsidy of £13 10s. will be the average.

By Poor Law and Rating reform I think charge on rent might be reduced by about

Sinking fund charges would be reduced £3 5s. by the repayment of capital and int over the 60 years on Housing Loan, leaving private capital to be repaid by sinking fund

A further saving of 15s. per annum w be saved by local authorities undertaking and sewer charges as their contribution ins of finding a subsidy of £4 10s. per annum 40 years; 15s. being 5 per cent. on £15 house, 15 houses to acre, making developn charges of £225 per annum.

The savings are as follows :—

On capital	£6	0	0
,, rates	3	0	0
,, sinking fund	3	5	0
,, roads and sewers ..		15	0
	£13	0	0
Reducing the previous figure of	£44	3	0
by	13	0	0
leaves	£31	3	0

as the required rental—say, 12s. per week no cost to the State in the long run, and a cost of £15 to £30 to local authority for ro and sewers, instead of an annual subsidy: t is, at a cost of 15s. to 30s. instead of £4 per annum.

The local authority by rating and Poor L reforms could be relieved of, say, two-fifths present burden of rates, and the Exchequ could be compensated by tax on land val unearned increment. JOHN E. YERBURY.

SIR,—Messrs. Charles Heathcote & So letter on housing is very interesting, but amount allowed for repairs, management, & is far less than would be required in pract while such items as irrecoverable arre empties, and sinking fund are entirely omitt Also no provision appears to have been m for the cost of forming roads and laying sewers

Again, considering a safe 7 per cent. can obtained from debentures, I cannot think t any private investor would be content with same return on the equity of cottage prope I doubt if even 15 per cent. would be attracti and should suggest a better balance sheet a £500 house would be as follows :—

	£ s. d.	£ s.
Interest, etc.:		
Ground rent, ½ acre at £200 per acre, forming roads and sewers, say, £45, or equal to £4 per annum	4 0 0	
£400 advanced by Government at 4 per cent.	16 0 0	
£100 equity at 15 per cent. ..	15 0 0	
		35 0
Rates:		
Local rates, 14s. in the £ on, possibly, £15 assessment ..	10 10 0	
Water rate, say	1 10 0	
		12 0
Expenses:		
Insurance 1s. 6d. per cent. on £500	7 6	
Sinking fund	1 10 0	
Empties and arrears (average two weeks)	2 10 0	
Repairs and management ..	7 12 6	
		12 0
Total outgoings		£59 0

Equal to a rent of over £1 2s. 6d. per week.

I consider this the minimum rental, as allowance for expenses is only 20 per cent. the gross rental, or 25 per cent. of the net rer after deducting rates. After the first ten ye I doubt very much if it would be sufficient.

J. C. TICKLE

Menai Bridge.

SIR,—In the recent correspondence I mer questioned the wisdom of destroying and repairing Telford's Bridge. If the fairway navigation (about 550 ft by 100 ft.) is necess I doubt the suitability of the site for a fer concrete bridge.

As showing my belief in ferro-concrete c struction, may I point out that I have recen designed a ferro-concrete (industrial) roof 180 by 120 ft. span (no pillars)?

A. HENTHORN STOTT

E PROPOSED AMALGAMATION

PECIAL general meeting of the Royal ute of British Architects was held at n Hall on Tuesday " for the purpose of ering, and, if thought fit, passing the ned resolution No. 1, and also for the se of considering, and, if thought fit, g the subjoined resolutions Nos. 2 and pectively, approving with or without cations the draft Supplemental Charter ew by-laws which will be submitted to eeting. Should the resolutions be passed e requisite majority they will be sub- d for confirmation to a further special al meeting to be subsequently convened.

" Resolutions

1) That this meeting hereby approves, s and confirms the Provisional Agree- for amalgamation, dated 29th May, made between the Royal Institute of sh Architects and the Society of Archi- produced to the meeting, and for the ses of identification initialled by the dent, and directs the Council of the In- e to carry the said agreement into effect.

2) That this meeting hereby approves of raft Supplemental Charter contained in rinted document produced to the meeting, or the purposes of identification initialled e President, and authorises and directs Council to take the necessary steps to n for such Supplemental Charter the ap- l of His Majesty's Privy Council.

3) That this meeting hereby approves dopts the new by-laws contained in the d document produced to the meeting, and e purposes of identification initialled by resident, and authorises and directs the il to take the necessary steps to obtain he new by-laws the approval of His sty's Privy Council. And that the exist- y-laws be rescinded immediately after approval has been signified."

hundred and seventeen members were nt.

Letter from the Defence League.

opening the meeting MR. J. A. H (President), who occupied the chair, before calling on Major Barnes to move rst resolution, he would ask the Secre- o read a letter received on the previous g from Mr. H. W. Wills on behalf of efence League.

letter was then read, as follows:—

" 16th June, 1924.

the President and Council of the Royal Institute of British Architects.

entlemen,—The ' Defence League ' has ed and the ' Emergency Committee ' pproved of the following agreement to the differences which have arisen, which hoped the Council will confirm and re- end to the special general meeting for ance:—

1) That the Council's recommendations e allowed to pass the general meeting ne 17th and the subsequent confirming g without opposition from the ' Defence e ' provided that, immediately after the tions have been passed by the general meeting on June 17th, the Council forthwith hold a referendum on these resolutions by postcard vote of corporate members in the British Isles.

" (2) The postcard vote to be a direct vote in favour of or against the resolutions.

" (3) The referendum to be decided by a simple majority of those actually voting.

" (4) Neither the ' Defence League ' nor the ' Emergency Committee ' to send out circulars or otherwise to carry on propaganda in favour of or against the resolutions while the postcard vote is being taken.

" (5) If the resolutions are rejected by the postcard vote the Council will ask the confirming meeting to drop the proposals altogether.

" (6) The ' Defence League ' as a body and the members of its Committee who signed the proposed undertaking on June 10th will undertake:

(*a*) Not to oppose the Council's proposals before the Privy Council.

(*b*) To disband the ' Defence League ' and not to revive it within five years.

(*c*) To drop all idea of the formation of a rival society on this issue.

" (7) The ' Emergency Committee ' will undertake to disband itself and not to revive it within five years.

" Yours faithfully,

" (Sgd.) HERBERT W. WILLS."

The President said that letter was a very important contribution because it showed and opened a way to a complete reconciliation within the Institute and those conflicting interests which had rather distracted their attention of late years. The Council felt, and had felt, that in view of the result of the recent Council election they would have no hesitation in proceeding in the ordinary way to get the resolutions passed. But their desire was not to act with a high hand and to make use of the forces at their disposal provided another course appeared which would help to bring harmony into the Institute. The Council had considered the proposal, and an important point was that the Society of Architects had been acquainted with the suggestion and were entirely willing to leave it to the Institute, so there was nothing to hinder the proposed vote. They would fully understand, as had already been explained to the members, that the postal vote in itself had no legal force. At present the only way in which changes such as those proposed could be carried was at a general meeting such as that that afternoon, and where they had to be carried by a majority of two-thirds. They would also be aware that one of the proposals embodied in the letter before them was the establishment of such a postal vote, but at present they would realise it had no legal force. At the same time it did give an opportunity for every member of the Institute to record his vote, and it would remove any objection which might be raised on the score that many members had had no opportunity of attending the meeting that afternoon. Therefore the Council was very anxious that they should agree to the taking of the postal vote, and urged them to do so with all the persuasion at their command. That day it would be necessary, no matter what happened, to put the resolutions to the vote and to carry them by a two-thirds' majority, if they were to be carried. But although the Council hoped and felt confident that the resolutions would be carried they would submit the resolutions to the ratification of the postal vote. If the postal vote were favourable then the confirming meeting would be held at which it would only be necessary to have a bare majority. If the postal vote were not favourable, the confirming meeting would still probably have to be held, but in that case the Council would advise the meeting not to confirm those resolutions. But they hoped that course would not be necessary. The proposals put forward by the Defence League were submitted to the Council in conjunction with the Conference of Presidents of Allied Societies, and they were received with acclamation. He thought it would clear the air and get them on the way in a smooth manner if he asked the meeting to indicate whether or not it approved of the proposals embodied in the letter of the Defence League.

On being put to the meeting these proposals were unanimously agreed, and the PRESIDENT said that as there was no doubt as to the feeling of the meeting he would undertake on behalf of the Council to abide by the terms of the letter.

Resolution No. 1.

MAJOR HARRY BARNES, after moving the following resolution:—" That this Meeting hereby approves, ratifies and confirms the Provisional Agreement for amalgamation, dated May 29, 1924, made between The Royal Institute of British Architects and The Society of Architects, produced to the Meeting, and for the purposes of identification initialled by the President, and directs the Council of the Institute to carry the said Agreement into effect," said he did not consider it necessary to go into the details of the Agreement as it had been circulated to every member present, and was, no doubt, perfectly familiar to everyone present. But it was necessary to say a few words in support of it, because, as the President had already indicated, everyone who spoke was speaking to a larger audience than that present, because the result of the meeting was to be confirmed by a vote taken by means of a written communication. He thought they were in the pleasant position that afternoon of being able to perform the happy task of ending the divisions between the Institute and a considerable section of the architectural profession. One of those divisions had lasted forty years. It began when certain members of the Institute founded the Society of Architects for the purpose of aiding the cause of Registration. He did not know if any of the original members were living, but if so they were in the proud position of seeing their cause become the cause of a united profession. By ratifying the Resolution they would bring back to the Institute a numerous progeny in the wilderness. What had been achieved was largely due to the efforts of Mr. Maurice Webb. There seemed every prospect of ending a division of some four years of a most acute character between that section of the Institute which had, since the formation of the Defence League, been opposed to the principles embodied in the agreement they were now asked to approve. It had been for every member of the Institute, equally with the Defence League, a source of great sorrow that for four years the Institute had been divided. They all wanted to get out of the way everything that prevented them being united. The present meeting held out the prospect of that achievement. Before outlining the considerations that had moved the Council's policy, he would touch upon the point as to why they declined to take a referendum before the Council election and why now. They felt that they were, as a Council, so identified with a policy that they would not be doing justice, either to the profession or themselves, by separating themselves from it. They would remember that about three years ago there was a Council in existence which came before the profession with a policy which did not prove to be acceptable; they were swept away. The present Council felt they were elected for the express purpose of finding a way out of the difficulty. They had asked to be elected with that motive. They had spent a year in trying to find a policy and were identified with it. They had nailed their colours to the mast and if they had to go down, would go down with flags flying. They came identified with this policy, and asking to be elected because they wanted to carry it out—they had been elected. Now they had been approached that they should accept a suggestion, of which, in itself, they had never been afraid, a suggestion which, if accepted, would be a bridge along which the Defence League and the Emergency League might join a united Institute. It was an entirely different proposition. They

were asked to do something relating to the question of getting a united profession. On that ground they felt they could accept the proposal ; not out of weakness, but out of strength. As the Council saw it the issue was a proposal to amalgamate with the Society of Architects and was a proposal which arose directly out of the question of Registration. Registration became an issue forty years ago. Some twenty years ago the Institute practically adopted the idea. It was correct to say there were no more urgent supporters of the cause of Registration than the principal members of the Defence League. Registration was a common ground for all. The only question was how to get it. Immediately it was agreed that Registration ceased to be a ground of controversy, the only question—but a vital one—that remained was, if they were going to have Registration it implied they must have someone to control it. Two years ago he put before the Cardiff conference the position as he saw it, *i.e.*, if they were going to have Registration the body to control it must be one of two kinds. If they did not amalgamate with the Society of Architects they must put up some outside body. And that body which was not connected with either of the other bodies must control both. But such a body must be supreme and control the other two. That was one kind of body they might have. On the other hand, they might, if they carried out the policy of amalgamation, have the Institute itself the controlling body—without any party above it—the Institute holding and maintaining the supreme position. He suggested it two years ago—one thing or the other. Then a week or so after that speech the Council was turned out of office, and a new Council, elected by the Defence League, came in. It enabled the Defence League to put forward their proposals for dealing with the situation. They had to choose between amalgamation or setting up some other body. That was the problem that had to be faced, and a solution embodied in the appeal which came before the Institute a year ago. One of the two positions had already been rejected. Another Council had been elected to find some other way. There were only two ways to go, and one closed. It did not require a great deal of foresight to see only one way open. That way was the one which the Council had taken. The position with regard to Registration involved a controlling body ; there were only two positions. One had been rejected ; they were now asked to adopt the other. If the meeting should reject the proposal the Council had passed it would close both ways and put Registration out of practical politics. If they wanted Registration they must go either one way or the other. The meeting wished to give Registration a push ; but they wanted above all other things to see the Royal Institute of British Architects remain in its supreme position, not only as the head of an incorporated section of the profession, but as the head of the whole profession. They not only wanted a great profession, but also a supreme Institute, and he therefore moved the Resolution with great confidence.

In seconding the resolution, MR. MAURICE WEBB said he really had nothing to add to what Major Barnes had said, but he would like to emphasize two points. One was that while the amalgamation would not bring about immediately registration by Parliament it would bring immediate registration by Charter. Directly the amalgamation was complete it would be possible to proceed with obtaining Parliamentary registration ; amalgamation was an essential step towards registration by Parliament. The second point was, he was inclined to think, even more important. It was that they would at last attain the ideal which two or three generations of architects had been working for, namely, one great united Institute with Allied Societies throughout the kingdom. Hitherto they had been a house divided against itself. They had two societies in London, sometimes pulling together, sometimes pulling in opposite directions. If the proposals before that meeting were passed that state of affairs would be ended. He did not think it would be considered inappropriate if he said the agreement now possible was very largely due to the attitude of the Society of Architects. The Society had been asked to bury themselves and to exterminate their society, and that was a pretty tall order. Throughout the amalgamation negotiations the Society of Architects had worked for the good of the profession just as much as the Royal Institute, and he hoped those present would realise that. The Emergency Committee fought pretty hard to try to stop the Defence League's obstructing proposals against what the Emergency Committee considered for the benefit of the profession. He was told that some very hard things had been said about the Emergency Committee ; and the Emergency Committee had probably said some very hard things about the Defence League. But in view of the compromise reached at the beginning of that meeting his colleagues on the Emergency Committee wished him to say that for their part there would be no bitterness left ; and when the peace followed the storm the unpleasantness which had taken place during the past few years would, as far as they were concerned, be forgotten.

SIR REGINALD BLOMFIELD said about forty years ago the Society of Architects was founded to further the cause of registration : forty years ago he was a junior member of the Council of the Institute, which at that time very seriously considered a policy of registration. At that time he felt rather strongly on that point, and a group of contemporaries, led by the great figures of Shaw and Jackson, were opposed to registration. Since those days a great deal had happened and the whole course of affairs had changed. He satisfied himself a great many years ago that the profession at large had determined to have registration, and it was quite clear to him that the union of architects was an indispensable step in that direction. Some members of the Institute who, having become members with great pains and labour, did not quite see why the same privileges should be handed over to others. Being but human, that feeling was perhaps quite natural, but he would appeal to them to put the whole question on a much higher plane and make whatever personal sacrifices were necessary in order to bring about that union they all wanted so much. He recollected that during the war architects were ignored as a profession, the principal reason being that they did not speak with one voice. On the other hand, engineers did not suffer from the same weakness, and carried everything before them. If the architectural profession could be united they would receive that prestige and position to which they were fairly entitled. Mr. Webb had said that the Society of Architects were going to bury themselves ; but he did not think they were going to bury themselves at all—they were rather going to bury the hatchet. Many years ago, when he was President of the Institute, a resolution was passed which it was hoped would have settled the matter, but the war knocked all that out, and they had to start again. He congratulated those present on having arrived at a very happy solution, and he hoped in future the Institute would be fully representative of all the architects of the country, and that it would speak with the weight to which it was fairly entitled.

MR. KEPPIE said he did not consider any further discussion was necessary for the adoption of the resolution. The vote in returning the Council had been conclusive. The matter of Registration had been under consideration for many years, and several appeals made, but only now had it a reasonable chance of success. The resolution had given effect to the first serious attempt to bring about unanimity with regard to the Registration Act.

In the North the main difficulty concerning the position of the architect was that after passing serious professional examinations they were in conflict with unexamined men. He believed in Scotland they were whole-hea in favour of the Council's proposals.

MR. H. W. WILLS said although they had to a very happy solution for settling the culty, he would like to make a plain stat of what their position was and had been. Shortt's opinion had little weight with because he asked them to assume two pre They considered that a Registration Bill was supported by two independent p would have the same chance of success a supported by the amalgamation of the bodies. They had obtained opinion fro eminent parliamentary power which supp their view, and if obtained earlier would made a difference to the election. They the welfare of the Institute at heart, and not opposed through any personal spirit, because they considered the Institute making a mistake.

MR. MILLBURN said forty years ago he been asked to promote Registration in North of England. The question of Regi tion had his support in the present Co If they were wrong the vote would go ag them. If they were right it would b eternity of peace.

MR. DELISSA JOSEPH, in addressing meeting, said he had taken with others a active part in the negotiations which ha to the present position. He might have content to remain silent at the present mee but at a recent conference of the Council agreed that it would only be fair that v which did not coincide with their own sh have a medium for expression. It might be inappropriate to recall the motives be the Defence League. They took the view this absorption was dangerous, becaus admitted a large body of unexamined men by weight of numbers, might dominate policy of the Institute. They felt that dilution would effect the prestige of the I tute, and that the absorption, if carried, w reduce the value of the hall mark given by Institute, and constitute a grave injustic a large number of architects whose st would automatically be reduced by dilut With respect to Mr. Shortt's opinion regard to Registration, the Defence Le had, with due deference, obtained the opi of an eminent parliamentary power, and took a diametrically opposite view. He of opinion that absorption was not a sour help in Registration, and that Registra could never be obtained. The point was i trated by the fact that engineers, accounta and others had failed to get Registrat The reason, and the only reason, why doc and nurses obtained Registration was for protection of the public. Parliament only g Registration when the public interest wa jeopardy. Public interest was not in jeopa through the non-registration of archite Points such as sanitation and soundness construction were covered by laws and inspec ship. Nevertheless, the Defence League been in communication with the Emerge League with the result that a happy c promise had taken place at the meeting. result would be the removal of the sense friction and the increased might of the Instit

SIR JOHN SULMAN (Australia) said it a great pleasure to him to be back in country after an absence of twenty-se years, and to see such vigour in the archi tural profession. He came from a S where they had obtained registration, and was a member of the Board which took matter in hand. There was not the slight doubt that registration in that State was v badly needed, and he felt it was going to for the good of the profession as well New South Wales. The other States w following the example of New South Wa and he believed within a few years' time whole of the States of Australia would h obtained registration. He therefore wished urge the desirability of obtaining registrat as soon as possible, because he believed was for the good of the whole professi References had been made to the incorpo tion of the Society of Architects. He wo

o go farther, and express the hope that y was not far distant when there would Royal Institute of Architects of the Empire.

GILBERT H. JENKINS moved an amend- that the words, "subject to the dele- of Clause 4 from the Agreement," led to Resolution 1. Clause 4, he said, to the enablement of Fellows of the te to call themselves "chartered archi- and it seemed to him to be a great hat the only thing they would achieve be to be able to call themselves "char- architects," while still enabling any lified person to continue to call himself rchitect." The whole object of regis- was that they should be able to pre- unqualified people calling themselves ects, and it was for that reason that he ed the amendment.

A. H. OUGH seconded the amendment.

OR BARNES said after all they had got k at the question as a whole. What ere discussing was an agreement which een come to as the conclusion of nearly years' work, and every article of which een most carefully scrutinised. No one have followed the discussion that after- without realising that the Society of ects in entering into the agreement on ide made considerable concessions. No ho had been a member of that Society rty years of its honourable existence have acquiesced in its dissolution with- ry great regret, and in the agreement ociety had made very considerable con- ns over and above what appeared likely ccepted in 1911. The Society had con- that all its Members should go into icentiate class, and no single addition eing made to the Associate class as a of the agreement or the Charter. The attached importance to the point discussion, and he had grounds for be- that a great many members of the te also attached importance to it. If endment were accepted they would be ack on the whole of the agreement, and ally nullify what was in their minds, so inflict a serious injury in the opinion eat many members of the Institute who to see those privileges exercised. He the meeting would not accept the ment.

amendment was then put to the meet- nd rejected by a large majority.

resolution was next put, and passed lly unanimously, only some five or six against it.

Resolution No. 2.

noving Resolution 2, MAJOR BARNES s main purpose was to give effect to eement. In addition to that the Char- ld broaden the whole basis of the con- n of the Institute and establish it more upon a unity of opinion in the profes- It enabled a referendum to be taken, be a valid part of the machinery. It he students a class, instead of a regis- t gave Licentiates rights and voting in the business of the Institute. On er hand, it did not add a single mem- the Associate class, except such as got examination. What it did do was, t left to all Associates the gate wide the Fellowship, it narrowed that gate- everybody else who had not passed an ation; it stiffened the entrance to the ship. and if one were to sum up the thing it was a Charter the object of was to base the Institute upon the will members.

seconding the resolution, MR. H. N BRADSHAW congratulated the Char- By-laws Committee with having, by t resolution, brought registration with- surable distance of attainment.

P. W. HUBBARD supported the resolu- nd suggested it would make a great ce from their point of view of having a united profession if they took other members into the Institute. But the absorption of the Society would not affect the public view of the architectural profession in any vital degree.

This resolution was also carried with only five or six dissentients.

Resolution No. 3.

The third resolution: "That this meeting hereby approves and adopts the new by-laws contained in the printed document produced to the meeting, and for the purposes of identification initialled by the President, and authorises and directs the Council to take the necessary steps to obtain for the new by-laws the approval of His Majesty's Privy Council. And that the existing by-laws be rescinded immediately after such approval has been signified," was then introduced by MAJOR BARNES, and SIR JOHN SIMPSON, in seconding, said they had had a unique meeting, the like of which would not, probably, be seen again. He believed that with the completion of the scheme they would solidify and bring into a single body the whole of a great profession.

After the resolution had been supported by Professor Worthington. Mr. BUCKLAND suggested that the distribution of the representation of the Allied Societies should be somewhat reconsidered.

An amendment of MAJOR CORLETTE to By-law 29, section (*d*) that the words "and an Architect practising in the Dominion which he represents" be deleted was agreed to.

The resolution was then put to the meeting and adopted practically unanimously.



"PELICAN FEEDING HER YOUNG."

Top Feature of George Heriot's School Memorial.

MR. JAMES B. DUNN, A.R.S.A., Architect.

(*See p.* 980.)

EXHIBITION NOTES

THE SOCIETY OF TWENTY-FIVE.

The Society of Twenty-five Painters have an excellent show at the Fine Art Society, and almost every member contributes something of character and quality; it is one of the best recent exhibitions at this Gallery; the twenty-five are certainly a capable group.

FAKES AT THE BURLINGTON CLUB.

The subject of fakes and spurious imitations has probably never been illustrated in so attractive and interesting a way as at the present exhibition at the Burlington Club. The beautiful productions there assembled fill the gallery with wonderful beauty of form and colour, and we have to realise that though the production of fakes may be a very bad form of work which deserves the greatest reprobation, it has resulted in the creation of many beautiful things which can hardly be said to be inferior to the originals from which they are taken. There are two drawings in the gallery which one is inclined to think offer us very safe ground for affirmation as to which is the real original, and though in another case a panel which was bought for thousands of pounds may have been a bad piece of trickery, it is certainly a very beautiful piece of work. We were inclined to doubt the interest or value of such an exhibition as this when we received our invitation card, but we think very differently now we have seen it, and are inclined to wonder why it has never been done so effectively before. We must all agree that a fictitious and unfair valuation is often founded on the known antiquity of antiquities, and it is perhaps a sort of poetic justice when those who have helped to run up prices so unreasonably are hoist with their own petard.

CORK-STREET GALLERY

The work of Canadian artists at 18, Cork-street, W., coloured woodcuts, etchings, &c, is well worth seeing, for it shows work of outstanding quality. Some of the coloured woodcuts are delightful, and amongst the etchings will be noted some valuable records of vanishing, or vanished, old buildings in Quebec, by Mr. Herbert Raine, who appears to have found a very happy relief from architectural design in etchings, which command a widespread appreciation. Some excellent water-colour drawings by Mr Robert Houston are also on view at these galleries. They are most successful where the most reticence is shown; the tendency to overstatement is one that should be resisted.

THE BEAUX ARTS GALLERY.

One of the best of the minor exhibitions open now is that of pictures by Harold Speed at the Beaux Arts Gallery, in Bruton-place. There are here some of the sort of pictures one could live with and enjoy, whether the subjects be sunny uplands in Switzerland or quiet grey green landscapes in England. The work shown is perhaps more unequal than usual, but at its best is very able and satisfying; seldom is there a lack of breadth which so often spoils clever painting. In this particular the several water colours of Italian lakes by E. Rowley Smart, now on view at the same Gallery, fail to satisfy though the drawings suggest a sympathetic handling of the medium.

THE COTSWOLD GALLERY.

An exhibition not to be missed is that at the Cotswold Gallery, of original engravings and drawings with great names attached to them. The catalogue contains some admirable reproductions of such gems as Turner's "Bourneville" and his "Christ Church Hall, Oxford, from the Staircase." We may get drawings of great cleverness, but we cannot get anything that illustrates the quality of building better than the last-named drawing. We may well recall our goodly heritage amongst the things left us by Cotman, Dürer, Millet, Rembrandt, &c.

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ILLUSTRATIONS

Royal Scottish Academy Exhibition.

'e give this week a number of exhibits at year's Exhibition of the Royal Scottish demy.

"Blair Drummond," Perthshire.

Blair Drummond," Perthshire, the resi-e of Sir A. Kay Muir, Bart., was partly royed by fire, and the illustrations we give portions of the internal apartments form-part of the reconstruction. The main idor and staircase were carried out in ish oak. The original house was designed he late Mr. J. Campbell Walker, Edinburgh, he Scotch Baronial style.

he principal contractors engaged on the work econstruction were as follows: Main car-er work, Mr. David Mundell, Stirling; rnal joiner work, Mr. John Cochrane, gow; plumber work, Messrs. J. & J. Duff, ing; painter work, Messrs. Moxon & Car- Edinburgh. The hardwood and principal rnal finishings were carried out by Messrs. t, Morton & Tynecastle Co., Ltd., Edin-gh.

he total cost was approximately £60,000. r. James B. Dunn, A.R.S.A., F.R.I.B.A., burgh, was the architect.

The Institution of Civil Engineers.

he hall of this building measures 100 ft. by 50 ft. wide, and is 50 ft. high. The ng painting, by Mr. Charles Sims, R.A., bolises the part played by Britain in the t War, in which the members of the itution were so prominently identified. picture measures 70 ft. long by 32 ft. wide, is a bold and vigorous work both as regards position and colour. The pilasters and are in coloured marbles, the ornament in former being in gilt toned to an old-gold ur.

he list of contractors is as follows:—General ts: Messrs. John Mowlem & Co., Grosvenor rf, London, S.W.; heating, Messrs. Ashwell sbit, Ltd., Barkby-lane, Leicester; decora-plaster work in Great Hall, Messrs. G. & A. rn, Ltd., 167, Hammersmith-road, London; in entrance hall and staircase, Messrs. nsgrove Guild, Ltd., Bromsgrove, Worces-hire.

r. James Miller, A.R.S.A., F.R.I.B.A., is rchitect.

Municipal Buildings, Glasgow.

he connecting arches between the municipal lings and the new extension were placed at the north and south ends, forming John-street into a quadrangle. The main corridor runs right through between the two tunnels, while there is also a connecting tunnel in the basement under the street. The builders were Messrs. John Emery & Sons, Glasgow; the concrete work by Messrs. Melville, Dundas & Whitson, and the marble floor and interior decoration by Messrs. Galbraith & Winton. The stone used was from Culalloe Quarry, Fife-shire. Messrs. Watson, Salmond & Gray, FF.A.R.I.B.A., are the architects.

Kildonan House.

This house is situated in the valley of the River Dusk, in South Ayrshire. The walls are built of Northumberland sandstone of a creamy-white tone, while the roofs are covered with Caithness stone slabs of a soft grey colour, varying in tone and texture, forming a pleasing contrast with the lighter coloured stonework. The finishings of the rooms are executed in Port Orford cedar, without any stain or varnish, being simply coated with whiting and size, giving a soft transparent grey effect.

The following is the list of contractors:—Mason work, Messrs. J. & D. Meikle, Ayr; joiner work, Messrs. John Cochrane, Glasgow; plumber work, Messrs. Wm. Anderson, Ltd., Glasgow; slater work, Messrs. A. Mackenzie Ross, Glasgow; plaster work, Messrs. George Rome & Co., Ltd., Glasgow; plaster work (2nd section), Messrs. G. & W. Rome, Kilmarnock; tile work, Messrs. Galbraith & Winton, Glasgow; glazier work and steel casements, Messrs. H. Hope & Son, Birmingham; heating, Messrs. Ashwell & Nesbit, Ltd., Glasgow; painter work, Messrs. Charles Carlton & Son, Glasgow; range and grates, Messrs. Wm. Kemp & Co., Glasgow.

Mr. James Miller, A.R.S.A., F.R.I.B.A., is the architect.

George Heriot's School War Memorial.

This memorial was erected to commemorate the former pupils of the school who fell in the war.

George Heriot's Hospital was erected at successive periods from the year 1628 to 1659. The name most frequently associated with the design of the building is that of Inigo Jones.

The memorial takes the form of a Mercat Cross, the lower portion of which is octagonal, measuring 7 ft. across. The chief feature, which rests on the moulded and carved capital of the cross, is a sculptured device of the pelican feeding its young, which was modelled by Miss Phyllis Bone, Edinburgh. The height of the monument above the platform is over 35 ft., the height from the lower level exceeding 40 ft.

The stone of which the monument is built was from Ravelston Quarry, near Edinburgh.

The architect of the memorial is Mr. J. B. Dunn, A.R.S.A., F.R.I.B.A., Edinburgh; the sculptor being Mr. Alex. Carrick, A.R.S.A., Edinburgh.

Carham Hall, Northumberland.

Carham Hall, Northumberland, which we illustrate this week, is the residence of Mr. Arthur Cayley, and is situated on the banks of the River Tweed, about eight miles from Kelso. Extensive additions and alterations were recently carried out. The house was completely remodelled, a new drainage and water supply being introduced.

The principal contractors were as follows: Mason and joiner works, Messrs. Hall & Co., Galashiels; plumber work, Mr. Hugh Weir, Edinburgh; plaster work and ornamental ceilings, Mr. Leonard Grandison, Peebles; electric light installation, Messrs. Cole & Co., Edinburgh.

The total cost of the work, including entrance lodge, amounted to over £35,000.

The architect was Mr. James B. Dunn, A.R.S.A., F.R.I.B.A., Edinburgh.

West Parish Church, Helensburgh.

The interior of the West Parish Church, Helensburgh, has recently been reconstructed, the rearrangement having overcome that sombreness which is apt to characterise so many churches in Scotland.

Prior to this remodelling the organ was placed in the apse, with the pulpit immediately in front of it, but the organ and choir have now been removed to the west gallery and the pulpit has been placed on the north side of the chancel, which has been arranged in more orthodox style and embellished with carving. The pulpit base and the steps leading to the chancel are constructed of white freestone, and the floor of the chancel is laid with marble. The chancel fittings, which are Gothic in treatment, are made of Austrian oak. The pulpit is carved with a symbolical vine *motif*. The communion table and screen are similarly carved, the thistle and rose being introduced into the tracery. The lectern, which is placed on the south side of the chancel, stands on an oak base, and is carved in the Gothic style. The font, with its base of white freestone, is treated in a similar manner.

The architects were Messrs. Stewart & Paterson, 16, Blythswood-square, Glasgow. The construction and carving of the chancel fittings were carried out by Messrs. John Crawford & Co., Glasgow.

London County Council Housing.

In order to facilitate development the work at the L.C.C. Estate at Becontree has been divided into sections. The first of these (Ilford No. 1), with 2,901 houses, was completed in July, 1923, and the second (Dagenham) is well advanced. A third section, with 996 houses, has been commenced, and further development (1,000 houses) is about to be commenced to the east of the first section.

The illustrations which we publish are of houses on the second section.

It is situated at the south-eastern corner of the estate, and covers about 60 acres. Of the 990 houses to be provided, 633 are completed and the remainder are being rapidly finished. All the houses are constructed in brick. The types are as follows:—Five rooms, 201; 4 rooms, 248; 4 rooms (parlour), 213; 3 rooms, 276; 3 rooms (flats), 32; 2 rooms (flats), 20. Total, 990 cottages and flats, providing accommodation for between 7,000 and 8,000 people. Broad-street, an existing road, has been retained, together with the trees and hedges bordering it.

Mr. G. Topham Forrest, F.R.I.B.A., the Architect to the Council, is responsible for the lay-out of all sections of the estate, and also for the design and construction of the houses.

MEETINGS.

FRIDAY, *June* 20.

Town Planning Institute.—The Annual Meeting will be held at 6 p.m., at 92, Victoria-street, Westminster. Mr. R. Bruce will read a paper on "The Model Clauses—General Convenience and Amenity."

MONDAY, *June* 23.

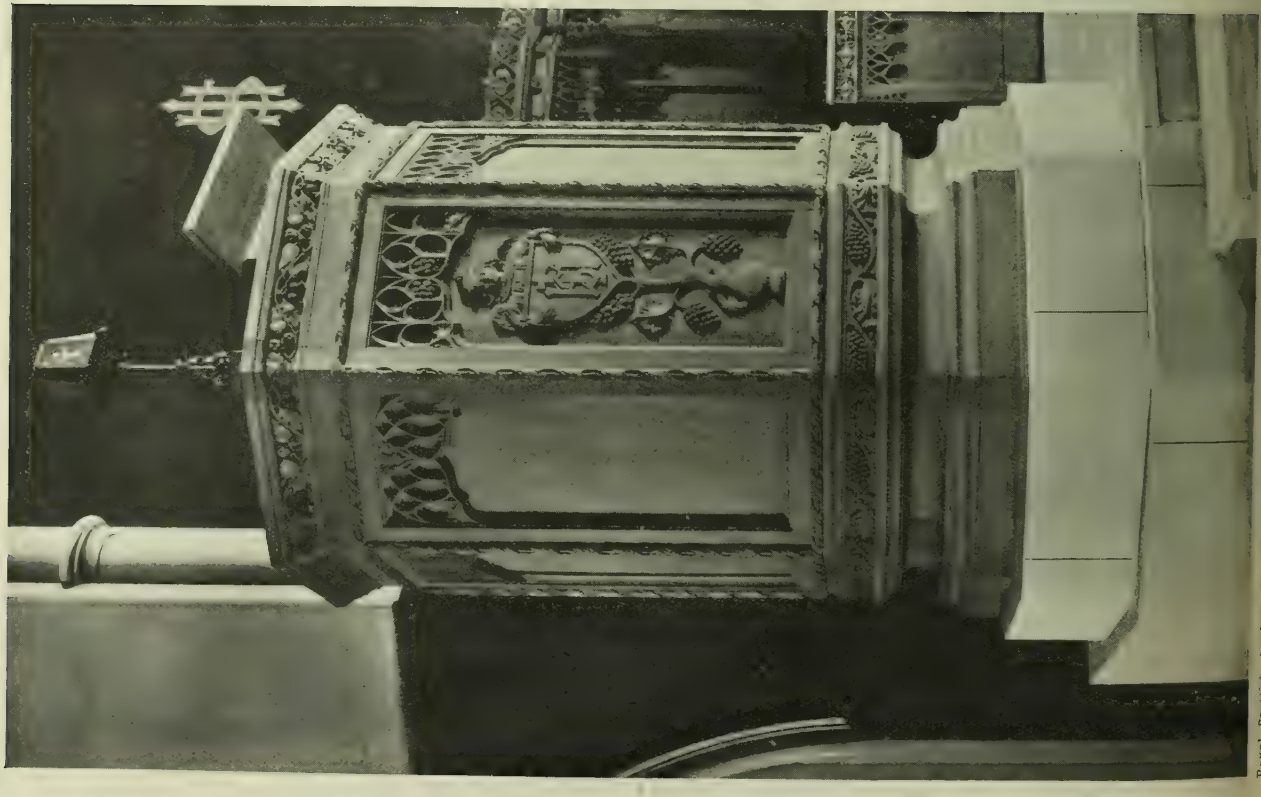
Royal Institute of British Architects.—Mr. C. A. Daubney on "The Proposed Reform of the London Building Laws," 4 p.m. At 9, Conduit-street, W. 1.

Architecture Club—Visit to British Empire Exhibition

THURSDAY, *June* 26.

Society of Antiquaries.—Report on the excavations at Richborough by Mr. J. P. Bushe Fox. At Burlington House, Piccadilly, W. 1. 8.30 p.m.





Royal Scottish Academy Exhibition, 1924.

Reconstruction of Kelvinhaugh West Parish Church, Yoker, Scotland.



Royal Scottish Academy Exhibition, 1924.

Blair Drummond, Perthshire: Principal Staircase.

MR. JAMES B. DUNN, A.R.S.A., F.R.I.B.A., Architect.





ROYAL SCOTTISH ACADEMY EXHIBITION.

GREAT HALL, THE INSTITUTION OF CIVIL ENGINEERS, WESTMINSTER.

MR. JAMES MILLER, A.R.S.A., ARCHITECT.



PLAN OF GROUND FLOOR.



ELEVATION

'Carham Hall'. Northumberland
the Residence of A. Cowley Esq.

SCALE OF 10 15 20



PLAN · OF · FIRST · FLOOR.



· FRONT

James B. Dunn A.R.S.A
Architect.
14. Frederick St., Edinburgh.



Blair Drummond, Perthshire : Chimney-piece in Main Corridor.

Mr. James B. Dunn, A.R.S.A., F.R.I.B.A., Architect.



Royal Scottish Academy Exhibition, 1924.

Municipal Buildings Extension, Glasgow.

MESSRS. WATSON, SALMOND & GRAY, F.F.A.R.I.B.A., Architects.



Royal Scottish Academy Exhibition, 1924.

Municipal Buildings Extension, Glasgow.

MESSRS. WATSON, SALMOND & GRAY, F.F.A.R.I.B.A., Architects.



ENTRANCE COURT.

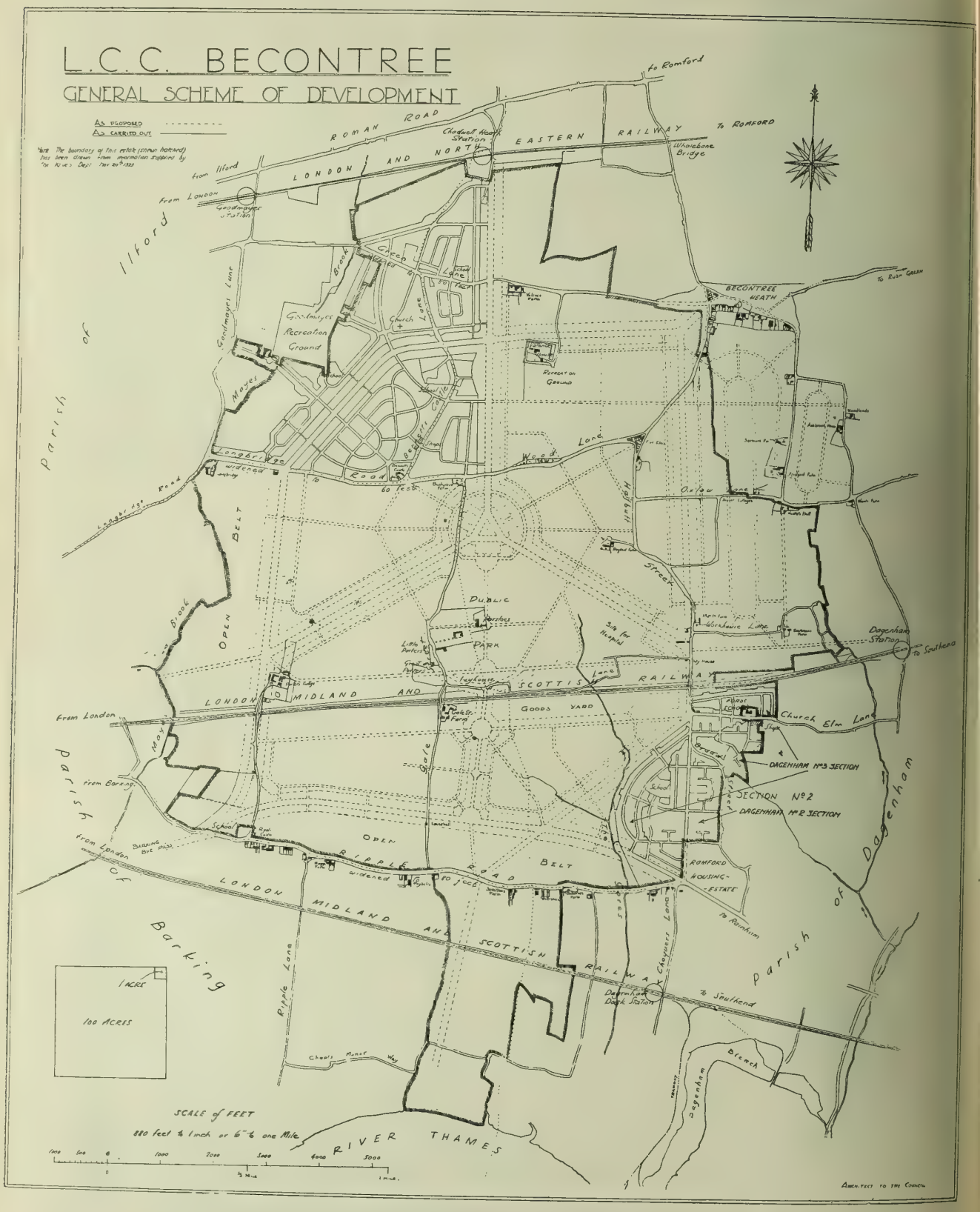


Royal Scottish Academy Exhibition, 1924.

SOUTH FRONT.

"Kildonan," Ayrshire.

MR. JAMES MILLER, A.R.S.A., F.R.I.B.A., Architect.



MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the London County Council. (*See p.* 981.)

Junction of Heathway and Broad-street.

London County Council Becontree Housing Estate: Dagenham No. 2 Section.

Mr. G. Topham Forrest, F.R.I.B.A., Architect to the Council.



BLOCKS 90 AND 98, ARNSTEAD-WAY.



BLOCKS 8 AND 7, HEATHWAY.



GENERAL VIEW UP COOMBES-ROAD.

London County Council Becontree Housing Estate: Dagenham No. 2 Section.

MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the Council.

PROPOSED AMENDMENTS OF THE BUILDING ACTS

By W. R. DAVIDGE, F.R.I.B.A.

London Building Acts, under which our day London has grown up, are still as nderstood by the average Londoner as is eek Testament, and even the architect ilder who have to deal with some of the ons of the Acts every day of their lives adily admit that the best and simplest o keep clear of trouble is on each and ccasion to consult the District Surveyor, n be relied upon to keep them clear of ny pitfalls which beset their path.

London building laws have a continuous of at least seven hundred and thirty- ars, for it was as long ago as 1189 that esent party wall provisions of the Acts their commencement. The succeeding es have slowly added fresh legislation, hough from time to time the enactments een codified into one Act, as under the olitan Building Act of 1855, the law g building in London is still being added ost year by year. No other city in the has so many and varied problems as n, and it is probably true that in no other the building law administered with such anded justice, so that the London g laws have become a model for cities, nd small, all over the Empire.

last codifying Act was thirty years ago, he London Building Act of 1894 brought date the then existing legislation, and hen numerous amendment Acts dealing scape from fire, steel frame buildings, on, have been placed on the Statute The L.C.C., by their various General Acts, have sought to deal with the s problems as they arose, but it has been s for some years that a further codifica- the London building law is long overdue. building laws which were sufficient to deal ie London of thirty years ago are in many nadequate to deal with the problems of esent day, and the necessary revision be long delayed. The labours of the l Committee set up by the R.I.B.A. to er and report upon the proposed reform London building law will, it is hoped, seful fruit. There will, of necessity, be points of difference among architects as ters of detail and it is satisfactory to note ie R.I.B.A. have set aside the next two ys, June 23 and June 30, for a full ion of the many problems involved in eport of the Committee.

Committee have gone in careful detail he present Acts, and the innumerable tions which have been made from time e for their modification. The Committee actically unanimous in their opinion that London Building Act of 1894, together s amending Acts, have become so involved, so many respects are inapplicable to t-day conditions, that it is essential for dequate conduct of architecture and ig in the County of London that these hould be forthwith simplified, amended onsolidated." The Committee's recom- tion has been accepted by the Council of stitute, and the L.C.C. have invited the A. to forward their recommendations, g them that these shall receive the consideration. It is therefore to be that all architects interested will make t of attending the special meetings at the te to consider the proposed reform of ilding Acts.

onsidering a matter so wide in range as ondon Building Acts, it is essential to ide the various subjects, and the Com- in considering some 290 separate items ivided their report under fourteen head- ollowing largely the sixteen parts into the London Building Act, 1894, is d.

headings dealt with by the Committee under :—

The laying-out, widening and altering of and fixing frontages; (2) the height of gs and air space about buildings; (3) construction of buildings and materials used therewith; (4) party wall procedure; (5) special and temporary buildings; (6) dangerous and neglected structures; (7) dangerous and noxious businesses; (8) dwellings on low-lying ground; (9) signs; (10) fire protection and means of escape; (11) special and exempted buildings; (12) administration by the L.C.C.; (13) administration by the district surveyor; (14) miscellaneous.

The Committee have not dealt with the thorny subject of rights of light, thus falling short of the earliest building act (FitzAlwyn's Assize of 1189) which, it will be remembered, laid down that "if any person shall have windows looking upon his neighbour's land, although he may have been for a long time in possession of the view from such windows, and even though his predecessors may have been in possession of the windows aforesaid, nevertheless his neighbour may lawfully obstruct the view from such windows by building opposite to the same or by placing anything upon his own land in such manner as may unto him seem most expedient; unless the person who has such windows, can show any writing by reason whereof his neighbour may not obstruct the view from those windows."

On the subject of new streets and frontage lines the Committee recommend that greater latitude should be given to allow of the formation of crescents where through communication is impracticable, and that facilities should be given for the construction of quadrangles and closes, presumably on the lines already so charmingly adopted in Grays' Inn. The provision that three houses in close contiguity may be held to form a street is generally found to be oppressive, and it is recommended that a larger number than three should be the limit.

From the town-planning point of view, the control of building lines is almost, if not quite, as important as that of new streets, and it is recommended that the L.C.C. should have power to lay down building lines in all streets, new or old. This is a very important recommendation and, although in certain cases, compensation may be involved, it is all important that the London County Council should possess this power, instead of the very limited power which is at present given them to define an already existing line which must be followed. As things are at present, the building line is largely at the mercy of the first comers in a street, and all who come later are to a large extent perforce governed by what has already been done.

The making up of private streets under the Metropolis Management Act, 1855, is in the hands of the various Borough Councils, who can collect the money before they commence work, and it is suggested that there should be some appeal as to the method and materials for making up the street, as there is in other parts of the country under the Private Street Works Act.

It is also curious that the closing of a public way can be effected by Quarter Sessions, on the application of the owner of the land or the local authority, without the L.C.C. being even consulted, and it is obviously only reasonable that the Authority responsible for the laying out of streets should have a say in any application for the closing of a street.

The power of the L.C.C. or Borough Council to prevent building over sewers is also frequently a serious restriction to building, and the Committee recommend that some form of appeal should be allowed from the decision of the authorities.

On the question of height of buildings in London, there has during the past few years been so much controversy that general relief will be felt that the Committee have not unduly laboured this point. They quite rightly point out that in many cases the present limit of 80 ft. in height is much too high on many of our existing narrow streets, and that there are cases where this height should be considerably restricted. Several members of the Committee are well-known exponents of the higher buildings theory, but it is satisfactory to note that the recommendation is comparatively mild, namely, that a height of about 1½ times the width of the street would be a reasonable proportion of height in general cases. While this would allow a slight increase of height in new streets over 53 ft. in width, it would definitely restrict the height in narrow old streets in which, as the Committee point out, such restrictions are specially and urgently necessary. The City of London, as was perhaps to be expected, is to retain all its present privileges and exemption from the restriction of height in narrow streets. The question may reasonably be asked, "Is it one of the City's 'privileges' to be allowed to shut out more of the sunshine than elsewhere in London?" It is suggested that the power of the L.C.C. to grant increased heights in special situations should remain, but that the L.C.C. should in such cases confer with the Fine Art Commission.

Useful suggestions are put forward as to open spaces about buildings, which will tend to simplify the task of the architect and do away with some of the anomalies of the present law, especially with the special provisions as to open space in connection with working-class dwellings.

At present, under Section 45, a bedroom window may open into a long narrow court, and it is suggested that this should be reviewed on the lines that the window should be in such a position that at least the centre of the room should be adequately lit.

This adequate lighting of rooms in internal courts is still unsatisfactory, but, as all architects know, it is not always easy to bring existing conditions into conformity with one's ideals of what should be done. A suggestion from the district surveyor in this respect will frequently be of the utmost value in dealing with a difficult situation.

Most architects will agree that the return frontage of 40 ft. down a side street is hardly sufficient for modern requirements; 50 ft. is suggested.

On the subject of materials and construction the Committee contend that many of the provisions of the present constructional clauses are obsolete, and if obsolete, it seems useless to keep them on the Statute Book, particularly if unnecessary delay and expense are incurred in obtaining unnecessary consents. Power should undoubtedly be given the L.C.C. to amend the rules as to construction and materials from time to time as necessary, without going to Parliament every time a slight modification is desired. A valuable suggestion by the Committee is that the L.C.C. should be empowered to set up an Advisory Board on which architects, engineers, builders and property owners should be represented, to frame, from time to time, rules for construction and building materials which, when sanctioned by the L.C.C., should become binding. Whether such a drastic revision of present practice is possible or not, there can be no doubt that the existence of a permanent technical advisory body would be of the utmost value in the administration of the Acts.

A large number of other suggestions are made by the Committee, which will be dealt with in detail in a subsequent issue of *The Builder*.

Northern Architectural Club.

Members of the Northern Architectural Association Club held an excursion recently to Lumley Castle. There were twenty-five present, including Mr. W. T. Jones (President), and Mr. J. F. H. Checkley (Hon. Secretary). Features of the historic landmark were explained by Mr. Dick, who read a paper on the Castle.

Lych Gate, Beckenham.

The Lych Gate at the Parish Church, Beckenham, is said to be the oldest in England. It has been much admired by antiquarians, and copies exist in many parts of England. At the present time, however, some of the old tiles have fallen, and it is in need of urgent repair.

THE NEW AND THE OLD

A LECTURE BY WIRELESS

It is a common complaint that the architect lags far behind in the rapid advance in which others appear to share, and as a ready scapegoat he is often blamed for any instance in which building enterprise has appeared unready for events, though in reality he may have been impatient to get ahead and ready with a plan before others would even consider it. However, at times the architect does ask himself, perhaps a little morbidly, "Have we advanced at all since the time of Wren? Are we ever to follow and never to lead?" And the thought of the new things that science is able almost daily to reveal lends an added bitterness to the question.

Yet we need have no fear, for the helter-skelter of science will never suit the surer and more ordered progress of art, which finds its true expression when the whirlwind subsides. We may, in fact, leave our friends of the fiddle and paint brush to dance wildly with the times in discord and cubist horror. The discord will fade into thin air and the daub can be burnt when we have again found ourselves, but our work is to remain for our children's children.

What a bewildering world of possibilities is opened up by the development of broadcasting! This laying-on of information at the main, what will it bring forth? Shall we value the results so highly after we have turned on the simple tap as when we had to work hard, dig deep into books and libraries of books, and make long journeys in the quest? Shall we in time rather grow weary of anything calling for effort and turn with relief to a lighter entertainment?

Readers of *The Builder* will perhaps forgive this little moral preamble before referring to a lecture upon "National Churches, and how they are taken care of," broadcasted by Mr. F. C. Eeles, Hon. Sec. of the Central Committee for the Protection of Churches (Victoria and Albert Museum), on a recent evening. The conservative theme must excuse the radical means if any apology is needed.

Concerned, as we are, with steady and healthy progress, there is nothing that should hearten us so much as the confidence born of the knowledge of secure achievement in the past, and the care of all evidence bearing upon the latter is therefore of paramount importance. It is good to hear that we have such live organisations to watch over the precious heritage which our fathers have left to our care.

Mr. Eeles reminded us that it was in England that the parish church attained its highest development, however much we might have to bow the knee to our Continental neighbours as to the scale and grandeur of cathedral design. We are also comparatively fortunate in that the vandalism of Cromwell destroyed far less than our neighbours had to suffer at the hands of misguided religious scruple during the Reformation period and after. Strange to say, in some directions the constructive zeal of the Gothic revival did more damage than the destructive exercises of Cromwell, so Mr. Eeles informed us. The revivalist, in a false self-confidence that he had thoroughly absorbed the Gothic feeling, presumed to pick and choose between the merits of this and that example, and in the particular case of mediæval stained glass ruthlessly destroyed many a priceless example to replace it with what he considered more in the correct spirit. Consequently, although the development of stained glass attained its zenith in the fifteenth century, both as to quality and quantity, the collection of retained works of art of this description is sadly depleted. This is of interest when considered with Mr. Goodhart-Rendel's recent paper on Gothic, in which he claimed that there has never been a break in the development of Gothic architecture, of which the revival was a living part.

In quite recent years only has the public conscience awakened to the value of our ancient architectural treasures, and the existence of the latter become somewhat less perilous. We are, indeed, fortunate that, in the accidents of events, we have retained so much that is priceless. The Ancient Monuments Act was perhaps the first definite indication of this awakening conscience, and one of the results of the Act has been the strengthening of the full machinery of the body which Mr. Eeles represents. Prior to this, the granting of a faculty to permit alterations and additions to a church was contingent upon legal considerations only. Now we have the artistic factor admitted.

In each diocese there is set up its own committee for the protection of churches to act in an advisory capacity in all cases where it is proposed to tamper with an ancient church, and these committees are co-ordinated under a central body to which local delegates are sent, and which is in direct touch with the Victoria and Albert Museum, and with all the material and records therein contained. Those who project such schemes requiring a faculty are advised first to consult their local committee before making application for it; but even this precaution is neglected and the fac at once applied for, the diocesan auth will themselves seek the views of their mittee, and these will bear directly up success or otherwise of the application. machinery has become, therefore, a very ful influence towards the suppression o dalism. Mr. Eeles pointed out that it w policy of these committees to urge the e ment of a capable architect, and with the of such a man they do not interfere un offends against the purpose for which they been called into being. They are, ho always available to give valuable advice called upon, and many architects are gl avail themselves of such facilities when do not feel too confident in themselves. need not, therefore, anticipate the ev ordinary bureaucratic control in the exe work of these bodies.

The importance of this work has come much to the fore since the war, owing t great number of memorial schemes proj Mr. Eeles confessed to some outstanding fai notably one in very recent years, when a pri fourteenth century screen was taken dow burnt to make way for a modern war mem Against such instances he could point to spl achievements. A list of all works of value i churches of England is now nearing compl Much has been done to encourage plain lett and unbroken white wall surfaces, and man bells have been saved from the melting po re-casting. Quite recently, a beautiful old screen found in a loft has been restored t original position in a Somerset church.

Mr. Eeles spoke for a bare ten minutes, it was sufficient to kindle a lively interest i subject he had obviously much at heart, a awaken a comfortable confidence in the care with which our national treasures are h protected.

All Hallows Church.

In the course of a recent letter to the E the Rev. Montague Fowler, who is appe for a further £300 to complete the wor reparation of this City church, states: ' Hallows Church, from an architectural poi view, is unique as representing the trans stage between the long Italian renaissance the short Greek revival. From an histo point of view it has no rival, inasmuch a occupies a site on the old Roman Wall, on w a church has stood since the fourth centu



JUNCTION OF FORD-ROAD AND BROAD-STREET.

London County Council Becontree Housing Estate: Dagenham No. 2 Section.

MR. G. TOPHAM FORREST, F.R.I.B.A., Architect to the Council.

THE LIGHTING OF PICTURE GALLERIES AND MUSEUMS

THE LESSONS TO BE LEARNED FROM THE WEMBLEY EXHIBITION

By S. HURST SEAGER, F.R.I.B.A.

1911, on the opening of the new Room 25 at the National Gallery, the journalists loud in their praise of "the beautifully ed room," while at the same time a rous correspondence was being carried on hose whose attention was centred on the res. Picture-lovers were angry that "it impossible to see the pictures for reflec-." An editor in a professional journal d that while he did not agree with his spondents that it was quite impossible to he pictures, "the reflections certainly did fere very largely with the enjoyment of ." History now repeats itself. Journal- are again praising "the beautifully ed." "the splendidly lit" galleries in Palace of Arts at Wembley, and it is with great diffidence that I feel compelled to e a discordant note in their harmonious ns. I should not do so if it were not for fact that, having given up many years to study of gallery lighting, I know the result ry far indeed from the ideal which should and can be, reached in our picture gal- s. Everyone will agree, and I do most tily, with the unstinted praise given to general appearance of the rooms, the col- on, and its arrangement. The enthusiasm hese things is apt to carry the critics past defects in the lighting of the pictures selves. Their praise, and that in the vord of the catalogue, gives warrant to e who may be designing galleries in the re to follow the example here set, just as authorities at Wembley have followed pre- nts which, while giving a general impres- of good lighting, absolutely fail in the ntials for lighting pictures. The funda- tal principles are:—

) That the source of light should not be visible to the spectator; and

) That the walls should be better lighted than the floor, that is to say, the spectators and objects upon it.

I was informed that the architects wished to light the rooms by different methods, and among them the Top-Side-Light method I have advocated, which conforms strictly to the principles laid down. This method has stood the test of scientific examination, and is carried out at Wanganui, New Zealand. This gallery Lord Leverhulme had the opportunity of seeing on his late visit, and of it he writes: "I was especially pleased with the lighting of that gallery. I thought it most excellent and exceptionally free from reflections in the pictures."

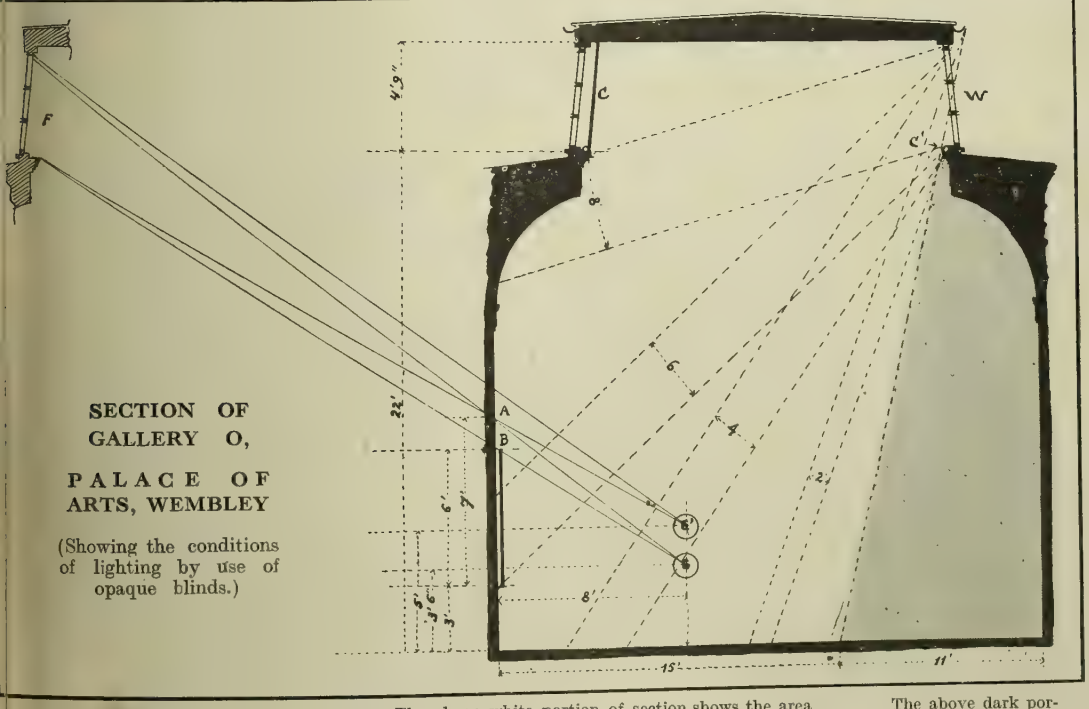
That the wish of the architects at Wembley was not carried out is much to be regretted, and a splendid opportunity of comparison and selection has been lost. It was natural to suppose that a visit to Wembley would show a thoroughly scientific and artistic method of lighting—that the plea of *The Builder* in 1853 for a building "not only good enough but the best possible," "scientifically correct and structurally perfect," would at last be granted. There is an infinite variety of methods and degrees of lighting in this vast exhibition, but in no case throughout the whole of the exhibition can there be found any method of *daylight* lighting which can be regarded as perfectly satisfactory. Very many of the exhibitors, realising the difficulty of getting satisfactory daylight lighting, and having at hand highly skilled electrical engineers ready at once to light their exhibits by electric light, very naturally adopted this system. The results are a triumph for this method. If daylight were a commercial commodity there doubtless would have been engineers to study also the question of providing it, and highly artistic results would ere this have been achieved.

The Palace of Arts and the greater number of the pavilions are very much overlighted; it was only in the Canadian building, and in many of the small pavilions, that we could learn what a beautiful effect could be obtained by shutting off the greater amount of light, thus getting rid of the glare and giving to the galleries a feeling of artistic restfulness. This is especially notable, too, in the beautiful series of rooms in the Palace of Industry.

It is necessary for general exhibition purposes that there should be a flood of light, of which the exhibitors can make what use they please, but the light should be well diffused by a glass which shuts out the sun's rays.

The amount of light is, as will be remembered, accurately determined by reference to a standard of candle power, and the unit of measurement is the amount of light which is thrown by a standard candle at a distance of one foot, and this is spoken of as a candle-foot or foot candle, and briefly here referred to as "C.F." In the avenues of the Palaces of Engineering and Industry when the sun was obscured, the lighting was over 100 C.F., and in the Australian and New Zealand buildings the same results were seen. This is much more than enough. The light in the motor section is reduced by covering half the roof area with coloured draperies, thus reducing the light by at least one-third, with very pleasing results. A great improvement would be effected if vertical draperies were hung, as in the side avenues of the Australian building. This prevents the skylights being seen by the spectators, and shuts off many of the sun's rays. A great many of the exhibitors have very rightly shut off this intense light by building either solid ceilings or reducing the lights by various fabrics. This can be found throughout the Indian Courts, where the light was reduced to 40 C.F. in the corridors under the skylights and 15 C.F. in the bays. In many of the bays the reduction was to 6 C.F., which gave an exceedingly pleasing light and one sufficiently bright for the exhibits.

The Gold Coast Building is one of the



SECTION OF GALLERY O, PALACE OF ARTS, WEMBLEY

(Showing the conditions of lighting by use of opaque blinds.)

The above white portion of section shows the area lighted by direct light, and the dotted lines within it show the relative amount of light upon the walls and floor. (It is clear that if both windows were exposed the direct rays would be increased on spectators and floor, but no direct light would be added to the pictures.)

The above dark portion of section shows the area lighted by reflected light only.

NOTES.

F.—Representation of the window (W), the same distance from the wall as the window itself (the visual image).

E.—The eye of spectator when sitting at a distance of 8 ft. from picture.

E¹.—Ditto, when standing.

E & E¹-F.—Imaginary rays from the eye to the visual image, marking the positions of the reflection of the window on the picture plane—(B) when sitting, (A) when standing, ∴ showing that the reflections of the window are above a 6 ft. picture when sitting and a 7 ft. picture when standing.

C.—Opaque blind closed, shutting off bright light from the spectator and from the pictures on the opposite wall.

C¹.—Opaque blind rolled up. (When closed and C rolled up, the lighting effects are reversed.)

Therefore, in conjunction with Art Gallery glass, these blinds give complete control of lighting conditions at any time of day, independent of sun or its position.

greatest interest. The light here is reduced by nearly solid ceilings. In the Central Court the light on the floor was 18 C.F., and on the walls of the piers 6 C.F., and the restful effect was enhanced considerably by the dark tone of the walls and ceilings throughout. This Central Court, which is 10-sided, has bays electrically lighted opening from eight of its sides. The Court adjoining this Central Court is rectangular and is an extremely interesting arrangement of bays at the side of the central corridor. In the centre corridor the light has been reduced to 6 C.F. on the floor, giving 5 C.F. on the walls and the piers of the corridor. The bays are electrically lighted by hidden lights placed where in my top-side-lighted method inclined skylights would be used, and they throw on the walls of the bays a light of 6 C.F.

In the Canadian Pavilion (as also in the small rooms in the Palace of Industry) the light in the main courts is reduced to 12 C.F. when the sun is shining. The cases are all electrically lighted and have about 18 C.F., so that a brilliant effect of lighting is thus produced. In the Court in which the working models are shown the reduction is down to 1½ C.F. This, on entry, is found to be somewhat gloomy, but after a few minutes the light is found to be quite sufficient, even to see the exhibits in the glass cases which are placed within it. The effect is very pleasing because of the well-lighted bays at the sides. These are lighted up by electric light of probably five or six candle-power, and the impression created by this arrangement is I believe, acknowledged by all to be most satisfactory.

But it is not necessary, nor do I advocate reducing the light in art galleries to this extent. The best result would be given if the light were about 3 or 4 C.F. on the place where the spectator stands to about double or treble this on the pictures. It cannot be emphasised too strongly that in no case must light from the source of light fall upon the spectator. If it does, the pupil of the eye is so contracted that the rest of the building seems ill-lighted, although it has three or four times, or even more, light than is necessary. Conversely, if the spectator is in the dark, a lighted object appears much more brilliantly illuminated than it really is. This can be easily proved by the measurements which I took in the Panorama of War in Paris. There the light where the spectator was standing was only about 1.0 C.F., and the daylight on the picture was only about 5 C.F., yet the effect on a spectator was that the picture was most brilliantly lighted. So, too, in artificial lighting, as in cinema pictures. In the New Zealand Cinema Hall—the light in the room is subdued to .05, just sufficient to see the seats and the spectators—the light on the screen is only 5 C.F., and yet, as everybody knows, the pictures appear to be most brilliantly illuminated. The difference in illumination of the spectators and the screen is as 1 to 500. These two examples, as also the Canadian Court, have, of course, but little relation to picture-gallery lighting; they are only stated in order that it may be fully realised that the apparent intensity of illumination is the result of relativity, not the C.F. power.

And the same effect, in a minor degree, was produced on the Parisian critics in reference to the side-lighted room at the Louvre, which had been carried out in accordance with suggestions I had made. There, because in viewing the pictures the light was at the back of the spectator, the pictures appeared to be illuminated to a high C.F. power, and led one journal to state "the light was so fierce that it would ruin any picture placed in it," yet that apparently "fierce light" was only about one-tenth of the light which falls upon the pictures in the majority of single-glazed top-lighted galleries in every part of the world.

It is necessary that we should have in our minds typical buildings to which we can refer—for comparison—any system of lighting. I have lately been measuring the actual amount of light in various buildings in Italy, France and England, as well as the whole of the pavilions at the Wembley Exhibition, and the conclusion to which one arrives is that the very great majority of our art galleries in all parts of the world are over-lighted to such an extent that a danger arises of rapid deterioration of the pictures. I stated this at my demonstration at the Royal Institute of British Architects, and referred to Room 25 at the National Gallery, which I stated was much over-lighted and suitable for conversion into the top-side-lighted method. A critic, in the discussion which followed, stated that it was not by any means over-lighted and it was a very pleasant gallery which he enjoyed visiting. I had not then an accurate determination. It was simply a question of individual feeling. Room 25 is lighted by a large single-glazed skylight covered by calico, preventing the sun's rays from entering the room. On a bright, sunny day there are no less than 100 C.F. on the floor. Observations were made in the morning so that the west wall was much the brightest—here there were 50 C.F.; on the east wall 25 C.F.; the south wall also 25; and the north wall 35. When the sun was obscured by clouds the light on the floor was nearly half, viz., 50 C.F., and all other measurements in proportion.

The same results are seen in the two sky-lighted rooms at the Palace of Arts, Wembley. The lighting of most of the rooms is by means of lantern light, viz., nearly vertical windows close to the ceiling over the centre part of the room. The ceilings are solid and the light from the lantern windows is thrown directly on to the upper part of the walls of the room, and in a lesser degree on the lower part of the walls and floor.

Let us turn to a building which is universally admitted to be one of the best and most evenly lighted buildings in the world, viz., the Pantheon at Rome. The building is 100 ft. in diameter, and the whole of the lighting is obtained by an opening 26 ft. in diameter high up in the top of the dome. The amount of light on the floor was under 3 C.F. compared with 100 C.F. at the National Gallery and all galleries in the world of that type. Owing to the height of the source of light it is not visible, and the diffusion was so even there was very little difference found between the part of the floor immediately under the light and that close to the walls. The light on the walls was only ·75 C.F., and yet the pictures, which were fairly dark, could be very easily seen in all the details. The same effects were seen in various galleries in Italy, where in very many cases the light was about 1 or 1½ C.F., and the pictures could be seen without any difficulty.

We have now standards from which to judge whether an art gallery or museum is, or is not, over-lighted. The whole question is (as stated above) one of relativity between the amount of light where the spectator stands and the amount of light reaching him from the picture or exhibit. If the spectator is in a relatively subdued light, the effect will be restful and pleasing, and the pictures can be seen quite free from annoying reflections. This can be proved any bright day in the courts running north and south in the Palace of Arts. The observations I made were taken in Gallery O at 1.30, when the sun was shining through the clear glass on the western side, and its rays falling as a longitudinal strip about 2 ft. wide in the centre of the floor. The east windows were shielded by translucent blinds. Therefore the west side was in shade and the east side in bright light. On the floor, in the shade on the western side, the meter recorded 20 C.F., on the eastern side 50 C.F. The western wall had an intensity of 15 C.F., and the eastern wall the same as the eastern part of the floor, *i.e.*, 50 C.F. Here the difference is as 1 to 3.3. Under these conditions the lighting of the pictures on the bright east wall was nearly perfect; the bright light obliterated the reflections entirely in the lighter pictures, and in the dark ones they did not in any way interfere with the spectators' enjoyment. Under these circumstances it was astonishing to see how the spectators turned unconsciously to the well-lighted pictures, enjoyed them to the full and passed out without realising that they had ignored the equally valuable pictures hanging on the opposite ill-lighted wall. Proving at once that intense enjoyment and enthusiasm can be readily created if the pictures on the walls of our Galleries could only be properly seen. Exactly the same effect was seen on a sunless day, when, of course, the C.F. was very much reduced. (I have yet to determine the exact amount of difference of C.F. on the opposite walls for varying types of pictures to ensure that the reflections will not be seen in those on the bright side.)

Fifty C.F. on the bright side is at least five times more than there should be, for 10 C.F. is quite enough even for the darkest picture to be properly seen if the lighting is scientifically arranged. The pictures on the shaded west wall were full of overpowering reflections, even though there were 15 C.F. upon them. If the relativity were not altered the reflections would remain the same, and the lighting on the west wall, divided by 5, be reduced to 3 C.F. This is a most valuable demonstration. It shows the possibility, with lantern lights, of shutting off with opaque blinds each side in turn, and of having a perfect lighting quite free from reflections on the relatively bright side.

The sun's rays should undoubtedly not be allowed to enter the galleries, and this can be avoided by putting over the present sashes large sheets of what has been known as Pilkington's "Kaleidoscopic" Glass, but which in future will be known as Art Gallery glass. This, without diminishing the light to any appreciable extent, will so scatter the rays as to render them harmless.

When the light is scattered in this way the perfectly diffused light in the Gallery may be reduced as required by practically closing the the opaque blinds; *and the amount of illumination will be in proportion to the* aperture formed. For instance, taking the full size of the Lantern light at 1, which gave (as stated above) 50 C.F. on the pictures, then, if the blind is half drawn the illumination will be reduced to ½, or 25 C.F. So on to any C.F. power, in accordance with the amount of light required for the picture exhibited.

This needs actual proof and demonstration—a proof which could be most easily given in one half of Room O if the above glass and blinds were fixed.

Blinds are usually made use of only to shut out the rays of the sun, and, if translucent (as they always are), serve to equalise the light in the room. The result is, the spectators being highly illuminated, the reflections of both spectators and opposite pictures are of equal strength in the pictures on both sides. This can be proved on any bright morning in Room O if the translucent eastern blinds remain drawn as at the time of my morning visit.

The beautiful collection of pictures in the large square rooms V and U suffer to the same extent on the east and west wall, and to a far greater extent on the north and south walls, where the light from the lanterns (which run north and south) is thrown direct on to the spectators, converting the pictures into looking-glasses in which are seen not only the spectators and the opposite pictures, but also most powerfully the white architraves and cornices, which should, unquestionably, be tinted the same tone as the walls. The east and west windows over the east and west walls should be entirely blocked up, for their light is not thrown on a picture wall but wholly on the floor, where, when the sun was shining, the light in a shaded part of the floor was 50 C.F.; when it was obscured at 3 o'clock it was 35 C.F., the light on the east wall 18 C.F., and the south wall 10.

These rooms are admirably adapted for conversion into Top-Side-Light ones with a central corridor. In addition to the blocking up of the east and west windows, all that would be necessary would be to form a tinted fabric

ng over the central part, giving a subdued t over the spectators, and thus, in contrast, righter effect on the pictures of the east west walls. Here the glazed pictures ld be beautifully seen, while the north and h walls, where the reflections are now t overpowering, could be fully utilised for many pictures which are unglazed.

hen the light on the floor of Gallery U 35 C.F., the light of the Sculpture Hall was only 7 C.F. on the floor, 3 C.F. on north wall, and 2 C.F. on the south wall. s subdued lighting results from thickly ting the large lantern windows. The con- in the lighting of the Sculpture Hall and Galleries is a valuable illustration, show- how the eye immediately accommodates f to the altered conditions. The light on floor was only one-fifth of that in the rn-lighted and only one-tenth of that the sky-lighted galleries, yet it was dull, for the vertical lights are above the spectator's eye, high gh to fulfil the first principle of lighting, that the source of light should not be le when looking at the exhibits. The pture Hall might well be lighter, for it is ccepted rule, often expressed by sculptors, the nearer the lighting of a sculpture hall oaches the conditions of the open-air the r. This is proved by the great flood of —softened by a white muslin velarium— at the Grand Palais at Paris, where the pture is most beautifully lighted. More- , there should be in all art galleries great ty in the form of the rooms, the lighting t, and the colourings. It is for the sculp- and the decorative arts other than e exhibits that we should have our lendidly lighted" rooms—these can be excessively lighted and the desirable ast obtained without any harm being . These arrangements are reversed Wembley, so that we have sculpture in a ued lighted gallery, highly suitable for res, and pictures in the brilliantly lighted s highly suitable for sculpture, if the light roperly diffused.

he possibility of lighting pictures so that can be admirably seen quite free from ctions is demonstrated beyond dispute, and without interfering in any way with the nities of the gallery. Its appearance d, in fact, be considerably improved. s to be sincerely hoped, in view of the uble collections of works of art at mbley and in all our galleries, that they be converted as far as possible into gal- s approximating to the top-side-lighted system, and that in all our new galleries the greatest possible care will be taken that the defects seen in the past shall not be repeated.

NOTE.—The comparison between the different buildings is only approximate. In the unsteady light of this climate, and especially under the fleeting clouds and sunshine we have lately experienced, the light is constantly and instantly changing 100 per cent. and more. Accurate comparison between different buildings can only be made by a "light factor" obtained by simultaneous exterior and interior readings. This is not necessary, for, as stated, the success of any art-gallery scheme of lighting depends, fortunately, not on the *amount* of light, but only on the *relative* light on the floors and walls. This can be accurately determined at any time when the sun is shining, as also in the constant light of a bright though sunless day.

Since the above article was written, a thick canvas screen at ceiling level has been placed under the lights over the two small Water-Colour Rooms at the ends of the Gallery running east and west, and this has reduced the light, when the sun is shining, to 10 C.F. on the south wall. The pictures on this wall were beautifully lighted; the light on the north wall at the same time was 7 C.F., and gave unpleasant reflections. The sun was prevented from falling on the screen by translucent blinds on the south windows. This is an excellent illustration, proving, as has already been stated, that 10 C.F. is ample to give a pleasing effect. When the sun was obscured, the lighting on the south wall was 5 and on the north wall 3, and reflections were seen in pictures on both sides, owing to the evenness of the lighting throughout.

BOOK REVIEW

Structural Engineering. By J. HUSBAND and W. HARBY. Third edition. Revised and enlarged. (London: Longmans, Green & Co.) 16s. net.

The fact that a book has reached a third edition is evidence that it has successfully filled a want. Many of the problems considered have been simply and clearly dealt with. In the preface a claim is made that the use of the so-called advanced mathematics has been avoided, and that such knowledge is not generally necessary in the actual work of design. When such a claim is made, it is frequently found that the methods adopted in computation are more involved and less direct than they might be. In some respects this is the case in the authors' work when dealing with moving loads. The use of influence lines simplifies and generalises the work of computation of the maximum stresses produced by moving loads, and the section dealing with these matters should have, we think, been re-written and free use made of this labour-saving device. As it is, the subject of influence lines has been dealt with in twenty-one pages, and the construction due to Professor Howe is not even mentioned, although it is a purely geometrical device involving no calculation and is applicable to the cases dealt with by the authors. We hope they will make fuller use of this method throughout their work when the next edition is called for.

The word "stress" is used rather loosely; on page 40 the term is defined as the load carried by unit area: i.e., in reality a stress is the ratio load divided area. According to this, a member of 3 sq. in. cross-sectional area will carry half the load of another whose cross-sectional area is 6 sq. in., if the *stress* is the same in each. Yet very generally throughout the book the forces due to the loading of a structure are called stresses. For example, a bowstring girder is shown in Fig. 194 on p. 252, and figures are given showing the stresses (?) in each member, and the so-called stresses in two members are figured as 155.4 tons—a truly heavy stress for any ordinary quality of steel used for structural work. It is obvious, of course, that the 155.4 tons is not a stress, but the total load carried by the member. Why should the authors define the word "stress" to mean one thing and use it more frequently to indicate something else?

In Chapter IX, when dealing with the deflection of structures, one or two useful examples are worked completely, but no mention is made of the Williott graphical method, which has the advantage that it gives the relative movements of each nodal point, as the result of one diagram.

There is so much that is useful in this work that it appears worth while to refer to the one or two points mentioned, as the authors may have an opportunity to consider the advisability of revising when the next edition is demanded.

Books Received.

WHERE SHAKESPEARE RESTS.—By Beatrice and Percy Home. (London: The Homeland Association, Ltd.) Price 1s. 6d. net.

THE ISLAND OF JERSEY.—By Edward Foord. (London: The Homeland Association, Ltd.) Price 1s. net.



Royal Scottish Academy Exhibition, 1924.

Design for a City Church to Seat 500. By MR. WILLIAM DAVIDSON, A.R.I.B.A.

THE INCORPORATION OF ARCHITECTS IN SCOTLAND.

Annual Convention.

THE Incorporation of Architects in Scotland held their eighth annual convention in Ayr recently. Mr. T. B. Marwick, F.R.I.B.A., Edinburgh, the president, presided.

In the course of his reply to the civic reception by Provost M'Donald, Mr. Marwick said the Glasgow Chapter had acted wisely in selecting the county of Ayr for their annual gathering. It was one of the most picturesque and beautiful in Scotland, one hallowed by many interesting associations, immortalised by their national poet, and with a long and distinguished roll of honour which included such names as James Boswell and John Galt, the novelist. In the town of Ayr, which occupied the focus of the screen of panoramic heights which encircled it as in a vast amphitheatre, they as architects took a special interest. This not only for its beauty, its magnificent town steeple by Thomas Hamilton, its dignified county buildings, but also for its cleanliness, orderliness, and its lovely vistas of sea and mountain. There was endless delight in its landscapes and wonderful sunsets. They had shown much wisdom in the preservation of objects of historic interest, and he was sure they would exercise similar wisdom to conserve all its natural charms. It was the birthplace also of one whose name they had been acquainted with from their first years of studentship. James Fergusson wrote a "History of Architecture" which all architects looked upon as a standard and monumental work.

The report by the president of the Council showed that there had been admitted to the various classes of membership during the past session 4 Fellows, 7 Associates, and 45 students—the total membership being at this date about 630.

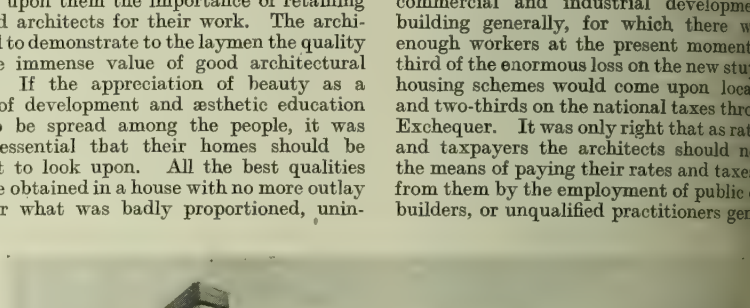
The following item was also contained in the report:—"The R.I.B.A. instituted last year a medal for the best street frontage in London, and expressed the desire that this should be taken up by other large towns. On representation being made to them that such a medal might be awarded with advantage every five years in the large towns throughout Scotland, they readily agreed to the proposal, and offered to present the medal quinquennially, leaving conditions and arrangements in the hands of the Incorporation. The details are now being considered."

Mr. Marwick expressed the hope that the inauguration of such a medal would stimulate architects as well as building owners to vie in the production of good work. The following three Incorporation representatives were appointed to the Council for the ensuing year:—Messrs. John Begg, F.R.I.B.A., Edinburgh; James A. Morris, F.R.I.B.A., Ayr; and P. G. K. Young, F.R.I.B.A., Perth.

Mr. T. P. Marwick, in the course of his address as retiring President, made strong protest against the employment by public bodies of unqualified architects. Reviewing the work done by the Council during his tenure of office, and pointing out that the membership was now 629, and the invested funds £20,000, Mr. Marwick referred to the question of registration. He stated that the amalgamation of the Royal Institute of British Architects with the Society of Architects would go forward, and within the next year or two registration might be a practical realisation. In no other way would they be able to keep out the untrained and incompetent, or inspire respect for a great traditional calling. It was necessary that there should be some statutory protection for the man responsible for the artistic conception of a building, and for its practical utility and substantiality. He protested against the employment by public bodies—often composed of men who should know better—of those who, while able to produce plans of a kind, had no proper comprehensive knowledge of architectural design and practice.

Housing might develop into an important sphere of work, but it was not within their province as architects to deal with the political aspect of impracticable, grandiose schemes for which the labour was non-existent; the question of a return to fundamental economic laws; the difficulties of private enterprise; or restrictive laws which hindered building. It was the duty of the Incorporation to bring pressure to bear in every way upon municipalities who were apparently to be the employers of the future, so as to impress upon them the importance of retaining qualified architects for their work. The architect had to demonstrate to the laymen the quality and the immense value of good architectural service. If the appreciation of beauty as a means of development and æsthetic education were to be spread among the people, it was surely essential that their homes should be pleasant to look upon. All the best qualities could be obtained in a house with no more outlay than for what was badly proportioned, uninteresting, and objectionable; and the architect had to show that only by the employment of good architects could orderly arrangement, constructional power—in fact, real efficiency with effectively controlled expenditure—be obtained.

Building costs would almost certainly advance as the demand increased and the number of working hours were diminished. It was hopeless to expect otherwise. This was bound to have its repercussion on the nation by restricting commercial and industrial development and building generally, for which there were not enough workers at the present moment. One-third of the enormous loss on the new stupendous housing schemes would come upon local rates and two-thirds on the national taxes through the Exchequer. It was only right that as ratepayers and taxpayers the architects should not have the means of paying their rates and taxes filched from them by the employment of public officials, builders, or unqualified practitioners generally.





PROPOSED·HOUSE·AT·KENMORE·PERTHSHIRE
FOR·LIEUT:COL:A·F·EGERTON·D·S·O.

MR. WILLIAM DAVIDSON, A.R.I.B.A., Architect.

was through the architect's work that any
ovement in the housing of the working
es was due, and public authorities would be
y advised who endeavoured to carry out
mes without architectural skill.
ith regard to the new Land Values Bill, Mr.
vick said that if it was to be on the same
as the 1909 Act, then trouble was ahead.
last Act legalised differential taxation on a
icular class of the community. The cost of
ction exceeded the revenue. It depreciated
apital value of land and property, so that
ons were lost in the Death Duties which
me exigible on this depreciated value instead
the former high values. It destroyed con-
ce; it blighted the production of houses;
opped development, and it checked invest-
t in reality. Values were a constantly-
ging medium, and the so-called Doomsday
was useless before it was well begun.
the matter of education, he advocated that
pulous attention should be paid to it. All
nits should have the best preliminary general
ation possible. With a good education,
wed by an artistic education of the highest
ity, they would go far and lay the ground-
for unqualified success. These qualities
t, of course, be followed up and reinforced
the essential qualities which attended all
ess—enthusiasm, perseverance, and a pas-
ate love for their work even to its smallest
il. They wanted to see their profession
le attractive to men of special qualifications,
of high principle, and men of natural ability.
he President then nominated as his successor
John Keppie, F.R.I.B.A., Glasgow, who was
installed.
berdeen was unanimously chosen for next
r's convention.

TOWN PLANNING*

THE two papers by Mr. D. Llenfer Thomas
Professor Abercrombie, reprinted in pam-
et form from the "Transactions of the
nourable Society of Cymmrodorian, 1922-23,"
of considerable value as contributions to
solution of an urgent problem—the con-
vation of the natural beauty of the Princi-
ity and as a guide indicating the direction
ch should be followed in urban development.
Thomas rightly urges that the present time
ipe for the preparation of a development plan
the whole of Wales, and made up of a series
Regional plans so designed as to enable the
abitants to "extract every ounce of profit
l pleasure—of wealth in its broadest Ruskin-
sense"—from this fair land. This should in-
de the survey not only of the development
urban areas and industrial districts, but
o such matters as a soil survey, vegetation
l botanical surveys, a zoological survey of
rasites and animal diseases, surveys of
matic conditions, and water resources.
Professor Abercrombie makes a good case for
e regional survey as a means of preserving the
tural beauties of the country without in any
y hindering the development of its industrial
ources. He observes that the Welsh do not
pear to own either the French genius for the
wn or the English instinct for the village,
d notes the striking and well-known contrast
tween "the natural loveliness of Welsh
untry and the artificial ugliness of her human
ndiwork." He considers that there should be
national School of Town Planning and Archi-
cture, where those who are to be technically
sponsible for the custody of the land of Wales
ould be trained to know her requirements
d possibilities, and says, "The Welsh
ving had their own urban arts destroyed by
me or lost by desuetude, must not attempt
borrow a ready-made substitute from England,
ance or America. It is the recovery of a
rgotten art that is required, not the importa-
on of a new."

* "The Development Planning of Town and
untry." By D. Llenfer Thomas, M.A., and Professor
trick Abercrombie, M.A. (Cardiff: Welsh Housing
d Development Association.) Price 1s. net.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

**** *We are glad to give questions and answers, but cannot accept responsibility for contributed replies, especially on legal matters.*

May we appeal to our correspondents to submit their queries on paper of a size easily filed, and written as legibly as possible, or better still, in typescript?—ED.

Deadening Sound.

[REPLY TO E. G. S.]

SIR,—The conduction of sound through brick walls has something of a mystery about it, in that particular instances present such curiously contradictory effects. Cases have been known where through 18 in. of brickwork it has been possible to hear voices quite plainly in an adjoining house, while in other cases 9 in. of brickwork proves a fairly perfect sound insulator.

Variation in the structure of different types of brick and in the homogeneity of the mortar joints probably accounts for the wide difference in different instances.

It is probable that if such a wall as that referred to by E. G. S. were battened and lath and plastered, most of the sound would be absorbed by the cushion thus produced. The cost would be in the neighbourhood of 4s. to 4s. 6d. per yd. super, and it is for your correspondent to judge for himself if the annoyance is worth this outlay. A more perfect cure would be to pack the space between the battens with slag wool or other sound absorbing material, but this will run up the cost, and I think the simpler way will confine the nuisance within tolerable limits. A.M.

[We have received several other suggestions for combating this nuisance, which we have forwarded to our correspondent, "E.G.S."]

Cubicle Doors.

SIR,—In the construction of cubicles for public hot baths, can you or any of your readers tell me the best material and design to prevent warping of cubicle doors exposed to heat and steam? "LINCOLN'S INN."

Cracks in Concrete.

SIR,—If not troubling you too much, I should be greatly obliged if you would kindly tell me why, in respect of steps, &c., built in concrete, cracks develop, *e.g.* (1) steps, where the inner core is rough concrete, with a cement outside skin, 1 to 2 in. thick; and (2) window sills, inside core hard brick, with a cement outer skin as just mentioned. My inside cores are all right, but the outer casings sometimes crack. These casings are composed in one case, Portland cement and sand, equal parts; in another, one part cement and three sand; 75 per cent. of my work comes out perfect, but the rest shows developing cracks. If you would help me with your advice, I should greatly esteem it.

A. R. B.

Vertical Glazed Tiling.

SIR,—In connection with the fixing of vertical glazed tiling to cheeks and surrounds of fireplaces subjected to heat, it is found that Portland or Parian cement is not satisfactory, as tiles frequently become loose.

We should like to hear of a suitable preparation for this purpose, if any of your readers can kindly inform us.

E. W. TURNER.

Stoves.

SIR,—I should be glad if any of your readers could recommend a stove that would heat hot water and four or five radiators. A gas cooker will be used for the cooking.

"LIVERPOOL."

Fire Resisting Floors.

[REPLY TO STUDENT.]

SIR,—My personal feeling has been always in favour of work cast *in situ*, setting to a perfectly homogeneous whole in its natural place. Pre-cast work designed for a certain purpose is often called upon during handling, stacking, hoisting and fixing to bear strains quite foreign to its designed purpose, and defects are likely to be thus contracted and the reinforcements opened up to attack even where the defect is only a hair crack.

We really do not know how dangerous this may be as our experience of this class of work is limited to a comparatively short period.

The elimination of centering is, of course, a great advantage, which often turns the scale in favour of pre-cast work when judgment is in the balance, but generally for the ideal finished job give me the floor cast *in situ*.

"CONVINCED."

Boundaries.

SIR,—I have an estate on which there is a dispute *re* boundaries. "A" claims that his boundary is the ditch on the other side of the hedge, whilst "B" claims that his boundary is up to the hedge. "A" claims that the owner of the hedge claims the ditch on the other side of hedge as being the boundary.

Please state which is legally correct, as the deeds of neither land sketches the boundary clearly.

"A," DURHAM.

[REPLY TO "A," DURHAM.]

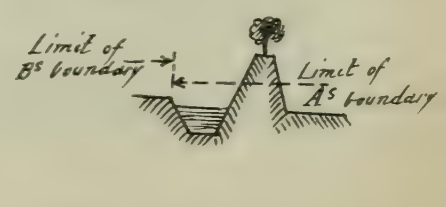
SIR,—When a hedge or fence has a ditch, or the remains of one, on one side of it, there is a presumption that the ditch with the bank and hedge or fence belong to the owner of the land on the opposite side of the fence; and that his boundary is the edge of the ditch farthest from the fence. The reason given is, that if "A" makes a ditch and fence, it is easier for him to dig the ditch at the furthest limit of his land, and to throw the soil dug out on to his own land, than to dig the ditch at some distance from the limit of his land, and to throw the soil towards "B's" land. The probability of trespass in the former case is less than in the latter case. (See Vowles *v.* Miller (1810) 3 Taunt 137.) It has been said that the hedge and ditch boundary is a survival of an old custom. It is doubtful, however, if this presumption is applicable when it is not known that the ditch is artificial. (See Marshall *v.* Taylor (1895) 1 Ch. 641, C.A.)

Acts of ownership, such as trimming the hedge and cleaning the ditch, are *primâ facie* evidence that the person exercising them is the owner of the hedge and ditch; but, even when such acts are exercised for many years, the presumption above referred to is not necessarily rebutted. Especially would this be so if the acts were done without knowledge on the part of the adjoining owner. (See Henniker *v.* Howard (1904) 90 L.T. 157.) If both "A" and "B" concurrently exercise acts of ownership it is evidence of a tenancy in common in the bank hedge and ditch.

An impression prevails that the owner of a bank hedge and ditch is entitled to certain allowances therefor, *e.g.*, when the hedge and ditch boundary is between fields belonging to different owners 5 to 7 links, and when abutting on public lands 7 to 10 links. Apart, however, from any local custom, there is no rule to this effect. (See Vowles *v.* Miller *supra.*)

In Collis *v.* Amphlett, 1920, A.C. 271 H.L., there was a map on which boundaries were delineated by a line drawn along the line of the "growers" in a hedge dividing a common from the land of an adjacent owner and belonging to such owner. It was held that there is no presumption that the owner is entitled to a "ditch width" on the outside of the line of the "growers," in the absence of evidence, that the hedge was originally planted inside the boundary line, and when no "ditch width" was found to have existed.

It follows from above, that in the absence of direct information as to the boundary, that "A" owns the bank hedge and ditch; and that there may be a local custom giving a "ditch width" of from 5 to 10 links thus:—



ANCIENT EGYPTIAN ARCHITECTURAL CRAFTSMANSHIP

At a meeting of the Architectural Craftsmen's Society held in the Royal Technical College, Glasgow, recently, Mr. Wm. J. Smith, A.R.I.B.A., delivered a lecture, illustrated by lantern slides, on this subject. In the course of his remarks he said they could not appreciate the work of the ancient Egyptian architectural craftsmen without considering the peculiar conditions—geographical, social, and religious—which influenced in such a remarkable degree all their artistic efforts. The various materials, the architectural system, and the particular buildings which gave these craftsmen their glorious opportunity must also be considered if they were to get the most out of the study of their work and arrive at a true estimation of its value. The great craftsmen of the past, builders, sculptors, and painters, were not conscious of the high standard of their craftsmanship. They were intent on the immediate work they had in hand.



Court of Amenophis III: Temple of Luxor.

Their best efforts were bent on doing that work as well as they possibly could, and it was only subconsciously that as they worked some expression of their own feelings crept in and made it art. A great work of architecture expressed not only the conception of the architect, but also told them something of all those groups of workers associated with it. The great buildings of the past were the best possible index to the spirit of the age in which they were constructed. Craftsmanship was described as "the ability to do work well and skilfully," which was all right so far as it went. But real craftsmanship was something much more than that. To do work well required skill with the hands and the use of the brain, but craftsmanship in the fullest sense required also a touch of the heart, for love, beauty, and truth were enthroned there, and man made beauty of that which he loved. It was that touch which gave breath to their handiwork and enabled it to live even after their death.

In Egyptian construction all pressures were vertical; there were not thrusts outwards, and they had absolute equilibrium. The general impression was that the structures were built for eternity, as the Pharaohs themselves intended. Stability in its highest and most simple forms was the distinguishing characteristic and the true originality of all Egyptian work. All temples were more remarkable for the ground they covered than for their height.

The Egyptians varied the design of their buildings, the arrangement and proportion of their columns, and the form of decoration in many ways. By fertility of imagination and continual striving after improvement, the ancient craftsman showed that he was by no means bound by that blind respect for tradition too often attributed to him. The execution and erection of obelisks testified to

A modern designer would probably ha made a mess of the problem of the simp

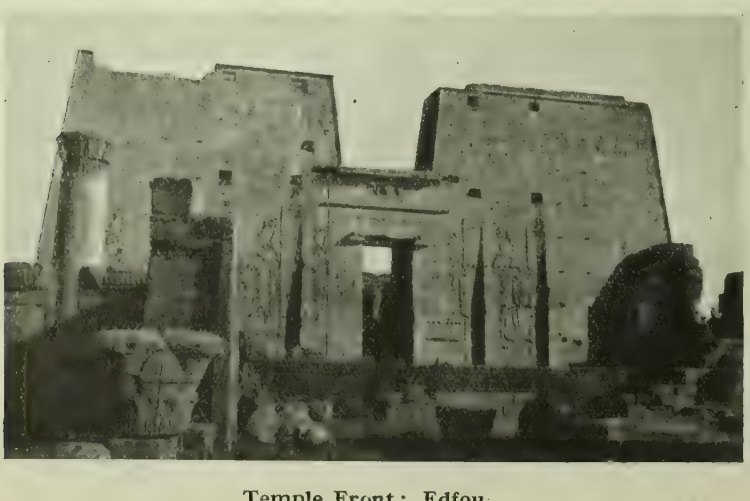


One of the Colossi of Rameses II, in the Court of Rameses: Temple of Luxor.



Column of Taharka: Temple of Amon, at Karnak.

The height of column is 69 ft., circumference at top of capital is 49 ft.



Temple Front: Edfou.

treatment of mass so brilliantly solved by the ancient architect.

The story of the social life and habits of the people could be read from the beautifully executed decorative painted wall reliefs, to be seen in the rock-cut tombs, like that of Tutankhamen's, in the Valley of the Kings tombs. But they returned to the temple for really great work. It was difficult to give any idea of the grandeur of the remains of the great Hypostyle Hall of the Temple of Amon, at Karnak.

The whole combined to stamp this as one of the greatest of man's architectural works. They were indebted to this early civilisation for the lesson of gigantic scale and "monumentality," and, as a modern writer put it, "architecture was, to a large extent, an Egyptian art."

THE BUILDING TRADE

THE LAW RELATING TO BUILDING

By W. T. CRESWELL, Lic.R.I.B.A., F.R.San.Inst. (Barrister-at-Law).

X.—THE CONTRACT.

Documents Essential to a Contract.

A number of documents may be included in a completed contract, even if it can be seen that there is an intention therein that a formal contract is to be entered into later. The documents must be linked together, that is, must refer to one another and must contain all the essentials of a contract amongst themselves as a whole, *i.e.*, offer and acceptance. If they form a completed contract, either party cannot object to the introduction of additional terms or conditions in a formal contract subsequently drawn up.

Simple Contracts.

Simple contracts, whether written or parol, depend for their validity on the presence of consideration; whereas, a contract under seal holds good without any consideration being involved. The law does not weigh the adequacy of the consideration, only its reality; and if it is worthless, it does not invalidate the contract. Some simple contracts must be in writing, *e.g.*, bills of exchange and promissory notes and acceptance of bills; assignments of copyright; acknowledgment of debts barred by the Statute of Limitations; some contracts which come under the Statute of Frauds, sec. 4, *e.g.*, a promise by an executor or administrator to answer for damages out of his own estate; a promise to answer for the debt, default or miscarriage of another person; an agreement made on a consideration of marriage; a contract concerning, for the sale of, lands, tenements or hereditaments, or any interest in or concerning these; agreements not to be performed within the period of one year from the making thereof.

Building Contracts.

Contracts to construct buildings are usually in writing, though this is only legally demanded when they fall within the Statute of Frauds, the Sale of Goods Act, 1893, or are made with a corporation, which must contract by writing under seal. Contracts for work, labour and materials, used in the work, are contracts for the sale of goods, and therefore need not be in writing.

In Lee *v.* Bulmer (1843) 11 M. & W. 243, a contract in connection with the buildings of a pump engine at a colliery, Parke B. said: "The question here is whether it is correct to describe this as a debt for a main contract for goods sold and delivered. We think it is not. The engine was not contracted for to be delivered as an engine in its complete state and afterwards affixed to the freehold . . . but was contracted as an engine sold and delivered." And the judgment was that as being a matter of work labour and materials, the contract did not become under the Sale of Goods Act, 1893. But a contract for the sale of the material from a demolished house (where the ground was to be clear by a given date, and where the contractor's right of access was limited and all remaining materials on the site to be forfeited) was held to come within the Act and to be a contract for the sale of goods. It appears that a contract for the sale and preparation of plans is a contract for the sale of goods and must be in writing.

Contracts under Seal.

Some contracts must be under seal, *e.g.*, leases for more than three years, contracts with corporations, etc., verbal contracts, parol evidence.

The determination of the terms of a verbal contract are, when in dispute, at the discretion of the jury. See Bowes *v.* Shand (1877) 2 App. Cases 455. A contract, partly verbal and partly written, is also defined by the jury. See Moore *v.* Garawood (1849) 4 Exh. 681.

When once a contract has been reduced to writing and is a complete contract, the Court will not accept as evidence any previous negotiations or extensive declarations to alter the terms contained in the written document. See Lewis *v.* Nicholson (1852) 18 Q.B. 503.

Parol evidence is, however, admissible to show that a new or supplemental contract has been entered into. See Bush *v.* The Trustees of Port and Town of Whitehaven (1888) 52 J.P. 392. Also to show the existence of any local or trade custom which tends to modify the meaning of special words or terms in the contract, or to explain "latent but not patent ambiguities." In Symonds *v.* Lloyd (1859) 6 C.B. (N.S.) 891, there was a contract to build certain walls in which were these words: "for the sum of 3s. per superficial yard of work 9 inches thick, and finding all materials. . . ." The lower part of the walls causing the dispute was of stone two feet thick, to a height of eleven feet, the remainder of the walls was of brick 14 in. thick; evidence was admitted that the local usage was to reduce all brickwork, for the purpose of measuring up, to terms of 9 in. thickness, but not to reduce stonework unless when exceeding two feet in thickness. It was held that the brickwork was to be paid for under the clause quoted, but the stonework was to be valued on a quantum meruit.

In New Zealand *v.* Simpson (1900) A.C. 182, Lord Davey said: "Extensive evidence is always admissible; not to contradict or vary the contract, but to apply it to the facts which the parties had in their minds and were negotiating about. . . Of course, if the words in question have a fixed meaning, not susceptible of explanation, parol evidence is not admissible to show that the parties meant something different from what they have said."

Blank Spaces in a Written Contract.

When blank spaces are left in a contract the Court does not admit parol evidence as to intention: if such evidence would define the missing data so as to put onerous conditions on either party. See Kemp *v.* Rose (1858) 1 Giff. 258.

Erasures and Alterations.

Only when these have been made previously to the signing of the document by both parties do they stand. Obviously, therefore, all erasures and alterations are likely to lead to dispute, and should be avoided; or, if absolutely unavoidable, should be initialled and even dated by the parties.

In Pattinson *v.* Luckley (1875) L.R. 10 Ex. 330, the plaintiff had executed building work for the defendant and sued for certain payments beyond those certified by the defendant's architect. The defendant pleaded the written conditions, in which there appeared an erasure in a material part. The jury found that this erasure had been made after the builder had signed the conditions; and the builder contended that the document was therefore voided. The Court held that the conditions in the document were still to be considered in deciding what were the real terms of the contract, and that the plaintiff (the builder) was entitled to recover payment. It is the duty of the Court to construe all disputed documents, when the true meaning of the words is established, and after all circumstances have been considered; and it is the duty of the jury to accept their construction. See Neilson *v.* Harford (1841) 8 M. & W. 823; also Lyle *v.* Richards (1866) L.R. 1 H.L. 222.

Lost Documents.

The Court will reconstruct a lost document on evidence forthcoming from other documents or from parol evidence. See Berwick *v.* Horsfall (1858) 4 C.B. (N.S.) 450.

Deciphering of Bad Writing; or Insertion of Omitted Words.

This is the duty of the Court and not of the jury. See R. *v.* Hucks (1816) 1 Stark 521. The Court corrects all clerical errors in dispute.

Discrepancy between Documents of the Contract.

All documents, plans, specifications, etc., are construed, one with the others, by the Court. See Rex *v.* Peto (1826) 1 Y. & J. 37.

Printed Forms of Contract.

There are to be obtained printed forms of contract for use in building agreements; words of generally accepted meaning are used; the general terms are printed and spaces left for particular terms, amounts, etc. The oldest issue is by the Institute of Builders. That issued by the Royal Institute of British Architects is in general use.

In case of discrepancy between the printed and written matter, the Court will give special importance to the written words as showing the considered intention of the parties, and as having been selected advisedly. See Glynn *v.* Margetson (1893) A.C. 351.

The grammatical and ordinary use of words is accepted by the Court in construing or interpreting such documents; unless such grammatical and ordinary use would, read in conjunction with written words inserted, create an absurdity or obvious duress, when the meaning may be modified within the limits of other admissible evidence.

Technical Words and Terms.

These are construed in their meaning as accepted in the particular trade or profession involved. See Mollan *v.* May (1844) 13 M. & W. 511.

The meaning of technical words is for the decision of the jury. See Hutchison *v.* Bowker (1839) 5 M. & W. 535.

Words not Struck Out.

If the intention shown in the rest of the document proves that certain printed words should obviously have been struck out, and they are inconsistent with other written words, they will probably be rejected by the Court. See Western Assurance *v.* Poole (1903) 1 K.B. 378.

Novation.

When a new party is substituted for either of the original parties to a contract, there is what is termed "Novation of the contract." The use of this term used to be restricted to these circumstances; but now its use is extended to cases where terms or conditions, which go to the root of the original contract, are substituted by other terms or conditions.

Becontree Estate.

At the recent conference of the British Legion the Becontree branch moved that the conference viewed with alarm the amount of rent charged by the London County Council for tenements erected on the Becontree estate, and asked that representation should be made to the London County Council with a view to a reduction of 50 per cent. being effected. By an amendment from Hull similar action was asked to be taken in all districts where it was considered exorbitant rents were charged by local authorities.

THE WEEK IN PARLIAMENT

WESTMINSTER, *Wednesday.*

The first business of the House of Commons, on reassembling after the Whitsuntide recess, was to consider the amendments made by the House of Lords to the Prevention of Eviction Bill. These amendments were all eventually rejected, and the Bill will be resubmitted to the Lords in practically the same form as that in which it first left the Commons.

The Gretna Factory.

Replying to a question from Mr. T. Johnston, Mr. W. Graham (Financial Secretary to the Treasury), said that there were at present 25 brick houses and 80 wooden bugalows vacant at Gretna, and 48 brick houses and 59 wooden bungalows at Eastriggs. He was advised that reasonable steps had been taken to prevent these houses falling into disrepair. No applications have been received for small holdings by the Disposal Board.

Replying to supplementary questions from Mr. D. G. Somerville and other members, Mr. Graham said he would be delighted to let the houses if he could find tenants. Advertisements had been inserted in the newspapers, and they were unable to do any more than they had done. The rents of the houses were no higher than were usually charged in the district.

The Size of Bricks.

Mr. J. Sunlight asked leave to bring in a one-clause Bill to fix the dimensions of bricks used in State-subsidised housing schemes. He explained that the measure would increase the size of these bricks to 9 in. by 4½ in., by 3½ in. thick. By the Bill it would be possible to augment by one-fifth the quantity and volume of brick-work without the addition of a single bricklayer and without any cost to the State. He mentioned that last year he was engaged in the reconstruction of a beautiful classic building in Manchester, where the bricks were 4 in. thick. He discovered later that the builder was a Scotsman. As to the saving to be effected by his proposal, he claimed that on a £500 cottage there would be a saving of £30. The Minister of Health had introduced a Bill to control the prices of building materials, but he had made no provision against bricks being reduced in size.

Mr. D. G. Somerville, in opposing the Bill, said it contained one of the most extraordinary proposals that had ever been put before the House. If there was any reason for increasing the size of bricks, why did not Mr. Sunlight go a step further and provide that bricks should be 1 ft. or 2 ft. thick; or why did he not make it necessary to use one brick only by casting a brick the size of one side of a house? The Bill would dislocate the trade and would add to the cost of building by imposing obligations on the trade. The proposition was absurd.

Leave was granted to introduce the Bill by one vote—140 to 139. The measure was then brought in and read a first time.

Wooden Houses for Leicester.

Leicester Housing and Town-Planning Committee has accepted a tender for the erection of 100 wooden houses, at just over £400 each.

Builder's Estates.

Mr. William Green, of 8, St. Andrew's-villas, Clewer, Berks, builder, £13,396.

Mr. Joseph Howard, of Wigan, Lancashire, builder (net personalty, £4,460), £8,001.

Mr. Henry Dean, of Linthorpe, Middlesbrough, retired builder (net personalty £8,863), £13,763.

Mr. Edward Howard, of Upper Dicconson-st., Wigan, builder, a prominent local Roman Catholic (net personalty £4,460), £8,001.

NOTICE TO DETERMINE MONTHLY AND WEEKLY TENANCIES

IT is a very remarkable thing that there should be some uncertainty in the law as to the nature and length of a notice to determine monthly or weekly tenancies, but such is the case, and it is recognised in the text books and was commented upon by Mr. Justice Lush in the recent case Queen's Club Gardens Estates, Ltd., *v.* Bignell (1924, 1 K.B. 117).

We commented upon this state of the law in our note to the case Simmons *v.* Crossley (1922, 2 K.B. 95) in our issue May 5, 1922. That was a case somewhat unusual in its facts as the tenancy was a monthly tenancy and the landlord had given the tenant six months' notice to determine it, and it was contended by the tenant that this notice was bad because the notice expired on a day other than the last day of the month, as calculated from the commencement of the tenancy, and the Divisional Court held that to determine a monthly tenancy all that was required was a reasonable notice, and the notice in question was not unreasonable because it expired on a day other than the last day of the monthly period calculated from the commencement of the tenancy. In our note to that case, however, we pointed out that whatever uncertainty there might be in the law, the general practice was to determine a monthly tenancy with a month's notice, and a weekly tenancy with a week's notice, to determine on the last day of the tenancy, and that is the safe course to adopt.

The whole question has again come up for consideration in the above case, Queen's Club Gardens Estates, Ltd., *v.* Bignell, and in connection with a weekly tenancy, but before a Divisional Court, that is a Court of concurrent jurisdiction with that which decided Simmons *v.* Crossley, and therefore without authority to overrule the decision in that case.

The case is one of complication involving points under the Rent Act, but in the present note we are confining our observations and the statement of the facts to this question of notice alone. The defendant was a weekly tenant, and had been so for some considerable time, the tenancy having commenced on a Saturday. On October 6, 1922, which was a Friday, notice in the following terms was given in writing, "The Estate Company hereby give you the requisite week's notice for the termination of your tenancy one week from Monday next, on or before which date they will require vacant possession."

The Court intimated that this last paragraph of the notice, "on or before, etc.," would probably make the notice bad for ambiguity, but it did not rest the decision upon this, as it held the notice bad on other grounds.

It was a notice given on Friday to determine on Monday a tenancy which commenced on Saturday, and it was held bad because it ran into another week.

Mr. Justice Lush, after saying that it seems strange that the law should still be in uncertainty with regard to the necessary requisites of a notice to quit in the case of a weekly tenancy, states the points to be considered, thus:—(1) What length of notice to quit must a landlord or tenant give to determine a weekly tenancy? (2) Must the notice expire at the end of the weekly term or may it expire during the currency of that term?

It may be said here that it was intimated by the Court that whatever principle applies to a weekly tenancy will apply to a monthly tenancy. As regards the first point, the length of notice, as the Court pointed out, there are cases to be found in the Reports laying it down that in a weekly tenancy the notice must be a week's notice, half a week's notice, more than a week's notice or a reasonable notice, but the Court now held that in the case of a weekly tenancy the notice must be a wee notice.

The second point as to whether the not must expire at the end of the current w the Court considered more serious, but Court held the notice must expire at the of the week.

The Court, in coming to these conclusio differed from the finding of the Court Simmons *v.* Crossley that the notice m only be a reasonable notice and that such notice would not be bad because it did coincide with the period of the tenancy, b as we have said, being a Court of concurre jurisdiction, it could not overrule that cision, and therefore until the point com before the Court of Appeal the question ca not be considered as having been set at re The Court, however, gave detailed a weighty reasons for its decision, and careful analysed the decisions, on which Simmons Crossley had been based, and as far as weekly tenancy is concerned this case will the authority which must be followed, Simmons *v.* Crossley did not directly turn a notice required in a weekly tenancy.

The finding is really satisfactory as brings the weekly, and, inferentially, th monthly, tenancy in line with tenancies suc as yearly and quarterly tenancies so far notice is concerned, and now that notices quit are so very material in connection wit Rent Restriction it is very important that th law on this point relating to weekly tenancie should be settled and understood.

One or two general observations on the sub ject may, however, be useful.

As we have shown, the case decides that determine a weekly tenancy the notice mus be a week's notice, and the notice must expir at the end of a week, but, it may be asked does a week's notice mean a notice given pre cisely a week before the expiration of th term, or can a week's notice be given a some time before the last week commences?

Mr. Justice Salter, in the judgment he de livered in this case, pointed out that no que tion had been raised that the notice to quit wa either too short or too long, and he should sa nothing about that, but the point seems in ferentially decided by Mr. Justice Lush, for h is reported as saying, "If the party who desire to give notice is doubtful as to the day on whic the period expires he can make sure that th notice will be valid by adding the words tha are given in the common notice to quit, to the effect that if the date mentioned is no the real date on which the period expires the the notice to quit is to expire on the prope day of expiry next after the expiration of th current period" (and see May *v.* Boro below).

Therefore it appears the exact date of th notice before the period in question, provide the notice is of proper length, is not material but the notice must end with the period, an the reason for this was also given by th Court, for if the notice expires after the perio has determined then another period has com menced, and there would be difficulty as t the rent, which is only due at or in respec of a period.

We have endeavoured to make the point raised by this most important decision clear and it decides the law to be as we suggested it was in our note of May 5, 1922, but until a de cision has been given by the Court of Appea the matter cannot be considered as finally settled in view of the divergence of view ex pressed by the two Divisional Courts in this case and in Simmons *v.* Crossley.

Since this note was written there has been a further decision of a Divisional Court, but differently constituted, on the subject of a monthly tenancy (Precious *v.* Reedie, *The Times*, April 15). In that case the monthly tenancy commenced on the first of the month, and a notice dated September 1, but only served on the tenant on September 5, had been given: "I hereby give you one month's notice to quit 5, Commercial-street, as I require the house for occupation." The county court judge had held that this was a good notice for the end of the

ensuing month of the tenancy, viz., r 31, and Crossley's case and Bignell's had been cited to him, but he had pur- to follow the case of May *v.* Borup 1 K.B. 830). That was a case of a tenancy which under the agreement be terminated by six months' notice given rch 1 or September 1, and a notice given ember 23 to quit "at the earliest possible nt" was held to be a good notice to deter- he tenancy at the expiration of six months March 1. It will be seen that this case is ally dealt with by the Court in Bignell's the observations we make above. The nal Court in the case we are now con- g (Precious *v.* Reedie) reversed the ent of the County Court judge, and ing Bignell's case held that in a monthly y the notice must correspond in length he period of the tenancy and must ter- e on the day of the month on which the y commenced: thus following Bignell's nd definitely applying the principle there own in a weekly tenancy to a monthly y.

NEW BUILDINGS IN LONDON

nhill.—Building.—A building for the h and Foreign Marine Insurance Co. is erected at 45, 46, 47, Cornhill, E.C. It e a steel-framed building, faced with Port- stone, granite plinth, reinforced concrete and staircase and roof, back elevations with white glazed bricks. The general actors are Messrs. Trollope & Colls, Ltd., of leman-street, E.C. The steel-framing is carried out by Messrs. Redpath, Brown . Most of the sub-contracts have been ged. Messrs. Campbell Jones, Son & ers, of 9, Dowgate-hill, Cannon-street, are the architects.

rough.—Factory.—A new factory is being for Messrs. Upsons, Ltd., at 311–317, igh High-street. The architect and sur- is Mr. S. C. Addison, of Eastbourne. The ing is a steel framed construction with ete floors. The front is in brickwork and ial stone. The sub-contractors are: Steel- and fireproof floors, Messrs. Archibald D. ay & Sons, Ltd.; patent artificial stone, Patent Impervious Stone Co., Ltd.; steel ents, The General Iron Foundry Co., Ltd.; lte work, Messrs. Thomas Faldo & Co., ; fireproof staircase, Messrs. F. A. Norris . The general contractors are Messrs. s Bodle, Ltd., of Eastbourne.

BY MASTER BUILDERS' ASSOCIATION.

Derby Building Costs.

e Derby Master Builders' Association tly published a statement in reply to the h of Alderman W. R. Raynes in the House mmons, in which the latter, referring to the of building houses in Derby, asserted that ontractors' price, when the contractors had eld to themselves, was reduced only to £715, mmediately a contract had been let at that the Corporation, by direct labour, built es at £424 each. Mr. Porter, Secretary of Derby Master Builders' Association, states six months before direct labour entered into etition the contractors' price had been ed to £356 10s. per house. Further, it was uch inaccurate statements that Alderman nes and others endeavoured, both locally in Parliament, to bolster up Socialism in orm of direct labour, and to make the c believe that this system was for the fit of the community.

Building Trade Wages.

a meeting of the National Joint Nego- ng Committee, held in London on day, an agreement on building trade s was reached, to take effect immediately. ils are not available at the time of going ress.

RATES OF WAGES IN THE BUILDING TRADE.

The following are the rates of wages in the building trade in England and Wales. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur:—

	Masons.	Brick-layers.	C'p'ters, Joiners.	Plas-terers.	Slaters.	Plumbers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/9	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 1,000.)

CONTRACTS, COMPETITIONS, &c.

Forsome contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders: and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JUNE 23.—**Barnsley.**—HOUSES.—Erection of five pairs of semi-detached houses in Dodworth-road, Barnsley. Goodworth & Fox, architects, 9, Priory-place, Doncaster.

JUNE 23.—**Bingley.**—COTTAGE.—For erection of cottage at Training College, for West Riding E.C. Education Department, County Hall, Wakefield.

JUNE 23.—**Bournemouth.**—ALTERATIONS POLICE QUARTERS.—Erection of prisoners' cells, alterations to existing police quarters, and erection of police dormitories, at the Police Station, Stafford-road, Bournemouth, for the County Borough of Bournemouth. Borough Engineer, Town Hall, Bournemouth. Deposit £1 1s.

JUNE 23.—**Bristol.**—SUB-STATIONS.—For construction of 11 transformer sub-stations, for the T.C. Mr. H. Faraday Proctor, Electrical Engineer, Bristol Deposit £2 2s.

JUNE 23.—**Buckinghamshire.**—COTTAGES.—For the following work for the Bucks Agricultural Committee: Rectory Farm, Tingewick, one new dairy cottage; Claydon Hill Farm, Steeple Claydon, one new dairy cottage; Accommodation Holding, Whaddon, one new dairy cottage. Mr. G. M. Odam, County Land Agent, Aylesbury.

JUNE 23.—**Chesterfield.**—HOUSES.—For the erection of 100 houses in the Rural District of Chesterfield, in the following parishes: Grassmoor, 32 houses; Tupton, 18 houses; Mosbro', 15 houses; Renishaw, 19 houses; and Killamarsh, 16 houses. Mr. Percy B. Houfton, architect, Furnival Chambers, Chesterfield. Deposit £1 1s.

JUNE 23.—**Darlington.**—ALTERATIONS.—For alterations to four converted Army huts at the Cattle Market, for the T.C. Mr. G. Winter, Borough Surveyor, Darlington.

JUNE 23.—**Devil's Bridge (Card).**—REPAIRS, &C.—For repairing and altering the Farm House at Gelmast Farm, Devil's Bridge, for the Cardiganshire Small Holdings Committee. Mr. J. Lewis Evans, architect, Aberystwyth.

JUNE 23.—**Dorking.**—COTTAGES.—Erection of fifty cottages, in lots of ten or multiples of ten, in one contract. The contracts to include the actual erection of cottages only, excluding drainage, roads, paths and fencing, for the Dorking U.D.C. Mr. S. S. Gettings, Surveyor, Council Offices, Dorking. Deposit £2 2s.

JUNE 23.—**Edinburgh.**—ALTERATIONS.—For alterations at the Ear and Throat Pavilion of the Royal Infirmary. Works Department Office, Hospital, Edinburgh.

JUNE 23.—**Edinburgh.**—KINDERGARTEN.—For the erection of kindergarten at Vennel, for the T.C. Mr. J. A. Williamson, City Architect, Edinburgh.

JUNE 23.—**Edinburgh.**—PAINTING.—For outside painter work at Bruntsfield, Craiglockhart, Dr. Bell's, and Stockbridge Schools; and inside painter work at Blackhall, Dean, Gilmore-place, James Gillespie's, Lochend-road, Parsons Green, St. James' Episcopal, Edinburgh; St. Mary's R.C., Edinburgh; Sciennes, and Torphichen-street School, for the Education Authority. Mr. J. Stewart, Executive Officer, Education Offices, Edinburgh.

JUNE 23.—**Edinburgh.**—JOINER'S WORK.—For removal of galleries to form level floors in classrooms at Broughton Elementary, Craiglockhart, Regent-road, Roseburn, and St. Leonard's Schools, for the Education Authority. Mr. J. Stewart, Education Offices, Edinburgh.

JUNE 23.—**Edmonton.**—BUILDING WORK.—For works to the interior of St. James' School, for the Education Committee. Mr. E. O. Taylor, Education Offices, Edmonton, N.

JUNE 23.—**Gainsborough.**—HOUSES.—For erection of 16 houses, for the U.D.C. Mr. S. W. Parker, Surveyor, Gainsborough. Deposit £1.

JUNE 23.—**Hull.**—PAINTING.—For cleansing and painting at the Central and Branch Police Stations, for the T.C. City Architect, Guildhall, Hull.

JUNE 23.—**Linthwaite.**—BUNGALOW.—For erection of bungalow in Stones-lane. Messrs. Lunn & Kaye, architects, Milnsbridge, Huddersfield.

JUNE 23.—**Manchester.**—WALL.—For rebuilding boundary wall to All Saints' Church, for the T.C. City Architect, Town Hall, Manchester. Deposit 10s. 6d.

JUNE 23.—**Mountain Ash.**—COTTAGE.—For the erection of a caretaker's lodge at Penderyn Reservoir, near Hirwain, for the U.D.C. Mr. W. G. Thomas, Town Hall, Mountain Ash.

JUNE 23.—**Nottingham.**—REPAIRS.—For minor repairs to properties under charge of Estates Committee for twelve months. Mr. W. E. Williams, Estate Surveyor, Guildhall, Nottingham. Deposit £1.

JUNE 23.—**Prestwich.**—HOUSES.—For the erection of six houses for the U.D.C. Surveyor, Town Hall, Prestwich. Deposit £1 1s.

JUNE 23.—**Shoreham-by-Sea.**—ADDITIONS.—For forming six additional bedrooms with bathroom, &c., at the Nurses' Home, Shoreham-by-Sea, for the Board of Guardians. Mr. Arthur Flowers, Clerk, Union Offices, Shoreham-by-Sea.

JUNE 23.—**Stafford.**—HOUSES.—Erection of 106 houses of the parlour and non-parlour type on the Lammascote Housing Estate, for the Stafford Corporation. Mr. W. Plant, A.M.I.C.E., Borough Engineer, Borough Hall, Stafford. Deposit £2 2s.

JUNE 23.—**Various Towns.**—PAINTING.—For cleaning and repainting station buildings, bridges, &c., at the following places:—(30) Weymouth, Bridport, &c.; (31) Starcross, Dawlish Warren, &c.; (32) Blue Anchor, Bridgwater, &c.; (33) St. Harmons, Rhayader, &c.; (34) Forden, Montgomery, &c.; (35) Abermule, Kerry, &c.; (36) Strata Florida, Tregaron, &c.; (37) Moat lane, Llanidloes, &c.; (38) Oswestry, Buttington, &c., for the G.W. Rly. Co. Engineer at Taunton for Contracts Nos. 30, 31, and 32, and at Oswestry for Contracts No. 33, 34, 35, 36, 37, and 38.

JUNE 24.—**Blackpool.**—CONVERSION.—For conversion of Burlington House into four flats, for the T.C. Mr. F. Wood, Borough Surveyor, Blackpool. Deposit £1.

JUNE 24.—**Eastriggs.**—ALTERATIONS.—For alterations at (1) Eastriggs Farm House, Eastriggs, and (2) Croft House, Gretna, with a view to these buildings being adapted for use as Police Stations, for the Dumfries C.C. Mr. John Robson, Clerk, County Buildings, Dumfries.

JUNE 24.—**Lepton.**—OFFICES.—Erection of Council Offices at Lepton. Mr. E. A. Rundell, Rowley-lane, Lepton.

★JUNE 24.—**London, E.11.**—RESIDENCE, &C.—Erecting a relief office and a relieving officer's residence in the Urban District of Leyton, under the superintendance of Mr. W. Millner Knight, of Brushwood, Leytonstone, E.11, for the Guardians of the West Ham Union. Mr. Thomas Smith, Clerk to the Guardians, Union Offices, Leytonstone, E.11. Deposit £2.

JUNE 24.—**London, N.W.1.**—EXCAVATIONS, &C.—For builder's work in excavation and concreting foundations for alterations and additions to the boiler-house at King's-road Electricity Works, for Metropolitan Borough of St. Pancras. The Council's offices, 57, Pratt-street, Camden Town, N.W.1. Deposit £2.

JUNE 24.—**Teignmouth.**—BUILDING.—For erection of a steel-framed house at the gasworks, for the U.D.C. Mr. H. Hyam, Gas Engineer, Teignmouth.

JUNE 24.—**Thurnscoe.**—SWIMMING BATH.—For the erection of covered swimming bath, for the Hickleton Main Miners' Welfare Scheme. Mr. T. Bull, architect, Thurnscoe.

JUNE 24.—**Ulster.**—REPAIRS.—For repairs and alterations at Coastguard Stations at Annalong, Killoughs, Newcastle, Portaferry, Tara, and Port Muck, for the Government of Northern Ireland. Ministry of Finance, 15, Donegal-square, W. Belfast.

JUNE 24.—**Wheaton Aston.**—HUT.—Erection of hut, for the Wheaton Aston Ex-Service Men's Institute. Mr. C. Hinsley, Secretary, Wheaton Aston.

JUNE 25.—**Camborne.**—RENOVATIONS.—For ren tions to chapel, school and outside property, for Tr of the Wesley premises. Mr. F. Mills, Wellington-s Camberley.

JUNE 25.—**Gravesend.**—HOUSES.—For the erec alternatively of 50 and 100 houses on King's F Estate, for the Corporation. Mr. H. H. Brown, T Clerk, 4, Woodville-terrace, Gravesend, Kent. posit £2 2s.

JUNE 25.—**Heckmondwike.**—PAINTING.—For pa ing at secondary school. Mr. H. C. Hebbes, Cler the Governors, Heckmondwike.

JUNE 25.—**Huddersfield.**—ADDITIONS.—For a tions to the Cowcliffe Liberal Club. Messrs. Sto Sykes & Hickson, architects, 4, St. Peter's-sti Huddersfield.

JUNE 25.—**London, E.5.**—SHOWROOMS.—For erection of the building required for electricity sh rooms at Lower Clapton-road, for the Metropol Borough of Hackney. Mr. J. A. Bowden, 30, Cra street, Strand, W.C. 2. Deposit, £2 2s., to Mr. H. Lee, Town Clerk, Town Hall, Hackney, E. 8.

JUNE 25.—**Wayland.**—HOUSES.—Erection of houses at Attleborough, for the R.D.C. Mr. F. Rol son, Clerk, Watton, Norfolk.

JUNE 25.—**Wembley.**—HOUSES.—For the erect of 50 non-parlour houses on Christchurch Est Ealing-road, for the U.D.C. Mr. Cecil R. W. Chapm Engineer and Surveyor, Council Offices, Wembl Middlesex. Deposit £2 2s.

JUNE 26.—**Grays.**—PAINTING.—For painting w &c., at Children's Homes at Stifford, for the Limeho Board of Guardians. Mr. A. J. Smith, Clerk, Bar street, E. Deposit £2 2s.

JUNE 26.—**Manchester.**—ADDITIONS.—For additi to boiler house at Delamere-street recreation grou for the T.C. City Architect, Town Hall, Manches Deposit 10s. 6d.

JUNE 26.—**Manchester.**—FOUNDATIONS.—Constr tion of concrete foundations for retort benches, for the T.C. Secretary, Gas Dept., Town H Manchester.

JUNE 26.—**Southend-on-Sea.**—CLASS ROOMS.—I a wooden framed building at Westcliff High Scho Victoria-avenue, for the Corporation. Mr. R. Dyer, Borough Engineer, Municipal Buildings, Sou end-on-Sea. Deposit £2.

JUNE 26.—**Southend-on-Sea.**—PAINTING, &C.—I cleaning and painting at the Borough Sanatorium, the Corporation. Mr. R. H. Dyer, Borough Engin Municipal Buildings, Southend-on-Sea. Deposit £1

JUNE 27.—**Horden.**—HOUSES.—For erection of Aged Miners' Homes at Horden Colliery. Mr. Jar Hamilton, surveyor, Blackhall Colliery.

JUNE 27.—**Ireland.**—EMPLOYMENT EXCHANGE Erection of a central employment exchange in C poration-street, Belfast, for the Ministry of Finar Government of Northern Ireland. 15, Donegal Square West, Belfast. (Room 35.) Deposit £5.

JUNE 27.—**New Romney.**—ALTERATIONS.—For al tions and repairs to the buildings at the rear Plumtree House, for the T.C. Mr. Walter Lamarc Town Clerk, Town Hall, New Romney, Kent.

JUNE 28.—**Bradford.**—PAINTING.—(1) Internal pa ing and cleaning, Central Library, Darley-street; vacuum cleaning work, Central Library, Darley-st for the T.C. City Architect, Town Hall, Bradford.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns o Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for error that may occur:—

	Mason.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-Masons' Labourers.	Plas layers' tere Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/6½	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7½	1/6½	1/6½	1/7	1/6	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/0	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirling	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 999.

JUNE 28.—**Cardiganshire.**—VARIOUS WORKS.—For nting, colouring, repairing, &c., of school buildings, follows: Aberystwyth District, at twelve ools; Tregaron District, two schools, for the Carnshire E.C. Mr. J. Lewis Evans, architect, Aberystth.

✱JUNE 28.—**Coulsdon and Purley.**—COTTAGES.—ction of 52 cottages at Godstone-road, Kenley, l a pair of cottages at Purley Oaks, for the U.D.C. R. Chart, Surveyor to the Council, Council Offices, rley. Deposit £5.

JUNE 28.—**Middleton-in-Wharfedale.**—PAINTING, &C. For the following work at the Middleton-in-Wharfe- e Sanatorium, near Ilkley. (1) Painting (internal l external); (2) road surfacing and surface tarring. st Riding Architect, County Hall, Wakefield.

JUNE 28.—**Tregoney.**—RECTORY.—For the erection new rectory. Messrs. Andrew & Randall, architects, Austell.

JUNE 28.—**Truro.**—ADDITIONS.—For the enlarge- nt of the County Hall, Truro, by the provision of ther committee room and office accommodation, atories, &c., for the Cornwall C.C. Messrs. T. B. ock & Son, architects, 26, Green Park, Bath. posit £2 2s.

JUNE 28.—**Windsor Forest.**—ALTERATIONS.—For e erection of a new classroom and other alterations d improvements at Cranborne Council School, for rkshire Education Committee. Mr. W. C. F. derson, Education Secretary, Shire Hall, Reading. posit £1 1s.

JUNE 30.—**Bedford.**—BUILDINGS.—For the erection building and reinforced coal bunkers, for the T.C. ectrical Engineer, Bedford. Deposit £1.

✱JUNE 30.—**London, N.W.6.**—DECORATION AND PAINTING.—Decoration and repainting work at the inicipal Hospital, Neasden, for the Willesden strict Council. Mr. F. Wilkinson, M.Inst.C.E., gineer to the Council, Town Hall, Dyne-road, lburn, N.W.6.

JUNE 30.—**Lymm.**—HOUSES.—For erection of 12 uses in Rush Green and eight houses in Barrs Bank- ne, for the U.D.C. Mr. D. Mort, Surveyor, Council ices, Lymm. Deposit £1 1s.

JUNE 30.—**North Kensington.**—FLOORING.—For e flooring over and adaptation for use as a Public Hall the Women's First-class Swimming Bath at Lan- ster-road Baths, for the Council of the Royal Borough Kensington. The Borough Engineer, Town Hall, ensington, W.8. Deposit £2 2s.

JUNE 30.—**Northwich.**—ALTERATIONS.—For altera- ns, plumbing, &c., at "The Lymes," for the B.G. . A. Williamson, architect, 21, High-street, Norwich.

JUNE 30.—**St. Germans.**—HOUSE.—For erection of use at Downderry, St. Germans. Messrs. Parkes, es & Rosedeare, architects, Launceston.

JULY 1.—**Barnsley.**—HOUSE.—For the erection of letached house, Woodstock-road. Mr. A. P. Haigh, St. Mary's-place, Barnsley.

✱JULY 1.—**Bromley Common.**—SHOPS.—Erection two shops and dwelling houses on the Housing tate, for the T.C. Mr. Fred. H. Norman, Town erk, Municipal Offices, Bromley, Kent. Deposit 2s.

JULY 1.—**Cardiff.**—FIREMEN'S QUARTERS.—nders (based on firm prices for materials, and subject ly to variations owing to fluctuations in wages) for e erection of 20 sets of firemen's quarters and other rks at the Central Fire Station, Cardiff, for the rporation. Mr. T. Peirson Frank, F.S.I., City chitect, City Hall, Cardiff, on production of a receipt m the City Treasurer for a deposit of £2 2s.

✱JULY 1.—**Dartford.**—EMPLOYMENT EXCHANGE.—rection of a new employment exchange (Hutting heme) at Dartford, for the Commissioners of His ajesty's Office of Works. Contracts Branch, M.O.W., King Charles-street, London, S.W.1. posit £1 1s. (payable to the Secretary).

JULY 1.—**Huddersfield.**—ADDITIONS.—For additions lodge at Woodfield Cemetery, for the T.C. Borough chitect, Huddersfield.

JULY 1.—**London, N.1.**—ALTERATION AND CONRUCTION WORKS.—Alterations to an old building and e construction of a convenience at the Depot, Liver- ol-road, N.1, for the Council of the Metropolitan orough of Islington. Borough Engineer, Municipal ffices, Tyndale-place, Upper-street, N.1.

JULY 1.—**Mountain Ash.**—WALLS, &C.—For building taining walls, levelling, asphalting, &c., the play- ounds of Trerobart Boys', Girls', and Infants' Schools, nysybwl, for the U.D.C. Mr. W. H. Williams, Archi- ct, Town Hall, Mountain Ash.

JULY 1.—**Saltburn-by-the-Sea.**—HOUSES.—For the rection of nineteen parlour-type subsidy houses, r the U.D.C. Mr. Thomas Young, Surveyor, Council ffices, Saltburn-by-the-Sea.

JULY 2.—**Cork.**—SHED.—For construction of quay ansit shed, for the Harbour Commissioners. Mr. J. ong, General Manager, Cork.

✱JULY 2.—**London, S.W.2.**—DWELLINGS.—Erection some or all of 86 dwellings to be built on the Bloom- ld Estate, Central Hill, West Norwood, S.E.27, r the Council of the Metropolitan Borough of Lam- th. Mr. Bruce Penny, Town Clerk, Lambeth Town all, Brixton Hill, S.W.2. Deposit £3 3s.

JULY 2.—**Thorpe, Norwich.**—PAINTING.—External ainting of the Main Hospital buildings at Saint ndrew's Hospital, for the Committee of Visitors. rchitect and Surveyor, St. Andrew's Hospital, Thorpe, orwich. Deposit £1 1s.

JULY 3.—**Edinburgh.**—PAINTING.—For painter work t George Heriot's Hospital, Heriot Watt College nd the Trust Offices. Mr. J. Anderson, Superinten- nt of Works, 20, York-place, Edinburgh.

✱JULY 3.—**Enfield.**—HOUSES.—Erection of 103 ouses in various parts of the district, for the Enfield .D.C. Mr. H. R. Crabb, A.R.I.B.A., Council Sur- eyor, Public Offices, Enfield, Middlesex.

✱JULY 3.—**London, N.1.**—FLATS.—Erection of 102 ats on the site adjoining the Municipal Offices, yndale-place, Upper-street, Islington, N.1, for the etropolitan Borough of Islington. Mr. E. C. P. onson, F.R.I.B.A., Finsbury Pavement House, 120, oorgate, London, E.C.2. Deposit £5.

✱JULY 3.—**London, W.9.**—BUILDING WORKS.—Building works, comprising the erection of a mortuary, pathological and post-mortem rooms, at the Infirmary, No. 285, Harrow-road, W.9, in accordance with the specification prepared by their Architect, Mr. H. Percy Adams, F.R.I.B.A. Mr. P. Biddulph Hancock, Clerk to the Guardians, Guardians' Offices, 313–319, Harrow-road, W.9. Deposit £2 2s.

JULY 4.—**Binham.**—COTTAGE, &C.—Erection of cottage and additions to farm premises at Westgate Farm, Binham, for Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich.

JULY 4.—**Newmarket.**—HOUSES.—Erection of 10 brick and slated houses at the Rows, Newmarket, for the Newmarket Urban District Council, in the county of Suffolk. Clerk's Office, Newmarket U.D.C., Dova Chambers, Newmarket. Deposit £1.

JULY 5.—**Hanwell, W.7.**—WOOD FLOORING.—Providing and laying a new deal floor for the dining hall at the Central London District School, Greenford-avenue, Hanwell, W.7, for the Managers. Mr. George P. Morrell, Clerk to the Managers, at the above school.

JULY 5.—**Worthing.**—PAINTING.—For painting and distempering work at the Cookery and Manual Instruction Centre, Elm-grove School and St. George's School, for the T.C. School Architect, Municipal Offices, Worthing.

✱JULY 7.—**Laleham, near Staines.**—COTTAGES.—Erection of two five-roomed cottages of similar design with the construction of the necessary drains, &c., both in the parish of Laleham, near Staines; also for the construction near one of the cottages of the superstructure only of a house (approximately 28 ft. by 14 ft. by 13 ft. high to roof plate) for containing venturi meter recorders, for the Metropolitan Water Board. Office of the Board, Chief Engineer's Department (Room 201), New River Head, Rosebery-avenue, Clerkenwell, E.C.1. Deposit £5 to the Accountant.

✱JULY 7.—**Portsmouth.**—MOSAIC FLOORING.—Works to be done and materials to be supplied in relaying the mosaic flooring to the main corridors of the Town Hall, for the Portsmouth Borough Council. Borough Engineer's Office, Town Hall, Portsmouth.

JULY 7.—**Walsall.**—CHILDREN'S HOME.—For the erection of children's home at Great Barr Park, for the Walsall and West Bromwich Unions Joint Committee. Mr. A. H. Ward, Clerk, 22, Lombard-street, West Bromwich. Deposit £5 5s.

✱JULY 7.—**West Bromwich.**—CHILDREN'S HOME.—Erection of children's home at Great Barr Park, in accordance with specification and plans prepared by Messrs. Pite, Son & Fairweather, architects, 12, Carteret-street, Queen Anne's Gate, Westminster, London, S.W.1, for the Walsall and West Bromwich Unions Joint Committee. Mr. A. H. Ward, clerk, 22, Lombard-street, West Bromwich. Deposit £5 5s.

JULY 8.—**Bolsover.**—HOUSES.—Erection of 30 houses with streets and sewers, for the U.D.C. Mr. Hoten, Surveyor, Bolsover. Deposit £1 1s.

JULY 8.—**Greenwich, S.E.10.**—UNDERGROUND CONVENIENCE.—Construction of an underground convenience for both sexes, at the foot of Blackheath-hill, Greenwich, for the Council of the Metropolitan Borough of Greenwich. Borough Engineer, Town Hall, Greenwich, between the hours of 10 a.m. and 4 p.m. (Saturdays, 10 a.m. and 12 noon).

JULY 8.—**Mexborough.**—CONVERSION.—For conversion of offices, &c., at Mexborough Garden-street School. Education Dept., County Hall, Wakefield.

✱JULY 8.—**Sheffield.**—TELEPHONE EXCHANGE.—Erection of a telephone exchange at Beauchief, Sheffield, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JULY 8.—**Thurnscoe.**—SCHOOL.—For erection of school, for West Riding E.C. Education Dept., County Hall, Wakefield.

✱JULY 9.—**Nottingham.**—TELEPHONE EXCHANGE.—Erection of a new telephone exchange at Sherwood, Nottingham, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

✱JULY 10.—**Morriston, Glam.**—TELEPHONE EXCHANGE.—Erection of a new post office and telephone exchange at Morriston, Glam, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

✱JULY 11.—**Burnley.**—EMPLOYMENT EXCHANGE.—Erection of an employment exchange at Burnley, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

✱JULY 14.—**Hemel Hempstead.**—BUILDING WORKS AND ALTERATIONS.—Erection of new vagrant wards and alterations to existing buildings, at the Hemel Hempstead Poor Law Institution, for the Guardians of the Union. Clerk to the Guardians, 1, The Broadway, Hemel Hempstead. Deposit £1 1s.

✱JULY 14.—**Hornchurch, Essex.**—DEPOT BUILDINGS.—Erection of lorry sheds, workshops, and cart sheds, including roads, fences, drains, &c., and for repairing and painting existing buildings and cottage at the Depot, Rainham-road, for Romford R.D.C. Mr. W. J. Grant, Surveyor to the Council, 16A, South-street, Romford.

✱JULY 16.—**London, N.W.1.**—BUILDING WORKS.—Building works required to be executed at the St. Pancras Hospital, 4, King's-road, N.W.1, for the Guardians of the Parish of St. Pancras. Mr. B. Chapman, Clerk to the Guardians, Town Hall, Pancras-road, London, N.W.1.

NO DATE.—**Clackmannan.**—ADDITIONS.—For additions to Clackmannan Public School. Messrs. Thomas Frame & Son, architects, 43, Mill-street, Alloa.

NO DATE.—**Kirkinner.**—HOUSE.—For schoolmaster's house at Kirkinner. Mr. Andrew Thomson, architect, Newton-Stewart.

✱NO DATE.—**Northwood, Middlesex.**—COTTAGES.—Erection of 36 cottages on the housing site, Hilliard-road, Northwood, Middlesex, for the Ruislip-Northwood U.D.C. Mr. Arch. S. Soutar, architect, 8, King William-street, Strand, W.C.2. Deposit £2 2s.

NO DATE.—**Thirsk.**—PICTURE HOUSE.—For the erection of a picture theatre at Thirsk. Mr. Thomas Stokes, architect, Thirsk.

NO DATE.—**West Riding of Yorkshire.**—PAINTING, &C.—For painting and repairs at schools at Mexborough, Conisborough, Thurnscoe, Bolton-on-Dearne, Highgate and Adwick-on-Dearne, for the West Riding C.C. Mr. W. H. Jones, Education Offices, Mexborough.

NO DATE.—**Whitby.**—COTTAGE.—For erection of cottage, for Mr. J. Dunn, of Harrogate. Mr. F. E. Gulley, architect, Cheltenham-parade, Harrogate.

NO DATE.—**Wicklow.**—REBUILDING.—For reconstruction of Kylebeg Shooting Lodge, Co. Wicklow, for Mr. R. J. White. Mr. A. E. Smith, surveyor, 5, St. Andrew's-street, Dublin. Deposit £1.

FURNITURE, MATERIALS, etc.

JUNE 23.—**Cannock.**—SEWERS.—Laying and jointing of about 259 l. yards of 9 in. dia. pipe sewers and other incidental works, in Hatherton-lane and Gorsey-lane, for the U.D.C. Mr. R. Blanchard, Surveyor, Council Offices, Cannock, Staffs.

JUNE 30.—**Lynn.**—MATERIALS.—Supply of 7,500 cub. yds. of hard material for making embankment of road at Lynn, for Norfolk C.C. Mr. S. H. Warren, County Surveyor, Shire House, Norwich.

JUNE 30.—**Rhondda.**—MATERIALS.—Supply of highway materials for six months, for the U.D.C. Mr. E. Taylor, Surveyor, Pentre, Rhondda.

JULY 1.—**London.**—VARNISH, &C.—Supply of varnish and white enamel to India Store Department, Branch No. 12, Belvedere-road, S.E.

JULY 1.—**Tottenham.**—PAVING.—For patent stone paving, for a period of six or twelve months, for the U.D.C. Mr. Reginald C. Graves, Clerk, Town Hall, Tottenham, N. 15.

ENGINEERING, IRON AND STEEL.

JUNE 25.—**London.**—BRIDGES.—Supply of girder bridges to East Indian Railway Co. Secretary, 73, King William-street, E.C. Charge £1 1s.

JUNE 30.—**St. Helens.**—BRIDGE.—For erection of movable bridge over canal at Redgate, for the T.C. Mr. A. W. Bradley, Borough Engineer, St. Helens.

JULY 1.—**Chili.**—HARBOUR WORKS.—**For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.**

JULY 1.—**Kirkcudbright.**—BRIDGE.—For erection of a steel girder and concrete bridge over the River Fleet at Nether Ruscoe, for the C.C. Mr. J. Shepard, Surveyor, Creetown.

✱JULY 3.—**Hornsey, N.6.**—RAILING AND GATES.—Erection of about 682 yds. run of wrought iron railing and gates; also tennis court surrounds, at their Recreation Ground, Priory-road, Hornsey, for the T.C. Mr. E. J. Lovegrove, Borough Engineer and Surveyor, Town Hall, Highgate.

JULY 3.—**Penge, S.E.20.**—HEATING SYSTEM.—For the installation of a low-pressure heating system at Melvin-road School, for Penge U.D.C. Education Committee. Mr. H. W. Longdin, Surveyor to the Committee, Town Hall, Anerley, S.E. 20. Deposit £1 1s., to Mr. C. G. Liddle, Clerk to the Committee.

JULY 4.—**London.**—BRIDGES.—Supply of girder bridges to India Store Department. Branch No. 16, Belvedere-road, S.E.

JULY 14.—**Keighley.**—FOOTBRIDGE.—For construction of steel footbridge at Lower Laithe Reservoir, for the T.C. Mr. M. R. Barnett, Engineer, Town Hall, Keighley.

JULY 14.—**Keighley.**—STEEL JOISTS.—For supply of rolled steel joists and other steelwork for Bracken Bank Reservoir Works, for the T.C. Mr. M. R. Barnett, Engineer, Town Hall, Keighley.

JULY 14.—**S. Africa.**—STEEL ROOFING.—For supply of a structural steel umbrella roof, for the S. African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-street. Ref. AX/1042.

JULY 15.—**Egypt.**—WATER FILTERS.—For the installation of water filters, pipe lines, &c., at Assouan, for the Egyptian Ministry of the Interior, Dept. of Overseas Trade, 35, Old Queen-street, S.W. Ref. AX/1043.

ROAD, SANITARY, AND WATER WORKS.

JUNE 23.—**Blackpool.**—ROADS.—For the surface draining and formation of certain private streets within the Borough. Mr. Francis Wood, Borough Engineer, Municipal Buildings, Town Hall-street, Blackpool.

JUNE 23.—**Denholme.**—SEWER.—For laying 420 yards of main sewer, for the U.D.C. Surveyor, Council Offices, Denholme.

JUNE 23.—**Doncaster.**—ROADS.—For widening two roads and flagging others, for the T.C. Mr. F. O. Kirby, Borough Engineer, Doncaster. Deposit £5 5s.

JUNE 23.—**Eccles.**—DRAINS.—For the construction of 9 in. and 6 in. subsoil drains at the Peel Green Cemetery, for the T.C. Mr. Thomas S. Picton, Surveyor, Town Hall, Eccles. Deposit £1 1s.

JUNE 23.—**Finchley.**—ROADS.—For wood paving and improvement works, Great North-road, Whetstone, for the U.D.C. Mr. P. T. Harrison, Surveyor, Finchley, N. Deposit £2.

JUNE 23.—**Hendon.**—PAVING.—For laying 4,000 yds. super. of creosoted deal block paving, for the U.D.C. Mr. A. O. Knight, Surveyor, Hendon. Deposit £3 3s.

JUNE 23.—**Hendon.**—ROADS.—For making up Princes Park-avenue, Leeside-crescent, Cranbourne-gardens, Portsdown-avenue, and Devonshire-place, for the U.D.C. Mr. A. O. Knight, Surveyor, Hendon. Deposit £5 5s.

JUNE 23.—**Reading.**—DRAINAGE.—For laying branch drains in various parts of the borough for the T.C. Borough Surveyor, Town Hall, Reading. Deposit £2 2s.

JUNE 23.—**Thorne.**—SEWAGE WORKS.—For the construction of about 2,380 yds. of stoneware and iron pipe sewers, &c., at Hatfield, for the R.D.C. Messrs. W. H. Radford & Son, engineers, Albion Chambers, King-street, Nottingham. Deposit £5 5s.

JUNE 24.—**Chertsey.**—SEWER.—Construction of sewer in Byfleet, for the R.D.C. Mr. H. Beeney, Surveyor, West Byfleet.

JUNE 24.—**Glasgow.**—ROADS.—For the construction of roads and footpaths at Hawthorn-street, Possilpark. Mr. J. Lindsay, Town Clerk, Glasgow.

JUNE 24.—**Pontefract.**—ROADS.—For reconstruction of about one mile of Spittle Ardwick-lane, for the T.C. Mr. J. E. Pickard, Borough Surveyor, Pontefract.

JUNE 24.—**Willesden.**—PAVING WORKS.—For wood paving, 5,000 yds. super.; artificial flag paving, 14,000 yds. super.; granite sett paving, 1,770 yds. super.; granite kerb channelling, 640 yds. lineal, for the U.D.C. Mr. F. Wilkinson, Engineer, Town Hall, Dyne-road, Kilburn, N.W. 6.

JUNE 25.—**Camberwell.**—PAVING.—For bituminous paving (4½ in. thick) in part of Crystal Palace Parade (approximate area 2,700 yds. sup.), for the B.C. Mr. William Bell, Borough Engineer, Town Hall, Camberwell, S.E.5.

JUNE 25.—**Hackney.**—LAVATORY ACCOMMODATION.—For alterations and additions to lavatory accommodation at public baths, Lower Clapton-road, for the B.C. Mr. N. Scorgie, Borough Engineer, Hackney, E. Deposit £1 1s.

JUNE 25.—**Hawarden.**—SEWERS.—For supply and laying of cast iron and stoneware pipe sewers, &c., for the R.D.C. Messrs. Elliott & Brown, engineers, Burton Buildings, Nottingham. Deposit £2 2s.

JUNE 25.—**Leeds.**—ROADS.—For road-making at Institution of the B.G. Mr. J. H. Ford, Clerk, Poor Law Offices, Leeds.

JUNE 25.—**Mexborough.**—WATERWORKS.—For the laying and jointing of 3 in., 4 in., and 6 in. cast-iron water mains and ferrule insertions, for the U.D.C. Mr. J. B. Feltham, Waterworks Engineer, Station-road, Mexborough. Deposit 10s. 6d.

JUNE 25.—**Wembley.**—ROADS AND SEWERS.—For the construction of roads and sewers in extension of the Christchurch Estate, Ealing-road, for the U.D.C. Mr. Cecil R. W. Chapman, Engineer and Surveyor, Council Offices, Wembley, Middlesex. Deposit £2 2s.

JUNE 25.—**Wood Green.**—PAVING.—For paving, &c., in Commerce-road, for the U.D.C. Surveyor, Town Hall, Wood Green, N. Deposit £1 1s.

JUNE 26.—**London, W.C.**—WOOD PAVING WORKS, &c.—For the work of providing and laying creosoted deal blocks, new concrete foundation and repairs to existing foundation in various streets for the Metropolitan Borough of Holborn. Mr. E. F. Spurrell, Borough Surveyor, 197, High Holborn, W.C.

JUNE 26.—**Renfrew.**—POND.—For the construction of a boating pond in Robertson Park, for the T.C. Messrs. Crouch & Hogg, Engineers, 17, Lynedoch-street, Glasgow. Deposit £2 2s.

JUNE 27.—**South Westmorland.**—WATER WORKS.—(1) Supply of 686 tons of 6 in., 5 in., 4 in., and 3 in. cast-iron spigot and socket pipes, &c., and laying 13½ miles of pipes; (2) construction of Redhills Service Tank (30,000 gallons), at Arnside; Haverbrack Tank (95,000 gallons), near Sandside; Woodbank Tank (20,000 gallons), near Endmoor; and the erection of a filter house at Thompson Fold, near Lupton; (3) Construction of an impounding reservoir with earthen embankment (52 million gallons), and the driving of a drainage tunnel at Tarnhouse, &c., for the R.D.C. Messrs. Taylor & Wallin, Commercial Union Buildings, 47, Pilgrim-street, Newcastle-on-Tyne. Deposit £5.

JUNE 28.—**Lancashire.**—ROADS.—Construction of new road and two bridges between Clifton Marsh-road and Freckleton Village, for the C.C. County Surveyor, Preston.

JUNE 28.—**Leicester.**—ROADS.—For the repair and improvements of certain roads at North Evington Infirmary, for the Board of Guardians. Messrs. Pick, Everard, Keay & Gimson, 6, Millstone-lane, Leicester. Deposit £1 1s.

JUNE 30.—**Abingdon.**—ROADS, SEWERS AND DRAINAGE WORK.—Construction of a road and the laying down of sewers in connection with the Housing Scheme extension, for the Borough of Abingdon, at Boxhill, Abingdon. The Engineer, Mr. Raphael V. Hall, Municipal Offices, Abbey House, Abingdon. Deposit £1 1s.

JUNE 30.—**Chipping Sodbury.**—SEWERS.—For laying new sewers, drain connection to houses, and construction of new sewage disposal works at Winterbourne Down, for the R.D.C. Mr. W. H. Williams, Sanitary Inspector, Council Offices, Chipping Sodbury.

JUNE 30.—**Easthampstead.**—DRAINAGE.—For construction of main drainage system at Binfield, for the R.D.C. Messrs. H. Humphries & Sons, 28, Victoria-street, S.W. Deposit £3 3s.

JUNE 30.—**Fife.**—SEWERS.—For laying 685 yards of 9 in. diameter fireclay sewers, &c., for the County of Fife, Dunfermline District Committee. Mr. H. F. Hodge, District Engineer, County Buildings, Dunfermline.

JUNE 30.—**Hawksclough.**—ROADS.—For widening of Halifax main road, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

✱JUNE 30.—**London.**—PAVING.—For paving with wood, asphalte or natural rock asphalte on concrete, carriageways and footways, for the Streets Committee of the Corporation of London. The City Engineer, Guildhall, E.C.

✱JUNE 30.—**London.**—PAVEMENT REPAIRS.—For repairs to the pavements of Blackwall and Rotherhithe Tunnels, for the L.C.C. The Chief Engineer of the Council, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

JUNE 30.—**Wortley.**—ROADS.—For widening of the Wadsley, Langsett and Sheffield main road at Wharncliffe Side, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

JULY 1.—**Hertfordshire.**—ROADS.—For construction of Barnet by-pass road between the south county boundary near Barnet Gate and the Great North-road near Stanborough on the north, for the C.C. Mr. A. Ernest Prescott, County Surveyor, Hatfield. Deposit £10 10s.

JULY 2.—**Cardiff.**—SEWERS.—Construction of about 300 lin. yds. of earthenware pipe sewers, &c., for the R.D.C. Mr. William Farrow, Surveyor, Park House, 20, Park-place, Cardiff.

JULY 2.—**Whitchurch (Glam).**—SEWERS.—For construction of about 300 lineal yds. of earthenware pipe sewers, with manholes, &c., at Wenallt-road, for the Cardiff R.D.C. Mr. William Farrow, 20, Park-place, Cardiff.

JULY 4.—**Cowbridge.**—SEWERAGE.—For the construction of main sewers with a sea outfall at Llantwit Major, for the R.D.C. Messrs. Thomas & Morgan & Partners, 23, Gelliwastad-road, Pontypridd. Deposit £5 5s.

JULY 4.—**Llantwit Major (Glam).**—SEWER CONSTRUCTION.—For constructing, for the Cowbridge R.D.C., of main sewers with a sea outfall at Llantwit Major. Messrs. Thomas & Morgan & Partners, engineers, Pontypridd. Deposit £5 5s.

JULY 7.—**Wharfedale.**—SEWER.—Construction of new sewer, Pool Bank, near Leeds, for the R.D.C. Mr. Charles E. Barrow, surveyor, Manor-square, Otley.

JULY 9.—**East Ham.**—TRAMWAY.—For reconstruction of the tramway and highway in High-street North, Forest-drive, and Aldersbrook-road, for the T.C. Mr. J. Birch, Borough Engineer, Town Hall, East Ham. Deposit £2 2s.

JULY 14.—**Edinburgh.**—ROADS.—For the construction of Section J-K, Newbridge to Edinburgh, Contract No. 7, of a new road from Glasgow to Edinburgh, for the T.C. Mr. D. A. Donald, 249, George-street, Glasgow. Deposit £3 3s.

JULY 14.—**Gelligaer.**—SEWERS.—For the construction of about eleven miles of 15 in. 12 in. and 9 in. diameter glazed stoneware and cast-iron pipe sewers, &c., for the U.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £7 7s.

JULY 14.—**York.**—ROADS.—For road and sewer work at Salisbury-road, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

Competitions.

(*See Competition News, page* 974.)

Auction Sales, Tenders, etc.

✱JUNE 24.—**Fulham, S.W.**—Messrs. Green & Son will sell, without reserve, on the premises "The Hermitage," 84, Lillie-road, Fulham, large quantities of building materials and machinery, ironmongery, paint and varnish, and miscellaneous stores and equipment. Auctioneers, 72, King-street, Hammersmith, W.6.

JUNE 24 AND 25.—**Middlesex.**—Mr. F. H. Clark will sell, at the National Filling Factory, Hayes, Middlesex, timber and building materials arising from the demolition of the above factory, in lots to suit all purchasers. Auctioneers, Railway Wharf, York-road, Wandsworth, S.W.18.

JUNE 24.—**Stonebridge Park.**—Messrs. H. W. Smith & Moon will sell, by order of Mr. J. E. Whiter, building plant and material, timber and shop-fittings, &c., at Mr. Herbert Boyer's yard, facing Stonebridge Park Station (Bakerloo Railway), at 12 o'clock. Auctioneers, 6, Great James-street, Bedford-row, W.C.1.

JUNE 25.—**Harrow Weald, Middlesex.**—Messrs. Sedgwick, Weall & Beck (incorporated with Rumball & Edwards) will sell in convenient lots, on the premises of "Brookshill," Harrow Weald, the freehold estate, comprising a family residence, farmery and land; also residence known as "Fairfield," and other building land. Auctioneers, 38, High-street, Watford.

JUNE 25, 26, AND 27.—**Letchworth, Herts.**—Mr. John Shilcock will sell joinery manufacturer's machinery, plant and tools, timber, &c., at Works-road, by direction of the Trustee. Auctioneer, Hitchin.

JUNE 25.—**Newark, Notts.**—Messrs. Edward Bailey & Son will sell freehold factory, 15,880 super ft. floor space, adaptable for brewery, &c. Auctioneers, 7, Kirkgate, Newark.

JUNE 25.—**Sussex.**—Messrs. Stride & Son will sell, by order of the Surplus Stores, &c., Liquidation Department, H.M. Treasury, at the "Dolphin Hotel," Chichester, important sale of the valuable freehold land and buildings known as "Lavant Factory," together with substantial brick-built buildings; vacant possession. Auctioneers, 63, East-street, Chichester.

JUNE 26.—**London, W. 1.**—Messrs. Farebrother, Ellis & Co., will sell, with vacant possession, at the Mart, Queen Victoria-street, E.C., freehold building site of over quarter of an acre in an exceptionally convenient and central situation, between Drury-lane and Shaftesbury-avenue. Auctioneers, 29, Fleet-street, E.C. 4, and 26, Dover-street, W 1.

JUNE 27.—**Bicester, Oxon.**—Messrs. Paxton & Holiday will sell, at the King's Arms Hotel, Bicester, the Bicester Brick Yard, together with two enclosures of rich accommodation pasture land extending to an area of about 22 acres. Auctioneers, Bicester, Banbury and Chipping Norton.

✱JUNE 30 AND FOLLOWING DAY.—**London, E.8.**—Messrs. Charles R. Davis & Co. will sell, at Nos. 47 and 49, Hackney-grove, Mare-street, Hackney, E.8 (by kind permission), large assemblage of valuable bank, office and shop fittings, furniture, fitments, &c. Auctioneers, 285, Borough High-street, S.E.1.

JULY 3.—**Harpenden, Herts.**—Messrs. Douglas Stratford & Co. (E. Douglas Stratford, F.A.I.) will sell *re* The Harpenden Building Co., Ltd., in voluntary liquidation, Harpenden, Herts, machinery, plant, stock-in-trade and effects of builders and decorators. Auctioneers, 31, King-street, Luton.

JULY 8.—**Tunbridge Wells.**—Messrs. Hampto Sons will sell, at the St. James's Estate Rooms, 2 James's-square, London, S.W., freehold pro Tunbridge Wells, in the premier position at the c of important cross roads, comprising over one Auctioneers, 20, St. James's-square, S.W.1.

✱JULY 8.—**Willesden Green, N.W.**—Messrs. E Beard will sell valuable premises, comprising spa yards, workshops, offices, &c., with the plant machinery, situate Nos. 3, 5, 7, 9, and 11, Gr road, Willesden Green, will be sold on the premi one lot. Auctioneer's Offices, 109, Great Ru street, Bedford-square, W.C.1.

JULY 19.—**Bucks.**—Mr. G. Francis Duck will unless previously disposed of, three wooded bui sites, South Park, Gerrard's Cross, suitable for cou residences. Freehold; main drainage. Auction Gerrard's Cross.

Public Appointments.

JUNE 24.—**Lewes.**—Temporary Architect Assistant required by the East Sussex C.C. County Surveyor, County Hall, Lewes.

JUNE 25.—**Stoke-on-Trent.**—Competent tempo Architectural Assistant required by the Co Borough Council of Stoke-on-Trent. Mr. A. Bur M.Inst.C.E., Borough Surveyor, Town Hall, Stoke Trent.

JUNE 28.—**London, W.4.**—Teacher of Buil Construction required for evenings, two nights a w by the Middlesex E.C. The Principal, The P technic, Bath-road, Chiswick, W.4.

JUNE 30.—**Birmingham.**—Chief Architect Assistant required by the City of Birmingham Ed tion Committee. Mr. P. D. Innes, Chief Educa Officer, Education Office, Margaret-street, Birmingh

JUNE 30.—**Skipton.**—Architectural and Gen Assistant in the Engineer and Surveyor's Departm of the Skipton U.D.C. Mr. A. E. W. Aldridge, Engi and Surveyor to the Council, Town Hall, Skipton, w copies of three recent testimonials.

JUNE 30.—**Wolverhampton.**—Engineering A tant required by the Corporation of Wolverhampt must have qualified by examination through Institution of Civil Engineers, the Municipal County Engineers, or similar Institution. Experie in town planning is a desirable qualification. George Green, Borough Engineer, Town Hall, Wol hampton.

✱JULY 5.—**Wimbledon, S.W.**—CLERK OF WORK Clerk of Works in connection with the building b private contractor of 87 houses, on the Council's Est Lower Downs-road. Borough Engineer and Surve Town Hall, Wimbledon, S.W.18.

JULY 10.—**London, W. 1.**—FORTHCOM EXAMINATION.—Male cartographer in the Hyd graphic Department of the Admiralty (19–25). Secretary, Civil Service Commission, Burling gardens, London, W. 1.

✱NO DATE.—**Tanganyika.**—Draughtsman requ by the Government of the Tanganyika Territory. the Public Works Department, for a tour of 20 months' service with possible extension. Cro Agents for the Colonies, 4, Millbank, London, S.W quoting M/12864.

TENDERS

[RECEIVED TOO LATE FOR CLASSIFICATIO

SWINDON.—For additions to the Constitutio Club, Princes-street, for Messrs. Jas. Arkell & Sc Kingsdown Brewery. Messrs. Drew & Sons, ar tects, Swindon. Quantities by the architects:—

*Pope Bros., Swindon £1,490

LECHLADE.—For rebuilding the "Royal Oa Inn, for Messrs. Jas Arkell & Sons, Kingsdown Brewe Messrs. Drew & Sons, architects, Swindon:—

*G. W. King, Lechlade..... £1,475

BRYNCETHIN, GLAM.—For the erection of a mixed Council school, for the Glamorgan C.C. D. Pugh Jones, County Architect, Cardiff:—

*D. J. Davies, Blaengarw £11,421 10 4

TYNYRHEOL, GLAM.—For the erection of additional class-rooms at the Council school, for Glamorgan C.C. Mr. D. Pugh Jones, County Archite Cardiff:—

*C. Sansom, Llangeinor £2,323 8 11

TONYREFAIL, GLAM.—For the levelling fencing of the site of the proposed Secondary Sch for the Glamorgan C.C. Mr. D. Pugh Jones, Cou Architect, Cardiff:—

*Stock & Collings, Bristol £1,400

CAERPHILLY, GLAM.—For the erection retaining walls and fencing at the site of the propo Intermediate School, for the Glamorgan C.C. Mr. Pugh Jones, County Architect, Cardiff:—

*Davies, Middleton & Davies, Cardiff £2,258 13

BLAENGARW, GLAM.—For the erection of p of retaining walls at the Council school, for Glamorgan C.C. Mr. D. Pugh Jones, County Arc tect, Cardiff:—

*D. J. Davies, Blaengarw, Glam..... £485

LAUNCESTON.—For erection of 10 dwellings, the T.C. Mr. J. Burford, Borough Surveyor, Gui hall:—

Mason—

*Richard Adams, Launceston £3,183 10

Carpenter—

*J. R. Quick, Launceston 1,450 0

CONSETT.—For the erection of a school. Mr. F. Coyle, M.S.A., architect, Consett:—

*Lough Bros., Consett £7,446

OPOSED NEW BUILDINGS & OTHER WORKS *

these lists care is taken to ensure the accuracy of the information given, but it may occa- happen that, owing to building owners taking the responsibility of commencing work plans are finally approved by the local authorities, "proposed" works at the time of ition have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. ban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; r Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for y of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

YSTWYTH.—The M.H. held an inquiry into the ion of the B.C. to borrow £4,000 for the erection e shelters on, or near, the Promenade.
Y.—A site is being secured for a new school, ch the B.E. has approved the plans.
RSTONE.—The R.D.C. proposes an improvement involving an area of over 1 acre, with 70 houses, erection of houses for dispossessed tenants, l in the New-road. A new school is to be when a site has been decided on.
ES.—Plans passed by U.D.C.:—Five houses, -road, by Mr. R. B. Rowell; house, Sheen n-drive, by Messrs. Couch & Coupland; 12 Gordon-avenue, by Mr. W. Burridge; eight Nevrek-road, by Mr. G. W. Smith; six Sheen-lane, by Mr. G. W. Smith; four houses, ane, by Messrs. Rosevears, Ltd.; house, Hert- enue, by Mr. Walter Smith; two houses, e-road, by Mr. R. Skinner; house, Hertford- No. 17, by Mr. Walter Smith; two houses, r-road, by Mr. A. M. Rose.
GGSTOKE.—The T.C. has passed plans: New for Messrs. John Mares, Ltd.; bungalow, ng-road, for Mr. H. Lawes; shop and offices, street, for Mr. J. F. Powell; bungalow, ster-road, for Mr. R. H. Coupe.
EY.—Plans passed: House at Chester-street, F. Townend; office and warehouse at Bradford- r Messrs. J. Newsome & Sons, Ltd.
'ORD.—The T.C. is seeking sanction to a scheme d by the Borough Surveyor for works at the g station, at a cost of £2,440. A new pavilion erected at the bowling green, at a cost of about Plans recommended:—Mr. W. B. Stonebridge, P. J. Dunstall, conversion to two flats, 46, nham-road. The purchase of the Castle Close is recommended by the Electricity Committee 50.
VORTH.—Plans are being submitted to the B.E. ew school.
STON.—The M.H. has given its approval to the n of 50 houses under the Government scheme.
AST.—The T.C. has agreed to proceed with the n of 500 kitchen dwellings.
LEY.—The U.D.C. have decided to purchase the parish for the erection of 350 additional

RLEY.—The T.C. has approved plans for the n of a new grand stand on the racecourse, for the y Race Co.—Loan (£350), for new fire station Guildhall.
'KPOOL.—Plans passed: W. Rimmer, Stamford- eight houses; Mr. J. A. Brooks, Stamford- eight houses; Miss M. D. Black, Norbreck-road, ow; P. Rutter, Norbreck-road, bungalow; ster, Norbreck-road, bungalow; Miss A. F. Norbreck-road, bungalow; W. & A. Walker, -street, three houses; W. Haslam, Red Bank- three houses; W. Beardwood, Abbey-road, Fielding Bros., Norbreck-road, two bungalows; od, Norbreck-road, bungalow; W. Rimmer, houses, Stamford-street; Mrs. J. A. Brooks, ow, off Greenwood-road; Miss D. Black, bunga- orbreck-road; Miss A. F. Pollitt, bungalow, ck-road; P. Rutter, bungalow, Norbreck-road; oster, bungalow, Norbreck-road; W. & A. , three houses, Caunce-street; P. Wood, bunga- orbreck-road; Fielding Bros., two bungalows, ck-road; W. Beardmore, house, Abbey-road; slam, three houses, Red Band-road.—Applica- re to be made by the Corporation to the M.H. mission to borrow £175,000 for the erection of uses in Devonshire-road, and other improve-
Considerable alterations are projected with to the Grand Pavilion, only a portion of which carried out this year. The architects are Messrs. & Waterhouse, of Blackpool.
TH.—Plans passed by T.C.: Four pairs of es, Columbia-terrace, for Mr. Robertson; 20 Arcadia-terrace, for Cowpen Coal Co.; house, y-road, for Messrs. Berg & Turnbull; premises, loo-road, for Y.M.C.A.—The Transport Ministry romised to consider a scheme for the recon- ion of Bedlington Bridge.
TON.—The E.C. has taken preliminary steps for ction of four schools. Plans have been prepared W. Campbell, the Committee's Architect, for ection of a new junior school in Devonshire-road. ng Moor a site is being considered. At Brightmet has been secured from the Housing Committee, for the fourth a site has been purchased in ord-road. The Committee has decided to erect listribution workshops for meters and stores at oad.
OTLE.—A recommendation was adopted to include e Town-Planning scheme a main arterial road wide, subject to the C.C. making provision for ntinuation of the road at the same time to South-

RNEMOUTH.—Plans passed by the T.C.: House, ury Park-road, Mr. G. C. Smith; house, Highfield- Mr. C. Miller; house, Crichel-road, Mr. F. Bowden; Eldon-road, Mr. C. Singleton; house and e, Browning-avenue, Mr. R. J. M. Nabney; Pine-road, Messrs. Kennedy's, Ltd.; bungalow, wood-road. Messrs. Burton & Walsh; house, r Wadham and Douglas roads, Mr. E. D. Duss; 28, Evelyn-road, Mr. G. Meadowcroft; house and garage, Lonsdale-road, Dr. W. Green; five houses, Arnewood and Boreham roads, Mr. A. Webb; house, Namu-road, Miss Standbridge; house, Methuen-road, Messrs. F. Hoare & Sons; additions, 9, Maple-road, Mr. J. W. Spicer; house, Pickford-road, Mr. J. W. Roddy; house, Pickford-road, Mr. G. A. Vatter; house, Pickford-road, Mr. W. A. Christopher; house, Queen Mary-avenue, Mr. A. W. Barnes; lavatories, Tuckton-road, Mr. G. Witt; house, Westfield-road, Mrs. M. G. Seal; house, Pickford-road, Mr. W. E. Forster; house, Oakwood-road, Mr. Pottenger; house, corner of Eldon-road and Victoria-avenue, Mr. Hallett; two houses, Portland-road, Mr. F. White; three houses, Stamford-road, Messrs. Small Bros.; house, Shirley-road, Mr. J. L. Welch; house, Seafield-road, Mrs. F. P. Talbot; house, Arnewood-road, Mr. Hiscock; house, Carbery-avenue, Mr. G. Richards; house, Evelyn-road, Mr. W. G. Wragg; house, South Hill-road, Mr. W. Mearing.

BRAMHALL.—The following plans were approved: Two houses, Offerton-lane, for Mr. W. B. Beatie; six houses, Glyn-grove, for Mr. C. J. Allman; house, Norbury Moor, for Mr. W. R. Emmins; house, Jackson's-lane, for Mr. H. S. Boulderstone; new works, Marsland-street, for A. Lloyd; house, Bramhall-lane, for C. O'Neill; nine houses, Broadway, and street off Broadway, for F. Marsland. The E.C. are proposing to erect a sub-station at Hazel-grove.

BRECONSHIRE.—The Builth R.D.C. is shortly to invite tenders for the improvement of Abergwessin Bridge. Negotiations are proceeding between the Builth and Tregaron Councils for the joint erection of a bridge at Nantstalwen.—Plans passed by the Brecon T.C.:—House in Orchard-street, for Mr. R. W. Phillips.

BRENTFORD.—The U.D.C. has had an amended scheme for covering the markets, the cost being estimated at £2,000. It is proposed to acquire land in Burford-road, for an additional housing scheme. The Works Committee has been asked to consider the erection at the hospital of a porter's lodge and a garage. The surveyor is to construct a convenience in Ealing-road, at a cost of £400. Plans passed: Factory, offices and cottage, for Messrs. Emerson & Norris, at Lionel-road junction with the Great West-road; petrol service station for the Anglo-American Oil Co., Ltd., at the junction of Chiswick High-road, with the Great West-road.

BRODSWORTH.—The Miners' Welfare Fund has made a grant of £10,126 for the erection of a public hall and the laying-out of a recreation ground at Brodsworth Main, South Yorkshire. The same fund has made supplementary allocations towards the pithead baths' scheme at Orgreaves and Treeton (near Sheffield).

BUCKFASTLEIGH.—The M.H. has approved of the Council scheme under the Housing Act.

BULKINGTON.—Warwick County Architect has been authorised to prepare plans for a school for 150 children.

BURNLEY.—Sanction has been received to applications to borrow £8,800 for the stone beaching of the sides of Cant Clough reservoir, and £2,857 for the construction of a retaining wall in connection with the widening of Church-street. Accommodation is to be provided for 200 more children at St. Mary Magdalene R.C. School, estimated to cost £6,500.

BURTON-ON-TRENT.—The T.C. has a scheme for rebuilding the billiard hall at Bank-square. The T.C. is borrowing a further £10,000 for closet conversions.

BURY.—A plan has been approved for the erection of a new billiard hall and shops on a site between Phœnix-street and Irwell-street. The facings of the building will be of brick, stone and terra-cotta. Plans for over 200 houses have been approved under the subsidy scheme. It is proposed to improve the schools of the Parish Church, estimated to cost £600, and make alterations to the Church House, costing £500.

BUXTON.—Plans passed by T.C.: Mr. T. Elliott, shops, 2, Bridge-street; Miss A. M. Bagshaw, house, London-road; Mrs. I. Smith, house, Temple-road; Mr. J. Bloor, house, Lansdowne-road; Mr. C. Watts, house, Lightwood-road.

CAPE TOWN.—The City Council has arranged that Messrs. Thomas Stewart and F. E. Kanthack be associated with Mr. D. E. Lloyd Davies, City Engineer, as a Board of Engineers to undertake the construction of the Steenbras extension scheme, including the maintenance of a supply of water from Steenbras during that construction. This Board now recommends the construction of a temporary reservoir, to cost £17,650. The City Engineer has prepared plans of a storm water scheme, to cost £6,500.

CARLISLE.—The City Council has passed plans: Bungalow, Dykes-terrace, Mr. Pattinson (Mr. H. H. Hodgkinson, architect); bungalow, Millholme-avenue, Mr. A. Dwight (Mr. J. P. Tanner, architect); bungalow, Bassenthwaite-street, Messrs. G. & A. E. Orchard (Mr. J. P. Tanner, architect); three bungalows, Millholme-avenue, Messrs. Donaldson, Richardson, & Graham (Mr. J. P. Tanner, architect); bungalow, Millholme-avenue, Mr. S. Bell (Mr. J. P. Tanner, architect); six shops and hall, Eden Mount, Mr. T. Oliphant (Mr. H. H. Hodgkinson, architect).—The T.C. has made contracts with John Laing & Son, Ltd., for the construction of railway siding in connection with new generating station, and Messrs. Andrew Blakeley & Sons for the erection of electricity transformer substation at Stanwix.——The R.D.C. has approved plans for the erection of a memorial hall at Warwick, near Warwick Chapel, from Mr. J. H. Martindale, architect, of Carlisle; one for a house near Dobsike, Ivgeill, from Mr. J. F. Pickering, builder, of Southwaite.

CARMARTHENSHIRE.—The Llanelly B.G. has called for a statement of the repair, painting and colouring work required to be done at the Workhouse, the Cottage Homes, and the Receiving Homes.—The Lampeter R.D.C. has asked for estimates for the proposed lay-out of a public park. The Council has passed plans for two houses for Mr. Enoch Davies, Typhen, to be erected at Pleasant Hill.—Road works have been sanctioned for the Llandovery R.D.C., estimated to cost £5,500.

CHESTERFIELD.—The T.C. has sold a site in Jawbones Hill for a new Wesleyan Church. Handley-road is to be widened at a cost of £3,780. The Borough Surveyor has prepared plans for new sewage disposal works, estimated to cost £74,573. New sewers are to be constructed, at a cost of £8,100. Plans passed: House, Newbold-road, for Mr. H. Slack; new ward at the Chesterfield Hospital, Holywell-street, for the Governors of the Chesterfield Royal Hospital; house, Highfield Estate, Newbold-road, for Mr. G. Brough; new picture house and billiard saloon, Knifesmith Gate, for Victoria Enterprises, Ltd.; new chimney in Barker-lane, for The Barker Pottery Co.; new water circulating scheme, for The British Thomson-Houston Co., Ltd.; pair of cottages, Old Hall-road, for Mr. T. Greaves; house, St. Margaret's-drive, for Mrs. E. Armistead; house, Highfield Estate, Newbold-road, for Mr. T. B. Milner, subject to the larder being altered; house, Boythorpe-crescent, for Mr. L. Moulson; bungalow in Summerfield-road, for Mr. A. F. Cole; two houses, Summerfield-road, for Mr. Percy Stanton; house, Handley-road, New Whittington, for Mr. H. Vickers. The St. Thomas' Church Committee is negotiating for a site on the Boythorpe Estate for a church. The T.C. has approved lay-out plans prepared by the Borough Surveyor, and estimates of £17,000, for 23 acres on Highfield Hall Estate. The M.H. has sanctioned a loan of £8,341 for the erection of 19 houses on the Boythorpe Estate.

CHESTER-LE-STREET.—The R.D.C. have resolved that a loan of £29,777 sanctioned by the Public Works Loan Board, for housing purposes, should be utilised as follows: Purchase of land at Lumley, £2,400; purchase of land at Edmondsley and Lamesley, £1,227; erection of houses at Lumley and Lamesley, £16,800; erection of houses at Edmondsley, £3,649; construction of sewers at Lumley, Lamesley and Edmondsley, £441; for construction of roads, £1,800.

CLIFFORD CHAMBERS.—The Clifford Chambers Bridge on the borders of Gloucestershire and Warwickshire, is to be improved at the cost of the two county councils.

CLIFTON-ON-DUNSMORE.—Warwickshire C.C. proposes to obtain a site for a police house.

COCKERMOUTH.—House at Brigham, for Mr. C. N. Kennedy; house, St. John's-in-the-Vale, for Mrs. Cornish.

COLESHILL.—There is a proposal for the erection of a public hall and institute.

COVENTRY.—The City Council have decided to proceed with a scheme for the erection of 2,020 houses by putting into operation the Small Dwellings Acquisition Act. The cost per house is to be from £500 to £600.——The M.H. has held an inquiry into the City Council scheme for extension at the Bagintor sewage works, at a cost of £11,777.

CROMPTON.—Plans have been approved for extension of premises at Shaw Side Mill.

CROYDON.—Plans passed by the T.C.: Crowley Bros., 10 houses, Dovercourt-avenue; J. Midmer, 12 houses, Norbury Court-road; R. W. Carter, four houses, Ingram-road; A. W. Dawson, house, Addiscombe-road; W. A. Spencer, house, Orchard Way; C. Banks, six houses, Ross-road; C. E. Head, bungalow Addiscombe-road; B. C. E. Bayley, house, Pollards Hill South; Croydon Corporation, house, Pampisford-road; Tysoe & Harris, 42 houses, Briar-road; Peacock Bros., house, Central Hill; H. Cundell, three houses, Blake-road; F. H. Willcocks, three houses, Norbury-avenue; F. H. Willcocks, two houses, Nutfield-road; Young & Macintosh, 10 houses, Gibsons Hill; Battey & Sons, house, Blake-road; P. Stewart, two houses, Hampton-road; P. Richardson, eight houses, Barmouth-road; P. Richardson, two houses, Broughton-road; P. Richardson, house, Colliers Water-lane; P. Richardson, two houses, Colliers Water-lane; G. H. Dales, two houses, Relief-road; G. Ive, converting one house and stable into two tenements, Whitehorse-lane; F. Windsor, motor and lorry depot, Thornton-road; L. O. Linfoot, bungalow, Haling Park-road; L. O. Linfoot, bungalow, Haling Park-road; A. W. Anderson, house, Norbury Hill; A. Leitch, football grand stand, Whitehorse-lane, Park, Holmesdale and Clifton roads; R. Mansell, one house into four flats, 1, Sydenham-road North; Paish, Tyler & Crump, house, Selwood-road; C. H. Gibson, Ltd., one house into five flats, St. Peter's-road; H. E. Davey, bungalow, Wickham-road; S. H. Laver, two houses, Bishops Park-road; S. H. Laver, 18 houses, Bishops Park-road; Croydon Corporation, 16 flats, Cherry Orchard-road; Scratchley Bros., 16 houses, Buller-road; C. H. Gibson, Ltd., showroom, 2, St. Augustine's-avenue; F. E. Powell, house, Albert-road.

DARLINGTON.—Plans passed by T.C.: H. McKenzie, house, Abbey-road; H. D. Pritchett, house, Abbey-road; three houses, Vane-terrace South; J. E. Chilton, two houses, the Mead; four houses, Pierremont-gardens; house and shop, Neasham-road; conversion of school into house, Pierremont-crescent; W. W. Lee & Son, two houses, Elms-road; Kellett & Clayton, seven houses, Bright-street and Pease-street.

DEWSBURY.—Plans passed by T.C.: E. Dove, shop, Station-road, Thornhill; Thornhill Edge Working Men's Club, proposed site, Edge-lane, Thornhill.——The M.H. has sanctioned a loan of £11,320 for the purpose of improvements to the Soothill Nether water-supply.——The T.C. is negotiating for the purchase of land at Ossett for a reservoir.

DONCASTER.—Application is being made to the M.H. for sanction to borrow £2,100 for the purposes of erecting a house and two cottages for the Sewage Works' manager and two labourers at the Sandall Purification

* See also our List of Contracts, Competitions, etc.

Works.——On the Wheatley Hills Estate within the Borough, the Yorkshire Amalgamated Products, Ltd., are to develop about 140 acres, and Messrs. Edcaster, Ltd., contractors, are to erect exhibition types of houses.

DORCHESTER.—The Dorchester Building Guild is to be asked to submit a fresh tender for the amended scheme.—Consideration is being given to the provision of a new floor to the town hall.

DOUGLAS (I.O.M.).—The T.C. has asked the Borough Surveyor to prepare plans and estimates for a new bridge. Sewers in Tromode-road and Bray Hill are to be extended and Bray Hill widened, at a cost of £2,000. Plans passed :—Two houses, Quarter Bridge-road, for Mr. Cottier Cubbin. Loan sanctions are being sought as follows :—£1,800 for purchase of property in North Quay and Bigwell-street, for improvement scheme ; £800 for widening Woodbourne-road ; £2,000 for widening Bray Hill.

DOVER.—The Southern Railway Co.'s plans regarding Dover have been communicated to the Corporation. The company propose to rebuild the Priory Station, and to remove the engine depot from the station to a point adjacent to the new Marine Station at the pier ; to close and demolish the existing Harbour Station and improve the lay-out of the line in the vicinity of Archcliffe Fort, so as to provide a double set of metals between the fort and the Marine Station ; to provide a new goods yard on land adjoining the railway between Archcliffe Fort and the Harbour Station ; and to divert the public road now situated between the company's goods yard and the blockyard to the sea side of the latter.

DROXFORD.—Bungalow, Mr. W. A. Cole, Meonstoke ; four houses, at Denmead, John Edwards & Son ; house at Stoke Wood, Droxford, Mr. J. E. Cooper.

DUNDEE.—Plans and sections of proposed new buildings, &c., in Dundee, have been lodged at the office of the City Engineer : Blackness-road, cottages for J. Cree ; Bingham-terrace, house, for G. Sturrock.

EASTBOURNE.—The Borough Surveyor has been instructed to make inquiries as to sites for housing schemes.——Plans passed by T.C. : W. Llewellyn & Sons, St. Philip's-avenue, pair semi-detached houses ; A. J. Bessant, Wharf-road, furniture depository ; J. W. Woolnough, Ltd., Lismore-road, show-room ; P. D. Stonham, Upper-avenue, "St. Moritz," conversion into flats ; Weller & Seymour, King's-avenue, detached house.

EAST HAM.—Plans passed by B.C. :—Sports pavilion, adjoining Manor Way, J. & R. Rooff ; eight houses, Johnstone-road, H. Harris ; 16 houses, Nos. 261–291, Burges-road, J. W. Lohden ; 15 houses, H. Stokes ; six houses, Arthur-road, H. Stokes.

EDINBURGH.—The premises at Abbeyhill, lately occupied by Messrs. M'Hardy & Elliot, have been acquired by Mr. F. R. Graham-Yooll, who proposes to build a large picture house with seating capacity for 2,500.

EPSOM.—Plans passed by R.D.C. : House, Waterlane, for Mr. A. R. Pearson ; house, Fairmile-lane, for Dr. and Mrs. Kitching ; laying out of two 40 ft. roads off Stoke-road and Fairmile-lane, for Messrs. H. G. & A. Osman ; bungalow off Steer-lane, Oxshott, for Mr. J. C. Hyland ; cottage, Freelands-road, for Mr. C. Chalkin.

FALMOUTH.—The M.H. has sanctioned a loan of £55,000 for the second portion of the sewage scheme.

FEATHERSTONE.—The M.H. has sanctioned a loan of £20,992 for the purposes of erecting 50 houses on the Streethouse site, for which the U.D.C. accepted a tender.

FOLKESTONE.—Plans passsed by T.C. : House, Welson-road, J. L. S. Dahl, for Maycock & Son ; conversion of house, H. Videan, for Mrs. A. Videan.

GLAMORGAN.—The County Main Roads Committee has scheduled the scheme for construction of intermining valleys linking roads, in all about 30 miles of roads, at an estimated cost of £400,000, of which one-half will be derived from grants. The preliminaries to raising a loan are advanced. In addition the Committee is to put in hand road works and the construction of a bridge at a total estimated cost of £78,000.—The County E.C. is to borrow £44,360 for building and furnishing a new boys' intermediate school at Neath. It is proposed to build a school for blind children near Bridgend and two secondary schools at Caerphilly and Ystradmynach.——The C.C. has given statutory notice of intention to erect schools as follows :—Llantrisant, new infants' school for 150 scholars ; Cymmer, new school for 320 ; Dunvant, new school for 250 ; Llanharan, new school for 600 ; Pencoed, new boys' school for 250 (additional) ; Porthcawl, new school for 400 ; Pontlliw, new school for 100 (additional) ; Bridgend, new boys' school for 400.—The Pontypridd Trades and Labour Council is endeavouring to arrange for the erection of a District Labour Hall at an estimated cost of about £25,000. A Labour Hall for the Great Western Miners' Lodge is also proposed.

GLYNDYFRDWY.—A committee has been formed to erect an Institute on a site provided.

GOSPORT.—The T.C. has voted £600 for decorating houses on the Forton site.—The B.S. submitted estimate (£750), for redecking the pontoon in various kinds of wood and with special asphalt, and was authorised to carry out the work.—The Council has passed plans, prepared by the B.S., of fifty houses on the Forton site, and tenders are to be invited.—New conveniences are to be erected on the Crossways.—Plans passed : House, Spring Garden-lane, G. H. Keech ; house, Gordon-road, A. White & Sons ; five houses, Ellachie-road, J. Vaux.—A scheme is to be prepared for the clearance of courts and alleys in the town area.—The B.S. is to report on the possibility of adapting Mill Pond Field as a recreation ground.—A site at Brockhurst is to be secured for a new elementary school.

GRANGE.—Plans passed by U.D.C. : House in Highfield-road, for Mrs. Cooper ; warehouse, Fernleigh-road, for Messrs. Gibson ; conversion of barn into two cottages, for Mr. J. B. Wilson.

GRAVESEND.—The T.C. is being asked to provide underground lavatory accommodation in various parts of the borough.—The M.H. has sanctioned a site in Gordon Recreation Ground for the erection of slipper baths.—The T.C. is seeking sanction to borrow £50,000 for the erection of 100 houses and a further £5,000 for roads.—Plans passed : Pavilion, sports field, for Messrs. Harmsworth's Athletic Club ; shop and garage, King's Farm Estate, for Mr. E. Aldridge.

HALFORD.—A scheme has been prepared by the Warwickshire C.C. for widening the bridge, at a cost of £3,000.

HANWELL.—Negotiations are proceeding regarding land on the Hopefield estate for an additional housing scheme. The M.H. has suggested that the walls of a new convenience at Churchfields should be carlinated of concrete. Plans have been submitted for the rebuilding of the Red Lion public house, Boston-road, and efforts are to be made to secure land for a slight widening of the road. Plans passed :—House, Highland-avenue, for the Great Western Land Co., Ltd. The Council is negotiating with the Great Western Land Co. regarding land for recreation purposes.

HARTSHILL.—Plans are to be prepared for the enlargement of the North School by 100 places.

HASTINGS.—Plans passed by T.C. : Conversion into flats of "Belmont," Pevensey-road, Misses Taylor, per Mr. H. J. Richardson, architect ; house, Old Church-lane, Hollington, Mr. Brient, per Mr. H. J. Richardson, architect ; house, St. Helen's Down-road, Mrs. Brocklehurst, per Mr. Hy. Ward, architect ; bungalow, St. Helen's-road, Mr. Freshwater, per Mr. Hy. Ward, architect ; houses and flats, Beaconsfield-road, Mr. F. J. Parsons, per Mr. Hy. Ward, architect.—The B.E. has prepared plans for putting Clifton-road in a satisfactory condition, at a cost of £1,345.—The Improvements Committee report in favour of the following schemes : Widening of Red Lake-road, cost £33,302 ; completion of Rock Pleasure Grounds, £3,285 ; completion of the lay-out of Pilot Field as football and athletic ground, including a reinforced concrete grand stand to accommodate 1,500 people. £6,063,—The M.H. has sanctioned a loan of £51,199 for houses on the Old Church-road site.

HEADINGTON.—The Committee of Management of the Radcliffe Infirmary has decided to proceed with the building of a block for the accommodation of tuberculosis patients.

HENDON.—The U.D.C. has decided on a scheme to widen the bridge over the L.M.S. Railway, at a cost of £15,000.

HILLMORTON.—A school is to be erected on the Hillmorton Paddox.

HINCKLEY.—The M.H. has held an inquiry into a scheme of the U.D.C. for works of sewage disposal, to cost £34,400.

HORWICH.—A suitable site is to be obtained for the provision of a public cemetery.

HOVE.—Plans passed by T.C. : Mr. E. E. Brown, pair houses, 48 and 50, Langdale-gardens ; Mr. F. E. Brown, for Mr. Lendrew, conversion into flats, 35, Ventnor-villas ; Messrs. Young & Macintosh, for Mr. F. E. Greville, three houses, Norman-road ; Messrs. Harrison & Whettingstall, for Mr. Manser, bungalow, Portland-villas ; Messrs. W. & A. Elliott, Ltd., for Mr. H. Fairburne, conversion into flats, 1 and 2, Waterloo-street ; Mr. P. D. Stonham, for Mr. T. Maxfield, house and garage, Old Shoreham-road ; Mr. W. A. Parker, for Mr. A. Hurst, conversion into flats, 4, Cromwell-road ; Mr. F. E. Brown, for Mr. Footmane, conversion into flats, 61, St. Aubyns ; Mr. B. James, for Mr. J. H. Pashley, four pairs semi-detached houses, York-avenue ; Mr. W. H. Overton, for Mr. W. P. Barber, house, Palmeira-avenue ; Mr. W. H. Overton, for Mr. H. H. Nock, house and garage, New Church-road ; Mr. E. W. Long, for Mr. F. H. Hayllar, pair houses, Dyke-road.

HULME CULTRAM.—Plans passed by U.D.C. : Two houses, Waver-street, Silloth, Mr. Hodgkinson, for Mr. R. Carruthers.

KILLAMARSH.—A tender amounting to £2,350 has recently been accepted for the erection of a Miners' Welfare Institute.

KINGSBRIDGE.—Plans for eighteen houses have been prepared by the Surveyor of the U.D.C., in connection with the site which is under consideration at Rack Park.

KING'S LYNN.—Plans passed by T.C. :—House, Gaywood-road, for Miss F. Cross ; lay-out of Milson's Building Estate, Tennyson-avenue.

LANGFORD.—The Langford bridge, on the Coventry-Nuneaton main road, is scheduled for widening.

LEEDS.—Plans have been prepared by Messrs. Kitson, Parish & Ledgard, architects, of Leeds, for the erection of new banking premises in Park-row, Leeds, for the Bank of Liverpool & Martins, Ltd.

LEYTON.—Plans passed by U.D.C. : J. Sayer, three houses, Burchell-road ; H. Johnson, two houses, Whipps Cross-road ; W. F. Lovett, four houses, Colchester-road ; J. H. Jacques, sub-station for Electricity Department, L.U.D.C., High-road ; H. Wilson, three houses, Essex-road.

LIVERPOOL.—Plans have been approved for the erection of a new abattoir at Stanley. The Council sanctioned the application to the M.H. for power to borrow £100,000 for the purchase of Drury Buildings as part of the scheme for the widening of Water-street to 70 ft. Plans for the new home of the Liverpool Athenæum, in Church-alley and School-lane, are now in a forward state. Plans are being prepared for the erection of a new church of All Souls, Springwood, Allerton, on a site in Mather-avenue, estimated to cost £11,500. The Cheshire Lines Committee propose to recondition the bridges over the railway at Hill House, Allcar and Sefton, estimated to cost £1,000. Plans are to be prepared for proposed extensions to St. Margaret's Church, Princes-road, consisting of the erection of a small memorial chapel with accommodation for thirty persons and choir vestries. ——Plans passed by the Corporation : Green-lane, Allerton, submitted by J. W. Jones & Sons, Ltd., 20 houses and 20 garages ; Bleasdale-road, O. Williams & Sutcliffe, for Atkin & Amos, 11 houses ; Alder-road, A. E. Shennan, for Whinmoor Estates, Ltd., 11 houses ; Warnerville-road, F. H. Peate, for Scarrett Bros. & Davies, six houses ; Peter's-lane, Harris & Hobson, for G. Wall & Co., Ltd., new warehouse and packing rooms ; Church-street, H. Wil for Montague Burton, Ltd., shop and office premi Islington-place, Land Steward and Surveyor, for poration of Liverpool, electric sub-station ; Green North, T. Wainwright & Sons, for R. Jones & Co., houses and four garages ; Seddon-road and Cha road, William Pecorini, for G. Atkin, lock-up sho Banks-road, M. J. Worthy, for Rev. H. Gillett, school and temporary church ; Leasowe-road, D. Richards, for Thomas Spencer, six garages ; Belle V road, Chas. E. Dickinson, for Widnes Corporation Wa Works, new chimney at pumping station ; Wembl road and Henley-road, J. W. Jones & Sons, Ltd., selves, 46 houses, 46 houses ; Honey's Green-la Brown & Sanders, for N. L. Howarth, two hous Rathmore-avenue, R. Owens & Son, for W. J. Willia house ; Sinclair-drive, H. L. Goldsmith, for Mrs. K and Mrs. Saxon, two houses ; Orchard-lane, Morti Ward, for J. D. Prestwich, house and garage ; Orcha lane, Medcalf & Medcalf, for Mrs. H. Rigby, bungalo Greemasons-row, E. Percy Hinde, for Calthorp Br Ltd., new factory ; Vernon-street, Cunliffe-street, Hewitt's-place, Marshall & Tweedy and F. C. Bayl for W. H. Smith & Sons, garage and showroo Heathfield-road, corner Auckland-road, R. Owens Son, new Welsh chapel, &c. ; Bold-street, Wool & Eccles, for Midland Bank, Ltd., keeper's house ext sion and rebuilding ; Mossley Hill-road, Mossley Estates, Ltd., for selves, four houses ; Orchard-lane Garden-lane, Mark T. Evans, for self, four houses, houses ; Lower-lane, Fazakerley, A. Cole, for s shippon at Red Beech Farm.

LLANELLY.—The Borough E.C. is to expend £ on improvements at Bigyn school.—The B.C. is, the recommendation of the surveyor, to disbu £6,000 under the Small Dwellings Acquisition provisions.

LONDON (CAMBERWELL).—Shops, corner of Peckh Park-road and Green Hundred-road, for A. Robert & Son.

LOWESTOFT.—Plans passed by T.C. :—Mes Stewart & Patteson, for new public house, Stanto street ; Messrs. Lintott & Hillyard, for cold st London-road South ; Mr. P. C. Utting, for bungal Yarmouth-road, Oulton Broad ; Mr. S. Leighton, cottage, Yarmouth-road, Oulton Broad ; Mr. H. Adams, for warehouse, 186, London-road Sou Messrs. Knight & Weaving, for two houses, Warn road.

LUTON.—Plans passed by the T.C. : T. Day & S house and house and shop, Biscot-road ; C. Je ten houses and house and shop, Cavendish-ro A. Hayward, three houses, Stockingstone-ro G. R. Hickman, house, Marlborough-road ; F. G. Lo day, eight houses, Holland-road.

MAIDSTONE.—The Grammar School is to be reb and enlarged at a cost of over £30,000. A site of te teen acres has been given by Mr. G. F. Clark.

MANCHESTER.—Application by the Corporation to be made to borrow £500 for extension to kitche Baguley Sanatorium ; £1,750 for conversion of Va street, Openshaw, Municipal School into a dis Central School ; £160,000 for new mains and new st depot for Electrical Department in Chorlton-u Medlock ; £2,000 for structural alterations at Every-street Municipal School. It is proposed erect a new mess room at Brookdale Park, £130.

MARGATE.—Plans passed by the T.C. :—Ho Lower Northdown-road, Taylor & Patterson ; ro in roof, five houses, Eaton-road, F. Padget ; two hou Rancorn-road, H. J. Fuller ; three houses, Weste road, H. J. Fuller ; house, Westcliff-road. A. Wo ward ; house, St. Mildred's-road, G. Pettman ; th houses, Glencoe-road, W. Ward ; house, Westcliff-r W. B. Wilkins ; re-building portion of 26, High-st W. B. Wilkins.

MARKET HARBOROUGH.—The Surveyor to the U.D has prepared plans for alterations at the fire statio Plans have been prepared for extensions at the sew disposal works.—Plans are to be prepared for a showroom and alterations at the gas offices.— inquiry has been held by the M.H. concerning U.D.C.'s application to borrow £1,200 for the purp of erecting a public convenience in Church-squar

MARPLE.—The Council has resolved to offer 1½ a of land to the Cheshire C.C. as a site for a new sc in Marple, or 4 acres, and to spend £3,055 to ex their gas works, and to purchase the Compstall undertaking from the C.P.A.

MERTHYR TYDFIL.—The G.W.R. Co. has not the B.C. that it will erect a new steel bridge at known as the Devil's Bridge, Llwyncelyn.—A sch is being prepared for the B.C. for the clear of slum property at Dowlais and Cyfarthfa by erec of 90 houses at the former place and 122 houses at latter. Housing sites are being erected at Treharris Merthyr Vale.

MIDDLETON.—Plans passed by T.C. :—J. R bottom, for Rustic Building Co., eight houses and bungalows ; F. Cooper, for Cooper & Fitton, houses, Jubilee-road ; R. Cunliffe, eight houses, B Barn-road.

MINWORTH.—School accommodation for 150 child is to be provided.

MONMOUTHSHIRE.—The B.E. has approved County E.C. proceeding with schools extensions Maesycymmer. Sites are to be obtained by the Cou E.C. for technical centres at Newbridge, Trede Abersychan, Abertillery, and Pontllanfraith.— West Monmouthshire Mission proposes to erec Wesleyan church at an estimated cost of £5,000, to 600 people. A site is being negotiated for.— Mynyddislwyn U.D.C. is selecting sites for ho building.

NELSON.—Sketch plans by the County Archi of Preston for the erection of a new Secondary Sc have been submitted to the E.C.

NEWPORT (MON).—The B.C. is to extend the e tricity works. The Council has received intima that the negotiations with the G.W.R. Co., prelimin to the putting in hand of the work of widening of station approach and High-street. A building is t erected under the scheme of uniform design f

nger House, in High-street, to the Cambrian-road
n of the Tredegar Arms. The cost of the im-
ments is estimated at £24,000, of which the
t. Co. will pay half. — The T.C. is purchasing
rleigh House for educational purposes, at a cost
350; and "Brangwyn," Clythia Park-road, for
ic, at a cost of £3,212.—A sub-committee is to
ler as to a site for police quarters.—Plans ap-
d by T.C.: Ridgeway, two houses, C. H. Linton,
tow-road (Swalwell & Havard, architects);
ld-road, house, E. H. Markwell, 14, Caerau-road
am, Hitchcox & Co., architects); Corporation-
five houses, Sidney Dear, 12, Methuen-road,
rshon & Fawckner, architects); Blenheim-road,
ouses, J. F. Isitt, Coverack-road (Henry Budgen
., architects); Cardigan-place, two houses, A.
37, Bristol-street, and A. Moads, 261, Caerleon-
(F. R. Bates & Son, architects); Keynsham-
e, house, A. R. Adams, 14, Friars-road (A. R.
s & Son, Courtybella-terrace, architects); St.
-road, six houses, Meaker Bros., 42, Harrow-
(Page & Lawrence, architects); Grafton-road,
and shop and lock-up shop, D. J. Evans, "The
" Tidenham (Page & Lawrence, architects);
-avenue, bungalow, H. Davies, 101, Victoria-
J. Holmes & Co., architects).—The B.C. is con-
g the erection of a public slaughter-house and
ved cattle market accommodation. The scheme
mated to cost up to £75,000.
WPORT (I. OF W.).—Messrs. Crouchers, Ltd., are
iating with the T.C. for a site on the quay for the
on of a store.—A loan of £1,200 has been granted
nprovements in Castle-road, &c.
SETT.—The Yorkshire (West Riding) E.C. is
dering proposals for permanent extension to the
t Grammar School.—Plans passed by T.C.:
ence in street off Belgrave-street, for Mr. J. S.
burn; house in Sowood-view, for Mr. John
er; two houses in Wesley-street, for Mr. Jarvis;
in Headlands-lane, for Mrs. A. E. Wilson.
FORD.—The T.C. has decided to prepare a special
town-planning scheme.—Plans passed: House,
lton-road, for Mrs. A. Bayes; house, Victoria-
for Mr. W. J. Herbert; house, Bainton-road, for
. H. Rose; two houses, Riverside-road, for Mr.
Tyler; first portion of School of Pathology, South
-road, for the University of Oxford; two houses,
lton-road, for G. W. & F. Hinkins; house,
lton-road, for Mr. C. G. Eden; two houses,
zdon-road, for Mr. Walter Eyles and Miss Somer-
-The Property Committee recommends leasing
in George-street, to Messrs. Curtis & Horne.
DIHAM.—The Church Manufacturing Co. propose
ect a new cotton mill in the district.
IGNTON.—The U.D.C. is considering the purchase
nd for a new sports ground.—The Surveyor has
ared plans for a public convenience at the rear of
own Hall, to cost £350.—The Surveyor has pre-
l plans for widening Torbay-road.—Amended plans
o be prepared for the lay-out of land at Good-
on.—Plans passed: House, Southfield-avenue,
r. W. E. Andrew; three bungalows, Morin-road,
Messrs. Powell & Hawkins; two flats, Higher
am-road, for Messrs. Willcocks & Barnes;
nded), New Road, Osney-crescent, for Mr. H.
ley; house, Orient-road, for Mr. J. R. Gates.
ACEHAVEN.—A site for a new church has been
ired by the Catholic congregation.
NYBONT.—The R.D.C. is to invite fresh tenders for
ion of houses at Sarn and Pyle.
NZANCE.—The Town Clerk is to report as to the
aration of a town-planning scheme.—The T.C.
nsidering the provision of additional accommoda-
at the docks.—The West of England Knitting Co.
offered the T.C. £1,500 for the island site for the
ion of a factory.
LESWORTH.—The Parish Committee has com-
ed of flooding of the river, and suggests raising
road 18 in. and the erection of a wall 18 in. high
gside.
NTYPRIDD.—The U.D.C. is negotiating for land to
a bridge from near the Park Hotel over the river
to the Ynysyngharad Park.
RTLAND.—The U.D.C. has asked the Engineer to
are a scheme in connection with water supply.
RTSMOUTH.—The Borough Surveyor is to paint
Infectious Diseases Hospital by direct labour, at
st. of £240. It is proposed to grant a lease to
l Mex, Ltd., of a site in East-street for a store.
Tramways Department is to erect a shed at the
t, at a cost of £400.—Plans passed: Bungalow,
t-lane, for Mr. G. H. Nicholls; new street, off
borough-road, for Mr. J. H. Welch; house, off
giers-road, for Mr. R. Stokes; four houses, Henley-
, for Messrs. Parnell Bros.; business premises,
mercial-road, for Messrs. Pinkers, Ltd.; class-
n, St. Bartholomew's Church, for Churchwardens;
houses, Ripley-grove, for Mr. J. Kellow; two
es, Old Canal, Milton, for Messrs. West & Sons; two
es, Cromwell-road, for Mr. E. Warran; garage
flats, 10, West-street, for Henry Jones & Son;
, off Wisborough-road, for Mr. H. Welch; two
s, 1, Twyford-avenue, for Messrs. G. J. Davis &
: cottage, Court-lane, Cosham, for Messrs. G. H.
olls & Son; house, Craneswater Park, for Mr. E.
gan; 12 lock-ups, Old Canal, Milton, for Messrs.
t & Son; bungalow, East Court Estate, Cosham,
Messrs. G. H. Nicholls & Son; bungalow, Court-
, Cosham, for Messrs. G. H. Nicholls & Son;
ilding, "The Red House" public house, Cumber-
-street, for Kemp Town Brewery.
DULTON.—It is proposed to demolish Green Cottage,
er Green, for road widening purposes. The
ncil has been recommended to acquire for £1,000,
Skippool Marsh and foreshore rights from Catterall
warbricks Brewery Co., Ltd., Blackpool.
ETFORD.—The T.C. has acquired the banking
ises recently vacated by Messrs. Becketts Bank
it being the intention of the T.C. to convert these
ises into Municipal offices.
HOS.—A grant of £3,000 from the Miners' Welfare
d has been transferred to the hands of the local
ng committee, and they intend to apply for a
further grant of £5,000 to erect an institute for the local miners.

RUGBY.—The C.C. is in correspondence with the B.E. regarding plans for the new secondary school.

ST. HELENS.—The de la Salle Brothers are proposing to increase the accommodation of the Grammar School at West Hill to 300 scholars, estimated to cost £8,000.

SALFORD.—A site for £672 has been acquired in Clarence-street, Lower Broughton, for provision by the B.C. of a public washhouse.

SCARBOROUGH.—The M.H. has sanctioned a loan of £1,348, the estimated cost of widening and improving Stepney-drive and Scalby-road.

SEDGLEY.—Plans passed by U.D.C.: House, Lightwood-road, for Mr. E. G. Helliwell; house, Sandyfields-road, for Mr. Wilfred Tomlinson; erection of a memorial hall, Temple-street, for the Trustees of St. James's Church.—The widening of Delidale-road is proposed.

SELBY.—The West Riding C.C. are about to build new elementary schools at Selby, at a cost of £12,000 to £13,000.

SHEFFIELD.—Plans passed by T.C.:—House, Stubbin-lane, Handsworth, for Mr. A. J. Hall; house, Stubbin-lane, Handsworth, for Mr. W. B. Matthews; bungalow, off Richmond-road, for Mr. E. Mitchell; bungalow, Selborne-road, for Mr. P. Parry; bungalow, Brincliffe Edge-road, for Mrs. Annie Stowe; bungalow, Talmont-road, for Mr. Thos. Robertson; house, Stubbin-lane, Handsworth, for Messrs. W. & E. Sadler; house, Stubbin-lane, Handsworth, for Messrs. W. & E. Sadler; two houses, Hessle-road, for Mr. B. F. Glossop; two bungalows, Derbyshire-lane, for Mr. H. J. Taylor; four houses, Smithywood-road, for Mr. Edwin Cooper; two houses, Cairns-road, for Mr. J. E. Nadin; two houses, Sandford-grove-road, for Mrs. L. M. Wyatt and Mrs. Florence Newton; four houses, Montgomery-road, for Mr. W. Ramsay; bungalow, Dalewood-avenue, for Mr. J. V. Auckland; six houses, Louth-road, for Mr. Riley Watson; eight houses, Trap-lane, for Mr. Walter Green; four houses, Fitzgerald-road, for Tramways and Motors Committee, Sheffield Corporation; six houses, Milden-road, for Mr. J. H. Reed; house, Canterbury-avenue, for Mr. J. W. Sivil; house, Dalewood-road, for Mr. Ernest Collins; house, Dalewood-road, for Mr. G. T. Bromehead; house, Linaker-road, for Miss Judge; eight houses, Chesterfield-road, for Mr. M. J. Gleeson; house, Richmond-road, for Mr. S. Sanderson; house, Vainor-road, for Mr. G. Hardwick; house, Ringinglow-road, for Mr. F. Neal; house and office, Greystones-road, for Mr. Riley Watson; house, Stumperlowe-crescent, for Mr. W. Melling; house, Rundle-road, for Mr. J. M. Jenkinson; house, Earl Marshal-road, for Mr. Samuel Smith; two houses, Severn and Beaufort-roads, for Mr. T. Bowker; four houses, Overton-road, for Mr. W. J. Patchett; four houses, Muskoka-drive, for Mr. G. M. Taylor; bungalow, Muskoka-avenue and Muskoka-drive, for Mr. G. M. Taylor.

SHREWSBURY.—The T.C. has asked the Education Committee to report on a petition from the Borough Justices, drawing attention to the unsatisfactory state of the magistrates' court as regards accommodation and ventilation.—The T.C. have decided to build a further 30 houses on the Cotton Hill site.

SLEAFORD.—Temporary repairs are to be carried out at the river wall, pending a report as to the best method of permanent repairs.

SOLIHULL.—Improvements are to be carried out at the "Boat" Inn, Catherine-de-Barnes, and it is proposed in connection with the scheme to consider a road widening.

SOUTHPORT.—The T.C. proposes to provide a lake for model yacht racing.—Negotiations are proceeding with the Ince-Blundell Estate for seven acres, near Ainsdale, for a recreation ground.—The T.C. has approved block plan as to proposed erection of a bank for sites for a junior and a senior school in the Birkdale Common district.—Tramway extensions, at a cost of £18,500, are proposed.—Land is to be purchased, at a cost of £550, to improve the entrance to Victoria Park.

STAFFORD.—Plans passed by T.C.: Barclays Bank, Ltd., new premises in Market-square; Mr. J. Dyche, four houses at Doxey; Mr. J. W. Hibberd, house at Rising Brook; Heels, Ltd., sawmill in Friars-terrace.

STALYBRIDGE.—Plans approved by T.C.: Power station at Spring-bank for the S. H.M. & D. Tramways and Electricity Board.—It is proposed to prepare a town-planning scheme for a large part of the town.—Plans of the lay-out of houses on the Hague site, in connection with the proposed re-housing scheme, have been forwarded to the M.H.

STANLEY.—The U.D.C. has decided to make application to the M.H. for permission to erect 144 houses on the Stanley Edge and the South Stanley Building Estates; and also for the raising of £75,000 for carrying out the works.

STARE.—A new bridge is proposed on the west of the existing structure.

STRETFORD.—The D.C. are seeking sanction of the M.H. for the erection of an additional 50 houses on the Seymour-grove site. They also propose the diversion of the River Mersey abutting on the sewage farm, estimated to cost £4,650.

SUTTON COLDFIELD.—The T.C. propose footpath improvements, to cost £1,597.

TORQUAY.—The T.C. will, in the near future, consider a scheme for dealing in a comprehensive manner with the whole of Upton Valley, possibly as a view to a playground for children.—The T.C. is seeking power to borrow £17,000 for new harbour works.—The Corporation proposes to proceed with a scheme for sea defence works, at a cost of £2,800.

TYNEMOUTH.—The B.E. has sanctioned the purchase of land adjacent to the King Edward Council School, for £8,680.—The T.C. is borrowing £7,930 for the paving of back streets.—The Council is discussing with South Shields Corporation a scheme proposed by Mr. Sidney Morse for a tube railway between North and South Shields.—Plans passed: Two semi-detached villas, The Crescent, Kenner's Dene, for Newbold & Co., by A. K. Tasker; four houses, Stanwick-street, Tynemouth, for B. Peel, Ltd., by W. Stockdale.—Conferences are taking place regarding a scheme for the extension of Fish Quay.—The Water Engineer reports that the roof and girders at the Moor Houses Reservoir require further protection, and that the work will cost from £4,000 to £5,000.

UPPER RENFREWSHIRE.—Plans passed: Seven houses, 9–21, Wedderlea-drive, Cardonald, for John Young, St. Ninian's, Berryknowe-road, Cardonald; villa, Southfield-avenue, Potterhill, for Wilfred Semple, 8, Gilmour-street, Paisley; 74 houses, at Williamwood, Netherlea, for Messrs. A. Mitchell & Sons, Ltd., Cathcart; double villa at Southfield-avenue, Potterhill, for Alex. Adam, 160, Hope-street, Glasgow; bungalow, corner of Lomond-road and Nevis-road, Hillpark, for Mrs. Baird, Greenhill-avenue, Giffnock; bungalow, King's-road, Auchenlodement, Johnstone, for Young & Blair, Glenpatrick-road, Elderslie; bungalow, Southfield-avenue, Potterhill, for S. Laird, Blackhall, Paisley; villa at Moss-side, Paisley parish, for Thomas Taylor.

WAKEFIELD.—It is proposed to establish an open-air school in Batley-road. A lay-out is shortly to be prepared of the grounds on the north of Thornes Park. Loans totalling £2,000 have been granted in respect of the remodelling of the Calder Vale sewerage works. Plans passed:—House in Horbury-road, for Mr. A. Gawthorpe; house and shop at the corner of Avondale-street and Tew-street, for Mr. A. Crossland; two houses in Bromley Mount, for Mr. J. Wild; two houses in Manygates-lane, for Mr. W. Fowler; two houses in Manygates-lane, for Mr. H. Morris; two houses in Cross-lane, for Messrs. Kilkenny Bros.; two houses in Dewsbury-road, for Messrs. L. Mellor and H. White.—The Borough Surveyor has prepared estimates for hospital extensions, involving an expenditure of £14,000. The M.H. has sanctioned a loan of £88,050 for the erection of 200 houses on the Lupset Estate. The M.H. has given sanction to a loan of £7,750 for the erection of 20 houses on the Oak Frame and Ketton Stone principle on the Lupset Estate. Application is being made to the M.T. for sanction to the scheme for the widening of Doncaster-road between the White Bear Inn and the canal bridge.

WAREHAM.—Plans passed by T.C.: Mr. Burgess, house, Roper's-lane; Mr. Marsh, pair of cottages, New-street; Electric Light Co., house near their works, West Walls.

WARWICK.—The C.C. has prepared plans for two houses at the Mental Hospital, at a cost of £2,500. Plans passed by T.C.:—Two houses, Greville-road, for Mr. L. Middleton; two houses, Beauchamp-road, for Messrs. Crosbee & Atkins. The accommodation at Westgate School is to be increased by 80 places.

WATERLOO.—The U.D.C. have agreed to sell building land for houses in Brook-road, to Mr. W. H. Chorley.

WEST BRIDGFORD.—A children's corner is to be made at the recreation ground by the U.D.C., at a cost of £343. Plans passed:—House, Valley-road, for Mr. J. Wood; 24 houses, Willoughby-road, for Messrs. Forman & Linacre; house, Adbolton-grove, for Mr. J. Sands; house, Stamford-road, for Mr. H. H. Atkin; four houses, Willoughby-road, for Mr. F. Haskard; house, Wilford-lane, for Mr. W. P. Buckland; house, Melton-road, for Mr. H. Cox; house, Radcliffe-road, for Mr. F. G. Beeson; transformer house, The Park and Loughborough-road, for the Nottingham Corporation Electricity Department.

WEYMOUTH.—Plans passed by T.C.:—S. J. Board & Son, Villa in Belle Vue-road, Bincleaves. The M.H. has sanctioned loans of £1,926 for the extension of the outfall sewer, and £1,846 for wood-paving works. The Borough Surveyor has been asked to report upon flooding in some of the streets.

WHITEHAVEN.—The T.C. has decided to grant the application of the Whitehaven Colliery Co. for an advance by the Council, under the last Housing Act, of 90 per cent. of the cost of building 500 houses required for additional workmen in connection with colliery development. The Council has also decided to construct a new road to Kells, to provide for the growing population, at an estimated cost of over £10,000.

WILLINGTON.—The U.D.C. has decided to build an additional 60 houses on the Council housing site.

WILMSLOW.—A new sewer is to be installed at Finney Green, estimated to cost £700.

WIMBORNE.—A new R.C. church is to be erected on a site at Leigh Park.

WOKING.—The U.D.C. is negotiating for land at Connaught-road for a fire station. Plans recommended:—Mrs. F. Manton, bungalow, Lower Knaphill; Miss Fulford, detached bungalow, at Kingfield; Mr. Gettings, house, at Kingfield; Mr. Michie, house, at Kingfield; W. G. Tarrant, Ltd., house, Hockering-gardens Estate; Philip L. Beall, house at junction of The Drive and Cedar-road, Hook Heath; J. H. Tucker, house on the housing site, Broadway, Knaphill; C. E. Mutter, house, Triggs-lane, Star Hill; Surrey E.C., caretaker's cottage in connection with the Secondary School for Girls, Park-road; A. Griffiths, preliminary plans for a shop and house at The Broadway, Knaphill. The Surveyor has been instructed to prepare plans for a new bridge. Plans have been prepared for widening Goldsworth and Commercial-roads, at a cost of £4,340. Plans have been passed for 56 houses on the Council's estate.

WYKEN GRANGE.—The B.E. has passed plans for a new school.

YORK.—The scheme for a new public library for York has been sanctioned, and will be carried out subject to the grant from the Carnegie Trust of £12,000, on a site chosen in Museum-street.—The Housing Committee has been informed of a proposal to erect on Knavesmire a concrete house for exhibition at the Great Yorkshire Show, and is endeavouring to arrange for the house to be erected in such a position so as to enable it to remain after the conclusion of the Show.

FIRE.

PONTADULAIS.—Damage estimated at £15,000 has been done by fire at the premises of Messrs. Parry & Powell Reynolds, Glandulais, Pontadulais (Glam).

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Flettons, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 0 0
Do. grooved for plaster	2 15 3	Do. Bullnose	9 10 0
Do. Bullnose	3 8 3	Blue Wire Cuts	7 0 0
Best Stourbridge Fire brick:—			
2½ in.	8 11 0	3 in.	10 3 0
GLAZED BRICKS—			
Best White Ivory, and Salt Glazed Stretchers	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and one End	31 10 0
		Two Sides and one End	32 10 0
Headers	21 10 0		
Quoins. Bullnose and 4½in. Flats	28 10 0	Splays and Squints	30 0 0

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.

Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. „	2 6	4 in. „	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	„ „
Thames Sand	15 6	„ „
Best Washed Sand	15 6	„ „
¾ in. Shingle for Ferro-Concrete	14 0	„ „
¼ in. „	15 0	„ „
¾ in. Broken Brick	10 6	„ „
Pan Breeze	7 6	„ „

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement. British Standard Specification Test £2 18 0 to £3 3 6

51/- alongside at Vauxhall in 80-ton lots.

	£ s. d.
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
„ „ Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
„ „ White	3 12 6
„ Fine	5 12 0
Sirapite, Coarse	3 9 0
„ Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.

Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE—	
Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5

White basebed, 3d. per ft. cube extra.

NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ¼d. beyond 30 ft.

HOPTON-WOOD STONE.

Delivered at any Goods Station, London.

Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over „	17/-
Sawn two sides „	27/-
Sawn three or four sides „	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

Delivered at any Goods Station London.

	s. d.
6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto „	5 9
3 in. sawn two sides slabs (random sizes) „	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) „	1 5½
1½ in. to 2 in. ditto, ditto „	1 3

HARD YORK—

Delivered at any Goods Station London.

Scappled random blocks Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto „	6 0½
4 in. sawn two sides slabs (random sizes) „	2 10
3 in. ditto. ditto „	2 5
2 in. self-faced random flags Per Yard Super	7 11

ARTIFICIAL STONE.

Delivered in London Area in full van loads.

	s. d.
Plain per ft. cube	6 6
Moulded „ „	7 9
Cills „ „	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£34 0	3 × 6	£24 10
4 × 9	32 0	3 × 11	30 0
4 × 8	26 0	2 × 11	30 0
4 × 7	26 0	3 × 9	26 0
3 × 8	25 10	2½ × 9	27 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	24 0	3 × 4	24 10

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£37 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅜	21/-	1¼	33/6
½	24/-	1½	37/6
1	26/-		

TONGUED AND GROOVED FLOORING.

Inches.	per sq.
1	26/6
1¼	33/6
1½	38/-

MATCHINGS (BEST).

Inches	per sq.
⅜	17/6
½	21/-
1	26/-

BATTENS

Inches	s. d. per 100 ft.
¾ × 2	2 6

SAWN LATHS.

Per bundle	0 2 8
Dry Wainscot Oak, per ft. super, as inch do.	0 2 0 to 0 2 6
	0 1 6 to 0 2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0 1 9 to 0 2 6
Cuba Mahogany	0 3 0 to 0 3 6
Teak (Rangoon, Moulmein or Java), per load	45 0 0 to 50 0 0
American Whitewood planks, per ft. cube	0 1 4 to 0 1 6 0
Best Scotch Glue, per cwt.	4 10 0 to —
Liquid Glue, per cwt.	4 7 0 to 5 10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

Per 1,000 f.o.r. London.

	£ s. d.
Best machine-made tiles from Broseley or Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 0

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—

	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work „	20 10 0

MILD STEEL ROUNDS.

To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in.	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in.	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—

(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discount, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	50 %	50 %	60 %
Water	45 %	45 %	55 %
Steam	40 %	40 %	50 %
Galv'd—			
Gas	35 %	40 %	50 %
Water	8⅓ %	35 %	45 %
Steam	22½ %	30 %	40 %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. „	1/9½	1/4	2/0½
3 in. „	2/1½	1/8	2/5½
3½ in. „	2/6½	1/11½	2/10½
4 in. „	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. „	3 6½	2 5½	3 3½
3 in. „	4 2½	2 8	4 0½
3½ in. „	4 7	3 3½	4 8½
4 in. „	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. „ „	6 3	8 11	11 4
5 in. „ „	7 6	11 6	18 2
6 in. „ „	8 10	14 4	23 5

Per ton in London.

IRON—	£ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	—	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14
Hoop iron, basis price	16 10 0	..	17 1
„ Galvanised	31 0 0	..	32
Soft Steel Sheets, Black—Ordinary sizes to 20 g.	15 0 0	..	16 0
„ „ „ 24 g.	16 0 0	..	17 0
„ „ „ 26 g.	18 0 0	..	19 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality—Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.	22 10 0	..	23 10
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g.	24 10 0	..	26 10
Flat and Galvanised Corrugated Sheets—Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10
Sheets Galvanised Flat, Best quality—Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker	23 10 0	..	24 10
Best Soft Steel Sheets, 22 g. and 24 g.	24 10 0	..	26 10
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0

METAL WINDOWS—Standard sizes suitable for co plete houses, including all fittings, painting coats, and delivery to job, average price about to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)

	£ s.
LEAD—Sheet, English, 4 lb. and up	42 10
Pipe in coils	43 0
Soil Pipe	46 0
Compo pipe	49 0

NOTE—Country delivery, 30s. per ton extra: lots un 3 cwt., 2s. per cwt. extra and over 3cwt. and und cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. ex

Old lead, ex London area, at Mills per ton	£29 10 0	.. —
Do., ex country, carriage forward per ton	£30 10 0	.. —

PLUMBERS' BRASS WORK.

Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per d

NEW RIVER PATTERN SCREW DOWN STOP COCKS UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per d

NEW RIVER PATTERN SCREW DOWN MAIN FERRU

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1¼ in.	1½ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES. S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per d

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEAN SCREW.

	1½ in.	1¾ in.	2 in.	3 in.
8 lbs. P. traps	33/-	41/-	56/-	101/- per
8 lbs. S. traps	35/-	45/-	66/-	126/- „

COPPER—	£ s. d.	
Strong Sheet per lb.	0 2 3	.. —
Thin „ „	0 2 4	.. —
Copper nails „	0 2 3	.. —
Copper wire „	0 2 4	.. —
TIN—English Ingots „	0 2 2	.. —
SOLDER—Plumbers' „	0 1 0	.. —
Tinmen's „	0 1 2	.. —
Blowpipe „	0 1 4	.. —

PAINTS, &c.

	£ s.
Raw Linseed Oil, in pipes per gallon	0 3
„ „ „ in barrels „	0 3
„ „ „ in drums „	0 4
Boiled „ „ in barrels „	0 4
„ „ „ in drums „	0 4
Turpentine in barrels „	0 6
„ in drums (10 gall.) „	0 6
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 0

GENUINE WHITE LEAD PAINT—

"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots per ton delivered 80 5

Red Lead, Dry (packages extra) per ton	52 0
Best Linseed Oil Putty per cwt.	0 16
Fllocol per cwt.	0 15
Size. XD Quality fkn.	0 3

[*Concluded on next page.*]

* The information given on this page has been spec compiled for THE BUILDER and is copyright. Our a this list is to give, as far as possible, the *average* p of materials, not necessarily the highest or lowest. Qu and quantity obviously affect prices—a fact which s be remembered by those who make use of this informa

ICES CURRENT OF MATERIALS (*contd.*)

GLASS.

GLISH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
oz. fourths ..	3½d.	32 oz. fourths	8½d.
,, thirds	4½d.	32 ,, thirds	10½d.
,, fourths ..	5d.	Obscured Sheet, 15 oz.	4d.
,, thirds	6½d.	,, ,, 21 ,,	5½d.
,, fourths ..	6d.	Fluted 15oz. 6½d., 21oz.	9½d.
,, thirds ..	7½d.	En'lled 15oz. 5½d., 21 oz	7½d.

a price according to size and substance for squares t from stock.

GLISH ROLLED PLATE IN CRATES OF STOCK SIZES.

	Per Ft.
Rolled plate	4½d.
Rough rolled	5½d.
Rough rolled	5½d.
Figured Rolled, Oxford Rolled, Baltic, Oceanic, Arctic, Stippolyte, and small and large Flemish white	6½d.
Ditto, tinted	9d.
Rolled Sheet	6d.
White Rolled Cathedral	5½d.
Tinted do.	7½d.

Cast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
Varnish	Outside	0 14 0
e ditto	ditto	0 16 0
e Copal	ditto	0 18 0
e Copal	ditto	1 0 0
e Copal Carriage	ditto	1 4 0
t Ditto	ditto	1 12 0
or Varnish	Inside	0 18 0
e Pale Paper	ditto	0 18 0
e Copal Cabinet	ditto	1 2 6
e Copal Flatting	ditto	1 0 6
d Drying Oak	ditto	0 18 0
e Hard Drying Oak	ditto	0 19 0
e Copal Varnish	ditto	1 0 0
e ditto	ditto	1 2 0
t ditto	ditto	1 12 0
t Japan Gold Size		0 10 0
t Black Japan		0 10 6
and Mahogany Stain (water)		0 12 0
nswick Black		0 7 6
lin Black		0 14 6
otting (patent)		1 5 0
nch and Brush Polish		0 17 0
uid Dryers in Terebine		0 9 0
rass Black Enamel		0 7 0

NEW BUILDINGS IN SCOTLAND

amelon.—RECONSTRUCTION.—The Dean of ld Court has granted permission to the tern District Committee of the Stirling C.C. reconstruct the administrative block of melon Fever Hospital. The estimated cost he work is £3,000.

yr.—INSTITUTION.—The E.C. has purchased Girls' Industrial School for £5,500, which it roposed to utilise as a residential institution physically defective children.

dinburgh.—VARIOUS.—The Dean of Guild rt has passed the following plans:—Mrs. ng, house at Whitehouse-road, Barnton; W. Miller, conversion of 14, Merchiston-nue into two houses; J. A. Morton, two semi-ached houses at Riselaw-crescent; Saughton-Housing Association Trustees, six blocks four house each at Saughtonhall-terrace; Vitties, Guest & Co., new premises in nces-steet.

aisley.—RECONSTRUCTION.—The Dean of ld Court has passed plans for the reconstruc-n of buildings at 14, High-street, for F. W. olworth & Co., Ltd., of London.

arfin.—HOUSES.—The Housing Committee he Middle Ward of Lanark propose to build ses at Carfin, Holytown, Bargeddie, and gshill. The estimated cost of the scheme is 0,000. They also propose to erect houses at fin, Holytown, Bargeddie and Bonkle under scheme for the improvement of insanitary as, at an estimated cost of £95,600.

Dundee.—SCHOOLS.—The E.C. will adopt the owing scheme of building:—Erection of a tral school for 1,000 children; erection of nary school to take the place of Balfour-et and Brown-street Schools; the erection, a later date, of a new Central School for anced scholars.

Govan Destructor Works.

The acceptance is recommended of the offer Messrs. Heenan & Froude, Ltd., Worcester, the erection of the proposed new destructor ks at Govan for the South side of the city. offer amounts to £382,150.

NEW COMPANIES.

THE particulars quoted below have been compiled by Messrs. Jordan & Sons, Ltd., Company Registration Agents, of 116 & 117, Chancery-lane, W.C.2, from the documents available at the Companies' Registry.

A. ROWLAND & CO., LTD. (196127.) Registered March 4. 50, Whitworth-road, South Norwood, Surrey. Builders and general contractors, &c. Nominal capital, £800.

E. W. ROSKELL, LTD. (196167.) Registered March 5. Knowsley House, Thornton-le-Flyde, Lancaster. Builders and decorators, &c. Nominal capital, £1,000.

RUSHFIRTH & ABBOTT, LTD. (196180.) Registered March 5. Builders and contractors. Nominal capital, £1,000.

MIDLAND FIRE & RED BRICK CO., LTD. (196231.) Registered March 7. Bunker's Hill, Bilston, Staffordshire. Brick and tile manufacturers. Nominal capital, £2,000.

BROOK & QUITTENTON, LTD. (196105.) Registered March 3. 17, Station-road, West Croydon, Surrey. Builders' merchants. Nominal capital, £3,000.

LONG & CHRISTIE (BUILDERS), LTD. (196242.) Registered March 7. 16A, Grainger-street, Newcastle-on-Tyne. Builders. Nominal capital, £1,500.

ELSWORTHY & WILLIAMS, LTD. (196250.) Registered March 8. Builders and contractors, &c. Nominal capital, £1,000.

BUILDERS' MERCHANTS (NON-COMBINE), LTD. (196189.) Registered March 6. Bank Buildings, 40A, Woodgrange-road, Forest Gate, E.7. Builders' merchants and builders, &c. Nominal capital, £500.

MODERN BUILDINGS, LTD. (196275.) Registered March 10. To build and construct houses, buildings or works of every description. Nominal capital, £3,000.

HARRISON BELLAMY & CO., LTD. (196270.) Registered March 10. 108A, Cannon-street, E.C.4. Builders and contractors. Nominal capital, £2,000.

W. H. NICHOLSON & SONS, LTD. (196285.) Registered March 10. Mafeking House, Duke of York-street, Wakefield, York. Builders and contractors. Nominal capital, £1,400.

P. W. CRANE, LTD. (196309.)) Registered March 11. 130, Queen's-road, Bayswater, W.2. Builders and contractors. Nominal capital, £2,000.

THORNHILL BROS., LTD. (196343.) Registered March 12. Newport Works, Cecil-street, Lincoln. Builders and contractors. Nominal capital, £5,000.

WALTERS & BLAKE, LTD. (196345.) Registered March 12. 11, Vicarage-road, Park-lane, Tottenham, N. Builders and general contractors, &c. Nominal capital, £500.

CUTTINGLYE, LTD. (196394.) Registered March 14. The Firs, Cuttinglye-road, Crawley Down, Worth, Sussex. Builder and contractor. Nominal capital, £2,500.

CROWTHER'S PATENT FUEL ECONOMISER, LTD. (2311F.) Registered March 12. 70, Finsbury Pavement, E.C.2. Incorporated in the Isle of Man. Contractors, builders and engineers. Nominal capital, £120,000.

A. J. CRUMP & SONS, LTD. (196,741). Registered March 27. Builders and contractors. Aston-road, Dudley, Worcester. Nominal capital, £8,000.

R. W. MOON, LTD. (196,688). Registered March 25. 29a, Marlborough-road, Newport, Monmouth. Builders and contractors. Nominal capital, £3,000.

WILLIAM BALL & SONS (HIGHBURY), LTD. (196,692). 64, Drayton Park, Highbury, N. Registered March 25. Builders and contractors, &c. Nominal capital, £5,000.

F. G. CRESSY, LTD. (196,716). Registered March 26. 1a, Brackley-road, Chiswick, W. 4. Builders and contractors, &c. Nominal capital, £2,000.

RUSTIC BUILDING CO., LTD. (196,721). Registered March 26. 55, Market-street, Manchester. Builders, contractors, &c. Nominal capital, £1,000.

PATENTS

APPLICATIONS PUBLISHED.*

192,059.—F. Wasmayr: Blasting-fuses and the like.

209,497.—F. A. Whitaker and A. L. Ashley: Sinking of caissons and like casings.

209,540.—D. McFarlane: Automatic draught-preventer for doors.

209,579.—W. & H. H. James, Ltd., and W. James: Casement stays.

209,589.—G. T. Ward: Cabinets and chests.

209,604.—E. Price and H. Price: Chimney-pots.

209,613.—G. Brown, A. E. Turner, F. Russell, L. R. Turner and W. Grace: Adjustable chairs and settees.

209,617.—P. M. Mossman (F. S. Hatton): Travelling rope grips.

209,620.—I. Grant: Hinges for furniture.

209,636.—R. W. Hope and H. Hope & Sons, Ltd.: Glazed roofs.

209,647.—W. H. Tonks: Hinges.

209,651.—C. T. Lee: Ventilators for strong-rooms.

209,688.—T. Furniss and J. B. Farren: Pre-cast concrete slabs for floors and roofs.

209,690.—P. Lourandos and W. G. Dell: Casement stays.

210,470.—R. F. Wilkins and H. Chandler: Composition for facing walls and partitions.

210,519.—T. Makram: Means for inter-connecting building-blocks.

210,520.—A. E. Hills, H. Trevorrow and Perfecta Seamless Steel Tube and Conduit Co., Ltd.: Connections for pipes.

210,522.—R. L. Owens: Cold storage and like heat-insulated chambers.

210,534.—C. Welsh and H. Gregory: Carpenters' and woodworkers' benches.

210,550.—R. G. Crittal and J. L. Musgrave: Heating and cooling of buildings.

210,563.—Hartley & Sugden, Ltd., S. Fox, and H. Waterworth: Boilers for use in connection with hot-water circulating systems.

210,596.—A. Parker: Construction of chimney.

210,597.—A. Parker: Construction of chimney.

210,608.—J. Cox: Locks.

210,612.—A. W. Lucy: Composite instrument for surveying.

210,635.—J. Southall: Washers for washing gravel and sand.

210,700.—J. Newell: Concrete building-blocks.

207,155.—Insley Manufacturing Co.: Apparatus for handling building material.

203,695.—H. Frerichs: Process for the production of a substance resembling ebonite.

210,812.—C. B. Wardman: Hinges for doors and gates.

210,829.—J. A. Richards: Means for balancing window-sashes.

210,830.—H. A. Gill, J. H. Skinner, and F. C. Ross: Manufacture of parquetry and wood mosaic.

210,834.—G. W. P. Johnston: Locks for doors.

210,839.—E. W. Russell and L. W. Goddard: Ventilation and heating of structures.

210,853.—J. H. Ferguson: Ventilation of poultry houses.

210,872.—V. Maggio: Press-moulding apparatus for the manufacture of objects from concrete.

210,880.—R. G. Crittall and J. L. Musgrave: Heating and cooling of buildings.

210,881.—J. L. Musgrave and R. G. Crittall: Heating and cooling of buildings.

210,882.—G. A. Fry: Disinfecting-attachment for flushing-cisterns.

210,928.—J. B. Brooks & Co., Ltd., and H. R. Horden: Fastening or securing devices.

210,934.—M. Brown: Machines for dressing wooden floors and decks.

210,938.—G. F. Bailey: Chairs, seats, and like articles of furniture.

210,962.—H. Trickett and Brooks & Brooks Quarries, Ltd.: Stone-sawing machines.

* All these applications are now in the stage in which opposition to the grant of Patents upon them may be made.

CURRENT PRICES FOR BUILDING WORK IN LONDON

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	0	1¼

POINTING.

Neat flat struck or weathered joint	" "	0	0	3

ARCHES.

Extra only to the price of ordinary brickwork :—				
Fair external in half brick rings	" "	0	0	10
Axed in stocks	" "	0	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	0	6	0

SUNDRIES.

Damp course in double course of slates breaking joint and bedded in Portland cement	" "	0	1	1
Setting ordinary register grates and stoves	each	1	0	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	4	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.

		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.

		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.

		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.	d.
Deal wrot moulded and rebated	per foot cube	14	0

		1"	1¼"	1½"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9	2/-
Deal shelves and bearers	"	1/5	1/7	1/9
Add if cross tongued	"	2d.	2d.	2½

STAIRCASES.

	1"	1¼"	1½"	2"	2½"
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	—
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	—

		s.	d.
Housings for steps and risers	each	0	11
Deal balusters, 1 in. × 1¼ in.	per ft. run.	0	9
Mahogany handrail; average 3 in. × 3 in.	" "	6	0
Add if ramped	" "	11	10
Add if wreathed	"	23	3

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2/3
Sash fasteners	11½d.	Mortice locks	5/3
Casement fasteners	1/5	Patent spring hinges and letting in to floor and	
Casement stays	1/2	making good	19/-
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.	d.
Rolled steel joists	per cwt.	17	6
Plain compound girders	"	20	0
Do. stanchions	"	23	0
In roof work	"	28	0

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/-
Ogee Do. Do.	"	2/4½	3/1	3/10	4/9
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/-
Do. nozzles for inlets	"	2/2	2/7	3/10	4/3

PLUMBER.

		s.	d.
Milled lead and laying in flashings and gutters	per cwt.	58	0
Do. Do. in flats	"	56	0
Extra labour and solder in coated cesspools	each	6	9
Welt joint	per ft. run.	0	6
Soldered seam	" "	1	6
Copper nailing	" "	0	6

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/1	1/9	1/11	3/5	4/2	
Do. service	"	1/8	2/2	2/7	3/10		7/6
Do. soil	"					3/3	8/2
Bends in lead pipe	each						
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/1
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/9
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	2
Do. Do. Sirapite	" "	2	4
Do. Do. Keen's	" "	3	3
Add sawn lathing	" "	1	2
Add metal lathing	" "	2	1
Portland cement screed	" "	1	10
Do. plain face	" "	3	0
Mouldings in plaster	per 1 girth	0	5
One-and-a-half granolithic pavings	per yard sup.	5	0

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	2
26 oz. Do.	" "	0	3
Obscured sheet	" "	0	1
⅛ in. rolled plate	" "	0	5
¼ in. rough rolled or cast plate	" "	0	10
¼ in. wired cast plate	" "	1	4

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	2
Knotting and priming	" "	0	3
Plain painting 1 coat	" "	0	5
Do. 2 coats	" "	1	0
Do. 3 coats	" "	1	7
Do. 4 coats	" "	2	1
Graining	" "	2	2
Varnishing twice	" "	1	0
Sizing	" "	0	3
Flatting	" "	0	7
Enamel	" "	1	1
Wax polishing	per foot sup.	0	6
French polishing	" "	1	2
Preparing for and hanging paper	per piece 2/- to 4/-		

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

unications for insertion under this heading should ressed to "The Editor," and must reach him not han Tuesday evening.

otes *accepted.* † Denotes *provisionally accepted.*

otes *recommended for acceptance.*

otes *accepted subject to modifications.*

ERDEEN.—For extensions of various water for the Waterworks Committee of the Cor-on :—

. Tawse £17,491

TRIM.—For reconstruction of 9¼ miles of roads Antrim, for the C.C. Mr. A. C. Miller, Secretary, n C.C., Belfast :—

. B. McKee & Co., Ltd., Belfast		£26,614
Do.	Do.	37,264
Do.	Do.	25,910
immer & Trinidad Lake Asphalt Co., Westminster		16,028
Do.	Do.	14,653

ON'S END.—Bridge improvement, for the ickshire C.C. :—

. E. Farr £2,652

RNES.—For kerbing and resurfacing Rock's-Bridge, for the U.D.C. :—

rooks, Ltd. £1,671 17

RNSLEY.—For making-up various streets, for —

. Taylor £2,045
. D. Potter & Sons 950
. D. Potter & Sons 870

RNSLEY.—Structural steel work in connection new highways depot, for T.C. :—

dward Wood & Co..... £494 10

DFORD.—For enlargement of laboratory at erhouse Hill, for the T.C. :—

amuel Foster, Ltd..... £210 12

DFORD.—For renovation of ceiling of Council ber, for the T.C. :—

amuel Foster, Ltd. £176

DFORD.—For construction of sewers in Gold-n-road and Kimbolton-road, for the T.C. :—

Warwickshire Bridge & Engineering Co., Leamington Spa £9,895 5 10

LFAST.—For the erection of 200 houses, for the :—

H. & J. Martin.

VERLEY.—Alteration to two houses in Beckside, C. :—

Fred. Stephenson, Eastgate..... £126 10

DEFORD.—For the erection of hospital, for the ford and District Hospital Committee :—

Shellabear & Son, Plymouth	£20,855
Glover & Sons, Bideford	19,031
Ellis & Sons, Bideford.....	18,654
Walker & Slater, Derby	18,452
Rice & Son, London	17,092
Theo. Conway, Ltd., Weymouth ..	16,964
Booth & Son, Banbury	16,310
Stephens & Son, Exeter	16,279
Coles & Son, Plymouth	15,935
Wright, Ltd., Great Missenden, Bucks.....	15,275
Mardon, Ball & Co., Farnham....	15,072

LYTH.—Bridge reconstruction, for the Warwick-e C.C. :—

A. E. Farr £3,074

ROMSGROVE.—Roads improvement work at pley, for the North Bromsgrove U.D.C. :—

Currell, Lewis & Martin, Birmingham	£2,899
Wm. H. Rogers, Wolverhampton	1,925
John White, Handsworth	1,538
*Geo. Macdonald, Hunt & Co., Harborne	1,399

URTON-ON-TRENT.—For reconstructing lava-y at Market Hall, for the T.C. :—

*T. Lowe & Son £165

URTON-ON-TRENT.—For construction of sewer Ashby-road, for the T.C. :—

*Chadwick & Keen £398

URY.—For erection of new mortuary in the fire tion yard. Estimated cost, £2,000 :—

*Thompson & Brierley, Ltd.

ANN.—For the erection of a villa, for Mr. N. King ith.

Chivers & Co., Ltd., Devizes	£1,539
Wort & Way, Salisbury	1,501
*Williams Bros., Shaftesbury	1,250
mbing—	
*Humphries & Son, Shaftesbury.....	127

ANNOCK.—For the erection of 16 bungalows, for U.D.C. :—

*F. Pickering, Wednesfield ..... £410 each

CAPE TOWN, SOUTH AFRICA.—Construction of ervoir at Muizenberg, for City Council :—

‡Boyd & Co., Ltd. £15,740

CHICHESTER.—For the erection of two sub-tions, for the T.C. :—

*West Sussex General Builders £748

COCKERMOUTH.—For the erection of 12 houses at Prospect, for the R.D.C. :—

*T. Armstrong & Co. £5,508

COLESHILL HALL.—Bridge reconstruction, for the Warwickshire C.C. :—

*A. E. Farr £4,951

DEWSBURY.—For the supply of the necessary stone required in connection with the erection of Northgate Arcade, for the T.C. :—

*Geo. Graham's Quarry Co. £542

DORCHESTER.—For erection of Municipal Buildings, for the T.C. :—

*J. Meyers £357

DUNMOW.—For the erection of new Board Room and offices, for the B.G. :—

J. Pepper, Dunmow..... £1,376 13

EASINGTON.—For the erection of a nurses' home, for the B.G. :—

M. Ramshaw & Co. £5,286
(Accepted subject to M.H. approval.)

FELINFACH.—For alteration to the Wesleyan Church at Mydroilyn, for the Trustees. Mr. T. Dyssul Evans, architect, Llandyssul. Quantities by the architect :—

E. T. Jenkins & Co., Felinfach.....	£134 10
James Lloyd, near Llandyssul	139 0
*John Williams, near Llanfihangel..	129 0

FINHAM.—Improvement of bridge, for the Warwickshire C.C. :—

*Kelley & Son, Coventry £1,761

FOLESHILL.—Reconstruction of New Inn Canal Bridge, for the Warwickshire C.C. :—

*A. E. Farr £3,380

FURNACE END.—Bridge improvement, for the Warwickshire C.C. :—

*Reinforced Concrete Construction Co., Manchester £1,571

GRAVESEND.—Iron fencing, for T.C. :—

‡Bayliss, Jones & Bayliss..... £190

HECKMONDWIKE.—For structural alterations at the electricity works, for the Electricity Committee of the U.D.C. :—

**Excavator and Concretor*—G. Horsfall & Son.
**Steelwork*—F. Firth & Son.
**Plasterer and Tiler*—J. Cooke.
**Joiner*—W. France & Son.
**Painter*—J. W. Bennett.

HECKMONDWIKE. — For alterations at the Cemetery Lodge, for the U.D.C. :—

**Plumber's Work*—E. Iveson.
**Plasterer's Work*—J. B. Greenwood & Sons.

HECKMONDWIKE.—For erection of parlour-type houses, for the U.D.C. :—

**Mason*—J. B. Allatt & Son.
**Mason*—G. Horsfall & Son.
**Mason*—James Horkin.
(All of Heckmondwike.)

HOVE.—For street works in Tandridge-road, for the T.C. :—

*Parsons & Sons £952

HULL.—For the erection of cottage baths in Albert-avenue, for the T.C. :—

*A. E. Jones (Hull), Ltd. £6,594

KING'S ARMS.—Reconstructing canal bridge, for the Warwickshire C.C. :—

*A. E. Farr £3,448

LEEDS.—For the supply of stone fittings for Leighton Reservoir, for the T.C. :—

*B. Whittaker & Sons—3s. per cubic foot.

LEEDS.—For erection of a chemical precipitation house on the Thorpe-Stapleton sewage works, for the Sewage Committee of the Leeds Corporation :—

**Main Contract*—Paul Rhodes, Ltd., Leeds.
**Asphalter*—Tunstall Rock Asphalte Co., Ltd., Leeds.

LEITH.—For erection of elementary school, James's-place, for the Edinburgh C.C. Mr. J. M. Johnston, architect, 47, Charlotte-street, Leith. Quantities by Mr. J. D. Gibson, Frederick-street, Edinburgh :—

Mason and brick—		
*G. & R. Cousin, Edinburgh ..	£10,879 9	0
Carpenter and Joiner—		
Henderson & Wilson, Leith ..	5,970 10	0
Steel and ironwork—		
*Brown & Glegg, Edinburgh ..	475 15	0
Slater and harling—		
*G. Riddell, Leith	1,103 1	0
Plaster and Concrete—		
*W. Robertson & Co., Edinburgh	4,307 16	0
Plumber work—		
*W. Nicol, Edinburgh	2,095 19	0
Glazier work—		
*A. Cunningham & Co., Edinburgh	213 5	6
Smith work—		
*A. & J. Main & Co., Ltd., Glasgow.....	498 3	0

LICHFIELD.—For the erection of six houses, for the T.C. :—

*H. Dickenson, Lichfield £3,450

LIVERPOOL.—For repairs to the "Moss Lea,' Queen's-drive, for the Corporation. Mr. W. Moon, Town Clerk, Municipal Buildings :—

*W. Clarkson, Liverpool.

LLANTARNAM.—For building of Llantarman (Mon) bridge for the U.D.C. :—

*J. Sutherland, Abercynon..... £2,678

LONDON.—For redressing carriage-way of Blackheath-road, with liquid asphalte, for the Greenwich B.C. :—

*Val de Travers Asphalte Paving Co... £518

LONDON.—For supplying and laying creosoted deal blocks in King's-avenue, for the Lambeth B.C. :—

	Price per yard super. s. d.
Wm. Peters	15 5
Howard Farrow	13 0
William Griffiths & Co., Ltd.....	12 11
Acme Flooring and Paving Co., (1904), Ltd.	12 9
*Improved Wood Pavement Co., Ltd...	12 4

LONDON.—For laying bituminous paving in (*a*) Electric-avenue and (*b*) Robsart-street and Sydney-road, for the Lambeth B.C. :—

* (*a*) Highways Construction, Ltd.—14s. 6d. per yard super and five years' free maintenance.
* (*b*) Limmer and Trinidad Lake Asphalte Co.—7s. 11d. per yard super.

LONDON.—For paving of portion of Lordship-lane with creosoted deal blocks and granite sett paving on reinforced concrete foundation, for the Camberwell B.C. :—

Sir Wm. Prescott & Sons, Ltd.	£16,819 8 9
Acme Flooring & Paving Co. (1904), Ltd.	15,396 1 8
Wm. Griffiths & Co., Ltd.	15,263 17 6
Hy. Woodham & Sons, Ltd. ..	15,245 15 0
G. J. Anderson	15,026 10 0
Improved Wood Pavement Co., Ltd.	14,651 17 6
John Mowlem & Co., Ltd.	13,960 2 6
W. Manders & Co.	13,518 15 10
*Howard Farrow	13,446 8 4

LONDON.—For paving portions of East Dulwich-grove, for the Camberwell B.C. :—

Sir Wm. Prescott & Sons, Ltd.	£3,932 6 8
Neuchatel Asphalte Co., Ltd. ..	3,806 7 6
Bradshaw & Co. (Asphalters), Ltd.	3,785 10 0
G. J. Anderson	3,661 0 0
Improved Wood Pavement Co., Ltd.	3,616 17 6
The Whitehall Asphalt & Engineering Co., Ltd.	3,597 9 6
Hy. Woodham & Sons, Ltd.....	3,589 0 0
John Mowlem & Co., Ltd.	3,432 6 8
Highways Construction Ltd. ..	3,408 15 0
*Howard Farrow	3,325 0 10
W. Manders & Co.	3,324 18 0

MARGATE.—For new roofing at Wingham Pumping Station, for the T.C. :—

*A. Ross & Co..... £859 10

MARGATE.—For construction of first section of new 80 ft. road, east of Palm Bay-avenue, for the T.C. :—

*Gunn, McNeill, Ltd. £5,970

MOLANDS.—Bridge reconstruction, for the Warwickshire C.C. :—

*A. E. Farr £5,344

PAIGNTON.—Making-up new road off Cliff-road, for U.D.C. :—

*S. Batten £435

PENZANCE.—Improved lavatory accommodation at public buildings, for the T.C. :—

‡Colenso, Ltd. £109 15

PONTARDAWE (GLAM.).—For erection of houses at Clydach, for the R.D.C. :—

Morgan Bros., Clydach—non-parlour type.....	£519 15
Morgan Bros., Clydach—parlour type	560 0

PONTEFRACT.—For erection of new factory for Messrs. Wilkinsons, liquorice refiners, at Pontefract. Messrs. Tennant & Smith, architects, Ropergate, Pontefract :—

**Main Contractors*—J. Gerrard & Sons (1920), Ltd., Swinton, Manchester.
**Sub-contractor—Asphalter*—Tunstall's Rock Asphalte Co., Ltd., Leeds.

PONTYPRIDD.—For erection of 60 houses on the Duffryn site at Rhyd-y-Felin. Mr. W. E. Lowe, Surveyor, Council Offices :—

Rhys. J. Rees, Pontypridd—		
Type A	each	£455 0
Type B	,,	459 10
Type C (non-parlour).....	,,	432 0
Type D (non-parlour)	,,	400 0
Type E	,,	457 0
E. Williams & Sons, Tynant, Whitchurch—		
Type A	each	520 0
Type B	,,	525 0
Thomas Thomas, Pontypridd—		
Type A	,,	505 0
Type B	,,	500 0
Jas. Herbert, Pontypridd—		
Type A	,,	520 0
Type B	,,	525 0
Newcombe & Co., Ltd., Cardiff—		
Type A	,,	456 0
Type B	,,	401 0
Type C (non-parlour).....	,,	432 0
Type D (non-parlour)	,,	390 0
Type E	,,	452 0
W. Blackburn & Co., Treharris— For 60 houses		£29,803 10

RHOOSE.—For providing and laying about 700 lin. yds. of 4 in. cast-iron water main, with all necessary valves, &c., at Fortigary-road, for the Cardiff R.D.C. Mr. Wm. Farrow, surveyor, 20, Park-place, Cardiff :—

Westminster Building Co., Ltd., London	£880	10	0
A. G. Collins & Co., Barry	693	19	8
John Harry, Radyr	660	18	6
H. Ringham, Barry	643	16	0
Beaven & Sons, Ltd., Newport	620	1	0
*Standard Contracting Co., Ltd., Cardiff	553	14	0

ROCHFORD.—For carrying out sewerage scheme, for the R.D.C. :— Hadley mains

Thorby & Matthews, Leigh £12,141 2

ST. AUSTELL.—For extensions and additions to Cottage Hospital. Messrs. Andrews & Randell, architects, New Inn Chambers :—

J. Williams & Sons, St. Austell £3,200
J. Alderman, Par 2,930
*W. E. Bennett, Bodmin 2,229

SHARLSTON.—For erection of 12 houses, for the Housing Committee of the Wakefield R.D.C. :—

Mason—H. Bagnall	£3,132	10	0
Joiner—Blackburn	2,073	0	0
Plumber—Williamson & Ward	665	4	1
Painter—Bedford	130	15	4
Slater—Brear	370	0	0
Plasterer—Lockwood	530	0	0

SHEFFIELD.—Supply of 500 4 in. cast-iron pipes, to the T.C. :—

*Staveley Coal & Iron Co..... £525 13 9

SHEFFIELD.—For painting at Court House, &c. Castle-street, for the T.C. :—

*Flint Bros. £560

SOUTHPORT.—For supply and laying 1,500 super yards of Lithocrete wearing surface at Linaker-street School playground, for the T.C. :—

*Penmaenmawr and Trinidad Lake Asphalt Co.—5s. 6d. per yard.

SOUTHPORT.—For supplying and fixing four beds for horizontal retorts, for the T.C. :—

*Standard Furnace and Setting Co... £1,575

STOCKPORT.—For street work, &c., in Charles-street. The Borough Surveyor, Town Hall :—

*T. Gosling & Son, Ltd., Stockport..... £990

TORQUAY.—Construction of Great Hill Reservoir, for T.C. :—

*R. F. Yeo & Sons £10,365

TYNEMOUTH.—Conversion of 28 pail closets at North Shields and Cullercoats, for T.C. :—

*Gibson Bros. £262

WAKEFIELD.—Laying of 5 in. water main, for the R.D.C. :—

*Wilson Bros. £189 17 6

WARWICK.—Extension to Finance Office, County Hall, for the C.C. :—

*T. Hyam & Son, Ltd., Leamington.. £1,725

WARWICK.—Decoration at County Hall, Assize Courts and Judges' House, for C.C. :—

*T. Hyam & Son, Ltd., Leamington £256 7

WEYMOUTH.—For making up part of Esplanade roadway, for the T.C. :—

*Limmer and Trinidad Lake Asphalt Co.—9s. 6d. per sq. yard.

WEYMOUTH.—For screens and pay boxes Alexandra Hall, for T.C. :—

*Jenkins, Hill & Grant.....£143

WHITBY.—For the plumber's work required connection with the repairs and extensions to Council's Goathland Water Supply :—

*C. Jackson, Whitby.



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THE BUILDER

A JOURNAL FOR THE ARCHITECT AND CONSTRUCTOR.

WITH WHICH IS INCORPORATED "THE BRITISH ARCHITECT."

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THE POLITICAL HOUSE.—II.

IT is a common complaint against the political reformer that he is apt to be over-zealous in fashioning what he believes will be good for posterity, forgetting that this is the usual method of doing honour to the failures which posterity has handed down to us.

From a layman's point of view, the housing problem has scended by easy stages, until it now seems to be solely a litical issue. The main ideals may not have gone, but they ve become obscured in a welter of statements upon ways d means. We had hoped that the whole question of housing uld be kept above party issues, but it seems impossible to scuss it without trespassing upon political grounds. As a litical counter the housing question does not interest us, yond the fact that it is of vital importance to the architect d the constructor. We cannot believe that it is in the interests the building industry to read in the same newspaper a dis- ssion upon the new Housing Act, an article upon the building ade connecting the wages dispute with the huge housing pro- amme, and an article upon building materials under the usual are caption, "Is a price ramp holding up housing?" The hole formula of this absurd performance has become stereo- ped, and we wonder how long the nation will tolerate it.

In controversial matters there is always a tendency to nceal questions of ends, and to pretend that every question one of means only. We are not surprised, therefore, to find at the political aspect of the question of housing is largely matter of trying to disguise irreconcilable differences.

Mr. Norman Campbell in his book "What is Science?" iscusses this tendency in politics. "It is clap-trap to announce rtentously that we all desire the welfare of the community nd to pretend that we differ only in our view of the best way f attaining it; what we really differ about is our ideas of the elfare of the community; we disagree as to what is the state f society that forms the end of our political action. If we could gree about that, our remaining differences would not excite uch heat."

We assume that a certain number of houses must be built rgently, but we know they are bound to be a financial failure nder existing conditions, regardless of any political party. his is the whole position and it seems to us to be unwise to ssume that a permanent solution has been found, and that it an be applied to a temporary condition. The claim of the olitician to be able to provide houses in large or small quantities s based entirely upon how he interprets the law of political conomy. The capacity for giving, as we might term it, is olely a matter of the amount of taxation we can afford to pay, r rather the amount we can be made to pay. To prevent the roblem appearing too simple doubts are raised whether those vho pay the tax are those who receive the benefits. There is no ikelihood of this point being established, but if it were, the real ousing problem would emerge. Discussion upon the housing uestion has hardened into a jargon, and the conflict between nd and means has now obscured certain ideals and turned he problem into a complicated issue. We believe we are radually reaching a stage in this question when larger issues nust be faced. The responsibility for providing houses is radually passing from the individual to the State or local uthorities, and there are many indications which show that his responsibility may become a permanent condition of our ocial state. The idea is not far-fetched; on the contrary, it is eing seriously considered by many thoughtful people. We an see a state of society which may not accept a sharp division n the allocation of state services, and we can see little scope for private ownership in competition with large vested and public ights. On the other hand, it would be idle to deny that large possibilities are opened up which might be beneficial to the social state.

Apart from the question of immediate housing accom- modation (which, we admit, is serious), the politician must sooner or later face the fact that "the lower middle class," who can just afford to pay an economic rental, have at least as much right to expect the architectural and material advantages of a Government housing scheme as the "labouring" classes who cannot afford to pay. The argument is capable of further development, when we realise that where there is no obligation on the individual to build there can be no limit to the responsi- bility of the Government. This is merely another instance o how the housing question, as an ideal, can be obscured when the main object is to supply houses.

The only political contribution which appeals to us, from a constructive point of view, is that by Mr. E. D. Simon, who advocates that new houses should be free from a portion of the local rating. Theoretically any financial advantage granted to housing must be paid by someone; it is merely a question of the distribution of the burden. There appears to us to be a sense of justice in the theory that a housing shortage in any particular city has a greater significance for that city than for other districts where the problem is less acute. It is generally agreed that a city has a direct interest in the industries which have induced the workers to live in that particular city. Local rating increases the rents by roughly 50 per cent., so that if local authorities are compelled to accept responsibility for housing, partly because of the high rates, we may reasonably hope to see a tendency towards economy in local administration.

We recognise that under existing conditions any govern- ment is compelled to carry out its housing schemes in the teeth of strong opposition. A government may create the impression that it is anxious to build, but the truth is, the public realises there is an obligation to build, and is naturally anxious on that account. Problems of labour supply and shortages in certain materials are in the ordinary way the mathematical result of economic forces, whereas we are now dealing with a housing pro- gramme based upon artificial conditions throughout. The situation into which the building industry is driven is the direct result of political forces, and its attitude in the circumstances is what any economist would expect.

On several occasions attention has been drawn in the public Press to the high rates of wages in the building trade as com- pared with other trades, and to the stringent conditions regu- lating the supply of labour. The question of wages may appear to be a matter between the masters and workmen, but in a free market it would have been settled long ago by the consumer. This is the penalty which must be paid for any dislocation of economic conditions. We do not question at the moment the wisdom of the policy which set up these abnormal conditions, but we are fully aware that many advantages have been enjoyed which the general public is inclined to forget. On the other hand, we take a broad view of the welfare of the building industry when we say that the spending of hundreds of millions of public money gives the public the right to be critical, and it is as well to recognise that the general attitude is one of hostility. It is beyond doubt that the building industry occupies a very strong position, and it is because of this that its attitude requires serious consideration. It is, for instance, by no means certain that an ambitious and permanent form of building is the correct solution for the existing conditions, and if we are to visualise a programme requiring subsidies fifteen years ahead, we cannot rule out the possibility that the scientist may invent a form or type of building requiring so little skilled labour to erect that the annual saving on capital might reduce the cost to nil in, say, fifteen years. Some day a rational method of clearing out the slums may be discovered, when it is not worth while to be constantly repairing them.

These doubts and fears will, we hope, turn out to be idle speculations, and it is certain they will be if we have not to wait too long for the return of a "free market" in the economics of building. Meantime, we would prefer to see the Government taking the short view in its housing outlook, and the building industry the long view. The public is fairly safe in assuming that the long view of the Government will not continue for long to coincide with the short view of the building trade.

NOTES

Architectural Liberty.

THE admirable letter in the *Times* by Prof. Beresford Pite on architectural liberty seems to have evoked much interest. A correspondent writes: "We must all realise that whatever we do to promote the well-being of the art and of those who practise it, we cannot expect the double object to be attained with equally satisfactory results. The material success of the architect cannot be made a dominant motive without some loss to art. We are now in for a policy of protection for the practice of architecture, but no policy can possibly ensure us good art. As George Gilbert Scott said years ago, 'Art is by the way,' a product of value which cannot be bought and paid for. It is a tender plant apt to wither and die under the irritating influences of examinations and bills of account, and we are probably getting as much artistic value to-day as one can expect under modern conditions. No safeguards and no systems we can devise will ensure the production of such a building as the new Cathedral at Liverpool, and the most that we can hope for is that guidance and help will be of value to both the mediocrity and the genius. It is well to insist on freedom, for art knows no barriers or law but such as she herself imposes." No one wishes the establishment of registration to exclude those who have a genius for art from practising the art of architecture, and, as Mr. McArthur Butler suggests, it may be quite possible to devise a method under registration which shall give us that freedom which Professor Pite claims to be essential.

The Public Interest.

IN speaking at the R.I.B.A. general meeting at Caxton Hall, Mr. Delissa Joseph said Parliament would only grant registration where "the public interest was in jeopardy," and he suggested that, so far as architecture is concerned, the public interest was not in jeopardy. Few architects will be found to agree with this contention. The word "interest" does not apply only to the commercial and the material. It is as much in a man's interest that he should be educated as that he should be protected from violence. To suggest that so long as sanitation and personal safety are ensured the public interest is fully protected is unduly to curtail the meaning of the word, and, what is more, it leaves out its most important application. The public is already sufficiently blind to its true interests and rights in matters of art, and it will be unfortunate if a limited outlook is encouraged by architects themselves.

The Housing Bill.

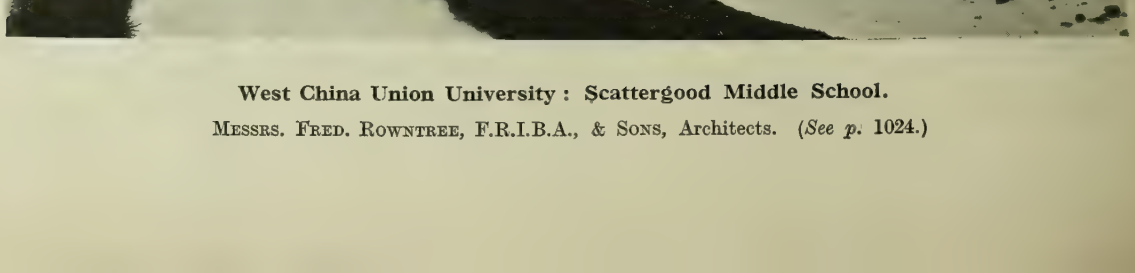
AFTER a very interesting discussion the Housing Bill of the Government passed the second reading in the House of Commons on Monday by a substantial majority, but the Government was subsequently defeated in resisting the motion to refer the Bill to a Committee of the whole House instead of the smaller Standing Committee which they proposed. This decision, it is to be hoped, will ensure an adequate discussion of the Bill in detail, for although the debate has shown that the desire to assist the Government in their zeal to provide a large number of small houses will not be allowed to prevent a thorough discussion of their scheme, the discussion on details will show whether the Bill is to be used as a party weapon or not. In our judgment the Bill has radical defects which in the interests of the country as a whole, apart from sectional interests, should be drastically dealt with. From the time housing became a political question the difficulty of providing houses has increased, and even now we doubt whether any party has explored the problem thoroughly. Would a Committee of non-party professional and business men of experience have produced either the Addison or the present scheme? And will the problem ever be solved until such a Committee is formed to deal with it?

Two New Housing Committees.

WE note that Mr. Wheatley proposes to set up two new Committees, the members of which are to be nominated by the building industry; one is to deal with housing labour, and the other with materials. The danger we foresee in the functioning of these Committees, unless the personnel is chosen with unexpected foresight, is that the members will imagine that between them the two Committees will be covering the whole field of housing. We suggest an analogy from the musical world. Imagine one committee to deal with performers, and another to provide the instruments. Would not the appointment of some one to compose or select the music appear to be indicated? In our world we have too often seen the executants each supplying his own music—a catastrophe the repetition of which we sincerely hope Mr. Wheatley will avoid.

Wages Slips on Tenders.

THE proposal of the National Federation of Building Trades' Employers to instruct their members to affix to all tenders a slip providing for adjustments to be made in the event of a rise or fall in wages has been the subject of a conference between the National Federation and the R.I.B.A. The Council of the R.I.B.A. have agreed to this proposal of the National Federation, subject to the following conditions which all Members and Licentiates of the R.I.B.A. are recommended to accept:—(*a*) That if any slips are attached to tenders they should provide only for actual wage increases or decreases to men employed by the contractors or sub-contractors at the agreed standard rates and paid by the hour, and not for



West China Union University: Scattergood Middle School.

MESSRS. FRED. ROWNTREE, F.R.I.B.A., & SONS, Architects. (*See p.* 1024.)



West China Union University: House "B" Gate, from Within.

MESSRS. FRED. ROWNTREE, F.R.I.B.A., & SONS, Architects.

inclusion of overhead charges or fit upon such increases as well. (*b*) at in circularising their members the deration should direct that the in- uction regarding the slip should hold d until March 25, 1925, and should reconsidered at a convenient date prior the above. (*c*) That the slip shall not affixed to tenders up to £2,500, pro- ed that in the case of tenders below 500 a provisional sum shall be included ual to 2½ per cent. on the total tender of which the above increases to men d by the hour are to be met, but such ovisional sum in any event shall not be ceeded.

Proposed Chair of Building cience and Art for Cambridge niversity.

WE are glad to announce that the Institute of Builders is issuing an appeal to its members for the purpose of raising the sum of £25,000 to establish a chair of building science and art at Cambridge University. We derstand that Sir Walter Lawrence, P., a past President of the Institute, d head of the firm of Walter Lawrence Son, Ltd., has offered to give a donation £1,000 towards this object, if nine other ms will subscribe a similar amount.

"Art and ndustry."

THE title of the second toast at the luncheon given at Wembley by the British Empire Gas Exhibit Committee to the architectural profession was eculiarly appropriate and well chosen. ithout art industry becomes a lifeless rm, or at least a purely commercial nd materialistic enterprise; and without ndustry art—and especially architecture remains an unrealisable dream. The as industry should have a great future, eculiarly so in the unique contribution can make towards smoke abatement. r. Goodenough stressed this in his peech; and if the industry can not only rovide gas but also produce adequate upplies of coke, or better still some form f semi-coked coal at an economic price, it will have done as much towards human betterment as any industry has yet had it in its power to achieve.

The Prime Minister on Art.

THE opening of the Contemporary Art Society's Exhibition, the object of which is to raise funds for the purchase of work by contemporary artists of foreign nationality, was made the occasion of a speech by the Prime Minister of a very important character. The catholic spirit of art as a link to bind nations together was emphasised in his speech with much insight and significance. Though this catholic spirit includes no indifference to native tradition and character, it is not helped by insularity any more than by copying the methods of other countries. The sphere of this influence for art should extend beyond national borders, for the best results through a receptivity to all that can enlarge its kingdom. And it is just because beauty is in a sense of no country that the tie of its noble presence embraces the world. At a time, as was pointed out by the Prime Minister, when "the forces which make for division are all too numerous and all too powerful," the influence of art is, owing to the spiritual fellowship it creates, a binding force of the opposite character. We are glad to notice in another sentence of the speech the corroboration of what we have pleaded so often in these columns: "The greatest work that patrons of art could do for the public was in their generation to anticipate the judgment of time and of the crowd." It has almost come to be accepted that the best will hardly receive any recognition in its own time, yet in any healthy condition of national life the very opposite should be the case. It is a notable fact that it is from the Labour Government, through its Prime Minister and others, that the most enlightened statements in regard to the national importance of art should have found expression in recent years, and we cannot do better than quote here the words in which the Prime Minister referred to it: "Economic advantage would never bring peace. What would bring peace was a spiritual fellowship in the pursuit of knowledge, in the exploration of the extraordinary mysteries of life, and in the appreciation of literature, art, and all that was beautiful and satisfied the soul, and which turned the most conservative of them into pilgrims seeking for the ever remote but blessed ideal." The anxieties of the time will not be eased by economic adjustment and reliance on machinery, but on a spirit inspired through beauty to the deeper relations on which life rests.



West China Union University: Administration Gate.

MESSRS. FRED. ROWNTREE, F.R.I.B.A., & SONS, Architects.

GENERAL NEWS

Professional Announcement.

Mr. J. M. Last Keith is retiring from the firm of Messrs. John Slater & Keith, Architects and Surveyors, on June 30. The practice will be carried on at 46, Berners-street under the title of Slater & Moberly, the partners being John Slater, J. Alan Slater, and A. H. Moberly, formerly of 9, New-square, Lincoln's Inn.

Change of Address.

The Architects' and Surveyors' Assistants' Professional Union has removed to 26, Buckingham-gate, Westminster, S.W.1.

R.I.B.A. Conference.

The following programme has been arranged in connection with the forthcoming Conference at Oxford from July 9–12 :—

WEDNESDAY, JULY 9.—Members will assemble in Oxford.

THURSDAY, JULY 10.—10.30 a.m. : The Conference will assemble for the inaugural meeting in the Sheldonian Theatre. Mr. E. P. Warren, F.S.A., will lecture on "An Historical Sketch of Oxford." 1 p.m. : Conference luncheon in the Halls of Magdalen and Queen's College. 2.30 p.m. : Personally-conducted visits to University and College buildings. 5 p.m. : Town Hall. Official welcome on behalf of the Corporation. 5.45 p.m. : Lecture in Town Hall by Mr. Raymond Unwin on "Town Planning in a City like Oxford." 8.30–11 p.m. : Reception in the Hall and Gardens of Magdalen College at the invitation of the Berks, Bucks and Oxon Architectural Association.

FRIDAY, JULY 11.—9.45 a.m. to 6 p.m.—*Alternative Programmes* :—(*a*) A Tour by steamer from Salter's Boat House (Folly Bridge) to Abingdon, Dorchester. (*b*) A tour by motor coach, starting from Oxford at 9.30 a.m., and proceeding by way of Faringdon, Lechlade, Coleshill, Fairford, Burford. 7 p.m. for 7.30 p.m. : Conference banquet in the Hall of Christ Church.

SATURDAY, JULY 12.—Privately-arranged excursions and visits.

Dr. R. M. Walmsley.

We regret to announce the death of Dr. Robert Mullineux Walmsley, D.Sc., F.R.S.E., M.I.E.E., who died recently as the result of an accident. Dr. Walmsley was principal of the Northampton Polytechnic Institute, Clerkenwell, and chairman of Convocation of the University of London.

Born at Liverpool, the son of Robert Walmsley, jun., he received his early education at Queen's College in that city. He matriculated at London University, and in 1882 he graduated B.Sc. In 1881 he joined the staff of the Horological Institute, Clerkenwell, as assistant to Professor Perry. Upon the opening of the Finsbury Technical College he became senior demonstrator in the electrical engineering and applied physics department. In 1886 he obtained the degree of D.Sc. at London University on the subject of electricity treated mathematically and experimentally. Soon afterwards he went to India as principal of the Sind Arts College of the Bombay University. In 1888 he returned to England and was appointed senior mathematical lecturer and demonstrator at the City and Guilds (Engineering) College. In 1896 he was appointed principal of the Northampton Institute.

Rome Scholarship in Architecture.

The Rome Scholarship will be of the value of £250 per annum, and will be tenable at the British School at Rome for a maximum period of three years. Candidates must be British subjects and less than twenty-seven years of age on July 1, 1925. Admission to compete may be granted at the absolute discretion of the Faculty to candidates over twenty-seven years of age, provided they have spent in war service at least that number of years by which their age exceeds twenty-seven. The Jarvis Studentship will be of the value of £250 per annum, and will be ordinarily tenable at the British School at Rome for two years. This Studentship will be confined to Students or Associates of the R.I.B.A., but otherwise the conditions of the two awards will be the same. The Competition, which will be conducted by the Faculty of Architecture of the British School at Rome, will be in two stages, viz. : A Preliminary Competition open to approved candidates and a Final Competition open to selected candidates.

Particulars from the Secretary, British School at Rome, 1, Lowther-gardens, Exhibition-road, London, S.W.7, not later than October 15, 1924.

Northern Architectural Association.

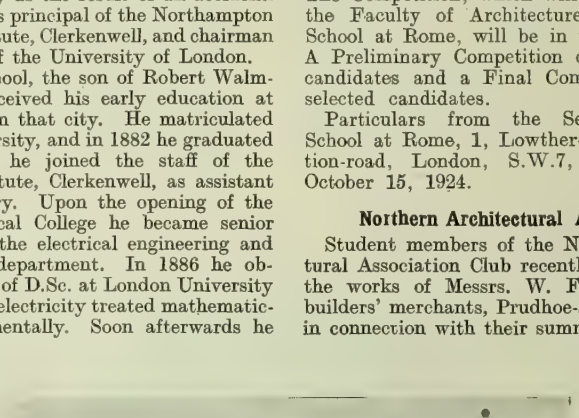
Student members of the Northern Architectural Association Club recently paid a visit to the works of Messrs. W. Ferguson & Sons, builders' merchants, Prudhoe-street, Newcastle, in connection with their summer months series of tours of local works, and were shown a la variety of fibrous plaster casts for cornice, fri and ceiling decoration. The principal of firm, Mr. Ferguson, received the visitors.

Fireproof Floor Advantages.

The Directors of the Frederick Hotels, L state that owing to the fireproof floors and st cases used at the Hotel Majestic, Harrogate, serious damage was done by the recent fire.



West China Union University : Riverside Gate.
MESSRS. FRED. ROWNTREE, F.R.I.B.A., & SONS, Architects.



West China Union University : Rear of Administrative Building.
MESSRS. FRED. ROWNTREE, F.R.I.B.A., & SONS, Architects. (*See p.* 1024.)

COMPETITION NEW

Bexhill Entertainment Hall.

The Bexhill Corporation invite designs fro architects in the district for the erection of entertainment hall. Premiums of £50 and £ are offered respectively. Sending-in da September 1.

The conditions of the Bexhill Town Ha Competition are not in accordance with t R.I.B.A. regulations, and members are advis not to take part until they have been revise

The Harrogate Infirmary.

The committee of Harrogate Infirmary invi designs for the extension of this Infirmar Mr. Sydney D. Kitson, F.R.I.B.A., has bee appointed assessor. Premiums of 150, 100, an 50 guineas will be awarded respectively Sending-in day September 30.

Masonic Memorial.

Designs for rebuilding Freemasons' Hal Great Queen-street, Kingsway. The com petition to be conducted in two stages. Eac of the architects submitting a design in th final competition will receive an honorariu of £500. Assessors, Sir Edwin Lutyens, M Walter Cave, Mr. A. Burnett Brown. On receip of one guinea competitors will receive cond tions of the competition, which has the ap proval of the R.I.B.A., together with bloc plan of site.

Applications marked "M. M. M. Competition must be received by The Grand Secretary Freemasons' Hall, Great Queen-street, Londo not later than August 23.

National Theatre.

The names of the winning architects in th recent competition for designs for a Nationa Theatre organised by the British Drama League are as follows :—(1) Mr. W. L. Somervill Toronto ; (2) Mr. W. J. H. Gregory, A.R.I.B.A London ; (3) Mr. W. J. Theodore Godwi Lancaster.

Other Competitions.

Other competitions still open include th following (the dates given are, first the sending in date, and second the issue of *The Builder* i which full particulars were given) :—Ross-Smit Memorial (Sept. 30 ; Feb. 21). Glasgow Publi Hall (July 4 ; May 2). Harrogate Infirmar (Sept. 30 ; May 30). Hamilton War Memoria (Sept. 1 ; May 30). Glasgow High Schoo Memorial (Sept. 30 ; June 13).

CORRESPONDENCE

Proposed Second Manchester Art Gallery Competition.

R,—Last year the Manchester City Council orised the Art Gallery Committee to devote 00 for a second art gallery competition on old infirmary site, although there is no ediate intention to erect the buildings as e are no funds available. The first com- ion for a joint art gallery and library on the e site was held some ten or eleven years ago, was very fully illustrated by *The Builder*. rly this year it was announced that three ssors had been appointed and the Lord or—clearly an optimist—stated that he d to lay the foundation-stone this June. y last March the local papers announced the Art Gallery Committee had entertained assessors at lunch, so the proposed competi- must be about due. An important point ests itself—it is a condition that the area to overed by any new building on the Piccadilly must not exceed that of the former infirmary. Corporation possesses an extremely large constantly growing collection of pictures; ously in a new building all should be dis- ed in top-lighted galleries, to erect a building side-lighted rooms would be a great mistake. here are no available statistics to show ther top-lighted galleries can be provided he limited site to display all the pictures ed by the Corporation and to provide space ddition for occasional loan exhibitions, also additions looking ahead two or three rations. It seems to be extremely improb- that within the area of the old infirmary sufficiently large number of top-lighted eries can be provided. Should that be so, ld it not be desirable to select a site in one ne parks, all of which are readily accessible the excellent municipal tramway service? y years hence extensions may be necessary; would be impossible on the Piccadilly site. y other towns have their art galleries in the rbs. A park site has the further advantage a stone-faced building would not become k in a few months.

minor point suggests itself: the tendency ecent competitions has been to reduce the k of competitors—thus for the drawings scale has become quite frequent. Former chester competitions have generally been to th scale (the technical school, chief fire ion, baths and schools); that involves a quite ecessary amount of work. What may be ed the brainwork can be readily conveyed the smaller scale and easily grasped by erienced assessors. In the Harrogate com- tion now pending the conditions state that perspective drawings will be accepted; ssors do not require them: and as regards public a perspective of the winning design be prepared after the award has been made. y should scores of competitors be put to the ible of preparing perspectives which no one look at?

the recent Hull competition there was an ellent clause: A double elephant sheet of e scale details was optional; competitors not mitting one will not be prejudiced. An itect capable of evolving a design of suffi- t merit to be placed first may be credited the ability of designing appropriate detail.

T. SINGTON.

Manchester.

The Wembley Palace of Arts.

IR,—In connection with the diagram of ections of the windows in Gallery "O" at mbley, published in your last week's issue, hould have noted that the reflecting surface ssumed to be vertical; if it is inclined, then reflections rise in proportion to the inclina- n of the picture. This and the similar galleries in respect of the reflection of the windows the side walls very satisfactory. The reflec- ns of the windows can only be seen on the tures on the end walls, and on the north and south walls of the large square rooms, "U" and "V." Here the reflections fall on the pictures at a height of between 8 and 9 ft. from the floor, and quite obliterate the upper portions of the beautiful full-length portraits. Reflections of the white cove fall between 6 to 7 ft. from the floor, as in the valuable Romney, where it envelops three of the heads and all the part above them in an annoying white haze.

S. HURST SEAGER.

[*** In the article by Mr. Hurst Seager in our last issue, p. 992, col. 3, par. 4, the word "practically" should have been "partially."]

York Minster Glass.

SIR,—I notice my name is referred to in the report of the annual meeting of the York Minster Window Fund in your issue of June 13. The Dean of York is reported as having taken exception to a remark made in an address I gave recently to the British Society of Master Glass-painters (reported in your issue of June 6) to the effect that the glass in the Minster is in such an extreme condition of decay that its repair demands the most careful technical supervision.

I cannot trace the particular report of my remarks referred to, but it is true that after the meeting I was closely questioned as to whether I considered the method of treatment practised unduly drastic, and I replied in the affirmative. I can only say that this is my honest and sincere conviction, derived from actual inspection of the work, and dictated by over thirty years' practical experience of the technical side of stained glass work. I expressed that opinion clearly to the Dean personally when invited to give my opinion some time ago; I have seen no indication that the methods have been changed since, nor is any statement to that effect made in the report.

It is stated in this report that the Dean will be only too happy to listen to anything I have to say in the way of advice on the subject. It is certainly due to Dr. Foxley Norris, who is faced with such a tremendous responsibility in the preservation of these windows, and whose zeal in carrying out that national duty commands universal respect, to reply to his request frankly; therefore I offer the following advice:—

1. Prohibit absolutely the practice of "cementing," which is ruinous to such fragile glass, and insist on the process of "puttying" being used exclusively.

2. Investigate fully the possibility of abolishing the prolonged soaking of the glass, which tends to accelerate its decomposition.

3. There are so many considerations involved in the proper treatment of the glass that it is desirable to have the constant advice of a trained master glass-painter, who has devoted his life to the craft and studied it from the artistic, historical and technical points of view.

NOEL HEATON.

Registration.

SIR,—While allowing all that can be justly claimed in favour of Registration, and quite apart from the consideration whether the aim is practical politics, seeing the chances are so remote of its finding acceptance in legislation to-day, we are bound to give attention to the very deeply-felt objections urged by many artists, as the matter is one which much affects the national life quite outside professional considerations. Professor Beresford Pite's letter in *The Times*, in which he stated some objections to the proposal, since followed by another from Mr. F. R. Hiorns, argues these objections with considerable force. As stated by him, "all great art has been evolved through the personal freedom of the artist to practise his art and express himself in his own way, untrammelled by restrictions other than those imposed by the right pursuit of his craft." Anything which imperils the freedom of art, which tends to make it "tongue-tied" by authority, which sets the test of examination above intuition, forcing it down those channels only which are approved by such authority, is in danger of promoting the average at the cost of the more greatly-endowed individual. As the adage tells us, "the good is often the enemy of the best," is impatient of that which cannot conform with accepted standards, and is even in danger of hating what it cannot understand. Organisation—which so many of us are feeling to be on its trial to-day—is always a danger to the arts because it moves only in the known—seeks security; and there is no security for creative art save its own. Constructing from what it understands, it makes experience the only test, and would depress to its own level the new experience of the creative mind.

Mr. Hiorns, in his letter, refers to the number of great architects who were the result, not of examination tests, but of their own noble selves, and this is no less true of the plastic arts. Those English painters most included in our national collections are seldom those whom authority endorsed at the time, and should we by registration make the path of genius harder—always rather at a discount in this world, unless we believe architecture to be a profession and not an art—we should be sacrificing the greater for the less, because there is more importance to the national life in having one Christopher Wren than in a thousand architecturally-trained in the sense we recognise to-day. This is said with no thought of disrespect for the average, but, on the contrary, in the assurance that the best security for its own freedom is the freedom it retains for its own best self, represented in this case by the man of creative endowment.

"ISIS."

Mr. Wheatley and the Building Industry.

SIR,—If you will further grant me the hospitality of your columns I wish in what I say to dissociate myself from the advocacy of all political policies.

It is clear that additional wealth (goods) can be obtained only by work wisely directed to its creation. If the available energies of the whole people were so engaged our real wealth would increase at the rate of, perhaps, £300,000,000 a year, and part of that could be spent on housing. Money is not wealth, for it is created at but the cost of paper and printing. It is merely a measure of value and a medium of exchange. Too little of it makes for low prices up to the time that production (being unprofitable) is curtailed, when the scarcity of goods reacts to raise prices.

Thus scarcity of money produces poverty, and abundance produces real wealth through full employment. The problem hitherto unsolved (if isometry be not a solution) is the frequent adjustment of the quantity of money to the requirements of trade, thereby maintaining a steady general price level and tending towards the abolition of booms and slumps.

The Government can have their houses if they set up plants (to produce the materials), such as virgin brickworks, and pay with legal tender paper—no usury. Prices will certainly rise, but against that may be set not only the houses, but some of the cost, moral and material, of supporting the unemployed.

The repayment of part of the National Debt with legal tender paper is necessary to the success of the scheme.

A. HENTHORN STOTT.

Overcrowding in the Architectural Profession. Owing to pressure on this page, a letter on "Overcrowding in the Architectural Profession" is given on p. 1049.

MEETINGS

SATURDAY, *June* 28.

Building Surveyors' and Inspectors' Association.—Annual meeting. At Auctioneers' and Estate Agents' Institute, Manchester. 2.30 p.m.

WEDNESDAY, *July* 2.

Royal Archæological Institute.—Mr. A. W. Clapham on "Architecture of the Crusaders in Syria." At Burlington House, W.1. 5 p.m.

THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

The Proposed Reform of the London Building Law.

ON June 23 Mr. C. A. Daubney, F.R.I.B.A., lectured on "The Proposed Reform of the London Building Law," at 9, Conduit-street. Mr. J. A. Gotch, President, presided.

In July, 1922, the Council set up the London Building Acts Committee, with Mr. Daubney as Hon. Secretary. The Committee presented a Report to the Council in April last and the Council gave it careful attention at three meetings. As a result certain modifications inserted by the Council were unanimously approved by the Committee and were included in the final report, which is in the form approved by the Council.

The Council invited Mr. Daubney to read a paper on the subject from which we give the following extracts :—

It was no surprise that the committee found no general body of opinion in favour of any radical departure from the present system. That the law needed a measure of reform was another matter, seeing the main building act was passed as long ago as 1894, since which time important advances had been made on many subjects included in the building law. The committee also noted the various legal enactments, such as the Factory Acts, which were akin to building regulations, and they felt that there was a real necessity for codification. Procedure should also be uniform as far as possible.

Before considering the report two points must be made. They would apply substantially to all the items in the report. First : The conclusions of the committee were only in general terms. Before they appeared in an Act of Parliament they needed to be put in legal form. There must also be safeguards and many consequential amendments and alterations. Legal advice on the subject might have to be obtained. The second point of explanation was that the report had not been prepared in ignorance of the fact that the London County Council had very wide powers of varying the ordinary requirements of the Building Law, and that in many cases dissatisfied applicants had a right of appeal. The report, however, was framed in the belief that it was advantageous and helpful to the public for legislation to be more positive than negative. For instance, it was of real value if an architect in advising the development of an estate could assure a prospective power what he could do rather than what he might perhaps persuade the London County Council to permit him to do. In practice it was often highly inconvenient, in fact most undesirable, or even impossible, to make an application and by trial and error discover what might be done. The London County Council was not in the habit—rightly so—of giving an approval without all the facts of locality and other details of a like character being divulged. The consequence was that a preliminary plan might be so speculative as to be of little value, and otherwise hopeful schemes might come to nought. The report, therefore, indicated the desirability of amending the law in such and other similar directions.

The present Building Act did not give the power of developing a small site by laying down a road out of a street and to curve it back a short distance off. The law demanded that such a street should join up another street, and there must be no gates or arches at either end. In these days of frantic hustle on the public highways, with the accompanying noise, stench and clouds of dust, it would be a real advantage to live apart from the madding crowd, or where the traffic on the highway would not be tempted to overflow. It was possible once to lay out such quiet places. The report reminded them that Burlington House courtyard might not be duplicated in Piccadilly or elsewhere in London. It was a cul de sac, and because the Royal Academy building was more than 60 ft. from the entrance archway the Building Law now frowned severely upon it. The Crown Surveyor found a quiet refuge within a stone's throw of Trafalgar-square side of the cul de sac end of Suffolk-street. Culs de sac such as this could now be objected to. Attention was directed to the fact that there was no authority given by law for a frontage line to be fixed before buildings were commenced in a street. The first builder might form a yard between his buildings and the street. This curious result followed. All other subsequent buildings on either side of him must also have yards at least equal in depth quite apart from whether they desired them or not. The report ventured the suggestion that this needed amendment. The time had also come when the building line should be indicated for all existing street frontages, and if this work were undertaken systematically by existing machinery ten years ought to see it accomplished. It would perhaps be agreed that the width of a new street and the building line for houses on either side should be taken together. The report considered this of importance. Reference was made also to the necessity of a reform in the law governing building over sewers. Since the report was prepared, the London County Council had reported that they were recently before the House of Commons Committee on the subject, when that Committee proposed that the London County Council's power of full discretion to grant or withhold consent should be curtailed in several directions. It would be seen, therefore, that this Institute was not taking an unreasonable attitude in suggesting revision of the law on the same lines.

Part II of the Report dealt with height of buildings. This thorny question had not been burked. The argument had been used that the law with regard to the height of buildings should remain as at present, in effect that London should exhaust all its present powers to build to 80 ft., and then, and not till then, seek amendment in the law. Here the report confidently made a stand. It was strongly opposed to permitting in the West End and other parts of London every narrow street to become a tunnel and its multitude of rooms to become caverns where artificial light must be regularly used. It was not proposed to remove the general limiting height of 80 ft., but it did not go so far as to declare that under no circumstances whatever higher buildings might not be erected. At the present time, Government buildings, churches and chapels, buildings any where in London belonging to the Inns of Court, and things which perhaps by a stretch of imagination might be deemed ornamental features or towers, could scrape the sky with impunity, and new schools might do the same. When details had to be thrashed out it might be found desirable to require that all buildings should follow at least the ordinary rules as regarded height. The decision as to higher buildings was still left with the London County Council with an appeal. Of course, constructionally high buildings which were easily built on, say, the swampy lake foreshore of Chicago, could be built, say, in the middle of Holland Park, and in many other places in London, and no material injury would be done to anyone. The great difficulty, however, which it was believed confronted the London County Council in their deliberations on applications for higher buildings was that a refusal, possibly on the ground that the architecture did not please the Building Act Committee of the London County Council, or even that they had passed a resolution to allow no more higher buildings in London, might not be sufficient ground for refusal. Without necessarily accepting that view, it must be agreed that high buildings involved very many questions—good taste and wide views were involved. There might be no intrinsic objection to a single high building, say, in the middle of the facade of Carlton-terrace. But if that one building be erected, why not all the facade to an equal height ? The London County Council should not be tethered in its judgment, but should secure opinion of the highest standing and of the most independent character, and the Report suggested that the opinion of the Fine Arts Commission should be invited. The report also suggested a mo tion of the stringent requirements in Secti of the London Building Act, 1894, which vided that whenever a greater height tha prescribed by the Act was contemplated owner or lessee within 100 yds. might ha be consulted. This did not apply only i case of high buildings. Lay out a passage wide, and if you tried to build 21 ft. high body within 100 yds. had to be consu Crowded business areas as well as sca suburban areas bore the same burden. amendment of this part of the law was necessary.

A proposal was also made in the repo which London, through the London C Council, should have power from time to as experience indicated, to amend the structional clauses set out in Part IV of the Act. At the present time this could not be except by Parliamentary sanction. It surely one of those domestic matters that Lo should control, and not have to go cap-in-to Westminster, or even to appeals at Whit

Another suggestion was made by whic London County Council could be relieve much routine work. It seemed unnece for the staff of the London County Coun investigate every joint and member of, a small rain screen against the yard wall huge steel-framed warehouse. In such a i ing every detail of the construction had t passed by the district surveyor. He had c of the drawings, and surely he could be tr to see that a trifling thing as this was well truly built.

With regard to signs, regulations were d up by the London County Council years The machinery had proved faulty, other there would be no necessity now to sug amendment.

Dealing with the questions of fire protec and means of escape, Mr. Daubney said the London County Council had certified means of escape the document would per be filed away with the architects' papers o of knowledge in his client's safe. It was gested that the particulars should be on premises. The Report did not wish in any to raise alarm, but the question often aro when a place of assembly was fully occupie the public, was everything well ? Wit hesitation it was confidently asserted that there were such vast interests involved, ma personal, but also material, in theatres an other places of public assembly, no stone sh be unturned until the architect had hin indisputable evidence that his plans could well be challenged in the event of an acciden

A piece of very cumbrous machinery w nullified to a large extent the chief purpose which the 1905 Act was passed—viz., tha providing means of escape for old dange buildings was also dealt with. Another sec of the Report dealt with exempted build which were entirely outside the pale of the as regarded construction. The Report m the suggestion that the district surveyor the best person to determine on the spot whe a proposed form of construction was suitabl

Referring briefly to the administration by district surveyor, the following informa should be given : During all the war pe and when building operations were seve restricted the district surveyors, whose inco were limited entirely by the amount of w done in their respective districts, suffe heavily ; besides, they had to bear the wh of the expenses for their office and had retiring allowance in prospect. Some were able to pay even their office expenses out the fees received from their district. In 1 thirteen districts did not produce a net inco of £2 per week. In consequence of this hea burden of loss the fees were raised in 1921 five years. This had produced a net incre above pre-war figures of about 25 per ce The Report recommended that the fees sho be graduated more fairly, and the work whi carried a higher service should receive a high fee than the work which required less.

The discussion on this paper was adjourn until Monday next.



Mortuary Chapel. By IVAN MESTROVIC.

(*See page* 1018.)

A MORTUARY CHAPEL BY IVAN MESTROVIC

By KINETON PARKES

In the summer of 1915 a new power in plastic art was revealed at the Victoria and Albert Museum by the exhibition of the work of the Yugoslav sculptor Ivan Mestrovic. Further than that, there was a wooden model of the Temple of Kosovo which proved Mestrovic to be an imaginative and original architect. The Temple was a pious aspiration towards the creation of a grand Serbian national memorial, and has not at present been realised. The artist has not been idle, however, and has proved on a smaller scale what he foreshadowed in his Temple. He has made a beautiful and original mortuary chapel in Dalmatia, where he was born in 1883.

At Cavtat, near Ragusa, the exquisitely situated small city on a tongue of land pushing out into the Adriatic from the coast, dominated by Monte Sergio, the new chapel takes its place beside fine monuments of Byzantine art; Franciscan and Dominican convents of the fourteenth century; the fountain and aqueduct of Onofrio, the fifteenth-century architect; a palace which is a combination of late Romanesque and Venetian Gothic, and a cathedral of the eighteenth century. It stands at the end of the tiny peninsula and faces the mountains. It is erected to the memory of the Racic family and includes sculptured portraits of the father, mother, son and daughter. The latter originated the idea and the mother, who died last, commissioned, in her will, Mestrovic to carry it out, which he did during the years 1920-22.



Figure at the Side of the Porch.

The building is of local stone, Bracca, and Dalmatian marbles, and the sculpture is of the same stone and bronze. It is 16 metres by 14 metres, and 9½ high, octagonal, including four compartments, thus securing a cruciform plan which includes the porch, the altar and north and south chapels; a cupola roof embodies a lantern bearing an angel in bronze, and within the beautiful bell is sculptured with bas-reliefs of saints and a Pietà; the inner roof of the cupola is decorated by many small angel heads set in the alternating cubes of stone of which it is built. Beneath are the crypts, marked by symbolic statues on the walls and bearing the names of the commemorated. The marble floor is tessellated, and represents the symbols of the evangelists and the signs of the planets.

The exterior presents an almost plain mass of cubes of stone broken by the porch, which includes two elongated caryatids of angels with folded hands, supporting a plain architrave and a pediment with a carved moulding. Another decorated moulding with a sheep motive forms the base of the cupola, which itself consists of plain oblong slabs of stone overlapping like shingles, and this is surmounted by the arcaded lantern with the angel in cruciform.

Five steps in the porch lead to the large bronze double doors, with four figures of Slav saints in low relief, with the symbolical snake beneath the feet of the two lower. Around this double panel is a border with medallions, contained in a continuous spiral, of various other saints and the signs of the zodiac.

The interior is illuminated only from the cupola and six small windows at the sides; the natural light is but dim, and the altar, recessed in the western elongation of the chapel, is lighted by four large candles in spiral candlesticks on consoles. The front of the altar consists of a large low relief of the Descent from the Cross. On each side the walls above are occupied by reliefs of three male nude figures playing on musical instruments. The Mother and Child group is mounted on a cubic base decorated with a relief of the winged Lamb of God, and the head of the Mother reaches to the roof, which is carved in small panels of angels' heads in perspective and billing doves.

The two chapels are only slightly illuminated by small slit windows, and one of them is the Chapel of the Crucifixion, the back wall of which bears the gaunt Christ, flanked by large candelabra on brackets carved with angel-heads. On the side walls are two reliefs, and the design is repeated in the opposite chapel of St. Rochus, a tall figure with water-bottle and staff, and at his feet a seated hound licking his leg in devotion.

The whole work is a harmony of design. It is symbolic in its conception, for its materials are those of the land in which it is built; its construction is the outcome of its author's passionate nationality; the type-figures of its plastic aspect are those of the southern Slav, seen in other sculptors of the country as well as in Mestrovic. It is a chapel of death, but it is a chamber in which the continuity of life and the eternity of religion are welded into a single proposition. It has its spiritual significance, for although it is not a great monument such as a Gothic cathedral, seeing that it is the work of a single artist, it is an indication that the flame of art is still burning; the force of original creation still actively at work in man for the production of original form. It is, moreover, one of the finest of



The Bronze Double Doors.

the few testimonials to the desirability of the union of sculpture with architecture that has been furnished in modern times. The chapel is an example of unity of conception and execution such as is rarely met with.

EXHIBITION NOTES

GUILD OF POTTERS.

For a first display the exhibition of the Guild of Potters at the Grieves Gallery must be accounted a distinct success. The members seem to be all actuated by a high standard and some delightful specimens of pottery are the result. A certain impressive and monumental character is evident in many of the animal subjects, and all the vases and bowls have a definite good quality of form and colour. The quality of technique is remarkably good, and we believe if the subject matter of the figure pieces were more generally attractive there would be a large demand for such excellent productions. The figure of Dolores, by Mrs. C. Gregory, the tug-of-war, by C. Vyse (17), and the equestrian statuette by S. Thorogood may be named as indicative of the distinction which goes with many of the pieces. Though the prices do not seem high for such good work, we can only hope that somehow this admirable style of design and craftsmanship may push its way with cheaper and simpler production.

OLD MASTERS.

The loan exhibition of old masters at Agnew's in aid of Lord Haig's Appeal for ex-Servicemen shows us some characteristic work of the highest quality. The portraits include some of the finest things ever done, such as the wonderful head by Giorgione (17), and the 14, 11, and 23 by Van Dyck, Hals, and Rembrandt. The exquisite landscape, "Summit of Cader Idris" (20), by Rich-Wilson, shows what fine observatory powers of nature was behind Wilson's classical landscapes.

TWENTY-ONE GALLERY

Some freshness and truth of observation appeared to us to make notable the work of Miss E. Stewart Wood in her pictures of Spain at the Twenty-one Gallery. Some of them are excellent pictures of light and colour, as Nos. 14, 10, and 3.



Mortuary Chapel : Interior. By Ivan Mestrovic.

(*See page* 1018.)

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ILLUSTRATIONS

West China University.

An article on the West China Union University at Chengtsu is given on p. 1024. Messrs. Fred Rowntree, F.R.I.B.A., & Sons, are the architects.

Miners' Welfare Centre Competition.

The first premiated design in the competition for a Miners' Welfare Centre at Brancepeth, by Messrs. Hays & Gray, AA.R.I.B.A., is illustrated this week. Some notes on the design are given on p. 1029.

West Park Mental Hospital, Epsom.

West Park Mental Hospital is designed on the villa principle, every building for patients being detached. It has four sections :—

(1) The admission hospital and villas for convalescent patients. (2) The main hospital, the buildings of which are connected by open-sided covered ways. (3) The special hospitals for the treatment of tuberculosis, dysentery and other infectious diseases. (4) The "open" villas for patients suitable for parole, and patients engaged in domestic duties and on the farm and gardens.

The estimate for the buildings, engineering works and equipment of the complete hospital approved by the Council in 1912 was £517,970. The estimated cost now, owing to the losses caused by the 4½ years' suspension, limitations, delays, increases in wages and in cost of materials that have since occurred, amounts of £1,030,670.

The total area of the West Park Estate is 230 acres, and of this the buildings, grounds, recreation field and kitchen garden occupy 83½ acres. The wards and buildings with their gardens cover 44 acres. The floor areas of the buildings amount to 9 acres.

Messrs. Leslie & Co., Ltd., were the general contractors. Heating and hot water, Messrs. The Brightside Foundry & Engineering Co.; electric cables, Messrs. Cox, Walker & Co.; electric wiring, Messrs. Higgs & Hill; kitchen plant, Messrs. Moorwood; bakery plant, Messrs. Mason.

The design of the buildings and of the engineering work were prepared by Mr. Clifford Smith, O.B.E., F.R.I.B.A., the Mental Hospital's engineer, with whom is associated Mr. Leolin C. Gregory, A.R.I.B.A.



West China Union University: View During Construction. The arched openings are for ventilation. MESSRS. FRED. ROWNTREE, F.R.I.B.A., & SONS, Architects.

THE SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS

AT the annual meeting of the Society for the Protection of Ancient Buildings, on June 24, held, by permission of the Royal Institute of British Architects, at 9, Conduit-street, Professor W. Rothenstein lectured on "The Human Element in Building." Lord Howard de Walden presided.

The report of the Society stated that during the past 47 years the society had achieved much, but much remained to be done. There was the destruction of the Old Court House at Barking and of the Star Inn at Bury St. Edmunds. There were also the efforts to do away with the Whitgift Hospital at Croydon, and the fate of the City churches still remained in the balance.

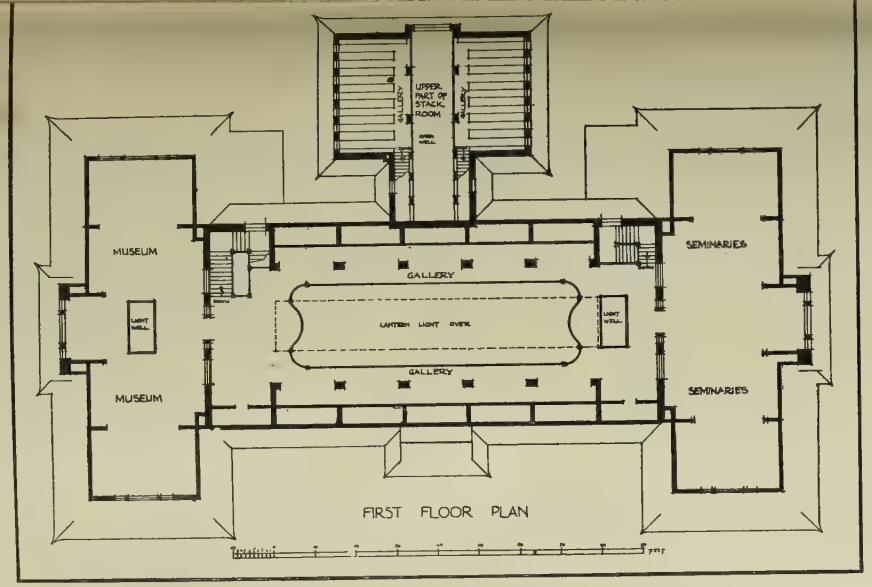
In moving the adoption of the report, Mr. A. R. Powys (secretary) said the society was particularly interested at the moment in the threatened destruction of some of the City churches and in the question of Waterloo Bridge. With regard to the City churches, it was not generally known that the National Assembly of the Church of England was about to consider the advisability of destroying a certain number of the churches at a meeting to be held next Monday. It was the duty of their society to do everything in its power to prevent the destruction of any of the City churches. As to Waterloo Bridge, the society had caused a report to be prepared on its condition by an eminent engineer, and this was being considered by the L.C.C. The report expressed the view that it was possible to maintain the existing bridge without demolition by repairing the damaged parts. The Minister of Transport had issued advice to various authorities that, if possible, new bridges should be of ferro-concrete or steel. They could imagine the effect of such advice.

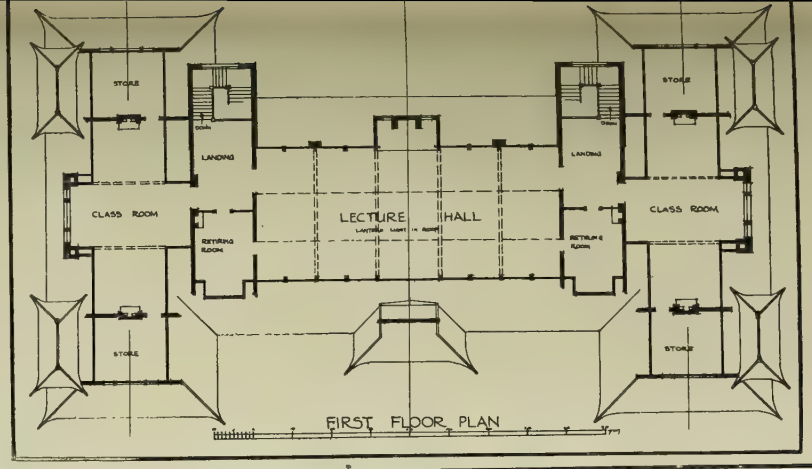
Mr. Thackeray Turner said that if the L.C.C. widened the bridge the beauty would be lost. There was no doubt that the question of bridges over the Thames would have to be considered, and that there must be a road bridge at Charing Cross sooner or later. Why not get on with it now and leave Waterloo Bridge alone except for the necessary repairs?

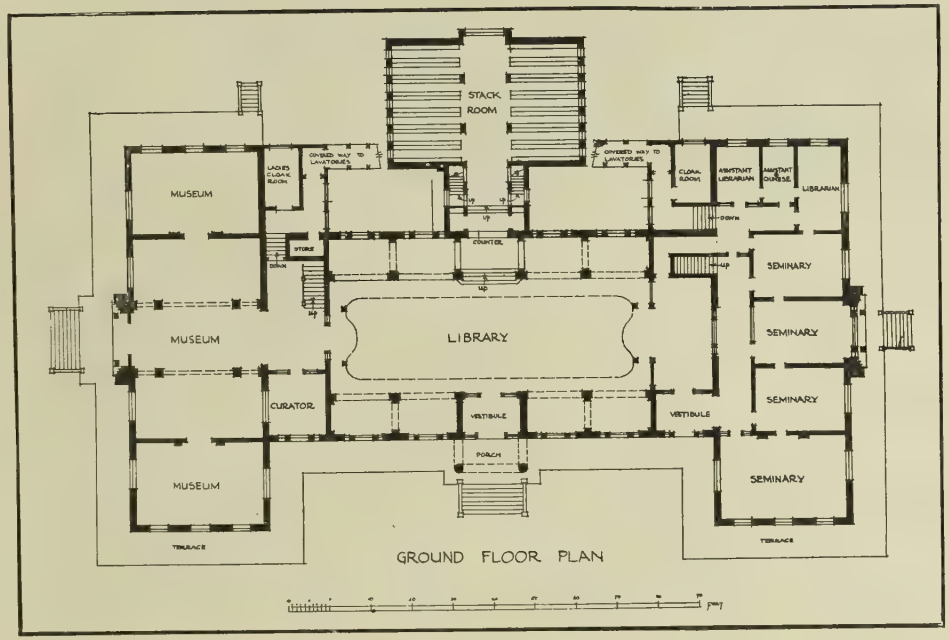
Professor Rothenstein in the course of his remarks said one of the ironies in their position was that people did not wish to destroy; they had the most acquisitive state of society ever known. Look at the looting which went on to supply the museums; and the numerous quantity of pictures acquired which would fail to be of interest to the next generation. Yet they seemed incapable of keeping their national history alive by the preservation of things which, in most cases, could be used as well old as new. Another irony of life was that they were unable to make use of the dynamic forces of the nation; they were in a state of muddle. Style was an intrinsic crystallisation; each age had its own idea of the truth. With regard to men like William Morris, who founded the Society, the mistake was made of believing that a noble style was always noble, and a trivial one always trivial. Each age expressed its own idea of style. If they did not sympathise with the seventeenth and eighteenth century as much as the fourteenth, let them think: Did the seventeenth and eighteenth centuries express the attitude to life of the builder. If so it was good architecture. In front of the builder and architect was always the question of national tradition. The word tradition was very much misused. The danger for all artists was that the public believed that a thing which looked like a good thing was a good thing. Although men might live at Oxford and Cambridge he had never seen that living among beautiful things enabled them to appreciate the beauty of their own days.

With regard to the politicians' attitude to art, Professor Rothenstein suggested they should get a promise from them in the same way as a Manchester manufacturer got a promise in regard to, say, protection. He considered they should try a militant system.

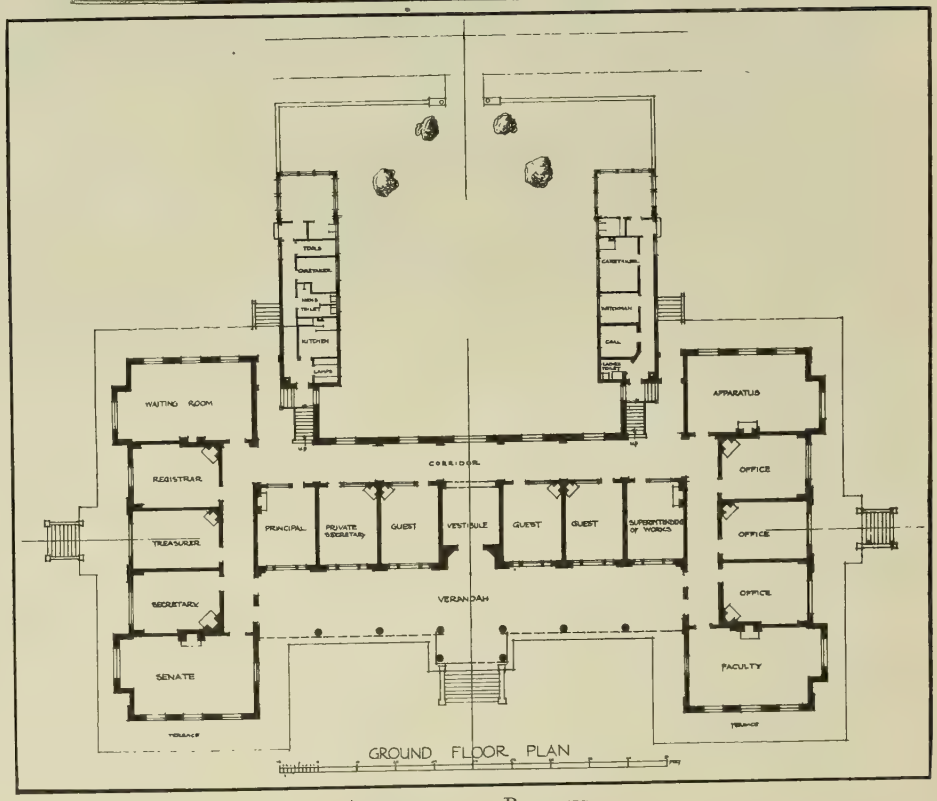
After a vote of thanks had been given to Professor Rothenstein, Lord Walden said one of the greatest pleasures in his life was to inhabit one of the oldest houses in the British Isles. With regard to tradition, he felt it was a little overlooked that everyone when speaking of tradition assumed one was speaking of those who followed tradition; he thought tradition was just as valuable for promoting re-action. With regard to legislators and art, he thought the present Government more amenable, and took more interest in these matters, than any previous one. Thanking the Royal Institute of British Architects for the loan of their room, Lord Walden said someone once remarked he wished a moderate knowledge of architecture could be made a part of the curriculum of education. It was not, on the whole, surprising there was not a sufficient outcry against modern atrocities; the public had not been taught.





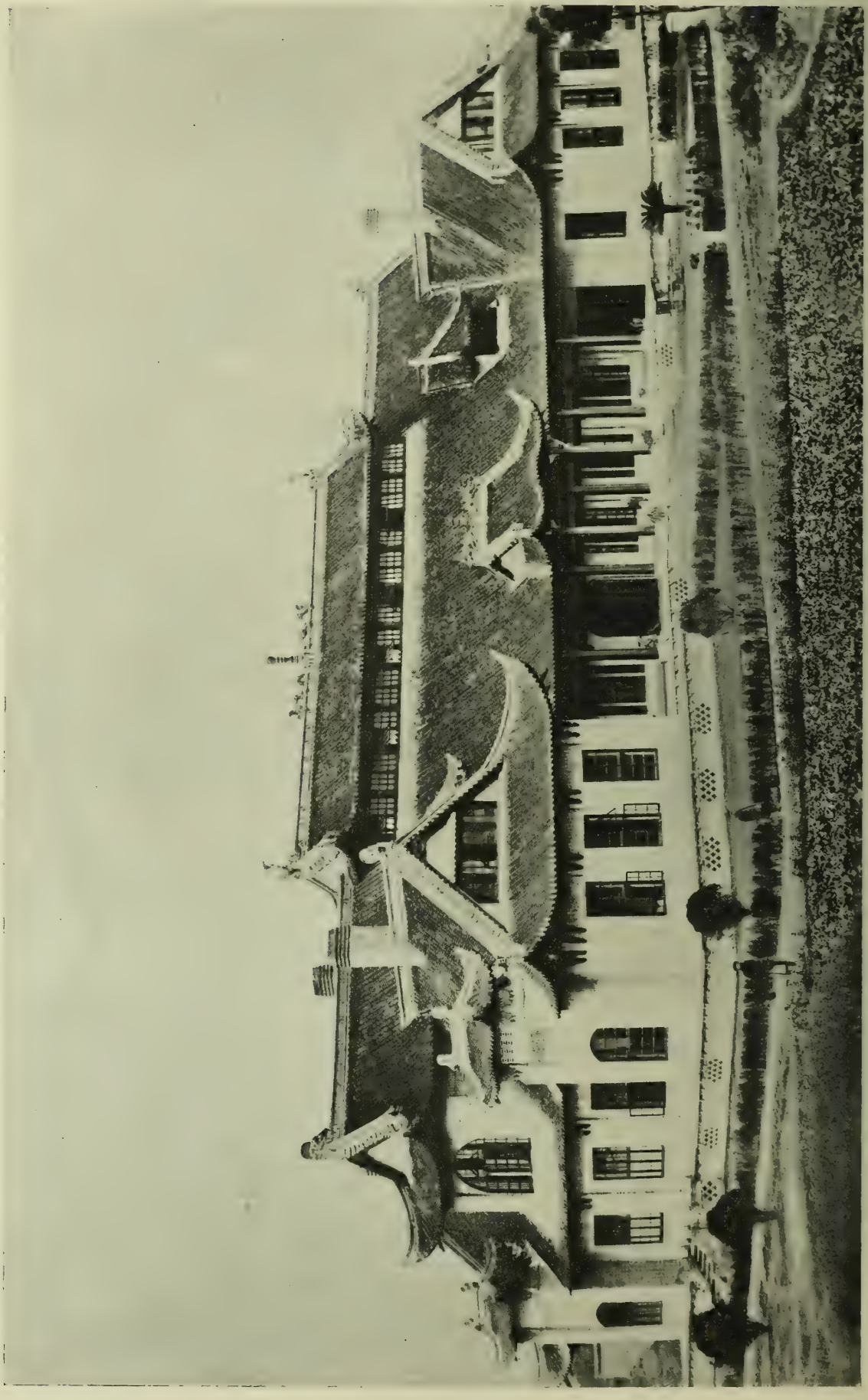


LIBRARY.



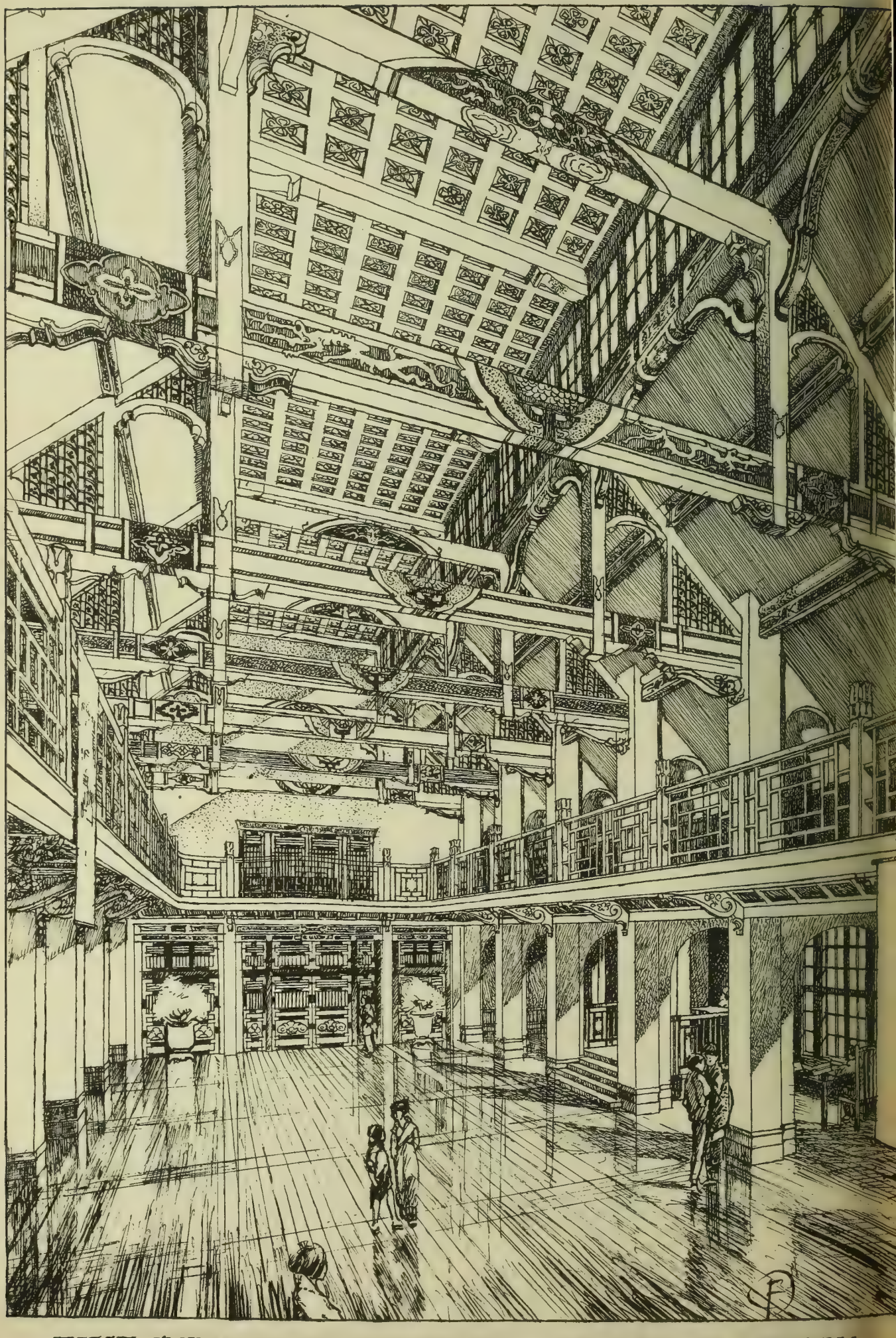
ADMINISTRATION BUILDING.

West China Union University. MESSRS. FRED ROWNTREE, F.R.I.B.A., & SONS, Architects.



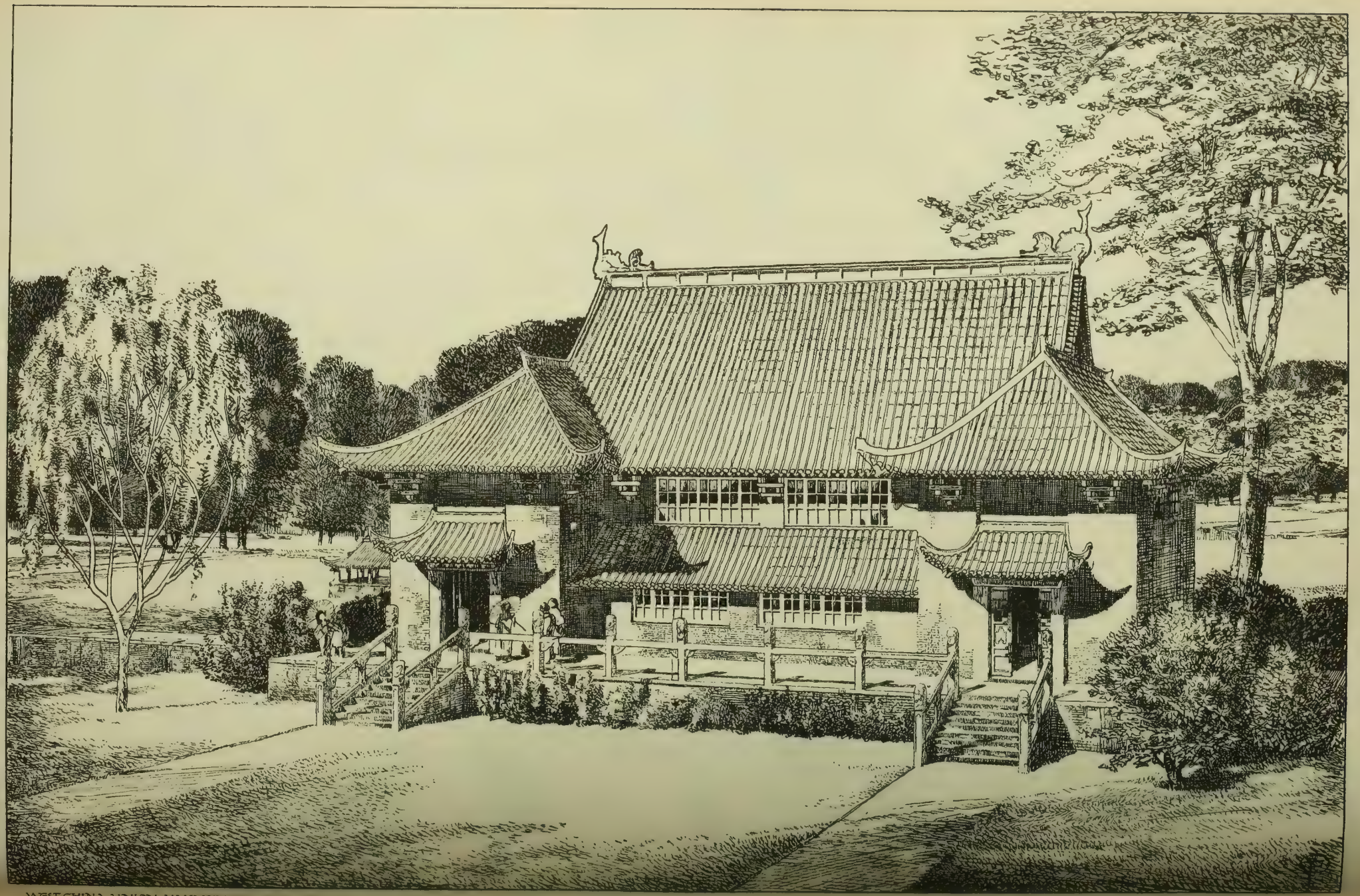
West China Union University: Administration Building.

MESSRS. FRED ROWNTREE, F.R.I.B.A., & SONS, Architects.



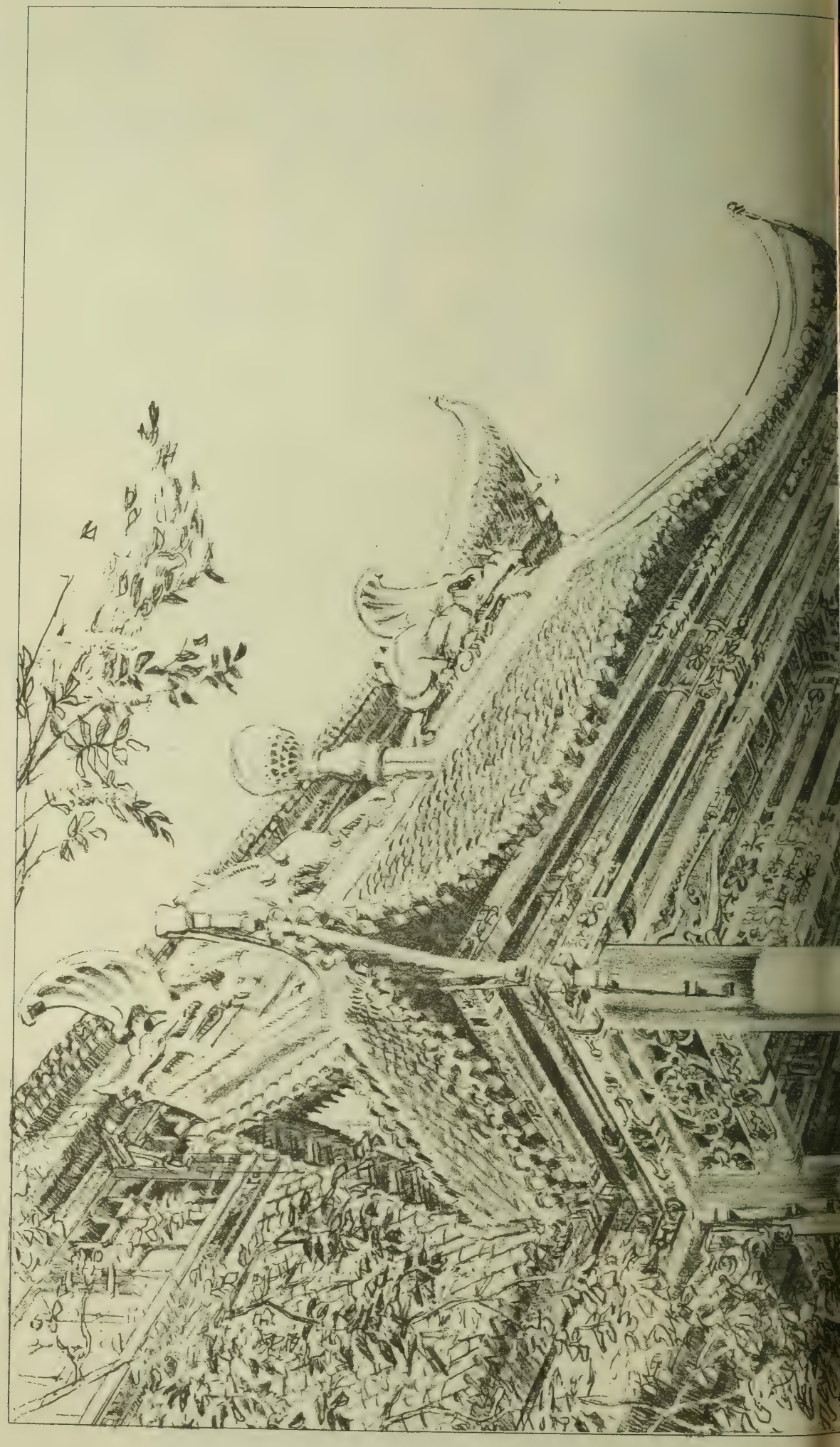
WEST CHINA UNION UNIVERSITY ÷ INTERIOR OF LIBRARY

WEST CHINA UNION UNIVERSITY. MESSRS. FRED. ROWNTREE, F.R.I.B.A., & SONS, ARCHITECTS.



WEST CHINA UNION UNIVERSITY - CHENGTU.

MIDDLE SCHOOL CHAPEL —





F. Osler Delt.

PORCH TO ADMINISTRATION BUILDING

WEST CHINA UNION UNIVERSITY. MESSRS. FRED. ROWNTREE. F.R.I.B.A., & SONS. ARCHITECTS.



WEST CHINA UNION UNIVERSITY CHENGTU

BIOLOGY BUILDING

WEST CHINA UNION UNIVERSITY. MESSRS. FRED. ROWNTREE, F.R.I.B.A., & SONS, ARCHITECTS.

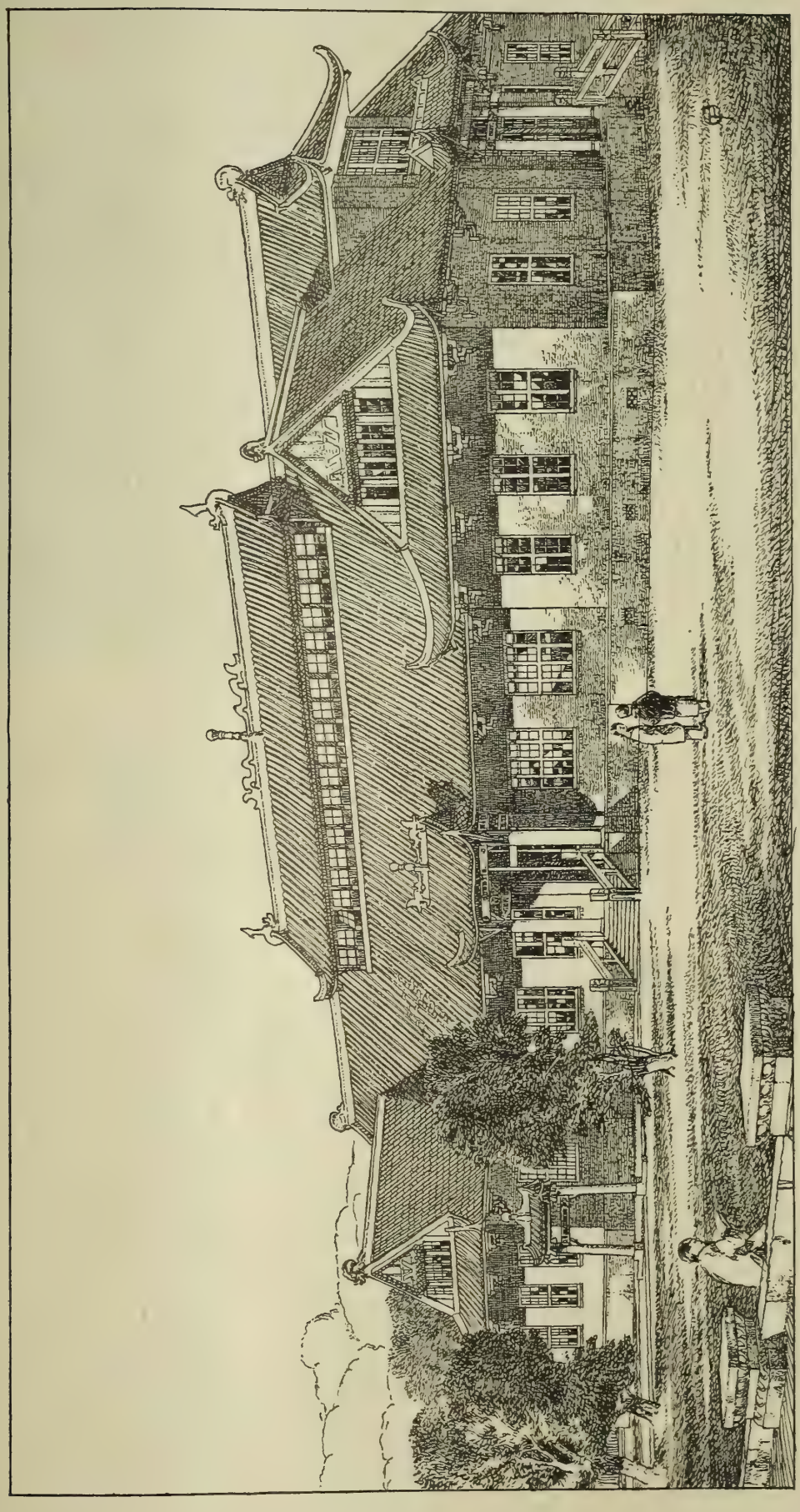


EST CHINA UNION UNIVERSITY -- PRESIDENTS OFFICIAL RESIDENCE



EST CHINA UNION UNIVERSITY -- NORMAL SCHOOL

WEST CHINA UNION UNIVERSITY. MESSRS. FRED. ROWNTREE. F.R.I.B.A., & SONS. ARCHITECTS.



West China Union University: The Library.

MESSRS. FRED ROWNTREE, F.R.I.B.A., & SONS, Architects.

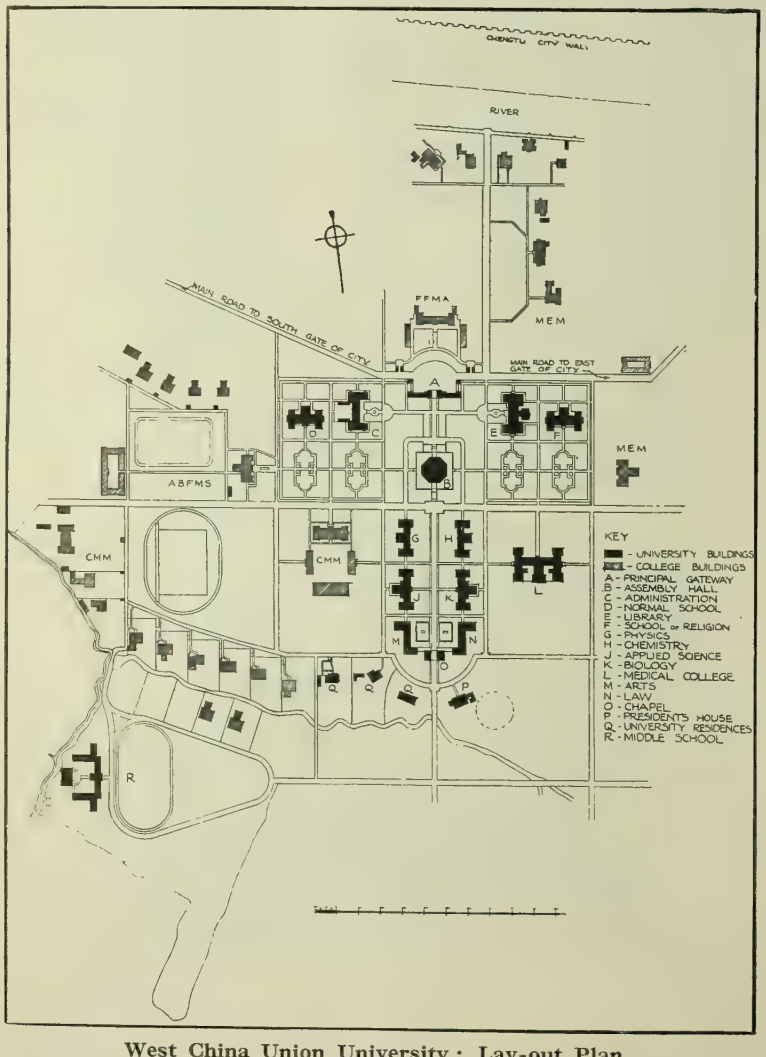
WEST CHINA UNION UNIVERSITY

THE city of Chengtu has been laughingly described as the hub of the universe. On investigation the jest is found to contain a surprising amount of truth. This city of half-a-million people, seventeen hundred miles by river from the mouth of the great Yangtze-kiang, and within sight of the foothills of Tibet, is capital of the province of Szechwan (larger in area than France), and at the heart of one of the most densely populated regions of this earth. More than half the population of the world is estimated to live within a circle drawn with Chengtu as its centre and a radius of 2,000 miles. One half of these, the Chinese, are one of the oldest nations in the world, and among its most highly cultured peoples. The others include most of the chief racial stocks, stocks that down through history have been in continual strife. The problems of the Pacific hold far greater dangers for the world than the national and racial animosities of Europe. Napoleon was right in saying that when China awoke she would move the world. And there is no gainsaying the fact that China is awakening.

Chengtu is one of the chief centres of government in China and a place of influence in its educational life. It is clear, therefore, that by its position it is pre-eminently fitted to be a university city. Fifteen years ago the Protestant missions in West China united in their educational work and resolved to found a university. Land was bought just outside the south gate of Chengtu, and during one Christmas vacation three boys' middle schools, founded by separate missions and situated in different parts of the city, were hurriedly moved into emergency quarters on the university grounds. Thus began the University Middle School which now has its own permanent buildings on a site separate from but adjoining the university grounds. The next year the University opened, also in emergency quarters, with a class of ten students. The work thus begun in a small way grew rapidly, and now, while the university is not yet in its fifteenth year, the staff numbers sixty-one and the students 146. In addition to these are the students of the middle school, numbering some 300, and when summer-course students are counted the total exceeds 600.



ENTRANCE GATES TO ADMINISTRATION BUILDING.



West China Union University: Lay-out Plan.

The regular courses laid down by the Chinese Government were followed, and the faculties of arts and science were the first to be organised. But the need for fully trained teachers, preachers and doctors was so great that the faculties of education, religion and medicine were soon added. More recently a department of dentistry has been opened in addition to the more normal medical work.

The organisation of the university follows the general scheme of Oxford and Cambridge. The students live in various colleges, one having been contributed by each of the co-operating missions. These colleges and the residences for the faculty occupy the outlying parts of the grounds; in the centre are grouped the university buildings for teaching and administration. Control is vested primarily in the Senate, but ultimately in a Board of Governors, the members of which are at present resident in Great Britain and America. The chairman of the Board is Sir Joseph Flavelle, well known in connection with Toronto University; and the vice-chairmen are Sir M. E. Sadler, Master of University College, Oxford, and the Rev. F. M. North, secretary of the American Methodist Episcopal Mission. The Senate is at present largely made up of foreign missionaries from America and Great Britain,

there are already a few Chinese
bers, and it is intended that
proportion of these shall steadily
ease.

ow far is the University a univer-
merely in name? Until the
ent year its degrees and diplomas
been issued solely on its own
ority and without government
ther charter. But from the first
question of standard has been
to the fore, and as a result, the
ents of the University have been
n gratifyingly high standing
n they have gone abroad for fur-
study. And now an educational
d in America which makes a
ial point of watching the
dards of universities and colleges
ne East and giving them recogni-
where it is deserved—the Board
egents of the State of New York
s granted a provisional charter
ne West China Union University
has thus set a hall-mark upon
cademic standards.

ne University is unique in the
in which it co-operates with the
ese. This is now admitted to
a sound principle for Christian
ational work, but even in earlier
the University followed the
ernment curriculum and was in
dly co-operation with the
ernment schools. The number
hinese on the faculty has grown
ily, and while, of course, it
s time to find or to train men of
cient knowledge and capacity and
ing power to serve on the staff
university, eleven such are
dy appointed.

om the foundation of the
ersity it has always been hoped
its influence would result in converts
Christianity, and its success in this
tion has been great and gratifying.
the transformation which it has pro-
d in public sentiment may outweigh
ignificance the enrolment of members
he Christian Church. It would be
to overestimate the value of the Univer-
s influence in spreading ideals of inter-national good will and peace. Not long ago one of the Chinese daily papers invited its readers to select by vote the twenty-four men who might be considered as the leaders of China. It is extremely significant that about half of those selected were Christians, and even more had received their education in Christian universities similar to the West China Union University.



Main Corridor in Administration Building.

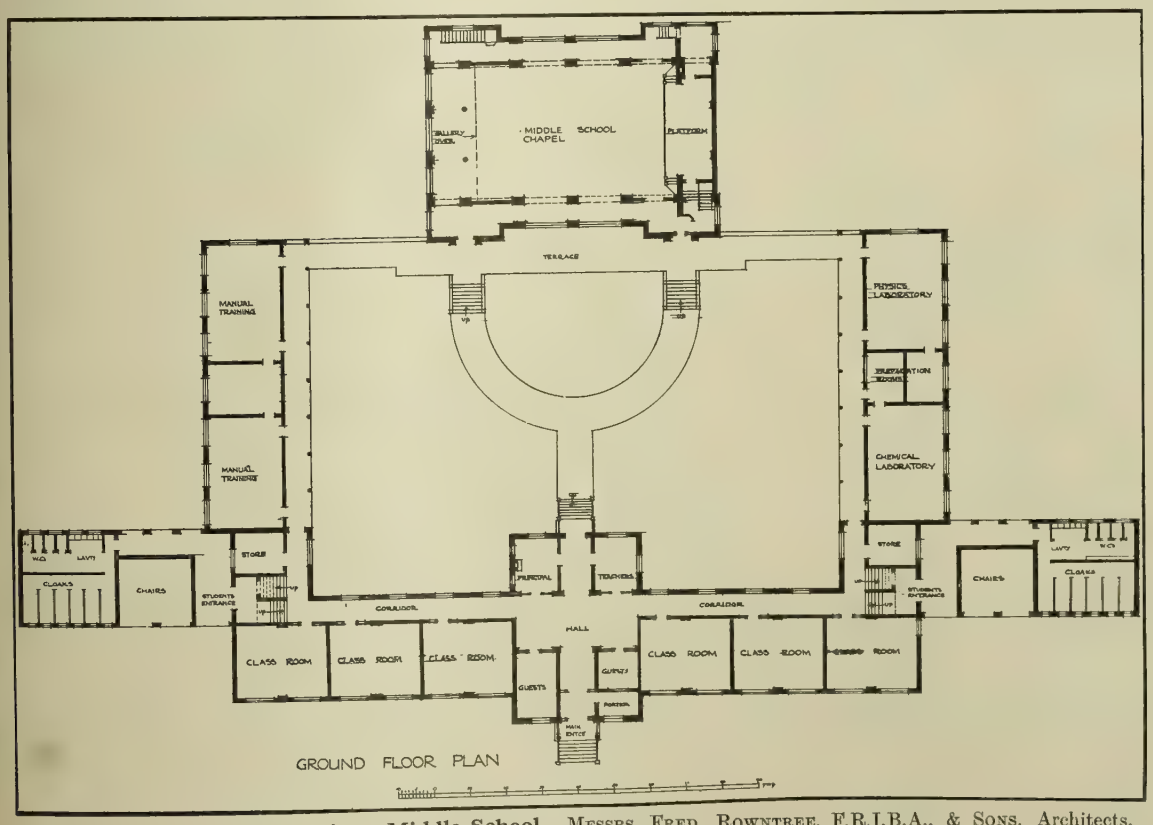
University Buildings.

The Board of Governors, with a view to the appointment of an architect, invited one American, one Canadian, and two English firms to submit plans. On the advice of their assessor they selected those prepared by Messrs. Fred Rowntree & Sons, of London, who received the appointment of architects to the University.

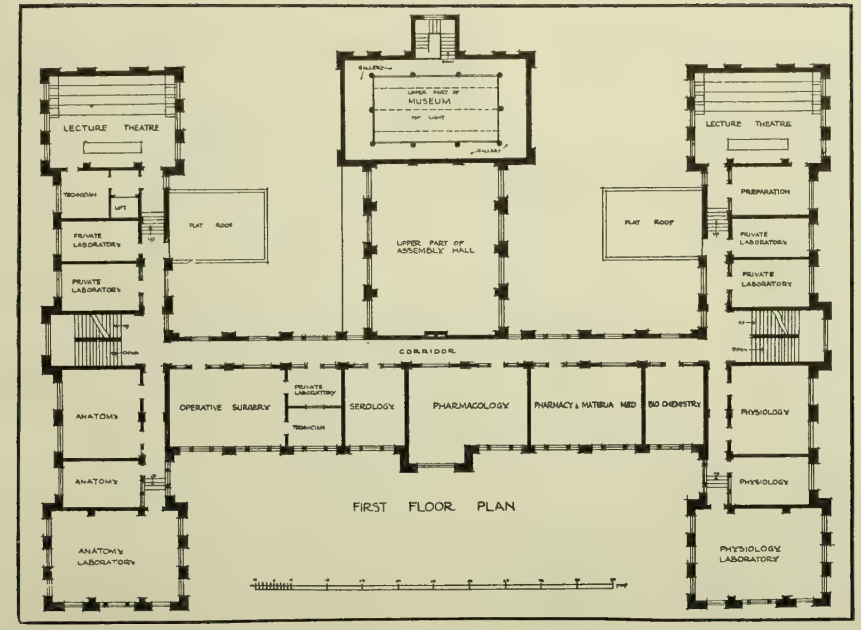
Before commencing building operations, the senior partner visited the site and discussed the various problems, not only with the members of the Senate, but also with the three leading Chinese statesmen of the Province, who welcomed the suggestion that the design of the buildings should be Chinese in character, politely adding that if they were carried out in that spirit they could copy them! An endeavour has been made to maintain the forms, texture and colouring handed down from past history, and to adapt these to modern requirements, with the judicious and harmonious use of such materials and forms of construction as the country can best supply.

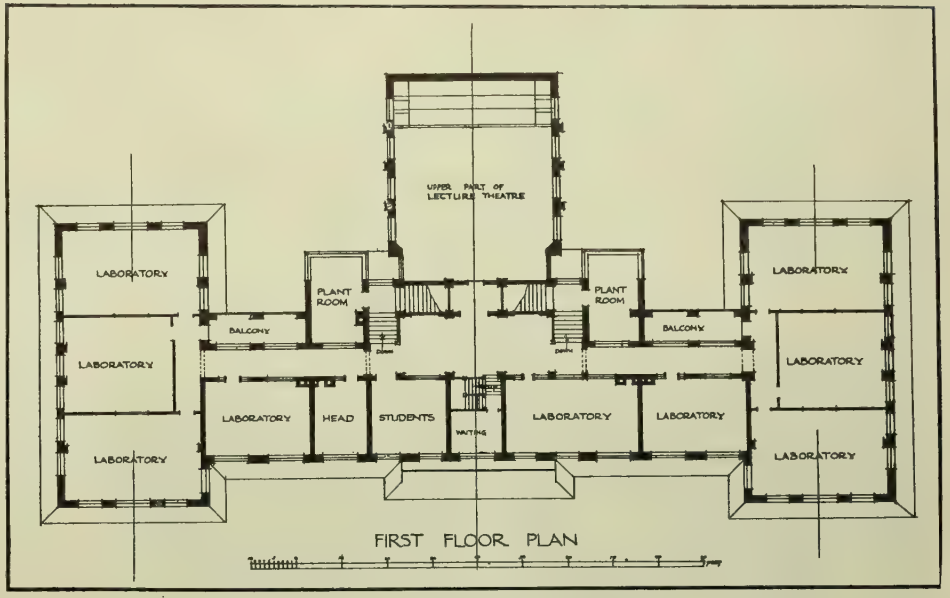
It is hoped that eventually a school of architecture may be founded in connection with the University.

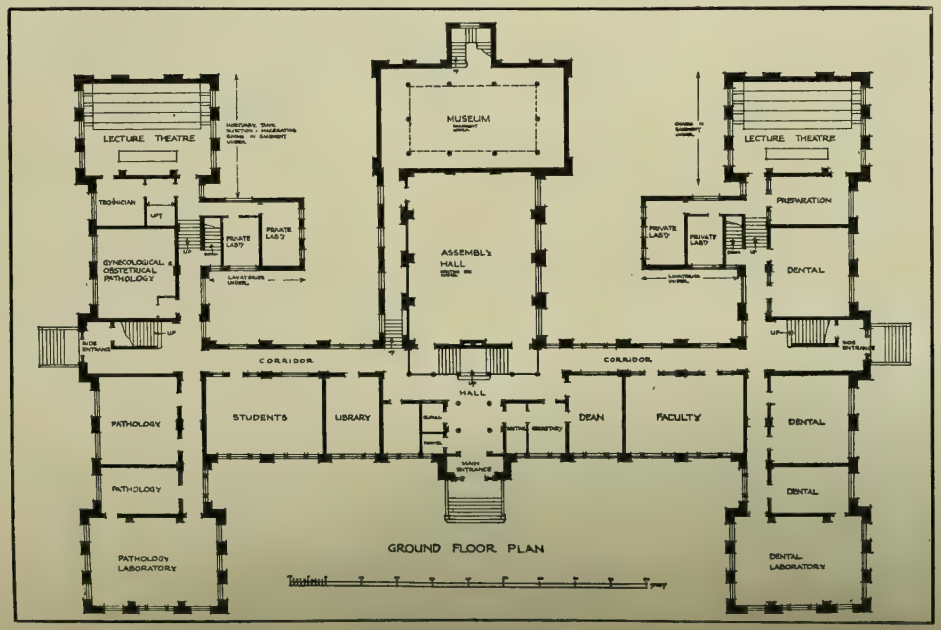
The Campus occupies about 150 acres of land outside the ancient city walls, from which it is separated by the river, which skirts its southern boundary. The main entrance gateway is placed on the north and south axis of the central plot, at the point where the approach roads from the east and south city gates meet. The disposition of the five important buildings on this plot and their relation to each other have been considered with a view to obtaining not only a harmonious and well-balanced scheme of grouping on the plot itself, but also in relation to the surrounding plots and buildings of the associated missionary societies. The pride of place is given to the Assembly Hall, octagonal in form, with equally balanced façades. It is intended to be the dominating building, symbolic of the highest

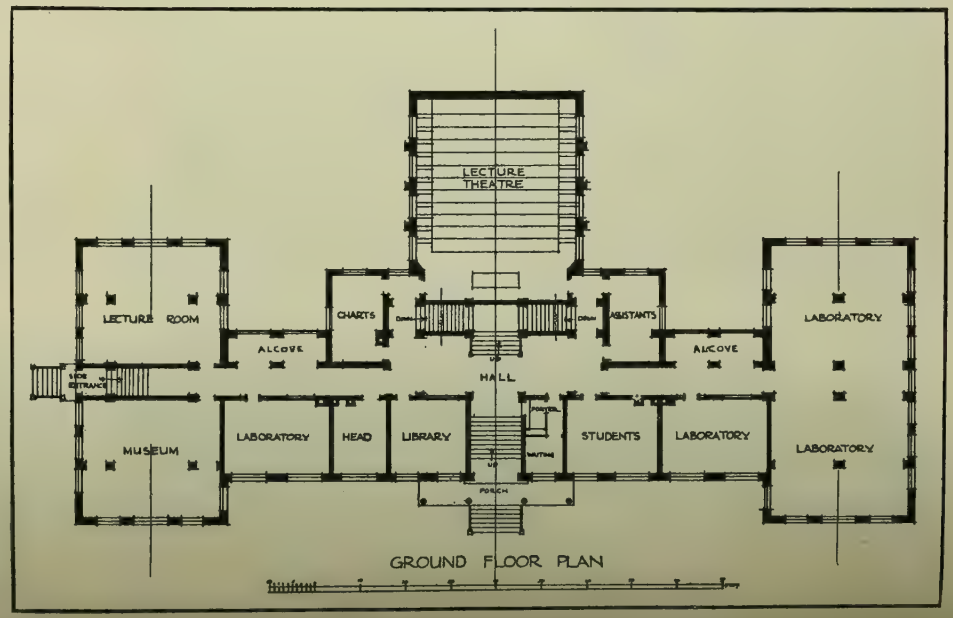


West China Union University: Middle School. Messrs. Fred. Rowntree, F.R.I.B.A., & Sons, Architects.



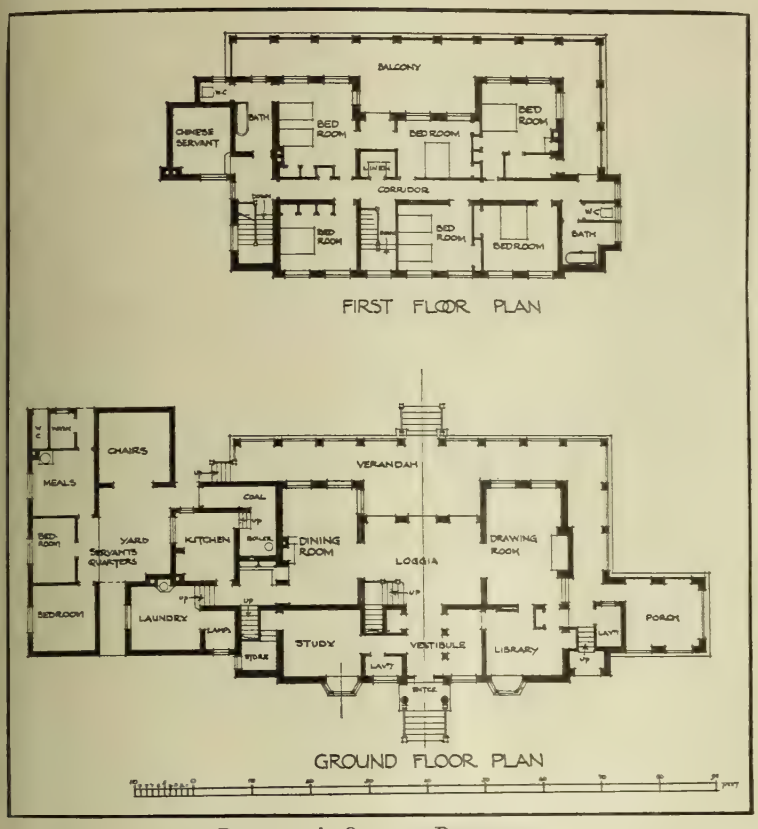




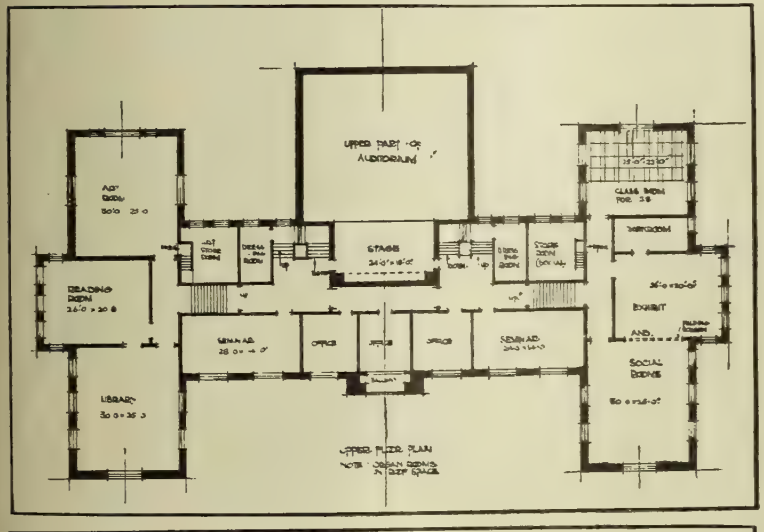


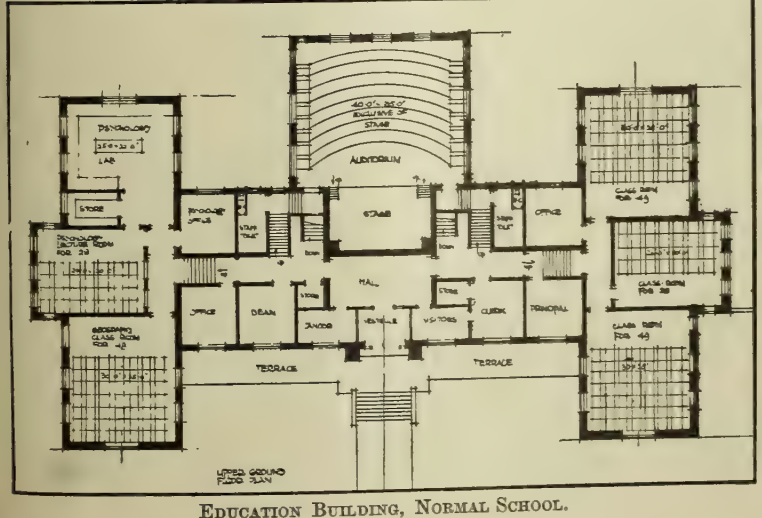
MEDICAL COLLEGE. BIOLOGICAL BUILDING.

West China Union University. MESSRS. FRED ROWNTREE, F.R.I.B.A., & SONS, Architects.



President's Official Residence.





Education Building, Normal School.

West China Union University.

Messrs. Fred Rowntree, F.R.I.B.A., & Sons, Architects.

purposes of the University. The Administration building is already completed, the Library building is in course of erection, and the plans for the Normal School are approved. The group of Science buildings are to flank the main avenue to the south of the Assembly Hall, terminating with the University Chapel. The Biology building is already in occupation. The site for the Medical College lies to the east, and the building will commence at an early date. The President's official residence and various professors' houses occupy surrounding sites in close proximity to the college buildings and the University Middle School and chapel, with accommodation for 300 students have been erected on a site adjoining buildings; and the University Middle School already completed and in immediate contemplation have been gifted by private donors, and it is hoped that funds for the remainder will be provided in a similar way.

Messrs. Fred Rowntree, F.R.I.B.A., & Sons are the architects.

ARCHITECTURE AT KENYA

We give below further notes on the architectural activities of Kenya Colony and the Uganda Protectorate.

Nairobi.

A competition for designs for the Native War Memorial has been held and the design of Mr. C. M. Giles, of Nairobi, has been adopted on the advice of the assessor, Mr. W. Dunn, F.R.I.B.A.

The Town-Planning Scheme for the civic centre of Nairobi, prepared by Councillor Harold E. Henderson, F.R.I.B.A. (Mayor of Nairobi) in 1917 and approved by the Kenya Government, will shortly become an established fact, as the Nairobi Municipal Council has settled that their offices will be erected in the New City-square; and they intend holding a competition shortly for designs for their proposed Municipal Buildings, limited to the qualified architects practising in Kenya Colony.

St. Andrew's Mission Church, Nairobi, is nearing completion from the designs of Messrs. Hurle-Bath, A.R.I.B.A., & Cobb. Considerable extensions have just been completed to the Standard Bank of South Africa, Ltd., Nairobi, the contractors being Messrs. G. Blowers & Co., from the designs, and under the supervision of, the bank's architects, namely, Messrs. Harold E. Henderson, F.R.I.B.A., & Partners.

Uganda.

The new banking premises at Kampala for the Standard Bank of South Africa, Ltd., have just been completed from the designs of Messrs. Harold E. Henderson & Partners. Erected in a style reminiscent of the seventeenth-century work in Spain, with white walls and large overhanging eaves, green painted shutters and ornamented iron grilles, it forms an architectural composition peculiarly appropriate to the climatic conditions of Central Africa.

Mombassa.

Designs have been prepared for large dock offices in connection with the Mbaraki dock scheme for Major E. S. Grogan, D.S.O., by Mr. Herbert Baker, F.R.I.B.A., of London and Delhi, in collaboration with Messrs. Harold E. Henderson, F.R.I.B.A., and Partners, of Nairobi.

The Resident of Zanzibar, Mr. J. H. Sinclair, C.M.G., C.B.E. has just retired. Mr. Sinclair was a pupil of the late Mr. J. L. Pearson (the architect of Truro Cathedral), and although he left Mr. Pearson's office to enter Somerset House, and then became British Resident, he never forsook his first love—architecture. He designed the Anglican Cathedral at Mombassa and the High Courts, the Post Office and Prison at Zanzibar and the Residency. His latest works are the Peace Memorial Building at Zanzibar, the reconstructing of the Governor's Palace at Dar-es-Salaam, which was shelled during the war by British warships.

Ground Floor Plan.
Library
Reading Room
Billiard Room
Bell
Hall

THE BRITISH EMPIRE GAS EXHIBIT AT WEMBLEY

A LUNCHEON arranged by the British Empire as Exhibition Committee at the Lucullus estaurant, Wembley, to the Presidents and ouncils of the Royal Institute of British rchitects, the Society of Architects, the rchitectural Association, and the Architecture lub, took place on Monday, and was followed r an inspection of the exhibits and a reception id tea later on. At the luncheon, the chair as occupied by Mr. F. W. Goodenough, Chair- an of the Gas Exhibition Executive Com- ittee, who proposed the toast of "The King" id "Art and Industry," and the toast "The as Exhibition" was proposed by Sir Lawrence eaver, K.B.E., and responded to by Mr. . J. Sandeman, of the Croydon Gas Co.

Sir J. W. Simpson, K.B.E., in replying for Art and Industry," said when they considered e incalculable number of trades and manu- ctures concerned in producing the buildings of e Exhibition—apart altogether from exhibits -they would understand the truth of the pro- erb, "*Quand le batiment va tout va*"—"When the uilding trade prospers *all* prosper." Not only enerally recognised building materials (steel, ement, bricks, glass, timber) were required, ut they called to their aid infinite ramifications f these trades—coal, railways, motors, textile eavers, machines, and their makers—to say othing of the fine arts. He was persuaded at in the future architectural inspiration would ome from constructional forms quite other an those imposed in the past by brick and tone. For all that art tradition would be carried on; the work of their mighty predecessors would always be the touchstone of their achievement. Study of antique was never more necessary.



Brancepeth Miners' Welfare Scheme Competition. Design placed first: By MESSRS. HAYS & GRAY, AA.R.I.B.A.

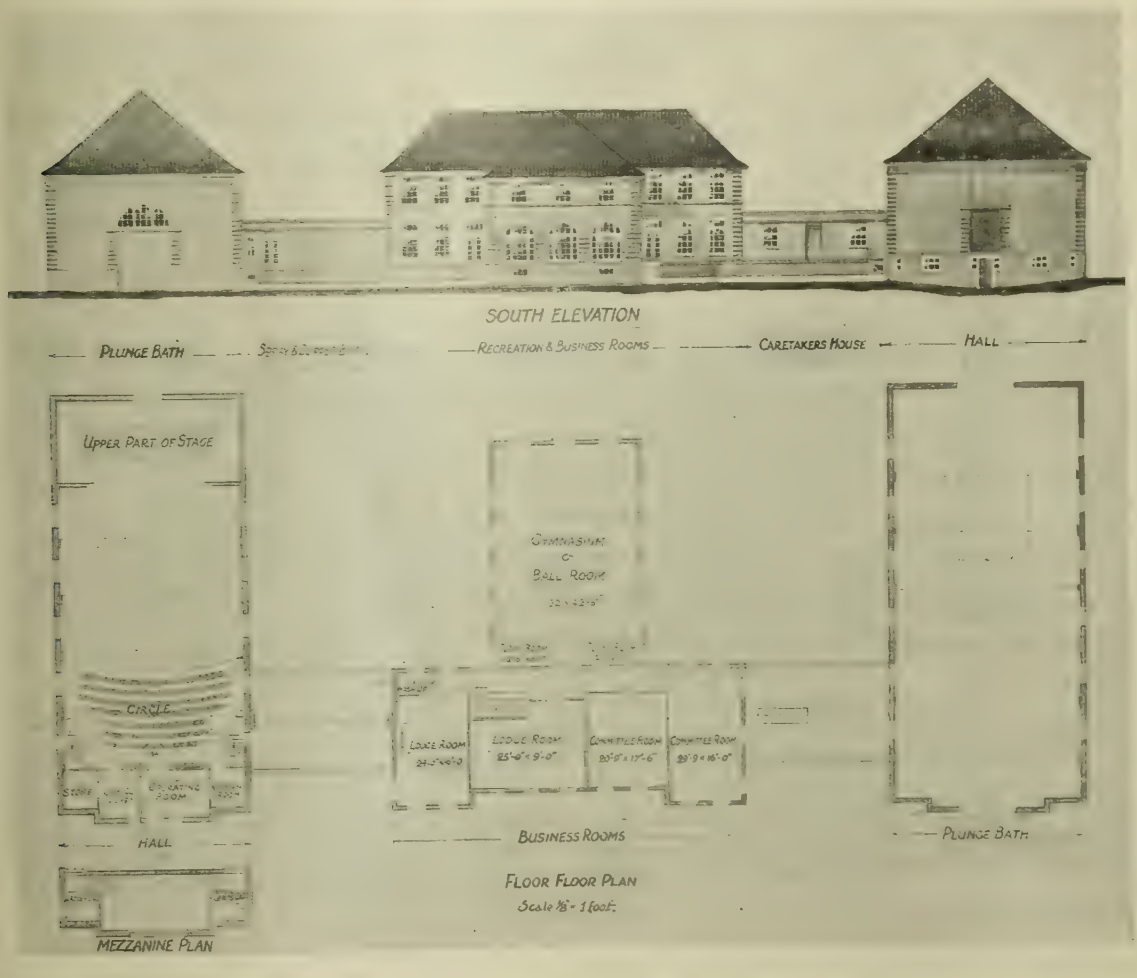
BRANCEPETH WELFARE SCHEME

THE Committee of the Brancepeth Collieries Welfare Scheme are proposing to erect at Willington, co. Durham, an institute for recreation of a very comprehensive character.

The site is one of two acres, and it is proposed to erect buildings in three blocks, the central block comprising billiard room, gymnasium, reading room, library, games room, meeting rooms, &c., with a single-story caretaker's house on one side and a group of slipper and spray baths on the other. The eastern block is to comprise an assembly hall with a total accommodation in main floor and balcony of 600, which will be available for concerts, lectures, meetings, or as a cinema. The west-end block is to provide a large plunge bath in a suitable building, and advantage is taken of the fall in the ground from north to south to provide for the sloping floor of the main hall and the necessary fall to the bath.

The buildings are simple in character, and it is proposed to erect them of sand-faced brick and roofed with tiles. The grounds are to be laid out with bowling green and tennis courts, and advantage is taken of the lower portion of the site to provide a children's playground and make a sailing pond by diverting the stream which runs along the boundary.

The total estimated cost of the buildings and lay-out of grounds is £18,000; and the architects who were awarded first place in a limited competition for the work are Messrs. Hays & Gray, AA.R.I.B.A., of Wingate, co. Durham, and North Shields. The perspective view is by Mr. Keesey.



Brancepeth Miners' Welfare Scheme Competition.

Design placed first: By MESSRS. HAYS & GRAY, AA.R.I.B.A.



ONE OF THE WARDS.



ADMINISTRATION BLOCK.

West Park Mental Hospital, Epsom.

MR. CLIFFORD SMITH, O.B.E., F.R.I.B.A. (L.C.C. Mental Hospitals Engineer), Architect ' associated with MR. LEOLIN C. GREGORY, A.R.I.B.A.



WATER TOWER.



ONE OF THE WARDS.

West Park Mental Hospital, Epsom.

MR. CLIFFORD SMITH, O.B.E., F.R.I.B.A. (L.C.C. Mental Hospitals Engineer), Architect; associated with MR. LEOLIN C. GREGORY, A.R.I.B.A.



PART OF RECEPTION DEPARTMENT.



RECREATION HALL: VIEW FROM THE STAGE.

West Park Mental Hospital, Epsom.

MR. CLIFFORD SMITH, O.B.E., F.R.I.B.A. (L.C.C. Mental Hospitals Engineer), Architect; associated with MR. LEOLIN C. GREGORY, A.R.I.B.A.

ARCHITECTS' AND BUILDERS' INQUIRY BUREAU

We are glad to give questions and answers cannot accept responsibility for contributed es, especially on legal matters.

ay we appeal to our correspondents to it their queries on paper of a size easily and written as legibly as possible, or better in typescript?—ED.

Insulating.

R,—I shall be obliged if you can advise s to a suitable method of insulating a osed store to keep it at one temperature 75 deg. Fahr.) all the year round. The ling would be one story, 40 ft. by 65 ft. ft. clear height, and with flat roof. A erate amount of light would be necessary lantern lights.

rk has been suggested as being suitable; how should it be fixed, &c.?

"INSULATION."

Columbian Pine.

R,—Like your correspondent, we were very h impressed with the beautiful figuring in mbian pine doors. We feared the ssive shrinkage, but on a test we made about years ago we found that our fears were unded. We have since used these doors on ral houses with complete success.

C. & F. B.

A Wall-Destroying Grub.

R,—Can you tell me the name of the grub h attacks stone and brick walls? I have one wall in Northamptonshire which has eaten away somewhat considerably, and ick wall in Buckinghamshire which has been ly eaten through. The grub is about one-third of an inch long, and the wall is honeycombed with its borings. "J. J. D."

Vertical Glazed Tiling.

[REPLY TO E. W. TURNER.]

SIR,—There are so many tile surrounds to fireplaces that are bedded in cement and stand quite perfect that it is probable the cases of failure noticed by your correspondent are rather due to bad workmanship than to the use of Portland cement.

The tiles selected need to have a well-keyed back and the backing to be a strong well-mixed composition and well and evenly spread. Any little cavities left will naturally trap air that will expand under heat and in time force the tiles away from the backing. An excess of sand in the backing, whether generally or in places due to imperfect mixing, will also lead to the loosening of tiles. M. M.

Cracks in Concrete.

[REPLY TO A. R. B.]

SIR,—The core and surfacing of concrete steps should, to be quite satisfactory, be laid in one process, and provided the aggregate is not so coarse as to show through to the surface the latter will naturally work up to a sufficiently smooth face. If concrete is applied to a core that has once set adhesion is not assured, and the distinct change of composition leads to a difference in expansion co-efficient that will almost inevitably reveal itself in external cracks.

In the case of the brick cills faced with cement the cracks are probably the result of too rich a mixture of cement. Two parts of sand to one of cement is quite fine enough for the purpose.

F. H.

Cubicle Doors.

[REPLY TO "LINCOLN'S INN."]

SIR,—Probably the best form of construction for the purpose would be doors of sheet metal stiffened in light "L" iron frames with hinges, and locks and furniture rivetted or bolted to same. Unless ordered in considerable bulk, however, this is likely to work out rather costly.

Perhaps the most economical and efficient method would be to form the doors of two thicknesses of 1½ in. boarding, the outer being vertical and the inner horizontal, and secured together with stud-headed nails driven through both thicknesses and clamped over on the inside. The studs give quite a rich effect to the plain surface, and the form of construction is designed so that the warping tendencies of the boards tend to neutralise and resist each other. It is a method frequently adopted in the construction of church doors, and should admirably suit the purpose in question. P. R.

Stoves.

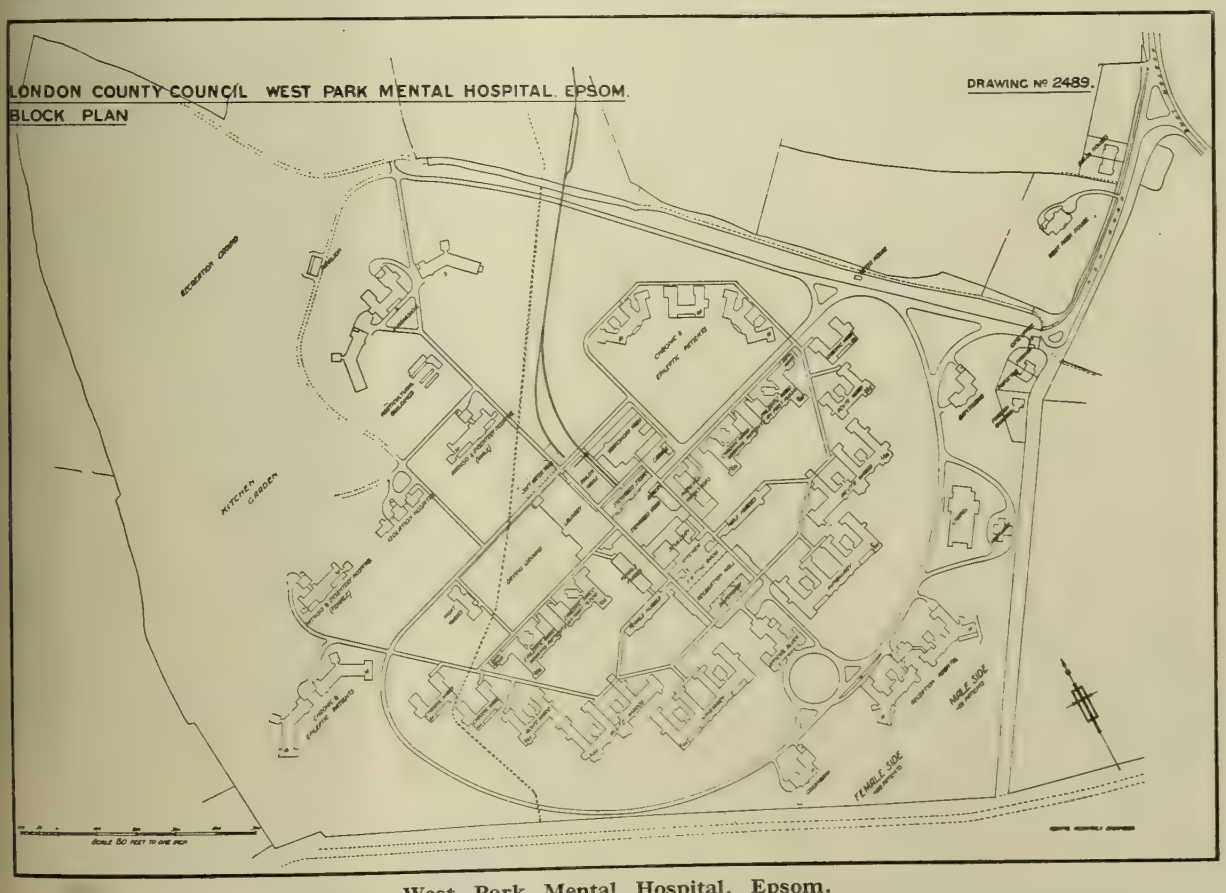
[REPLY TO "LIVERPOOL."]

SIR,—Your correspondent will find several stoves advertised which should answer the requirements he needs.

He will, however, do well to treat with reserve the claims that many makers make to serve domestic hot water and radiators off the same circulation. Two boilers heated by one fire, or a boiler with two separate jackets, or a calorifier for the domestic hot water, are much more satisfactory. The other arrangement so often gives disappointing results owing to the continual loss of heat when water is drawn off, not to mention the ultimate furring up of pipes and radiators owing to the continual change of water within them. L. W. N

The Society of Architects.

The first of the scholarships for the study of modern architecture abroad, recently instituted by the Society of Architects, has been awarded to Mr. W. Harding Thompson, Lecturer in Town Planning and Civic Design at the Architectural Association Schools. The jury responsible for the award was composed of Messrs. Arthur J. Davis, H. V. Lanchester, Howard M. Robertson, L. Sylvester Sullivan, and Lt.-Col. H. P. L. Cart de Lafontaine.



West Park Mental Hospital, Epsom.

MR. CLIFFORD SMITH, O.B.E., F.R.I.B.A., (L.C.C. Mental Hospitals Engineer), Architect; associated with MR. LEOLIN C. GREGORY, A.R.I.B.A.

LEGAL SECTION

NOTES ON CURRENT CASES

Options to Purchase.

It is a very common thing in leases to insert an option to purchase, and sometimes the parties insert in agreements such terms themselves, yet on hardly any point of law is it more important to take legal advice and proceed formally if litigation is to be avoided.

Rider *v.* Ford (1923, 1 Ch. 541), which we noted and commented upon in our issue for August 3, 1923, is one example of an informal option being contained merely in a letter which formed the agreement between the parties; and another example is furnished in the recent case of Sherwood *v.* Tucker (*Weekly Notes*, May 10), where the parties themselves without legal advice had extended the operation of a lease, and the question arose whether an option granted in the original lease could be exercised in this extended period.

By an agreement in writing, dated October 29, 1914, a certain house had been let by the defendant (the landlord) to the plaintiff as tenant for three years; the landlord to do external repairs and the tenant internal repairs, and the agreement provided that "the said tenant shall have the right to purchase the said house and premises during the three years hereby provided for, for the sum of £700 sterling." In June, 1917, the term still being current, the parties added and signed the following endorsement, "We, the undersigned, hereby agree that this lease be extended for three years expiring December 25, 1920." In September, 1920, the parties in the same terms extended the lease for a further period expiring December 25, 1923. These endorsements had been settled by the parties themselves without legal aid, but they were duly stamped.

On September 17, 1923, the tenant's solicitor gave the landlord notice that the tenant intended to exercise the option to purchase and asked for an abstract of title. The landlord's solicitor replied that the option had long since expired, and after correspondence the plaintiff issued a summons for a declaration that upon the construction of the agreement and the two endorsements the option was exercisable on September 17, 1923, and had been duly exercised by the notice of that date.

The point may seem a simple one, but it is not. There is a distinction between options which have to be exercised during a specified period within the term of a lease and those where there is no such specific time limit. This case fell within the first category, for there was a time limit within which the option must be exercised, and in such cases it has been held that the option is a collateral provision and not one of the terms regulating the relations of landlord which continue to apply where a tenant is holding over as yearly tenant after the expiration of the lease (see Bradbury *v.* Grimble, 1920, 2 Ch. 548; *The Builder*, September 24, 1920). The Court, therefore, had to consider whether the endorsements made by the parties had the effect of extending the whole lease with all its terms, collateral or otherwise, intact, or whether they merely extended the term of the lease, and with some hesitation the Court held that the whole lease was extended, and therefore the plaintiff could exercise, and had exercised, the option and was entitled to the declaration asked for.

Since the above decision was given, there has been another case upon this question, Batchelor *v.* Murphy (*Weekly Notes*, June 7). In 1913, premises had been demised to a lessee for a term of 10½ years from October 6, 1913, and the lease contained an option for the lessee (and his executors, administrators and assigns, when the context so admitted), to purchase the freehold for £3,000 upon giving three months' notice in writing of his desire to do so during the term.

The lessor had died on May 22, 1915, and her will had been proved by one of her two executors alone. The lessee being desirous of disposing of the residue of the term of the lease and of freeing himself from all liability under it, an agreement had been entered into in the form of a memorandum addressed to the executor, signed by the plaintiff who was a second executor, and the defendants, who were to become lessees. The memorandum was as follows: "In consideration of you agreeing to release me, the undersigned H. W. Clarkson (the lessee) and accept us, the undersigned, A. H. Murphy and C. L. Murphy (the defendants), as lessees for the unexpired residue of the term in the lease, dated October 17, 1913, we respectively agree as follows: The said H. W. Clarkson to surrender the said lease; the said A. H. Murphy and C. L. Murphy to execute a new lease for the unexpired term of eight years and six months from October 6 last on the same terms and conditions in all respects as the lease of October 17, 1913, with the exception of a small alteration in the rent."

The executor who had originally taken out probate having died, the plaintiff had taken out probate, and by this summons was raising the question whether the defendants were entitled to exercise the option of purchase.

The Court cited Bradbury's case (which is reported under the title In *re* Leeds and Batley Breweries, Ltd., and Bradbury's Lease) to the effect that a covenant conferring an option to purchase was a matter of collateral bargain, and no part of the terms of the tenancy in the strict sense, and said the question to be considered was whether there was any agreement for the renewal of the option to purchase, but held that was not the case here. The memorandum provided for the grant of a new lease but there was no express or implied provision in it which would import into it a collateral bargain in the original lease and the defendants were not entitled to the benefit of the option.

Rider *v.* Ford, which we noted August 3, 1923, is an example of a case where there was no time limit within which the option had to be exercised, and in such cases the Court laid it down that the option exists so long as the relationship of landlord and tenant continues, but it will be remembered that there was a double option in that case, an option either to purchase the freehold or to obtain a demise of the premises for 97 years at a particular ground rent and the payment of a premium. It was held that the option to purchase the freehold would offend against the law of perpetuities, but that the other option to call for a lease could be exercised.

In that case no formal lease had ever been executed, the defendants went into occupation under the terms of a letter on March 25, 1908, which gave them the option to take the house for three, five, or seven years, with the options we have mentioned above, and they had continued in possession and were occupying as tenants from year to year when the plaintiff in 1922 gave them notice to quit and then they claimed to exercise the options. It may be noticed that in Bradbury's case the Court delivered a dictum (it was only a dictum because it was not necessary to the decision delivered) that an option to purchase was inconsistent with the relation which exists when tenants are holding over as tenants from year to year, as the exercise of the option would put an end to the tenancy, and, therefore, could not be one of the terms of a tenancy incorporated into the tenancy from year to year. It is important to note that in Roper's case this dictum appears not to have been followed, as the Court only held against the option to purchase because it offended against the rule against perpetuities.

Covenants Against Underletting.

One of the most complicated branches of the law arises out of covenants in leases not to assign, or to part with the premises, or to underlet the same without the consent of the landlord, and the remedies for the breach of such a covenant. We have noted several such cases recently, but the latest case is Russ and Another *v.* Beecham and Another (19 1 K.B. 525).

The plaintiffs were the trustees of the will the Duke of Bedford who, by an indentu dated November 9, 1899, had leased certa premises to one R. Smith for a term of thir years from March 25, 1899, at a rent of £1 a year. The lease contained the followi covenant: "The lessee shall not, nor will during the last 10 years of the said term here granted, assign or part with this lease or t premises hereby demised, or any part there without the licence or consent" of the les or his agents. There was also a condition f re-entry for breach of covenant.

After divers assignments, in September, 192 the term had become vested in the defenda Sir T. Beecham.

In the same month he had mortgaged t said term except the last day thereof to t defendant Mathews, and there was a secon mortgage to the same defendant, subject to t first mortgage, of the said term all but the la two days thereof. Both these mortgages h been made with the consent of the plaintif and in both indentures it was provided that t powers of leasing conferred on mortgagors b section 18 subsection (1) of the Conveyancin Act, 1881, should not be exercisable by t borrower, the defendant Beecham, who becan tenant at will of the mortgagee.

By an agreement in writing Beecham, o November 23, 1921, let to one Grice two princip rooms in the premises for three years, the tena to have the option of continuing the tenan so long as Beecham should remain lessee of t premises, and this agreement was entered in without the consent of the Duke or his agent On August 15, 1922, the plaintiffs witho serving upon Beecham any notice in writi specifying the breach complained of, or requirin it to be remedied as provided by section subsection (1) of the Conveyancing Act, 188 issued the writ in this action claiming that t lease was forfeited by reason of this letting of t two rooms without consent and possession.

The Court below had decided the case in favo of the defendant on grounds which were n accepted by the Court of Appeal.

The majority in the Court of Appeal decid the case in the defendant's favour on a ve technical ground that the words which we used in this covenant in connection wi the lease or premises "assign or part with have received a definite interpretation in t decided cases, Doe *v.* Hogg (4 D. & R. 22 and Crusoe *v.* Bugby (W.B. 1 766) which t Court must follow that these words in th context mean "part with absolutely" "completely," excluding a mere change occupancy, and the underletting in this ca was not such a parting with either the lease the premises. The usual expression used such covenants is "part with the possession the premises," and in the absence of th expression as the words "part with," even ordinary language, are ambiguous the Cou felt constrained to interpret them according the interpretation placed upon them over very long period of years by legal decisions.

The point to note, therefore, is that in su covenants it is essential to insert "possession or some term which will prohibit a change occupancy.

Lord Justice Scrutton decided the ca upon different grounds. Under section subsection (1) of the Conveyancing Act, 188 a right of forfeiture for the breach of a stipulation in a lease is not enforceable by acti unless notice of the breach complained of h been given, and, if the breach is capable remedy, the lessee fails to remedy the breac By subsection (6) this section does not exte to a covenant or condition against the assignin parting with the possession, or disposing of t premises.

Lord Justice Scrutton expressed no opini on the point decided by the other members of t

rt, but confined his judgment to holding the case did not come within subsection (6) use on the authority of Church *v.* Brown Ves 258) a covenant not to part with possession of premises does not restrain a tenant from ing with part of the premises, and, therefore, ce of the breach and an opportunity of edy must be given under section 14 subion (1) before forfeiture could be enforced.

'e have dealt with this latter point in connec- with several cases. In Cottell *v.* Baker *The Builder*, March 26, 1920) it arose in nection with the Rent Restriction Acts, re sub-tenants, to whom a part of the pres had been sub-let in breach of a covenant to underlet or assign the premises without sent, were held to be "tenants" and not passers, because in Wilson *v.* Rosenthal 6, 22, T.L.R. 233) it had been held that a enant not to underlet without consent did apply to an underletting of only part of the mises. In Terrell *v.* Chatterton (see *The lder*, July 28, 1922) the Court of Appeal ner expressed a doubt if this was the law, but such doubt was set at rest when Terrell hatterton was decided in the House of Lords 23, A.C. 578; *The Builder*, December, 28, 3), when Lord Wrenbury said, "It is said with truth that if there be a covenant not assign or underlet the premises it is not a ach to assign or sublet part of the premises," ough in that case it will be remembered that vas held that if there are two transactions, t a subletting with consent of part of the mises, followed by a subletting of the whole the rest, that does constitute a breach of the enant.

Then in Elliott *v.* Jackson and Simons (1923, Ch. 373, *The Builder*, July 27, 1923), it was d that a covenant "not to share the possession any part of the premises without consent" s not within subsection (6) of section 14 subtion (1) of the Conveyancing Act, 1881, and erefore notice of breach must be given before feiture.

Note.

We desire to give a word of explanation as gards our note in the Legal Section, May 30, the case Hewitt *v.* Rowlands.

That case was the subject of appeal after our te was written and a report of the appeal only peared after it was published (see *Weekly otes*, May 31). As regards that case, the Court Appeal having first obtained further infortation from the District Registrar as to how the mages had been assessed, remitted the case to m with a fuller direction than had been given the Divisional Court as to the principles to be plied in the assessment, and referred to ircott *v.* Wakely, a case which in our note we id pointed out bore upon the subject.

In our note on this case we also referred incintally to the case Calthorpe *v.* McOscar, and the courtesy of correspondents we were formed that the decision of Mr. Justice cCardie in this case had also been reversed by ie Court of Appeal on December 14. A full port of this appeal only appeared in the Law eports for June, which were published five days ter our note was published, but no brief report as given in the *Weekly Notes* of the appeal iortly after it was heard, as is customary in ises of importance, and therefore at the time writing we were unaware of the appeal. The ly mention of the appeal in the *Weekly Notes* hich we can find is an entry in the "Record of usiness" in the Court of Appeal where the case ppears *sub nomine* Anstruther–Gough–Calorpe *v.* McOscar "appeal from McCardie, J., llowed." We shall treat of both cases as ppealed in an early Legal Section.

Architect's Estate.

Mr. William Willink, F.R.I.B.A., J.P., of Bern Hey, Livingston-drive, Liverpool, and unard-buildings, Liverpool, who designed any buildings in Liverpool and Lancashire, ormerly chairman of the Leeds and Liverpool anal Company and an Alderman of the City Council (net personalty, £5,661), £12,821.

RENT ACT

SEPARATE FLATS: APPORTIONMENT

The decisions under the Rent Restriction Acts are now so numerous and often so difficult to reconcile one with the other that even the lawyers find it a hard task to expound the law as laid down in them, as happened for a long while under the Workmen's Compensation Acts. In our issue June 6 we noted a case on apportionment, decided by the Court of Appeal, Sutton *v.* Begley, which seemed to clear up some questions but a further point has been raised in a Divisional Court in the recent case Lelyveld *v.* Peppercorn (*Weekly Notes*, June 14).

A lease of a house in Islington consisting of a basement and three other floors had been acquired by the appellant in this case, in 1897, and at first he had occupied the whole house himself, but at some time before August, 1914, he had sublet to separate tenants the second and third floors. The first floor consisted of two rooms, and on a half-landing two other rooms, and subsequently, but before August, 1914, two of these rooms had been sublet to another tenant at a weekly rent of 10s. In August, 1922, these four rooms were let to the respondent at a rent of £1 2s. 6d. a week, or £58 10s. a year. The respondent stated in the case that he understood the standard rent of the whole house to be £70, and he made an application for an apportionment of rent as regards these four rooms to the County Court, and the application had been granted. The Divisional Court reversed this decision. Section 12 subsection (1) (*a*) of the Rent Act, 1920, defines the standard rent as the rent at which the dwelling-house was let on August 3, 1914, or where the dwelling-house was not let on that date the rent at which it was last let before that date, or in the case of a dwelling-house which was first let after August 3, 1914, the rent at which it was first let. The Court held that the first alternative did not apply because the house was not let as a whole on August 3, 1914, the second alternative did not apply because it could not be said that the house was entirely unlet at that date as parts of it were let, and the last alternative did not apply as the house was not let as a whole after that date, therefore the standard rent as a whole, which it was sought to apportion, did not exist, and the standard rent of the flat was that at which it was first let to the respondent. The court distinguished Woodhead *v.* Putnam (1923, 1 K.B. 252; *The Builder*, December 8, 1922), because in that case the house had been let as a whole in 1914. That justice was done cannot be denied, as from the report in the *Times* it appears that the respondent was the tenant of the two rooms on the first-floor first let, and that if the apportionment had stood he would have got the four rooms at the same rent as he had originally paid for those two rooms, but hard cases do not make good law, and in Sutton's case the Court of Appeal was constrained to hold that the rent must be apportioned, although the Court expressed itself strongly on the absence of merits from the tenants' case.

That case is distinguishable from the decision in this case, for there the house which had been used for military purposes during the war was first let in March, 1921, and subsequently a part was sublet. The standard rent was taken as the rent at which the whole house was let in March, 1921, and was apportioned as to that portion subsequently let off.

The point raised in the case we are now considering appears not to have been decided before, but the only comment that can be made upon the decision is that in finding that there was no standard rent of the whole house in existence to be apportioned under section 12 subsection (1) (*a*) the court did not define how far back the words of this section contemplate reference being made. The words are "where the dwelling house was not let at that date," that is, August 3, 1914, "the rent at which it was last let before that date." The terms on which the appellant held the house under the lease from 1897 were not stated. The settlement of this point may arise in other cases.

ANCIENT LIGHTS

DAMAGES FOR THREATENED OBSTRUCTION

In our issue May 25, 1923, we noted the case Slack *v.* Leeds Industrial Co-operative Society, Ltd., in which the Court of Appeal felt constrained, by dicta of long standing, expressed by that Court in the case Dreyfus *v.* Peruvian Guano Co. (1889) 43 Ch. D. 316), to hold that in a case of threatened injury to ancient lights the Court had no jurisdiction under Lord Cairns's Act to award damages in lieu of an injunction.

It is, therefore, important to note that this case has been carried to the House of Lords (see *Weekly Notes*, June 7), and that the majority in that final tribunal have held that Lord Cairns's Act empowered the Court in such cases to award damages in lieu of an injunction.

In this case in the Court of first instance it had been held that had the building been completed the extent of obstruction would only have been such as would have justified the Court in awarding damages in lieu of an injunction, but that the Court could not adopt this course because of the decision in the Dreyfus case. The Court of Appeal did not go into the merits of the case, but held that the Judge had rightly held he had no jurisdiction to award damages because of the decision in that case. The House of Lords having power to over-rule the decision of the Court of Appeal in Dreyfus's case have now given this very important decision, and have held that to say that the power to give damages in Lord Cairns's Act applied only to what had already been done, was inconsistent with the terms of that Act, and would nullify the provisions that damages might be given in substitution for an injunction.

The terms of Lord Cairns's Act in section 2 are: "In all cases in which the Court of Chancery has jurisdiction to entertain an application for an injunction against . . . the commission . . . of any wrongful act, it shall be lawful for the same Court if it shall think fit, to award damages to the party injured, either in addition to or in substitution for such injunction."

Lord Cairns's Act was passed in 1858, since which date great changes have been effected in the constitution and practice of the Courts by the Judicature Acts, and in 1883 Lord Cairns's Act was repealed by the Statute Law Revision Act of that year, but the House of Lords in this case have unanimously held that by the combined operation of several Statutes the jurisdiction conferred by Lord Cairns's Act is preserved and remains unaffected.

We may revert to this case when it is reported at length in the *Law Reports*, but the point decided is of such importance in ancient light cases that we draw attention to it at once.

West Country Architects' Excursion.

The Wessex Society of Architects, which consists of the Bristol and Gloucestershire Societies, recently had an excursion through the county of Gloucester. At Northbeach, the fifteenth century church and other old buildings in the town were examined. At Chipping Campden the almshouses and other buildings, dating from the fourteenth to the eighteenth centuries, were visited. Amongst the members of the party were Mr. G. C. Lawrence, F.R.I.B.A. (President of the Wessex Society); Mr. W. S. Skinner, F.R.I.B.A. (President of the Bristol Society), and Mr. G. P. Milnes (President of the Gloucestershire Association). The sub-committee responsible for the arrangements consisted of Messrs. T. Overbury, C. W. Yates, and H. Stratton Davis (Hon. Secretary of the Wessex Society of Architects).

THE WEEK IN PARLIAMENT

Wages in New York.

Mr. Shaw, Minister of Labour, informed Mr. Comyns Carr that the hourly rates of wages current in New York City in November last were 1 dollar 30 cents for bricklayers and plasterers, and 1 dollar 12½ cents for carpenters and joiners and slaters. A subsequent report of March 24 stated that the average base pay in New York City was then 10½ dollars per day, and that bricklayers were receiving bonuses of 1 dollar and 2 dollars above the agreed rate of 12 dollars per day on most work, and that a similar bonus was being paid to plasterers on many buildings. The latest reports indicated a high level of activity in the building trades in New York City, practically all operatives being in employment. The large majority of building operatives in the United States had a 44-hour working week.

Office of Works' Houses.

Mr. Jowett, First Commissioner of Works, informed Mr. D. G. Somerville that the policy laid down twelve months ago in regard to all the estate under his Department is to sell houses whenever a suitable offer was received.

The Building Committee.

Mr. Wheatley informed Sir P. Pilditch that he proposed to set up an organisation representative of the persons in the building industry and in the provision of materials to advise him on questions connected with the carrying out of the housing scheme, and to take all possible steps within the industry itself to facilitate the success of the scheme. He did not think it would be necessary to take statutory powers for this purpose.

Progress of Private Enterprise.

Mr. Wheatley informed Captain Elliott that 26,750 houses were under construction on the 1st inst. by private enterprise in connection with schemes approved under the Housing, &c., Act, 1923, and a further 56,660 had been approved but not commenced at that date.

Bricklayers and Plasterers.

Mr. Wheatley informed Captain Elliott that the number of bricklayers employed on June 1 on houses in course of construction by local authorities under the Housing, Town Planning, &c., Act, 1919, was 381. The number of plasterers employed on June 1 on houses in course of construction by local authorities under the Housing, Town Planning, &c., Act, 1919, was 320.

Price of Houses.

Mr. Wheatley informed Sir C. Morrison-Bell that the average prices of houses included in contracts let by local authorities under the Housing, &c., Act, 1923, during the last six months, excluding the cost of land and development, were £404 for non-parlour, and £454 for parlour houses.

Demolition of Houses.

Asked by Mr. T. Thomson if he would take powers in his Housing Bill to restore to local authorities their right of preventing the demolition of existing dwelling houses or their conversion into premises for other uses so long as the shortage of houses continued, Mr. Wheatley said he did not propose to deal with this matter in the present Housing Bill.

Local Authorities' Schemes.

Mr. Wheatley informed Captain Elliott that the position of local authorities' housing schemes under the Housing Acts of 1919 and 1923 on June 1, was as follows :—

	Housing Acts of		
	1919.	1923.	Total.
Number of houses under construction	2,931	12,752	15,683
Number of houses in approved schemes not yet commenced	365	30,900	31,205

As regarded slum clearances, schemes had been approved which would involve the provision of approximately 5,894 houses; tenders had been approved covering 1,090 houses.

Builders' Guarantee.

Lord E. Percy asked the Minister whether he had received any written guarantee or offer from the building trade, other than the Report of the National House Building Committee, or any written intimation from the trade that they regarded his arrangement with the local authorities as satisfying the conditions laid down in that Report ?

Mr. Wheatley said the offer from the building trade was contained in the Report to which the noble Lord referred.

Replying to further questions from Lord E. Percy and Mr. D. G. Somerville, Mr. Wheatley said he had no evidence that there was any dissatisfaction with the arrangement in the building industry. Everything was proceeding very smoothly and satisfactorily.

Augmentation of Labour.

Mr. Wheatley informed Sir K. Wood that the building industry proposed that building trade labourers should be accepted as apprentices under their scheme for augmenting the industry, and while apprentices were ordinarily to be accepted up to the age of 20, special arrangements might be made in the case of building trade labourers.

Skilled Workers.

Mr. Wheatley informed Mr. D. G. Somerville that complete information was not available as to the number of skilled workers in the building trade in 1913 and 1924, but the following table gave particulars in regard to the principal occupations for 1901, 1911, and 1923 :—

Occupation.	Number of skilled men employed in the building trade in England and Wales.		
	Census, 1901.	Census, 1911.	October, 1923.*
Bricklayers	109,160	92,312	53,630
Carpenters & Joiners	243,075	176,978	106,880
Plasterers	27,544	21,230	13,910
Slaters	8,461	6,946	2,880
Masons	63,129	42,896	16,580
Painters, Decorators, &c.	143,150†	154,929	97,480
Plumbers, Gasfitters, Glaziers, &c.	68,562†	70,303	28,430

*The figures for 1923 represent the numbers of insured workpeople working for employers and, consequently, they are not strictly comparable with the Census figures.

†In the Census for 1901 the figures for Glaziers are included with Painters.

White Lead Convention.

Mr. Henderson, Home Secretary, informed Mr. E. Brown that the ratification of the White Lead Convention was supported by the master painters, the operative painters, and the building trades operatives; and was opposed by the white lead manufacturers, the workers in the white lead factories, the Federation of Building Trade Employers, and the paint and colour manufacturers.

Scottish Smallholders.

In reply to Mr. Livingstone, who asked, in the House of Commons, whether the benefits of the proposed housing scheme would be available for Scottish smallholders, who either built their own houses, or had them built for them, at their expense, by the Board of Agriculture under a land settlement scheme, Mr. Stewart (Parliamentary Secretary to the Scottish Board of Health) said that the subsidy proposed under the Housing (Financial Provisions) Bill was intended to be provided only in the case of houses built for letting, and accordingly would not be available for the class of builders referred to. Such persons would, however, continue to be eligible for the assistance from local authorities provided for in Section 2 of the Housing, &c., Act, 1923, and would be able to apply for loans from the Board of Agriculture under the provisions of the Small Landholders' Acts.

The Housing Bill.

Mr. Wheatley, the Minister of Health, moved the second reading of the Housing (Financial Provisions) Bill in the House of Commons on Monday. The measure, he explained, proposed to amend the financial provisions of the Act of 1923. That Act provided for a subsidy being paid on houses conforming to the conditions laid down in that Act and completed before October next year. Clause 1 of the new Bill extended that period for fifteen years. Clause 2 increased the subsidy from £6 for twenty years to £9 for forty years. The primary object of the Bill was to secure continuity in the building of working-class houses, and the measure, he felt, in its essentials had a reasonable prospect of passing the House as an agreed measure. The essentials of the Bill were a treaty with the building industry, a treaty with the local authorities, and a charter for the tenant. The basis of the agreement with the building industry was the production and delivery of working-class houses. The reasoned amendment to be moved by the Unionist Party stated that the proposals in the Bill were insufficient to provide the men. It suggested that the building industry, which said it could guarantee a certain number of houses per annum, did not know how to provide the men who were essential. But in the report submitted by the building industry, it was stated that a scheme for augmenting labour in the industry had been reached between the employers and the operatives for the first time in the history of the industry. The Government were entitled to take some credit for having secured that agreement. He had accepted a Liberal amendment laying it down that the subsidy might be withheld in the event of adequate preparations for the supply of materials and men not having been made. The acceptance of the amendment made the Committees which he had had in view from the outset more and more important, because their principal duties would be to see that the industry was augmented and that materials were available for the houses which it had been agreed to erect. If the industry did not fulfil its obligations, Parliament was relieved from its obligations, and the money which the scheme would cost would remain in the national pocket.

Sir W. Joynson-Hicks : But the necessity for houses will remain.

Mr. Wheatley said that put the nation under an obligation to test this scheme, which the building industry said was bound to succeed, and which the local authorities had agreed to promote for all they were worth. If, unfortunately, the building industry was not able to redeem its pledges there would be nothing left for the country but to turn in its despair to the servile system of house production undertaken by Mr. Chamberlain. The Government were leaving the supply of materials to private enterprise, subject to an agreement with the manufacturers and to the powers which they hoped Parliament would give them in another Bill now before the House. Further, they proposed to use the machinery of the Trade Facilities Committee to develop production. Short of a system of nationalisation, he contended that the Government had taken every necessary step to secure that production in abundance of the necessary materials would be realised. As to the argument that the Bill would increase the cost of production, he said that every possible provision had been made in the Bill to keep down the cost of house-building. The builders and operatives were given a very serious interest in keeping down the cost because if prices got unreasonably high, building would be stopped. The local authorities were also given a direct interest in keeping costs down. Nor was it true that his proposals would discourage private enterprise ; they would actually do more to promote private enterprise than any other measure which had come before the House recently. They were anything but Socialistic proposals. Although he thought private enterprise was out of date and ought to be scrapped, the country accepted it and he accepted it, and was trying to act honestly towards it. He was promoting a large market for houses and thus was creating a field for private enterprise. It was also absurd to say that the Bill put a larger burden on the State and the local authorities. He was actually putting on the local authorities a smaller burden than they were prepared to shoulder.

Lord E. Percy, on behalf of the Unionist Party, oved the following amendment :—" That this ouse cannot assent to the second reading of a ill which meets none of the difficulties, either regards labour or materials, that at present nit the building of houses, discourages private nterprise and private ownership, tends to crease costs, and throws an excessive burden on the State and the local authorities without y likelihood that an adequate supply of houses ill thereby be made available." He severely iticised the measure, describing the financial ovisions as unsound and impracticable. The ill was a milestone on the Minister's proposals in entirely wrong direction. The Government ould have concentrated on the replacement old houses by modern ones, and should have ven attention to those areas where private nterprise was not building houses in sufficient uantities. He denied that there was any greement with the building industry that would nd the industry. The Bill was an absolute and eartless sham.

From the character of the debate which llowed it was clear that the measure will be nsiderably amended in committee. Mr. asterman announced that Liberal members ould vote for the measure being taken in ommittee of the whole House, and not sent to Standing Committee. Mr. J. Sunlight, the iberal member for Shrewsbury, speaking as an rchitect with twenty years' experience, said he uld not support housing proposals which he as convinced would never succeed. Mr. H. ragg, a Unionist, and the member of a firm of rickmakers, advocated payment by results in ne building trade, which, he said, would increase utput by 50 per cent. Sir W. Joynson-Hicks ound up the debate for the Opposition, and Mr. . Greenwood made the final speech for the overnment.

The Unionists challenged a division on the mendment, which was rejected by 269 votes to 06, and the Bill was read a second time. The iberals on this occasion voted with the Govern- ent, but Mr. Masterman, a Liberal member, ext moved that the Bill be committed to a ommittee of the whole House. This was esisted by the Government, who were, however, efeated, Mr. Masterman's motion being carried y 315 votes to 175, in spite of Mr. Clynes' threat o keep the House sitting until September if ecessary. The decision not to send the Bill o a Standing Committee means that it will be uch more searchingly examined and amended n points of detail.

Rent Restrictions.

Asked by Sir K. Wood whether he proposed o introduce any further legislation in relation to victions or rent restrictions, the Prime Minister aid that after a careful review of the present osition of legislative proposals regarding ousing and of the fate of measures already ntroduced, the Government saw no opportunity o produce fresh proposals in addition to its Housing Bill.

Shortage of Bricks.

Mr. Greenwood informed Mr. Alden that the Minister of Health was aware that there was t present a shortage of bricks in many parts of he country, and he was informed that bricks were not always available in the quantities required at the prices which were recorded as the normal market prices. If the Housing Bill at present before the House was passed there was every prospect that in view of the assured demand for a long period a consider- able number of manufacturers would carry out extensions of plant and would reopen and refit works which had been closed down. It was proposed in the Building Materials (Charges and Supply) Bill to take powers to deal with unreasonable prices.

Shortage of Men.

Mr. Adamson informed Sir G. McCrae that the average monthly shortage of men in the building trades on housing schemes under the Housing (Town-Planning, &c. (Scotland), Act, 1919, in the year 1921, was 168.

BOOK REVIEWS

London on the Thames. By H. ORMSBY, B.Sc. (Econ.) (Sifton, Praed & Co., Ltd.)

That London owes its existence to the Thames is a self-evident fact, but to what extent the formation of the City was due to the river and its tributaries is not often realised. When one of the problems of to-day is the bridge traffic, while the waterway is deserted, it is natural that the original import- ance of the river should be somewhat discounted by those who seldom pass east of Tower Bridge.

It is surprising to learn that the Ordnance Survey has never produced a contoured map of London. The diagrams of "London on the Thames" offer many suggestions relating to the making of the City and its suburbs. We do not follow the authoress with reference to the influence of the streams on the line of the City wall which, she says, follows the trench carved out by the streams. As we under- stand it, the Walbrook failed to find access for all its waters through the City, and filled the moat that was made from Newgate to Tower Hill, leaving the Moorfields waterlogged. This stream was not allowed to interfere with the line of the wall, but it is true that the Holbourne, or Fleet River, determined the western bounds of the City. The book offers no solution to the problem: What caused the rectangular bend at Aldersgate? The Island of Thorney is also fully described with diagrams, which account for many interesting names surviving in modern Westminster, due to the numerous watercourses of the Westbourne and Tyburn. The history and topography of London as a port is dealt with. The old port, based on stream mouths and riverside quays, has gone, and a new port with its millions of tons of traffic, based on docks, has grown up below the City. The square mile of earth that carries the City would be lost in the midst of greater London to-day if it were not for the mile of river front that has prevented St. Paul's and the beautiful line of old churches from being hidden altogether from view by modern build- ings. But we ask, how long will it be before the post-"modern" erections do succeed in hiding our churches and monuments?

House and Home: A Manual and Text-book of Practical House-Planning. By GRETA GRAY, A.M. With 189 illustrations. (Phila- delphia, Chicago and London: J. B. Lippincott Company.) Price 10s. 6d. net.

The author of this work takes a wide outlook over a very extensive subject. The house and home of civilised man presents a complex problem, and this problem is discussed in minute detail from the standpoints of artistry, con- venience, construction and cost. The book embodies a considered attempt to indicate the several factors relative to the housing question in America, and to make them comprehensible to the general as well as to the technical reader.

The question why we are badly housed in ugly buildings is just as pertinent on this side of the Atlantic as upon the other, and in the Introduction the reader is informed that the reason is largely bound up in the fact that the efficient design of individual small houses is not a paying proposition to the architect even when he is paid at the rate of 10 per cent. for his services.

The remedy proposed is more study of their problem by all the people interested in home building; that is to say, everybody. "The less one can spend on a house the more essential it is to plan carefully to get all that can be had for the money available. If people who are about to build could work out on paper their own ideas and know that they were feasible, and if they had a basis for correctly evaluating the matters which must be considered in build- ing, and would then go to an architect with their sketches and ideas, the architect would have an easier task, and the house would be in better taste. Selection of plans from a book or giving over sketches to a contractor would not be so unsatisfactory if the owners knew how to choose wisely and if they knew what stipula- tions to make in a contract."

However it may be in America, where folks have a reputation for picking up ideas smartly, the suggestion that these very sensible proposi- tions should be applied in England would elevate the conditional "if" into the greatest promin- ence. For some extraordinary reason the aver- age home-builder in England seems to know or care very little about the things that ought to interest him in connection with his project, and it is an open question whether even this excellent book will shake him from his indifference. Will the prospective home-maker take to heart the advice given on several pages to think over his business slowly and seriously, or will he screw up his courage in a hurry, consult a builder and plunge into a contract without any more con- sideration than his neighbour, whose experiences might well have taught him wisdom?

The "Suggestions to Teachers and Study Group Leaders," contained in chapter xxii, open up a vision of an instructed public opinion, and in this lies, indeed, the only real hope of lasting improvement, for an architect, howsoever con- scientious, will not find himself in a position economically to search out on his own initiative and supply his client's lack of ability to give him rational instructions.

The successful design of a house which is also to be a home is intimately bound up with the knowledge of the processes that will be carried on within it, and this knowledge can best be obtained by experience. The problems enun- ciated at the end of each chapter are expressly directed towards encouraging the reader to connect the theory set forth in the book with the facts of his own case and their possible future improvement. This is in accordance with all architectural practice that has led to great achievements, and it is about as far from the "spray-background" methods of our art schools as could well be imagined. Several of the problems set are connected into a con- tinuous scheme beginning with the practical suggestion that the reader should "Find a lot as near your ideal as possible to cost not more than a determined sum, this sum to be that which your family can afford."

Not all the recommendations are so valuable, and the advice to "collect pictures of radiator screens which you might use to conceal radiators in your house" might be objected to on the grounds of economy and efficiency since the loss of heating power in a screened radiator is very considerable. This point is mentioned in the text, so the reader is fairly warned, but he might as an alternative have been instructed to invest in a form of heating apparatus that was not so unsightly as to need concealment.

The book contains a wealth of useful infor- mation, and can be recommended confidently to all classes of readers.

Modern Plumbing Illustrated. By R. M. STARBUCK. (New York: N. W. Henley Publishing Company.)

A book on modern plumbing as practised in the United States of America cannot but be of general interest to all concerned in building. The work before us is rather more comprehen- sive than its title would imply, and traverses much of the ground concerned with architectural hygiene, from water supply to septic tanks and the disposal of sewage. The author, although he has been closely associated with the various branches of plumbing for over half-a-century and has observed the vast strides made during that period, has wisely restricted the volume to the description and illustration of modern work in his country. Scullery and laundry fittings, bathroom fittings, and domestic and public sanitation generally for town and country are treated in short chapters, each preceded by a plate of illustrations. The chapters on cesspools and septic tanks are well illustrated and described, and provide useful information. Another useful chapter is that on the disposal of sewage from levels below the sewer into which it is to be discharged, as is necessary in the case of the basements of tall city buildings and in underground stations. A digest of the report issued by the British Local Government Board on the use of inter- cepting traps in house drains is appended.

THE BUILDING TRADE

THE CARE AND REPAIR OF FACTORY CHIMNEYS

By W. LARKINS.

[THE writer of this article is a well-known steeplejack, whose exploits in connection with the Nelson Column and other public buildings have been publicly recorded. He has had a wide experience in the construction and repair of factory chimneys, and the suggestions he makes in the following article are of interest.]

As a steeplejack few things have surprised me more than the indifference displayed by factory owners and managers towards the well-being of their chimney shafts. Whereas the man who starts out to build even a quite small house, costing perhaps no more than £500, will carefully see to it that it is erected exactly according to the proper plans and specifications, and with good sound material, the building of a chimney shaft, costing perhaps five, or even ten times £500, is left largely to chance. Of course, in large towns and cities the local building regulations are usually pretty strict, and a man can feel fairly safe; but in many country districts, where these regulations either do not exist or are largely ignored, a chimney can be built without proper foundations—"on the grass," as we say—and nobody is the wiser.

Chimney should not be Built too Quickly.

A man about to have a chimney shaft built should insist on the depth of 10 ft. of solid cement foundation for each 100 ft. of shaft, and proportionately, of course, for every fraction of 100 ft., so that a shaft 150 ft. high would require 15 ft. of foundation; one of 250 ft., 25 ft., and so on.

Another very important point to see to is that the chimney is not run up too quickly. When it is 40 ft. high work should be knocked off for a week to give it time to settle; then at 80 ft. there should be another week's rest, and so on, with every additional 40 ft. If this rule were regularly carried out and proper foundations put in there would be far less cracking and settling of new shafts than is now the case.

Even, however, if a chimney is known to be properly built, and is to all appearance perfectly sound and stable, it ought to be inspected regularly once in two years by a properly qualified steeplejack. Such an inspection only costs 30s., and it may mean the saving of hundreds of pounds later on. This seems so obvious that I should hesitate to labour the point did I not know from practical experience how difficult it is to get factory owners and managers to agree to it. A man with a fifty-guinea piano has it seen to regularly by a professional tuner. The man with a five-hundred guinea chimney is content to leave it alone until warned by its settling or cracking that something serious is the matter. Then, not infrequently, it is too late.

Inspection might have saved £3,000.

I had experience of a typical instance of this only a few months back, in connection with a shaft belonging to a brickworks company in Gloucestershire. The chimney was a new one, having only been built about six years. It was nearly 200 ft. high, and weighed approximately 1,500 tons.

About four years after it was put up I was informed a list became apparent. But no notice was taken of it, or, at all events, no proper steps were taken to have it remedied. It was assumed that, being a new chimney, there could not be anything radically wrong with it. (A common mistake, this! Regular inspection is even more necessary in the case of a new chimney than in that of an old one which has been seasoned by time and usage.)

Well, "things" were "let slide," and twelve months later it started cracking at the base. Still no notice was taken. Another year passed by. And now anyone could see that "something must be done."

Indeed, the owners had no choice in the matter, for as it happened the shaft stood close alongside the track of a great railway company's main line, and their officials had been keeping an eye upon it. One day the manager of the brickworks was served by the railway people with an intimation requiring him to either straighten the shaft at once or pull it down, as it was a menace to their property and a source of danger to passengers travelling over their line.

It was then that I was sent for—for the first time mind—to make an examination. I found the upper portion, above 10 ft., to be in fair condition. But the base was split in all directions; was in fact, little more than a pile of rubbish.

"The Chimney was Falling before my Eyes."

I plumbed 10 ft. of the base, and found that it moved 1-16th of an inch out of the perpendicular in five hours. This meant that the top had moved 2¾ inches in the same period. In short, the chimney was falling before my eyes. And—it was falling in the direction of the railway line.

Nothing can be done, under such circumstances, to straighten a shaft. Once a chimney begins to move any operation of this kind is out of the question. The only thing to be done in this case was to divert its fall from the railway company's property on to that belonging to the brickworks, and this I successfully accomplished, the trains, however, being held up as a matter of precaution while the work was being done.

Owing to the necessity of throwing the chimney without delay, and across the brickworks, considerable damage was done, and altogether the cost to the brickworks company, including the loss of the chimney, could hardly have been less than £4,000. Had I been called in two years earlier I could probably have rectified matters for a twenty-pound note. Four years earlier half that sum would almost certainly have sufficed.

Even without calling in the aid of a steeplejack, it is an easy matter for a manager to ascertain whether a chimney needs attention. All that is necessary is to plumb it at the base with an ordinary bricklayer's plumb-rule and bob. If it is found to be ever so slightly out of perpendicular it is a sign that something is amiss, and the services of a properly qualified steeplejack should at once be sought.

Where Prevention is Better than Cure.

Cracks not infrequently develop in quite new chimneys. These should be stopped at once, and this operation will save banding later on; also, the upper parts of all chimneys, new or old, should be kept well pointed, thereby preventing decay, which in time means rebuilding the upper part of the chimney, with its costly addition, expensive scaffolding. Special attention should be given to stone copings, as the iron cramps used by some builders often rust, causing the sections to work loose. Personally I am of opinion that iron cramps should not be used either in stone or brickwork in connection with chimneys, owing to their tendency to expand and contract with the variations of temperature, and whenever I find them I invariably advise the substitution of copper ones.

When Chimneys are Beyond Repair.

Once the copings go, of course, the damp gets in, the heat of the interior of the chimney draws it deeper and deeper, mortar perishes, the interstices widen, and the canker, often all unsuspected, eats its way into the very vitals of the shaft. When this process has gone too far, no amount of pointing will do any good, and the upper part of the chimney must be rebuilt. I have seen chimneys so bad that I have been able with my fingers to pick the bricks out from under the copings, and rebuilding operations running into hundreds of pounds have had to be undertaken; whereas, if the shaft had been periodically inspected and the mischief detected and grappled with in time, the expense would have been hardly as many shillings.

Still, with every care and precaution, stopped cracks will sometimes spread, chimneys newly pointed will occasionally open up again. When this happens, and not before, is the time for banding. Bands for circular shafts are made in three sections, and for octagon and square shafts in four sections. They range in size from 4 in. by ⅝ in. to about half those dimensions, and are of wrought iron, with lugs and bolts. A properly banded shaft is given an altogether new lease of life. In fact, it is often rendered stronger and more secure than when first put up.

Old and New Ways of Felling.

When a shaft has been permitted through neglect to get into so bad a state of dilapidation that neither pointing nor banding is any good, the only thing is to demolish it, by "felling," if space permits. The old way of doing this, which costs anything from £35 upwards, was to cut into the base, and prop up the gap with timber as the work proceeded. These wooden supports were then saturated with tar, paraffin, etc., and set on fire, when, of course, as they burned through, the chimney toppled over.

This cumbersome and costly plan is now almost entirely done away with, and an ordinary shaft can be "thrown" for about one-third of the cost. The method is based upon that used for felling trees, where the direction of the throw is regulated by the cut made in the wood. Starting at a point in the masonry immediately opposite to that which abuts upon the required line of fall, the shaft is attacked with chisels, care being taken to work evenly towards the centre line. By this means a shaft may be felled with a nicety and precision unattainable by the burning process—a point of the utmost importance where buildings or other shafts are in the immediate neighbourhood. Burning, it must be remembered, may take a week to carry out, with a heavy expense for timber, whilst the felling process may be done in an hour, and rarely takes beyond the one day.

In conclusion, I would like once more to urge upon all owners of chimney shafts the absolute necessity of having them periodically examined. Also, when repairs are found necessary, have them done at once. It is the cheapest in the long run.

Hull's New Pier.

A new pier and pontoon to replace the existing structure, known as Victoria Pier, Hull, overhead promenade and approaches, floating landing stage, hinged bridge and vehicle lift, piling and dredging, are to be provided at a cost of £200,000. Parliamentary sanction is being asked by the Corporation.

NATIONAL HOUSING AND TOWN-PLANNING COUNCIL

CONFERENCE ON HOUSING

A CONFERENCE of local authorities, convened by the National Housing and Town-Planning Council, was held on the 20th inst. at the Old County Hall, Spring-gardens, to consider how local authorities can most suitably take advantage of opportunities provided by the housing proposals of the Government.

Major C. P. Lovelock, in the absence of Mr. M. Elgood, presided. Mr. Aldridge, secretary, said the conference was one of a series that had been arranged for the week, others having been held at Manchester, Newcastle and Sheffield.

Mr. Aldridge, dealing with the memorandum of the Council explaining the financial provisions of the Housing Bill, 1924, said it was simply the bill shorn of its legal terminology. The Council considered Mr. Wheatley had acted wisely in extending to 15 years the period of the application of the Act of 1923 as far as Exchequer contributions were concerned. Recent figures showed that there were built, or building, upwards of 40,000 houses under Mr. Neville Chamberlain's Act of 1923, and over 80,000 were being built as a result of the aid to private enterprise. They were bound to take the line of seeking what was good in an Act or Bill instead of finding fault. Mr. Chamberlain deserved to be congratulated on the relative measure of success of his Act. But the Act last year had the grave fault—it concentrated action mainly on building houses for sale. Mr. Wheatley proposed to build houses to be let to the ordinary working man. In rural areas there was a reason why colliery owners should build houses and let them to their employees. Many local authorities had said they would not give a penny of subsidy money unless the price paid for houses was uninflated. At Birmingham and Carlisle, where men paid from 9s. a week rent, they had been enabled to become owners of houses in 20 years. Under the Rent Restriction Amendment Act of last year, as houses became detenanted they became decontrolled. It was a mistake, however, to suppose that detenanted houses provided the accommodation that was needed for the working man. Under the Addison scheme houses had been let at a rent which was within the range of working men at a time of a trade boom, but not at other times. It led to subletting. Mr. Wheatley proposed the amount of the increased contribution to be paid was £9 a year for 40 years, or if the house was situated in an agricultural parish in England and Wales, or in a rural area in Scotland, £12 10s. for 40 years. The Bill would lay down conditions defining "agricultural parish" and "rural area" for this purpose. Also that the houses were let for occupation to tenants who intended to reside in them, and not sold; that they should not be assigned or sublet by the tenants except with the consent of the local authority; that they should not be sold or otherwise disposed of except with the consent of the Minister or the Scottish Board of Health; that contracts for the construction of the houses should contain a fair wages clause; that the rents to be charged for the houses should not in the aggregate exceed the amount which would be payable if each house were let at the rent at present commonly charged in the area for pre-war working class-houses, except where the average deficit on the houses after receipt of the Exchequer subsidy would exceed the equivalent of £4 10s. a year for 40 years. It meant that houses would be let at a rent obtained for ordinary houses. Mr. Wheatley's scheme was not hypothetical but was on a basis at which ordinary working-class areas were let.

The increased contribution, as stated in the memorandum, would also be payable towards the expenses of local authorities assisting private building enterprise to provide houses for the working classes subject to special conditions similar to those applicable to houses provided by local authorities. As regards houses for which the increased contribution would be payable, the assistance given by local authorities should be by way of an annual payment for a period not exceeding forty years. They would not be empowered to give assistance by way of capital grant in respect of these houses. Assistance by way of capital grant would be restricted to houses provided under the provisions of the Housing, &c., Act, 1923, in respect of which the Exchequer contribution not exceeding £6 a year for twenty years would continue to be payable. If, in any case, the total assistance given by a local authority to private building enterprise was less than the equivalent of the increased Exchequer contribution, the local authority would receive from the Exchequer the equivalent of the total assistance given by them.

A similar provision would be made to that in the Housing, &c., Act, 1923, enabling the increased Exchequer contribution to be paid in certain circumstances direct to Societies or Companies who did not trade for profit, or whose constitution limited the rate of interest or dividend payable by the Society or Company provided they were prepared to accept the special conditions as to letting and rents.

The increased Exchequer contribution would only be payable in respect of houses provided by private building enterprise, or by Societies or Companies subject to the requirement that the rents should not exceed those which could be charged by local authorities if the houses had been provided by them. It was further proposed that houses provided under proposals approved after February 1, 1924, might be eligible for the increased contributions if they were subject to the special conditions as to lettings and rents. In the event of non-compliance with any of the special conditions attached to houses in respect of which the increased Exchequer contribution was payable, the annual contribution might be discontinued or suitably reduced.

The object of the proposals for which Exchequer provision was sought was the completion of approximately 2,500,000 houses of the type required in fifteen years. Negotiations had taken place with representatives of the building industry with the object of devising means for ensuring that there should be available the labour and materials necessary for the carrying out of such a programme at reasonable cost. The representatives of the industry had indicated that they were prepared to adopt means of augmenting the resources of the industry which would render practicable a programme for providing the following numbers of houses in each of the next fifteen years:

1925, 90,000; 1926, 100,000; 1927, 110,000; 1928, 120,000; 1929, 135,000; 1930, 150,000; 1931, 170,000; 1932, 190,000; 1933, 210,000; 1934, 225,000; 1935, 225,000; 1936, 225,000; 1937, 225,000; 1938, 225,000; 1939, 225,000.

Mr. Wheatley was preparing the way for the abolition of the Rent and Mortgage Act. When it was repealed we should enter into the freedom of housing in this country. Speaking generally of the greater part of industrial England, he suggested as a rent for the average house, 7s. a week, plus rates; £500 might be taken as the all-in cost. The amount payable as interest, £27 10s.; repairs, maintenance charges, £5 10s.; representing a total of £33. If from that total £18 4s., representing 7s. a week rent, were deducted, it meant a deficit of £14 16s. The Government contribution was £9, and that of the local authorities £4 10s., making a total of £13 10s. This left a balance of 26s. to be found by the tenant in increased rent, which meant you had to charge not 7s., but 7s. 6d.

The Bill provided an easily ascertainable basis for the rents to be charged. He was glad to see that landowners had shown much liberality in regard to the price of sites for houses, and if farmers, who had been relieved of one-half of the burden of their rates, were not now willing to contribute their quota of the contribution set out in the Bill, there arose the question whether there should not be some means of compelling them to prevent their villages from going out of existence.

In the course of discussion it was mentioned that, taking the wages of the agricultural labourer at 28s. a week, he could not fairly be asked to pay 4s. a week plus rates.

Mr. A. Edwards, of Barking, said houses now built and tenders accepted showed an annual loss of £18. Apart from the subsidy of £9, Barking would have to find another £9 for forty years. Was it fair that local authorities should be penalised to the extent of £9, while neighbouring authorities who did not build got off free? There would also be an influx into Barking. In response to a request for figures from Mr. H. H. Brown, Town Clerk of Gravesend, Mr. Edwards said that tenders of £436 had been withdrawn. They anticipated a £450 tender; in fact, an all-in cost of £470. Plus road-making it would bring the cost up to £570.

Mr. Aldridge remarked that if under the Wheatley scheme it were possible in the suburbs of London to let a house of the type suggested at 8s. 6d., plus rates, thousands of families would regard it as a great benefit. If 2,500,000 houses were built and 12,500,000 people provided with better houses, posterity would gain so much that the citizens of forty years hence might be left to bear the burden.

In the course of further discussion it appeared the general opinion that the rural rent could not be more than 3s.

Mr. Edwards then suggested that local authorities who did not do their duty, thus compelling other places to do more than their share, should be compelled to stand in. The case of Barking in this respect was one of great hardship, and they had a heavy loss on what they had done. He moved that the Conference declare the subsidy to be altogether inadequate, and that it should be substantially increased.

Mr. Marlow Reid, of the Middlesex County Council, urged that the levy of local contribution should be taken over a much wider area, perhaps even a County Council area, so that no locality should have the temptation and opportunity to neglect its duty. Greater London would have been the area in the Addison Bill but for the opposition of those who did not understand the subject.

A delegate from Tilbury, in seconding the motion, said the proposition of a £9 subsidy did not meet the situation satisfactorily. Such a burden should not be placed on shoulders already overladen.

Mr. H. H. Brown, Town Clerk, of Gravesend, said the proposal would be futile, because the Council of the Association of Municipal Corporations had accepted the subsidy terms laid down. But in any case he would vote for the resolution, because he was convinced, after carefully studying the scheme, that it was doomed to failure from the start, and if they could succeed in getting the contribution from the Government put up, which would inevitably be accompanied by an additional contribution from the rates, it was the quickest way of killing the whole wretched business.

Mr. Aldridge then asked that they should not condemn the scheme because it was not satisfactory in every respect. In rural areas many labourers paid 2s. 6d. a week rent for houses which were not worth 6d. They proposed to give a three bedroom cottage at a rent of four or five shillings a week plus rates. It was right that the labourer should pay the rent. Given proper conditions to refuse to pay 5s. was not economy but lack of economy. The scheme represented a real step towards the solution of the problem.

It was decided to postpone voting on the resolution until later in the meeting.

Another delegate, Mr. Dobson, said people who could afford to build houses should be compelled to do so.

The Conference then considered the following Report, prepared by a representative Committee appointed by the National Housing and Town Planning Council:—

REPORT ON THE SUPPLY OF SKILLED LABOUR.

It is beyond question that one of the most important factors determining the rate of progress which can be attained in the execution

of a national housing policy of the magnitude required, relates to the extent of skilled labour available in the building industry. That there is a serious shortage is generally acknowledged, and the definite relation of this shortage of supply to the rate of progress which can be attained, stands registered in the fact that the officers of the Ministry of Health before granting subsidies to local authorities adopt the practice of calling upon the local authority concerned to submit an estimate of the number of skilled men whose energies are locally available for the building of houses. In considering the case the officers of the Ministry of Health also bring into consideration the figures recorded in the returns of the local labour bureau relative to unemployment in the ranks of skilled craftsmen. Unless this problem of the shortage of the supply of skilled craftsmen can be made good it will be futile to hope that the number of houses built in the next few years will bear any relation to the real housing needs of the nation.

The numbers of skilled craftsmen engaged in Great Britain in the building industry in 1901 and January, 1924, are, respectively :—

	1901.	1924.
Bricklayers	.. 120,288 ..	57,170
Masons	.. 97,398 ..	22,270
Carpenters and Joiners	.. 306,355 ..	125,010
Slaters	.. 16,111 ..	5,210
Plasterers	.. 36,238 ..	16,070
Plumbers	.. 76,065 ..	34,440
Painters	.. 176,007 ..	106,860
	828,462 ..	367,030

Dealing with the causes of the shortage of labour the report says for many years past the number of apprentices flowing into the industry has been insufficient in volume to replace the depletions in the industry. The gravity of the situation in this regard can be gathered from the fact that the census figures for 1921 showed that there were then in training only about 21,000 apprentices for the crafts of bricklayers, masons, carpenters and joiners, slaters and plasterers. The number of skilled craftsmen in these groups (which leave out of the reckoning plumbers and painters) was, roughly, about a quarter of a million.

They find that there is a difference in various parts of the country concerning the proportion of apprentices to craftsmen which might be in training under existing agreements between employers and operatives. The custom seems to vary from one in three to one in five. It seems that there is also a tendency to limit, in some areas, the total number of apprentices which any one industrial concern may have in training. But if the proportion of one in four be adopted as a fair average then it would seem that there could have been under existing agreements in 1921, about 60,000 apprentices in training for these groups of industries with the approval of both employers and operatives—*i.e.*, about 40,000 more than there actually were then in training.

There is, unfortunately, no reason to believe that the situation has substantially improved during the past two years. Passing on to consider the reasons for this shortage of apprentices the evidence obtained tends to show that they are as follows : (*a*) The unwillingness of parents to place their children in an industry which does not offer steadiness of employment at a good standard wage and differs in general attractiveness from careers opening out in other industries. (*b*) The absence of any kind of responsibility—falling on the employer—for securing and training apprentices. (*c*) The entire cessation of apprenticeship during the war.

It is to be regretted that no workable solution has yet been found for "wet time." How serious a problem is presented in this regard can be seen from the fact that it has been estimated that in the period covered by October, November and December, 1923, the average number of hours worked by bricklayers in Scotland was only 25 per week. The Committee are of the opinion that many parents have prepared to send their children into industries which offered greater steadiness of employment at wages which, taken the whole year round, were substantially higher than those likely to be secured in the building industry. For example, it is clear that in many cases parents have preferred to apprentice their children to engineering firms because the prospect of constant work at regular hours in a modern well-equipped machine shop was far more attractive than that of continually shifting from one job to another, even under the same employer. The Committee find, moreover, that parents have been tempted to send their boys into "blind alley" unskilled occupations in which they have been enabled to earn higher wages than as apprentices, and contribute at an early age to the expenses of their maintenance.

There has been a substantial depletion in the number of skilled craftsmen arising from (*a*) migration to other industries in times of depression in the pre-war period ; (*b*) losses to the industry during the war period as a result of death or migration to other industries ; and (*c*) emigration to other countries, both before the war and since the war.

In considering the number of operatives needed to build 200,000 houses a year, two points emerge, viz. :—(*a*) the number of skilled men necessary to build a stated number of houses ; and (*b*) the proportion of the men in the industry needed for the performance of building operations other than those relating to the construction of small houses. With regard to (*a*) two sets of estimates have been considered by the Committee. The first of the sets of estimates has been supplied by Mr. Platt, the Housing Director to the Manchester City Council. It is understood that his figures represent actual experience relative to the number of men occupied in building houses on one of the Manchester Corporation Building Schemes. Number of craftsmen needed for 200,000 houses per year :—

Bricklayers and Masons ..	43,600
Carpenters and Joiners ..	41,200
Slaters	4,120
Plasterers	15,680
Plumbers and Glaziers ..	7,940
Painters	15,200
	127,740

The second set of estimates relates to the number of hours normally worked by all classes of labour in the construction of a small house. It is understood that an analysis of a large number of housing schemes carried into effect during the past three years reveals the fact that from 1,600 to 2,500 hours of labour per house represents the general range of time taken. (These figures include the hours worked by labourers as well as by skilled men.)

The committee recommend that the Government should be asked to make a clear declaration of determination to carry into effect a long-run housing policy. It will be of value in this relation to point out that the securing of an adequate number of apprentices will largely depend on : (*a*) the eagerness of parents to apprentice their children to the industry ; and (*b*) the good will of employers and operatives alike. Neither of these factors can be made the subject of compulsion. Unless both employers and operatives are assured that a steady period of prosperity will ensue, all endeavours to secure a rapid increase in the number of skilled craftsmen will be doomed to failure. It is further recommended the number of apprentices in training should be brought up to the level of a number mutually agreed upon between employers and operatives. All builders engaged on public work, either national or local, or engaged in building houses in respect of which subsidies are given should be required, as a condition of their contract or the receipt of the subsidy, to train a specified proportion of apprentices. A central committee of employers and operatives should be set up and be charged with the definite duties of arranging for the recruitment of apprentices and the provision of adequate facilities for their training.

New apprenticeship schemes, the operation of which shall be limited for a certain agreed period of time, should be formed with, as their definite object :—(1) The placing aside of the present ratio of apprentices to craftsmen in favour of a new ratio to be mutually agreed upon ; (2) the training of a certain number of apprentices (whose age is greater than the present agreed age of 16) for a shortened period of not less than three or four years, the amounts to be paid by the employers to these older apprentices to be supplemented by grants made by the State ; (3) the modification of certain restrictions at present in operation governing the number of apprentices allowed to be in training under any one employer. It may be explained that recommendation (2) is put forward on the definite plea that a substantial injustice will be suffered by many of those who were of the apprentice stage during the Great War and who either volunteered or were drafted into the Army, or served in munition work during this period. It is argued that there has been quite enough suffering arising out of the war without condemning men who would otherwise be skilled craftsmen to remain in the position of unskilled labourers for the whole of their lives. Sympathetic and constructive consideration should be given to the valuable suggestions that the crafts of the building industry should be regarded as falling into four great groups or divisions, and that provision should be made for the concentration of the energy of the craftsmen coming within the limits of these four groups on the performance of work in regard to which delays in execution must seriously prejudice the activities of craftsmen in other groups. It will be generally recognised that the craftsmen of the industry fall within the following groups :—(1) carpenters and joiners, (2) plumbers and heating engineers, (3) bricklayers and plasterers, masons and slaters, (4) painters and glaziers. With regard to group (3) it may be pointed out that already the bricklayers and masons belong to one union. There is also a strong feeling throughout the industry as to the desirability of setting up a Trowel Trades Union. In support of this proposal it may be urged with much force that in the Eastern Counties bricklayers, in accordance with the custom of the area, do plastering work.

A system of insurance on a contributory basis or otherwise, should be set up and should provide that time lost in inclement weather should be paid for, if not in full, at least in part. Various improvements should be made in the status of the craftsman and in the conditions of employment with the definite object of making the industry more attractive.

Dealing with the Report, Mr. Aldridge said the main decline in the building industry between 1900 and 1914 was unemployment. In the Middle Ages, the Craft Guilds of the building industry were the most representative, but during the last twenty-five years men had been leaving the industry and parents taking the view it was the last industry in which to place their children. It had been said that the absence of apprentices was due to opposition from workmen ; but it was not so. With regard to recruitment by means of apprentices, the whole thing resembled trying to run a Great Northern train by means of a Stephenson "Rocket" engine. The whole system was in desuetude. With regard to dilution, they came to the conclusion, apart from the fact that neither operatives nor employers wished it, that it would bring strife into the industry. They came to the conclusion the need to-day was the proper recruitment of the industry by means of apprentices. They required a constant stream of apprentices, not merely boys, but young men. Such a reorganisation as would enable them to secure thousands a year. But to secure these apprentices they must have a long-run housing policy so as to remove for ever the fear of unemployment. He was delighted to tell the conference that there had been a unanimity of opinion that the key to the whole situation rested in the creation of new labour by the means of apprentices. They did not wish to lower the standard of craftsmanship. Boys must have better training. It would pay to spend millions on technical schools. In village and town alike they had got to have new methods of training—training such as they had never had before.

e Chairman then proposed the following lution: "That this Conference expresses ral approval of the proposals contained in orandum No. 32 of the National Housing Town-Planning Council relative to the ease of the supply of skilled labour in the ding industry. Further, this Conference es a special stress on the need for action g taken by housing committees and educa- al committees of local authorities in each to secure that a workable scheme for the ease in the number of apprentices is drafted administered." He urged special stress he need for action being taken by housing mittees and educational committees or l authorities in each area to secure that rkable scheme for the increase in the number pprentices was drafted and administered. aid he knew where there had been requests placing boys as apprentices to trades, but l a few days ago there was no application behalf of a boy to enter the building trade ing a period of ten years. Lads had been to earn higher wages in other directions, and ents had not apprenticed them to a trade. delegate thought that, if the local authorities erfered with such a technical matter the trade ons would have something to say.

Ir. Aldridge said the suggestion was not one interference. The local authority had not the right, but also the duty to see that there uld be the necessary labour for the houses. al authorities must take their share of re- nsibility. They were in the position of wards who had the right to see that there s a constant stream of labour to carry on the rk.

Mr. White (Battersea) said the question that icerned boys most of all was that of money. u could not give all the blame to the building de of London. In many ways there were trictions. They could not take a boy of teen years of age unless he had been to a trade hool. The operatives said they did not ject to boys, but as a matter of fact they did. A delegate from East Ham said, as an opera- e engaged for 26 years, it was not correct say they were to blame for the shortage; ey tried to encourage boys in the industry. ie master plasterers had said the builders uld not take apprentices. They could have id 40,000 more in the trade if the builders ould have taken them. However, if they had terference from local authorities it would upset th employers and operatives. If they left it the Committee, in conjunction with the inistry of Health, they would be able to train ie boys, and the local authorities would have safeguard; it would settle the issue.

The Town Clerk of Wimbledon said he con- dered the recommendations most unwise. The cal authorities had to take the view of the iembers of their council, and in practice it ould amount to interference with the building rade. Unless the builder entered with enthu- iasm into the scheme it was doomed. He id not consider in these days that it could be onsidered the legitimate function of the local uthority to travel outside their sphere and nforce their will on the building industry. As epresentatives of local authorities it would be nwise to commit themselves to interfere in a rade union organisation.

Mr. Chisholm (Hackney) asked if it were not ossible to find a way out of the difficulty etween builders and operatives. If they would give what was required, surely there was some way out. People were cooped up worse than rabbits in hutches, and yet they were discussing the question of securing apprentices. What they should do was to ascertain whether it was possible to erect temporary houses which would not require the skilled bricklayer. Why not use the labour of unskilled men who served in the war? While supporting the scheme, he did not see how it was going to work with the great shortage of labour. Efforts should be made to meet the present situation by tem- porary dwellings.

A delegate from Gravesend said they wanted houses at the present time; and to produce apprentices competent to carry out the work would mean the elapse of an appreciable period. Operatives worked from 8 to 5, and his opinion, as chairman of the Housing Committee, Gravesend, was that the "output was not what it should be." Prices at Gravesend had gone up by leaps and bounds, and they could not get men to turn the work out. Let operatives work two hours a day more at, of course, the same scale of pay.

Mr. Stewart, Barking, said the general opinion was in favour of the first paragraph of the resolution, but difficulties had arisen in connection with the second. The difficulty was that men in the educational world looked with perturbation at the added duties which would be thrust upon them if the recommendation were carried into practice. He could not imagine any education committee viewing the proposal with favour.

The Mayor of Aylesbury said, as a member of a local authority, he did not consider it wise to shoulder them with the responsibility as to whether the builders had enough apprentices. He did not think for a moment they would meet the difficulty of housing by temporary dwellings; they wanted something that would stand. The object of the conference was to send representatives back to local authorities inspired with enthusiasm commensurate with the seriousness of the problem. If they were sent back saddled with another burden he did not think the authorities would go on with building.

A delegate from Wallington said the state of the country was such that the public must arbitrate between the builder and the operative. The local authorities were overburdened, but how could they accomplish their work without the local authorities? It was no good facing the housing problem with pessimism.

At this stage a delegate endeavoured to deal with the shortage of materials, but was ruled out of order.

The Chairman, in reply to his resolution, said they wanted houses, and could not continue indefinitely in their present position. Let them have the same effort in peace as in war.

An amendment submitting that the second part of the resolution be deleted was lost. The resolution was altered, however, in favour of action being taken by "a national committee acting through the Housing Committees and Educational Committees of local authorities," and was carried in this form.

Mr. Edwards then pressed for a vote on his motion that the State subsidy proposed in the Government Housing Bill was inadequate. He reiterated that Barking had to ask for an increased subsidy. They were not planning to upset any scheme, but why should the local authorities be penalised? He would ask them about the shortage of materials, and why a tender of £436 had recently been withdrawn. The motion was lost by 26 votes to 30.

The following resolution of Mr. H. H. Brown (Gravesend) was lost on an amendment by the Town Clerk of Wimbledon:—"That where a local authority is meeting the need for houses and can prove to the satisfaction of the Minister of Health that adjoining authorities are not taking adequate steps in a like direction, it shall be competent for the Minister to levy on such adjoining authority by way of a special rate such contribution as they may deem just and equitable in all the circumstances."

Mr. Aldridge then put the following resolution to the meeting:—

"That this Conference desires to protest against the limitations of the maximum measurement prescribed under the Financial Resolution on the Housing Bill to 950 super ft. for the building of 2,500,000 houses providing homes for 12,500,000 people. It urges all Members of Parliament, irrespective of party, to secure amendment of this provision, leaving to the wise common sense of the local authorities what standards can best be adopted for their areas."

The resolution was then put to the meeting and carried.

Mr. Aldridge then briefly dealt with the remainder of the Agenda.

The National Housing and Town Planning Council some time back issued the following memorandum relative to the standards of design and lay-out of housing schemes:—

The houses should be broad, rather than deep, in order to secure that all the rooms shall have ample light. This will involve the giving of increased frontages, but the additional cost can be met by economy in road construction under modern town-planning conditions. Back extensions are better avoided, and all the rooms should be brought under the main roof. Three bedrooms should be provided in all the new houses. There are hundreds of thousands of two-bedroom cottages in existence, and the members of the committee, therefore, took the view that the cottages now to be built should be of the three-bedroom type.

The houses should, as a rule, be provided with parlours; the working people of this country know what they want in this respect, and the great majority desire the parlour cottage. Each house should have a bath, with provision for hot water supply, either in a separate bathroom or in the scullery. Ample window space should be given, and the windows should be carried as near to the ceiling as possible. Where the by-laws do not already demand it, an impervious layer of concrete, or other approved impervious material should be laid under all floors to prevent damp rising, and the proper damp-proof course should be provided for all walls.

DARTFORD LAND ACQUISITION

The Official Arbitrator's Awards.

Mr. J. D. Wallis, Official Arbitrator under the Acquisition of Land (Assessment of Compensation) Act, 1919, has issued his awards in claims against the Dartford Urban District Council, concerning the Council's acquisition of land and houses for the southern by-pass road and other improvements.

Mr. James Thomson and Mr. Walter Thomson (Executors of Mrs. Betsy Thomson, deceased) claimed in respect of the freehold premises, Nos. 85 to 101 (odd), Hythe-street, and Nos. 56 and 57, Home Gardens, Dartford. On behalf of the claimants, Mr. H. Dann submitted a valuation of £7,662, while Mr. A. B. Thornton, district valuer, on behalf of the Council, detailed a valuation of £3,700. The Arbitrator has awarded that the acquiring authority is to pay to the owners the sum of £5,045 as purchase money and compensation, and to pay the fees on the award, and £60 towards the costs of the owners.

Mr. J. W. Ellingham claimed for land situate in Shepherd-lane and Lowfield-street. The Arbitrator has awarded that the acquiring authority is to pay to the owner the sum of £888 as purchase money and compensation, and to pay the fees on the award, and £30 towards the costs of the owner.

Mr. W. E. Miles and Miss Ethel Isabel Miles claimed in respect of the Council's acquisition of an area of farm land. The Arbitrator has awarded that the acquiring authority is to pay to the owners the sum of £708 as purchase money and compensation, and to pay the fees on the award, and £20 towards the owner's costs.

In regard to a claim by Mr. W. E. Miles, the acquiring authority is to pay the claimant £448 as purchase money and compensation, and to pay the fees on the award, and £25 towards the claimant's costs.

Town-Planning Institute.

At the meeting of the Council held recently the following offices were filled by unanimous election: President, Mr. W. T. Lancashire; Senior vice-president, Prof. P. Abercrombie; Vice-president, Mr. W. R. Davidge; Honorary vice-presidents, Messrs. J. A. Brodie, Rt. Hon. Neville Chamberlain, M.P., A. Norman Garrard, Sir Aston Webb; Honorary librarian, Mr. E. G. Allen; Honorary auditor, Mr. E. J. Elford; Honorary secretary and treasurer, Mr. G. L. Pepler; Representative of honorary members on the Council, Capt. G. S. C. Swinton; representative of Associates on the Council, Sir Richard Paget, Bart.

THE BUILDING DISPUTE

THE National Federation of Building Trades Employers decided recently upon a national lock-out on July 5 if the operatives do not undertake in the meanwhile to adhere everywhere to the agreements or awards governing wages, hours of work, and overtime.

The chief difficulty is at Liverpool. There for some time past the employers have negotiated local agreements with the operatives, which secured them higher rates of wages than those paid in London.

The recent conference of the employers was called to ratify the recent agreement, but the alleged violation of the conditions laid down in agreements, and particularly the failure of the operatives' federation to secure the adhesion of its Liverpool members to the new agreement, led to the opposite course being taken.

The operatives' leaders state that the employers' decision is a repudiation of the decision of a negotiating body, which they understood had authority to conclude an agreement. They mention that the operatives may not wait to be locked out, but may go on strike.

The resolution adopted by the employers was as follows:

This meeting of the National Allied Building Trade Employers resolves that, as the conditions laid down in Articles 5 and 6 of the letters sent to the Operatives' Federation on May 14 by our Negotiating Committee—namely, that the recommendations, which are to be taken as a whole, are entirely conditional upon the termination of deliberate breaches by the operatives of the National Wages and Conditions Council Constitution, including the summer working hours, overtime regulations, the refusal of Scottish operatives to put into effect constitutional awards; and that the provision stated by the Negotiating Committee in their letter of May 5 with reference to Liverpool be adhered to, including a formal acceptance of the National Working Rule Agreement, constitution and award, of the National Wages and Conditions Council by the Liverpool operatives—have not been carried out, all offers are withdrawn, and that there shall be no further negotiations carried on unless and until all branches of operatives have complied with the conditions contained in the aforesaid letter; and that a national cessation of work shall take place as and from July 5 next for the object of insisting upon the observance of national agreements.

The executive committees of the unions forming the National Federation of Building Trades Operatives met on Tuesday to consider the notice of a lock-out. The following official statement was given:—

The executive councils gave full consideration to the ultimatum declaring a lock-out of building trades operatives on July 5. The conference expressed amazement at the decision of the national employers not to honour the agreement negotiated between the two national committees on June 16. This decision has struck a smashing blow at national negotiations. A committee has been appointed to draft conditions for conducting whatever dispute may take place.

As we go to press it is stated that the operatives' federation has decided to accept the employers' lock-out notices, and not to precipitate matters by declaring a strike. The employers were to hold a meeting late on Wednesday evening to fix the date for the lock-out notices to take effect.

The Stanlee Shipbreaking and Salvage Co., Ltd., H.M. Dockyard, Dover, are supplying teak from old battleships, including blocks for parquet flooring, planed, bevelled, and dovetailed, ready for fixing. The firm has also a large stock of second-hand materials suitable for the building trade. Full particulars will be sent on application.

RATES OF WAGES IN THE BUILDING TRAI

The following are the rates of wages in the building trade in England and Wales. endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occu

	Masons.	Brick-layers.	C'p'ters, Joiners.	Plas-terers.	Slaters.	Plum-bers.	Painters.	Labourers.
Aberdare	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Accrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Altrincham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ashton-under-Lyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barnsley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barrow-in-Furness	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Barry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bath	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bedford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Birkenhead	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Birmingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bishop Auckland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackburn	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Blackpool	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bolton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Bournemouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bradford	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Brentwood	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Bridgwater	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Brighton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Bristol	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burnley	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Burton-on-Trent	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Bury	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Cambridge	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cardiff	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chatham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Chelmsford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Cheltenham	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/1½
Chester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Chesterfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Colchester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Coventry	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Crewe	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Darlington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Derby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Doncaster	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Dudley	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Durham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
E. Glam. (Mon. Vall.)	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Eastbourne	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Exeter	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Folkestone	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Gloucester	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/4½	1/1½
Grantham	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Grays	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Grimsby	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Great Yarmouth	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/0½
Guildford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Halifax	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Harrogate	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hartlepools	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hastings	1/4	1/4	1/4	1/4	1/4	1/4	1/4	1/0
Hereford	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Huddersfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Hull	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Ipswich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Lancaster	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Leamington Spa	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Leeds	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Leicester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Lichfield	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Lincoln	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Liverpool	1/9	1/9	1/8½	1/9	1/9	1/9	1/8½	1/4
Llanelly	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
London	1/8	1/8	1/8	1/8	1/8	1/8	1/7	1/3
Loughborough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Luton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Maidstone	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Manchester	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Mansfield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Merthyr Tydfil	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Middlesbrough	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newcastle-on-Tyne	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Newport, Mon.	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Northampton	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
Norwich	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Nottingham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oakham	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Oldham	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Oxford	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Plymouth	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/5½	1/2
Pontypridd	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Portsmouth	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Preston	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Reading	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rochdale	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Rochester	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Rugby	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2
St. Albans	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
St. Helens	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Scarborough	1/7	1/7	1/7	1/7	1/7	1/7	1/7	1/2½
Sheffield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Shrewsbury	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/1½
Southampton	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southend-on-Sea	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/0½
Southport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
South Shields	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockport	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stockton-on-Tees	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stoke-on-Trent	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Stroud	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4	1/0½
Sunderland	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swansea	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Swindon	1/5	1/5	1/5	1/5	1/5	1/5	1/4	1/0½
Taunton	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/4½	1/1½
Torquay	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/5½	1/0½
Tunbridge Wells	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wakefield	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2
Walsall	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/6½	1/2½
Warrington	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
West Bromwich	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½
Wigan	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/0½
Windsor	1/5	1/5	1/5	1/5	1/5	1/5	1/5	1/2½
Wolverhampton	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/1½
Worcester	1/6	1/6	1/6	1/6	1/6	1/6	1/6	1/2½
York	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/7½	1/2½

(For rates of wages in the Building Trade in Scotland, see page 1043.)

THE SCOTTISH BUILDER

USING PROGRESS IN SCOTLAND

following figures are taken from a Report y issued by the National Housing and Planning Council :—

ate of number of houses to be (Royal Commission on Hous- n Scotland) to deal with existing ing evils	236,000
l housing programme—15,000 a	300,000
s to be built to overtake the ing shortage arising from the of building during the war....	75,000
	611,000

least 30,000 houses should therefore be n Scotland year by year for 20 years.

Secretary for Scotland has issued the ing replies to questions addressed to him ly in the House of Commons by Captain (U., Glasgow, Kelvingrove) on housing otland :—

number of houses under construction in nd at May 31, 1924, by local authorities the 1919 Act was 2,716 ; under the 1923 ,380 ; and under slum clearance schemes, The number of houses for which schemes een approved under these heads, but on work had not then been commenced, was : Act, 628 ; 1923 Act, 5.732 ; and slum nce schemes, 4,454.

number of houses under construction in nd at May 31, 1924, by private enterprise the Housing, &c., Act, 1923, was 2,039. number of houses for which approval of had been granted, but on which work had then been commenced, was 1,474.

e number of houses under construction in and at May 1, 1924, under the Housing, n-planning, &c. (Scotland) Act, 1919, was . The number of houses for which tenders been accepted, though work had not then commenced, was 482 ; and the number to be tendered for was 146.

e extension of time given for the erection of es under the Housing, Town-planning, &c. land) Act, 1919, expires on August 19, 1924. estimated that a further extension of time be required for about 2,000 houses, but it is possible at present to fix a definite date by h these will be completed.

ne numbers of bricklayers employed on the wing State-assisted housing schemes in land as at May 31, 1924, were as under :—

	Journeymen.	Apprentices.	Total.
) Act	325	159	484
3 Act (excluding private enterprise).....	177	99	276
n clearance chemes	66	38	104

n addition, the following number of brickers' labourers were employed : 1919 Act, 454 ; 3 Act (excluding private enterprise), 337 ; m clearance schemes, 122.

The number of plasterers employed on the owing State-assisted housing schemes in otland as at May 31, 1924, were as under :—

	Journeymen.	Apprentices.	Total.
19 Act	172	69	241
23 Act (excluding private enterprise).....	11	4	15
m clearance schemes	43	19	62

In addition, the following numbers of plasers' labourers were employed : 1919 Act, 175 ; 23 Act (excluding private enterprise), 12 ; m clearance schemes, 44.

The following figures show the progress that has been made in State-aided housing schemes in Scotland to May 31, 1924 :—

	Completed.	Under construction.
1919 Act	22,081 ..	2,841
Private subsidy schemes	2,324 ..	—
Slum clearance schemes	452 ..	1,351
1923 Act	200 ..	3,419
	25,057 ..	7,611

Of the total number of houses completed and under construction under the 1923 Act, 1,396 are by the local authorities and 2,223 by private enterprise.

Aberdeen's Stone Houses.

At a meeting of the Aberdeen District Committee recently, the sub-committee reported that in their view the great bulk of the houses being constructed in the district were not for the relief of the inhabitants in the district, but were being constructed by persons mainly resident at present in the city of Aberdeen. They considered that there was no real scarcity of houses of the class contemplated by the Act for the inhabitants af the district, and were of the opinion that houses built of brick were unsuitable for construction in that area, owing to the weather and other conditions. They recommended that the Committee should decline to alter its terms. The Chairman commented on an interview he and the Clerk had with the representatives of the Scottish Board of Health, when they were told that they were the only local authority in Scotland which insisted that houses under its subsidy scheme must be built of stone and lime, and had not given authority to build either in stone or brick. They thought that the Committee were very selfish in keeping back building by ordering the builders not to use brick.

Fires.

Damage estimated at several thousands of pounds was caused by a fire which broke out recently in the works of the Falkirk Iron Company.

NEW BUILDINGS IN SCOTLAND.

Glasgow.—BUILDING.—A sum of over £50,900 has been raised for the erection of a new building in connection with the Glasgow Hospital for Diseases of the Ear, Nose and Throat.

Buckie.—SCHOOL.—The Banffshire E.C. has accepted tenders for the erection of a new High School at Buckie. The total cost is £26,059.

Kirriemuir.—BUILDING.—The Dean of Guild Court has approved of plans of a building to be erected in the Glengate, and which is to be used as a convalescent hospital. Mr. C. D. Souuar, of Dundee, is the architect.

Perth.—HOUSES.—The Finance Committee of the T.C. has requested the clerk to apply to the Board of Health for sanction to borrow £25,000 for the erection of houses at Dunkeld-road.

Nitshill.—HOUSES.—The Housing Committee for the Upper District of Renfrewshire has decided to apply to the Board of Health for permission to erect 205 houses under the provisions of the 1923 Housing, &c., Act. They propose to allocate the houses as follows :—Nitshill, 50 houses ; Neilston, 50 ; Thornliebank, 25 ; Busby, 30 ; and Elderslie, 50.

Coatbridge.—VARIOUS.—The following plans have been passed : Councillor T. Rankin, alterations at 11–15, St. John-street, at an estimated cost of £1,700 ; Mr. G. Jamieson, wine and spirit merchant, 4 and 6, Whiffletstreet, alterations at the cellar and lavatory accommodation at his premises, at an estimated cost of £200 ; Mr. R. Detroia, a shop at the Red Bridge, Sunnyside-road, at an estimated cost of £300 ; Mrs. Pettigrew, 58, Drumpellierstreet, a bungalow in Drumpellier-street, estimated to cost £900 ; Mr. Coia, confectioner, Main-street, a saloon and house three stories high, at an estimated cost of £2,500; and the Rev. Father Geerty, alterations and improvements to St. Patrick's Hall, St. John-street, at an estimated cost of £1,000.

BUILDING TRADE WAGES IN SCOTLAND.*

THE following are the present rates of wages in the building trade in the principal towns of Scotland. Every endeavour is made to ensure accuracy, but we cannot be responsible for errors that may occur :—

	Masons.	Brick layers.	Carpenters, Joiners.	Plasterers.	Slaters.	Plumbers.	Painters.	Brick-layers' Masons' Labourers.	Plasterers' Labourers.
Aberdeen	1/7½	1/8½	1/7½	1/8	1/7½	1/7½	1/4½	1/0½	
Airdrie	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Alexandria	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Arbroath	1/6½	1/6½	1/6½	1/7½	1/6½	1/6½	1/5½	1/1½	
Ayr	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/6½	1/2½	
Bathgate	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/1½ to 1/2½	
Blairgowrie	1/7½	—	1/7½	1/7	1/7	1/7	1/6½	—	
Bo'ness	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Coatbridge	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dumbarton	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Dumfries	1/5	1/5	1/5	1/6	1/5½	1/6	1/5½	1/1 to 1/1½	
Dundee	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Dunfermline	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/2½	
Edinburgh	1/7½	1/7½	1/7½	1/8	1/8	1/7	1/6½	1/2½	
Falkirk	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Fort William	1/7½	1/6½	1/6½	1/7	1/8	1/6	1/6½	1/2	
Galashiels	1/5½	1/5½	1/5½	1/6	1/5½	1/5½	1/6	1/1½	
Glasgow	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Greenock	1/7½	1/7½	1/7½	1/8½	1/7½	1/7½	1/5½	1/0 to 1/2½	
Hamilton	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Hawick	1/5½	1/5½	1/5½	1/6	1/5	1/5	1/5½	1/2	
Helensburgh	1/7½	1/7½	1/7½	1/8½	1/8	1/7½	1/6½	1/2½	
Inverness	1/4	—	1/3½	1/4	1/4½	1/4	1/3½	10½d. to 1/2½	
Kilmarnock	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Kirkcaldy	1/7½	1/7½	1/7½	1/8	1/7½	1/7½	1/6½	1/0	
Kirkwall	1/4½	1/4½	1/3½	1/4	1/4½	1/4	1/3	1/2½	
Lanark	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/5½	1/2½	
Leith	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Motherwell	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Perth	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Stirling								1/2½	
Stirlingshire (Eastern District)	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½	1/2½	
Wishaw	1/7½	1/7½	1/7½	1/8	1/7	1/7	1/6½		

* The information given in this table is copyright. The rates of wages in the various towns in England and Wales are given on page 1042.

CONTRACTS, COMPETITIONS, &c.

Forsome contracts still open, but not included in this List, see previous issues. Those with an asterisk are advertised in this number. Certain conditions beyond those given in the following information are imposed in some cases, such as that advertisers do not bind themselves to accept the lowest or any tender; that a fair wages clause shall be observed; that no allowance will be made for tenders: and that deposits are returned on receipt of a bona-fide tender unless stated to the contrary.

The date given at the commencement of each paragraph is the latest date when the tender, or the names of those willing to submit tenders, may be sent in; the name and address at the end is the person from whom or place where quantities, forms of tender, &c., may be obtained.

BUILDING AND PAINTING.

JUNE 30.—**Barnsley.**—PAINTING.—For the painting and decorating of the News Room of the Free Library, at the Harvey Institute, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

JUNE 30.—**Bedford.**—BUILDINGS.—For the erection of building and reinforced coal bunkers, for the T.C. Electrical Engineer, Bedford. Deposit £1.

JUNE 30.—**Cheadle and Gatley.**—SUB-STATION.—For the erection of a sub-station at Bird Hall-lane, for the U.D.C. Mr. C. H. Wordingham, 33, Brazennose-street, Manchester. Deposit £2 2s.

JUNE 30.—**Douglas.**—HOUSES.—For the erection of 40 houses, for the T.C. Mr. J. E. Teare, 46, Athelstree-street, Douglas. Deposit £1 1s.

JUNE 30.—**Glasgow.**—PAINTER WORK.—For the painter work at Tron Parish Church, &c., Trongate, for the T.C. Office of Public Works, 64, Cochrane-street, Glasgow.

JUNE 30.—**Greenock.**—PAINTING.—For painting in 29 tenements (174 houses), proposed to be erected on Sinclair-street, for the T.C. Office of Public Works, Municipal Buildings, Greenock.

JUNE 30.—**Liskeard.**—REPAIRS.—For repairs, &c., to farmhouse and buildings at Venn Farm, Quethiock, near Liskeard, for the Cornwall C.C. Mr. J. Wilson, County Land Agent, County Hall, Truro. Deposit £1 1s.

JUNE 30.—**London, N.W.6.**—DECORATION AND REPAINTING.—Decoration and repainting work at the Municipal Hospital, Neasden, for the Willesden District Council. Mr. F. Wilkinson, M.Inst.C.E., Engineer to the Council, Town Hall, Dyne-road, Kilburn, N.W.6.

JUNE 30.—**Lumb-in-Rossendale.**—PAINTING.—For painting Providence Baptist Sunday School. Mr. H. Maden, 847, Burnley-road, Lumb-in-Rossendale.

JUNE 30.—**Lymm.**—HOUSES.—For erection of 12 houses in Rush Green and eight houses in Barrs Bank-lane, for the U.D.C. Mr. D. Mort, Surveyor, Council Offices, Lymm. Deposit £1 1s.

JUNE 30.—**Normanton.**—PAINTING.—For painting of Cemetery House. Curator, Cemetery House, Normanton.

JUNE 30.—**North Kensington.**—FLOORING.—For the flooring over and adaptation for use as a Public Hall of the Women's First-class Swimming Bath at Lancaster-road Baths, for the Council of the Royal Borough of Kensington. The Borough Engineer, Town Hall, Kensington, W.8. Deposit £2 2s.

JUNE 30.—**Northwich.**—ALTERATIONS.—For alterations, plumbing, &c., at "The Lymes," for the B.G. Mr. A. Williamson, architect, 21, High-street, Norwich.

JUNE 30.—**Penarth.**—ADDITIONS, &C.—For additions, painting, &c., at Catherine Jenkins Maternity and Child Welfare Institute, for the U.D.C. Mr. J. W. Morris, Clerk, Council Offices, Penarth. Deposit £1 1s.

JUNE 30.—**Rhondda.**—PAINTING.—For painting Dunraven Constitutional Club, Penygraig, Rhondda. Mr. D. Thomas, Secretary.

JUNE 30.—**Rochdale.**—PAINTING.—For the external painting required at the Town Hall, for the T.C. Borough Surveyor, Town Hall, Rochdale.

JUNE 30.—**St. Breock.**—REPAIRS.—For repairs, &c., to cottages and farm buildings, at Burlorne, Tregusse Farm, St. Breock, for the Cornwall C.C. County Land Agent, Truro. Deposit £1 1s.

JUNE 30.—**St. Germans.**—HOUSE.—For erection of house at Downderry, St. Germans. Messrs. Parkes, Lees & Rosedeare, architects, Launceston.

JUNE 30.—**Sheffield.**—PAINTING.—For painting, distempering, &c., at King Edward VII School, School Medical Department, Hawley-street; Attercliffe Clinic, Vicarage-road; and Maud Maxfield Special Schools, East-hill, for the T.C. Mr. F. E. P. Edwards, City Architect, Town Hall, Sheffield.

JUNE 30.—**Triangle.**—FLOORING.—For flooring infants' school, &c. Vicar, Mill Bank, Triangle, Halifax.

JUNE 30.—**Wombwell.**—HOUSE.—For the erection of a house, Summer-lane, Wombwell. Mr. C. F. Moxon, architect, Regent-street South, Barnsley.

JULY 1.—**Barnsley.**—ALTERATIONS.—For alterations to bar at "The Wharncliffe" Hotel, Sheffield-road, Barnsley, for Messrs. Clarkson's Old Brewery, Barnsley, Ltd. Messrs. Dyson, Cawthorne & Coles, architects, 10, Regent-street, Barnsley.

JULY 1.—**Barnsley.**—HOUSE.—For the erection of a detached house, Woodstock-road. Mr. A. P. Haigh, 2, St. Mary's-place, Barnsley.

JULY 1.—**Barnsley.**—HOUSES.—For erection of 94 houses, for the Barnsley Main Colliery Co. Messrs. Senior & Clegg, architects, 15, Regent-street, Barnsley.

JULY 1.—**Bromley Common.**—SHOPS.—Erection of two shops and dwelling houses on the Housing Estate, for the T.C. Mr. Fred. H. Norman, Town Clerk, Municipal Offices, Bromley, Kent. Deposit £2 2s.

JULY 1.—**Cardiff.**—FIREMEN'S QUARTERS.—Tenders (based on firm prices for materials, and subject only to variations owing to fluctuations in wages) for the erection of 20 sets of firemen's quarters and other works at the Central Fire Station, Cardiff, for the Corporation. Mr. T. Peirson Frank, F.S.I., City Architect, City Hall, Cardiff, on production of a receipt from the City Treasurer for a deposit of £2 2s.

JULY 1.—**Cilgerran.**—PAINTING.—For painting interior of Penuel Baptist Church. Miss M. Edwards, Chapel House, Cilgerran.

JULY 1.—**Cork.**—BUILDING WORKS.—For building works and supplies in the Cork district, for one year, for the Commissioners of Public Works. Mr. J. J. Healy, Secretary, Office of Public Works, Dublin. Deposit £1.

JULY 1.—**Dartford.**—EMPLOYMENT EXCHANGE.—Erection of a new employment exchange (Hutting Scheme) at Dartford, for the Commissioners of His Majesty's Office of Works. Contracts Branch, H.M.O.W., King Charles-street, London, S.W.1. Deposit £1 1s. (payable to the Secretary).

JULY 1.—**Devizes.**—HOUSES.—For the erection of eight houses, for the R.D.C. Mr. T. V. Trumper, Surveyor, Devizes.

JULY 1.—**Edinburgh.**—CLOAK ROOM, &C.—For construction of cloak room and lavatories at Bath-street, Portobello, for the T.C. Burgh Engineer, Edinburgh.

JULY 1.—**Glamorganshire.**—PAINTING.—For painting 80 schools in the eastern division, and 85 in the western division, for the Glamorganshire C.C. Mr. T. Mansell Franklen, Secretary of Education Committee County Hall, Cardiff.

JULY 1.—**Hazel Grove.**—SUB-STATION.—For the erection of an electricity sub-station, for the U.D.C. Mr. F. Pidgeon, Clerk, Hazel Grove, near Stockport. Deposit £1.

JULY 1.—**Horbury Bridge.**—PAINTING.—For painting interior of St. John's Church. Vicar, Horbury Bridge.

JULY 1.—**Huddersfield.**—ADDITIONS.—For additions to lodge at Woodfield Cemetery, for the T.C. Borough Architect, Huddersfield.

JULY 1.—**London, N.1.**—ALTERATION AND CONSTRUCTION WORKS.—Alterations to an old building and the construction of a convenience at the Depot, Liverpool-road, N.1, for the Council of the Metropolitan Borough of Islington. Borough Engineer, Municipal Offices, Tyndale-place, Upper-street, N.1.

JULY 1.—**Mountain Ash.**—WALLS, &C.—For building retaining walls, levelling, asphalting, &c., the playgrounds of Trerobart Boys', Girls', and Infants' Schools, Ynysybwl, for the U.D.C. Mr. W. H. Williams, Architect, Town Hall, Mountain Ash.

JULY 1.—**Saltburn-by-the-Sea.**—HOUSES.—For the erection of nineteen parlour-type subsidy houses, for the U.D.C. Mr. Thomas Young, Surveyor, Council Offices, Saltburn-by-the-Sea.

JULY 1.—**Wadworth.**—POINTING.—For pointing and repairing school. Vicar, Wadworth.

JULY 2.—**Borris-in-Ossory.**—REBUILDING.—For restoration of ex-R.I.C. Barracks, for the Commissioners of Public Works. Mr. J. J. Healy, Secretary, Commissioners of Public Works, Dublin.

JULY 2.—**Cork.**—SHED.—For construction of quay transit shed, for the Harbour Commissioners. Mr. J. Long, General Manager, Cork.

JULY 2.—**London, S.W.2.**—DWELLINGS.—Erection of some or all of 86 dwellings to be built on the Bloomfield Estate, Central Hill, West Norwood, S.E.27, for the Council of the Metropolitan Borough of Lambeth. Mr. Bruce Penny, Town Clerk, Lambeth Town Hall, Brixton Hill, S.W.2. Deposit £3 3s.

JULY 2.—**Mold.**—PAINTING.—For painting at four schools, for the Flintshire Education Committee. County Surveyor, County Offices, Mold.

JULY 2.—**Nottingham.**—PAINTING.—For external painting at the School of Art, Waverley-street, for the T.C. City Engineer's Department, Guildhall, Nottingham. Deposit £1.

JULY 2.—**Thorpe, Norwich.**—PAINTING.—External painting of the Main Hospital buildings at Saint Andrew's Hospital, for the Committee of Visitors. Architect and Surveyor, St. Andrew's Hospital, Thorpe, Norwich. Deposit £1 1s.

JULY 2.—**Woolwich.**—PAINTING.—For decorative works, &c., at the Dispensary of the B.G. Mr. Arthur Holden, Clerk, 99, Rectory-place, Woolwich, S.E.18.

JULY 3.—**Edinburgh.**—PAINTING.—For painter work at George Heriot's Hospital, Heriot Watt College and the Trust Offices. Mr. J. Anderson, Superintendent of Works, 20, York-place, Edinburgh.

JULY 3.—**Enfield.**—HOUSES.—Erection of 103 houses in various parts of the district, for the Enfield U.D.C. Mr. H. R. Crabb, A.R.I.B.A., Council Surveyor, Public Offices, Enfield, Middlesex.

JULY 3.—**Gowran.**—STAND.—For the erection of stand at Gowran Park Racecourse. Messrs. Foley & O'Sullivan, 102, Grafton-street, Dublin. Deposit £2.

JULY 3.—**London, N.1.**—FLATS.—Erection of 102 flats on the site adjoining the Municipal Offices, Tyndale-place, Upper-street, Islington, N.1, for the Metropolitan Borough of Islington. Mr. E. C. P. Monson, F.R.I.B.A., Finsbury Pavement House, 120, Moorgate, London, E.C.2. Deposit £5.

JULY 3.—**London, W.9.**—BUILDING WORKS.—Building works, comprising the erection of a mortuary, pathological and post-mortem rooms, at the Infirmary, No. 285, Harrow-road, W.9, in accordance with the specification prepared by their Architect, Mr. H. Percy Adams, F.R.I.B.A. Mr. P. Biddulph Hancock, Clerk to the Guardians, Guardians' Offices, 313–319, Harrow-road, W.9. Deposit £2 2s.

JULY 3.—**Plymouth.**—HOUSES.—For the erection of 134 houses, for the T.C. Mr. J. Wibberley, Borough Engineer, Plymouth. Deposit £2 2s.

JULY 3.—**Salford.**—PAINTING.—For the painting, &c., of portions of Trafford-road and Springfield-lane Bridges. Borough Engineer, Town Hall, Salford.

JULY 3.—**Tralee.**—RE-BUILDING.—For rest... of ex-R.I.C. Barracks, for the Commissioners of Works. Mr. J. J. Healy, Secretary, Office of Works, Dublin.

JULY 4.—**Ballinamore.**—HALL.—For reconst... of Catholic Hall, for the Ballinamore Hall Com... Mr. P. J. Brady, architect, Broomfield House, ...haise, co. Cavan.

JULY 4.—**Binhan.**—COTTAGE, &C.—Erection ... tage and additions to farm premises at Westgate ... Binham, for Norfolk C.C. Mr. V. Playle, ... Land Agent, Shire House, Norwich.

JULY 4.—**Congleton.**—DEMOLITION.—For dem... of building in Hill-street, for the Congleton Co-op... Society. Mr. J. H. Walters, architect, Moody-... Congleton.

JULY 4.—**Crosby.**—SCHOOL.—For erection o... of a new school at Crosby, near Scunthorpe, ... Lindsey C.C. Education Committee. Messrs. Sc... Gamble, architects, Bank-street Chambers, L... Deposit £2 2s.

JULY 4.—**Cwmbach.**—ADDITIONS.—For bu... new billiard-room, gymnasium, baths, &c., ... Workmen's Hall and Institute, Cwmbach, near ... dare, for the Trustees. Messrs. Thomas Roder... Sons, architects, Aberdare.

JULY 4.—**Newmarket.**—HOUSES.—Erection ... brick and slated houses at the Rows, Newmark... the Newmarket Urban District Council, in the c... of Suffolk. Clerk's Office, Newmarket U.D.C., ... Chambers, Newmarket. Deposit £1.

JULY 4.—**Okehampton.**—FLOOR.—For wood ... floor for dining hall at Poor Law Institution, ... B.G. Clerk, Union Office, Okehampton.

JULY 4.—**Pyle (Glam).**—HOUSES.—For er... houses as follows for the Penybont R.D.C.: Si... houses, parlour type, and six houses, non-parlour ... at Pyle; 14 parlour-type houses and six non-pa... type houses at Sarn. Mr. J. Simon Davies, surv... 8, Wyndham-street, Bridgend.

JULY 4.—**Thornhill.**—PAINTING.—For painter ... of 28 houses, for the District Committee. Mr ... Scott, architect, Sanquhar.

JULY 5.—**Frome.**—ADDITIONS.—For constructi... kitchen and scullery at the Infirmary of the B.G. ... W. R. Kent, Clerk, Public Offices, Frome.

JULY 5.—**Hanwell, W.7.**—WOOD FLOORIN... Providing and laying a new deal floor for the di... hall at the Central London District School, Green ... avenue, Hanwell, W.7, for the Managers. Mr. G... P. Morrell, Clerk to the Managers, at the above sc...

JULY 5.—**Lancashire.**—PAINTING.—For paintin... steel bridges and fencing on approaches thereto ... the Lancashire C.C. Mr. W. H. Schofield, Co... Offices, Preston.

JULY 5.—**Macclesfield.**—REPAIRS.—For repair... St. George's Church premises, for the Parochial Ch... Council. Messrs. Whittaker & Bradburn, archit... Macclesfield.

JULY 5.—**Par Station.**—HOUSE.—For the erectio... a residence at Par Station, Cornwall. Mr. Alfre... Cornelius, architect, Truro.

JULY 5.—**Preston.**—PAINTING.—For decorating ... terior of Avingham Institute. Mr. T. R. Jolly, ... cipal, Preston.

JULY 5.—**Shanklin.**—HOUSE, &C.—For erection ... showroom and dwelling-house for the Shanklin Gas ... Mr. F. C. Taylor, Engineer, Company's Offices, Shan...

JULY 5.—**Slaithwaite, &c.**—RENOVATIONS, &C.—... renovations and repairs at schools at Slaithw... Linthwaite, Milnsbridge and Holmforth, for the ... Riding E.C. Mr. W. Healey, Civisional Clerk, ... Macaulay-street, Huddersfield.

JULY 5.—**Truro.**—BUNGALOW.—For the erection ... a bungalow at Daniell-road, Truro. Mr. A. J. Cornel... architect, Truro.

JULY 5.—**Worthing.**—PAINTING.—For painting ... distempering work at the Cookery and Manual Instr... tion Centre, Elm-grove School and St. George's Sch... for the T.C. School Architect, Municipal Offi... Worthing.

JULY 7.—**Accrington.**—PAINTING.—For decoratio... various schools during summer holidays, for the ... Mr. W. J. Newton, Borough Engineer, Accrington.

★JULY 7.—**Beddington Corner.**—HOUSES.—For ... erection and completion of 44 brick-built houses ... Millar's Orchard site, for Beddington and Walling... U.D.C. Mr. S. F. R. Carter, A.M.Inst.C.E., Engi... and Surveyor of the Council, Council Offices, Wall... ton. Deposit £2 2s.

JULY 7.—**Bridgend.**—ALTERATIONS.—For alterat... and additions to Masonic Buildings, for the Ogm... Lodge of Freemasons. Mr. O. D. Davies, archit... 18, King's-terrace, Nantyffyllon. Deposit £2 2s.

★JULY 7.—**Co. Durham.**—HOUSES.—Erection o... houses on Shield Row Housing Estate, for Sta... Urban District Council. Council Surveyor, Mr. ... Routledge, Council Offices, Stanley, co. Durh... Deposit £2 2s.

JULY 7.—**Crowmarsh.**—HOUSES.—For the erectio... 10 houses at South Stoke, for the R.D.C. Messrs. J... T. West & Sons, architects, Abingdon.

JULY 7.—**Dublin.**—ALTERATIONS.—For struct... alterations at the Central Fire Station, Tara-street, ... the T.C. City Treasurer, Exchange Buildings, L... Edward-street, Dublin. Deposit £1.

★JULY 7.—**France.**—CEMETERIES.—Construction ... approximately 33 cemeteries in France, for the Impe... War Graves Commission. Contract, 1924 ... Secretary, Works Department, Imperial War Gra... Commission, 82, Baker-street, London, W.1. Dep... £15 15s.

JULY 7.—**Hampton.**—HOUSES.—For the erectio... 31 houses on the Priory-road site, for the U.D.C. ... S. H. Chambers, Surveyor, Public Offices, Hamp... Middlesex. Deposit £2 2s.

JULY 7.—**Huddersfield.**—HOUSE.—For erection ... house in Thornhill-road, Marsh. Mr. J. Ain... architect, 3, Chapel Hill, Huddersfield.

JULY 7.—**Laleham, near Staines.**—COTTAGES ... Erection of two five-roomed cottages of similar de... with the construction of the necessary drains, ... both in the parish of Laleham, near Staines; also ... the construction near one of the cottages of the su...

...ucture only of a house (approximately 28 ft. by 14 ft. ... 14 ft. high to roof plate) for containing venturi ...ter recorders, for the Metropolitan Water Board. ...ce of the Board, Chief Engineer's Department ...om 201, New River Head, Rosebery-avenue, ...Kenwell, E.C.1. Deposit £5 to the Accountant.

JULY 7.—**Littleton.**—COTTAGES, &c.—For the erec ... of two detached five-roomed cottages and super- ...ucture of venturi meter house, at Littleton Reservoir ...ites, for the Metropolitan Water Board. Chief ...neer's Department, Rosebery-avenue, Clerkenwell, ...C.1. Deposit £5.

JULY 7.—**Penistone.**—ALTERATIONS.—Adaptation of ...ms and buildings at Grammar School. Education ...ces, County Hall, Wakefield.

JULY 7. — **Portsmouth.** — MOSAIC FLOORING.— ...rks to be done and materials to be supplied in ...ying the mosaic flooring to the main corridors of ... Town Hall, for the Portsmouth Borough Council. ...ough Engineer's Office, Town Hall, Portsmouth.

JULY 7. **Truro.**—HOUSES.—For the erection of eight ...-parlour houses at Newham-road, for the T.C. Mr. ...A. Barnes, City Surveyor, Municipal Buildings, ...ro. Deposit £1.

JULY 7.—**West Bromwich.**—CHILDREN'S HOME.— ...ction of children's home at Great Barr Park, in ...rdance with specification and plans prepared by ...srs. Pite, Son & Fairweather, architects, 12, ...eret-street, Queen Anne's Gate, Westminster, ...don, S.W.1. for the Walsall and West Bromwich ...ons Joint Committee. Mr. A. H. Ward, clerk, ... Lombard-street, West Bromwich. Deposit £5 5s.

JULY 8.—**Bolsover.**—HOUSES.—Erection of 30 houses ...h streets and sewers, for the U.D.C. Mr. Hoten, ...veyor, Bolsover. Deposit £1 1s.

JULY 8. — **Greenwich, S.E. 10.** — UNDERGROUND ...VENIENCE.—Construction of an underground ...venience for both sexes, at the foot of Blackheath- ..., Greenwich, for the Council of the Metropolitan ...ough of Greenwich. Borough Engineer, Town Hall, ...enwich, between the hours of 10 a.m. and 4 p.m. ...turdays, 10 a.m. and 12 noon).

JULY 8.—**Houghton-le-Spring.**—SCHOOL.—For the ...ction of secondary school for the Durham C.C. ...srs. Hays & Gray, architects, Wingate.

JULY 8.—**Hove.**—PAINTING.—For the internal ...nting and other work at the East Hove School, ...rigdor-road, and the external painting at the Portland- ...d school. Portland-road, for the T.C. Mr. H. H. ..., surveyor, Town Hall, Hove.

JULY 8.—**Liverpool.**—BUILDING, &C.—Erection of ...ew operating block and adaptation work at Mossley ...l Hospital, Liverpool, for the Commissioners of His ...jesty's Office of Works. Contracts Branch, ...M.O.W., King Charles-street, London, S.W.1. ...posit £1 1s. (cheques payable to the Secretary).

JULY 8.—**London, W.8.**—PAINTING.—Repainting ... street lamp columns and lanterns throughout the ...yal Borough of Kensington, for the B.C. Borough ...gineer and Surveyor, Town Hall, Kensington, W. 8.

JULY 8.—**Mexborough.**—CONVERSION.—For conver- ...n of offices, &c., at Mexborough Garden-street ...ool. Education Dept., County Hall, Wakefield.

JULY 8.—**Middlesex.**—HOUSES.—Erection and com- ...tion of 31 houses on the Priory-road Site, Hampton, ... the Hampton U.D.C. Mr. Sidney H. Chambers, ...veyor to the Council, Public Offices, Hampton, ...iddlesex. Deposit £2 2s.

JULY 8.—**Sheffield.**—TELEPHONE EXCHANGE.— ...ction of a telephone exchange at Beauchief, ...effield, for the Commissioners of His Majesty's Office ... Works. Contracts Branch, H.M.O.W., King ...arles-street, London, S.W.1. Deposit £1 1s. (payable ... the Secretary).

JULY 8.—**Thurnscoe.**—SCHOOL.—For erection of ...ool, for West Riding E.C. Education Dept., ...unty Hall, Wakefield.

JULY 9.—**Edinburgh.**—ARTIFICERS' WORK.—For an ...ificers' works contract in the Lowlands District of ... Scottish Command. Royal Engineer's Office, ... Rutland-square, Edinburgh.

JULY 9.—**Kent.**—BLOCK OF BUILDINGS.—Erection ...a new block of buildings at the Mental Hospital, ...rming Heath, Maidstone, for the Kent County ...ntal Hospitals Committee. Mr. W. H. Robinson, ...Arc., Sessions House, Maidstone. Deposit £10, in ... form of a cheque.

JULY 9.—**Liverpool.**—BATHS, &C.—For erection of ...blic baths and washhouses. Minshull-street, for the ... Land Steward and Surveyor, Municipal Build- ...gs, Liverpool.

JULY 9.—**London, S.W. 18.**—INTERNAL CLEANING. ...Internal cleaning to wards at St. James' Hospital, ...seley-road, Balham, S.W. 12, for the Guardians of ... Wandsworth Union. Mr. F. J. Curtis, Clerk, Union ...ices, St. John's-hill, Wandsworth, S.W. 18.

JULY 9.—**Nottingham.**—TELEPHONE EXCHANGE.— ...ection of a new telephone exchange at Sherwood, ...ttingham, for the Commissioners of His Majesty's ...ice of Works. Contracts Branch, H.M.O.W., King ...arles-street, London, S.W.1. Deposit £1 1s. ...ayable to the Secretary).

JULY 10.—**Glyn-Neath.**—ALTERATIONS.—For altera- ...ns and additions to Old Bethania Chapel. Mr. ... C. Williams, architect, Bryn Eithin, Court Sart, ...ton Ferry.

JULY 10.—**Morriston, Glam.**—TELEPHONE EX- ...ANGE.—Erection of a new post office and telephone ...change at Morriston, Glam, for the Commissioners ... His Majesty's Office of Works. Contracts Branch, ...M.O.W., King Charles-street, London, S.W.1. ...eposit £1 1s. (payable to the Secretary).

JULY 10.—**Northern Ireland.**—COTTAGES.—Erec- ...n in Holywood Urban District, co. Down, of 14 ...ttages for ex-Servicemen, for the Ministry of Finance ... Northern Ireland Irish Sailors and Soldiers' Land ...ust. Secretary, Minister of Finance, Room 35, ... Donegall-square West, Belfast. Deposit £1.

JULY 11.—**Burnley.**—EMPLOYMENT EXCHANGE.— ...ection of an employment exchange at Burnley, for ... Commissioners of His Majesty's Office of Works. ...ntracts Branch, H.M.O.W., King Charles-street, ...ndon, S.W.1. Deposit £1 1s. (payable to the ...cretary).

JULY 11.—**London, E.C.4.**—REPAINTING.—Repainting certain staircases, external work to certain buildings, certain chambers, and alterations and redecorations to the Common Room, in the Temple, E.C.4. Treasury Office, 2, Plowden Buildings, Middle Temple-lane, E.C.4.

JULY 12.—**Bradford.**—HOUSES.—(1) Erection of 10 Class "A" houses and 18 Class "B" houses, Housing Scheme No. 10, Thornton; (2) erection of 52 Class "A" houses and 8 Class "A2" houses, Housing Scheme No. 11, Swain House Estate, for th Corporation of the City of Bradford. City Architect, Town Hall, Bradford.

JULY 12.—**South Shields.**—TRANSFORMER STATION.—For erection of transformer station on Cleadon housing site, for the T.C. Mr. F. T. Sissons, Borough Engineer, South Shields. Deposit £1 1s.

JULY 14.—**Ardrossan.**—PAINTING.—For painting Parish Church and Hall. Mr. T. Guthrie, Clerk to the Trustees, Ardrossan.

JULY 14.—**Ashton-under-Lyne.**—LAUNDRY.—For the reconstruction of the laundry, for the B.G. Mr. G. J. Gibbs, 7, Lune-street, Preston. Deposit £5.

JULY 14.—**Cardiff.**—GYMNASIUM AND HANDICRAFT BLOCK.—Tenders (based on firm prices for materials, and subject only to variations owing to fluctuations in wages), for the erection of a gymnasium and handicraft block at the Canton Municipal Secondary Schools, Cardiff, for the Cardiff Education Committee. Mr. T. Pierson Frank, Architect to the Committee, City Hall, Cardiff. Deposit £2 2s.

JULY 14.—**Hemel Hempstead.**—BUILDING WORKS AND ALTERATIONS.—Erection of new vagrant wards and alterations to existing buildings, at the Hemel Hempstead Poor Law Institution, for the Guardians of the Union. Clerk to the Guardians, 1, The Broadway, Hemel Hempstead. Deposit £1 1s.

JULY 14.—**Hornchurch, Essex.**—DEPOT BUILDINGS. —Erection of lorry sheds, workshops, and cart sheds, including roads, fences, drains, &c., and for repairing and painting existing buildings and cottage at the Depot, Rainham-road, for Romford R.D.C. Mr. W. J. Grant, Surveyor to the Council, 16A, South-street, Romford.

JULY 14.—**Portishead.**—COTTAGES.—Erection of 10 cottages at South-road, Portishead, for the Urban District Council. Mr. F. H. Smith, Surveyor to the Council, Council Offices, Portishead. Deposit £1 1s.

JULY 16.—**London, N.W.1.**—BUILDING WORKS.— Building works required to be executed at the St. Pancras Hospital, 4, King's-road, N.W.1, for the Guardians of the Parish of St. Pancras. Mr. B. Chapman, Clerk to the Guardians, Town Hall, Pancras-road, London, N.W.1.

JULY 16. — **Newcastle - on - Tyne.** — TELEPHONE STATION.—For the erection of a Telephone Repeater Station, for the Commissioners of H.M. Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary, H.M.O.W.).

JULY 16.—**Various Places.**—BUILDING, CLEANING, AND PAINTING.—(1) Building new single wards at Colindale Hospital, Hendon, N.W.9; (2) cleaning and painting works and repairs at various hospitals, for the Metropolitan Asylums Board. Office of the Board, Victoria Embankment, E.C.4. Deposit £1 in respect of each work.

JULY 17.—**Chorley, Lancs.**—POST OFFICE.—For the erection of a Post Office for the Commissioners of H.M. Office of Works, &c. Contracts Branch, H.M. Office of Works, King Charles-street, London, S.W.1. Deposit £1 1s. (cheques payable to the Secretary, H.M. Office of Works).

JULY 18.—**South Walsham.**—ADAPTATIONS.—For adaptations and repairs to Manor Farm House, South Walsham, for the Norfolk C.C. Mr. V. Playle, County Land Agent, Shire House, Norwich.

JULY 23.—**Birkenhead.**—HOUSES.—For the erection of 193 subsidy houses in concrete or brickwork, on the Derby Park Estate, for the T.C. Mr. Chas. Brownridge, Borough Engineer, Town Hall, Birkenhead. Deposit £2 2s.

JULY 24.—**Bournemouth.**—FOUNDATIONS.—Foundations contract of the new pavilion in the Pleasure Gardens, Bournemouth, for the County Borough of Bournemouth. Mr. Herbert Ashling, Town Clerk, Town Hall, Bournemouth. Deposit £1 1s.

NO DATE.—**Adlington.**—HOUSE.—For the erection of house, stables, lodge, and entrance gates at Pedley, Adlington, Cheshire. Mr. H. S. Grimshaw, architect, Willow-street, Accrington. Deposit £1 1s.

NO DATE.—**Aldershot.**—MONUMENTAL WORK.— Erection of a war memorial (stone) in the Municipal Gardens, Grosvenor-road, Aldershot, for the War Memorial Committee of the Borough of Aldershot. Mr. James Neave, Borough Surveyor, Municipal Buildings, Aldershot.

NO DATE.—**Bowburn.**—SHOP, &C.—For house and branch premises. Secretary, Cornforth and Coxhoe Co-operative Society, Coxhoe.

NO DATE.—**Cardiff.**—HOUSES.—Erection of 108 houses at Barry Garden Suburb, Ltd., together with roads and sewers, for the Welsh Town-Planning and Housing Trust, Ltd. Mr. T. Alwyn Lloyd, F.R.I.B.A., Architect to the Trust, 6, Cathedral-road, Cardiff.

NO DATE.—**Carlisle.**—DYE HOUSE.—Erection of dye houses, &c., for Solire D'Fysun Fabrics, Ltd., at Dale-street, Carlisle. Mr. Samuel W. B. Jack, architect, Lloyd's Bank Chambers, Carlisle.

NO DATE.—**Dowlais.**—REPAIRS.—For carrying out the work of repairing Libanus Chapel, Dowlais. Secretary, 2, Graig-terrace, Dowlais.

NO DATE.—**Hertfordshire.**—COTTAGES.—Housing, &c., Act, 1923. Erection of two pairs of parlour-type cottages, at Duxmere, Ross, and two pairs of non-parlour type cottages at Millpond-street, Ross, for the Ross U.D.C. Mr. F. Evan C. Davoll, architect, Gloucester-road, Ross.

NO DATE.—**London, E. 17.**—PREMISES.—Erection of additional premises at Elm House, High-street, Walthamstow, for the Walthamstow Conservative Club. Mr. J. Lyne, Hon. Secretary, Elm House, Walthamstow, E. 17.

NO DATE.—**Perth.**—ADDITIONS.—For new butchery department, Cymmer Branch, Porth, for the Peny-Graig Industrial Co-operative Society. Mr. W. T. Springall, architect's department, Co-operative Wholesale Society, Cardiff.

FURNITURE, MATERIALS, etc.

JUNE 30.—**Lynn.**—MATERIALS.—Supply of 7,500 cub. yds. of hard material for making embankment of road at Lynn, for Norfolk C.C. Mr. S. H. Warren, County Surveyor, Shire House, Norwich.

JUNE 30.—**Rhondda.**—MATERIALS.—Supply of highway materials for six months, for the U.D.C. Mr. E. Taylor, Surveyor, Pentre, Rhondda.

JUNE 30.—**Wakefield.**—MATERIALS.—Supply of hard stone, kerbing, edging, and flags, concrete kerbing and grit sets for the West Riding C.C. Surveyor, County Hall, Wakefield.

JULY 1.—**London.**—VARNISH, &C.—Supply of varnish and white enamel to India Store Department, Branch No. 12, Belvedere-road, S.E.

JULY 1.—**Tottenham.**—PAVING.—For patent stone paving, for a period of six or twelve months, for the U.D.C. Mr. Reginald C. Graves, Clerk, Town Hall, Tottenham, N. 15.

JULY 1.—**Winsford.**—MATERIALS.—For supply of road materials, kerbs, pipes, &c., to the U.D.C. Mr. J. Wilkinson, surveyor, Winford.

JULY 3.—**Cleethorpes.**—STONEWARE PIPES, &C.—For the supply of stoneware pipes and W.I. fencing, for bathing pool. Mr. Leonard W. Pye, Surveyor, Council House, Cleethorpes.

JULY 3.—**Manchester.**—CHAIRS.—Supply of 400 Windsor chairs to the Board of Guardians. Master, Withington Institution, Manchester.

ENGINEERING, IRON AND STEEL.

JUNE 30.—**Halifax.**—PIPES, &C.—For supply of special pipes and castings required in Waterworks Department for nine months. Mr. E. P. Brook, Waterworks Dept., Halifax.

JUNE 30.—**St. Helens.**—BRIDGE.—For erection of movable bridge over canal at Redgate, for the T.C. Mr. A. W. Bradley, Borough Engineer, St. Helens.

JULY 1.—**Chili.**—HARBOUR WORKS.—For the work of improvement of the Harbour of Constitucion, Chili. Chilian Legation, 22, Grosvenor-square, W.1.

JULY 1.—**Kirkcudbright.**—BRIDGE.—For erection of a steel girder and concrete bridge over the River Fleet at Nether Ruscoe, for the C.C. Mr. J. Shepard, Surveyor, Creetown.

JULY 1.—**London, W.C.**—HEATING.—Extensions of the existing heating apparatus in the South Wing of the College buildings, according to detailed designs and specifications at the University College, Gower-street, W.C. Mr. Arthur H. Barker, Consulting Engineer, 100, Victoria-street, S.W.1. Deposit £5 5s.; £4 4s. will be returned on the return.

JULY 3.—**Gravesend.**—PADDLING POOL, &C.—For the construction of a 30 ft. by 30 ft. paddling pool and four groynes on the foreshore, Gordon Promenade, for the T.C. Borough Surveyor, 4, Woodville-terrace, Gravesend.

JULY 3.—**Hornsey.**—FENCING.—For the erection of 682 yards of wrought iron railing and gates at Priory-road Recreation Grounds, for the B.C. Mr. E. J. Lovegrove, Borough Engineer, Town Hall, Highgate.

JULY 3.—**Penge, S.E.20.**—HEATING SYSTEM.—For the installation of a low-pressure heating system at Melvin-road School, for Penge U.D.C. Education Committee. Mr. H. W. Longdin, Surveyor to the Committee, Town Hall, Anerley, S.E. 20. Deposit £1 1s., to Mr. C. G. Liddle, Clerk to the Committee.

JULY 4.—**London.**—BRIDGES.—Supply of girder bridges to India Store Department. Branch No. 16, Belvedere-road, S.E.

JULY 5.—**Colne.**—BRIDGE.—For widening of Wanless Water Bridge, near Colne, for the Lancashire C.C. Mr. W. H. Schofield, County Surveyor, Preston.

JULY 5.—**Kirkby Lonsdale.**—BRIDGE.—For reconstruction of Ellersbeck Bridge, near Kirkby Lonsdale, for the Lancashire C.C. Mr. W. H. Schofield, County Offices, Preston.

JULY 10.—**Thurnscoe.**—RESERVOIR.—For the construction of a covered concrete service reservoir to hold 600,000 galls. of water, for the U.D.C. Messrs. W. H. Radford & Son, engineers, Albion Chambers, King-street, Nottingham. Deposit £5 5s.

JULY 14.—**Keighley.**—FOOTBRIDGE.—For construction of steel footbridge at Lower Laithe Reservoir, for the T.C. Mr. M. R. Barnett, Engineer, Town Hall, Keighley.

JULY 14.—**Keighley.**—IRON STANDARDS, &C.— Supply of cast and wrought iron standards, tube hand railing, &c., at Lower Laithe reservoir, for the T.C. Mr. M. R. Barnett, Engineer, Town Hall, Keighley.

JULY 14.—**Keighley.**—STEEL JOISTS.—For supply of rolled steel joists and other steelwork for Bracken Bank Reservoir Works, for the T.C. Mr. M. R. Barnett, Engineer, Town Hall, Keighley.

JULY 14.—**S. Africa.**—STEEL ROOFING.—For supply of a structural steel umbrella roof, for the S. African Railways and Harbours. Department of Overseas Trade, 35, Old Queen-street. Ref. AX/1042.

JULY 15.—**Egypt.**—WATER FILTERS.—For the installation of water filters, pipe lines, &c., at Assouan, for the Egyptian Ministry of the Interior. Dept. of Overseas Trade, 35, Old Queen-street, S.W. Ref. AX/1043.

JULY 15.—**Fiddown.**—BRIDGE.—For the reconstruction of the destroyed portion of the road bridge over the River Suir, at Fiddown, for the Great Southern and Western Railway Co. Chief Engineer, Inchicore, Dublin.

JULY 16.—**Aberdeen.**—RESERVOIR.—For the construction of a concrete covered service reservoir of a capacity of 7 million gallons at Airy Hall, near Aberdeen, for the T.C. Mr. George Mitchell, Water Engineer, 41½ Union-street, Aberdeen. Deposit £5.

JULY 21.—**Fort William.**—PIER.—For construction of a reinforced concrete pier and approach viaduct and works at Fort William, for the British Aluminium Co. Messrs. S. S. Meik & Buchanan, 16, Victoria-street, S.W. Deposit £5.

ROAD, SANITARY, AND WATER WORKS.

JUNE 30.—**Abingdon.**—ROADS, SEWERS AND DRAINAGE WORK.—Construction of a road and the laying down of sewers in connection with the Housing Scheme extension, for the Borough of Abingdon, at Boxhill, Abingdon. The Engineer, Mr. Raphael V. Hall, Municipal Offices, Abbey House, Abingdon. Deposit £1 1s.

JUNE 30.—**Barnsley.**—ROADS.—For making up Bond-road, Clarke-street and Cross-street, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

JUNE 30.—**Barnsley.**—SANITARY.—Conversion of privies into water closets in the Carlton-lane area of Smithies, for the T.C. Borough Engineer, Fairfield House Offices, Barnsley.

JUNE 30.—**Birkenshaw.**—ROADS.—For laying 1,480 lineal yards of stone kerb and 1,480 yards of 6 in. sets, for the U.D.C. Mr. J. Hinchliffe, Surveyor, Birkenshaw.

JUNE 30.—**Chipping Sodbury.**—SEWERS.—For laying new sewers, drain connection to houses, and construction of new sewage disposal works at Winterbourne Down, for the R.D.C. Mr. W. H. Williams, Sanitary Inspector, Council Offices, Chipping Sodbury.

JUNE 30.—**Easthampstead.**—DRAINAGE.—For construction of main drainage system at Binfield, for the R.D.C. Messrs. H. Humphries & Sons, 28, Victoria-street, S.W. Deposit £3 3s.

JUNE 30.—**Fife.**—SEWERS.—For laying 685 yards of 9 in. diameter fireclay sewers, &c., for the County of Fife, Dunfermline District Committee. Mr. H. F. Hodge, District Engineer, County Buildings, Dunfermline.

JUNE 30.—**Gravesend.**—DRAINS.—For picking up existing house drains and connecting to the public sewers, for the T.C., for one year. Main Drainage Engineer, 4, Woodville-terrace, Gravesend. Deposit 10s.

JUNE 30.—**Hawksclough.**—ROADS.—For widening of Halifax main road, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

JUNE 30.—**London.**—PAVING.—For paving with wood, asphalte or natural rock asphalte on concrete, carriageways and footways, for the Streets Committee of the Corporation of London. The City Engineer, Guildhall, E.C.

JUNE 30.—**London.**—PAVEMENT REPAIRS.—For repairs to the pavements of Blackwall and Rotherhithe Tunnels, for the L.C.C. The Chief Engineer of the Council, Old County Hall, Spring-gardens, S.W.1. Deposit £3.

JUNE 30.—**Mirfield.**—ROAD.—For the reconstruction of a road at Hopton, Mirfield. Messrs. C. H. Marriott, Son & Shaw, Church-street Chambers, Dewsbury. Deposit £1 1s.

JUNE 30.—**West Riding of Yorks.**—ROADS.—For asphalte surfacing works in (1) Stanley Urban District and (b) Birstall Urban District, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1 each contract.

JUNE 30.—**Wetherby.**—BOREHOLE.—For sinking a borehole at Bardsey, for the Wetherby and District Waterworks Co. Mr. F. J. Rodwell, Engineer, 37 and 38, Prudential Buildings, Leeds. Deposit £1 1s.

JUNE 30.—**Whitwood.**—SEWAGE.—Provision of sewage lifting apparatus, construction of manhole chambers, &c., for the U.D.C. Mr. S. Stead, Clerk, Council Offices, Whitwood.

JUNE 30.—**Wortley.**—ROADS.—For widening of the Wadsley, Langsett and Sheffield main road at Wharncliffe Side, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

JULY 1.—**Brentford.**—ROADS.—For surfacing various streets on housing estate, for U.D.C. Mr. W. J. W. Westlake, Surveyor, Clifden House, Brentford.

JULY 1.—**Hertfordshire.**—ROADS.—For construction of Barnet by-pass road between the south county boundary near Barnet Gate and the Great North-road near Stanborough on the north, for the C.C. Mr. A. Ernest Prescott, County Surveyor, Hatfield. Deposit £10 10s.

JULY 1.—**Maldens and Coombe.**—ROADS.—For making-up Beech-grove, Chestnut-grove (part of), Mount-road, and Mount Pleasant-road, for the U.D.C. Mr. R. H. Jeffes, Surveyor, Council Offices, New Malden, Surrey. Deposit £2 2s.

JULY 1.—**Margate.**—ROADS.—For making a new road, 80 ft. wide, east of Palm Bay, Margate, for a length of 1,116 ft., for the T.C. Borough Surveyor's Office, 13, Grosvenor-place, Margate.

JULY 1.—**Vaynor.**—ROAD RECONSTRUCTION.—For reconstruction of the Vaynor road between Vaynor Quarries and Vaynor House, for the R.D.C. Mr. W. J. Davies, surveyor, Inglenook, Cefn Coed, near Merthyr Tydfil.

JULY 2.—**Cardiff.**—SEWERS.—Construction of about 300 lin. yds. of earthenware pipe sewers, &c., for the R.D.C. Mr. William Farrow, Surveyor, Park House, 20, Park-place, Cardiff.

JULY 2.—**Hove.**—ROADS.—For making-up part of Palmeira-avenue and part of Eaton-road, for T.C. Mr. H. H. Scott, Borough Surveyor, Town Hall, Hove.

JULY 2.—**Huyton-with-Roby.**—ROADS.—For reconstruction of Broad Green-road, for the U.D.C. Mr. H. Finister, Surveyor, Huyton, near Liverpool.

JULY 2.—**Waterloo-with-Seaforth.**—ROADS.—For excavating, sewering and pitching, &c., in two streets on the north side of Brooke-road, Waterloo, for the U.D.C. Mr. J. R. Fothergill, Surveyor, Town Hall, Waterloo, near Liverpool.

JULY 2.—**Whitchurch (Glam).**—SEWERS.—For construction of about 300 lineal yds. of earthenware pipe sewers, with manholes, &c., at Wenallt-road, for the Cardiff R.D.C. Mr. William Farrow, 20, Park-place, Cardiff.

JULY 3.—**Belfast.**—TRAMWAY TRACK.—For construction of ¾ mile, and reconstruction of 10½ miles of single tramway track. General Manager, Corporation Tramways, Sandy-row, Belfast. Deposit £5 5s.

JULY 3.—**Manchester.**—ASPHALTING.—For covering terrace flats in natural rock asphalte at the Withington Institution, Nell-lane, West Didsbury, for the B.G. Mr. Hargreaves, Superintendent of Works, Union Offices, All Saints, Manchester.

JULY 3.—**Surbiton.**—ROADS.—For street works at Avenue South, Surbiton, for the U.D.C. Surveyor, Council Offices, Surbiton.

JULY 4.—**Cowbridge.**—SEWERAGE.—For the construction of main sewers with a sea outfall at Llantwit Major, for the R.D.C. Messrs. Thomas & Morgan & Partners, 23, Gelliwastad-road, Pontypridd. Deposit £5 5s.

JULY 4.—**Hipperholme.**—ROADS.—For paving of Bradford and Huddersfield main road at Hipperholme, for the West Riding C.C. West Riding Surveyor, County Hall, Wakefield. Deposit £1.

JULY 4.—**Llantwit Major (Glam).**—SEWER CONSTRUCTION.—For constructing, for the Cowbridge R.D.C., of main sewers with a sea outfall at Llantwit Major. Messrs. Thomas & Morgan & Partners, engineers, Pontypridd. Deposit £5 5s.

JULY 4.—**Renfrew.**—ROADS.—For widening section 1 of Kilmarnock-road, for the Renfrew C.C. Messrs. Kyle & Frew, 227, West George-street, Glasgow. Deposit £2 2s.

JULY 4.—**Renfrew.**—ROAD WIDENING.—For widening Section 2 of Kilmarnock-road, for the Renfrew C.C. Mr. J. Cowan, 204, St. Vincent-street, Glasgow. Deposit £2 2s.

JULY 5.—**Dingle.**—SEWAGE, &C.—For construction of sewerage system and water supply system for the town of Dingle, Co. Kerry, for the R.D.C. Mr. P. H. McCarthy, engineer, 26, Lower Leeson-street, Dublin. Deposit £2 2s.

JULY 5.—**Honley.**—ROADS.—For paving works, for the U.D.C. Mr. H. N. Royston, Surveyor, Honley. Deposit £1.

JULY 5.—**Kendal.**—ROADS.—For laying down a sample length of reinforced concrete road, for the Westmorland C.C. Mr. C. E. Hines, County Surveyor, 12, Lowther-street, Kendal.

JULY 5.—**Tividale.**—SEWAGE WORKS.—For the construction of new storm water and settling tanks, filter beds and other works at Sewage Outfall Works, Tividale, near Dudley, for the Upper Stour Valley Main Sewerage Board. Mr. William Fiddian, 13, Church-street, Stourbridge. Deposit £3 3s.

JULY 7.—**Barnes.**—ROADS.—For making-up Muirdown-avenue, Bracken-gardens, Shottfield-avenue, Treen-avenue, and Westmorland-road, for the U.D.C. Mr. G. Bruce Tower, Surveyor, Mortlake, S.W.

JULY 7.—**Doncaster.**—ROADS, &C.—For roads and sewer construction on Warmsworth-road housing site, for the T.C. Mr. R. E. Ford, Housing Surveyor, Doncaster. Deposit £2 2s.

JULY 7.—**Edinburgh.**—SEWER AND SEAWALL.—For construction of intersecting sewer and sea wall, Portobello to Seafield, for the T.C. Burgh Engineer, City Chambers, Edinburgh.

JULY 7.—**Lochgelly.**—WATER MAINS.—For supply and laying of steel and cast-iron mains, for the T.C. Messrs. Hunter, Duff & Middleton, 42, Frederick-street, Edinburgh. Deposit £2.

JULY 7.—**London.**—WATER MAINS.—For the laying and jointing of 42 in. and 36 in. diameter cast-iron mains between Cricklewood and Marble Arch, for the Metropolitan Water Board. Mr. Henry E. Stilgoe, Chief Engineer, New River Head, Clerkenwell, E.C.1. Deposit £20.

JULY 7.—**Wharfedale.**—SEWER.—Construction of new sewer, Pool Bank, near Leeds, for the R.D.C. Mr. Charles E. Barrow, surveyor, Manor-square, Otley.

JULY 8.—**Buxton.**—ROADS.—For the making-up of New High-street and Glebe-road, Fairfield, for the T.C. Mr. F. Langley, Borough Engineer, Town Hall, Buxton.

JULY 9.—**Carlisle.**—ROADS.—For widening section of Whitehaven to Barrow main road, for the Cumberland C.C. Mr. G. O. Lockwood, County Surveyor, Carlisle. Deposit £1.

JULY 9.—**East Ham.**—TRAMWAY.—For reconstruction of the tramway and highway in High-street North, Forest-drive, and Aldersbrook-road, for the T.C. Mr. J. Birch, Borough Engineer, Town Hall, East Ham. Deposit £2 2s.

JULY 9.—**Millom.**—ROADS.—For widening the Whitehaven to Barrow main road, near Millom, for the Cumberland C.C. Mr. G. O. Lockwood, County Surveyor, The Courts, Carlisle. Deposit £1.

JULY 14.—**Edinburgh.**—ROADS.—For the construction of Section J-K, Newbridge to Edinburgh, Contract No. 7, of a new road from Glasgow to Edinburgh, for the T.C. Mr. D. A. Donald, 249, George-street, Glasgow. Deposit £3 3s.

JULY 14.—**Gelligaer.**—SEWERS.—For the construction of about eleven miles of 15 in. 12 in. and 9 in. diameter glazed stoneware and cast-iron pipe sewers, &c., for the U.D.C. Messrs. Willcox & Raikes, 63, Temple-row, Birmingham. Deposit £7 7s.

JULY 14.—**Rugby.**—WATER MAINS.—For providing and laying 3,124 lin. yds. of 4 in. and 3 in. cast-iron water mains, &c., on the estates of the Rugby Freehold Land Society, for the R.D.C. Mr. J. E. Weeks, Surveyor, Hillmorton Paddox, Rugby. Deposit £3 3s.

JULY 14.—**York.**—ROADS.—For road and sewer work at Salisbury-road, for the T.C. Mr. F. W. Spurr, City Engineer, Guildhall, York. Deposit £2 2s.

JULY 15.—**Benfieldside.**—PAVING.—For sett paving, flagging, &c., on the Lanchester Shotley Bridge main road, for the U.D.C. Mr. T. Knox, Surveyor, Council Offices, Blackhill, Co. Durham.

★JULY 15.—**Wolverhampton.**—TAR PAVING.—Repairs to school playgrounds, tar paving and rock asphalte, for the Wolverhampton Education Committee. Director of Education, North-street, Wolverhampton.

Competitions.

(*See Competition News, page* 1014.)

Auction Sales, Tenders, etc.

JUNE 30 AND FOLLOWING DAY.—**London, E.8.**—Messrs. Charles R. Davis & Co. will sell, at Nos. 47 and 49, Hackney-grove, Mare-street, Hackney, E.8 (by kind permission), large assemblage of valuable bank, office and shop fittings, furniture, fitments, &c. Auctioneers, 285, Borough High-street, S.E.1.

JULY 3.—**Harpenden, Herts.**—Messrs. Douglas Stratford & Co. (E. Douglas Stratford, F.A.I.) will sell *re* The Harpenden Building Co., Ltd., in voluntary liquidation, Harpenden, Herts, machinery, plant, stock-in-trade and effects of builders and decorators. Auctioneers, 31, King-street, Luton.

★JULY 8, 9, AND 10.—**Hayes.**—Messrs. R. & Mack will sell, by instruction of Messrs. Lyon & (Dudley), Ltd., plant and machinery, corrugated piping, timber and miscellaneous stores, &c., at H C.S.D. Depot, Middlesex. Auctioneers, "Academ Arts," Blackett-street, Newcastle-upon-Tyne.

JULY 8.—**Tunbridge Wells.**—Messrs. Hampton Sons will sell, at the St. James's Estate Rooms, 20, James's-square, London, S.W., freehold prope Tunbridge Wells, in the premier position at the co of important cross roads, comprising over one a Auctioneers, 20, St. James's-square, S.W.1.

JULY 8.—**Willesden Green, N.W.**—Messrs. Er Beard will sell valuable premises, comprising spac yards, workshops, offices, &c., with the plant machinery, situate Nos. 3, 5, 7, 9, and 11, Gra road, Willesden Green, will be sold on the premise one lot. Auctioneer's Offices, 109, Great Russ street, Bedford-square, W.C.1.

★JULY 9.—**Chedworth.**—Messrs. Bruton Knox & Co. are instructed by the Right Hon. the Ear Eldon to sell, at the Estate Yard, Compton Cas Stowell Park Estate, close to the Roman Villa, Ch worth, the valuable timber machinery and build materials, oak, deal, teak, and other timbers, miscellaneous effects. Auctioneers, Albion Chamb Gloucester.

★JULY 9.—**Langley, Bucks.**—Messrs. D. Smith Garrard (amalgamated with Messrs. H. & R. L. Col in conjunction with Messrs. Robt. W. Mann & S 12, Lower Grosvenor-place, S.W.1, will sell, at London Auction Mart, 155, Queen Victoria-str E.C.4, freehold property, "Langley Broom, "a 37 acres. This land can be developed without de ment to the amenities of the residence, toget with two cottages, stabling, garage, gardens a grounds. Auctioneers, 4 and 5, Charles-street, James's-square, London, S.W.1.

★JULY 10.—**Bookham (Surrey).**—Mr. C. E. Cl will sell, without reserve, at Eastwick Buildin Lower-road, Great Bookham, Surrey, large quanti of bright sound square timbers, quartering, weath boards, &c. Auctioneer, Beddington House, n Croydon, Surrey.

★JULY 16.—**Horley (Surrey).**—Mr. C. E. Clark w sell, without reserve, at Market Field, Horley, Sur (near "King's Head" Hotel), timbers and builde effects. Auctioneer, Beddington House, near Croyd Surrey.

JULY 19.—**Bucks.**—Mr. G. Francis Duck will se unless previously disposed of, three wooded buildi sites, South Park, Gerrard's Cross, suitable for count residences. Freehold; main drainage. Auctione Gerrard's Cross.

★JULY 22.—**Deptford Green, S.E.**—Messrs. Fulle Horsey, Sons & Cassell will sell, by order of the Dir tors of A. Lloyd & Sons, Ltd., wood-box and packin case making machinery and stock, on the premises, 11 o'clock. Auctioneers, 11, Billiter-square, E.C.3.

Public Appointments.

★JUNE 30.—**Aberdeen.**—Director of housing an Superintendent of Town's Properties required by th T.C. of the City of Aberdeen. Applicants to be arch tects. Mr. James W. Davidson, Town Clerk, Tow House, Aberdeen.

JUNE 30.—**Birmingham.**—Chief Architectura Assistant required by the City of Birmingham Educa tion Committee. Mr. P. D. Innes, Chief Educatio Officer, Education Office, Margaret-street, Birmingham

JUNE 30.—**Skipton.**—Architectural and Gener Assistant in the Engineer and Surveyor's Departmen of the Skipton U.D.C. Mr. A. E. W. Aldridge, Engine and Surveyor to the Council, Town Hall, Skipton, wit copies of three recent testimonials.

JUNE 30.—**Wolverhampton.**—Engineering Assi tant required by the Corporation of Wolverhampton must have qualified by examination through th Institution of Civil Engineers, the Municipal an County Engineers, or similar Institution. Experienc in town planning is a desirable qualification. M George Green, Borough Engineer, Town Hall, Wolver hampton.

★JULY 5.—**Wakefield.**—Quantity Surveyor's Assi tant required by C.C. of the West Riding of Yorkshir Mr. Louis J. Newton, M.S.A., County Quantity Su veyor, County Hall, Wakefield.

JULY 5.—**Wimbledon, S.W.**—CLERK OF WORKS.—Clerk of Works in connection with the building by private contractor of 87 houses, on the Council's Estat Lower Downs-road. Borough Engineer and Surveyo Town Hall, Wimbledon, S.W.18.

JULY 10. — **London, W.1.** — FORTHCOMIN EXAMINATION.—Male cartographer in the Hydr graphic Department of the Admiralty (19–25). T Secretary, Civil Service Commission, Burlington gardens, London, W. 1.

★JULY 12.—**Staffordshire.**—Draughtsman in th Architect's Department required by the Staffordshi Education Committee. Mr. Graham Balfour, Direct of Education, County Education Offices, Stafford accompanied by three recent testimonials.

★NO DATE.—**Gold Coast.**—Foreman of Works (nin required by the Government of the Gold Coast, for th Public Works Department, for two tours each 12–18 months' service. Must be single and have ha experience on road and bridge works, &c. Apply a once to the Crown Agents for the Colonies, 4, Millban London, S.W.1, quoting M/12880.

★SEPTEMBER.—**London, S.E.1.**—(*a*) Lecturer architecture and building; (*b*) instructor in brick work, required by the Governors of the Borough Poly technic Institute, for two evenings a week. Mr. J. W Bispham, Principal, Borough-road, London, S.E.

★NO DATE.—**London, W.1.**—Lecturer required the School of Architecture and Building, The Poly technic, 309, Regent-street, W.1. Application for from Director of Education.

★NO DATE.—**London, S.E.1.**—Surveyor required measure up work to be executed under a schedule prices and to check accounts for same. The Chi Engineer, Waterloo Station, S.E.1.

PROPOSED NEW BUILDINGS & OTHER WORKS *

In these lists care is taken to ensure the accuracy of the information given, but it may occasionally happen that, owing to building owners taking the responsibility of commencing work before plans are finally approved by the local authorities, "proposed" works at the time of publication have been actually commenced. Abbreviations: T.C. for Town Council; U.D.C. for Urban District Council; R.D.C. for Rural District Council; E.C. for Education Committee; P.G. for Board of Guardians; B.C. for Borough Council; P.C. for Parish Council; M.H. for Ministry of Health; M.T. for Ministry of Transport; and B.E. for Board of Education.

ABERDEEN.—Plans passed by T.C.: House, Anderson Drive, for Mr. William E. Gauld, architect; house, Queen's-road, for Mr. A. B. Hutchison (per Messrs. Brown & Watt, architects): reconstruction of 805, Great Northern-road, for Mr. Alexander Webster.

ABERYSTWYTH.—The T.C. is to erect six dwellings at Gogerddau-place. Mr. T. W. Powell, shop and house at Portland-road site. Plans passed by T.C.: New shop and premises in Portland-road, for Mr. D. Williams; new mains in several streets, for the Electric Light Co.; new station buildings, for the G.W.R.

ALDEBURGH.—The R.C. congregation are proposing to erect a new church, estimated to cost £5,000.

ALTRINCHAM.—A sub-committee of the E.C. recommends the establishment of an open-air school for invalid children, and that the C.C. should provide the school.

ARMFIELD.—The U.D.C. have approved of plans for the erection of 26 houses at Carmyers, for the South Derwent Colliery Co. The U.D.C. themselves also propose to erect further houses at Catchgate, subject to sanction of the M.H.

ASHBURTON.—The Devon C.C. has appointed a sub-committee to consider proposals from the Grammar School Governors with regard to the provision of a new house for the head-master, with accommodation for boarders.

ASHTON-ON-RIBBLE.—The Parochial Church Council of the Parish Church are proposing to erect a mission church and institute, for the district of Ingol, on a site in Tag-lane.

BAKEWELL.—The committee of the Bakewell and District War Memorial Cottage Hospital have decided to carry out a scheme of extensions by providing an additional wing with the additional accommodation for the staff, at an estimated cost of £1,000.

BARNSLEY.—Plans passed by T.C.: W. Storrs, bungalow, Westbourne-grove; W. Storrs, two bungalows, Wombwell-lane, Stairfoot; James Hartley, house, Burton-road; F. W. Oxley, eight houses, Dodworth-road and Keresforth-avenue; R. Goodworth, two houses, Dodworth-road.

BARNSTAPLE.—Devon C.C. has prepared plans for a pavilion at the grounds of the Hawley Sanatorium, so that 24 additional patients may be accommodated, at an estimated cost of £1,936.

BARROWFORD.—Messrs. J. & J. H. Boothman are proposing to erect three pairs of semi-detached houses in Gisburn-road.

BELFAST.—Plans passed: House, Wolfhill-road, for Mr. D. Macveigh (architect, Mr. C. Macalister); 14 houses, Moonstone-street, for Mr. Francis Curley (architect, Mr. C. Macalister); four houses on Belmont-road, for Mr. W. J. Robinson (architect, Mr. John MacGeagh); new premises in Divis-street, for the Northern Banking Co. (architects, Messrs. Hobart & Heron); villa on Castlefield-road, for Mr. A. W. Macmillan (architect, Mr. James Scott; two villas, Kincora-avenue, for Mr. R. Hewett (architects, Messrs. Taggart & Silk); six houses, Grasmere-gardens, for Mr. T. McCullough; two villas, Irwin-avenue, for Mr. G. H. Kingham (architect, Mr. C. Aickin); eight villas in Evelyn-gardens, for Mr. R. McWilliam (architect, Mr. C. A. Aickin); three shops and stores on Springfield-road, for Mr. E. Porte (architect, Mr. J. W. C. Porte); motor garages and stables on Beersbridge-road, for Messrs. W. & E. J. Garrett; three shops and public hall on Old Lodge-road, for Mr. Walter Miskimmin (architect, Mr. R. S. Hill); villa on Innisfoyle-road, for Mr. S. Cumming (architect, Mr. A. F. Lucy); 14 villas on North-road, for Messrs. C. & J. Black (architects, Messrs. Blackwood & Jury); two villas, Sans Souci Park, for the Misses M. Woods and J. Bailey (architect, Mr. R. Lynn); villa in Knockburn Park, for Mrs. E. Bartley (architects, Messrs. Munce & Kennedy); two villas on Barnet's-road, for Mr. R. J. Bell; shop and house in McCandless-street, for Mr. H. O'Neill (architect, Mr. W. J. Convery).

BINGLEY.—Plans passed: New chimney at Victoria Mills.

BIRKENHEAD.—The T.C. propose to erect 100 houses on the Hoylake-road estate.

BLACKBURN.—The Corporation are proposing to erect new public baths with up-to-date wash-houses on a site at Mill Hill.

BLACKPOOL.—A drainage scheme is under consideration by the C.C. at Marton Moss, estimated to cost £2,000.—The committee of the Cleveleys Bowling Club are undertaking a scheme for extensions to their club pavilion, at a cost of £6,000.—The Union Bank of Manchester, Ltd., are proposing extensive alterations to premises in Birley-street (plans by Mr. H. Wade, architect).—It is proposed to commence with the erection of the St. Andrew's War Memorial School at Cleveleys, estimated to cost £8,000.

BLAYDON.—The local Education Sub-Committee has passed a resolution requesting the Durham C.E.C., in view of the inadequacy of accommodation at the Secondary School, to take immediate steps to secure a site for the erection of another secondary school for the western end of the district, Hookergate being suggested as a suitable centre.—The U.D.C. have approved plans for the conversion of the Wesleyan Chapel, Wesley-place, Blaydon, into shops, garage, and meeting hall, for Mr. J. Roberts.

See also our List of Contracts, Competitions, etc.

BLYTH.—The need for the provision of a public abattoir is urged by the Medical Officer of Health.

BOLTON.—The parishioners of St. Bede's, Morris Green, are raising funds for the erection of a new church on a site in Smethurst-lane, estimated to cost £8,000.—Plans have been approved for rebuilding the chapel in Foundary-street, for the Wesleyans, estimated to cost £1,500.—An addition to the accommodation is to be made to the "Commercial" Hotel, Bradshawgate, by the erection of a new wing.

BRIDGEND.—Plans passed by U.D.C.: Conversion of Bridgend Public Library to the open-access system.—The U.D.C. is negotiating for a loan to carry out the proposed construction of a bridge at Newbridge Fields.

BRIGHOUSE.—Plans passed by T.C.: W. Jagger, two houses, Crowtrees-lane; A. Heywood, bungalow, Woodhouse.

BRIGHTON.—The elaborate scheme for rebuilding Brighton Aquarium has been passed by the General Purposes Committee, who recommend it to the Council. The cost is estimated at £120,000.

BROMSGROVE.—The Stourbridge-road School is to be remodelled, at a cost of £2,900.

BURY.—A plan has been submitted to the M.T. for an additional tramway siding and cross-over near Kay's-gardens.—Sanction has been received from the E.C. to borrow £36,647 for circulating water pipes, building works, &c.—The Elton Conservative Club are proposing painting and decorating their club premises.—The Markets Committee have recommended the T.C. to apply for sanction to borrow £2,529 for the cost of paving the Market Ground.

CALSTOCK.—Cornwall and Devon C.C. are discussing a scheme for the widening of Calstock New Bridge.

CARMARTHENSHIRE.—The Llanelly B.C. is to erect a footbridge at Llanerch.—The County E.C. proposes to erect a school at Penlan, Llangennech.—The Burry Port Council is endeavouring to obtain land adjoining Pemberton-avenue as site for a new central school to be erected there.

CASTLEFORD.—The U.D.C. has plans prepared by Mr. C. F. Scatchard, Borough Architect, for a maternity home, towards which the Miners' Welfare Fund has promised a grant of £2,000.

CASTLETON.—An extensive scheme, which includes the erection of numerous chapels and Sunday Schools in various parts, is being undertaken by the Wesleyan Methodist Church. The largest of these schemes is at Hackney, where a mission hall is to be erected at a cost of £48,613. Smaller chapels, costing about £1,500 each, are to be erected at Biggin and at Castleton.

CHESTERFIELD.—The R.D.C. propose to erect houses in the following districts: 32 at Grassmore; 18 at Tupton; 15 at Mosborough; 19 at Renishaw; and 16 at Killamarsh.

CLITHEROE.—The T.C. have under consideration acquiring land in Waddington-road, as a site for a new elementary school.

COCKERMOUTH.—A scheme is under consideration by the E.C. for adapting the disused Industrial School as a secondary school.

COLWYN BAY.—A site has been secured behind the Co-operative Hall, Llandudno Junction, for the proposed war memorial hall and playground. A design for the building and lay-out has been prepared by Mr. S. Colwyn Foulkes, architect, estimated to cost £3,000.

COLYTON.—The Devon County E.C. recommends the purchase of 13 acres as a site for a new secondary school.

CONAHS QUAY.—The parishioners of St. Mark's Church are raising funds for proposed improvements to the edifice estimated to cost £1,000.

COULSDON AND PURLEY.—The U.D.C. has arranged to purchase the manorial rights of the Coulsdon Court Estate. The P. Harvey Estates, Ltd., have submitted plans of the proposed lay-out of the Selsdon Park Estate. The U.D.C. proposes to erect two houses for employees at the Purley Oaks depot. Plans recommended:—Thomas & Son, house, Howard-road; A. T. Bate, five houses, Woodcote Valley-road, W. J. Jackson, house, Heathurst-road, Sanderstead; J. G. Cooper, pair houses, Downlands-road; J. G. Cooper, house, Downlands-road; S. Marcus Deacon, house, Smitham Bottom-lane; D. F. Rigby, house, Arkwright-road, Sanderstead; B. C. Rigby, house, The Ridge Way, Sanderstead; F. St. J. B. Brewer, house, Penwortham-road, Sanderstead; Walter Cottage, six houses, Chipstead Valley-road; Elms & Jupp, pair houses, Red Down-road, Coulsdon; G. G. Reeve, house, Promenade de Verdun; H. E. Shipp, house, The Ridge Way, Sanderstead; A. Zobel, house and garage, Arkwright-road, Sanderstead; G. Wood & Son, house, Woodmansterne-road, S. H. Hitchings, bungalow, Little Woodcote-lane; C. Herbert, house, Bramley-avenue; W. R. Roach, house with garage, Green-lane, Purley; Captain F. C. Hutt, house, Brighton-road, Purley; H. W. Almond, bungalow, Arkwright-road, Sanderstead; H. E. Roper, three pairs houses, Marlpit-lane, Coulsdon; B. Edgar, house with garage, The Ridge Way, Sanderstead; F. T. Brown, house, Oakwood-avenue, Purley; H. A. Chubb, bungalow, Downs Court-road, Purley; L. O. Linfoot, pair houses, Smitham Downs-road, Purley; C. Gray, house, Hartley Down, Purley; A. Beattie, cottage, Beech-avenue, Sanderstead; A. W. Westerling, house, The Church Way, Sanderstead; E. Wallace Jacobs, eight detached houses, Downlands-road, Purley. The U.D.C. proposes to invite tenders for the erection of 52 houses on the Godstone-road site.

CRAMLINGTON.—The R.D.C. is to submit plans to the M.H., for approval, for re-construction of Sandy Leitch Bridge, and to seek tenders for the work.

DARLINGTON.—The Corporation Streets Committee has resolved to make application to the M.H. for a preliminary loan of £40,000 for street making.

DEVONPORT.—The Devonport Mercantile Association has submitted a proposal to the C.C. for the construction of a bridge across the River Tamar from Devonport to Torpoint, at an estimated cost of £450,000. The C.C. has asked the Southern Divisional Committee to consider and report on the proposal.

DOLGELLEY.—An isolation hospital is under consideration by the U.D.C., the Welsh Board of Health insisting upon the erection of a building in Merioneth.

DONCASTER.—The clerk to the R.D.C. has been notified by the C.C. that it is proposed to erect a new elementary school at Armthorpe.

DUKINFIELD.—A proposed new street is contemplated by the T.C., lying between King-street and Lakes lane, the sewering of which is estimated to cost £360.—A sub-committee of the Highways Committee has been appointed to interview the estate and the Stamford Building Co., Ltd., relative to the terms and conditions arranged for building sites.

DYSERTH.—An improvement of the main Prestatyn to Rhuddlan-road, through Dyserth, is proposed by diversion through a field, the work being undertaken by the R.D.C. in conjunction with the Flintshire C.C.

EASTRY.—Plans passed by R.D.C.: Mr. L. S. Ekins, shop at Chapel Hill, Eythorne, for River and District Co-operative Society; Mr. E. Edwards, pair of houses, Walmer Station Estate, Great Mongeham, for Mr. W. Evans; Mr. W. J. Kingsland, bungalow, Stone Cross, Worth, for Mr. Redman.

EBBW VALE.—The Ebbw Vale Welfare Club has been notified of allocation of £8,000 to the club by the Miners' Welfare Committee. This is to be spent in the purchase of Drill Hall, recreation grounds, structural alterations to the Grand Stand at the recreation ground, &c.

EDLINGTON.—The surveyor to the Doncaster R.D.C. has been instructed to prepare plans and estimates for a proposed housing scheme, with a view to application being made to the M.H. for their sanction to the borrowing of the sum required.

ESHER.—The U.D.C. has asked the surveyor to report as to the question of securing a permanent recreation ground for the district. The Council has approved a scheme for the development of Basing Field Estate, Thames Ditton. It includes a new road giving direct communication to the station. Tenders have been invited for the erection of houses, which are to be of concrete. Plans passed: Three houses, Sugden-road, for Mr. S. Stokes; house, Imber-grove, for Messrs. Lanchester, Lucas & Lodge; house, Merton Green-road, for Messrs. Grove & Williamson; two houses, Queen's-drive, for Mr. G. A. Fortesque; house, Broom Hill Estate, for Messrs. Imrie & Angel; house, West End, for Mr. Thirtle.

EXETER.—The C.C. has purchased a site at a cost of £400 for the erection of a small-pox hospital, to cost about £2,400. Consideration is being given to a town-planning scheme extending beyond the city boundaries.

FRECKLETON.—The parochial Church Council of the Parish Church are proposing improvements to the school buildings, including re-building of the boys' cloak room, attending to the floor and foundations of the infants' school, and other sundry repairs, for which funds are to be raised.

GATLEY.—The Red Tirangle (Y.M.C.A.) Club are raising funds for a new club building and public hall.

GLAMORGAN.—The County E.C. is to erect an elementary school at Bridgend.—The International Coal Co. has notified the Ogmore and Garw U.D.C. that it proposes to erect houses in the district. The Maesteg U.D.C. is to expedite the putting in hand of its electricity scheme, and is negotiating for a loan of £15,000 for the purpose.—The Council has received plans from the Mid-Glamorgan Water Board of proposed new line of water mains from Llangeinor to Maesteg Town Hall.

HARTLEBURY.—The governors of the Queen Elizabeth's Grammar School has decided to erect new classrooms, at an estimated cost of £6,640.

HAWKMOOR.—The Devon C.C. has submitted to the M.H. plans for the completion of the sanatorium by the provision of accommodation for an additional 32 children. The cost is estimated at £7,787.

HINDERWELL.—The North Riding C.C. has submitted a plan for a new police house, to be erected at Staithes-lane End, Hinderwell. This plan was approved by the U.D.C.

HINDLEY.—The D.C. have appointed Mr. H. Wade, architect, of Blackpool, to prepare plans for proposed new elementary school, on a site at Hindley Green, estimated to cost £20,000.

HOUGHTON-LE-SPRING.—The U.D.C. has decided that the 50 houses already sanctioned be built in groups of ten at each of the following places—Pershaw, Newbottle, Hemington, Silksworth, and East Rainton.

HUCKNALL.—The U.D.C. has passed plans for six almshouses, to be erected by Mr. J. Cahn.

HUDDERSFIELD.—Application is being made to the M.H. for sanction to erect a block of flats in Great Northern-street. The M.H. has sanctioned the erection of 25 houses at Royds Hall.

ILFRACOMBE.—The secondary school is to be enlarged by the C.C., at a cost of £2,050.

INCE.—The U.D.C. are proposing improvements to the Golborne Pumping Station, estimated to cost £9,000.

JARROW.—The T.C. has granted application for subsidy in respect of 28 houses to be built in St. Paul's-road by Mr. J. Barrow; and 16 houses, as a first instalment of 40, to be built in Coquet-street and Tweed-street, by Mr. J. Craig.

(*Continued on p.* 1049.)

PRICES CURRENT OF MATERIALS

[Owing to the exceptional circumstances which prevail at the present time, prices of materials should be confirmed by inquiry.—Ed.]

BRICKS, &c.

Per 1,000 Alongside, in River Thames up to London Bridge.

	£ s. d.
Best Stocks	4 3 6
Second Hard Stocks	3 18 6

Per 1,000. Delivered at London Goods Stations.

	£ s. d.		£ s. d.
Fletton, at King's Cross	2 13 3	Best Blue Pressed Staffs.	9 5 0
Do. grooved for plaster	2 15 3	Do. Bullnose ..	9 15 0
Do. Bullnose ..	3 8 3	Blue Wire Cuts	7 5 0

Best Stourbridge Fire brick:—

2½ in.	8 11 0	3 in.	10 3 0

GLAZED BRICKS—

Best White Ivory, and Salt Glazed Stretchers ..	22 0 0	D'ble Str'tch'rs	30 10 0
		D'ble Headers	27 10 0
		One Side and two Ends ..	31 10 0
		Two Sides and one End	32 10 0
Headers	21 10 0	Splays and Squints	30 0 0
Quoins. Bullnose and 4½in. Flats	28 10 0		

Second Quality, £1 per 1,000 less than best. Cream and buff, £2 extra over white. Other colours, Hard Glaze, £5 10s. extra over white.

BREEZE CONCRETE SLABS.
Delivered London.

	s. d.		s. d.
2 in. per yd. super	2 1	3 in. per yd. super	2 11
2½ in. "	2 6	4 in. "	3 6

	s. d.	
Thames Ballast	10 6	per yard.
Pit Sand	14 9	" "
Thames Sand	15 6	" "
Best Washed Sand	15 6	" "
¾ in. Shingle for Ferro-Concrete	14 0	" "
¼ in. "	15 0	" "
¾ in. Broken Brick	10 6	" "
Pan Breeze	7 6	" "

delivered 2 miles radius Paddington.

Per ton delivered in London area in full van loads.

Best Portland Cement, British Standard Specification Test £2 18 0 to £3 51/- alongside at Vauxhall in 80-ton lots.	£3 3 6
Ferrocrete per ton extra on above	0 10 0
Super Cement	4 8 0
Roman Cement	8 15 0
Parian Cement	5 15 0
Keene's Cement, White	5 15 0
" " Pink	5 10 0
Plaster, Coarse, Pink	3 0 0
" " White	3 12 6
" Fine	5 12 0
Sirapite, Coarse	3 9 0
" Finish	3 17 0
Grey Stone Lime	2 11 9
Chalk Lime	2 11 9
Best Ground Blue Lias Lime	2 4 6
Hair	17 0 0
Granite Chippings	1 12 0

NOTE.—Sacks are charged 1s. 9d. each and credited 1s. 6d. if returned in good condition within three months, carr. pd.
Stourbridge Fireclay in s'cks 35s. 0d. per ton at rly. dpt.

STONE.

	s. d.
BATH STONE—delivered in railway trucks at Westbourne Park, Paddington, G.W.R., or South Lambeth, G.W.R., per ft. cube	2 9½
Do. do. delivered in railway trucks at Nine Elms, L. & S.W.R., per ft. cube	2 11½
PORTLAND STONE— Brown Whitbed, in random blocks of 20 ft. average, delivered in railway trucks at Nine Elms, L. & S.W.R., South Lambeth Station, G.W.R., and Westbourne Park, Paddington, G.W.R., per ft. cube	4 4
Do. do. delivered on road wagons at above stations, per ft. cube	4 5

White basebed, 3d. per ft. cube extra.
NOTE.—½d. ft. cube extra for every foot over 20 ft. *average*, and ½d. beyond 30 ft.

HOPTON-WOOD STONE. Delivered at any Goods Station, London. Small random blocks, up to 10 ft. cube. Per ft. cube	7/-
Random blocks from 10 ft. and over "	17/-
Sawn two sides "	27/-
Sawn three or four sides "	32/-

YORK STONE, BLUE—*Robin Hood Quality.*

	s. d.
Delivered at any Goods Station London. 6 in. sawn two sides landings to sizes (under 30 ft. super.) Per Ft. Super	5 3
6 in. rubbed two sides, ditto "	5 9
3 in. sawn two sides slabs (random sizes) "	2 1½
2 in. to 2½ in. sawn one side slabs (random sizes) "	1 5½
1½ in. to 2 in. ditto, ditto "	1 3
HARD YORK— Delivered at any Goods Station London. Scappled random blocks. Per Ft. Cube	5 6
6 in. sawn two sides landing to sizes (under 40 ft. super.) Per Ft. Super	5 4½
6 in. rubbed two sides ditto "	6 0½
4 in. sawn two sides slabs (random sizes) "	2 10
3 in. ditto. ditto "	2 5
2 in. self-faced random flags. Per Yard Super	7 11

ARTIFICIAL STONE.

	s. d.
Delivered in London Area in full van loads.	
Plain per ft. cube	6 6
Moulded " "	7 9
Cills " "	8 3

WOOD.

GOOD BUILDING DEAL.

Inches.	per stan.	Inches.	per stan.
4 × 11	£24 0	3 × 6	£24 10
4 × 9	22 0	3 × 11	30 0
4 × 8	26 0	2 × 11	30 0
4 × 7	26 0	3 × 9	26 0
3 × 8	25 10	2½ × 9	27 0
3 × 7	25 10	3 × 4½	25 0
2½ × 7	24 0	3 × 4	24 10

WOOD (*Continued*).

PLANED BOARDS.

1 × 11	£37 10	1 × 9	£36 0

PLAIN EDGE FLOORING.

Inches.	per sq.	Inches.	per sq.
⅝	21/-	1¼	33/6
¾	24/-	1½	37/6
1	26/-		

TONGUED AND GROOVED FLOORING.		MATCHINGS (BEST).	
Inches.	per sq.	Inches	per sq.
1	26/6	⅝	17/6
1¼	33/6	¾	21/-
1½	38/-	1	26/-

Inches	BATTENS	s. d.
¾ × 2		2 6 per 100 ft.

SAWN LATHS.

Per bundle				0	2 8
Dry Wainscot Oak, per ft. super, as inch	0	2 0	to	0	2 6
⅝ in. do.	0	1 6	to	0	2 0
Dry Mahogany—Honduras, Tabasco, African, per ft. super, as inch	0	1 9	to	0	2 6
Cuba Mahogany	0	3 0	to	0	3 6
Teak (Rangoon, Moulmein or Java), per load	45	0 0	to	50	0 0
American Whitewood planks, per ft. cube ..	0	14 0	to	0	16 0
Best Scotch Glue, per cwt.	4	10 0	to	—	
Liquid Glue, per cwt. ..	4	7 0	to	5	10 0

SLATES.

1st quality slates from Bangor or Portmadoc carriage paid in full truck loads to London Rate Station. Per 1,000 of 1,200.

	£ s. d.		£ s. d.
24 by 12	37 12 6	18 by 10	21 2 6
22 by 12	34 0 0	18 by 9	18 12 6
22 by 11	31 5 0	16 by 10	17 12 6
20 by 12	29 15 0	16 by 8	13 15 0
20 by 10	25 12 6		

TILES.

	Per 1,000 f.o.r. London. £ s. d.
Best machine-made tiles from Broseley or	5 7 6
Staffordshire district	5 7 6
Ditto hand made ditto	5 12 6
Ornamental ditto	5 17 6
Hip and valley tiles (per dozen) Hand made	0 9 6
Machine made	0 9 6

METALS.

JOISTS, GIRDERS, &c., TO LONDON STATION PER TON—	£ s. d.
R. S. Joists, cut and fitted	13 10 0
Plain Compound Girders	15 10 0
Stanchions	17 10 0
In Roof Work "	20 10 0

MILD STEEL ROUNDS.
To London Station, per ton.

Diameter.	£ s. d.	Diameter.	£ s. d.
¼ in.	16 10 0	⅝ in. to ½ in...	13 10 0
⅜ in.	14 10 0	⅝ in. to 2½ in...	13 0 0

WROUGHT-IRON TUBES AND FITTINGS—
(Discount off List for lot of not less than £7 net value delivered direct from Works, 2½ per cent. less above gross discounts, carriage forward if sent from London Stocks.)

	Tubes.	Fittings.	Flanges.
Gas	50 %	50 %	60 %
Water	45 %	45 %	55 %
Steam	40 %	40 %	50 %
Galv'd—			
Gas	35 %	40 %	50 %
Water	28½ %	35 %	45 %
Steam	22½ %	30 %	40 %

C.I. HALF-ROUND GUTTERS—London Prices, ex Works.

Per yd. in 6 ft. lengths.	Gutters.	Angles and Nozzles.	Stop Ends.
3 in.	1/1½	11d.	3½d.
3½ in.	1/2½	1/0½	3½d.
4 in.	1/4	1/1½	3½d.
4½ in.	1/5½	1/4	4d.
5 in.	1/7½	1/5½	5d.

O.G. GUTTERS.

3 in.	1/6½	1/2½	3½d.
3½ in.	1/6½	1/2½	3½d.
4 in.	1/7½	1/4	3½d.
4½ in.	1/9½	1/6½	4d.
5 in.	2/1½	1/9	5d.

RAIN-WATER PIPES, &c.

Per yd. in 6 fts.	Pipe.	Bends, stock angles.	Branches, stock angles.
2 in. plain	1/7½	1/1½	1/8
2½ in. "	1/9½	1/4	2/0½
3 in. "	2/1½	1/8	2/5½
3½ in. "	2/6½	1/11½	2/10½
4 in. "	2/11½	2/4½	3/5½

L.C.C. COATED SOIL PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches, stock angles. s. d.
2 in. per yd. in 6fts plain	3 0½	2 2½	2 8
2½ in. "	3 6½	2 5½	3 3½
3 in. "	4 2½	2 8	4 0½
3½ in. "	4 7	3 3½	4 8½
4 in. "	5 1	3 9½	5 5

L.C.C. COATED DRAIN PIPES—London Prices ex works.

	Pipe. s. d.	Bends, stock angles. s. d.	Branches stock angles. s. d.
3 in. per yd. in 9ft. lengths	4 9	5 8	8 10
4 in. " "	6 3	6 8	11 4
5 in. " "	7 6	11 6	18 2
6 in. " "	8 10	14 4	23 5

IRON—	Per ton in London. £ s. d.		£ s. d.
Common Bars	13 10 0	to	14 10 0
Staffordshire Crown Bars—good merchant quality	14 10 0	—	15 10 0
Staffordshire "Marked Bars"	17 0 0	..	18 0 0
Mild Steel Bars	12 10 0	..	13 10 0

METALS (*Continued*).

	£ s. d.		£ s. d.
Steel Bars, Ferro-Concrete quality, basis price	13 0 0	..	14 0 0
Hoop iron, basis price	16 10 0	..	17 10 0
" Galvanised	31 0 0	..	32 0 0
Soft Steel Sheets, Black— Ordinary sizes to 20 g...	15 0 0	..	16 0 0
" " " 24 g...	16 0 0	..	17 0 0
" " " 26 g...	18 0 0	..	19 0 0
Sheets Flat Best Soft Steel, C.R. & C.A. quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g...	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 22 g. and 24 g.....	22 10 0	..	23 10 0
Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 26 g...	24 10 0	..	26 10 0
Flat and Galvanised Corrugated Sheets— Ordinary sizes, 6 ft. to 9 ft. to 20 g.	21 0 0	..	22 0 0
Ordinary sizes, 6 ft. to 9 ft. to 22 g. and 24 g.	21 10 0	..	22 10 0
Ordinary sizes, 6 ft. to 9 ft. to 26 g.	23 10 0	..	24 10 0
Sheets Galvanised Flat, Best quality— Best Soft Steel Sheets, 6ft. by 2ft. to 3ft. to 20g. and thicker ..	23 10 0	..	24 10 0
Best Soft Steel Sheets, 22 g. and 24 g. ..	24 10 0	..	26 10 0
Best Soft Steel Sheets, 26 g.	26 0 0	..	27 0 0
Cut Nails, 3in. to 6 in. (under 3in. usual trade extras.)	20 10 0	..	22 0 0

METAL WINDOWS—Standard sizes suitable for complete houses, including all fittings, painting two coats, and delivery to job, average price about 1/4 to 1/7 per foot super.

LEAD, &c.

(Delivered in London.)	£ s. d.
LEAD—Sheet. English, 4 lb. and up	42 10 0
Pipe in coils	43 0 0
Soil Pipe	46 0 0
Compo pipe	49 0 0

NOTE—Country delivery, 30s. per ton extra: lots under 3 cwt., 2s. per cwt. extra and over 3cwt. and under 5 cwt., 1s. 6d. per cwt. extra. Cut to sizes, 2s. cwt. extra.

Old lead, ex London area, at Mills ..... per ton	29 10 0	..	—
Do., ex country, carriage forward ..... per ton	30 10 0	..	—

PLUMBERS' BRASS WORK.
Delivered in London.

NEW RIVER PATTERN SCREW DOWN BIB COCKS FOR IRON.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
29/-	45/-	76/-	153/-	246/-	510/- per doz.

NEW RIVER PATTERN SCREW DOWN STOP COCKS AND UNIONS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2 in.
41/6	62/-	92/-	174/-	300/-	588/- per doz.

NEW RIVER PATTERN SCREW DOWN MAIN FERRULES.

½ in.	¾ in.	1 in.
39/6	60/-	116/6 per doz.

CAPS AND SCREWS.

1½ in.	1¾ in.	2 in.	3 in.	3½ in.	4 in.
7/6	10/-	14/-	23/-	30/-	42/- per doz.

DOUBLE NUT BOILER SCREWS.

½ in.	¾ in.	1 in.	1¼ in.	1½ in.	2in.
7/6	11/6	17/-	29/-	36/-	63/- per doz.

BRASS SLEEVES.

1½ in.	2 in.	3 in.	3½ in.	4 in.
10/-	12/-	20/-	24/-	31/- per doz.

NEW RIVER PATTERN CROYDON BALL VALVES, S.F

½ in.	¾ in.	1 in.	1¼ in.	1½ in.
35/-	56/-	98/-	162/-	228/- per doz.

DRAWN LEAD P. & S. TRAPS WITH BRASS CLEANING SCREW.

	1¼ in.	1½ in.	2 in.	3 in.
8 lbs. P. traps ..	33/-	41/-	56/-	101/- per doz
8 lbs. S. traps ..	35/-	45/-	66/-	126/- "

COPPER—	£ s. d.		
Strong Sheet ....per lb.	0 2 3	..	—
Thin " .... "	0 2 4	..	—
Copper nails .... "	0 2 3	..	—
Copper wire .... "	0 2 4	..	—
TIN—English Ingots "	0 2 2	..	—
SOLDER—Plumbers' "	0 1 0	..	—
Tinmen's "	0 1 2	..	—
Blowpipe "	0 1 4	..	—

PAINTS, &c.

	£ s. d
Raw Linseed Oil, in pipes .....per gallon	0 3 7
" " " in barrels .... "	0 3 9
" " " in drums .... "	0 4 0
Boiled " " in barrels .... "	0 4 0
" " " in drums .... "	0 4 3
Turpentine in barrels ..... "	0 6 0
" in drums (10 gall.)	0 6 8
Genuine Ground English White Lead, per ton (In not less than 5 cwt. casks.)	57 0 0

GENUINE WHITE LEAD PAINT—
"Father Thames," "Nine Elms," "Park," "Supremus," "St. Paul's," "Spedol" and other best brands (in 14 lb. tins) not less than 5 cwt. lots

per ton delivered	80	5	0
Red Lead, Dry (packages extra)....per ton	52	0	0
Best Linseed Oil Putty.....per cwt.	0	16	0
Filocol .....per cwt.	0	15	6
Size. XD Quality.....fkn.	0	3	6

[*Concluded on next page.*]

* The information given on this page has been specially compiled for THE BUILDER and is copyright. Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the highest or lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

S CURRENT OF MATERIALS (*contd.*)

GLASS.

SH SHEET GLASS IN CRATES OF STOCK SIZES.

	Per Ft.		Per Ft.
ourths ..	3⅜d.	32 oz. fourths	8¾d.
hirds	4½d.	32 „ thirds	10½d.
ourths ..	5d.	Obscured Sheet, 15 oz.	4d.
hirds	6¾d.	„ „ 21 „	5¾d.
ourths ..	6d.	Fluted 15oz. 6¾d.,21oz.	9¾d.
hirds	7¾d.	En'lied 15oz. 5¾d.,21 oz	7¼d.

rice according to size and substance for squares om stock.

SH ROLLED PLATE IN CRATES OF STOCK SIZES. Per Ft.

ed plate	4¼d.
gh rolled	5¾d.
gh rolled	5¾d.
red Rolled, Oxford Rolled, Baltic, Oceanic,	
ctic, Stippolyte, and small and large	
emish white	6¼d.
Ditto, tinted	9d.
ed Sheet	6d.
re Rolled Cathedral	5¼d.
ed do.	7¾d.

ast Plate is same price as rough rolled.

VARNISHES, &c.

		Per gallon. £ s. d.
rnish	Outside	0 14 0
tto	ditto	0 16 0
pal	ditto	0 18 0
pal	ditto	1 0 0
pal Carriage	ditto	1 4 0
tto	ditto	1 12 0
arnish	Inside	0 18 0
le Paper	ditto	0 18 0
pal Cabinet	ditto	1 2 6
pal Flatting	ditto	1 0 6
rying Oak	ditto	0 18 0
ard Drying Oak	ditto	0 19 0
pal Varnish	ditto	1 0 0
itto	ditto	1 2 0
itto	ditto	1 12 0
pan Gold Size		0 10 0
ack Japan		0 10 6
d Mahogany Stain (water)		0 12 0
ick Black		0 7 6
Black		0 14 6
g (patent)		1 5 0
and Brush Polish		0 17 0
Dryers in Terebine		0 9 0
Black Enamel		0 7 0

ROPOSED NEW BUILLINGS

(*Continued from* p. 1047.)

LWORTH.—Plans passed by U.D.C.: Two in Priory-road, for Mr. Rainbow; house in -road, for Mrs. Jackson; three houses in te-lane, for Mr. Crouch; two houses, in Glass- ane, for Mr. A. Heatley; house, in Birch's- r Dr. Birt.

ERMINSTER.—The T.C. has approved the nendations of the General Purposes Committee rying out improvements at the Cattle and ale Markets, at an estimated cost of £8,909.

OLN.—A fund has been opened for the purpose ing a new parochial hall in St. Paul's parish.

RPOOL.—A start is to be made shortly on the ruction scheme of the premises in London- r Messrs. Owen Owen, Ltd. It is proposed to l the ground floor into island shops as an arcade, crease the showroom accommodation, and on ond floor a new restaurant for 500 people will structed. The Council of St. Edmund's College cquired "Gisburne," Devonshire-road, Princes o be adapted as a training centre, estimated £10,000. Extensions to the Gordon Smith te, Paradise-street, and renovations to existing gs are estimated to cost £10,000. It is proposed 24 houses at Woolton. Funds are being raised parishioners of St. Margaret's Church, Princes- or proposed erection of a memorial chapel.

DUDNO.—Mr. G. A. Humphreys has lodged howing the development of the Mostyn Estate a town-planning scheme. The T.C. has asked rveyor to prepare a town-planning scheme for ole area of Llandudno. M.T. is being approached ng a proposed road to Peganwy through Maesdu. rough Surveyor is to prepare sketch plans for the n of houses on the Mowbray-road and Knowles- ites.

DON (BATTERSEA).—The B.C. is negotiating for cquired for the extension of the Plough-road The M.H. has asked that the scheme for a new ce library at Allenbury gardens, at a cost of 7, be postponed for the present. Works at a about £400 are to be carried out at the Morden ery. Plans not objected to:—Four houses, Tooting Park, for Messrs. W. & E. Hill; addition ingbroke Hospital, for Messrs. Young & Hall.

DON (STOKE NEWINGTON).—A. C. Cann, lock-up Victoria-grove.

.—Worcestershire County E.C. has decided to le new class rooms at the Valley-road Council , at a cost of £1,750.

HAM ST. ANNES.—The Church-road Church of St. Annes are proposing a scheme for increas- ssroom accommodation and providing a ladies' r to their premises.

NROW.—Plans have been approved for a new at New Hey, to replace the "Waggon and ." for Messrs. J. W. Lees & Co., brewers, ton Junction (architects, Messrs. Johnson & of Manchester). Provision of conveniences to be erected on a site in Huddersfield-road is under consideration of the U.D.C.

MOSSLEY.—The T.C. propose to erect a number of houses on the Fox Platt site.

NELSON.—The borough surveyor and medical officer have been instructed by the T.C. to prepare and submit a scheme for erecting public abattoirs. The borough surveyor has also been instructed to prepare plans for erecting public conveniences on various sites. A proposal is under consideration for providing 50 additional houses on the Marsden Hall site. Mr. R. Jacques, architect, has been appointed to prepare plans for a new church of St. Bedes, on a site in Railway street. The estimated cost is £15,000.

NEWBURY.—The T.C. has passed plans:—House, Buckingham-road, for Mr. G. J. Belgrove; house, Andover-road, for Mr. L. H. Simmons.

NEWTON ABBOT.—The U.D.C. proposes road reconstruction schemes involving an expenditure of £10,409.

OLDBURY.—A new school for about 400 children is to be erected at a cost of about £25,000. Amended plans are being submitted to the B.E. for a new secondary school, estimated to cost £30,500.

OLDHAM.—The B.G. are recommended to make application to the M.H. to borrow £2,500 in connection with the alterations and improvements at "N" block of the Poor Law Institution.

OSWALDTWISTLE.—Plans have been approved for the erection of a bungalow in Sunny Bank-drive for Mr. W. Clegg.

PEMBROKESHIRE.—The County Small Holdings Committee is to erect a house and set of outbuildings at Keyston. The St. Dogmael's R.D.C. is to proceed with the reconstruction of the Temple Bar-Jericho-road, at an estimated cost of £22,300.

PENRITH.—Plans passed by U.D.C.:—Bungalow, Fell-lane, for Mr. Wm. Priestman. The Surveyor is to prepare a report, with plans and estimates, for the provision of a maternity home. A water scheme, to cost £3,000, is being considered by the R.D.C.

PITSEA.—A site has been acquired by the Roman Catholic congregation for the proposed erection of a new church.

PREESALL.—Plans have been approved by the D.C. for proposed houses in Pilling-lane, for Mr. J. Aspden, Mr. H. Atkinson, Mr. T. E. Ford and Mr. W. Butler.

PRESTON.—The Preston Women's Citizen's Association are to be informed by the Maternity and Children's Welfare Committee that steps are being taken with regard to the establishment of a maternity home. The Streets and Buildings Committee propose to sett pave the unpaved portion and repair a portion of the footpath of Stanleyfield-road, subject to the Infirmary Board giving a piece of land in order to widen the footpath.

PUDSEY.—**Plans** passed: House at Heath-grove, for Mr. F. Pick.

RADCLIFFE.—The D.C. and the Clifton & Kersley Coal Co., Ltd., have agreed to acquire a site off Albion-street as a housing site, on which it is proposed to erect between them 100 houses. The district surveyor has prepared a lay-out plan of the site. The provision of shops on the site is to be considered at a later stage.

RHYL.—Sanction has been received by the T.C. for the proposed improvements at the Waterworks.

SALTBURN.—The Roman Catholics have acquired a site of 1½ acres, overlooking Hazelgrove Park, upon which it is proposed to erect a new church.

SANDBACH.—The T.C. have approved a plan for a sewer to be laid in School-lane, Elworth.

SELBY.—The U.D.C. are to approach the M.H. asking their approval of a larger site for the purpose of erecting a new junior school in New-lane, as the site previously approved by them was insufficient for the size of school required.

SIDMOUTH.—The U.D.C. has passed plans:—House at Woolbrook, for Mr. D. Fitte; house at Lennox-avenue, for Mr. R. W. Sampson; house at Woolbrook, for Mr. B. North.

SKEGNESS.—The Lindsey C.C. have sanctioned the erection of a new secondary school. A site has been purchased.

WHITLEY AND MONKSEATON.—Plans approved by U.D.C.: Three pairs semi-detached villas, Abbotsford-park and Kenilworth-road, for A. L. Hastings; three pairs semi-detached houses, Queen's-road, for Calderwood, Chapman & Co.; house, junction of Ashbrook and Pykerley-road, for Mr. M. Cheeseman; two houses, Helena-avenue, for H. J. W. Robinson; shop and house, corner of Ilfracombe-gardens and Kew-gardens, for H. D. Burton; house, Marine-gardens, for Mr. W. Milne; house, Beverley-park, for R. & A. P. Tait; three pairs of semi-detached villas, Cliftonville-gardens, for H. & S. Alderson; three pairs of semi-detached villas, south side of Davison-road, Whitley Lodge Estate, for R. Woodman; three pairs of semi-detached villas, east side of Swinbourne-gardens, for A. Lisle; six pairs of semi-detached villas, east side of Brundon-avenue, Whitley Lodge Estate, for G. Bell; pair of semi-detached villas, 12 & 14, The Gardens, for A. L. Hastings pair of detached villas, Deneholm, for Gofton Bros.; pair of semi-detached villas, south side of Grosvenor-drive, for J. R. Dagg & Son; house, south side of Hillcrest, for D. J. Murray; bungalow, Meadow-road, for Miss Wilson; pair of bungalows, Oaklands-road, on West Monkseaton Estate, for the Creighton Construction Co.; two pairs semi-detached villas, Davison-road, for J. M. Dawson; pair of semi-detached bungalows, Claremont-road, for Potts & Canning; pair of semi-detached villas, junction of Davison-road and Brundon-avenue, for R. Woodman; pair of semi-detached villas, Hillcrest, for F. Holmes; four pairs of semi-detached villas, Davison-road, for C. Mather; pair of terrace houses, Richmond-terrace, for W. S. Bonner; pair of semi-detached villas, Brundon-avenue, for R. Woodman.—The Surveyor has prepared plans of private street works, to cost £4,500.

WOODFORD.—Plans passed by U.D.C.:—Four houses in King's-avenue. A town-planning scheme is suggested for part of the district.

OVERCROWDING IN THE ARCHITECTURAL PROFESSION

MR. H. G. SWANN, London, writes:—

SIR,—I was very interested in reading the report, issued by the Executive Council of the Architects' and Surveyors' Professional Union, concerning the overcrowding of those professions. It is writing from the point of view of an unarticled pupil concerned purely with the architectural profession that I have made the following notes:—

It is suggested in the report that the professional bodies should obtain greater control over the schools, and in return afford more generous recognition. It is difficult to see how this greater recognition can be given considering that students of many of the recognised schools are, after their course, exempted from all the R.I.B.A. examinations except the short paper on professional practice.

Also, it does not follow that unarticled pupils often enter the ranks of the semi-skilled. Frequently the parents are not in a position to provide a course of training in a school or to article their sons, so they, desirous of entering the profession, have to do so by the only course open. Is the lack of means for the above purposes to prevent those, probably of equal ability compared with others in more fortunate circumstances, from entering the profession? If the unarticled pupil has any ambition, there is no "perhaps" as to whether he attends evening classes. He is out to learn quite as eagerly as the articled pupil or school student.

With regard to the recommendations in the report, No. 2 appears to disregard the fact that ability can be found amongst those not in a position to be articled or attend a recognised school. In which case, why should employment be denied?

No. 5 recommends that all those desirous of entering the above-mentioned professions and who are resident within one hours' railway journey of a recognised school, be not allowed to enter an office direct, but first attend this school. This is impossible for many parents to provide, so are their sons to enter other professions, for which they, probably, have no inclination, because of these suggested restrictions?

No. 6 also advocates that no pupil or student enter an office or school without first matriculating. To provide the necessary education is again beyond the means of many parents, and is one likely to be a better architect for passing this examination?

The whole question appears to hinge on one point, *i.e.*, is the lack of means to provide training at a recognised school or for articles to prevent capable persons entering the profession in other ways? If it is desired to control entry, I suggest that scholarships be instituted by the professional body concerned, namely, the R.I.B.A., for the architectural profession. This scholarship to take the form of an examination in subjects likely to be of use in professional matters. One scholarship to be attached to each recognised school, and to be competed for by intending entrants to the profession from each surrounding district. An agreed number at the head of each list to be adjudged winners, each of whom would receive a grant sufficient to cover necessary expenses during the tenure of the scholarship at the school.

Although I am in favour of registration and a closed profession, all classes of intending entrants should be allowed and on pure ability to be judged if eligible for admission.

Builders' Estates.

Mr. Elphinstone Forrest, builder and contractor, "Laurel Bank," Myrtle Park, Crosshill—£13,352.

Mr. Charles Bragg, Solihull, Warwickshire, chairman of Bragg Bros., Ltd., building contractors, £18 982.

CURRENT PRICES FOR BUILDING WORK IN LONDON*

EXCAVATOR.

		s.	d.
Digging and throwing or wheeling and filling carts, and carting away to shoot—6 ft. deep	per yard cube	11	6
Add if in clay	" "	1	0
Add for every additional depth of 6 ft.	" "	0	6
Planking and strutting to trenches	per foot super	0	5
Do. to sides of excavation, including shoring	" "	1	0

CONCRETOR.

		s.	d.
Portland cement concrete in foundation 1 to 6	per yard cube	35	0
Add if in underpinning in short lengths	" "	7	6
Add if in floors 6 in. thick	" "	3	6
Add if in beams	" "	4	0
Add if aggregate 1 : 2: 4	" "	10	0
Add for hoisting not exceeding 10 ft. beyond the first 10 ft.	" "	3	3

BRICKLAYER.

		£	s.	d.
Reduced brickwork in lime mortar and Fletton bricks	per rod	30	0	0
Add if in stocks	"	7	10	0
Add if in Staffordshire blues	"	22	0	0
Add if in Portland cement and sand	"	2	0	0

FACINGS.

		s.	d.
Extra for facing in English or Flemish bond for every 10s. per 1,000 over the price of the common bricks	per ft. super	0	1¼

POINTING.

		s.	d.
Neat flat struck or weathered joint	" "	0	3

ARCHES.

		s.	d.
Extra only to the price of ordinary brickwork :—			
Fair external in half brick rings	" "	0	10
Axed in stocks	" "	1	9
Rubbed and gauged jointed in putty camber or segmental	" "	6	0

SUNDRIES.

		s.	d.
Damp course in double course of slates breaking joint and bedded in Portland cement	" "	1	1
Setting ordinary register grates and stoves	each	1	0
Setting kitchener, including forming flues, &c., with all necessary fire bricks	"	15	0

ASPHALTER.

		s.	d.
Half-inch horizontal damp course	per yard sup.	4	3
Three-quarter-inch vertical damp course	" "	9	0
¾ inch on flats in two thicknesses	" "	6	6
Angle fillet	per foot run	0	3
Skirting and fillet 6 in. high	" "	1	3

MASON.

		s.	d.
York stone templates fixed	per foot cube	12	6
York stone sills fixed	" "	21	6
Bath stone and all labour fixed	" "	10	6
Portland stone fixed	" "	19	6

SLATER.

		s.	d.
Welsh 16 in. × 8 in. 3 in. lap, including nails	per square	72	9
Do. 20 in. × 10 in. Do. Do.	"	80	9
Do. 24 in. × 12 in. Do. Do.	"	90	0

CARPENTER AND JOINER.

		s.	d.
Fir framed in plates	per foot cube	5	3
Do. joists	" "	5	9
Do. roofs, floors and partitions	" "	6	3
Do. trusses	" "	8	3

		¾"	1"	1¼"	2"
Deal rough close boarding	per sq.	38/-	44/-	50/-	80/-

		s.	d.
Flat centering for concrete floor, including struts or hangers	"	50	0
Do. to beams	per ft. sup.	1	0
Centres for arches	"	1	6
Gutter boards and bearers	"	1	0

FLOORING.		¾"	1"	1¼"	1½"
Deal-edges shot	per sq.		49/-	58/-	67/-
Do. tongued and grooved	"		54/-	65/-	72/-
Do. matchings	"	45/-	55/-		
Moulded skirting, including backings and grounds	per ft. sup.	1/6	1/9	2/0	2/6

SASHES AND FRAMES.		s.	d.
One-and-a-half moulded sashes or casements	per foot super	1	10
Two Do. Do. Do.	" "	2	1
Add for fitting and fixing	" "	0	4
Deal-cased frames with 1 in. inner and outer linings, 1½ in. pulley stiles tongued to linings, hard wood sills with 2 in. moulded sashes in squares double hung, double hung with pulleys, lines and weights; average size	" "	3	9

DOORS.		1½"	1¾"	2"
Two-panel square framed	per ft. sup.	2/1	2/4	2/6
Four-panel Do.	"	2/5	2/8	2/11
Two-panel moulded both sides	"	2/8	2/11	3/2
Four-panel Do. Do.	"	2/11	3/2	3/5

CARPENTER AND JOINER—continued.

FRAMES.

		s.
Deal wrot moulded and rebated	per foot cube	14

		1"	1¼"
Plain deal jamb linings framed	per ft. sup.	1/8	1/9
Deal shelves and bearers	"	1/5	1/7
Add if cross tongued	"	2d.	2d

STAIRCASES.

	1"	1¼"	1½"	2"	2
Deal treads and risers in and including rough brackets	2/1	2/4	2/9	—	
Deal strings wrot on both sides and framed	1/8	2/-	2/2	2/8	

		s.
Housings for steps and risers	each	0
Deal balusters, 1 in. × 1¼ in.	per ft. run	0
Mahogany handrail; average 3 in. × 3 in.	" "	6
Add if ramped	" "	11
Add if wreathed	"	23

FIXING ONLY IRONMONGERY (INCLUDING SCREWS).

6 in. barrel bolts	8½d.	Rim locks	2
Sash fasteners	11½d.	Mortice locks	5
Casement fasteners	1/5	Patent spring hinges and letting in to floor and making good	1
Casement stays	1/2		
Cupboard locks	1/5		

FOUNDER AND SMITH.

		s.
Rolled steel joists	per cwt.	17
Plain compound girders	"	20
Do. stanchions	"	23
In roof work	"	28

RAIN-WATER GOODS.

		3"	4"	5"	6"
Half-round plain rebated joints	ft. run	1/11	2/4½	3/7	4/
Ogee Do. Do.	"	2/4½	3/1	3/10	4/
Rain-water pipes with ears	"	2/9	3/7		
Extra for shoes and bends	each	4/4	5/11		
Do. stopped ends	"	1/11	2/4½	3/7	4/
Do. nozzles for inlets	"	2/2	2/7	3/10	4/

PLUMBER.

		s.
Milled lead and laying in flashings and gutters	per cwt	58
Do. Do. in flats	"	56
Extra labour and solder in coated cesspools	each	6
Welt joint	per ft run.	0
Soldered seam	" "	1
Copper nailing	" "	0

		½"	¾"	1"	1½"	2"	4"
Drawn lead waste	per ft. run	1/1	1/9	1/11	3/5	4/2	
Do. service	"	1/8	2/2	2/7	3/10		
Do. soil	"						7/
Bends in lead pipe	each					3/3	8/
Soldered stop ends	"	1/2	1/8	2/1	2/10	3/6	
Red lead joints	"	11d.	1/-	1/3	1/11	2/4	4/
Wiped soldered joints	"	2/10	3/6	4/-	4/11	6/6	9/
Lead traps and cleaning screws	"				14/7	19/6	
Bib cocks and joints	"	6/4	9/7	15/4	41/-		
Stop cocks and joints	"	15/4	17/2	25/8	64/-		

PLASTERER.

		s.	d.
Render, float and set in lime and hair	per yard sup.	2	
Do. Do. Sirapite	" "	2	
Do. Do. Keen's	" "	3	
Add sawn lathing	" "	1	
Add metal lathing	" "	2	
Portland cement screed	" "	1	1
Do. plain face	" "	3	
Mouldings in plaster	per 1 girth	0	
One-and-a-half granolithic pavings	per yard sup.	5	

GLAZIER.

		s.	d.
21 oz. sheet plain	per foot sup.	0	
26 oz. Do.	" "	1	
Obscured sheet	" "	1	
⅛ in. rolled plate	" "	0	
¼ in. rough rolled or cast plate	" "	0	1
¼ in. wired cast plate	" "	1	

PAINTER.

		s.	d.
Preparing and distempering, 2 coats	per yard sup.	0	
Knotting and priming	" "	0	
Plain painting 1 coat	" "	0	
Do. 2 coats	" "	1	
Do. 3 coats	" "	1	
Do. 4 coats	" "	2	
Graining	" "	2	
Varnishing twice	" "	1	
Sizing	" "	0	
Flatting	" "	0	
Enamel	" "	1	
Wax polishing	per foot sup.	0	
French polishing	" "	1	
Preparing for and hanging paper	per piece	2/- to 4/	

* These prices apply to *new buildings only*. They cover superintendence by foreman and carry a profit of 10% on the prime cost without establishment charges. A percentage of 1½ should be added for Employers' Liability and National Health and Unemployment Acts and from 1s. 6d. per £100 for Fire Insurance. The whole of the information given on this page is copyright.

TENDERS

munications for insertion under this heading should dressed to "The Editor," and must reach him not than Tuesday evening.
notes accepted. † Denotes provisionally accepted.
notes recommended for acceptance.
notes accepted subject to modifications.

ERYSTWYTH.—For erecting a shelter at the on, Old Bath Rocks, for the T.C. :—
Jarbrow, Ltd. £365

RNSLEY.—For erection of 12 houses, Carlton, the R.D.C. Messrs. Crawshaw & Wilkinson, tects, Barnsley :—
s and sewers—
)liver Bros., Sheffield.
ouses—
)liver Bros., Sheffield.
r main—
Drackfield & Son, Barnsley.
ing—
Hey & Pashley, Barnsley.

ARNT GREEN.—Erection of one pair of police ges, for Worcestershire Standing Joint Com-e :—
Huins & Seden £1,270

EDFORD.—For extension to St. Andrew's Church, he Vicar and Parochial Council. Mr. George P. , architect and surveyor, 79, High-st., Bedford :—
J. Corby & Son, Bedford £1,417

ELFAST.—For alterations and additions at the n Workhouse, for the Board of Guardians :—

Jas. Henry & Sons,	£14,093
Jas. Miskimmin & Sons, Ltd.	13,885
Thornberry Bros.	12,580
Campbell & Sons	12,150
S. B. Thompson	12,000
Isaac Copeland	11,950
Workman, Ltd.	11,840
F. B. McKee & Co., Ltd.	11,750
William Dowling, Ltd.	11,593
James Hogg & Sons	11,248
Courtney & Co.	10,940

(All of Belfast.)

ESLEY.—Erection of police cottage, for restershire Standing Joint Committee :—
Huins & Seden £675

OURNEMOUTH.—For two blocks of flats on the thwell Estate, for the T.C. :—

	Per block.
*Hawkins Bros.	£1,769 19

RIGHOUSE.—For the providing and laying of ited rock asphalte 1½ in. thick on existing stone s in Briggate, Brighouse, for the T.C. (area roximately 2,000 sq. yds.). Mr. Heywood, eyor :—
‡The Whitehall Asphalte and Engineering, Co., Ltd.

RIGHOUSE.—For the supply of 320 lengths of n. spun pipes, for the T.C. :—
*Stanton Iron Works Co.: £1 15s. per length

RIGHTON.—For erecting lavatory in Islingwood-d, for T.C. :—

C. T. Kent	£687
Gates & Sons	682
Saunders	661
G. Lynn & Sons	657
T. R. Braybon	646
J. Smith & Sons (Norwood), Ltd.	639
W. & T. Garrett, Ltd.	633
J. Barnes & Sons	623
Field & Cox	620
*W. & A. Elliott, Ltd.	575

ROMSGROVE.—For erection of a police cottage Worcestershire Standing Joint Committee :—
*H. L. Wilton £596

URY.—For the erection of a reinforced concrete ter tower, for the B.G. :—
*The Yorkshire Hennebique Contracting, Co., Ltd., Leeds.

ARLISLE.—For construction of about 5 miles, 0 yds. of 3 in. diameter cast-iron gravitation mains the parish of Crosby-on-Eden, for the R.D.C. Mr. C. Boyd, 18, Bank-street :—
*D. Thomson & Sons, Carlisle.... £4,594 4 2

CHESTER.—For construction of roads and sewers the western portion of Curzon Park Estates, for e T.C. :—
*W. H. Wordingham, Ltd., Manchester..... £7,942 0 4

CHESTER.—For painting, &c., schools, for the T.C. :
Cherry-grove Council (girls' and infants') :

*Priddey & Son	£197 10 6

Holy Trinity (boys' and girls') :

*T. N. Richards	115 10 0

COULSDON AND PURLEY.—For the erection of lices, for the U.D.C., on the Banstead-road site :—
*A. Monk £19,721

GLASGOW.—For construction of pipe for con-ying stream through grounds at Bellefield Sana-rium, for the T.C. :—
*W. Taylor & Son, Glasgow.... £298 0 9

GLASGOW.—For the extension of the Broomielaw harf beneath Oswald-street Bridge, for the T.C. :—
*Melville, Dundas & Whitson .. £8,266 7 8

GUILDFORD.—Supply of water pipes, to T.C. :—

	2 in.	3 in.
Longden's, Ltd.	£120 12 0	£542 17 7
Sheepbridge Ironworks, Ltd.	115 17 6	530 5 0
Staveley Ironworks, Ltd.	118 2½ 6	519 15 0

H.M. OFFICE OF WORKS (accepted during May) :—

Building Works: Albert Dock Telephone Exchange—Plastering: Telling Bros., Ltd., London, S.E. Portland Stone work: Metropolitan Stone Co., Ltd., London, S.W. Slating: John Macquire, London, S.E. Ammanford Post Office—Stone work: United Stone Firms, Ltd., Bristol. Bedford Telephone Exchange—Asphalte: Limmer & Trinidad Lake Asphalte Co., Ltd., London, S.W. Steel work: T. H. & J. Daniels, Ltd., Stroud. Belvedere Branch Post Office—Asphalte: Val de Travers Asphalte Paving Co., Ltd., London, E.C. Stone work: Metropolitan Stone Co., Ltd., London, S.W. Bognor Post Office and Telephone Exchange—Erection: W. F. Drew, Ltd., Stroud. Brierley Hill Telephone Exchange—Asphalte damp proof course: Engert & Rolfe, Ltd., London, E. Burnham-on-Sea Post Office Wireless Station—Erection: W. F. Drew, Ltd., Stroud. Chingford and Woodford District—Maintenance work: Wallace & Wallace, Woodford Green. Edinburgh Telephone Exchange—Plastering: J. A. McLauchlan, Edinburgh. Steel work: Redpath, Brown & Co., Ltd., Edinburgh. Edinburgh, Morningside Telephone Exchange—Carpentry and joinery: W. Dickson & Co., Edinburgh. Glazing: Jas. P. McPhie, Glasgow. Painting: John Taylor, Clydebank (Kilbowie-road). Plastering: T. Thursby, Clydebank. Plumbing: George Munro, Glasgow. Slating: William Kelman & Co., Ltd., Glasgow. Steel work: Redpath, Brown & Co., Ltd., Edinburgh. Leicester Telephone Exchange—Erection: J. Chapman & Sons, Ltd., Leicester. Asphalte: John Hewitt & Co., Leicester. Mill Hill Telephone Exchange—Masonry: John Bysouth, London. N. Mount Pleasant Letter Office—Glazing: James Clark & Son, Ltd., London, S.E. New Malden Telephone Exchange—Acid-resisting asphalte work: Wm. Salter, Edwards & Co., Ltd., London, W. Openshaw Sorting Office and Telephone Exchange—Erection: Arthur Fenton, Manchester. Asphalte: Thomas Faldo & Co., Ltd., Manchester. Concrete steps: The Christie Patent Stone Co., Ltd., Manchester. Masons' and slaters' work: W. Radcliffe & Sons, Ltd., Manchester. Plumbing and glazing: Frank Hewerdine, Manchester. Steel work: Edward Wood & Co., Ltd., Manchester. Porth Post Office—Asphalte damp proof course: William Eyers & Co., Cardiff. Sheffield Central Telephone Exchange—Plastering: P. Roberts, Sheffield. Plumbing: M. Newman & Son, Sheffield. Swansea Head Post Office Extensions—Completion: D. Jenkins, Ltd., Swansea. Tilbury Telephone Exchange—Granolithic work: Stuart's Granolithic Co., Ltd., London, W.C. Widnes Post Office—Artificial stone work: Pearson Bros. & Campbell, Ltd., Liverpool. Steel work: Guy & Hunter, Liverpool. Willenhall, Wolverhampton Street Post Office and Telephone Exchange—Alterations, &c.: Poole Bros., Wolverhampton.

Painting: John Mowlem & Co., Ltd., London, S.W.

LADYBANK.—For erection of block of four houses, Water Tower site. Mr. G. C. Campbell, Methil, Fife :—

Brickwork—	
*James McIntosh & Sons, Fife ..	£559 14 2
Joiner Work—	
*W. Dick, Fife	411 0 10
Plumber Work—	
*T. Stewart, Methil	172 0 3
Slater Work—	
*W. Currie, Kirkcaldy	111 5 2
Plaster Work—	
*D. & T. Peebles, School-street, Leven	145 14 11

LONDON.—For painting, decorating and repair work to the Carlton Cinematograph Theatre, Walthamstow. Mr. J. W. Dunford, architect, 8, Cleveland Park-avenue, E.17 :—
§E. Gard & Sons, Walthamstow £1,922

LONDON (SHOREDITCH).—Redecorating Hoxton library, for B.C. :—

T. C. Oakenfold	£1,306 15 0
A. & T. Wilson	1,124 0 0
W. Chappell	1,118 1 4
R. Maskall & Sons	1,115 16 6
Arthur Vigor, Ltd.	1,025 0 0
Perry Brothers	887 0 0
W. Martin	838 0 0
Nox, Ltd.	818 10 8
John Oliver	728 14 0
Arthur H. Inns	662 19 0
‡Norfolk Decorators, Ltd.	610 1 10

LONDON.—For repaving Church-walk with mastic asphalte, for the Islington B.C. :—

	Per yd. super.
Highways Construction, Ltd.	6 6
Neuchatel Asphalte Co., Ltd.	6 0
French Asphalte Co., Ltd.	5 11
Val de Travers Asphalte Paving Co., Ltd.	5 6
*Limmer & Trinidad Lake Asphalt Co., Ltd.	5 2

LONDON.—For repairing and painting greenhouses, &c., at East Finchley Cemetery, for the Islington B.C. :—

A. J. Hooper	£196 12 0
Stevens & Sons	196 0 0
W. J. Berry—	185 15 6
*J. Pickett	151 12 0

LONDON.—For supply of 68,000 creosoted yellow deal blocks, for the Islington B.C. :—

Sir. Wm. Burnett & Co., Ltd.	£843 5 3
Burt, Boulton & Haywood, Ltd.	818 5 9
The Improved Wood Pavement Co., Ltd.	813 13 0
John B. Lee & Sons, Ltd.	802 6 3
Gabriel, Wade & English, Ltd.	796 15 0
*The Acme Flooring and Paving Co. (1904), Ltd.	790 13 9

LONDON.—For repairing of part of Highgate-road and Prince of Wales-road, for the St. Pancras B.C. :—
*Constable, Hart & Co. : 7s. 3d. per yd. super.

LONDON.—For painting and cleansing works at Maternity Home, for the Wandsworth B.C. :—
*R. S. Ronald £150

LONDON.—For the supply of materials to the Wandsworth B.C. :—
*W. Griffiths & Co. :
2,000 ft. of straight Cornish granite kerb, 3s. 5d. per foot; and 250 ft. of circular Cornish kerb, 4s. 2d. per ft.

LONDON.—For re-paving carriage-ways of Craven-terrace, Porchester-gardens (part of), Howley-place, St. Mary's-terrace, and St. Mary's-square, for the Paddington B.C. :—
*Limmer and Trinidad Lake Asphalte Co. £4,740

LONDON.—For the erection of a house at Eversley Park-crescent, Winchmore Hill. Mr. Graham Lloyd, architect, of Castle Hadleigh, near Southend-on-Sea :—
*Allen Fairhead & Sons, Enfield £2,240

LYMINGTON.—For erection of 36 houses and construction of roads and sewers, for the T.C. Mr. John Bevir, architect :—

Cole & Dowse, Lymington	£21,221 15 6
G. Harvey, Lymington	20,835 0 0
*Conway, Ltd., Weymouth	17,970 0 0

MACCLESFIELD.—For carrying out proposed extension to the boiler house at the Institution of the B.G. :—
*G. Roylance & Co. £475

MARGATE.—For alterations to the Constitutional Club, Margate. Mr. W. B. Wilkins, surveyor :—

F. W. Padget	£1,327
Rice & Son	1,319
Ross & Co.	1,025
*Baker & Sons	990

MIDDLESBROUGH.—For erection of a new harbour-master's office at the Dock Point, for the Lees Conservancy Commission. Mr. J. Forbes, architect, 19, Grange-road, West :—

Blackett's Construction Co., Ltd., Thornaby-on-Tees	£2,150 0 0
C. F. Mundell & Co., Ltd., Middlesbrough	1,675 0 0
Joseph C. Watson, Stockton-on-Tees	1,674 13 6
H. McNaughton, Ltd., Middlesbrough	1,662 7 9
J. G. Porteous, Ltd., Middlesbrough	1,549 10 6
W. A. King & Sons, Ltd., Middlesbrough	1,544 0 0
A. McLeod, Thornaby-on-Tees	1,490 15 8
*Vinter & Davison, Middlesbrough	1,477 0 0

NEWPORT (MON.).—For erection of electrical substation, for St. Julian district, for the T.C. :—
J. H. Williams £467

OGMORE.—For erecting houses at Pantynawel site, for the Ogmore and Garw U.D.C., together with roads and sewers :—
*D. Williams £16,883 9 8

POOLE.—For bridge at Hamworthy, for the T.C. :—
*Cleveland Bridge and Engineering Co. £33,800

PUDSEY.—For construction of the roads and footpaths in connection with the Longfield Housing Scheme, for the T.C. :—
‡A. Newsome, Ltd., Burley-in-Wharfedale.

PUDSEY.—For construction and laying of the necessary sewers in connection with the Longfield Housing Scheme, for the T.C. :—
‡Appleyard Bros., Bramley.

PUDSEY.—For the conversion of the conveniences at the Recreation Ground, for the T.C. :—
*Wm. Waterhouse.

REDDITCH.—Erection of two pairs of police cottages, for Worcestershire Standing Joint Committee :—
*Huins & Seden £1,950

SHEPLEY.—For erection of 16 houses for the U.D.C. :—
*Thos. Roper & Sons, Ltd., Sheffield.

LONDON.—For repaving work in Archway-road, Brewery-road, Highbury-grove, Highbury Park, and Seven Sisters-road, for the Islington B.C. :—

Name of Tenderer.	Archway-road.	Brewery road.	Highbury grove.	Highbury Park.	Seven Sisters road.
The Improved Wood Pavement Co.	—	—	£9,984 15 5..	£1,626 7 6..	—
John Mowlem & Co., Ltd.	£6,128 9 6..	£10,496 12 7..	10,580 12 11..	1,736 1 3..	£3,951 10 2
The Acme Flooring & Paving Co. (1904), Ltd.	6,033 18 4..	10,575 2 1..	10,123 7 1..	1,657 17 1..	3,983 1 0
*Wm. Griffiths & Co., Ltd.	5,633 13 10..	9,865 7 1..	*9,478 15 5..	*1,546 17 1..	3,717 2 9
*William Peters	*5,519 2 7..	*9,507 4 8..	9,630 7 6..	1,560 19 2..	*3,448 14 0

SKELMANTHORPE.—For the erection of a pair of houses in Commercial-road, Mr. P. N. Brown, architect :—

Mason's Work—F. & J. F. Marsden, Holmfirth.
Joiner's Work—I. Wray & Sons, Scissett.
Plumber's Work—Parkinson & Talbot, Clayton West.
Roof Tiler's Work—Pickles Bros., Leeds.
Plasterer's Work—John Exley, Skelmanthorpe.
Painter's Work—Lodge & Bradley, Thongsbridge.

SOUTH ELMSALL.—(1) For the erection of 30 houses at Havercroft and (*b*) the construction of roads and sewers ; (2) for the erection of 30 houses at Little Houghton and (*b*) for the construction of the roads and sewers, for the Hemsworth R.D.C. :—

*J. W. Waller, South Elmsall—
(1) £14,425 0
(*b*) 1,823 15
(2) 14,555 5
(*b*) 1,513 12

SOUTHEND-ON-SEA.—For erection of car shed, for the T.C. :—
*W. J. Cairns, Stratford, E. £1,712

SOUTHEND-ON-SEA.—For wood-paving floors of King Block, at Sanatorium, for the T.C. :—
*Tramontini & Son £316 5 4

SOUTHEND-ON-SEA.—For making up private streets, for the T.C. :—
*Warwickshire Bridge and Engineering Co. :
Elmsleigh-drive (Sec. 2) .. £1,228 14 11
Flemming-crescent 655 1 0
Park-road 333 14 9
Leigh-gardens..... 354 5 6

SOUTHEND-ON-SEA.—For supply of furniture for new police court and adjoining rooms, for the T.C. :—
*J. P. White, Bedford £800

SOUTHPORT.—For proposed new synagogue for the Hebrew Congregation, estimated cost £14,000. Messrs. Packer & Crampton, A.R.I.B.A., architects, Southport :—
**Brickwork*—Buck & Hodgson, Southport.
**Artificial Stone*—Fleetwood Granite Co., Fleetwood.
**Joiner's Work*—G. F. Welkinson, Southport.
**Plumbing and Glazing*—Heyes Bros., Southport.
**Constructional Steelwork*—J. Booth & Sons, Bolton.

TILBURY.—For the erection of a village hall at West Tilbury, for the Rev. J. R. Fellowes and Committee. Messrs. Christopher M. & Lawrence A. D. Shiner, architects, of Grays, Essex :—
Dobson & Deed, Stanford £944 16 5
Clements (Grays), Ltd. 891 2 6
Walsham, Grays 839 0 0
*Brown Bros. (Grays), Ltd. 813 10 0

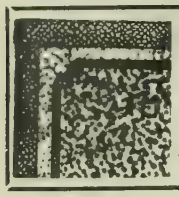
UXBRIDGE.—Construction of reservoir, for the U.D.C. :—
‡Indented Bar & Concrete Engineering Co., Ltd. £4,879 7 6

WOLVERHAMPTON.—For resurfacing portion of Waterloo-road and Stafford-road, for the T.C. :—
*Tarmac, Ltd. £5,100

WOLVERHAMPTON.—For re-slating roof of destructor boiler station, for the T.C. :—
*B. Hutchinson £141

WOMBWELL.—For erection of 60 type "A" houses, King's-road, for the U.D.C. Mr. D. H. Roberts, Park-street, Wombwell :—
Jackson & Oates, Goole £26,853 0
Sam Dryden, Stainforth 24,600 0
Swift Bros. & Haslem, Doncaster 24,038 6
William Johnson & Sons, Wombwell 23,580 0
F. B. Ward & Sons, Wombwell .. 21,900 0
*A. Taylor & Son, Wombwell 20,760 0

WREXHAM.—For the erection of a War Memorial to the Royal Welsh Fusiliers, designed by Sir Goscombe John, R.A., to be erected on a site corner of Regent-street and Grosvenor-road :—
*W. E. Samuel, Wrexham £1,141


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